



# Technical Publications

Venue R2

**CE** 0197

Reference Manual

5796015-100

**Rev. 05**

Operating Documentation

Copyright 2020 By General Electric Co.

# Regulatory requirement

This product complies with regulatory requirements of the following European Directive 93/42/EEC concerning medical devices.



This manual is a reference for the Venue ultrasound system (referred to as Venue hereafter). It applies to Version 302.67.0 software and above for the Venue ultrasound system. All information provided in this manual is relevant for all these products unless otherwise specified.



**Manual status:**

5796015-100-05  
2020-05-05 (YYYY-MM-DD)  
DOC-ID: DOC2059092

© GE Medical Systems. All rights reserved. No part of this manual may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of GE Medical Systems.

MANUFACTURER



GE Medical Systems  
Ultrasound & Primary Care Diagnostics LLC  
9900 Innovation Drive, Wauwatosa, WI 53226  
USA

Authorized EU Representative:  
GE Medical Systems SCS  
283 rue de la Minière  
78530 BUC  
France

# Revision History

## Reason for change

REV	DATE (YYYY-MM-DD)	REASON FOR CHANGE
Rev. 01	2018-02-18 (YYYY-MM-DD)	Initial Release
Rev. 02	2018-04-22 (YYYY-MM-DD)	Update acoustic tables for 12L-RS and L12n-RS probes.
Rev. 03	2018-06-05 (YYYY-MM-DD)	Update acoustic tables for 9L-RS probe.
Rev. 04	2019-03-31 (YYYY-MM-DD)	Update of acoustic tables for probes: 3Sc-RS, 9L-RS, C1-5-RS, 12L-RS and L12n-RS. Added new probes: L4-12t-RS, L8-18i-RS and 6S-RS. Correction to measurement uncertainty on page 3-5.
Rev. 05	2020-05-05 (YYYY-MM-DD)	CE marking update

## List of affected pages

PAGE NUMBER	REV
All pages	Rev. 01
3-92 - 3-105, 3-142 - 3-155	Rev. 02
3-80 - 3-86, 3-130 - 3-136	Rev. 03
All pages	Rev. 04
Cover pages	Rev. 05

Please verify that you are using the latest revision of this document. Information pertaining to this document is maintained on ePDM (GE electronic Product Data Management). If you need to know the latest revision, contact your distributor, local GE Sales Representative or in the USA call the GE Ultrasound Clinical Answer Center at 1 800 682 5327 or 1 262 524 5698.



---

# Table of Contents

## Table of Contents

### Chapter 1 — Measurement and Assisting Tools

#### Measurement overview

Cardiac measurements .....	1-2
----------------------------	-----

#### Measurement formulas

Formulas—Generic .....	1-14
Formulas—Cardiac .....	1-16
Calculations used in shock assessment auto-tools .....	1-45
Formulas—Vascular .....	1-47
Formulas—OB .....	1-47

#### Measurement and Assisting Tools Accuracy

General .....	1-53
Sources of error .....	1-53
Optimizing Measurement Accuracy .....	1-55
Measurement Uncertainties .....	1-55

#### DICOM SR Measurements

Supported parameters .....	1-58
Supported methods .....	1-67
Content of Vascular SR object .....	1-69

### Chapter 2 — OB Tables

#### OB Tables

ASUM .....	2-2
Berkowitz .....	2-4
Brenner .....	2-4
Campbell .....	2-5
Eriksen .....	2-5
Goldstein .....	2-6
Hadlock .....	2-7
Hansmann .....	2-13
Hellman .....	2-21
Hill .....	2-21
Hohler .....	2-22
Jeanty .....	2-22
JSUM .....	2-32
Kurtz .....	2-36
Mayden .....	2-36
Mercer .....	2-38
Merz .....	2-39
Moore .....	2-49

Nelson	2-49
Osaka	2-50
Paris	2-54
Rempen	2-57
Robinson	2-62
Tokyo	2-62
Tokyo Shinozuka	2-66
Williams	2-72
Yarkoni	2-72

## **Chapter 3 — Acoustic and Probe Surface Temperature Information**

### **The real-time display of acoustic output indices**

Thermal Index	3-2
Mechanical Index	3-4

### **Track 3 ALARA Educational Program**

#### **Default Settings and Output Levels**

#### **Controls Affecting Acoustic Output**

Track 3 Summary Table	3-10
-----------------------	------

#### **Probe surface temperature safety mechanisms**

#### **Acoustic Parameters as Measured in Water**

Definitions, symbols and abbreviations	3-12
Explanation of Footnotes	3-70
Multiple focal-zones	3-70
Operating Conditions	3-70

#### **Acoustic Output Reporting Tables for Track 3/IEC 60601-2-37**

Section A: Acoustic output reporting tables per standard IEC 62359 Edition 1.0 2005-04	3-72
Section B: Acoustic output reporting tables per standard IEC 62359 Edition 2.0 201	3-139

#### **Max Temperature Reporting Table**

#### **Appendices**

Statements on the safety of ultrasound	A-1
AIUM Statement on Mammalian in Vivo Ultrasonic Biological Effects	A-1

## **Index**

---

# Chapter 1

## Measurement and Assisting Tools

*This chapter describes:*

*'Measurement overview' on page 1-2*

*'Measurement formulas' on page 1-14*

*'Measurement and Assisting Tools Accuracy' on  
page 1-53*

*'DICOM SR Measurements' on page 1-57*

# Measurement overview

The following table shows the cardiac measurements available on the Venue ultrasound unit.

## Cardiac measurements

Abbreviation	Definition	Unit
%FS	LV Fractional Shortening, 2D	%
%FS	LV Fractional Shortening, M-mode	%
%IVS Thck	IVS Fractional Shortening, 2D	%
%IVS Thck	IVS Fractional Shortening, M-mode	%
%LVPW Thck	LV Posterior Wall Fractional Shortening, 2D	%
%LVPW Thck	LV Posterior Wall Fractional Shortening, M-mode	%
Ao Arch Diam	Aortic Arch Diameter	cm
Ao asc	Ascending Aortic Diameter	cm
Ao Desc Diam	Descending Aortic Diameter	cm
Ao Isthmus	Aortic Isthmus	cm
Ao Root Diam	Aortic Root Diameter	cm
Ao Root Diam	Aortic Root Diameter, M-mode	cm
AR ERO	PISA: Regurgitant Orifice Area	cm <sup>2</sup>
AR Flow	PISA: Regurgitant Flow	ml/s
AR PHT	AV Insuf. Pressure Half Time	ms
AR Rad	PISA: Radius of Aliased Point	cm
AR RF	Regurgitant fraction over the Aortic Valve	%
AR RV	PISA: Regurgitant Volume Flow	ml
AR Vel	PISA: Aliased Velocity	m/s
AR Vmax	Aortic Insuf. Peak Velocity	m/s
AR VTI	Aortic Insuf. Velocity Time Integral	cm

Abbreviation	Definition	Unit
ARed max PG	Aortic Insuf. End-Diastole Pressure Gradient	mm Hg
ARed Vmax	Aortic Insuf. End-Diastolic Velocity	m/s
AV Acc Slope	Aortic Valve Flow Acceleration	m/s <sup>2</sup>
AV Acc Time	Aortic Valve Acceleration Time	ms
AV AccT/ET	AV Acceleration to Ejection Time Ratio	
AV EOA I (VTI)	Aortic Valve Effective Orifice Area Index by Continuity Equation VTI	cm <sup>2</sup> /m <sup>2</sup>
AV EOA I Vmax	Aortic Valve Effective Orifice Area Index by Continuity Equation Peak V	cm <sup>2</sup> /m <sup>2</sup>
AV CO	Cardiac Output by Aortic Flow	l/min
AV Cusp	Aortic Valve Cusp Separation, 2D	cm
AV Cusp	Aortic Valve Cusp Separation, M-mode	cm
AV Dec Time	Aortic Valve Deceleration Time	ms
AV Diam	Aortic Diameter, 2D	cm
AV max PG	Aortic Valve Peak Pressure Gradient	mm Hg
AV mean PG	Aortic Valve Mean Pressure Gradient	mm Hg
AV SV	Stroke Volume by Aortic Flow	ml
AV Vmax	Aortic Valve Peak Velocity	m/s
AV Vmean	AV Mean Velocity	m/s
AV VTI	Aortic Valve Velocity Time Integral	cm
AVA (Vmax)	AV Area by Continuity Equation by Peak V	cm <sup>2</sup>
AVA (VTI)	AV Area by Continuity Equation VTI	cm <sup>2</sup>
AVA Planimetry	Aortic Valve Area	cm <sup>2</sup>
AVET	Aortic Valve Ejection Time	ms
AVET	Aortic Valve Ejection Time, M-mode	ms
CO (A-L A2C)	CO 2CH, Single Plane, Area-Length	l/min
CO (A-L A4C)	CO 4CH, Single Plane, Area-Length	l/min
CO (Biplane)	CO, Bi-Plane, MOD	l/min
CO (bullet)	CO, Bi-Plane, Bullet	l/min
CO (MOD A2C)	CO 2CH, Single Plane, MOD (Simpson)	l/min
CO (MOD A4C)	CO 4CH, Single Plane, 4CH, MOD (Simpson)	l/min

## Measurement and Assisting Tools

Abbreviation	Definition	Unit
CO(Cube)	Cardiac Output, 2D, Cubic	l/min
CO(Cube)	Cardiac Output, M-mode, Cubic	l/min
CO(Teich)	Cardiac Output, 2D, Teicholtz	l/min
CO(Teich)	Cardiac Output, M-mode, Teicholtz	l/min
D-E Excursion	MV Anterior Leaflet Excursion	cm
D-E Excursion	Mitral Valve D-E Slope	cm
EDV (bullet)	LV Volume, Diastolic, Bi-Plane, Bullet	ml
EDV(Cube)	Left Ventricle Volume, Diastolic, 2D, Cubic	ml
EDV(Cube)	Left Ventricle Volume, Diastolic, M-mode, Cubic	ml
EDV(Teich)	Left Ventricle Volume, Diastolic, 2D, Teicholtz	ml
EDV(Teich)	Left Ventricle Volume, Diastolic, M-mode, Teicholtz	ml
EF (A-L A2C)	Ejection Fraction 2CH, Single Plane, Area-Length	%
EF (A-L A4C)	Ejection Fraction 4CH, Single Plane, Area-Length	%
EF (Biplane)	Ejection Fraction, Bi-Plane, MOD	%
EF (bullet)	Ejection Fraction 2CH, Bi-Plane, Bullet	%
EF (MOD A2C)	Ejection Fraction 2CH, Single Plane, MOD (Simpson)	%
EF (MOD A4C)	Ejection Fraction 4CH, Single Plane, 4CH, MOD (Simpson)	%
E-F Slope	Mitral Valve E-F Slope	m/s
EF(Cube)	Ejection Fraction, 2D, Cubic	%
EF(Cube)	Ejection Fraction, M-mode, Cubic	%
EF(Teich)	Ejection Fraction, 2D, Teicholtz	%
EF(Teich)	Ejection Fraction, M-mode, Teicholtz	%
EPSS	E-Point-to-Septum Separation, M-mode	cm
EPSS 2D	E-Point-to-Septum Separation, 2D	cm
ERO	Effective Regurgitant Orifice	cm <sup>2</sup>
ESV (bullet)	LV Volume, Systolic, Bi-Plane, Bullet	ml
ESV(Cube)	Left Ventricle Volume, Systolic, 2D, Cubic	ml
ESV(Cube)	Left Ventricle Volume, Systolic, M-mode, Cubic	ml
ESV(Teich)	Left Ventricle Volume, Systolic, 2D, Teicholtz	ml
ESV(Teich)	Left Ventricle Volume, Systolic, M-mode, Teicholtz	ml
HR	AV Heart Rate, Dop	BPM

Abbreviation	Definition	Unit
HR	Heart Rate, 2D, Teicholtz	bpm
HR	Heart Rate for 2CH study	bpm
HR	Heart Rate for 4CH study	bpm
HR	Heart Rate for 2CH AL study	bpm
HR	Heart Rate for 2CH MOD study	bpm
HR	Heart Rate for 4CH AL study	bpm
HR	Heart Rate for 4CH MOD study	bpm
HR	Heart Rate for Bullet study	bpm
HR	Heart Rate for BiPlane MOD study	bpm
HR	LV Heart Rate, Dop	bpm
HR	Heart Rate, M-mode, Teicholtz	bpm
HR	Heart Rate	bpm
IVC	Inferior Vena Cava	cm
IVC Diam Min	Inferior Vena Cava diameter, minimal 2D	cm
IVC Diam Max	Inferior Vena Cava diameter, maximal 2D	cm
IVC CI	Inferior Vena Cava collapsibility index	n/a
IVCT	Isovolumic Contraction Time	ms
IVRT	Isovolumic Relaxation Time	ms
IVSd	Interventricular Septum Thickness, Diastolic, 2D	cm
IVSd	IVS Thickness, Diastolic, M-mode	cm
IVSs	Interventricular Septum Thickness, Systolic, 2D	cm
IVSs	IVS Thickness, Systolic, M-mode	cm
LA Diam	Left Atrium Diameter, 2D	cm
LA Diam	Left Atrium Diameter, M-mode	cm
LA Diam	Right Atrium Diameter, 2D	cm
LA Major	Left Atrium Major	cm
LA Minor	Left Atrium Minor	cm
LA/Ao	LA Diameter to AoRoot Diameter Ratio, 2D	
LA/Ao	LA Diameter to AoRoot Diameter Ratio, M-mode	
LAEDV(A-L)	LA End Diastolic Volume, Area-Length	ml
LAEDV Index(A-L)	LA End Diastolic Volume Index, Area-Length	ml/m <sup>2</sup>

## Measurement and Assisting Tools

Abbreviation	Definition	Unit
LVEDV (MOD BP)	LV Volume, Diastolic, Bi-Plane, MOD	ml
LAESV(A-L)	LA End Systolic Volume, Area-Length	ml
LAESV Index(A-L)	LA End Systolic Volume Index, Area-Length	ml/m <sup>2</sup>
LAEDV (MOD A4C)	LA Volume, Single Plane, MOD	ml
LAESV (MOD A4C)	LA Volume, Systolic, Single Plane, MOD	ml
LVESV (MOD BP)	LV Volume, Systolic, Bi-Plane, MOD	ml
LIMP	Left Index of Myocardial Performance	
LVA (s)	Left Ventricular Area, Systolic, 2CH	cm <sup>2</sup>
LVA <sub>d</sub> (A2C)	Left Ventricular Area, Diastolic, 2CH	cm <sup>2</sup>
LVA <sub>d</sub> (A4C)	Left Ventricular Area, Diastolic, 4CH	cm <sup>2</sup>
LVA <sub>d</sub> (sax)	LV area, SAX, Diastolic	cm <sup>2</sup>
LVA <sub>end</sub> (d)	LV Endocardial Area, SAX	cm <sup>2</sup>
LVA <sub>epi</sub> (d)	LV Epicardial Area, SAX	cm <sup>2</sup>
LVA <sub>s</sub> (A4C)	Left Ventricular Area, Systolic, 4CH	cm <sup>2</sup>
LVA <sub>s</sub> (sax)	LV area, SAX, Systolic	cm <sup>2</sup>
LV <sub>d</sub> Mass	LV Mass, Diastolic, 2D	g
LV <sub>d</sub> Mass	LV Mass, Diastolic, M-mode	g
LV <sub>d</sub> Mass Index	LV Mass Index, Diastolic, 2D	g/m <sup>2</sup>
LV <sub>d</sub> Mass Index	LV Mass Index, Diastolic, M-mode	g/m <sup>2</sup>
LVEDV (A-L A2C)	LV Volume, Diastolic, 2CH, Area-Length	ml
LVEDV (A-L A4C)	LV Volume, Diastolic, 4CH, Area-Length	ml
LVEDV (MOD A2C)	LV Volume, Diastolic, Single Plane, 2CH, MOD	ml
LVEDV (MOD A4C)	LV Volume, Diastolic, Single Plane, 4CH, MOD	ml
LVEDV (MOD BP)	LV Volume, Diastolic, Bi-Plane, MOD	ml
LVESV (A-L A2C)	LV Volume, Systolic, 2CH, Area-Length	ml
LVESV (A-L A4C)	LV Volume, Systolic, 4CH, Area-Length	ml
LVESV (MOD A2C)	LV Volume, Systolic, Single Plane, 2CH, MOD	ml
LVESV (MOD A4C)	LV Volume, Systolic, Single Plane, 4CH, MOD	ml
LVESV (MOD BP)	LV Volume, Systolic, Bi-Plane, MOD	ml
LVESV (MOD LAX)	LV Volume, Diastolic, Apical View, LAX, MOD	ml

Abbreviation	Definition	Unit
LVESV (MOD LAX)	LV Volume, Systolic, Apical View, LAX, MOD	ml
LVET	Left Ventricle Ejection Time	ms
LVIDd	LV Internal Dimension, Diastolic, 2D	cm
LVIDd	LV Internal Dimension, Diastolic, M-mode	cm
LVIDs	LV Internal Dimension, Systolic, 2D	cm
LVIDs	LV Internal Dimension, Systolic, M-mode	cm
LVLd (apical)	Left Ventricular Length, Diastolic, 2D	cm
LVLs (apical)	Left Ventricular Length, Systolic, 2D	cm
LVOT Area	Left Ventricle Outflow Tract Area	cm <sup>2</sup>
LVOT CO	Cardiac Output by Aortic Flow	l/min
LVOT Diam	Left Ventricular Outflow Tract Diameter	cm
LVOT max PG	LVOT Peak Pressure Gradient	mm Hg
LVOT mean PG	LVOT Mean Pressure Gradient	mm Hg
LVOT SI	Stroke Volume Index by Aortic Flow	ml/m <sup>2</sup>
LVOT SV	Stroke Volume by Aortic Flow	ml
LVOT Vmax	LVOT Peak Velocity	m/s
LVOT Vmean	LVOT Mean Velocity	m/s
LVOT VTI	LVOT Velocity Time Integral	cm
LVPWd	Left Ventricular Posterior Wall Thickness, Diastolic, 2D	cm
LVPWd	Left Ventricular Posterior Wall Thickness, Diastolic, M-mode	cm
LVPWs	Left Ventricular Posterior Wall Thickness, Systolic, 2D	cm
LVPWs	Left Ventricular Posterior Wall Thickness, Systolic, M-mode	cm
LVs Mass	LV Mass, Systolic, 2D	g
LVs Mass	LV Mass, Systolic, M-mode	g
LVs Mass Index	LV Mass Index, Systolic, 2D	g/m <sup>2</sup>
LVs Mass Index	LV Mass Index, Systolic, M-mode	g/m <sup>2</sup>
LAAd (A2C)	Left Atrium Area, Apical 2C	cm <sup>2</sup>
LAAd (A4C)	Left Atrium Area, Apical 4C	cm <sup>2</sup>
MAPSE	Mitral annular plane systolic excursion	cm
TAPSE	Tricuspid annular plane systolic excursion	cm

## Measurement and Assisting Tools

Abbreviation	Definition	Unit
MCO	Mitral Valve closure to Opening	ms
MP Area	Mitral Valve Prosthesis	cm <sup>2</sup>
MR Acc Time	MV Regurg. Flow Acceleration	s
MR ERO	PISA: Regurgitant Orifice Area	cm <sup>2</sup>
MR Flow	PISA: Regurgitant Flow	ml/s
MR max PG	Mitral Regurg. Peak Pressure Gradient	mm Hg
MR Rad	PISA: Radius of Aliased Point	cm
MR RF	Regurgitant fraction over the Mitral Valve	%
MR RV	PISA: Regurgitant Volume Flow	ml
MR Vel	PISA: Aliased Velocity	m/s
MR Vmax	Mitral Regurg. Peak Velocity	m/s
MR Vmax	PISA: CW Peak Velocity	m/s
MR Vmean	Mitral Regurg. Mean Velocity	m/s
MR VTI	Mitral Regurg. Velocity Time Integral	cm
MR VTI	PISA: CW Velocity Time Integral	cm
MV A Dur	Mitral Valve A-Wave Duration	ms
MV A Velocity	MV Velocity Peak A	m/s
MV Acc Slope	Mitral Valve Flow Acceleration	m/s <sup>2</sup>
MV Acc Time	Mitral Valve Acceleration Time	ms
MV Acc/Dec Time	MV: Acc.Time/Decel.Time Ratio	
MV an diam	Mitral Valve Annulus Diameter, 2D	cm
MV CO	Cardiac Output by Mitral Flow	l/min
MV Dec Slope	Mitral Valve Flow Deceleration	m/s <sup>2</sup>
MV Dec Time	Mitral Valve Deceleration Time	ms
MV E Velocity	MV Velocity Peak E	m/s
MV E/A Ratio	Mitral Valve E-Peak to A-Peak Ratio	
MV max PG	Mitral Valve Peak Pressure Gradient	mm Hg
MV mean PG	Mitral Valve Mean Pressure Gradient	mm Hg
MV PHT	Mitral Valve Pressure Half Time	ms
MV Reg Frac	Mitral Valve Regurgitant Fraction	%

Abbreviation	Definition	Unit
MV SI	Stroke Volume Index by Mitral Flow	ml/m <sup>2</sup>
MV SV	Stroke Volume by Mitral Flow	ml
MV Time to Peak	Mitral Valve Time to Peak	ms
MV Vmax	Mitral Valve Peak Velocity	m/s
MV Vmean	MV Mean Velocity	m/s
MV VTI	Mitral Valve Velocity Time Integral	cm
MVA	Mitral Valve Area	cm <sup>2</sup>
MVA By PHT	Mitral Valve Area according to PHT	cm <sup>2</sup>
MVA by plan	Mitral Valve Area, 2D	cm <sup>2</sup>
MVET	Mitral Valve Ejection Time	ms
P Vein A	Pulmonary Vein Velocity Peak A (reverse)	m/s
P Vein A Dur	Pulmonary Vein A-Wave Duration	ms
P Vein D	Pulmonary Vein End-Diastolic Peak Velocity	m/s
P Vein S	Pulmonary Vein Systolic Peak Velocity	m/s
PAEDP	Pulmonary Artery Diastolic Pressure	mm Hg
PE(d)	Pericard Effusion, M-mode	cm
PEs	Pericard Effusion, 2D	cm
PR max PG	Pulmonic Insuf. Peak Pressure Gradient	mm Hg
PR mean PG	Pulmonic Insuf. Mean Pressure Gradient	mm Hg
PR PHT	Pulmonic Insuf. Pressure Half Time	ms
PR Vmax	Pulmonic Insuf. Peak Velocity	m/s
PR VTI	Pulmonic Insuf. Velocity Time Integral	cm
PRend max PG	Pulmonic Insuf. End-Diastole Pressure Gradient	mm Hg
PRend Vmax	Pulmonic Insuf. End-Diastolic Velocity	m/s
Pulmonic Diam	Pulmonary Artery Diameter, 2D	cm
PV Acc Slope	Pulmonic Valve Flow Acceleration	m/s <sup>2</sup>
PV Acc Time	Pulmonic Valve Acceleration Time	ms
PV Acc Time/ET Ratio	PV Acceleration to Ejection Time Ratio	
PV an diam	Pulmonic Valve Annulus Diameter, 2D	cm
PV Ann Area	Pulmonic Valve Area	cm <sup>2</sup>

## Measurement and Assisting Tools

Abbreviation	Definition	Unit
PV CO	Cardiac Output by Pulmonic Flow	l/min
PV CO	Cardiac Output by Pulmonic Flow	l/min
PV max PG	Pulmonic Valve Peak Pressure Gradient	mm Hg
PV mean PG	Pulmonic Valve Mean Pressure Gradient	mm Hg
PV SV	Stroke Volume by Pulmonic Flow	ml
PV Vmax	Pulmonary Artery Peak Velocity	m/s
PV Vmax	Pulmonic Valve Peak Velocity	m/s
PV Vmean	PV Mean Velocity	m/s
PV VTI	Pulmonic Valve Velocity Time Integral	cm
PVA (VTI)	Pulmonary Artery Velocity Time Integral	cm <sup>2</sup>
PVein S/D Ratio	Pulmonary Vein SD Ratio	
PVET	Pulmonic Valve Ejection Time	ms
PVPEP	Pulmonic Valve Pre-Ejection Period	ms
PVPEP/ET Ratio	PV Pre-Ejection to Ejection Time Ratio	
Qp/Qs	Pulmonic-to-Systemic Flow Ratio	
RA Major	Right Atrium Major, 2D	cm
RA Minor	Right Atrium Minor, 2D	cm
RAEDV A2C	Right Atrium End Diastolic Volume, Apical 2 chamber	cm <sup>3</sup>
RAEDV A-L	RA End Diastolic Volume (A-L)	ml
RAEDV MOD	RA Volume Diastolic, Single Plan, MOD	ml
RAEDV MOD	RA End Diastolic Volume (MOD)	ml
RAESV A-L	RA End Systole Volume (A-L)	ml
RAESV MOD	RA Volume, Systolic, Single Plane, MOD	ml
RAESV MOD	RA End Systole Volume (MOD)	ml
RALd	Right Atrium Length, Diastole	cm
RALs	RA Length, systole	cm
RIMP	Right Index of Myocardial Performance	
RJA (A4C)	Regurgitant jet area	cm <sup>2</sup>
RJA/LAA	Regurgitant jet area ratio RJA/LAA	
RV Major	Right Ventricle Major	cm

Abbreviation	Definition	Unit
RV Minor	Right Ventricle Minor	cm
RVAWd	Right Ventricle Wall Thickness, Diastolic, 2D	cm
RVAWs	Right Ventricle Wall Thickness, Systolic, 2D	cm
RVET	Right Ventricle Ejection Time	s
RVIDd	Right Ventricle Diameter, Diastolic, 2D	cm
RVIDd	Right Ventricle Diameter, Diastolic, M-mode	cm
RVIDs	Right Ventricle Diameter, Systolic, 2D	cm
RVIDs	Right Ventricle Diameter, Systolic, M-mode	cm
RVOT Area	Right Ventricle Outflow Tract Area	cm <sup>2</sup>
RVOT Diam	RV Output Tract Diameter, 2D	cm
RVOT Diam	RV Output Tract Diameter, M-Mode	cm
RVOT max PG	RVOT Peak Pressure Gradient	mm Hg
RVOT meanPG	RVOT Mean Pressure Gradient	mm Hg
RVOT SI	LV Stroke Volume Index by Pulmonic Flow	ml/m <sup>2</sup>
RVOT SV	Stroke Volume by Pulmonic Flow	ml
RVOT Vmax	RVOT Peak Velocity	m/s
RVOT Vmean	RVOT Mean Velocity	m/s
RVOT VTI	RVOT Velocity Time Integral	cm
RVSP	Right Ventricle Systolic Pressure	mm Hg
RVWd	Right Ventricle Wall Thickness, Diastolic, M-mode	cm
RVWs	Right Ventricle Wall Thickness, Systolic, M-mode	cm
RAA (d)	Right Atrium Area, 2D, Diastole	cm <sup>2</sup>
RAA (s)	Right Atrium Area, 2D, Systole	cm <sup>2</sup>
SI (A-L A2C)	LV Stroke Index, Single Plane, 2CH, Area-Length	ml/m <sup>2</sup>
SI (A-L A4C)	LV Stroke Index, Single Plane, 4CH, Area-Length	ml/m <sup>2</sup>
SI (Biplane)	LV Stroke Index, Bi-Plane, MOD	ml/m <sup>2</sup>
SI (bullet)	LV Stroke Index, Bi-Plane, Bullet	ml/m <sup>2</sup>
SI (MOD A2C)	LV Stroke Index, Single Plane, 2CH, MOD	ml/m <sup>2</sup>
SI (MOD A4C)	LV Stroke Index, Single Plane, 4CH, MOD	ml/m <sup>2</sup>
SI (Teich)	LV Stroke Index, Teicholtz, 2D	ml/m <sup>2</sup>

## Measurement and Assisting Tools

Abbreviation	Definition	Unit
SI (Teich)	LV Stroke Index, Teicholtz, M-mode	ml/m <sup>2</sup>
SV (A-L A2C)	LV Stroke Volume, Single Plane, 2CH, Area-Length	ml
SV (A-L A4C)	LV Stroke Volume, Single Plane, 4CH, Area-Length	ml
SV (Biplane)	LV Stroke Volume, Bi-Plane, MOD	ml
SV (bullet)	LV Stroke Volume, Bi-Plane, Bullet	ml
SV (MOD A2C)	LV Stroke Volume, Single Plane, 2CH, MOD (Simpson)	ml
SV (MOD A4C)	LV Stroke Volume, Single Plane, 4CH, MOD (Simpson)	ml
SV(Cube)	LV Stroke Volume, 2D, Cubic	ml
SV(Cube)	LV Stroke Volume, M-mode, Cubic	ml
SV(Teich)	LV Stroke Volume, 2D, Teicholtz	ml
SV(Teich)	LV Stroke Volume, M-mode, Teicholtz	ml
Systemic Diam	Systemic Vein Diameter, 2D	cm
Systemic Vmax	Systemic Vein Peak Velocity	m/s
Systemic VTI	Systemic Vein Velocity Time Integral	cm
TCO	Tricuspid Valve Closure to Opening	ms
TR max PG	Tricuspid Regurg. Peak Pressure Gradient	mm Hg
TR mean PG	Tricuspid Regurg. Mean Pressure Gradient	mm Hg
TR Vmax	Tricuspid Regurg. Peak Velocity	m/s
TR Vmean	Tricuspid Regurg. Mean Velocity	m/s
TR VTI	Tricuspid Regurgitation Velocity Time Integral	cm
TV A dur	Tricuspid Valve A-Wave Duration	ms
TV A Velocity	Tricuspid Valve A Velocity	m/s
TV Acc Time	Tricuspid Valve Time to Peak	ms
TV Ann Area	Tricuspid Valve Area	cm <sup>2</sup>
TV ann diam	Tricuspid Valve Annulus Diameter, 2D	cm
TV Area	Tricuspid Valve Area, 2D	cm <sup>2</sup>
TV CO	Cardiac Output by Tricuspid Flow	l/min
TV Dec Slope	Tricuspid Valve Flow Deceleration	m/s <sup>2</sup>
TV E Velocity	Tricuspid Valve E Velocity	m/s
TV E/A Ratio	Tricuspid Valve E-Peak to A-Peak Ratio	

Abbreviation	Definition	Unit
TV max PG	Tricuspid Valve Peak Pressure Gradient	mm Hg
TV mean PG	Tricuspid Valve Mean Pressure Gradient	mm Hg
TV mean PG	Tricuspid Valve Mean Pressure Gradient	mm Hg
TV PHT	Tricuspid Valve Pressure Half Time	ms
TV SV	Stroke Volume by Tricuspid Flow	ml
TV Vmean	TV Mean Velocity	m/s
TV VTI	Tricuspid Valve Velocity Time Integral	cm
VSD max PG	VSD Peak Pressure Gradient	mm Hg
VSD Vmax	VSD Peak Velocity	m/s

# Measurement formulas

## Formulas–Generic

Calc Mnemonic	Calc Name	Input Measurements Formula
BSA	Body Surface Area	Patient weight (kg) and height (cm) $BSA (m^2) = 0.007184 \times \text{Weight}^{0.425} \times \text{Height}^{0.725}$
BSA	Body Surface Area	Patient weight (kg) $BSA = 0.1 \times \text{Weight}^{0.667}$
MaxPG	Maximum Pressure Gradient	two Doppler blood flow peak velocities $\text{MaxPG}[\text{mmHg}] = 4 \times (v_1^2 - v_2^2)$
MeanPG	Mean Pressure Gradient	flow velocities from one time marker to another time marker in a Doppler display $\text{MeanPG}[\text{mmHg}] = n \times (V_i^2) / n \quad i=1$
% Sten	Stenosis Ratio	two areas (by ellipse, trace, circle or distance) $\% \text{ Stenosis} = [1 - (A_{\text{residual}} / A_{\text{lumen}})] \times 100$
PI	Pulsatility Index	two Doppler blood flow peak velocities and TAMAX $PI = (V_{\text{max}} - V_{\text{diastole}}) / \text{TAMAX}^a$
RI	Resistivity Index	two Doppler blood flow peak velocities $RI = (V_{\text{max}} - V_{\text{diastole}}) / V_{\text{max}}^a$
HR	Heart Rate (beats/minute)	one 2 beat time interval $HR[\text{BPM}] = 120[\text{sec}] / 2\text{beat time} [\text{sec}]$
A/B Ratio	Velocities Ratio	two Doppler blood flow peak velocities $A/B = V_1 / V_2$
<sup>a)</sup> $V_{\text{diastole}} = V_{\text{min}}$ or $V_{\text{end-diastole}}$ (depends on preset selection)		

Calc Mnemonic	Calc Name	Input Measurements Formula
TAMAX	Time Averaged Maximum Velocity (Trace Method is Peak or manual)	two time marks in a Doppler display  TAMAX= $\sum\{Vt\}$ from t1 to t2/(t2-t1) [cm/s or m/s]
TAMEAN	Time Averaged Mean Velocity (Trace method is Mean)	two time marks in a Doppler display  TAMEAN= $\sum\{Vt\}$ from t1 to t2/(t2-t1) [cm/s or m/s]

Calc Name	Input Measurements	Formula
Volume (spherical)	one distance	$Vol[m] = (\pi/6) \times d^3$
Volume (prolate spheroidal)	two distances, $d1 > d2$	$Vol[m] = (\pi/6) \times d1 \times d2^2$
Volume (prolate spheroidal)	one ellipse, d1 major axis, d2 minor axis	$Vol[m] = (\pi/6) \times d1 \times d2^2$
Volume (spheroidal)	three distances	$Vol[m] = (\pi/6) \times d1 \times d2 \times d3$
Volume (spheroidal)	one distance d1, one ellipse, d2 major axis, d3 minor axis	$Vol[m] = (\pi/6) \times d1 \times d2 \times d3$

## Formulas–Cardiac

The following table lists the cardiac calculations. The folders where to find the calculations and related measurements are indicated in brackets “[ ]”.

The system provides calculations and charts based on published scientific literature. The selection of the appropriate chart and clinical interpretation of calculations and charts are the sole responsibility of the user. The user must consider contraindications for the use of a calculation or chart as described in the scientific literature. The diagnosis, decision for further examinations and medical treatment must be performed by qualified personnel following good clinical practice.

<p>%FS [Dimension, Cube/Teicholtz]                  Mode: 2D:CF:VR2D                  Formula: <math>\frac{((\{LVIDd\}-\{LVIDs\})/\{LVIDd\})}{LVIDd}</math>                  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz]                  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>%FS [Generic, Dimension]                  Mode: MM:CM:AMM:CAMM:VRMM                  Formula: <math>\frac{((\{LVIDd\}-\{LVIDs\})/\{LVIDd\})}{LVIDd}</math>                  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]                  Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]                  Belenkie, Israel, et al., “Assessment of Left Ventricular Dimensions and Function by Echocardiography,” <i>American Journal of Cardiology</i>, June 1973, Vol. 31.</p>
<p>%IVS Thck [Dimension]                  Mode: 2D:CF:VR2D                  Formula: <math>\frac{((\{IVSs\}-\{IVSd\})/\{IVSd\})}{IVSd}</math>                  Needs measurement: IVSs [Dimension], IVSd [Dimension]                  Measured by: LVs [2DLV], IVSs [2DCALIPER]                  Roelandt, Joseph, <i>Practical Echocardiology</i>, Ultrasound in medicine Series, Vol. 1, Denis White, ed., Research Studies Press, 1977, p. 130. Schiller, N. B., et al., “Recommendations for Quantification of the LV by Two-Dimensional Echocardiography,” <i>J Am Soc Echo</i>, Sept-Oct 1989, Vol. 2, No. 5, p.364.</p>
<p>%IVS Thck [Dimension]                  Mode: MM:CM:AMM:CAMM:VRMM                  Formula: <math>\frac{((\{IVSs\}-\{IVSd\})/\{IVSd\})}{IVSd}</math>                  Needs measurement: IVSs [Dimension], IVSd [Dimension]                  Measured by: IVSs [MMDISCALIPER]</p>
<p>%LVPW Thck [Dimension]                  Mode: 2D:CF:VR2D                  Formula: <math>\frac{((\{LVPWs\}-\{LVPWd\})/\{LVPWd\})}{LVPWd}</math>                  Needs measurement: LVPWs [Dimension], LVPWd [Dimension]                  Measured by: LVs [2DLV], LVPWs [2DCALIPER]                  Belenkie, Israel, et al., “Assessment of Left Ventricular Dimensions and Function by Echocardiography,” <i>American Journal of Cardiology</i>, June 1973, Vol. 31. Roelandt, Joseph, <i>Practical Echocardiology</i>, Ultrasound in Medicine Series, Vol. 1, Denis White, ed., Research Studies Press, 1977, p. 129.</p>

<p>%LVPW Thck [Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>\frac{((LVPWs)-(LVPWd))}{(LVPWd)}</math>  Needs measurement: LVPWs [Dimension], LVPWd [Dimension]  Measured by: LVPWs [MMDISCALIPER]</p>
<p>Ao st junct/Ao [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>\frac{Ao\ st\ junct}{Ao\ Diam}</math>  Needs measurement: Ao st junct [Dimension], Ao Diam [Dimension]  Measured by: Ao st junct [2DCALIPER]</p>
<p>Ao/LA [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>\frac{Ao\ Diam}{LA\ Diam}</math>  Needs measurement: Ao Diam [Generic, Dimension], LA Diam [Generic, Dimension]  Measured by: LA/Ao [MMLAAO]</p>
<p>AP Area [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>LVOT\ Diam^2 * 0.785 * \frac{LVOT\ VTI}{AP\ VTI}</math>  Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], AP VTI [Aortic]  Measured by: AP Area [SDMANTRACE]</p>
<p>AR RF [PISA]  Mode: CF: CW:PW:VRCW:VRPW  Formula: <math>\frac{AR\ RV}{AV\ SV}</math>  Needs measurement: AV Diam [Dimension], AV Trace [Aortic], AR Flow [PISA], AR Trace [PISA]  Measured by: AR RF [AUTOCALC]</p>
<p>AR ERO [PISA]  Mode: CF: CW:PW:VRCW:VRPW  Formula: <math>\frac{AR\ Flow}{AR\ Vmax}</math>  Needs measurement: AR Flow [PISA], AR Vmax [PISA]  Measured by: AR Trace [AUTOCALC]</p>
<p>AR RV [PISA]  Mode: CF: CW:PW:VRCW:VRPW  Formula: <math>\frac{AR\ Flow}{AR\ Vmax} * AR\ VTI</math>  Needs measurement: AR Flow [PISA], AR Vmax [PISA], AR VTI [PISA]  Measured by: AR Trace [AUTOCALC]</p>
<p>AV Acc Time/ET Ratio [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\frac{AV\ AccT}{AVET}</math>  Needs measurement: AV AccT [Aortic], AVET [Aortic]  Measured by: AVET [SDTIMECALIPER]</p>
<p>AV Area [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>3.14/4 * AV\ Diam^2</math>  Needs measurement: AV Diam [Dimension]  Measured by: AV Diam [2DCALIPER]</p>
<p>AV CI [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\frac{((AV\ Diam)^2 * 0.785 * AV\ VTI) * (HR/60)}{BSA}</math>  Needs measurement: AV Diam [Aortic], AV VTI [Aortic], HR [Aortic]  Measured by: AV Trace [SDMANTRACE]</p>

<p>AV CO [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{(AV\ Diam)^2 \cdot 0.785 \cdot \{AV\ VTI\}\} \cdot \{HR\} / 60</math>  Needs measurement: AV Diam [Aortic], AV VTI [Aortic], HR [Aortic]  Measured by: AV Trace [SDMANTRACE]</p>
<p>AV EOA I (VTI) [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>\{AVA\ (VTI)\} / \{BSA\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT Trace [Aortic], AV Trace [Aortic]  Measured by: AVA (VTI) [AUTOCALC]</p>
<p>AV EOA I Vmax [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>\{AVA\ Vmax\} / \{BSA\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT Trace [Aortic], AV Trace [Aortic]  Measured by: AVA Vmax [AUTOCALC]</p>
<p>AV EOA I Vmax [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>\{AVA\ Vmax\} / \{BSA\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT Trace [Aortic], AV Vmax [Aortic]  Measured by: AVA Vmax [AUTOCALC]</p>
<p>AV EOA I Vmax, Pt [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>\{AVA\ Vmax\} / \{BSA\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Trace [Aortic]  Measured by: AVA Vmax, Pt [AUTOCALC]</p>
<p>AV EOA I Vmax, Pt [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>\{AVA\ Vmax\} / \{BSA\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]  Measured by: AVA Vmax, Pt [AUTOCALC]</p>
<p>AV SI [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{(AV\ Diam)^2 \cdot 0.785 \cdot \{AV\ VTI\}\} / \{BSA\}</math>  Needs measurement: AV Diam [Aortic], AV VTI [Aortic]  Measured by: AV Trace [SDMANTRACE]</p>
<p>AV SV [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{AV\ Diam\}^2 \cdot 0.785 \cdot \{AV\ VTI\}</math>  Needs measurement: AV Diam [Aortic], AV VTI [Aortic]  Measured by: AV Trace [SDMANTRACE]</p>
<p>AVA (VTI) [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14 / 4 \cdot \{LVOT\ Diam\}^2 \cdot \{LVOT\ VTI\} / \{AV\ VTI\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], AV VTI [Aortic]  Measured by: AV Trace [AUTOCALC]</p>
<p>AVA Vmax [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14 / 4 \cdot \{LVOT\ Diam\}^2 \cdot \text{abs}\{\{LVOT\ Vmax\} / \{AV\ Vmax\}\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]  Measured by: AV Vmax [AUTOCALC]</p>

<p>AVA Vmax [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{LVOT\ Diam\}^2 * \text{abs}(\{LVOT\ Vmax\} / \{AV\ Vmax\})</math>  Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]  Measured by: AV Trace [AUTOCALC]</p>
<p>AVA Vmax, Pt [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{LVOT\ Diam\}^2 * \text{abs}(\{LVOT\ Vmax\} / \{AV\ Vmax\})</math>  Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]  Measured by: AV Vmax [AUTOCALC]</p>
<p>AVA Vmax, Pt [Aortic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{LVOT\ Diam\}^2 * \text{abs}(\{LVOT\ Vmax\} / \{AV\ Vmax\})</math>  Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]  Measured by: AV Trace [AUTOCALC]</p>
<p>CI A-L A2C [Single Plane A2C]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((\{LVEDV\ A-L\ A2C\} - \{LVESV\ A-L\ A2C\}) * \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV A-L A2C [Single Plane A2C], LVESV A-L A2C [Single Plane A2C], HR [Single Plane A2C]  Measured by: R-R [2DCALIPER], A2C</p>
<p>CI A-L A2C [Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: <math>((\{LVEDV\ A-L\ A2C\} - \{LVESV\ A-L\ A2C\}) * \{HR\} / 60 / \text{Auto}) / \{BSA\}</math>  Needs measurement: LVEDV A-L A2C [Single Plane A2C], LVESV A-L A2C [Single Plane A2C], HR [Single Plane A2C]  Measured by: LVESV A2C [2DVOLUMETRACE]</p>
<p>CI A-L A4C [Single Plane A4C]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((\{LVEDV\ A-L\ A4C\} - \{LVESV\ A-L\ A4C\}) * \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV A-L A4C [Single Plane A4C], LVESV A-L A4C [Single Plane A4C], HR [Single Plane A4C]  Measured by: R-R [2DCALIPER], A4C</p>
<p>CI A-L A4C [Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: <math>((\{LVEDV\ A-L\ A4C\} - \{LVESV\ A-L\ A4C\}) * \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV A-L A4C [Single Plane A4C], LVESV A-L A4C [Single Plane A4C], HR [Single Plane A4C]  Measured by: LVESV A4C [2DVOLUMETRACE]</p>
<p>CI A-L LAX [Single Plane LAX]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((\{LVEDV\ A-L\ LAX\} - \{LVESV\ A-L\ LAX\}) * \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV A-L LAX [Single Plane LAX], LVESV A-L LAX [Single Plane LAX], HR [Single Plane LAX]  Measured by: R-R [2DCALIPER]</p>
<p>CI Biplane [Biplane]  Mode: 2D:CF:VR2D:Trace  Formula: <math>d = \text{biplane}(\{LVLd\ A4C\}, \{LVD\text{isks}\}, \{LVLd\ A2C\}, \{LVD\text{isks}\})</math>  Needs measurement: LVLd A4C [Biplane], LVLd A2C [Biplane], LVLs A4C [Biplane], LVLs A2C [Biplane], HR [Biplane]  Measured by: R-R [2DCALIPER]</p>

<p>CI bp el [Biplane Ellipse]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((d-s) \cdot \{ECG/HeartRate\} / 60) / \{BSA\}</math> where:  <math>s = (8 / (3 \cdot 3.14159)) \cdot \{LVAs(A4C)\} \cdot \{LVAs(sax\ MV)\} / \{2D/LVIDs\}</math>  <math>d = (8 / (3 \cdot 3.14159)) \cdot \{LVAd\ A4C\} \cdot \{LVAd\ (sax\ MV)\} / \{LVIDd\}</math>  Needs measurement: LVAd A4C [Biplane Ellipse], LVAd (sax MV) [Biplane Ellipse], LVIDd [Biplane Ellipse], LVAs A4C [Biplane Ellipse], LVAs sax MV [Biplane Ellipse], LVIDs [Biplane Ellipse], HR [Biplane Ellipse]  Measured by: R-R [2DCALIPER]</p>
<p>CI bullet [Bullet]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((d-s) \cdot \{ECG/HeartRate\} / 60) / \{BSA\}</math> where:  <math>s = 5/6 \cdot \{LVAs(sax)\} \cdot \{LVLs(apical)\}</math>  <math>d = 5/6 \cdot \{LVAd\ sax\} \cdot \{LVLd\ apical\}</math>  Needs measurement: LVAd sax [Bullet], LVLd apical [Bullet], LVAs sax [Bullet], LVLs apical [Bullet], HR [Bullet]  Measured by: R-R [2DCALIPER]</p>
<p>CI MOD A2C [Single Plane A2C]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((\{LVEDV\ MOD\ A2C\} - \{LVESV\ MOD\ A2C\}) \cdot \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV MOD A2C [Single Plane A2C], LVESV MOD A2C [Single Plane A2C], HR [Single Plane A2C]  Measured by: R-R [2DCALIPER], A2C</p>
<p>CI MOD A2C [Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: <math>((\{LVEDV\ MOD\ A2C\} - \{LVESV\ MOD\ A2C\}) \cdot \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV MOD A2C [Single Plane A2C], LVESV MOD A2C [Single Plane A2C], HR [Single Plane A2C]  Measured by: LVESV A2C [2DVOLUMETRACE]</p>
<p>CI MOD A4C [Single Plane A4C]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((\{LVEDV\ MOD\ A4C\} - \{LVESV\ MOD\ A4C\}) \cdot \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV MOD A4C [Single Plane A4C], LVESV MOD A4C [Single Plane A4C], HR [Single Plane A4C]  Measured by: R-R [2DCALIPER], A4C</p>
<p>CI MOD A4C [Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: <math>((\{LVEDV\ MOD\ A4C\} - \{LVESV\ MOD\ A4C\}) \cdot \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV MOD A4C [Single Plane A4C], LVESV MOD A4C [Single Plane A4C], HR [Single Plane A4C]  Measured by: LVESV A4C [2DVOLUMETRACE]</p>
<p>CI MOD LAX [Single Plane LAX]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((\{LVEDV\ MOD\ LAX\} - \{LVESV\ MOD\ LAX\}) \cdot \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVEDV MOD LAX [Single Plane LAX], LVESV MOD LAX [Single Plane LAX], HR [Single Plane LAX]  Measured by: R-R [2DCALIPER]</p>

<p>CI mod sim [Modified Simpson]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((d-s) \cdot \{ECG/HeartRate\}/60) / \{BSA\}</math> where: <math>s = ((4 \cdot \{LVAs(sax MV)\}) + (2 \cdot \{LVAs(sax PM)\}) + \sqrt{\{LVAs(sax MV)\} \cdot \{LVAs(sax PM)\}}) / 9</math> <math>d = (\{LVLd \text{ apical}\} / 9) \cdot ((4 \cdot \{LVAd (sax MV)\}) + (2 \cdot \{LVAd sax PM\}) + \sqrt{\{LVAd (sax MV)\} \cdot \{LVAd sax PM\}})</math>  Needs measurement: LVLd apical [Modified Simpson], LVAd (sax MV) [Modified Simpson], LVAd sax PM [Modified Simpson], LVLs apical [Modified Simpson], LVAs sax MV [Modified Simpson], LVAs sax PM [Modified Simpson], HR [Modified Simpson]  Measured by: R-R [2DCALIPER]</p>
<p>CI(Cube) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((d-s) \cdot \{ECG/HeartRate\}/60) / \{BSA\}</math> where:  <math>s = \{2D/LVIDs\}^3</math> <math>d = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz], HR [Dimension, Cube/Teicholtz]  Measured by: R-R [2DCALIPER]</p>
<p>CI(Cube) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((dv-sv) \cdot \{MM/HeartRate\}/60) / \{BSA\}</math> where:  <math>sv = \{MM/LVIDs\}^3</math> <math>dv = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension], HR [Generic, Dimension]  Measured by: Heartrate [MMTIMECALIPER]</p>
<p>CI(Teich) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D:Trace  Formula: <math>((d-s) \cdot \{ECG/HeartRate\}/60) / \{BSA\}</math> where:  <math>s = 7 / (2.4 + \{2D/LVIDs\} \cdot \{2D/LVIDs\}^3)</math> <math>d = 7 / (2.4 + \{LVIDd\} \cdot \{LVIDd\}^3)</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz], HR [Dimension, Cube/Teicholtz]  Measured by: R-R [2DCALIPER]</p>
<p>CI(Teich) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((dv-sv) \cdot \{MM/HeartRate\}/60) / \{BSA\}</math> where:  <math>sv = 7 / (2.4 + \{MM/LVIDs\} \cdot \{MM/LVIDs\}^3)</math> <math>dv = 7 / (2.4 + \{LVIDd\} \cdot \{LVIDd\}^3)</math>  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension], HR [Generic, Dimension]  Measured by: Heartrate [MMTIMECALIPER]</p>
<p>CO A-L A2C [Single Plane A2C]  Mode: 2D:CF:VR2D:Trace  Formula: <math>(\{LVEDV A-L A2C\} - \{LVESV A-L A2C\}) \cdot \{HR\} / 60</math>  Needs measurement: LVEDV A-L A2C [Single Plane A2C], LVESV A-L A2C [Single Plane A2C], HR [Single Plane A2C]  Measured by: R-R [2DCALIPER], A2C</p>
<p>CO A-L A2C [Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: <math>(\{LVEDV A-L A2C\} - \{LVESV A-L A2C\}) \cdot \{HR\} / 60</math>  Needs measurement: LVEDV A-L A2C [Single Plane A2C], LVESV A-L A2C [Single Plane A2C], HR [Single Plane A2C]  Measured by: LVESV A2C [2DVOLUMETRACE]</p>

<p>CO A-L A4C [Single Plane A4C]  Mode: 2D:CF:VR2D:Trace  Formula: <math>\{(LVEDV\ A-L\ A4C) - (LVESV\ A-L\ A4C)\} * (HR) / 60</math>  Needs measurement: LVEDV A-L A4C [Single Plane A4C], LVESV A-L A4C [Single Plane A4C], HR [Single Plane A4C]  Measured by: R-R [2DCALIPER], A4C</p>
<p>CO A-L A4C [Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: <math>\{(LVEDV\ A-L\ A4C) - (LVESV\ A-L\ A4C)\} * (HR) / 60</math>  Needs measurement: LVEDV A-L A4C [Single Plane A4C], LVESV A-L A4C [Single Plane A4C], HR [Single Plane A4C]  Measured by: LVESV A4C [2DVOLUMETRACE]</p>
<p>CO A-L LAX [Single Plane LAX]  Mode: 2D:CF:VR2D:Trace  Formula: <math>\{(LVEDV\ A-L\ LAX) - (LVESV\ A-L\ LAX)\} * (HR) / 60</math>  Needs measurement: LVEDV A-L LAX [Single Plane LAX], LVESV A-L LAX [Single Plane LAX], HR [Single Plane LAX]  Measured by: R-R [2DCALIPER]</p>
<p>CO A-L LAX [Single Plane LAX]  Mode: 2D:CF:VR2D  Formula: <math>\{(LVEDV\ A-L\ LAX) - (LVESV\ A-L\ LAX)\} * (HR) / 60</math>  Needs measurement: LVEDV A-L LAX [Single Plane LAX], LVESV A-L LAX [Single Plane LAX], HR [Single Plane LAX]  Measured by: LVESV LAX [2DVOLUMETRACE]</p>
<p>CO Biplane [Biplane]  Mode: 2D:CF:VR2D:Trace  Formula: <math>d = \text{biplane}(\{LVLd\ A4C\}, \{LVD\text{Disks}\}, \{LVLd\ A2C\}, \{LVD\text{Disks}\})</math>  Needs measurement: LVLd A4C [Biplane], LVLd A2C [Biplane], LVLs A4C [Biplane], LVLs A2C [Biplane], HR [Biplane]  Measured by: R-R [2DCALIPER]</p>
<p>CO bp el [Biplane Ellipse]  Mode: 2D:CF:VR2D:Trace  Formula: <math>(d-s) * (ECG / \text{HeartRate}) / 60</math> where:  <math>s = (8 / (3 * 3.14159)) * (LVAs(A4C)) * (LVAs(sax\ MV)) / (2D / LVIDs)</math>  <math>d = (8 / (3 * 3.14159)) * (LVAd\ A4C) * (LVAd\ (sax\ MV)) / (LVIDd)</math>  Needs measurement: LVAd A4C [Biplane Ellipse], LVAd (sax MV) [Biplane Ellipse], LVIDd [Biplane Ellipse], LVAs A4C [Biplane Ellipse], LVAs sax MV [Biplane Ellipse], LVIDs [Biplane Ellipse], HR [Biplane Ellipse]  Measured by: R-R [2DCALIPER]</p>
<p>CO bullet [Bullet]  Mode: 2D:CF:VR2D:Trace  Formula: <math>(d-s) * (ECG / \text{HeartRate}) / 60</math> where:  <math>s = 5 / 6 * (LVAs(sax)) * (LVLs(apical))</math>  <math>d = 5 / 6 * (LVAd\ sax) * (LVLd\ apical)</math>  Needs measurement: LVAd sax [Bullet], LVLd apical [Bullet], LVLs apical [Bullet], HR [Bullet]  Measured by: R-R [2DCALIPER]</p>
<p>CO MOD A2C [Single Plane A2C]  Mode: 2D:CF:VR2D:Trace  Formula: <math>\{(LVEDV\ MOD\ A2C) - (LVESV\ MOD\ A2C)\} * (HR) / 60</math>  Needs measurement: LVEDV MOD A2C [Single Plane A2C], LVESV MOD A2C [Single Plane A2C], HR [Single Plane A2C]  Measured by: R-R [2DCALIPER], A2C</p>

<p>CO MOD A2C [Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: <math>\{(LVEDV \text{ MOD A2C}) - \{LVESV \text{ MOD A2C}\} * \{HR\} / 60</math>  Needs measurement: LVEDV MOD A2C [Single Plane A2C], LVESV MOD A2C [Single Plane A2C], HR [Single Plane A2C]  Measured by: LVESV A2C [2DVOLUMETRACE]</p>
<p>CO MOD A4C [Single Plane A4C]  Mode: 2D:CF:VR2D:Trace  Formula: <math>\{(LVEDV \text{ MOD A4C}) - \{LVESV \text{ MOD A4C}\} * \{HR\} / 60</math>  Needs measurement: LVEDV MOD A4C [Single Plane A4C], LVESV MOD A4C [Single Plane A4C], HR [Single Plane A4C]  Measured by: R-R [2DCALIPER], A4C</p>
<p>CO MOD A4C [Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: <math>\{(LVEDV \text{ MOD A4C}) - \{LVESV \text{ MOD A4C}\} * \{HR\} / 60</math>  Needs measurement: LVEDV MOD A4C [Single Plane A4C], LVESV MOD A4C [Single Plane A4C], HR [Single Plane A4C]  Measured by: LVESV A4C [2DVOLUMETRACE]</p>
<p>CO MOD LAX [Single Plane LAX]  Mode: 2D:CF:VR2D:Trace  Formula: <math>\{(LVEDV \text{ MOD LAX}) - \{LVESV \text{ MOD LAX}\} * \{HR\} / 60</math>  Needs measurement: LVEDV MOD LAX [Single Plane LAX], LVESV MOD LAX [Single Plane LAX], HR [Single Plane LAX]  Measured by: R-R [2DCALIPER]</p>
<p>CO MOD LAX [Single Plane LAX]  Mode: 2D:CF:VR2D  Formula: <math>\{(LVEDV \text{ MOD LAX}) - \{LVESV \text{ MOD LAX}\} * \{HR\} / 60</math>  Needs measurement: LVEDV MOD LAX [Single Plane LAX], LVESV MOD LAX [Single Plane LAX], HR [Single Plane LAX]  Measured by: LVESV LAX [2DVOLUMETRACE]</p>
<p>CO mod sim [Modified Simpson]  Mode: 2D:CF:VR2D:Trace  Formula: <math>(d-s) * \{ECG / \text{HeartRate}\} / 60</math> where: <math>s = \{ \{LVLs(\text{apical})\} / 9 * (4 * \{LVAs(\text{sax MV})\} + 2 * \{LVAs(\text{sax d} = \{ \{LVLd \text{ apical}\} / 9 * (4 * \{LVAd (\text{sax MV})\} + 2 * \{LVAd \text{ sax PM}\} + \text{sqrt}(\{LVAd (\text{sax MV})\} * \{LVAd \text{ sax PM}\})))</math>  Needs measurement: LVLd apical [Modified Simpson], LVAd (sax MV) [Modified Simpson], LVAd sax PM [Modified Simpson], LVLs apical [Modified Simpson], LVAs sax MV [Modified Simpson], LVAs sax PM [Modified Simpson], HR [Modified Simpson]  Measured by: R-R [2DCALIPER]</p>
<p>CO(A-L) [Generic]  Mode: 2D:CF:Trace  Formula: <math>\{ \{EDV(A-L)\} - \{ESV(A-L)\} * \{HR\} / 60</math>  Needs measurement: ESV(A-L) [Generic], HR [Generic]  Measured by: R-R [2DCALIPER]</p>
<p>CO(Cube) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D:Trace  Formula: <math>(d-s) * \{ECG / \text{HeartRate}\} / 60</math> where:  <math>s = \{2D / LVIDs\}^3</math>  <math>d = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz], HR [Dimension, Cube/Teicholtz]  Measured by: R-R [2DCALIPER]</p>

<p>CO(Cube) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>(dv-sv) \times \{MM/HeartRate\} / 60</math> where:  <math>sv = \{MM/LVIDs\}^3</math>  <math>dv = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension], HR [Generic, Dimension]  Measured by: Heartrate [MMTIMECALIPER]</p>
<p>CO(Teich) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D:Trace  Formula: <math>(d-s) \times \{ECG/HeartRate\} / 60</math> where:  <math>s = 7 / (2.4 + \{2D/LVIDs\} \times \{2D/LVIDs\}^3)</math>  <math>d = 7 / (2.4 + \{LVIDd\} \times \{LVIDd\}^3)</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz], HR [Dimension, Cube/Teicholtz]  Measured by: R-R [2DCALIPER]</p>
<p>CO(Teich) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>(dv-sv) \times \{MM/HeartRate\} / 60</math> where:  <math>sv = 7 / (2.4 + \{MM/LVIDs\} \times \{MM/LVIDs\}^3)</math>  <math>dv = 7 / (2.4 + \{LVIDd\} \times \{LVIDd\}^3)</math>  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension], HR [Generic, Dimension]  Measured by: Heartrate [MMTIMECALIPER]</p>
<p>EDV bp el [Biplane Ellipse]  Mode: 2D:CF:VR2D  Formula: <math>(8 / (3 \times 3.14159)) \times \{LVAd A4C\} \times \{LVAd (sax MV)\} / \{LVIDd\}</math>  Needs measurement: LVAd A4C [Biplane Ellipse], LVAd (sax MV) [Biplane Ellipse], LVIDd [Biplane Ellipse]  Measured by: LVEF BP-EL [AUTOCALC]</p>
<p>EDV bullet [Bullet]  Mode: 2D:CF:VR2D  Formula: <math>5/6 \times \{LVAd sax\} \times \{LVLd apical\}</math>  Needs measurement: LVAd sax [Bullet], LVLd apical [Bullet]  Measured by: LVEF Bullet [AUTOCALC]</p>
<p>EDV mod sim [Modified Simpson]  Mode: 2D:CF:VR2D  Formula: <math>\{LVLd apical\} / 9 \times ((4 \times \{LVAd (sax MV)\}) + (2 \times \{LVAd sax PM\}) + \sqrt{\{LVAd (sax MV)\} \times \{LVAd sax PM\}})</math>  Needs measurement: LVLd apical [Modified Simpson], LVAd (sax MV) [Modified Simpson], LVAd sax PM [Modified Simpson]  Measured by: EF mod sim [AUTOCALC]</p>
<p>EDV(Cube) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: <math>\{LVIDd\}^3</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz]  Measured by: LVd [2DLV], LVIDd [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>EDV(Cube) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>\{LVIDd\}^3</math>  Needs measurement: LVIDd [Generic, Dimension]  Measured by: LV Study [MMLV], LVIDd [MMDISCALIPER]</p>

<p>EDV(Teich) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: <math>7/(2.4+\{LVIDd\})\{LVIDd\}^3</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz]  Measured by: LVd [2DLV], LVIDd [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>EDV(Teich) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>7/(2.4+\{LVIDd\})\{LVIDd\}^3</math>  Needs measurement: LVIDd [Generic, Dimension]  Measured by: LV Study [MMLV], LVIDd [MMDISCALIPER]</p>
<p>EF A-L A2C [Biplane, Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: <math>(\{LVEDV\ A-L\ A2C\}-\{LVESV\ A-L\ A2C\})/\{LVEDV\ A-L\ A2C\}</math>  Needs measurement: LVEDV A-L A2C [Biplane, Single Plane A2C], LVESV A-L A2C [Biplane, Single Plane A2C]  Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C</p>
<p>EF A-L A4C [Biplane, Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: <math>(\{LVEDV\ A-L\ A4C\}-\{LVESV\ A-L\ A4C\})/\{LVEDV\ A-L\ A4C\}</math>  Needs measurement: LVEDV A-L A4C [Biplane, Single Plane A4C], LVESV A-L A4C [Biplane, Single Plane A4C]  Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C</p>
<p>EF A-L LAX [Single Plane LAX]  Mode: 2D:CF:VR2D  Formula: <math>(\{LVEDV\ A-L\ LAX\}-\{LVESV\ A-L\ LAX\})/\{LVEDV\ A-L\ LAX\}</math>  Needs measurement: LVEDV A-L LAX [Single Plane LAX], LVESV A-L LAX [Single Plane LAX]  Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC]</p>
<p>EF Biplane [Biplane]  Mode: 2D:CF:VR2D  Formula: <math>d = \text{biplane}(\{LVLd\ A4C\},\{LVDisks\},\{LVLd\ A2C\},\{LVDisks\})</math>  Needs measurement: LVLd A4C [Biplane], LVLd A2C [Biplane], LVLs A4C [Biplane], LVLs A2C [Biplane]  Measured by: EF Biplane [AUTOCALC]</p>
<p>EF mod sim [Modified Simpson]  Mode: 2D:CF:VR2D  Formula: <math>(\{LVLd\ apical\}/9)*((4*\{LVAd\ (sax\ MV)\})+(2*\{LVAd\ sax\ PM\})+ \text{sqrt}(\{LVAd\ (sax\ MV)\}*\{LVAd\ sax\ PM\}))</math>  Needs measurement: LVLd apical [Modified Simpson], LVAd (sax MV) [Modified Simpson], LVAd sax PM [Modified Simpson], LVLs apical [Modified Simpson], LVAs sax MV [Modified Simpson], LVAs sax PM [Modified Simpson]  Measured by: EF mod sim [AUTOCALC]</p>
<p>EF(A-L) [Generic]  Mode: 2D:CF:VR2D  Formula: <math>(\{EDV(A-L)\}-\{ESV(A-L)\})/\{EDV(A-L)\}</math>  Needs measurement: ESV(A-L) [Generic], EDV(A-L) [Generic]  Measured by: EF Volume [AUTOCALC]</p>
<p>EF(Cube) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: <math>(d-s)/d</math> where: <math>s = \{2D/LVIDs\}^3</math> <math>d = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz]  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>

<p>EF(Cube) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: (dv-sv)/dv where:  sv = {MM/LVIDs}<sup>3</sup>  dv = {LVIDd}<sup>3</sup>  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]  Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]</p>
<p>EF(MOD) [Generic]  Mode: 2D:CF:VR2D  Formula: ({EDV(MOD)}-{ESV(MOD)})/{EDV(MOD)}  Needs measurement: EDV(MOD) [Generic], ESV(MOD) [Generic]  Measured by: EF Volume [AUTOCALC]</p>
<p>EF(Teich) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: (d-s)/d where:  s = 7/(2.4+{2D/LVIDs})<sup>3</sup>  d = 7/(2.4+{LVIDd})<sup>3</sup>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz]  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>EF(Teich) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: (dv-sv)/dv where:  sv = 7/(2.4+{MM/LVIDs})<sup>3</sup>  dv = 7/(2.4+{LVIDd})<sup>3</sup>  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]  Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]</p>
<p>ESV bp el [Biplane Ellipse]  Mode: 2D:CF:VR2D  Formula: (8/(3*3.14159))*{LVAs A4C}*{LVAs sax MV}/{LVIDs}  Needs measurement: LVAs A4C [Biplane Ellipse], LVAs sax MV [Biplane Ellipse], LVIDs [Biplane Ellipse]  Measured by: LVEF BP-EL [AUTOCALC]</p>
<p>ESV bullet [Bullet]  Mode: 2D:CF:VR2D  Formula: 5/6*{LVAs sax}*{LVLs apical}  Needs measurement: LVAs sax [Bullet], LVLs apical [Bullet]  Measured by: LVEF Bullet [AUTOCALC]</p>
<p>ESV mod sim [Modified Simpson]  Mode: 2D:CF:VR2D  Formula: ({LVLs apical}/9)*((4*{LVAs sax MV})+(2*{LVAs sax PM})+ sqrt({LVAs sax MV}*{LVAs sax PM}))  Needs measurement: LVLs apical [Modified Simpson], LVAs sax MV [Modified Simpson], LVAs sax PM [Modified Simpson]  Measured by: EF mod sim [AUTOCALC]</p>
<p>ESV(Cube) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: {LVIDs}<sup>3</sup>  Needs measurement: LVIDs [Dimension, Cube/Teicholtz]  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>

<p>ESV(Cube) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: {LVIDs}<sup>3</sup>  Needs measurement: LVIDs [Generic, Dimension]  Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]</p>
<p>ESV(Teich) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: <math>7/(2.4+\{LVIDs\})\{LVIDs\}^3</math>  Needs measurement: LVIDs [Dimension, Cube/Teicholtz]  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>ESV(Teich) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>7/(2.4+\{LVIDs\})\{LVIDs\}^3</math>  Needs measurement: LVIDs [Generic, Dimension]  Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]</p>
<p>HR (Generic, Dimension, Biplane, Modified Simpson, Cube/Teicholtz, Single Plane A4C, Single Plane A2C, Single Plane LAX, Bullet, Biplane Ellipse)  Mode: 2D:CF:Trace:VR2D  Formula: <math>60/\{R-R\}</math>  Needs measurement: R-R [Generic, Dimension, Biplane, Modified Simpson, Cube/Teicholtz, Single Plane A4C, Single Plane A2C, Single Plane LAX, Bullet, Biplane Ellipse]  Measured by: R-R [2DCALIPER] Used to calculate: CO(A-L),CO(Teich),CI(Teich),CO(Cube),CI(Cube),CO Biplane,CI Biplane,CO mod sim,CI mod sim,CI A-L A4C,CO MOD A4C,CI MOD A4C,CI A-L A2C,CO A-L A2C,CI A-L A2C,CO MOD A2C,CI MOD A2C,CO A-L LAX,CI A-L LAX,CO MOD LAX,CI MOD LAX,CO bullet,CI bullet,CO bp el,CI bp el</p>
<p>HR [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>60/\{Time\}</math>  Needs measurement: Time [Generic, Dimension]  Measured by: Heartrate [MMTIMECALIPER]Used to calculate: CO(Cube),CO(Teich),CI(Teich),CI(Cube)  <i>Dorland's Illustrated Medical Dictionary</i>, ed. 27, W. B. Sanders Co., Philadelphia, 1988, p. 1425.</p>
<p>HR [Generic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>60/\{Time\}</math>  Needs measurement: Time [Generic]  Measured by: Heartrate [SDTIMECALIPER]</p>
<p>IVSd/LVPWd [Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: {IVSd}/{LVPWd}  Needs measurement: IVSd [Dimension], LVPWd [Dimension]  Measured by: LVPWd [MMDISCALIPER]  Roelandt, Joseph, <i>Practical Echocardiology</i>, Ultrasound in Medicine Series, Vol. 1, Denis White, ed., Research Studies Press, 1977, p. 270.</p>

<p>LA/Ao [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>\frac{\{LA\ Diam\}}{\{Ao\ Diam\}}</math>  Needs measurement: LA Diam [Generic, Dimension], Ao Diam [Generic, Dimension]  Measured by: LA/Ao [MMLAAO]  Roelandt, Joseph, <i>Practical Echocardiology</i>, Ultrasound in Medicine Series, Vol. 1, Denis White, ed., Research Studies Press, 1977, p. 270.  Schiller, N.B., et al., "Recommendations for Quantification of the LV by Two-Dimensional Echocardiography," <i>J Am Soc Echo</i>, Sept-Oct 1989, Vol. 2, No. 5, p. 364.</p>
<p>LIMP [Mitral Valve, Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\frac{\{MCO\}-\{AVET\}}{\{AVET\}}</math>  Needs measurement: MCO [Mitral Valve, Aortic], AVET [Mitral Valve, Aortic]  Measured by: LIMP [AUTOCALC]  Nishimura RA et al. Doppler Echocardiography: theory, instrumentation, technique and application. <i>Mayo Clinic Proc</i> 1985; 60:321-343  Yoganathan AP, et al. Review of hydrodynamic principles for the cardiologist: Application to the study of blood flow and jets by imaging techniques. <i>J Am Coll Cardio</i> 1988; 12:1344-1353</p>
<p>LAEDV(A-L) [LA Volume]  Mode: 2D:CF:VR2D  Formula: <math>\frac{(8/(3*3.14159))*\{LAAAd(A4C)\}*\{LAAAd(A2C)\}}{(\minvalue(\{LALd(A4C)\},\{LALd(A2C)\}))}</math>  Needs measurement: LAEDV A4C [LA Volume], LAEDV A2C [LA Volume]  Measured by: LAEDV(A-L) [AUTOCALC]</p>
<p>LAEDV Index(A-L) [LA Volume]  Mode: 2D:CF:VR2D  Formula: <math>\frac{(8/(3*3.14159))*\{LAAAd(A4C)\}*\{LAAAd(A2C)\}}{(\minvalue(\{LALd(A4C)\},\{LALd(A2C)\}))\{BSA\}}</math>  Needs measurement: LAEDV A4C [LA Volume], LAEDV A2C [LA Volume]  Measured by: LAEDV(A-L) [AUTOCALC]</p>
<p>LAEDV(MOD BP) [LA Volume]  Mode: 2D:AP:CF:APCF:VR2D  Formula: <math>\text{biplane}(\{LALd(A4C)\},\{LADisksD(A4C)\},\{LALd(A2C)\},\{LADisksD(A2C)\})</math>  Needs measurement: LALd A4C [LA Volume], LADisks [LA Volume], LALd A2C [LA Volume], LADisks [LA Volume]  Measured by: LA(Biplane) [AUTOCALC]  Schiller et al. "Recommendations for quantitation of the left ventricle by two-dimensional echocardiography. ASE Committee on Standards, Subcommittee on Quantitation of Two-Dimensional Echocardiograms." <i>J Am Soc Echocardiogr</i> 1989;2:358-367.</p>
<p>LAESV(A-L) [LA Volume]  Mode: 2D:CF:VR2D  Formula: <math>\frac{(8/(3*3.14159))*\{LAAAs(A4C)\}*\{LAAAs(A2C)\}}{(\minvalue(\{LALs(A4C)\},\{LALs(A2C)\}))}</math>  Needs measurement: LAESV A4C [LA Volume], LAESV A2C [LA Volume]  Measured by: LAESV(A-L) [AUTOCALC]</p>
<p>LAESV Index(A-L) [LA Volume]  Mode: 2D:CF:VR2D  Formula: <math>\frac{(8/(3*3.14159))*\{LAAAs(A4C)\}*\{LAAAs(A2C)\}}{(\minvalue(\{LALs(A4C)\},\{LALs(A2C)\}))\{BSA\}}</math>  Needs measurement: LAESV A4C [LA Volume], LAESV A2C [LA Volume]  Measured by: LAESV(A-L) [AUTOCALC]</p>

<p>LAESV(MOD BP) [LA Volume]  Mode: 2D:AP:CF:APCF:VR2D  Formula: <math>\text{biplane}(\{LALs(A4C)\},\{LADisksS(A4C)\},\{LALs(A2C)\},\{LADisksS(A2C)\})</math>  Needs measurement: LALs A4C [LA Volume], ?LADisks [LA Volume], LALs A2C [LA Volume], ?LADisks [LA Volume]  Measured by: LA(Biplane) [AUTOCALC]  Schiller et.al: "Recommendations for quantitation of the left ventricle by two-dimensional echocardiography. ASE Committee on Standards, Subcommittee on Quantitation of Two-Dimensional Echocardiograms." <i>J Am Soc Echocardiogr</i> 1989;2:358-367.</p>
<p>LVCi Dopp [Aortic]  Mode: PW:VRPW  Formula: <math>(\{LVOT\ Diam\}^2 * 0.785 * \{LVOT\ VTI\} * \{HR\} / 60) / \{BSA\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], HR [Aortic],  Measured by: LVOT Trace [SDMANTRACE]</p>
<p>LVC0 Dopp [Aortic]  Mode: PW:VRPW  Formula: <math>\{LVOT\ Diam\}^2 * 0.785 * \{LVOT\ VTI\} * \{HR\} / 60</math>  Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], HR [Aortic]  Measured by: LVOT Trace [SDMANTRACE]</p>
<p>LVd Mass (ASE) [Generic]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((1.04 * (\{IVSd\} + \{LVIDd\} + \{LVPWd\})^3 - (\{LVIDd\})^3) * 0.8 + 0.6) / 1000</math>  Needs measurement: IVSd [Generic], LVIDd [Generic], LVPWd [Generic]  Measured by: LV Study [MMLV]</p>
<p>LVd Mass [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>((1.04 * (\{IVSd\} + \{LVIDd\} + \{LVPWd\})^3 - (\{LVIDd\})^3) - 13.6) / 1000</math>  Needs measurement: IVSd [Dimension], LVIDd [Dimension], LVPWd [Dimension], LVIDd [Dimension]  Measured by: LVPWd [2DCALIPER]</p>
<p>LVd Mass [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((1.04 * (\{IVSd\} + \{LVIDd\} + \{LVPWd\})^3 - (\{LVIDd\})^3) - 13.6) / 1000</math>  Needs measurement: IVSd [Generic, Dimension], LVPWd [Generic, Dimension], LVIDd [Generic, Dimension]  Measured by: LV Study [MMLV], LVPWs [MMDISCALIPER]</p>
<p>LVd Mass A-L [Mass]  Mode: 2D:CF:VR2D  Formula: <math>1.05 * 5 / 6 * (\{LVAd(sax\ epi)\} * (\{LVLd(apical)\} + t) - \{LVAd(sax\ PM)\} * \{LVLd(apical)\}) / 1000</math> where:  <math>t = \sqrt{(\{LVAd\ sax\ EPI\} / 3.14159) - \sqrt{(\{LVAd\ sax\ PM\} / 3.14159)}}</math>  Needs measurement: LVAd sax EPI [Mass], LVAd sax PM [Mass], LVLd apical [Mass]  Measured by: LVMass(d) [AUTOCALC]</p>
<p>LVd Mass I A-L [Mass]  Mode: 2D:CF:VR2D  Formula: <math>m / \{BSA\}</math> where:  <math>m = 1.05 * 5 / 6 * (\{LVAd(sax\ epi)\} * (\{LVLd(apical)\} + t) - \{LVAd(sax\ PM)\} * \{LVLd(apical)\}) / 1000</math>  <math>t = \sqrt{(\{LVAd\ sax\ EPI\} / 3.14159) - \sqrt{(\{LVAd\ sax\ PM\} / 3.14159)}}</math>  Needs measurement: LVAd sax EPI [Mass], LVAd sax PM [Mass], LVLd apical [Mass]  Measured by: LVMass(d) [AUTOCALC]</p>

<p>LVd Mass Ind (ASE) [Generic]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((1.04 * ((\text{IVSd} + \{\text{LVIDd}\} + \{\text{LVPWd}\})^3 - (\{\text{LVIDd}\})^3)) * 0.8 + 0.6) / 1000 / \{\text{BSA}\}</math>  Needs measurement: IVSd [Generic], LVIDd [Generic], LVPWd [Generic]  Measured by: LV Study [MMLV]</p>
<p>LVd Mass Index [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>m / \{\text{BSA}\}</math> where <math>m = ((1.04 * ((\text{IVSd} + \{\text{LVIDd}\} + \{\text{LVPWd}\})^3 - (\{\text{LVIDd}\})^3)) - 13.6) / 1000</math>  Needs measurement: IVSd [Dimension], LVIDd [Dimension], LVPWd [Dimension], LVIDd [Dimension]  Measured by: LVPWd [2DCALIPER]</p>
<p>LVd Mass Index [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((1.04 * ((\text{IVSd} + \{\text{LVIDd}\} + \{\text{LVPWd}\})^3 - (\{\text{LVIDd}\})^3)) - 13.6) / 1000 / \{\text{BSA}\}</math>  Needs measurement: IVSd [Generic, Dimension], LVIDd [Generic, Dimension], LVPWd [Generic, Dimension]  Measured by: LV Study [MMLV], LVPWs [MMDISCALIPER]</p>
<p>LVd Mass TE [Mass]  Mode: 2D  Formula: <math>1.05 * 3.14159 * ((b+t)^2 * (2/3 * (a+t) + d - d^3 / (3 * (a+t)^2)) - b^2 * (2/3 * a + d - d^3 / (3 * a^2))) / 1000</math> where:  <math>b = \sqrt{\{\text{LVAd}(\text{sax PM})\} * 10000 / 3.14159}</math>  <math>t = \sqrt{\{\text{LVAd}(\text{sax epi})\} * 10000 / 3.14159} - b</math>  <math>a = \{\text{TEa}(d)\} * 100</math>  <math>d = \{\text{TEd}(d)\} * 100</math>  Needs measurement: LVAd sax EPI [Mass] LVAd sax PM [Mass] TEa(d) [Mass] TEd(d) [Mass]</p>
<p>LVd Mass Index TE [Mass]  Mode: 2D  Formula: <math>m / \{\text{BSA}\}</math> where:  <math>m = 1.05 * 3.14159 * ((b+t)^2 * (2/3 * (a+t) + d - d^3 / (3 * (a+t)^2)) - b^2 * (2/3 * a + d - d^3 / (3 * a^2))) / 1000</math> where:  <math>b = \sqrt{\{\text{LVAd}(\text{sax PM})\} * 10000 / 3.14159}</math>  <math>t = \sqrt{\{\text{LVAd}(\text{sax epi})\} * 10000 / 3.14159} - b</math>  <math>a = \{\text{TEa}(d)\} * 100</math>  <math>d = \{\text{TEd}(d)\} * 100</math>  Needs measurement: LVAd sax EPI [Mass] LVAd sax PM [Mass] TEa(d) [Mass] TEd(d) [Mass]</p>
<p>LVEDV MOD BP [Biplane]  Mode: 2D:CF:VR2D  Formula: <math>\text{biplane}(\{\text{LVLd A4C}\}, \{\text{LVDisks}\}, \{\text{LVLd A2C}\}, \{\text{LVDisks}\})</math>  Needs measurement: LVLd A4C [Biplane], LVLd A2C [Biplane]  Measured by: EF Biplane [AUTOCALC]  Schiller, N.B., et al., "Recommendations for Quantification of the LV by Two-Dimensional Echocardiography, <i>J Am Soc Echo</i>, Sept-Oct 1989, Vol. 2, No. 5. p. 364.</p>
<p>LVEF BP-EL [Biplane Ellipse]  Mode: 2D:CF:VR2D  Formula: <math>(d-s)/d</math> where:  <math>s = (8 / (3 * 3.14159)) * \{\text{LVAs}(A4C)\} * \{\text{LVAs}(\text{sax MV})\} / \{\text{2D/LVIDs}\}</math>  <math>d = (8 / (3 * 3.14159)) * \{\text{LVAd A4C}\} * \{\text{LVAd}(\text{sax MV})\} / \{\text{LVIDd}\}</math>  Needs measurement: LVAd A4C [Biplane Ellipse], LVAd (sax MV) [Biplane Ellipse], LVIDd [Biplane Ellipse], LVAs A4C [Biplane Ellipse], LVAs sax MV [Biplane Ellipse], LVIDs [Biplane Ellipse]  Measured by: LVEF BP-EL [AUTOCALC]</p>

<p>LVEF Bullet [Bullet]  Mode: 2D:CF:VR2D  Formula: (d-s)/d where:  <math>s = 5/6 * \{LVAs(sax)\} * \{LVLs(apical)\}</math>  <math>d = 5/6 * \{LVAd sax)\} * \{LVLd apical\}</math>  Needs measurement: LVAd sax) [Bullet], LVLd apical [Bullet], LVLs apical [Bullet]  Measured by: LVEF Bullet [AUTOCALC]</p>
<p>LVEF MOD A2C [Biplane, Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: <math>\{ \{LVEDV MOD A2C\} - \{LVESV MOD A2C\} \} / \{LVEDV MOD A2C\}</math>  Needs measurement: LVEDV MOD A2C [Biplane, Single Plane A2C], LVESV MOD A2C [Biplane, Single Plane A2C]  Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C</p>
<p>LVEF MOD A4C [Biplane, Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: <math>\{ \{LVEDV MOD A4C\} - \{LVESV MOD A4C\} \} / \{LVEDV MOD A4C\}</math>  Needs measurement: LVEDV MOD A4C [Biplane, Single Plane A4C], LVESV MOD A4C [Biplane, Single Plane A4C]  Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C</p>
<p>LVEF MOD LAX [Single Plane LAX]  Mode: 2D:CF:VR2D  Formula: <math>\{ \{LVEDV MOD LAX\} - \{LVESV MOD LAX\} \} / \{LVEDV MOD LAX\}</math>  Needs measurement: LVEDV MOD LAX [Single Plane LAX], LVESV MOD LAX [Single Plane LAX]  Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC]</p>
<p>LVESV MOD BP [Biplane]  Mode: 2D:CF:VR2D  Formula: <math>biplane(\{LVLs A4C\}, \{LVDisks\}, \{LVLs A2C\}, \{LVDisks\})</math>  Needs measurement: LVLs A4C [Biplane], LVLs A2C [Biplane]  Measured by: EF Biplane [AUTOCALC]</p>
<p>LVIDd Index [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>\{LVIDd\} / \{BSA\}</math>  Needs measurement: LVIDd [Dimension],  Measured by: LVIDd [2DCALIPER]</p>
<p>LVIDd Index [Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>\{LVIDd\} / \{BSA\}</math>  Needs measurement: LVIDd [Dimension]  Measured by: LVIDd [MMDISCALIPER]</p>
<p>LVIDs Index [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>\{LVIDs\} / \{BSA\}</math>  Needs measurement: LVIDs [Dimension]  Measured by: LVIDs [2DCALIPER]</p>
<p>LVIDs Index [Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>\{LVIDs\} / \{BSA\}</math>  Needs measurement: LVIDs [Dimension]  Measured by: LVIDs [MMDISCALIPER]</p>

## Measurement and Assisting Tools

<p>LVOT Area [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>3.14/4*\{LVOT\ Diam\}^2</math>  Needs measurement: LVOT Diam [Dimension]  Measured by: LVOT Diam [2DCALIPER]</p>
<p>LVOT Diam [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: {LVOT Diam}  Needs measurement: LVOT Diam [Aortic]  Measured by: AP Area [SDMANTRACE] Used to calculate: AP Area</p>
<p>LVOT Diam [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: {LVOT Diam}  Needs measurement: LVOT Diam [Mitral Valve]  Measured by: MP Area [SDMANTRACE] Used to calculate: MP Area</p>
<p>LVOT VTI [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: {LVOT VTI}  Needs measurement: LVOT VTI [Aortic]  Measured by: AP Area [SDMANTRACE] Used to calculate: AP Area</p>
<p>LVOT VTI [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: {LVOT VTI}  Needs measurement: LVOT VTI [Mitral Valve]  Measured by: MP Area [SDMANTRACE] Used to calculate: MP Area</p>
<p>LVPEP/ET [Aortic]  Mode: CW:PW:VRCW:VRPW  Formula: {LVPEP}/{LVET}  Needs measurement: LVPEP [Aortic], LVET [Aortic]  Measured by: LVET [SDTIMECALIPER]</p>
<p>LVPEP/ET [Time]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: {LVPEP}/{LVET}  Needs measurement: LVPEP [Time], LVET [Time]  Measured by: LVET [MMTIMECALIPER]</p>
<p>LVs Mass (ASE) [Generic]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((1.04*((\{IVSs\}+\{LVIDs\}+\{LVPWs\})^3-\{LVIDs\}^3))*0.8+0.6)/1000</math>  Needs measurement: IVSs [Generic], LVIDs [Generic], LVPWs [Generic]  Measured by: LV Study [MMLV]</p>
<p>LVs Mass [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>((1.04*((\{IVSs\}+\{LVIDs\}+\{LVPWs\})^3-\{LVIDs\}^3))-13.6)/1000</math>  Needs measurement: IVSs [Dimension], LVIDs [Dimension], LVPWs [Dimension]  Measured by: LVPWs [2DCALIPER]</p>

<p>LVs Mass [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((1.04 * ((\{IVSs\} + \{LVIDs\} + \{LVPWs\})^3 - (\{LVIDs\})^3)) - 13.6) / 1000</math>  Needs measurement: IVSs [Generic, Dimension], LVIDs [Generic, Dimension], LVPWs [Generic, Dimension]  Measured by: LV Study [MMLV], LVPWs [MMDISCALIPER]</p>
<p>LVs Mass A-L [Mass]  Mode: 2D:CF:VR2D  Formula: <math>1.05 * 5/6 * (\{LVAs(sax\ epi)\} * (\{LVLs(apical)\} + t) - \{LVAs(sax\ PM)\} * \{LVLs(apical)\}) / 1000</math> where:  <math>t = \sqrt{(\{LVAs\ sax\ EPI\} / 3.14159) - \sqrt{(\{LVAs\ sax\ PM\} / 3.14159)}}</math>  Needs measurement: LVAs sax EPI [Mass], LVAs sax PM [Mass], LVLs apical [Mass]  Measured by: LVMass(s) [AUTOCALC]</p>
<p>LVs Mass Ind (ASE) [Generic]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((1.04 * ((\{IVSs\} + \{LVIDs\} + \{LVPWs\})^3 - (\{LVIDs\})^3)) * 0.8 + 0.6) / 1000 / \{BSA\}</math>  Needs measurement: IVSs [Generic], LVIDs [Generic], LVPWs [Generic]  Measured by: LV Study [MMLV]</p>
<p>LVs Mass Ind A-L [Mass]  Mode: 2D:CF:VR2D  Formula: <math>m / \{BSA\}</math> where:  <math>m = 1.05 * 5/6 * (\{LVAs(sax\ epi)\} * (\{LVLs(apical)\} + t) - \{LVAs(sax\ PM)\} * \{LVLs(apical)\}) / 1000</math>  <math>t = \sqrt{(\{LVAs\ sax\ EPI\} / 3.14159) - \sqrt{(\{LVAs\ sax\ PM\} / 3.14159)}}</math>  Needs measurement: LVAs sax EPI [Mass], LVAs sax PM [Mass], LVLs apical [Mass]  Measured by: LVMass(s) [AUTOCALC]</p>
<p>LVs Mass Index [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>m / \{BSA\}</math> where:  <math>m = ((1.04 * ((\{IVSs\} + \{LVIDs\} + \{LVPWs\})^3 - (\{LVIDs\})^3)) - 13.6) / 1000</math>  Needs measurement: IVSs [Dimension], LVIDs [Dimension], LVPWs [Dimension]  Measured by: LVPWs [2DCALIPER]</p>
<p>LVs Mass Index [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>((1.04 * ((\{IVSs\} + \{LVIDs\} + \{LVPWs\})^3 - (\{LVIDs\})^3)) - 13.6) / 1000 / \{BSA\}</math>  Needs measurement: IVSs [Generic, Dimension], LVIDs [Generic, Dimension], LVPWs [Generic, Dimension]  Measured by: LV Study [MMLV], LVPWs [MMDISCALIPER]</p>
<p>LVs Mass(TE) [Mass]  Mode: 2D  Formula: <math>1.05 * 3.14159 * ((b+t)^2 * (2/3 * (a+t) + d - d^3 / (3 * (a+t)^2)) - b^2 * (2/3 * a + d - d^3 / (3 * a^2))) / 1000</math> where:  <math>b = \sqrt{(\{LVAs(sax\ PM)\} * 10000 / 3.14159)}</math>  <math>t = \sqrt{(\{LVAs(sax\ epi)\} * 10000 / 3.14159) - b}</math>  <math>a = \{TEa(s)\} * 100</math>  <math>d = \{TED(s)\} * 100</math>  Needs measurement: LVAs sax EPI [Mass] LVAs sax PM [Mass] TEa(s) [Mass] TED(s) [Mass]</p>

<p>LVs Mass Index(TE) [Mass]  Mode: 2D  Formula: <math>m/\{BSA\}</math> where:  <math>m = 1.05 * 3.14159 * ((b+t)^2 * (2/3 * (a+t) + d - d^3 / (3 * (a+t)^2)) - b^2 * (2/3 * a + d - d^3 / (3 * a^2))) / 1000</math> where:  <math>b = \sqrt{\{LVAs(sax PM)\} * 10000 / 3.14159}</math>  <math>t = \sqrt{\{LVAs(sax epi)\} * 10000 / 3.14159} - b</math>  <math>a = \{TEa(s)\} * 100</math>  <math>d = \{TEd(s)\} * 100</math>  Needs measurement: LVAs sax EPI [Mass] LVAs sax PM [Mass] TEa(s) [Mass] TEd(s) [Mass]</p>
<p>LVSI Dopp [Aortic]  Mode: PW:VRPW  Formula: <math>\{LVOT Diam\}^2 * 0.785 * \{LVOT VTI\} / \{BSA\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic],  Measured by: LVOT Trace [SDMANTRACE]</p>
<p>LVSV Dopp [Aortic]  Mode: PW:VRPW  Formula: <math>\{LVOT Diam\}^2 * 0.785 * \{LVOT VTI\}</math>  Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic]  Measured by: LVOT Trace [SDMANTRACE]</p>
<p>MP Area [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{LVOT Diam\}^2 * 0.785 * (\{LVOT VTI\} / \{MP VTI\})</math>  Needs measurement: LVOT Diam [Mitral Valve], LVOT VTI [Mitral Valve], MP VTI [Mitral Valve]  Measured by: MP Area [SDMANTRACE]</p>
<p>MR ERO [PISA]  Mode: CF: CW:PW:VRCW:VRPW  Formula: <math>\{MR Flow\} / \{MR Vmax\}</math>  Needs measurement: MR Flow [PISA], MR Vmax [PISA]  Measured by: MR Trace [AUTOCALC]</p>
<p>MR RF [PISA]  Mode: CF: CW:PW:VRCW:VRPW  Formula: <math>\{MR RV\} / \{MV SV\}</math>  Needs measurement: MV Ann Diam [Dimension], MV Trace [Mitral Valve], MR Flow [PISA], MR Trace [PISA]  Measured by: MR RF [AUTOCALC]</p>
<p>MR RV [PISA]  Mode: CF: CW:PW:VRCW:VRPW  Formula: <math>\{MR Flow\} / \{MR Vmax\} * \{MR VTI\}</math>  Needs measurement: MR Flow [PISA], MR Vmax [PISA], MR VTI [PISA]  Measured by: MR Trace [AUTOCALC]</p>
<p>MV AccT/DecT [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{MV AccT\} / \{MV DecT\}</math>  Needs measurement: MV AccT [Mitral Valve], MV DecT [Mitral Valve]  Measured by: MV AccT [SDCALIPER]</p>
<p>MV Area [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>3.14 / 4 * \{MV Ann Diam\}^2</math>  Needs measurement: MV Ann Diam [Dimension]  Measured by: MV Ann Diam [2DCALIPER]</p>

<p>MV CI [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{MV \text{ Ann Diam}\}^2 * 0.785 * \{MV \text{ VTI}\} * \{HR\} / 60 / \{BSA\}</math>  Needs measurement: MV Ann Diam [Mitral Valve], MV VTI [Mitral Valve], HR [Mitral Valve]  Measured by: MV Trace [SDMANTRACE]</p>
<p>MV CO [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{MV \text{ Ann Diam}\}^2 * 0.785 * \{MV \text{ VTI}\} * \{HR\} / 60</math>  Needs measurement: MV Ann Diam [Mitral Valve], MV VTI [Mitral Valve], HR [Mitral Valve]  Measured by: MV Trace [SDMANTRACE]</p>
<p>MV E/A Ratio [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{MV \text{ E Vel}\} / \{MV \text{ A Vel}\}</math>  Needs measurement: MV E Vel [Mitral Valve], MV A Vel [Mitral Valve]  Measured by: MV A Vel [SDPTCALIPER], MV A Vel [AUTOCALC]</p>
<p>MV Reg Frac [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>(\{MV \text{ SV}\} - \{LVSV \text{ Dopp}\}) / \{MV \text{ SV}\}</math>  Needs measurement: MV Trace [Mitral Valve], MV Ann Diam [Dimension], LVOT Trace [Aortic], LVOT Diam [Dimension]  Measured by: MV Reg Frac [AUTOCALC]</p>
<p>MV SI [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{MV \text{ Ann Diam}\}^2 * 0.785 * \{MV \text{ VTI}\} / \{BSA\}</math>  Needs measurement: MV Ann Diam [Mitral Valve], MV VTI [Mitral Valve],  Measured by: MV Trace [SDMANTRACE]</p>
<p>MV SV [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{MV \text{ Ann Diam}\}^2 * 0.785 * \{MV \text{ VTI}\}</math>  Needs measurement: MV Ann Diam [Mitral Valve], MV VTI [Mitral Valve]  Measured by: MV Trace [SDMANTRACE]</p>
<p>MVA (VTI) [Mitral Valve]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14 / 4 * \{LVOT \text{ Diam}\}^2 * \{LVOT \text{ VTI}\} / \{MV \text{ VTI}\}</math>  Needs measurement: LVOT Diam [Mitral Valve], LVOT VTI [Mitral Valve], MV VTI [Mitral Valve]  Measured by: MV Trace [AUTOCALC]</p>
<p>MVA By PHT [Mitral Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>22 / (\{MV \text{ PHT}\})</math>  Needs measurement: MV PHT [Mitral Valve]  Measured by: MV E/A Velocity [SDEA3], MV PHT [SDCALIPER]  Hatle, L. et al, "Non-invasive Assessment of Atrioventricular Pressure Halftime by Doppler Ultrasound," <i>Circulation</i>, Vol. 60, 1979, pp 1096-1104.</p>
<p>P Vein S/D Ratio [Pulmonary Vein]  Mode: PW:VRPW  Formula: <math>\{P \text{ Vein S}\} / \{P \text{ Vein D}\}</math>  Needs measurement: P Vein S [Pulmonary Vein], P Vein D [Pulmonary Vein]  Measured by: P Vein D [SDPTCALIPER]</p>

<p>PAEDP [Pulmonic]  Mode: CW:PW:VRCW:VRPW  Formula: {PRend PG}+{RAP}  Needs measurement: PRend PG [Pulmonic], RAP [Pulmonic]  Measured by: PRend Vmax [AUTOCALC]</p>
<p>PR ERO [PISA]  Mode: CF:CW:PW:VRCW:VRPW  Formula: {PR Flow}/{PR Vmax}  Needs measurement: PR Flow [PISA], PR Vmax [PISA]  Measured by: PR Trace [AUTOCALC]</p>
<p>PR RV [PISA]  Mode: CF:CW:PW:VRCW:VRPW  Formula: {PR Flow}/{PR Vmax}*{PR VTI}  Needs measurement: PR Flow [PISA], PR Vmax [PISA], PR VTI [PISA]  Measured by: PR Trace [AUTOCALC]</p>
<p>Pulmonic CO [Shunts, Congenital Heart]  Mode: CW:PW:VRCW:VRPW  Formula: {Pulmonic SV}*{Pulmonic HR}/60  Needs measurement: Pulmonic SV [Shunts, Congenital Heart], Pulmonic HR [Shunts, Congenital Heart]  Measured by: Pulmonic VTI [SDMANTRACE]</p>
<p>Pulmonic SV [Shunts, Congenital Heart]  Mode: CW:PW:VRCW:VRPW  Formula: <math>3.14159/4 * \{Pulmonic\ Diam\}^2 * \{Pulmonic\ VTI\}</math>  Needs measurement: Pulmonic Diam [Shunts, Congenital Heart], Pulmonic VTI [Shunts, Congenital Heart]  Measured by: Pulmonic VTI [SDMANTRACE], Pulmonic VTI [SDMANTRACE] Used to calculate: Pulmonic CO  Hatle, Liv, Angelsen, Bjorn., <i>Doppler Ultrasound in Cardiology: Physical Principles and Clinical Applications</i>, ed. 2, Lea and Febiger, Philadelphia, Pennsylvania, 1985, p. 306.</p>
<p>PV A/MV A Dur [Pulmonary Vein]  Mode: PW:VRPW  Formula: {P Vein A Dur}/{MV A Dur}  Needs measurement: P Vein A Dur [Pulmonary Vein], MV A Dur [Pulmonary Vein]  Measured by: P Vein A Dur [SDTIMECALIPER]</p>
<p>PV A/MV VTI [Pulmonary Vein]  Mode: PW:VRPW  Formula: {P Vein A Dur}/{MV VTI}  Needs measurement: P Vein A Dur [Pulmonary Vein], MV VTI [Pulmonary Vein]  Measured by: P Vein A Dur [SDTIMECALIPER]</p>
<p>PV AccT/ET [Pulmonic]  Mode: CW:PW:VRCW:VRPW  Formula: {PV AccT}/{PVET}  Needs measurement: PV AccT [Pulmonic], PVET [Pulmonic]  Measured by: PVET [SDTIMECALIPER]</p>
<p>PV A-MV A Dur [Pulmonary Vein]  Mode: PW:VRPW  Formula: {P Vein A Dur}-{MV A Dur}  Needs measurement: P Vein A Dur [Pulmonary Vein], MV A Dur [Pulmonary Vein]  Measured by: P Vein A Dur [SDTIMECALIPER]</p>

<p>PV Area [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>3.14/4 * \{PV \text{ Ann Diam}\}^2</math>  Needs measurement: PV Ann Diam [Dimension]  Measured by: PV Ann Diam [2DCALIPER]</p>
<p>PV CI [Pulmonic, Valvular PS]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{((PV \text{ Ann Diam})^2 * 0.785 * \{PV \text{ VTI}\}) * \{HR\} / 60\} / \{BSA\}</math>  Needs measurement: PV Ann Diam [Pulmonic, Valvular PS], PV VTI [Pulmonic, Valvular PS], HR [Pulmonic, Valvular PS]  Measured by: PV Trace [SDMANTRACE]</p>
<p>PV CO [Pulmonic, Valvular PS]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{((PV \text{ Ann Diam})^2 * 0.785 * \{PV \text{ VTI}\}) * \{HR\} / 60\}</math>  Needs measurement: PV Ann Diam [Pulmonic, Valvular PS], PV VTI [Pulmonic, Valvular PS], HR [Pulmonic, Valvular PS]  Measured by: PV Trace [SDMANTRACE]</p>
<p>PV SI [Pulmonic, Valvular PS]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{((PV \text{ Ann Diam})^2 * 0.785 * \{PV \text{ VTI}\}) / \{BSA\}\}</math>  Needs measurement: PV Ann Diam [Pulmonic, Valvular PS], PV VTI [Pulmonic, Valvular PS]  Measured by: PV Trace [SDMANTRACE]  Gorge, G., et al., "High Resolution Two-dimensional Echocardiography Improves Quantification of Left Ventricular Function," <i>J Am Soc Echo</i>, 1992, Vol. 5, pp. 125-134.</p>
<p>PV SV [Pulmonic, Valvular PS]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{((PV \text{ Ann Diam})^2 * 0.785 * \{PV \text{ VTI}\})\}</math>  Needs measurement: PV Ann Diam [Pulmonic, Valvular PS], PV VTI [Pulmonic, Valvular PS]  Measured by: PV Trace [SDMANTRACE]</p>
<p>PVA (Vmax) [Pulmonic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{RVOT \text{ Diam}\}^2 * \{RVOT \text{ Vmax}\} / \{PV \text{ Vmax}\}</math>  Needs measurement: RVOT Diam [Pulmonic], RVOT Vmax [Pulmonic], PV Vmax [Pulmonic]  Measured by: PV Vmax [AUTOCALC]</p>
<p>PVA (Vmax) [Pulmonic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{RVOT \text{ Diam}\}^2 * \{RVOT \text{ Vmax}\} / \{PV \text{ Vmax}\}</math>  Needs measurement: RVOT Diam [Pulmonic], RVOT Vmax [Pulmonic], PV Vmax [Pulmonic]  Measured by: PV Trace [AUTOCALC]</p>
<p>PVA (VTI) [Pulmonic]  Mode: 2D:CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{RVOT \text{ Diam}\}^2 * \{RVOT \text{ VTI}\} / \{PV \text{ VTI}\}</math>  Needs measurement: RVOT Diam [Pulmonic], RVOT VTI [Pulmonic], PV VTI [Pulmonic]  Measured by: PV Trace [AUTOCALC]</p>
<p>Qp/Qs [Shunts, Congenital Heart]  Mode: CW:PW:VRCW:VRPW  Formula: <math>3.14159/4 * \{Pulmonic \text{ Diam}\}^2 * \{Pulmonic \text{ VTI}\} / (3.14159/4 * \{Systemic \text{ Diam}\}^2 * \{Systemic \text{ VTI}\})</math>  Needs measurement: Pulmonic Diam [Shunts, Congenital Heart], Pulmonic VTI [Shunts, Congenital Heart], Systemic Diam [Shunts, Congenital Heart], Systemic VTI [Shunts, Congenital Heart]  Measured by: Qp/Qs [AUTOCALC]</p>

<p>RIMP [Pulmonic, Tricuspid Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\frac{\{TCO\}-\{PVET\}}{\{PVET\}}</math>  Needs measurement: TCO [Pulmonic, Tricuspid Valve], PVET [Pulmonic, Tricuspid Valve], PVET [Pulmonic, Tricuspid Valve]  Measured by: RIMP [AUTOCALC]</p>
<p>RVOT Area [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>3.14/4*\{RVOT\ Diam\}^2</math>  Needs measurement: RVOT Diam [Dimension]  Measured by: RVOT Diam [2DCALIPER]</p>
<p>RVOT CI [Pulmonic, Valvular PS]  Mode: PW:VRPW  Formula: <math>\frac{(\{RVOT\ Diam\}^2*0.785*\{RVOT\ VTI\})*(HR)/60}{\{BSA\}}</math>  Needs measurement: RVOT Diam [Pulmonic, Valvular PS], RVOT VTI [Pulmonic, Valvular PS], HR [Pulmonic, Valvular PS],  Measured by: RVOT Trace [SDMANTRACE]</p>
<p>RVOT CO [Pulmonic, Valvular PS]  Mode: PW:VRPW  Formula: <math>\{RVOT\ Diam\}^2*0.785*\{RVOT\ VTI\}*HR/60</math>  Needs measurement: RVOT Diam [Pulmonic, Valvular PS], RVOT VTI [Pulmonic, Valvular PS], HR [Pulmonic, Valvular PS]  Measured by: RVOT Trace [SDMANTRACE]</p>
<p>RVOT SI [Pulmonic, Valvular PS]  Mode: PW:VRPW  Formula: <math>\frac{\{RVOT\ Diam\}^2*0.785*\{RVOT\ VTI\}}{\{BSA\}}</math>  Needs measurement: RVOT Diam [Pulmonic, Valvular PS], RVOT VTI [Pulmonic, Valvular PS],  Measured by: RVOT Trace [SDMANTRACE]</p>
<p>RVOT SV [Pulmonic, Valvular PS]  Mode: PW:VRPW  Formula: <math>\{RVOT\ Diam\}^2*0.785*\{RVOT\ VTI\}</math>  Needs measurement: RVOT Diam [Pulmonic, Valvular PS], RVOT VTI [Pulmonic, Valvular PS]  Measured by: RVOT Trace [SDMANTRACE]</p>
<p>RVPEP/ET [Pulmonic]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\frac{\{RVPEP\}}{\{RVET\}}</math>  Needs measurement: RVPEP [Pulmonic], RVET [Pulmonic]  Measured by: RVET [SDTIMECALIPER]</p>
<p>RVPEP/ET [Time]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>\frac{\{RVPEP\}}{\{RVET\}}</math>  Needs measurement: RVPEP [Time], RVET [Time]  Measured by: RVET [MMTIMECALIPER]</p>
<p>RVSP [Tricuspid Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{TR\ maxPG\}+\{RAP\}</math>  Needs measurement: TR maxPG [Tricuspid Valve], RAP [Tricuspid Valve]  Measured by: TR Vmax [AUTOCALC]</p>

<p>SI A-L A2C [Biplane, Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: <math>\frac{({LVEDV A-L A2C}) - ({LVESV A-L A2C})}{{BSA}}</math>  Needs measurement: LVEDV A-L A2C [Biplane, Single Plane A2C], LVESV A-L A2C [Biplane, Single Plane A2C]  Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C</p>
<p>SI A-L A4C [Biplane, Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: <math>\frac{({LVEDV A-L A4C}) - ({LVESV A-L A4C})}{{BSA}}</math>  Needs measurement: LVEDV A-L A4C [Biplane, Single Plane A4C], LVESV A-L A4C [Biplane, Single Plane A4C]  Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C</p>
<p>SI A-L LAX [Single Plane LAX]  Mode: 2D:CF:VR2D  Formula: <math>\frac{({LVEDV A-L LAX}) - ({LVESV A-L LAX})}{{BSA}}</math>  Needs measurement: LVEDV A-L LAX [Single Plane LAX], LVESV A-L LAX [Single Plane LAX]  Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC]</p>
<p>SI Biplane [Biplane]  Mode: 2D:CF:VR2D  Formula: <math>d = \text{biplane}({LVLd A4C}, {LVD\text{Disks}}, {LVLd A2C}, {LVD\text{Disks}})</math>  Needs measurement: LVLd A4C [Biplane], LVLd A2C [Biplane], LVLs A4C [Biplane], LVLs A2C [Biplane]  Measured by: EF Biplane [AUTOCALC]</p>
<p>SI bp el [Biplane Ellipse]  Mode: 2D:CF:VR2D  Formula: <math>(d-s)/{BSA}</math> where:  <math>s = (8/(3*3.14159))*{LVAs(A4C)}*{LVAs(sax MV)}/{2D/LVIDs}</math>  <math>d = (8/(3*3.14159))*{LVAd A4C}*{LVAd (sax MV)}/{LVIDd}</math>  Needs measurement: LVAd A4C [Biplane Ellipse], LVAd (sax MV) [Biplane Ellipse], LVIDd [Biplane Ellipse], LVAs A4C [Biplane Ellipse], LVAs sax MV [Biplane Ellipse], LVIDs [Biplane Ellipse]  Measured by: LVEF BP-EL [AUTOCALC]</p>
<p>SI bullet [Bullet]  Mode: 2D:CF:VR2D  Formula: <math>(d-s)/{BSA}</math> where:  <math>s = 5/6*{LVAs(sax)}*{LVLs(apical)}</math>  <math>d = 5/6*{LVAd sax}*{LVLd apical}</math>  Needs measurement: LVAd sax [Bullet], LVLd apical [Bullet], LVLs apical [Bullet],  Measured by: LVEF Bullet [AUTOCALC]</p>
<p>SI MOD A2C [Biplane, Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: <math>\frac{({LVEDV MOD A2C}) - ({LVESV MOD A2C})}{{BSA}}</math>  Needs measurement: LVEDV MOD A2C [Biplane, Single Plane A2C], LVESV MOD A2C [Biplane, Single Plane A2C]  Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C</p>
<p>SI MOD A4C [Biplane, Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: <math>\frac{({LVEDV MOD A4C}) - ({LVESV MOD A4C})}{{BSA}}</math>  Needs measurement: LVEDV MOD A4C [Biplane, Single Plane A4C], LVESV MOD A4C [Biplane, Single Plane A4C]  Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C</p>

<p>SI MOD LAX [Single Plane LAX]  Mode: 2D:CF:VR2D  Formula: <math>(\{LVEDV \text{ MOD LAX}\} - \{LVESV \text{ MOD LAX}\}) / \{BSA\}</math>  Needs measurement: LVEDV MOD LAX [Single Plane LAX], LVESV MOD LAX [Single Plane LAX]  Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC]</p>
<p>SI mod sim [Modified Simpson]  Mode: 2D:CF:VR2D  Formula: <math>d - s / \{BSA\}</math> where:  <math>s = (\{LVLs(\text{apical})\} / 9) * ((4 * \{LVAs(\text{sax MV})\}) + (2 * \{LVAs(\text{sax PM})\}) + \sqrt{\{LVAs(\text{sax MV})\} * \{LVAs(\text{sax PM})\}})</math>  <math>d = (\{LVLd \text{ apical}\} / 9) * ((4 * \{LVAd (\text{sax MV})\}) + (2 * \{LVAd \text{ sax PM}\}) + \sqrt{\{LVAd (\text{sax MV})\} * \{LVAd \text{ sax PM}\}})</math>  Needs measurement: LVLd apical [Modified Simpson], LVAd (sax MV) [Modified Simpson], LVAd sax PM [Modified Simpson], LVLs apical [Modified Simpson], LVAs sax MV [Modified Simpson], LVAs sax PM [Modified Simpson]  Measured by: EF mod sim [AUTOCALC]  Gorge, G., et al., "High Resolution Two-dimensional Echocardiography Improves Quantification of Left Ventricular Function," <i>J Am Soc Echo</i>, 1992, Vol. 5, pp. 125-134.</p>
<p>SI(A-L) [Generic]  Mode: 2D:CF:VR2D  Formula: <math>(\{EDV(A-L)\} - \{ESV(A-L)\}) / \{BSA\}</math>  Needs measurement: ESV(A-L) [Generic]  Measured by: EF Volume [AUTOCALC]</p>
<p>SI(Cube) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: <math>(d - s) / \{BSA\}</math> where: <math>s = \{2D/LVIDs\}^3</math> <math>d = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz]  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>SI(Cube) [Generic]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>(dv - sv) / \{BSA\}</math> where: <math>sv = \{MM/LVIDs\}^3</math> <math>dv = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Generic], LVIDs [Generic],  Measured by: LV Study [MMLV]</p>
<p>SI(MOD) [Generic]  Mode: 2D:CF:VR2D  Formula: <math>(\{EDV(MOD)\} - \{ESV(MOD)\}) / \{BSA\}</math>  Needs measurement: EDV(MOD) [Generic], ESV(MOD) [Generic]  Measured by: EF Volume [AUTOCALC]</p>
<p>SI(Teich) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: <math>(d - s) / \{BSA\}</math> <math>s = 7 / (2.4 + \{2D/LVIDs\}) * \{2D/LVIDs\}^3</math> <math>d = 7 / (2.4 + \{LVIDd\}) * \{LVIDd\}^3</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz]  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>SI(Teich) [Generic]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>(dv - sv) / \{BSA\}</math> where:  <math>sv = 7 / (2.4 + \{MM/LVIDs\}) * \{MM/LVIDs\}^3</math> <math>dv = 7 / (2.4 + \{LVIDd\}) * \{LVIDd\}^3</math>  Needs measurement: LVIDd [Generic], LVIDd [Generic], LVIDs [Generic]  Measured by: LV Study [MMLV]</p>

<p>SV A-L A2C [Biplane, Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: {LVEDV A-L A2C}-{LVESV A-L A2C}  Needs measurement: LVEDV A-L A2C [Biplane, Single Plane A2C], LVESV A-L A2C [Biplane, Single Plane A2C]  Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C</p>
<p>SV A-L A4C [Biplane, Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: {LVEDV A-L A4C}-{LVESV A-L A4C}  Needs measurement: LVEDV A-L A4C [Biplane, Single Plane A4C], LVESV A-L A4C [Biplane, Single Plane A4C]  Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C</p>
<p>SV A-L LAX [Single Plane LAX]  Mode: 2D:CF:VR2D  Formula: {LVEDV A-L LAX}-{LVESV A-L LAX}  Needs measurement: LVEDV A-L LAX [Single Plane LAX], LVESV A-L LAX [Single Plane LAX]  Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC]</p>
<p>SV Biplane [Biplane]  Mode: 2D:CF:VR2D  Formula: <math>d = \text{biplane}(\{LVLd A4C\}, \{LVDisks\}, \{LVLd A2C\}, \{LVDisks\})</math>  Needs measurement: LVLd A4C [Biplane], LVLd A2C [Biplane], LVLs A4C [Biplane], LVLs A2C [Biplane]  Measured by: EF Biplane [AUTOCALC]</p>
<p>SV bp el [Biplane Ellipse]  Mode: 2D:CF:VR2D  Formula: <math>d = (8/(3^3 \cdot 14159)) * \{LVAd A4C\} * \{LVAd (sax MV)\} / \{LVIDd\}</math>  Needs measurement: LVAd A4C [Biplane Ellipse], LVAd (sax MV) [Biplane Ellipse], LVIDd [Biplane Ellipse], LVAs A4C [Biplane Ellipse], LVAs sax MV [Biplane Ellipse], LVIDs [Biplane Ellipse]  Measured by: LVEF BP-EL [AUTOCALC]</p>
<p>SV bullet [Bullet]  Mode: 2D:CF:VR2D  Formula: d-s where:  <math>s = 5/6 * \{LVAs(sax)\} * \{LVLs(apical)\}</math>  <math>d = 5/6 * \{LVAd sax)\} * \{LVLd apical\}</math>  Needs measurement: LVAd sax) [Bullet], LVLd apical [Bullet], LVLs apical [Bullet]  Measured by: LVEF Bullet [AUTOCALC]</p>
<p>SV MOD A2C [Biplane, Single Plane A2C]  Mode: 2D:CF:VR2D  Formula: {LVEDV MOD A2C}-{LVESV MOD A2C}  Needs measurement: LVEDV MOD A2C [Biplane, Single Plane A2C], LVESV MOD A2C [Biplane, Single Plane A2C]  Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C</p>
<p>SV MOD A4C [Biplane, Single Plane A4C]  Mode: 2D:CF:VR2D  Formula: {LVEDV MOD A4C}-{LVESV MOD A4C}  Needs measurement: LVEDV MOD A4C [Biplane, Single Plane A4C], LVESV MOD A4C [Biplane, Single Plane A4C]  Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C</p>

<p>SV MOD LAX [Single Plane LAX]  Mode: 2D:CF:VR2D  Formula: {LVEDV MOD LAX}-{LVESV MOD LAX}  Needs measurement: LVEDV MOD LAX [Single Plane LAX], LVESV MOD LAX [Single Plane LAX]  Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC]</p>
<p>SV mod sim [Modified Simpson]  Mode: 2D:CF:VR2D  Formula: <math>(\{LVLd\ apical\} / 9) * ((4 * \{LVAd\ (sax\ MV)\}) + (2 * \{LVAd\ sax\ PM\}) + \sqrt{\{LVAd\ (sax\ MV)\} * \{LVAd\ sax\ PM\}})</math>  Needs measurement: LVLd apical [Modified Simpson], LVAd (sax MV) [Modified Simpson], LVAd sax PM [Modified Simpson], LVLs apical [Modified Simpson], LVAs sax MV [Modified Simpson], LVAs sax PM [Modified Simpson]  Measured by: EF mod sim [AUTOCALC]  Pombo, J.F., "Left Ventricular Volumes and Ejection by Echocardiography," <i>Circulation</i> 1971, Vol 43, pp. 480-490</p>
<p>SV(A-L) [Generic]  Mode: 2D:CF:VR2D  Formula: {EDV(A-L)}-{ESV(A-L)}  Needs measurement: ESV(A-L) [Generic]  Measured by: EF Volume [AUTOCALC]</p>
<p>SV(Cube) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: d-s where: <math>s = \{2D/LVIDs\}^3</math> <math>d = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz]  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>SV(Cube) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: dv-sv where: <math>sv = \{MM/LVIDs\}^3</math> <math>dv = \{LVIDd\}^3</math>  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]  Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]</p>
<p>SV(MOD) [Generic]  Mode: 2D:CF:VR2D  Formula: {EDV(MOD)}-{ESV(MOD)}  Needs measurement: EDV(MOD) [Generic], ESV(MOD) [Generic]  Measured by: EF Volume [AUTOCALC]</p>
<p>SV(Teich) [Dimension, Cube/Teicholtz]  Mode: 2D:CF:VR2D  Formula: d-s where:  <math>s = 7 / (2.4 + \{2D/LVIDs\} * \{2D/LVIDs\}^3)</math>  <math>d = 7 / (2.4 + \{LVIDd\} * \{LVIDd\}^3)</math>  Needs measurement: LVIDd [Dimension, Cube/Teicholtz], LVIDs [Dimension, Cube/Teicholtz]  Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]</p>
<p>SV(Teich) [Generic, Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: dv-sv where:  <math>sv = 7 / (2.4 + \{MM/LVIDs\} * \{MM/LVIDs\}^3)</math>  <math>dv = 7 / (2.4 + \{LVIDd\} * \{LVIDd\}^3)</math>  Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]  Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]</p>

<p>Systemic CO [Shunts, Congenital Heart]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{\text{Systemic SV}\} \times \{\text{Systemic HR}\} / 60</math>  Needs measurement: Systemic SV [Shunts, Congenital Heart], Systemic HR [Shunts, Congenital Heart]  Measured by: Systemic VTI [SDMANTRACE]</p>
<p>Systemic SV [Shunts, Congenital Heart]  Mode: CW:PW:VRCW:VRPW  Formula: <math>3.14159/4 \times \{\text{Systemic Diam}\}^2 \times \{\text{Systemic VTI}\}</math>  Needs measurement: Systemic Diam [Shunts, Congenital Heart], Systemic VTI [Shunts, Congenital Heart]  Measured by: Systemic VTI [SDMANTRACE], Systemic VTI [SDMANTRACE] Used to calculate: Systemic CO  Calafiore P, MBBS, Stewart WJ, Doppler <i>Echocardiographic Quantitation of Volumetric Flow Rate</i>, Cardiology Clinics, vol. 8, No. 2, 1990</p>
<p>TR ERO [PISA]  Mode: CF:CW:PW:VRCW:VRPW  Formula: <math>\{\text{TR Flow}\} / \{\text{TR Vmax}\}</math>  Needs measurement: TR Flow [PISA], TR Vmax [PISA]  Measured by: TR Trace [AUTOCALC]</p>
<p>TR RV [PISA]  Mode: CF:CW:PW:VRCW:VRPW  Formula: <math>\{\text{TR Flow}\} / \{\text{TR Vmax}\} \times \{\text{TR VTI}\}</math>  Needs measurement: TR Flow [PISA], TR Vmax [PISA], TR VTI [PISA]  Measured by: TR Trace [AUTOCALC]</p>
<p>TV AccT/DecT [Tricuspid Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{\text{TV AccT}\} / \{\text{TV Dec Time}\}</math>  Needs measurement: TV AccT [Tricuspid Valve], TV Dec Time [Tricuspid Valve]  Measured by: TV AccT [SDCALIPER]</p>
<p>TV Area [Dimension]  Mode: 2D:CF:VR2D  Formula: <math>3.14/4 \times \{\text{TV Ann Diam}\}^2</math>  Needs measurement: TV Ann Diam [Dimension]  Measured by: TV Ann Diam [2DCALIPER]</p>
<p>TV CI [Tricuspid Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{(\{\text{TV Ann Diam}\}^2 \times 0.785 \times \{\text{TV VTI}\}) \times \{\text{HR}\} / 60\} / \{\text{BSA}\}</math>  Needs measurement: TV Ann Diam [Tricuspid Valve], TV VTI [Tricuspid Valve], HR [Tricuspid Valve]  Measured by: TV Trace [SDMANTRACE]  <i>The Merc Manual of Diagnosis and Therapy</i>, ed. 15, Robert Berkon, ed., Merck and Co., Rahway, NJ, 1987, p. 387  Schiller, N.B., et al., "Recommendations for Quantification of the LV by Two-Dimensional Echocardiography," <i>J Am Soc Echo</i>, Sept-Oct 1989, Vol. 2, No. 5. p. 364.</p>
<p>TV CO [Tricuspid Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{(\{\text{TV Ann Diam}\}^2 \times 0.785 \times \{\text{TV VTI}\}) \times \{\text{HR}\} / 60\}</math>  Needs measurement: TV Ann Diam [Tricuspid Valve], TV VTI [Tricuspid Valve], HR [Tricuspid Valve]  Measured by: TV Trace [SDMANTRACE]  Calafiore P, Stewart W.J., "Doppler Echocardiographic Quantitation of Volumetric Flow Rate," <i>Cardiology Clinics</i>, May 1990, Vol. 8, No. 2, pp. 191-202.</p>

<p>TV E/A Ratio [Tricuspid Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{\text{TV E Vel}\}/\{\text{TV A Vel}\}</math>  Needs measurement: TV E Vel [Tricuspid Valve], TV A Vel [Tricuspid Valve]  Measured by: TV A Vel [SDPTCALIPER]</p>
<p>TV SI [Tricuspid Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>(\{\text{TV Ann Diam}\}^2 * 0.785 * \{\text{TV VTI}\}) / \{\text{BSA}\}</math>  Needs measurement: TV Ann Diam [Tricuspid Valve], TV VTI [Tricuspid Valve]  Measured by: TV Trace [SDMANTRACE]</p>
<p>TV SV [Tricuspid Valve]  Mode: CW:PW:VRCW:VRPW  Formula: <math>\{\text{TV Ann Diam}\}^2 * 0.785 * \{\text{TV VTI}\}</math>  Needs measurement: TV Ann Diam [Tricuspid Valve], TV VTI [Tricuspid Valve]  Measured by: TV Trace [SDMANTRACE]</p>
<p>TVA (Vmax) [Tricuspid Valve]  Mode: 2D: CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{\text{RVOT Diam}\}^2 * \{\text{RVOT Vmax}\} / \{\text{TV Vmax}\}</math>  Needs measurement: RVOT Diam [Tricuspid Valve], RVOT Vmax [Tricuspid Valve], TV Vmax [Tricuspid Valve]  Measured by: TV Vmax [AUTOCALC]</p>
<p>TVA (Vmax) [Tricuspid Valve]  Mode: 2D: CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{\text{RVOT Diam}\}^2 * \{\text{RVOT Vmax}\} / \{\text{TV Vmax}\}</math>  Needs measurement: RVOT Diam [Tricuspid Valve], RVOT Vmax [Tricuspid Valve], TV Vmax [Tricuspid Valve]  Measured by: TV Trace [AUTOCALC]</p>
<p>TVA (VTI) [Tricuspid Valve]  Mode: 2D: CW:PW:VRCW:VRPW  Formula: <math>3.14/4 * \{\text{RVOT Diam}\}^2 * \{\text{RVOT VTI}\} / \{\text{TV VTI}\}</math>  Needs measurement: RVOT Diam [Tricuspid Valve], RVOT VTI [Tricuspid Valve], TV VTI [Tricuspid Valve]  Measured by: TV Trace [AUTOCALC]</p>
<p>Vcf mean [Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>(\{\text{LVIDd}\} - \{\text{LVIDs}\}) / (\{\text{LVIDd}\} * \{\text{LVET}\})</math>  Needs measurement: LVIDd [Dimension], LVIDs [Dimension], LVET [Dimension]  Measured by: Vcf [MMTIMECALIPER]</p>
<p>Vcf mn (corr) [Dimension]  Mode: MM:CM:AMM:CAMM:VRMM  Formula: <math>(\{\text{LVIDd}\} - \{\text{LVIDs}\}) / (\{\text{LVIDd}\} * \{\text{LVET}\} / \sqrt{\{\text{Time}\}})</math>  Needs measurement: LVIDd [Dimension], LVIDs [Dimension], LVET [Dimension], Time [Dimension]  Measured by: Vcf [MMTIMECALIPER]</p>

**NOTE:** *VR in the Mode line stands for DICOM data type - Value Representation. When a DICOM image is imported from a non-GE system it will be marked as VR.*

## Calculations used in shock assessment auto-tools

### AutoVTI Tool

$$\text{CO}[\text{liter}/\text{min.}] = \text{VTI}[\text{cm}] \times \text{LVOT CSA}[\text{cm}^2] \times \text{HR}/1000$$

$$\text{LVOT CSA} = \pi r^2 = 0.785 \times (\text{LVOTdiam})^2$$

$$\text{SV}[\text{liter}/\text{min.}] = \text{CO}/\text{HR} = \text{VTI}[\text{cm}] \times \text{LVOT CSA}[\text{cm}^2] / 1000$$

$$\text{CO Flux} [\text{cm}/\text{min}] = \text{CO} / \text{LVOT CSA} = (\text{VTI}[\text{cm}] * \text{LVOT\_CSA} [\text{cm}^2] * \text{HR}) / \text{LVOT\_CSA} [\text{cm}^2] = \text{VTI}[\text{cm}] * \text{HR}[\text{BPM}]$$

### Definitions

CO = Cardiac output

VTI = Velocity time integral

LVOT CSA = Left ventricle output cross-sectional area

SV = Stroke Volume

CI = Cardiac index = CO/BSA

BSA = Body surface area

CO Flux = a measure characterizing cardiac output flow normalized to the LVOT size. Since LVOT size is proportional to patient size, the CO Flux is CO normalized to patient size.

### AutoIVC Tool

$$\text{CI} = 100 \times (1 - \text{Dmin}/\text{Dmax}) [\%]$$

$$\text{DI} = 100 \times (\text{Dmax}/\text{Dmin} - 1) [\%]$$

### Definitions

DI = IVC distensibility index

CI = IVC contractility index

### Articles

**Predicting and measuring fluid responsiveness with echocardiography** Ashley Miller MBChB FRCA FFICM1 and Justin Mandeville MB BS BSc MRCP FRCA FFICM

**Inferior vena cava distensibility index predicting fluid responsiveness in ventilated patients** L Luja Veras et al.

**Left ventricular outflow tract velocity time integral outperforms ejection fraction and Doppler-derived cardiac**

**output for predicting outcomes in a select advanced heart failure cohort** Christina Tan, David Rubenson, Ajay Srivastava, Rajeev Mohan, Michael R. Smith, Kristen Billick, Samuel Bardarian and J. Thomas Heywood

**Ultrasound assessment of lung aeration loss during a successful weaning trial predicts postextubation distress** Alexis Soummer, MD; Sébastien Perbet, MD; Hélène Brisson, MD; Charlotte Arbelot, MD; Jean-Michel Constantin, MD, PhD; Qin Lu, MD, PhD; Jean-Jacques Rouby, MD, PhD; and the Lung UltraSound study group

**Automated B-Line Scoring on Thoracic Sonography** Laura J. Brattain, MS, Brian A. Telfer, PhD, Andrew S. Liteplo, MD, Vicki E. Noble, MD

**Formulas–Vascular**

**Vascular Calculation Formulas**

Calc Mnemonic	Calc Name	Input Measurements Formula
RT ECA Prox/mid/distal	Right External Carotid Artery Velocity	one Doppler blood flow peak velocity  RT ECA=v1[cm/s or m/s]
RT CCA Prox/mid/distal	Right Common Carotid Artery Velocity	one Doppler blood flow peak velocity  RT CCA=v1[cm/s or m/s]
RT ICA Prox/mid/distal	Right Internal Carotid Artery Velocity	one Doppler blood flow peak velocity  RT ICA=v1[cm/s or m/s]
LT ECA, LT CCA, LT, LT ICA Prox/mid/distal	Same as above, for Left Carotid Artery	Same as above
A/B Ratio	Velocities Ratio	two Doppler blood flow peak velocities  $A/B=V_1/V_2$
% Stenosis	Stenosis Ratio	two areas (by ellipse, trace, circle or distance)  $\% \text{ Stenosis}=[1-(A_{\text{residual}}/ A_{\text{lumen}})] \times 100$
S/D Ratio	Systolic Velocity/Diastolic Velocities Ratio	two Doppler blood flow peak velocities  $S/D=V_{\text{systole}}/V_{\text{diastole}}^a$
PI	Pulsatility Index	two Doppler blood flow peak velocities and TAMAX  $PI=(V_{\text{max}}-V_{\text{diastole}})/TAMAX^a$
RI	Resistivity Index	two Doppler blood flow peak velocities  $RI=(V_{\text{max}}-V_{\text{diastole}})/V_{\text{max}}^a$
HR	Heart Rate (beats/minute)	one 2 beat time interval (measured manually or automatically)  $HR[\text{BPM}]=120[\text{sec}]/2 \text{ beat time}[\text{sec}]$
<sup>a)</sup> $V_{\text{diastole}} = V_{\text{min}}$ or $V_{\text{end-diastole}}$ (depends on preset selection)		

**Formulas–OB**

**OB Calculation Formulas**

Calc Mnemonic	Calc Name	Input Measurements Formula	Author Reference
AC	Abdominal Circumference	circumference by trace, ellipse, circle or two distances $AC=13.3+1.61 (GA) -0.00998 (GA)^2$	Hadlock et al, Radiology, 152:497-501, 1984
BPD	Biparietal Diameter	one distance $BPD = -3.08+0.41 (GA) - 0.000061 (GA)^3$	
CRL	Crown Rump Length	one distance $CRL=1.684969+ 0.315646xd1+ 0.049306xd1^2+ 0.004057xd1^3+ 0.000120456xd1^4$	
FL	Femur Length	one distance $FL = -3.91 + 0.427 (GA) - 0.0034 (GA)^2$	
GS	Gestational Sac	three distances $GS [wk] = 1.42450142 * (d1+d2+d3)/3+ 3.6225$	
HC	Head Circumference	circumference by trace, ellipse, circle or two distances $HC=-11.48 + 1.56 (GA) - 0.0002548 (GA)^3$	

Calc Mnemonic	Calc Name	Input Measurements Formula	Author Reference
HC	Head Circumference	one ellipse $HC [mm] = 2.325 * (BPD [mm]^2 + OFD [mm]^2)^{0.5}$	Hansmann, Ultrasound Diagnosis in Obstetrics and Gynecology 438-9, 1985

**CUA Hadlock Formulas**

Calc Mnemonic	Calc Name	Formula
CUA <sup>a</sup>	Composite Ultrasound Age	<ol style="list-style-type: none"> <li>1. <math>CUA (BPD) = 9.54 + 1.482 * BPD + 0.1676 * BPD^2</math></li> <li>2. <math>CUA (HC) = 8.96 + 0.540 * HC + 0.0003 * HC^3</math></li> <li>3. <math>CUA (AC) = 8.14 + 0.753 * AC + 0.0036 * AC^2</math></li> <li>4. <math>CUA (FL) = 10.35 + 2.460 * FL + 0.170 * FL^2</math></li> <li>5. <math>CUA (BPD, HC) = 10.32 + 0.009 * HC^2 + 1.3200 * BPD + 0.00012 * HC^3</math></li> <li>6. <math>CUA (BPD, AC) = 9.57 + 0.524 * AC + 0.1220 * BPD^2</math></li> <li>7. <math>CUA (BPD, FL) = 10.50 + 0.197 * BPD * FL + 0.9500 * FL + 0.7300 * BPD</math></li> <li>8. <math>CUA (HC, AC) = 10.31 + 0.012 * HC^2 + 0.3850 * AC</math></li> <li>9. <math>CUA (HC, FL) = 11.19 + 0.070 * HC * FL + 0.2630 * HC</math></li> <li>10. <math>CUA (AC, FL) = 10.47 + 0.442 * AC + 0.3140 * FL^2 - 0.0121 * FL^3</math></li> <li>11. <math>CUA (BPD, HC, AC) = 10.58 + 0.005 * HC^2 + 0.3635 * AC + 0.02864 * BPD * AC</math></li> <li>12. <math>CUA (BPD, HC, FL) = 11.38 + 0.070 * HC * FL + 0.9800 * BPD</math></li> <li>13. <math>CUA (BPD, AC, FL) = 10.61 + 0.175 * BPD * FL + 0.2970 * AC + 0.7100 * FL</math></li> <li>14. <math>CUA (HC, AC, FL) = 10.33 + 0.031 * HC * FL + 0.3610 * HC + 0.0298 * AC * FL</math></li> <li>15. <math>CUA (BPD, HC, AC, FL) = 10.85 + 0.060 * HC * FL + 0.6700 * BPD + 0.1680 * AC</math></li> </ol>
Author Reference: Hadlock, Radiology, 1984 152:497-501		
<p><sup>a</sup>) Formulas are used only if Hadlock HC, FL, AC and BPD are used and CUA is selected as the preset in the CUA/AUA for Hadlock preset in the System M&amp;A Preset Menu. If other authors are used, CUA automatically changes to AUA and an average value is displayed.</p>		

**EFW Calculation Formulas**

Calc Mnemonic	Calc Name	Input Measurements Formula	Author Reference
EFW	Estimated Fetal Weight	AC and HC  $\text{EFW [kg]} = 10^{\wedge} (1.182 + (0.0273 * \text{HC [cm]}) + (0.07057 * \text{AC [cm]} - (0.00063 * \text{AC [cm]}^2) - (0.0002184 * \text{AC [cm]} * \text{HC [cm]}))$	Hadlock, Radiology, 150:535, 1984
EFW	Estimated Fetal Weight	BPD, AC, and FL  $\text{EFW [g]} = 10^{\wedge} (1.335 - (0.0034 * \text{AC [cm]} * \text{FL [cm]}) + (0.0316 * \text{BPD [cm]}) + (0.0457 * \text{AC [cm]}) + (0.1623 * \text{FL [cm]})$	Hadlock, AJOG, 151:333, 1985
EFW	Estimated Fetal Weight	AC, HC, and FL  $\text{EFW [g]} = 10^{\wedge} (1.326 - (0.00326 * \text{AC [cm]} * \text{FL [cm]}) + (0.0107 * \text{HC [cm]}) + (0.0438 * \text{AC [cm]}) + (0.158 * \text{FL [cm]})$	Hadlock, AJOG, 151:333, 1985
EFW	Estimated Fetal Weight	AC, HC, BPD, FL  $\text{EFW [g]} = 10^{\wedge} (1.3596 - (0.00386 * \text{AC [cm]} * \text{FL [cm]}) + (0.0064 * \text{HC [cm]}) + (0.00061 * \text{BPD [cm]} * \text{AC [cm]}) + (0.0424 * \text{AC [cm]}) + (0.174 * \text{FL [cm]})$	Hadlock, AJOG, 151:333, 1985

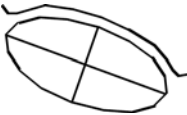
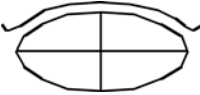
Calc Mnemonic	Calc Name	Input Measurements Formula	Author Reference
EFW	Estimated Fetal Weight	AC and FL  $\text{EFW [g]} = 10^{\wedge} (1.304 + 0.05281 * \text{AC [cm]} + 0.1938 * \text{FL [cm]} - 0.004 * \text{AC [cm]} * \text{FL [cm]})$	Hadlock, Radiology, 150:535, 1984
EFW	Estimated Fetal Weight	$\text{EFW [g]} = -3200.40479 + 157.07186 * \text{AC [cm]} + 15.90391 * \text{BPD [cm]}^2$	Merz
EFW	Estimated Fetal Weight	$\text{EFW [g]} = 0.515263 - 0.105775 * \text{BPD [mm]} + (0.000930707 * \text{BPD [mm]}^2 + 0.0649145 * \text{TAD [mm]} - 0.00020562 * \text{TAD [mm]}^2$	German
EFW	Estimated Fetal Weight	AC and BPD  $\text{EFW [kg]} = 10^{\wedge} (-1.7492 + 0.166 * \text{BPD [cm]} + 0.046 * \text{AC [cm]} - 2.646 * \text{AC [cm]} * \text{BPD [cm]} / 1000)$	Shepard, AJOG, 142:47, 1982

Calc Mnemonic	Calc Name	Input Measurements Formula	Author Reference
EFW	Estimated Fetal Weight	BPD [cm] and AC [cm]  $EFW [g] = 10^{(1.7288+0.09184 * BPD [cm] + 0.02581 * AC [cm] + 0.00011 * BPD [cm] * AC [cm])}$	Shepard/Warsoff
EFW	Estimated Fetal Weight	BPD [cm] and AC [cm]  $EFW [g] = 10^{(3-1.7492 + (0.166 * BPD [cm]) + (0.04 * A [cm]) - (0.002646 * AC [cm] * BPD [cm]))}$	Richards/Berkowitz
EFW	Estimated Fetal Weight	EFW [g] = 1.07 * BPD [cm]^3 + 3.42 * APTD [cm] * TTD [cm] * FL [cm]	Tokyo University

Calc Mnemonic	Calc Name	Input Measurements Formula	Author Reference
EFW	Estimated Fetal Weight	BPD, AxT, FL [cm]  $EFW1 [g] = 1.07 * BPD [cm]^3 + 3.42 * AxT [cm]^2 * FL [cm]$	Tokyo Shinozuka
EFW	Estimated Fetal Weight	BPD, AC, FL [cm]  $EFW2 [g] = 1.07 * BPD [cm]^3 + 0.30 * AC [cm]^2 * FL [cm]$	Tokyo Shinozuka
EFW	Estimated Fetal Weight	BPD, AxT, LV [cm]  $EFW3 [g] = 1.07 * BPD [cm]^3 + 2.91 * AxT [cm]^2 * LV [cm]$	Tokyo Shinozuka

### Amniotic Fluid Index (AFI)

The normal values are considered to be:

<ul style="list-style-type: none"> <li>• 36-40 weeks</li> <li>• 0-5 cm = very low</li> <li>• 5.1-8.0 cm = low</li> <li>• 8.1-18.0 cm = normal</li> <li>• &gt;18.0 = high</li> </ul>	<p>Sagittal</p> 
<p>Dr. Rutherford/Dr. Phelan, <i>Obstetrics and Gynecology</i>, Volume 70, No. 3, Part 1, p.353-6, Sept. 1987.</p>	
<ul style="list-style-type: none"> <li>• 28-40 weeks</li> <li>• 15.0 cm = average</li> <li>• &gt;20.0 - 24.0 = hydramnios</li> <li>• &lt;5.0-6.0 = Oligohydramnios</li> </ul>	<p>Transverse</p> 
<p>Dr. C.C. Smith, <i>The Female Patient</i>, Volume 15, p.85-97, March 1990.</p>	

Formulas–GYN

GYN Calculation Formulas

Calc Mnemonic	Calc Name	Input Measurements	Formula
UT-L	Uterine Length	one distance	Ut-L[cm or mm]=d1
UT-H	Uterine Height	one distance	Ut-H[cm or mm]=d1
UT-W	Uterine Width	one distance	Ut-W[cm or mm]=d1
UT-Volume	Uterine Volume		
Endo	Endometrium Thickness	one distance	Endo[cm or mm]=d1
Lt. Ov-L	Left Ovarian Length	one distance	Lt. Ov-L[cm or mm]=d1
Lt. Ov-H	Left Ovarian Height	one distance	Lt. Ov-H[cm or mm]=d1
Lt. Ov-W	Left Ovarian Width	one distance	Lt. Ov-W[cm or mm]=d1
Lt. Ov-Volume	Left Ovarian Volume		
Rt. Ov-L	Right Ovarian Length	one distance	Rt. Ov-L[cm or mm]=d1
Rt. Ov-H	Right Ovarian Height	one distance	Rt. Ov-H[cm or mm]=d1
Rt. Ov-W	Right Ovarian Width	one distance	Rt. Ov-W[cm or mm]=d1
Rt. Ov-Volume	Right Ovarian Volume		
LtOvFo[ml]	Left Ovary Follicles	Three distances	$D1[cm] \times D2[cm] \times D3[cm] \times p/6$
RtOvFo[ml]	Right Ovary Follicles		$D1[cm] \times D2[cm]^2 \times p/6$ : (D2 < D1)
		Three distances	$D1[cm] \times D2[cm] \times D3[cm] \times p/6$
<sup>a)</sup> $V_{diastole} = V_{min}$ or $V_{end-diastole}$ (depends on preset selection)			

# Measurement and Assisting Tools

## Accuracy

### General

When using the Measurement and Analysis (M&A) package, as well as assisting tools (like Needle guidance technology), it is important to keep in mind the different aspects that affect the accuracy of the measurements. These include acoustical properties, patient echogenicity, measurement tools and algorithms, scanner setup (especially Field-of-view or Range settings), probe type used, and operator inputs.

### Sources of error

#### Image Quality

The accuracy of each measurement is highly dependent on image quality. Image quality is highly dependent on system design, operator variability, and patient echogenicity. The operator variability and patient echogenicity are independent of the ultrasound system.

#### Operator variability

One of the largest potential sources of error is operator variability. A skilled operator can reduce this by optimizing the image quality for each type of measurement. Clear identification of structures, good probe alignment and correct cursor placement is important. Because of pixel resolution, the accuracy of a measurement decreases with decreasing distance on screen. Therefore it is important when scaling the object on the screen to avoid measuring objects that are too small.

*NOTE: See also 'Optimizing Measurement Accuracy' on page 1-55 for recommended techniques.*

### Image measurement

The accuracy in lateral direction is limited by the beam width and the beam positioning. The radial accuracy is mainly limited by the acoustic pulse length.

### Doppler alignment

Errors in velocity measurements increase with the cosine of the angle between the measured flow and the ultrasound beam. For example, an alignment error of 20 degrees, will give a 6% under-estimation of the velocities, while an error of 40 degrees will cause the under-estimation to be 24%. Optimize transducer position to align the beam with the flow direction.

*NOTE: If alignment is not possible, you may use the Angle Correction control to compensate if the flow direction is known.*

### Screen pixel resolution

The display screen is composed of an array of square picture elements (pixels). The smallest resolvable unit is +/- 1 pixel. This pixel error is only significant when measuring short distances on the screen. By observing good scanning practices, the settings of the field of view should be such that the measured distance covers a relatively large portion of the screen. When such scaling is impossible, the pixel error may come into play. The pixel error is +/- 0.2% of the full ultrasound area in the User Screen.

### Algorithms

Some formulae used in clinical calculations are based on assumptions or approximations. For example the volume calculations from 2D or M mode assume a certain, 'ideal' shape of the heart chamber, while the actual shape can vary quite much between individuals. Also, formulae taking several "raw" measurements as inputs are prone to increased errors, depending on the combination of input variable accuracies. For example, the Cardiac Output formula from Doppler is sensitive to errors in the entered Diameter, since this will be squared in the formula.

## **Speed of Sound in Tissue**

The average value 1540 meters / second is used for all calculations. Depending on the tissue structures, this generalization may give errors from 2% (typical) to 5% (much fatty tissue layers present).

## **Optimizing Measurement Accuracy**

### **Probe selection**

Select a transducer appropriate for the application, and optimize the transducer frequencies used. Higher imaging frequencies give better resolution, but less penetration than lower frequencies. Lower Doppler frequencies can measure higher max velocities, and at greater depths, but with less velocity resolution than higher Doppler frequencies.

### **Field of View**

All display modes should be adjusted so that the area of interest covers as large portion of the display as possible. Use **Depth**, **Angle**, **Zoom**, **Horizontal Sweep** and **Velocity** controls to optimize the different modes.

### **Cursor Placement**

All measurements are dependent on the accuracy of their “input” data. Consistency and precision in placing cursors and drawing traces correctly on the images are important.

*NOTE: Avoid placement of the cursor near the array edges when using convex or linear probes.*

## **Measurement Uncertainties**

The accuracy percentages reported below are based on data taken with optimum control settings, using calibrated phantoms and test equipment. The table below only includes errors related to the system with probes.

The calibration was done for the basic measurable parameters: Distance, Time and Velocity.

Independent sources of uncertainty contribute to a total uncertainty by a RMS (Root Mean Square) combination of the sources.

Refer to the discussions above regarding measurement accuracy and sources of error when reading the "measurement accuracy table".

The "measurement accuracy table" appears in the Venue–Basic User Manual Direction 5768017-100 Rev. 4 or higher, Chapter 9, section "Clinical Measurement Accuracy".

# DICOM SR Measurements

DICOM Structured Reporting (SR) is a standardized format for medical results. and EchoPAC PC support the specialized form for Adult Echo Ultrasound (“TID 5200 Echocardiography Procedure Report”) and Vascular Ultrasound (“TID 5100 Vascular Ultrasound Procedure Report”) for M&A results.

“TID 5200 Echocardiography Procedure Report” and “TID 5100 Vascular Ultrasound Procedure Report” do not support all M&A results from and EchoPAC PC. They are limited to the following:

- No unassigned measurement.
- The following modes: 2D, M-mode, Color Flow, PW Doppler, CW Doppler, 3D and TDI.
- Not Modified Simpson method or Bullet methods.
- Basic derivations (Average, Last, Min and Max), no references between the derived measurements and the ones they were made from.
- Wall Motion Scoring: individual segment scores only according to 16-segment model, no graded Hypokinesis (only Hypokinesis is used).

## Supported parameters

### Left ventricle

2D/%FS	2D/%IVS Thck	2D/%LVPW Thck
2D/CI(Cube)	2D/CI(Teich)	2D/CO(Cube)
2D/CO(Teich)	2D/EDV(A-L)	2D/EDV(Cube)
2D/EDV(MOD)	2D/EDV(Teich)	2D/EF(A-L)
2D/EF(Cube)	2D/EF(MOD)	2D/EF(Teich)
2D/ESV(A-L)	2D/ESV(Cube)	2D/ESV(MOD)
2D/ESV(Teich)	2D/IVSd	2D/IVSs
2D/LVA diastole	2D/LVA systole	2D/LVd Mass
2D/LVd Mass/ASE	2D/LVIDd	2D/LVIDs
2D/LVIDs Index	2D/LV Major	2D/LV Minor
2D/LVOT Area	2D/LVOT Diam	2D/LVPWd
2D/LVPWs	2D/LVs Mass	2D/LVs Mass/ASE
2D/SAX/LVA diastole	2D/SAX/LVA systole	2D/SAX/LVAend diastole
2D/SAX/LVAend systole	2D/SAX/LVAepi diastole	2D/SAX/LVAepi systole
2D/SI(A-L)	2D/SI(Cube)	2D/SI(MOD)
2D/SI(Teich)	2D/SV(A-L)	2D/SV(Cube)
2D/SV(MOD)	2D/SV(Teich)	3DStrain/AI PeakSysSL
3DStrain/AL PeakSysSL	3DStrain/AS PeakSysSL	3DStrain/BA PeakSysSL
3DStrain/BAS PeakSysSL	3DStrain/BI PeakSysSL	3DStrain/BL PeakSysSL
3DStrain/BP PeakSysSL	3DStrain/BS PeakSysSL	3DStrain/MA PeakSysSL
3DStrain/MAS PeakSysSL	3DStrain/MI PeakSysSL	3DStrain/ML PeakSysSL
3DStrain/MP PeakSysSL	3DStrain/MS PeakSysSL	AP/LVOT Diam
AP/LVOT VTl	Auto2DEF/HR_2Ch_Q	Auto2DEF/HR_4Ch_Q
Auto2DEF/LVCO_2Ch_Q	Auto2DEF/LVCO_4Ch_Q	Auto2DEF/LVCO_BiP_Q
Auto2DEF/LVEF_2Ch_Q	Auto2DEF/LVEF_4Ch_Q	Auto2DEF/LVEF_BiP_Q
Auto2DEF/LVLd_2Ch_Q	Auto2DEF/LVLd_4Ch_Q	Auto2DEF/LVLs_2Ch_Q
Auto2DEF/LVLs_4Ch_Q	Auto2DEF/LVSV_2Ch_Q	Auto2DEF/LVSV_4Ch_Q
Auto2DEF/LVSV_BiP_Q	Auto2DEF/LVVED_2Ch_Q	Auto2DEF/LVVED_4Ch_Q
Auto2DEF/LVVED_BiP_Q	Auto2DEF/LVVES_2Ch_Q	Auto2DEF/LVVES_4Ch_Q

Auto2DEF/LVVES_BiP_Q	AWMA/AA PeakSysSL	AWMA/AAS PeakSysSL
AWMA/AI PeakSysSL	AWMA/AL PeakSysSL	AWMA/AP PeakSysSL
AWMA/AS PeakSysSL	AWMA/AVC	AWMA/BA PeakSysSL
AWMA/BAS PeakSysSL	AWMA/BI PeakSysSL	AWMA/BL PeakSysSL
AWMA/BP PeakSysSL	AWMA/BS PeakSysSL	AWMA/GPeakSysSL(A2C)
AWMA/GPeakSysSL(A4C)	AWMA/GPeakSysSL(APLAX)	AWMA/GPeakSysSL(Avg)
AWMA/MA PeakSysSL	AWMA/MAS PeakSysSL	AWMA/MI PeakSysSL
AWMA/ML PeakSysSL	AWMA/MP PeakSysSL	AWMA/MS PeakSysSL
CI(A-L A2C)	CI(A-L A2C)/AutoHR	CI(A-L A4C)
CI(A-L A4C)/AutoHR	CI(A-L LAX)	CI(A-L LAX)/AutoHR
CI(Biplane)	CI(Biplane)_03	CI(bp el)
CI(bullet)	CI(MOD A2C)	CI(MOD A2C)/AutoHR
CI(MOD A4C)	CI(MOD A4C)/AutoHR	CI(MOD LAX)
CI(MOD LAX)/AutoHR	CI(mod sim)	CO(4D)
CO(A-L A2C)	CO(A-L A2C)/AutoHR	CO(A-L A4C)
CO(A-L A4C)/AutoHR	CO(A-L LAX)	CO(A-L LAX)/AutoHR
CO(A-L)	CO(Biplane)	CO(Biplane)_03
CO(bp el)	CO(bullet)	CO(Geom)
CO(MOD A2C)	CO(MOD A2C)/AutoHR	CO(MOD A4C)
CO(MOD A4C)/AutoHR	CO(MOD LAX)	CO(MOD LAX)/AutoHR
CO(mod sim)	ECG/HeartRate	ECG/HeartRate/Auto
EDV(bp el)	EDV(bullet)	EDV(mod sim)
EF(4D)	EF(A-L A2C)	EF(A-L A4C)
EF(A-L LAX)	EF(Biplane)	EF(Biplane)_03
EF(bp el)	EF(bullet)	EF(Geom)
EF(MOD A2C)	EF(MOD A4C)	EF(MOD LAX)
EF(mod sim)	ESV(bp el)	ESV(bullet)
ESV(mod sim)	GPSL(4D)	IVCT
IVRT	LIMP	LVAAd(A2C)
LVAAd(A4C)	LVAAd(LAX)	LVAAd(sax epi)
LVAAd(sax MV)LVAAd(sax MV)	LVAAd(sax PM)	LVAAs(A2C)
LVAAs(A4C)	LVAAs(LAX)	LVAAs(sax epi)

## Measurement and Assisting Tools

LVA(sax MV)	LVA(sax PM)	LVA(sax)
LVd Mass(4D)	LVd Mass(A-L)	LVd Mass Index(A-L)
LVd Mass(TE)	LVd Mass Index(TE)	LVEDV(4D)
LVEDV(A-L A2C)	LVEDV(A-L A4C)	LVEDV(A-L LAX)
LVEDV(Geom)	LVEDV(MOD A2C)	LVEDV(MOD A4C)
LVEDV(MOD BP)	LVEDV(MOD BP)_03	LVEDV(MOD LAX)
LVESV(4D)	LVESV(A-L A2C)	LVESV(A-L A4C)
LVESV(A-L LAX)	LVESV(Geom)	LVESV(MOD A2C)
LVESV(MOD A4C)	LVESV(MOD BP)	LVESV(MOD BP)_03
LVESV(MOD LAX)	LVLad(apical)	LVLd(A2C)
LVLd(A4C)	LVLd(apical)	LVLd(avg)
LVLdd(apical)	LVLs(A2C)	LVLs(A4C)
LVLs(apical)	LVLs(avg)	LVOT CI
LVOT CO	LVOT HR	LVOT maxPG
LVOT meanPG	LVOT SI	LVOT SV
LVOT Vmax	LVOT Vmax P	LVOT Vmean
LVOT VTI	LVs Mass(4D)	LVs Mass(A-L)
LVs Mass(TE)	MM/%FS	MM/%LVPW Thck
MM/CI(Cube)	MM/CI(Teich)	MM/CO(Cube)
MM/CO(Teich)	MM/EDV(Cube)	MM/EDV(Teich)
MM/EF(Cube)	MM/EF(Teich)	MM/ESV(Cube)
MM/ESV(Teich)	MM/HeartRate	MM/IVSd
MM/IVSd/LVPWd	MM/IVSs	MM/LVd Mass
MM/LVd Mass/ASE	MM/LVIDd	MM/LVIDs
MM/LVPWd	MM/LVPWs	MM/LVs Mass
MM/LVs Mass/ASE	MM/SI(Cube)	MM/SI(Teich)
MM/SV(Cube)	MM/SV(Teich)	MP/LVOT Diam
MP/LVOT VTI	SD/HeartRate	SD/HeartRate/Calc
SI(A-L A2C)	SI(A-L A4C)	SI(A-L LAX)
SI(Biplane)	SI(Biplane)_03	SI(bp el)
SI(bullet)	SI(MOD A2C)	SI(MOD A4C)
SI(MOD LAX)	SI(mod sim)	SV(4D)

SV(A-L A2C)	SV(A-L A4C)	SV(A-L LAX)
SV(Biplane)	SV(Biplane)_03	SV(bp el)
SV(bullet)	SV(Geom)	SV(MOD A2C)
SV(MOD A4C)	SV(MOD LAX)	SV(mod sim)
TomTec/LVFunction/EDV	TomTec/LVFunction/EF	TomTec/LVFunction/ESV
TomTec/LVFunction/SDI16	TomTec/LVFunction/SV	TSI/All segments max delay
TSI/All segments stdev	TSI/BA PeakVel	TSI/BA TimeToPeak
TSI/BAS PeakVel	TSI/BAS TimeToPeak	TSI/Basal max delay
TSI/Basal stdev	TSI/BI PeakVel	TSI/BI TimeToPeak
TSI/BL minus BS	TSI/BL PeakVel	TSI/BL TimeToPeak
TSI/BP minus BAS	TSI/BP PeakVel	TSI/BP TimeToPeak
TSI/BS PeakVel	TSI/BS TimeToPeak	TSI/MA PeakVel
TSI/MA TimeToPeak	TSI/MAS PeakVel	TSI/MAS TimeToPeak
TSI/MI PeakVel	TSI/MI TimeToPeak	TSI/ML PeakVel
TSI/ML TimeToPeak	TSI/MP PeakVel	TSI/MP TimeToPeak
TSI/MS PeakVel	TSI/MS PeakVel	TSI/MS TimeToPeak

## Right ventricle

2D/RVAWd	2D/RVAWs	2D/RVD Major
2D/RVD Minor	2D/RVIDd	2D/RVIDs
2D/RVOT Area	2D/RVOT Diam	Est RVSP
MM/RVAWd	MM/RVAWs	MM/RVIDd
MM/RVIDs	MM/RVOT	RIMP
RVAd(A4C)	RVAs(A4C)	RVEDV(A-L A4C)
RVEDV(MOD A4C)	RVESV(A-L A4C)	RVESV(MOD A4C)
RVLd(A4C)	RVLs(A4C)	RVOT CI
RVOT CO	RVOT HR	RVOT maxPG
RVOT meanPG	RVOT SI	RVOT SV
RVOT Vmax	RVOT Vmax P	RVOT Vmean
RVOT VTI	TomTec/RVFunction/EDV	TomTec/RVFunction/EF
TomTec/RVFunction/ESV		

## Left atrium

2D/Ao/LA	2D/LA	2D/LA Area
2D/LA Major	2D/LA Minor	2D/LA/Ao
2D/LAEDV(A-L)	2D/LAEDV(A-L)	2D/LAEDVI(A-L)
2D/LAESV(A-L)	LAAAd(A4C)	LAAs(A4C)
LAEDV(A-L A2C)	LAEDV(A-L A4C)	LAEDV(MOD A2C)
LAEDV(MOD A4C)	LAEDV(MOD BP)	LAESV(A-L A2C)
LAESV(A-L A4C)	LAESV(MOD A2C)	LAESV(MOD A4C)
LAESV(MOD BP)	LALd(A4C)	LALs(A4C)
MM/Ao/LA	MM/LA	MM/LA/Ao
MM/LAAo/Ao/LA	MM/LAAo/LA/Ao	

## Right atrium

2D/RA	RAAs(A4C)	2D/RAD Major
2D/RAD Minor	RAP	

## Aortic valve

2D/AV Area	2D/AV Cusp	2D/AV Diam
2D/AVA Planimetry	2D/AVA/AV Diam	2D/LAX/Trans AVA diastole
2D/LAX/Trans AVA systole	2D/SAX/Trans AVA diastole	2D/SAX/Trans AVA systole
AR Dec Slope	AR Dec Time	AR maxPG
AR meanPG	AR PHT	AR Vmax
AR Vmean	AR VTI	ARend maxPG
ARend Vmax	AV Acc Slope	AV Acc Time
AV Acc Time/ET Ratio	AV CI	AV CO
AV Dec Slope	AV Dec Time	AV HR
AV maxPG	AV meanPG	AV SI
AV SV	AV Vmax	AV Vmax P
AV Vmean	AV VTI	AVA (Vmax)
AVA (Vmax) <sup>2</sup>	AVA (Vmax)P	AVA (Vmax)P <sup>2</sup>
AVA (VTI)	AVET	MM/AV Cusp
MM/AV Diam	PISA/AR/ERO	PISA/AR/Flow
PISA/AR/Radius	PISA/AR/RF	PISA/AR/RV
PISA/AR/Velocity	PISA/AR/Vmax	PISA/AR/VTI

## Mitral valve

2D/MV Annulus Diam	2D/MV Area	2D/MVA Planimetry
2D/SAX/MVA	MCO	MM/EPSS
MM/MV E/A Ratio	MM/MV E-F Slope	MR Acc Slope
MR dp/dt	MR maxPG	MR meanPG
MR Vmax	MR Vmean	MR VTI
MV A Dur	MV A Velocity	MV A VTI
MV Acc Slope	MV Acc Time	MV Acc Time/MV Dec Time
MV CI	MV CO	MV Dec Slope
MV Dec Time	MV E Velocity	MV E VTI
MV E/A Ratio	MV E/Eprime Ratio/Calc	MV Eprime Velocity
MV HR	MV maxPG	MV meanPG

## Measurement and Assisting Tools

---

MV PHT	MV Reg Frac	MV SI
MV SV	MV Vmax	MV Vmean
MV VTI	MVA (PHT)	MVA (VTI)
PISA/MR/ERO	PISA/MR/Flow	PISA/MR/Radius
PISA/MR/RF	PISA/MR/RV	PISA/MR/Velocity
PISA/MR/Vmax	PISA/MR/VTI	

## Pulmonic valve

2D/PV Annulus Diam	2D/PV Area	MM/Q-to-PV close
PISA/PR/ERO	PISA/PR/Flow	PISA/PR/Radius
PISA/PR/RV	PISA/PR/Velocity	PISA/PR/Vmax
PISA/PR/VTI	PR Dec Slope	PR Dec Time
PR maxPG	PR meanPG	PR PHT
PR Vmax	PR Vmean	PR VTI
PRend maxPG	PRend Vmax	PV Acc Slope
PV Acc Time	PV Acc Time/ET Ratio	PV HR
PV maxPG	PV meanPG	PV Vmax
PV Vmax P	PV Vmean	PV VTI
PVA (Vmax)	PVA (Vmax)P	PVA (VTI)
PVET	SD/Q-to-PV close	

## Tricuspid valve

2D/TV Annulus Diam	2D/TV Area	2D/TVA Planimetry
MM/Q-to-TV open	PISA/TR/ERO	PISA/TR/Flow
PISA/TR/Radius	PISA/TR/RV	PISA/TR/Velocity
PISA/TR/Vmax	PISA/TR/VTI	SD/Q-to-TV open
TCO	TR maxPG	TR meanPG
TR Vmax	TR Vmean	TR VTI
TV A Velocity	TV Acc Slope	TV Acc Time
TV Dec Slope	TV Dec Time	TV E Velocity
TV E/A Ratio	TV HR	TV maxPG
TV meanPG	TV PHT	TV Vmax
TV Vmax P	TV Vmean	TV VTI
TVA	TVA (Vmax)	TVA (Vmax)P
TVA (VTI)		

## Aorta

2D/Ao Arch Diam	2D/Ao Asc Diam	2D/Ao Desc Diam
-----------------	----------------	-----------------

*Measurement and Assisting Tools*

---

2D/Ao Isthmus	2D/Ao Root Diam	Asc Ao maxPG
Asc Ao Vmax	Dsc Ao maxPG	Dsc Ao Vmax
MM/Ao Root Diam	MM/LAAo/Ao Root Diam	

### Pulmonary artery

2D/LPA	2D/MPA	2D/RPA
LPA maxPG	LPA Vmax	MPA Vmax
RPA maxPG	RPA Vmax	

### Section Pulmonary Venous Structure

P_Vein A	P_Vein A Dur	P_Vein D
P_Vein D VTI	P_Vein S	P_Vein S VTI
P_Vein S/D Ratio		

### Vena cava

2D/IVC	2D/IVC Diam Exp	2D/IVC Diam Ins
Pulmonic VTI	Systemic VTI	

### Cardiac shunt study

Pulmonic VTI	Qp/Qs	Systemic VTI
--------------	-------	--------------

### Congenital anomaly of cardiovascular system

2D/ASD Diam	2D/VSD Diam	ASD maxPG
ASD Vmax	VSD maxPG	VSD Vmax

### Pericardial cavity

2D/PEd	2D/PEs	MM/PEd
--------	--------	--------

### Supported methods

Area-length, biplane
Area-length, single plane
Biplane Ellipse
Continuity Equation by Peak Velocity

## Measurement and Assisting Tools

---

Continuity Equation by Velocity Time Integral
Cube
Left Ventricle Mass by M-mode
Left Ventricle Mass Truncated Ellipse
Method of Disks, biplane
Method of Disks, single plane
PISA
Planimetry
Pressure Half-Time
Teichholz

**Content of Vascular SR object**

**Usage and Extension of TID 5100 Vascular Ultrasound Report**

	NL	Relation with Parent	Value Type	Concept Name	VM	Req Type	Cond.	Value Set Constraint
1			CONTAINER	DT (121070, DCM, "Findings")	1	M		
	>	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT, "Finding Site")				See 'GEU Applications and Extensions' on page 1-72, Section scope.
	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, "Laterality")				See 'GE Ultrasound Sidedness and Vessel Location' on page 1-82.
	>	HAS CONCEPT MOD	CODE	EV (G-0373, SRT, "Image Mode")				See 'GE Ultrasound Modes' on page 1-82.
	>	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group				See 'TID 5104 Vascular Ultrasound Measurement Group' on page 1-72.
		CONTAINS	INCLUDE	DTID (300) Measurement				Measurement = AnatomyRatio

**TID 5101 Vascular Patient Characteristics**

	NL	Relation with Parent	Value Type	Concept Name	VM	Req Type	Cond.	Value Set Constraint
1			CONTAINER	EV (1251118, DCM, "Patient Characteristics")	1	M		
	>	CONTAINS	NUM	EV (121033, DCM, "Subject Age")	1	U		Units = DCID (7456) Units of Measure for Age

## Measurement and Assisting Tools

---

	NL	Relation with Parent	Value Type	Concept Name	VM	Req Type	Cond.	Value Set Constraint
	>	CONTAINS	CODE	EV (121032, DCM, "Subject Sex")	1	U		
	>	CONTAINS	NUM	EV (8867-4, LN, "Heart Rate")	1	U		
	>	CONTAINS	NUM	EV (F-008EC, SRT, "Systolic Blood Pressure")	1	M		
		CONTAINS	NUM	EV (F-008ED, SRT, "Diastolic Blood Pressure")	1	M		

**TID 5102 Vascular Procedure Summary Section**

	N L	Relation with Parent	Value Type	Concept Name	V M	Req Type	Cond.	Value Set Constraint
1			CONTAINER	DT (121111, DCM, "Summary")	1	M		
	>	CONTAINS	TEXT	EV (121106, DCM, "Comment")	1	M		

**TID 5103 Vascular Ultrasound Section (extended)**

	N L	Relation with Parent	Value Type	Concept Name	V M	Req Type	Cond.	Value Set Constraint
1			CONTAINER	DT (121070, DCM, "Findings")	1	M		
	>	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT, "Finding Site")	1	M		See 'GEU Applications and Extensions' on <i>page 1-72</i> , \$Section scope
	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, "Laterality")	1	U		See 'GE Ultrasound Sidedness and Vessel Location' on <i>page 1-82</i> .
	>	HAS CONCEPT MOD	CODE	EV (G-0373, SRT, "Image Mode")	1	M		See 'GE Ultrasound Modes' on <i>page 1-82</i> .
	>	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group	1	M		See 'TID 5104 Vascular Ultrasound Measurement Group' on <i>page 1-72</i> .
	>	CONTAINS	INCLUDE	DTID (300) Measurement	1	U		\$Measurement = \$AnatomyRatio

**TID 5104 Vascular Ultrasound Measurement Group**

	NL	Relation with Parent	Value Type	Concept Name	VM	Req Type	Cond.	Value Set Constraint
1			CONTAINER	\$Anatomy GEU Parameters	1	M		See 'GEU Applications and Extensions' on page 1-72, Anatomy GEU Parameter
	>	HAS CONCEPT MOD	CODE	EV (G-A1F8, SRT, "Topographical Modifier")	1	U		See 'GE Ultrasound Sidedness and Vessel Location' on page 1-82.
	>	CONTAINS	INCLUDE	DTID (300) Measurement	1-n	U		\$Measurement = See 'SR Mapping Table for Vascular Base Measurement Concept' on page 1-84. \$Derivation = DCID (3626) Measurement Type

**GEU Applications and Extensions**

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
DT (121070, DCM, "Findings")	EV (G-C171, SRT, "Laterality")				

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				Anatomy GEU parameter	Code and Description
(T-40501, SRT, "Blood Vessel of Head")	(G-A101, SRT, "Left") for Left, (G-A100, SRT, "Right") for Right. or (G-A103, SRT, "Unilateral")	DCID 12105 Intracranial Cerebral Vessels Or DCID 12106 Intracranial Cerebral Vessels (Unilateral)		ICA	(T-45300, SRT, "Internal Carotid Artery")
				MCA	G (T-45600, SRT, "Middle Cerebral Artery")
				ACA	(T-45540, SRT, "Anterior Cerebral Artery")
				PCA	(T-45900, SRT, "Posterior Cerebral Artery")
				PCoMA	(T-45320, SRT, "Posterior Communicating Artery")
				ACoMA	(T-45530, SRT, "Anterior Communicating Artery")
				VERT	(T-45700, SRT, "Vertebral Artery")
				BA	(T-45800, SRT, "Basilar Artery")
				TABLE 15.6.1 TCD Study Folder Code Maps	
				(T-45005, SRT, "Artery of neck")	(G-A101, SRT, "Left") for Left, or (G-A100, SRT, "Right") for Right.

Measurement and Assisting Tools

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				VERT	(T-45700, SRT, "Vertebral Artery")
CCA	(T-45100, SRT, "Common Carotid Artery")				
ICA	(T-45300, SRT, "Internal Carotid Artery")				
BULB	(T-45170, SRT, "Carotid Bulb")				
ECA	(T-45200, SRT, "External Carotid Artery")				
SUBC	(T-46100, SRT, "Subclavian Artery")				
BIF	(SRT, T-45160, "Carotid Bifurcation")				
TABLE 15.6.2 Carotid Study Folder Code Maps					

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				Anatomy GEU parameter	Code and Description
(T-47040, SRT, "Artery of Lower Extremity")	(G-A101, SRT, "Left") for Left, or (G-A100, SRT, "Right") for Right. Or (G-A103, SRT, "Unilateral")	DCID 12109 Lower Extremity Arteries or DCID 12112 Abdominal Arteries (unilateral)		ComIliac	(T-46710, SRT, "Common Iliac Artery")
				ExtIliac(EIA)	(T-46910, SRT, "External Iliac Artery")
				ComFemoral (CFA)	(T-47400, SRT, "Common Femoral Artery")
				SupFemoral (SFA)	(T-47403, SRT, "Superficial Femoral Artery")
				Popliteal (Pop A)	(T-47500, SRT, "Popliteal Artery")
				AntTibial (ATA)	(T-47700, SRT, "Anterior Tibial Artery")
				PostTibial (PTA)	T-47600, SRT, "Posterior Tibial Artery")
				Peroneal (Peron A)	(T-47630, SRT, "Peroneal Artery")
				DorsPedis (DPA)	(T-47741, SRT, "Dorsalis Pedis Artery")
				DeepFemoral (DFA)	(T-47440, SRT, "Profunda Femoris Artery")
				Profunda(Pro)	(T-47440, SRT, "Profunda Femoris Artery")
				Aorta	(T-4200, SRT, "Aorta")
				TABLE 15.6.3 LEA Study Folder Code Maps	

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				Anatomy GEU parameter	Code and Description
(T-49403, SRT, "Vein of Lower Extremity")	(G-A101, SRT, "Left") for Left, or (G-A100, SRT, "Right") for Right. Or (G-A103, SRT, "Unilateral")	DCID 12110 Lower Extremity of Veins or DCID 12114 Abdominal Veins (unilateral)		Popliteal	(T-49640, SRT, "Popliteal Vein")
				LSaphenous	(T-49550, SRT, "Lesser Saphenous Vein")
				AntTibial	(T-49630, SRT, "Anterior Tibial Vein")
				PostTibial	(T-49620, SRT, "Posterior Tibial Vein")
				Peroneal	(T-49650, SRT, "Peroneal Vein")
				Profunda	(T-49660, SRT, "Profunda Femoris Vein")
				ExtIliac	(T-48930, SRT, "External Iliac Vein")
				ComFemoral	(G-035B, SRT, "Common Femoral Vein")
				ComIliac	(T-48920, SRT, "Common Iliac Vein")
				Great saphenous	(T-49530, SRT, "Great Saphenous Vein")
				Femoral	(G-035B, SRT, "Femoral Vein")
				IVC	(T-48710, SRT, "Inferior Vena Cava")
				DeepFemoral	(T-49660, SRT, "Profunda Femoris Vein")
				TABLE 15.6.4 LEV Study Folder Code Maps	

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				Anatomy GEU parameter	Code and Description
(T-47020, SRT, "Artery of Upper Extremity")	(G-A101, SRT, "Left") for Left or (G-A100, SRT, "Right") for Right.	DCID (12107) Upper Extremity Arteries		SUBC	(T-46100, SRT, "Subclavian artery")
				Axill	(T-47100, SRT, "Axillary artery")
				BrachialA	(T-47160, SRT, "Brachial artery")
				RadialA	(T-47300, SRT, "Radial artery")
				UlnarA	(T-47200, SRT, "Ulnar artery")
				Palmar	(T-47340, SRT, "Deep Palmar Arch of Radial Artery")
				Innominate	(T-46010, SRT, "Innominate Artery")
				TABLE 15.6.5 UEA Study Folder Code Maps	

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				Anatomy GEU parameter	Code and Description
(T-49103, SRT, "Vein of Upper Extremity")	(G-A101, SRT, "Left") for Left, or (G-A100, SRT, "Right") for Right.	DCID 12108 Upper Extremity Veins		JugularV	(T-48170, SRT, "Internal Jugular vein")
				InnoV	(T-48620, SRT, "Innominate vein")
				SUBCV	(T-48330, SRT, "Subclavian vein")
				AxilV	(T-49110, SRT, "Axillary vein")
				CephV	(T-49240, SRT, "Cephalic vein")
				BasilV	(T-48052, SRT, "Basilic vein")
				BracV	(T-49350, SRT, "Brachial vein")
				McubV	(T-49250, SRT, "Median Cubital vein")
				RadialV	(T-49340, SRT, "Radial vein")
				UlnarV	(T-49330, SRT, "Ulnar vein")
				TABLE 15.6.6 UEV Study Folder Code Maps	

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				Anatomy GEU parameter	Code and Description
(T-71019, SRT, "Vascular Structure of Kidney")	(G-A101, SRT, "Left") for Left, or (G-A100, SRT, "Right") for Right.	DCID 12115 Renal Vessels	DCID 12124 Renal Ratios		
				MRenalA	(T-46600, SRT, "Renal Artery")
				RenalV	(T-48740, SRT, "Renal Vein")
				SegmentalA	(T-46659, SRT, "Segmental Artery")
				InterlobarA	(T-4667D, SRT, "Interlobar Artery of Kidney")
				ArcurateA	(T-4668A, SRT, "Arcuate Artery of the Kidney")
				Aorta	(T-4200, SRT, "Aorta")
				TABLE 15.6.7 Renal Study Folder Code Maps	

## Measurement and Assisting Tools

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				Anatomy GEU parameter	Code and Description
(T-46002, SRT, "Artery of Abdomen")	(G-A101, SRT, "Left") for Left, (G-A100, SRT, "Right") for Right. Or (G-A103, SRT, "Unilateral")	DCID 12111 or 12112 Abdominal Arteries (lateral or unilateral). DCID 12113 or 12114 Abdominal Veins (lateral or unilateral) or DCID 12115 Renal Vessels		Aorta	(T-42000, SRT, "Aorta")
				Celiac	(T-46400, SRT, "Celiac Axis")
				CHA	(T-46421, SRT, "Common Hepatic Artery")
				Splenic A	(T-46460, SRT, "Splenic Artery")
				SMA	(T-46510, SRT, "Superior Mesenteric Artery")
				IMA	(T-46520, SRT, "Inferior Mesenteric Artery")
				MRenalA	(T-46600, SRT, "Renal Artery")
				RenalV	(T-48740, SRT, "Renal Vein")
				SegmentalA	(T-46659, SRT, "Segmental Artery")
				InterlobarA	(T-4667D, SRT, "Interlobar Artery of Kidney")
				ArcuateA	(T-4668A, SRT, "Arcuate Artery of the Kidney")
				CIA	(T-46710, SRT, "Common Iliac Artery")
				PrHepatic	(T-46422, SRT, "Proper Hepatic Artery")
				GDA	(T-46440, SRT, Gastroduodenal Artery)
				IVC	(T-48710, SRT, "Inferior Vena Cava")
				Splenic V	(T-48890, SRT, Splenic Vein")
Hepatic V	(T-48720, SRT, Hepatic Vein")				

Section Scope	Section Laterality	Anatomy	Anatomy Ratio	GEU Parameters BASE MEASUREMENT CONCEPT NAME	
				MHV	(T-48726, SRT, Middle Hepatic Vein")
MPV	(GEU-1004-65, 99GEMS, "Main Branch of Portal Vein")				
Portal V	(T-48810, SRT, "Portal Vein")				
SMV	(T-48840, SRT, "Superior Mesenteric Vein")				
TIPS	(G-036C, SRT, "Transjugular Intrahepatic Portosystemic Shunt")				
CIV	(T-48920, SRT, "Common Iliac Vein")				
		TABLE 15.6.8 Abdomen Study Folder Code Maps			

**TID 300 Measurement**

	NL	Relation with Parent	Value Type	Concept Name	VM	Req Type	Cond.	Value Set Constraint
1			NUM	\$Measurement	1	M		Units = \$Units
4	>	HAS CONCEPT MOD	CODE	EV(G-A1F8, SRT, "Topographical modifier")	1	U		See 'GE Ultrasound Sidedness and Vessel Location' on page 1-82.
5	>	HAS CONCEPT MOD	CODE	EV(121401, DCM, "Derivation")	1	U		See 'Derivation and Selection' on page 1-84.
6	>	HAS CONCEPT MOD	CODE	EV(121404, DCM, "Selection Status")	1	U		See 'Derivation and Selection' on page 1-84.

**GE Ultrasound Modes**

GE Ultrasound Modes	Code Value
2D	(G-03A2, SRT, "2D mode")
CF	(R-409E2, SRT, "Doppler Color Flow")
PW	(R-409E4, SRT, "Doppler Pulsed")
MM	(G-0394, SRT, "M mode")
CW	(R-409E3, SRT, "Doppler Continuous Wave")

**GE Ultrasound Sidedness and Vessel Location**

Side	Code Value
Rt	(G-A100, SRT, "Right")
Lt	(G-A101, SRT, "Left")

Vessel Location	Code Value
Prox	(G-A118, SRT, "Proximal")
Mid	(G-A188, SRT, "Mid-longitudinal")
Dist	(G-A119, SRT, "Distal")

*NOTE: When there is no Sidedness or Locations, the SR nodes are not populated.*

## SR Mapping Table for Vascular Base Measurement Concept

### PWD-Mode Measurements

GEU Measurement Parameter	Standard Measurement Concept Name
PS	(11726-7, LN, "Peak Systolic Velocity")
ED	(11653-3, LN, "End Diastolic Velocity")
MD	(11665-7, LN, "Minimum Diastolic Velocity")
Tamax	(11692-1, LN, "Time averaged peak velocity")
PI	(12008-9, LN, "Pulsatility Index")
RI	(12023-8, LN, "Resistivity Index")
PV	(11726-7, LN, Peak Velocity)
SD Ratio	(12144-2, LN, "Systolic to Diastolic Velocity Ratio")
DS Ratio	(122218, DCM, "Diastolic/Systolic Velocity Ratio")
Accel	(20167-3, LN, "Acceleration Index")
AT	(20168-1, LN, "Acceleration Time")
TAMEAN	(20352-1, LN, "Time averaged mean velocity")
VOLFLOW	(33878-0, LN, "Volume flow")
ICACCA Ratio (PS)	(33868-1, LN, "ICA/CCA velocity")
HR (Heart Rate)	(8867-4, LN, Heart Rate)
AC	(GEU-1004-9, 99GEMS, "Angular Correction")
RAR	(33869-9, LN, "Renal Artery/Aorta velocity ratio")

### Vascular B-Mode Measurements

GEU Measurement Parameter	Standard Measurement Concept Name
DiamStenD1/D2	(G-0364 , SRT, " Vessel Lumen Diameter")
AreaStenA1/A2	(G-0366, SRT, "Vessel Lumen Cross-Sectional Area")
StenosisD	(R-101BB, SRT, " Lumen Diameter Stenosis")
StenosisA	(R-101BA, SRT, "Lumen Area Stenosis")

### Derivation and Selection

GEU Name	Derivation	Selection
Av	Mean	User chosen value

GEU Name	Derivation	Selection
Mx	Maximum	User chosen value
Mn	Minimum	User chosen value
Lt	Most recent value chosen	User chosen value
* (decided by another parameter)	Best Value	User chosen value



---

# Chapter 2

## OB Tables

*Reference for Obstetric Measurement Tables.*

**ASUM**

Table 2-1: AC: ASUM, Deler (Fetal Age)Unit: AC (mm); Age (Days); 2SD (Days)

AC	Age	2SD	AC	Age	2SD	AC	Age	2SD	AC	Age	2SD
<35	n/a	—	126	126	10	228	189	14	331	252	18
35	70	8	137	133	10	240	196	14	342	259	18
46	77	8	149	140	10	251	203	14	354	266	20
57	84	8	160	147	10	263	210	14	365	273	20
69	91	8	171	154	10	274	217	14	377	280	20
80	98	9	183	161	10	285	224	16	>377	n/a	—
92	105	9	194	168	12	297	231	16			
103	112	9	206	175	12	308	238	18			
114	119	9	217	182	12	320	245	18			

Table 2-2: BPD: ASUM, Aust NZ, Obstet Gynaecol 1989: 29:26 (Fetal Age)Unit: BPD (mm); Age (Week); 2SD (Week - \* signifies No Data)

BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD
<20	n/a	—	40	123	8	61	171	13	82	225	18
20	84	4	41	126	9	62	173	13	83	228	18
21	86	4	42	128	9	63	176	14	84	231	19
22	88	4	43	130	9	64	178	14	85	234	0
23	90	4	44	132	9	65	181	14	86	237	0
24	92	5	45	134	9	66	183	14	87	240	0
25	94	5	46	136	10	67	186	15	88	244	0
26	95	5	47	139	10	68	188	15	89	247	0
27	97	5	48	141	10	69	191	15	90	251	0
28	99	5	49	143	10	70	193	15	91	255	0
29	101	6	50	145	11	71	196	16	92	259	0
30	103	6	51	147	11	72	199	16	93	264	0
31	105	6	52	149	11	73	201	16	94	270	0
32	107	6	53	152	11	74	204	16	95	276	0
33	109	7	54	154	12	75	206	17	96	284	0
34	111	7	55	157	12	76	209	17	97	292	0
35	113	7	56	159	12	77	212	17	98	301	0
36	115	7	57	161	12	78	214	17	>98	n/a	—
37	117	8	58	164	13	79	217	17			
38	119	8	59	166	13	80	220	18			
39	121	8	60	169	13	81	222	18			

Table 2-3: CRL: ASUM, Silva et al 1991.6 (Fetal Age)Unit: CRL (mm); Age (Days);  
2SD (\* No Data available)

CRL	Age	2SD	CRL	Age	2SD	CRL	Age	2SD	CRL	Age	2SD
<2	n/a	—	16	56	*	34	71	*	58	86	*
2	42	*	17	57	*	36	72	*	60	87	*
3	43	*	18	58	*	37	73	*	62	88	*
4	44	*	19	59	*	38	74	*	64	89	*
5	45	*	20	60	*	40	75	*	66	90	*
6	46	*	22	61	*	41	76	*	68	91	*
7	47	*	23	62	*	43	77	*	70	92	*
8	48	*	24	63	*	45	78	*	72	93	*
9	49	*	25	64	*	46	79	*	74	94	*
10	50	*	26	65	*	48	80	*	76	95	*
11	51	*	27	66	*	50	81	*	78	96	*
12	52	*	29	67	*	51	82	*	80	97	*
13	53	*	30	68	*	53	83	*	82	98	*
14	54	*	31	69	*	55	84	*	>82	n/a	—
15	55	*	33	70	*	57	85	*			

**Berkowitz**

Table 2-4: BD: Berkowitz (Fetal Age)Unit: BD (mm); Age (Day); SD (mm)

BD	Age	SD	BD	Age	SD	BD	Age	SD	BD	Age	SD
<13	n/a	—	25	112	0	38	155	0	51	217	0
13	81	0	26	116	0	39	159	0	52	223	0
14	82	0	27	120	0	40	162	0	53	230	0
15	84	0	28	124	0	41	166	0	54	237	0
16	86	0	29	128	0	42	169	0	55	244	0
17	88	0	30	130	0	43	173	0	56	251	0
18	91	0	31	132	0	44	179	0	57	258	0
19	95	0	32	135	0	45	185	0	58	266	0
20	98	0	33	138	0	46	191	0	59	275	0
21	102	0	34	142	0	47	197	0	>59	n/a	—
22	105	0	35	145	0	48	202	0			
23	109	0	36	149	0	49	207	0			
24	110	0	37	152	0	50	212	0			

**Brenner**

Table 2-5: EFW: Brenner (Fetal Growth)GP, Table/Graph Range = 10%: 90%Age (Weeks); Mini/Mean/Max (grams)

Age	Min	Mean	Max	Age	Min	Mean	Max
21.0	280	410	860	33.0	1480	2010	2690
22.0	320	480	920	34.0	1670	2220	2880
23.0	370	550	990	35.0	1870	2430	3090
24.0	420	640	1080	36.0	2190	2650	3290
25.0	490	740	1180	37.0	2310	2870	3470
26.0	570	860	1320	38.0	2510	3030	3610
27.0	660	990	1470	39.0	2680	3170	3750
28.0	770	1150	1660	40.0	2750	3280	3870
29.0	890	1310	1890	41.0	2800	3360	3980
30.0	1030	1460	2100	42.0	2830	3410	4060
31.0	1180	1630	2290	43.0	2840	3420	4100
32.0	1310	1810	2500	44.0	2790	3390	4110

**Campbell**

Table 2-6: HC/AC Ratio: Campbell, Br J Obstet Gynaecol 1977, 84:165-174 (Fetal Growth)Unit: GA (Weeks); Min/Max (Index)

GA	Min	Max	GA	Min	Max	GA	Min	Max
<13	n/a	—	23	1.05	1.21	35	0.93	1.11
13	1.14	1.31	25	1.04	1.22	37	0.92	1.05
15	1.05	1.39	27	1.05	1.22	39	0.87	1.06
17	1.07	1.29	29	0.99	1.21	41	0.93	1.00
19	1.09	1.26	31	0.96	1.17	>42	n/a	n/a
21	1.06	1.25	33	0.96	1.11			

**Eriksen**

Table 2-7: TAD: Eriksen (Fetal Age)Unit: TAD (mm); Age (Day); SD (mm)

TAD	Age	SD	TAD	Age	SD	TAD	Age	SD	TAD	Age	SD
<23	n/a	—	45	134	0	68	182	0	91	232	0
23	91	0	46	136	0	69	184	0	92	234	0
24	93	0	47	138	0	70	186	0	93	236	0
25	95	0	48	140	0	71	188	0	94	239	0
26	97	0	49	142	0	72	190	0	95	241	0
27	99	0	50	144	0	73	192	0	96	243	0
28	101	0	51	146	0	74	195	0	97	245	0
29	103	0	52	148	0	75	197	0	98	247	0
30	105	0	53	150	0	76	199	0	99	250	0
31	107	0	54	152	0	77	201	0	100	252	0
32	109	0	55	154	0	78	203	0	101	254	0
33	111	0	56	156	0	79	206	0	102	256	0
34	113	0	57	158	0	80	208	0	103	259	0
35	115	0	58	161	0	81	210	0	104	261	0
36	117	0	59	163	0	82	212	0	105	263	0
37	119	0	60	165	0	83	214	0	106	266	0
38	120	0	61	167	0	84	217	0	107	268	0
39	122	0	62	169	0	85	219	0	108	270	0
40	124	0	63	171	0	86	221	0	109	273	0
41	126	0	64	173	0	87	223	0	110	275	0
42	128	0	65	175	0	88	225	0	111	277	0
43	130	0	66	177	0	89	228	0	112	280	0
44	132	0	67	179	0	90	230	0	>112	n/a	—

**Goldstein**

Table 2-8: TCD: Goldstein et a, Am J OB/GYN, May 1987 (Fetal Growth)Unit: TCD (Weeks); Age/Quat1/Mean/Quat3/Max (mm)

Age	Min	Quat1	Mean	Quat3	Max
15	10	12	14	15	16
16	14	16	16	16	17
17	16	17	17	18	18
18	17	18	18	19	19
19	18	18	19	19	22
20	18	19	20	20	22
21	19	20	22	23	24
22	21	23	23	24	24
23	22	23	24	25	26
24	22	24	25	27	28
25	23	21.5	28	28	29
26	25	28	29	30	32
27	26	28.5	30	31	32
28	27	30	31	32	34
29	29	32	34	36	38
30	31	32	35	37	40
31	32	35	38	39	43
32	33	36	38	40	42
33	32	36	40	43	44
34	33	38	40	41	44
35	31	37	40.5	43	47
36	36	29	43	52	55
37	37	37	45	52	55
38	40	40	48.5	52	55
39	52	52	52	55	55

## Hadlock

Table 2-9: AC: Hadlock, Radiology 1984, Vol. 152:497 (Fetal Age)Unit: AC (mm); Age (Week); 2SD (Week)

AC	Age	2SD	AC	Age	2SD	AC	Age	2SD	AC	Age	2SD
<50	n/a	—	135	19.0	± 2.1	225	26.9	± 2.2	315	35.4	± 3.0
50	12.0	± 1.7	140	19.4	± 2.1	230	27.4	± 2.2	320	35.9	± 3.0
55	12.4	± 1.7	145	19.8	± 2.1	235	27.8	± 2.2	321	36.0	± 3.1
60	12.8	± 1.7	150	20.2	± 2.1	240	28.3	± 2.2	325	36.4	± 3.1
65	13.2	± 1.7	155	20.7	± 2.1	245	28.7	± 2.2	330	36.9	± 3.1
70	13.6	± 1.7	160	21.1	± 2.1	250	29.2	± 2.2	335	37.4	± 3.1
75	14.0	± 1.7	165	21.5	± 2.1	255	29.7	± 2.2	340	37.9	± 3.1
80	14.4	± 1.7	170	22.0	± 2.1	258	30.0	± 2.2	345	38.4	± 3.1
85	14.8	± 1.7	175	22.4	± 2.1	259	30.1	± 3.0	350	38.9	± 3.1
90	15.2	± 1.7	180	22.9	± 2.1	260	30.2	± 3.0	355	39.4	± 3.1
95	15.6	± 1.7	185	23.3	± 2.1	265	30.6	± 3.0	360	39.9	± 3.1
100	16.0	± 1.7	190	23.7	± 2.1	270	31.1	± 3.0	365	40.4	± 3.1
105	16.4	± 1.7	192	23.9	± 2.1	275	31.6	± 3.0	370	40.9	± 3.1
110	16.9	± 1.7	193	24.0	± 2.2	280	32.0	± 3.0	375	41.4	± 3.1
115	17.3	± 1.7	195	24.2	± 2.2	285	32.5	± 3.0	380	42.0	± 3.1
120	17.7	± 1.7	200	24.6	± 2.2	290	33.0	± 3.0	385	42.5	± 3.1
123	17.9	± 1.7	205	25.1	± 2.2	295	33.5	± 3.0	>385	n/a	—
124	18.0	± 2.1	210	25.5	± 2.2	300	34.0	± 3.0			
125	18.1	± 2.1	215	26.0	± 2.2	305	34.5	± 3.0			
130	18.5	± 2.1	220	26.4	± 2.2	310	34.9	± 3.0			

Table 2-10: AC: Hadlock, AJR; 139: 367-370; 1982 (Fetal Age)Unit: AC (mm); Age (Days); SD (Days)

AC	Age	SD	AC	Age	SD	AC	Age	SD	AC	Age	SD
<47	n/a	—	138	133	14	230	189	15	305	241	21
47	84	13	144	136	14	235	192	15	310	245	21
53	87	13	151	140	14	241	196	15	314	248	21
60	91	13	157	143	14	246	199	15	319	252	21
67	94	13	163	147	14	251	203	15	323	255	18
74	98	13	174	154	14	256	206	15	328	259	18
80	101	13	180	157	14	261	210	15	332	262	18
87	105	13	186	161	14	266	213	21	337	266	18
93	106	13	192	164	14	271	217	21	341	269	18
100	112	13	197	168	14	276	220	21	344	273	18
106	115	13	203	171	15	281	224	21	349	276	18
113	119	13	208	175	15	286	227	21	353	280	18
119	122	13	214	178	15	291	231	21	>353	n/a	—
126	126	13	219	182	15	296	234	21			
132	129	14	225	185	15	300	238	21			

Table 2-11: BPD: Hadlock, Radiology 1984, Vol. 152:497 (Fetal Age) aUnit: BPD (mm); Age (Week); 2SD (Week)

BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD
<14	n/a	—	36	17.0	± 1.2	59	24.1	± 2.2	82	33.0	± 3.1
14	11.9	± 1.2	37	17.3	± 1.2	60	24.5	± 2.2	83	33.4	± 3.1
15	12.1	± 1.2	38	17.6	± 1.2	61	24.8	± 2.2	84	33.8	± 3.1
16	12.3	± 1.2	39	17.9	± 1.2	62	25.2	± 2.2	85	34.2	± 3.1
17	12.5	± 1.2	40	18.1	± 1.7	63	25.5	± 2.2	86	34.7	± 3.1
18	12.8	± 1.2	41	18.4	± 1.7	64	25.9	± 2.2	87	35.1	± 3.1
19	13.0	± 1.2	42	18.7	± 1.7	65	26.3	± 2.2	88	35.6	± 3.1
20	13.2	± 1.2	43	19.0	± 1.7	66	26.6	± 2.2	89	36.0	± 3.2
21	13.4	± 1.2	44	19.3	± 1.7	67	27.0	± 2.2	90	36.5	± 3.2
22	13.6	± 1.2	45	19.6	± 1.7	68	27.4	± 2.2	91	36.9	± 3.2
23	13.8	± 1.2	46	19.9	± 1.7	69	27.7	± 2.2	92	37.4	± 3.2
24	14.1	± 1.2	47	20.2	± 1.7	70	28.1	± 2.2	93	37.8	± 3.2
25	14.3	± 1.2	48	20.5	± 1.7	71	28.5	± 2.2	94	38.3	± 3.2
26	14.5	± 1.2	49	20.8	± 1.7	72	28.9	± 2.2	95	38.7	± 3.2
27	14.8	± 1.2	50	21.1	± 1.7	73	29.3	± 2.2	96	39.2	± 3.2
28	15.0	± 1.2	51	21.5	± 1.7	74	29.7	± 2.2	97	39.7	± 3.2
29	15.2	± 1.2	52	21.8	± 1.7	75	30.1	± 3.1	98	40.2	± 3.2
30	15.5	± 1.2	53	22.1	± 1.7	76	30.5	± 3.1	99	40.6	± 3.2
31	15.7	± 1.2	54	22.4	± 1.7	77	30.9	± 3.1	100	41.1	± 3.2
32	16.0	± 1.2	55	22.8	± 1.7	78	31.3	± 3.1	101	41.6	± 3.2
33	16.3	± 1.2	56	23.1	± 1.7	79	31.7	± 3.1	102	42.1	± 3.2
34	16.5	± 1.2	57	23.4	± 1.7	80	32.1	± 3.1	103	42.6	± 3.2
35	16.8	± 1.2	58	23.8	± 1.7	81	32.5	± 3.1	>103	n/a	—

a.Variability of GA estimate by BPD at term is ± 2 SD (6 weeks)

Table 2-12: BPD: Hadlock, J Ultrasound Med 1:97-104, April 1982 (Fetal Age)Unit: BPD (mm); Age (Days ); SD (Days)

BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD
<20	n/a	—	40	126	10	61	175	9	82	233	14
20	85	6	41	128	10	62	177	9	83	237	14
21	88	6	42	130	10	63	180	9	84	239	14
22	90	6	43	132	10	64	183	9	85	243	14
23	92	6	44	134	10	65	185	9	86	246	14
24	93	6	45	137	10	66	188	9	87	249	14
25	95	6	46	139	10	67	190	9	88	253	25
26	97	6	47	141	10	68	193	9	89	256	25
27	99	6	48	144	10	69	196	9	90	259	25
28	102	6	49	146	10	70	198	9	91	263	25
29	103	6	50	148	10	71	201	9	92	266	25
30	105	6	51	151	10	72	204	9	93	270	25
31	107	6	52	153	10	73	207	9	94	272	25
32	109	6	53	155	10	74	209	9	95	276	25
33	111	6	54	158	10	75	213	14	96	279	25
34	113	6	55	160	10	76	216	14	97	284	25
35	116	6	56	162	10	77	218	14	98	287	25
36	118	6	57	163	10	78	221	14	99	291	25
37	120	6	58	167	10	79	224	14	100	294	25
38	122	6	59	169	9	80	228	14	>100	n/a	—
39	124	6	60	172	9	81	230	14			

Table 2-13: CI: Hadlock, AJR, 137: 83, 1981 (Fetal Growth)

Min (Index)	Max (Index)
70	86

Table 2-14: CRL: Hadlock, Radiology 1992, Vol. 182:501 (Fetal Age)Unit: CRL (mm); Age (Week); SD (Week)

CRL	Age	SD	CRL	Age	SD	CRL	Age	SD	CRL	Age	SD
<2	n/a	—	32	10.1	± 0.5	63	12.7	± 0.6	94	15.3	± 0.7
2	5.7	± 0.3	33	10.2	± 0.5	64	12.8	± 0.6	95	15.3	± 0.7
3	5.9	± 0.3	34	10.3	± 0.5	65	12.8	± 0.6	96	15.4	± 0.7
4	6.1	± 0.3	35	10.4	± 0.5	66	12.9	± 0.6	97	15.5	± 0.7
5	6.2	± 0.3	36	10.5	± 0.5	67	13.0	± 0.6	98	15.6	± 0.7
6	6.4	± 0.3	37	10.6	± 0.5	68	13.1	± 0.6	99	15.7	± 0.7
7	6.6	± 0.3	38	10.7	± 0.5	69	13.1	± 0.6	100	15.9	± 0.7
8	6.7	± 0.3	39	10.8	± 0.5	70	13.2	± 0.6	101	16.0	± 0.7
9	6.9	± 0.3	40	10.9	± 0.5	71	13.3	± 0.6	102	16.1	± 0.7
10	7.1	± 0.3	41	11.0	± 0.5	72	13.4	± 0.6	103	16.2	± 0.7
11	7.2	± 0.3	42	11.1	± 0.5	73	13.4	± 0.6	104	16.3	± 0.7
12	7.4	± 0.3	43	11.2	± 0.5	74	13.5	± 0.6	105	16.4	± 0.7
13	7.5	± 0.3	44	11.2	± 0.5	75	13.6	± 0.6	106	16.5	± 0.7
14	7.7	± 0.3	45	11.3	± 0.5	76	13.7	± 0.6	107	16.6	± 0.7
15	7.9	± 0.4	46	11.4	± 0.5	77	13.8	± 0.6	108	16.7	± 0.7
16	8.0	± 0.4	47	11.5	± 0.5	78	13.8	± 0.6	109	16.8	± 0.7
17	8.1	± 0.4	48	11.6	± 0.5	79	13.9	± 0.6	110	16.9	± 0.8
18	8.3	± 0.4	49	11.7	± 0.5	80	14.0	± 0.6	111	17.0	± 0.8
19	8.4	± 0.4	50	11.7	± 0.5	81	14.1	± 0.6	112	17.1	± 0.8
20	8.6	± 0.4	51	11.8	± 0.5	82	14.2	± 0.6	113	17.2	± 0.8
21	8.7	± 0.4	52	11.9	± 0.5	83	14.2	± 0.6	114	17.3	± 0.8
22	8.9	± 0.4	53	12.0	± 0.5	84	14.3	± 0.6	115	17.4	± 0.8
23	9.0	± 0.4	54	12.0	± 0.5	85	14.4	± 0.6	116	17.5	± 0.8
24	9.1	± 0.4	55	12.1	± 0.5	86	14.5	± 0.6	117	17.6	± 0.8
25	9.2	± 0.4	56	12.2	± 0.5	87	14.6	± 0.6	118	17.7	± 0.8
26	9.4	± 0.4	57	12.3	± 0.5	88	14.7	± 0.7	119	17.8	± 0.8
27	9.5	± 0.4	58	12.3	± 0.5	89	14.8	± 0.7	120	17.9	± 0.8
28	9.6	± 0.4	59	12.4	± 0.6	90	14.9	± 0.7	121	18.0	± 0.8
29	9.7	± 0.4	60	12.5	± 0.6	91	15.0	± 0.7	>121	n/a	—
30	9.9	± 0.4	61	12.6	± 0.6	92	15.1	± 0.7			
31	10.0	± 0.4	62	12.6	± 0.6	93	15.2	± 0.7			

Table 2-15: EFW: Hadlock (Fetal Age)Unit: EFW (grams); Mean (Weeks); SD (grams)

EFW	Mean	2SD	EFW	Mean	2SD	EFW	Mean	2SD
<35	n/a	—	399	21	51	2162	33	275
35	10	4	478	22	61	2377	34	302
45	11	6	568	23	72	2595	35	330
58	12	7	670	24	85	2813	36	357
73	13	9	785	25	101	3028	37	385
93	14	12	913	26	116	3236	38	411
117	15	15	1055	27	134	3435	39	436
146	16	19	1210	28	154	3619	40	460
181	17	23	1379	29	175	3787	41	481
223	18	28	1559	30	198	>3787	n/a	—
273	19	35	1751	31	222			
331	20	42	1953	32	248			

Table 2-16: FL: Hadlock, Radiology 1984, Vol. 152:497 (Fetal Age)Unit: FL (mm); Age (Week); 2SD (Week)

FL	Age	2SD	FL	Age	2SD	FL	Age	2SD	FL	Age	2SD
<6	n/a	—	25	17.6	± 1.4	45	24.9	± 2.1	65	33.5	± 3.0
6	11.9	± 1.4	26	17.9	± 1.4	46	25.3	± 2.1	66	34.0	± 3.0
7	12.2	± 1.4	27	18.2	± 1.8	47	25.7	± 2.1	67	34.5	± 3.0
8	12.4	± 1.4	28	18.6	± 1.8	48	26.1	± 2.1	68	34.9	± 3.0
9	12.7	± 1.4	29	18.9	± 1.8	49	26.5	± 2.1	69	35.4	± 3.0
10	13.0	± 1.4	30	19.3	± 1.8	50	26.9	± 2.1	70	35.9	± 3.0
11	13.3	± 1.4	31	19.6	± 1.8	51	27.3	± 2.1	71	36.4	± 3.1
12	13.5	± 1.4	32	20.0	± 1.8	52	27.7	± 2.1	72	36.9	± 3.1
13	13.8	± 1.4	33	20.3	± 1.8	53	28.2	± 2.1	73	37.4	± 3.1
14	14.1	± 1.4	34	20.7	± 1.8	54	28.6	± 2.1	74	37.9	± 3.1
15	14.4	± 1.4	35	21.0	± 1.8	55	29.0	± 2.1	75	38.4	± 3.1
16	14.7	± 1.4	36	21.4	± 1.8	56	29.5	± 2.1	76	38.9	± 3.1
17	15.0	± 1.4	37	21.8	± 1.8	57	29.9	± 2.1	77	39.4	± 3.1
18	15.3	± 1.4	38	22.2	± 1.8	58	30.3	± 3.0	78	39.9	± 3.1
19	15.6	± 1.4	39	22.5	± 1.8	59	30.8	± 3.0	79	40.4	± 3.1
20	16.0	± 1.4	40	22.9	± 1.8	60	31.2	± 3.0	80	40.9	± 3.1
21	16.3	± 1.4	41	23.3	± 1.8	61	31.7	± 3.0	81	41.4	± 3.1
22	16.6	± 1.4	42	23.7	± 1.8	62	32.1	± 3.0	82	42.0	± 3.1
23	16.9	± 1.4	43	24.1	± 2.1	63	32.6	± 3.0	83	42.5	± 3.1
24	17.2	± 1.4	44	24.5	± 2.1	64	33.1	± 3.0	>83	n/a	—

Table 2-17: FL: Hadlock, AJR 138: 875-878, May 1982 (Fetal Age)Unit: FL (mm); Age (Days); 2SD (Days)

FL	Age	SD	FL	Age	SD	FL	Age	SD	FL	Age	SD
<10	n/a	—	27	125	6	45	171	10	63	226	10
10	90	6	28	127	6	46	174	10	64	230	10
11	92	6	29	130	6	47	177	10	65	233	10
12	94	6	30	132	6	48	180	10	66	237	10
13	95	6	31	134	6	49	183	10	67	239	10
14	97	6	32	137	6	50	185	10	68	243	10
15	99	6	33	139	6	51	189	10	69	246	10
16	101	6	34	142	6	52	192	10	70	250	10
17	104	6	35	145	6	53	195	10	71	253	11
18	106	6	36	147	6	54	197	10	72	257	11
19	108	6	37	150	6	55	201	10	73	260	11
20	110	6	38	153	6	56	204	10	74	264	11
21	112	6	39	155	6	57	207	10	75	268	11
22	114	6	40	157	6	58	210	10	76	272	11
23	116	6	41	160	6	59	213	10	77	275	11
24	118	6	42	163	6	60	216	10	78	279	11
25	120	6	43	166	6	61	220	10	79	283	11
26	123	6	44	169	10	62	223	10	>79	n/a	—

Table 2-18: HC: Hadlock, Radiology 1984, Vol. 152:497 (Fetal Age)Unit: HC (mm); Age (Week); 2SD (Week)

HC	Age	2SD	HC	Age	2SD	HC	Age	2SD	HC	Age	2SD
<55	n/a	—	135	17.0	± 1.2	215	23.6	± 1.5	290	31.9	± 3.0
55	12.0	± 1.2	140	17.3	± 1.2	219	23.9	± 1.5	295	32.6	± 3.0
60	12.3	± 1.2	145	17.7	± 1.2	220	24.0	± 2.1	300	33.3	± 3.0
65	12.6	± 1.2	149	18.0	± 1.2	225	24.5	± 2.1	305	33.9	± 3.0
70	12.8	± 1.2	150	18.1	± 1.5	230	25.0	± 2.1	310	34.6	± 3.0
75	13.1	± 1.2	155	18.4	± 1.5	235	25.5	± 2.1	315	35.3	± 3.0
80	13.4	± 1.2	160	18.8	± 1.5	240	26.1	± 2.1	319	35.9	± 3.0
85	13.7	± 1.2	165	19.2	± 1.5	245	26.6	± 2.1	320	36.1	± 2.7
90	14.0	± 1.2	170	19.6	± 1.5	250	27.1	± 2.1	325	36.8	± 2.7
95	14.3	± 1.2	175	20.0	± 1.5	255	27.7	± 2.1	330	37.6	± 2.7
100	14.7	± 1.2	180	20.4	± 1.5	260	28.3	± 2.1	335	38.3	± 2.7
105	15.0	± 1.2	185	20.8	± 1.5	265	28.9	± 2.1	340	39.1	± 2.7
110	15.3	± 1.2	190	21.3	± 1.5	270	29.4	± 2.1	345	39.9	± 2.7
115	15.6	± 1.2	195	21.7	± 1.5	274	29.9	± 2.1	350	40.7	± 2.7
120	16.0	± 1.2	200	22.2	± 1.5	275	30.0	± 3.0	355	41.6	± 2.7
125	16.3	± 1.2	205	22.6	± 1.5	280	30.7	± 3.0	360	42.4	± 2.7
130	16.6	± 1.2	210	23.1	± 1.5	285	31.3	± 3.0	>360	n/a	—

Table 2-19: HC: Hadlock, AJR 138: 649-653, 1982 (Fetal Age)Unit: HC (mm); Age (Days); 2SD (Days)

HC	Age	SD	HC	Age	SD	HC	Age	SD	HC	Age	SD
<69	n/a	—	169	136	11	260	196	16	322	252	19
69	84	9	175	140	11	264	199	16	325	255	24
75	87	9	181	143	11	269	203	16	328	259	24
81	91	9	187	147	11	273	206	16	331	262	24
88	94	9	193	150	11	278	210	16	334	266	24
96	98	9	198	154	11	282	213	19	337	269	24
103	101	9	204	157	11	286	217	19	340	273	24
110	105	9	209	161	11	291	220	19	343	276	24
117	108	9	215	164	11	294	224	19	345	280	24
124	112	9	220	168	11	298	227	19	348	286	24
131	115	9	225	171	16	302	231	19	351	287	24
137	119	9	230	175	16	306	234	19	353	290	24
144	122	9	240	182	16	309	238	19	354	294	24
150	126	9	245	185	16	312	241	19	>354	n/a	—
157	129	11	250	189	16	316	245	19			
163	133	11	255	192	16	319	248	19			

Table 2-20: FL/HC Ratio: Hadlock, J Ultrasound Med 1984, 3: 439-442 (Fetal Growth)Unit: GA (Weeks)

GA	Min	Max	GA	Min	Max	GA	Min	Max
<15	n/a	—	24	18.7	20.9	34	19.4	21.8
15	15.3	17.1	25	18.7	20.3	35	20.1	22.3
16	13.3	16.5	26	18.6	20.4	36	20.1	22.1
17	14.6	17.6	27	18.6	20.4	37	20.8	22.6
18	15.8	18.0	28	18.8	20.6	38	20.9	22.7
19	16.1	18.3	29	19.6	20.8	39	20.6	23.4
20	16.8	19.8	30	19.2	21.4	40	20.7	22.5
21	15.9	20.3	31	19.3	21.3	41	21.6	23.2
22	18.4	20.2	32	19.1	21.3	42	20.1	23.9
23	19.2	20.8	33	19.9	21.5	>42	n/a	n/a

Table 2-21: FL/AC Ratio: Hadlock (Fetal Growth)Unit: Age (Weeks)

Age	Min (Index)	Max (Index)
21	20	24
42	20	24

## Hansmann

Table 2-22: AC: Hansmann (Fetal Age) (Hansmann:M &amp; AI:Geburtsh, u, Frauenheilk 39:656, 1979) Unit: AC (mm); Age (Weeks/Days); SD (mm)

AC	Age	SD	AC	Age	SD	AC	Age	SD	AC	Age	SD
<53	n/a	—	99	15w2d	0	146	20w2d	0	193	25w2d	0
53	11w1d	0	100	15w3d	0	147	20w2d	0	194	25w3d	0
54	11w2d	0	101	15w4d	0	148	20w3d	0	195	25w4d	0
55	11w2d	0	102	15w5d	0	149	20w3d	0	196	25w4d	0
56	11w3d	0	103	15w5d	0	150	20w4d	0	197	25w5d	0
57	11w3d	0	104	15w6d	0	151	20w4d	0	198	25w5d	0
58	11w4d	0	105	16w0d	0	152	20w5d	0	199	25w6d	0
59	11w4d	0	106	16w0d	0	153	20w6d	0	200	26w0d	0
60	11w5d	0	107	16w1d	0	154	21w0d	0	201	26w0d	0
61	11w6d	0	108	16w2d	0	155	21w1d	0	202	26w1d	0
62	12w0d	0	109	16w3d	0	156	21w2d	0	203	26w2d	0
63	12w1d	0	110	16w3d	0	157	21w2d	0	204	26w3d	0
64	12w2d	0	111	16w4d	0	158	21w3d	0	205	26w3d	0
65	12w2d	0	112	16w5d	0	159	21w3d	0	206	26w4d	0
66	12w3d	0	113	16w6d	0	160	21w4d	0	207	26w5d	0
67	12w3d	0	114	16w6d	0	161	21w4d	0	208	26w6d	0
68	12w4d	0	115	17w0d	0	162	21w5d	0	209	26w6d	0
69	12w5d	0	116	17w1d	0	163	21w6d	0	210	27w0d	0
70	12w5d	0	117	17w2d	0	164	22w0d	0	211	27w1d	0
71	12w6d	0	118	17w2d	0	165	22w1d	0	212	27w2d	0
72	12w6d	0	119	17w3d	0	166	22w2d	0	213	27w2d	0
73	13w0d	0	120	17w3d	0	167	22w3d	0	214	27w3d	0
74	13w0d	0	121	17w4d	0	168	22w4d	0	215	27w4d	0
75	13w1d	0	122	17w4d	0	169	22w5d	0	216	27w4d	0
76	13w2d	0	123	17w5d	0	170	22w5d	0	217	27w5d	0
77	13w2d	0	124	17w6d	0	171	22w6d	0	218	27w5d	0
78	13w3d	0	125	18w0d	0	172	23w0d	0	219	27w6d	0
79	13w3d	0	126	18w1d	0	173	23w1d	0	220	28w0d	0
80	13w4d	0	127	18w2d	0	174	23w2d	0	221	28w0d	0
81	13w4d	0	128	18w3d	0	175	23w2d	0	222	28w1d	0
82	13w5d	0	129	18w3d	0	176	23w3d	0	223	28w2d	0
83	13w6d	0	130	18w4d	0	177	23w3d	0	224	28w3d	0
84	14w0d	0	131	18w5d	0	178	23w4d	0	225	28w4d	0
85	14w1d	0	132	18w6d	0	179	23w4d	0	226	28w5d	0
86	14w2d	0	133	18w6d	0	180	23w5d	0	227	28w5d	0
87	14w2d	0	134	19w0d	0	181	23w6d	0	228	28w6d	0
88	14w3d	0	135	19w1d	0	182	24w0d	0	229	29w0d	0
89	14w3d	0	136	19w2d	0	183	24w1d	0	230	29w1d	0
90	14w4d	0	137	19w2d	0	184	24w2d	0	231	29w2d	0
91	14w5d	0	138	19w3d	0	185	24w3d	0	232	29w2d	0
92	14w5d	0	139	19w3d	0	186	24w4d	0	233	29w3d	0
93	14w6d	0	140	19w4d	0	187	24w5d	0	234	29w3d	0
94	14w6d	0	141	19w4d	0	188	24w5d	0	235	29w4d	0
95	15w0d	0	142	19w5d	0	189	24w6d	0	236	29w4d	0
96	15w0d	0	143	19w6d	0	190	25w0d	0	237	29w5d	0
97	15w1d	0	144	20w0d	0	191	25w1d	0	238	29w6d	0
98	15w2d	0	145	20w1d	0	192	25w2d	0	239	30w0d	0

Table 2-22: AC: Hansmann (Fetal Age) (Hansmann:M & Al:Geburtsh, u, Frauenheilk 39:656, 1979) Unit: AC (mm); Age (Weeks/Days); SD (mm)

AC	Age	SD	AC	Age	SD	AC	Age	SD	AC	Age	SD
240	30w1d	0	261	32w3d	0	282	34w4d	0	303	36w5d	0
241	30w2d	0	262	32w3d	0	283	34w4d	0	304	36w6d	0
242	30w3d	0	263	32w4d	0	284	34w5d	0	305	37w0d	0
243	30w3d	0	264	32w4d	0	285	34w6d	0	306	37w1d	0
244	30w4d	0	265	32w5d	0	286	35w0d	0	307	37w2d	0
245	30w5d	0	266	32w6d	0	287	35w1d	0	308	37w3d	0
246	30w6d	0	267	33w0d	0	288	35w2d	0	309	37w3d	0
247	30w6d	0	268	33w1d	0	289	35w3d	0	310	37w4d	0
248	31w0d	0	269	33w2d	0	290	35w3d	0	311	37w5d	0
249	31w1d	0	270	33w3d	0	291	35w4d	0	312	37w6d	0
250	31w2d	0	271	33w3d	0	292	35w5d	0	313	37w6d	0
251	31w3d	0	272	33w4d	0	293	35w6d	0	314	38w0d	0
252	31w3d	0	273	33w5d	0	294	35w6d	0	315	38w1d	0
253	31w4d	0	274	33w6d	0	295	36w0d	0	316	38w2d	0
254	31w5d	0	275	33w6d	0	296	36w1d	0	317	38w4d	0
255	31w6d	0	276	34w0d	0	297	36w2d	0	318	38w5d	0
256	31w6d	0	277	34w1d	0	298	36w2d	0	319	39w0d	0
257	32w0d	0	278	34w2d	0	299	36w3d	0	320	39w1d	0
258	32w1d	0	279	34w2d	0	300	36w3d	0	>320	n/a	—
259	32w2d	0	280	34w3d	0	301	36w4d	0			
260	32w2d	0	281	34w3d	0	302	36w4d	0			

Table 2-23: BPD: Hansmann (Fetal Age)Ultrasound Diagnosis in Obstetrics & Gynecology, 438-439, 1985Known LMP (left)—Unknown LMP (right)Unit: BPD (mm); Age (Weeks/Days); 2SD (mm [Known LMP] or day [Unknown LMP])

BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD
<14	n/a	—	60	22w6d	5	<14	n/a	—	60	23w2d	10
14	10w0d	0	61	23w1d	5	14	9w1d	7	61	23w4d	10
15	10w1d	0	62	23w4d	5	15	9w3d	7	62	24w0d	10
16	10w2d	0	63	23w6d	5	16	9w5d	7	63	24w2d	10
17	10w5d	0	64	24w1d	6	17	10w0d	7	64	24w4d	10
18	10w6d	0	65	24w4d	6	18	10w2d	7	65	24w6d	10
19	11w1d	0	66	24w6d	6	19	10w4d	7	66	25w1d	11
20	11w3d	0	67	25w1d	6	20	10w6d	7	67	25w3d	12
21	11w5d	0	68	25w3d	6	21	11w1d	7	68	25w6d	10
22	12w0d	0	69	25w5d	6	22	11w3d	7	69	26w1d	10
23	12w2d	0	70	26w1d	6	23	11w5d	7	70	26w3d	10
24	12w4d	5	71	26w3d	6	24	12w0d	7	71	26w5d	12
25	12w6d	5	72	26w6d	6	25	12w2d	7	72	27w1d	11
26	13w1d	5	73	27w1d	6	26	12w4d	7	73	27w3d	13
27	13w2d	5	74	27w3d	6	27	12w6d	7	74	27w6d	12
28	13w4d	4	75	27w6d	6	28	13w1d	7	75	28w1d	12
29	13w6d	4	76	28w1d	6	29	13w3d	8	76	28w4d	13
30	14w1d	4	77	28w4d	6	30	13w5d	7	77	28w6d	13
31	14w3d	4	78	28w6d	6	31	14w0d	8	78	29w2d	15
32	14w4d	4	79	29w2d	6	32	14w2d	8	79	29w5d	16
33	14w6d	4	80	29w5d	6	33	14w4d	9	80	30w0d	15
34	15w2d	4	81	30w0d	6	34	15w0d	9	81	30w3d	15
35	15w4d	4	82	30w3d	6	35	15w2d	8	82	31w0d	15
36	15w6d	4	83	30w5d	6	36	15w4d	9	83	31w2d	16
37	16w1d	4	84	31w2d	6	37	16w0d	8	84	31w6d	17
38	16w3d	4	85	31w5d	6	38	16w2d	9	85	32w2d	17
39	16w5d	4	86	32w1d	6	39	16w4d	9	86	32w5d	18
40	17w0d	4	87	32w4d	6	40	17w0d	9	87	33w2d	20
41	17w2d	4	88	33w0d	7	41	17w2d	9	88	33w5d	19
42	17w4d	4	89	33w3d	7	42	17w4d	9	89	34w2d	19
43	17w6d	4	90	33w6d	7	43	17w6d	9	90	34w5d	19
44	18w1d	4	91	34w3d	7	44	18w1d	9	91	35w1d	25
45	18w3d	4	92	34w6d	7	45	18w4d	9	92	35w6d	24
46	18w5d	4	93	35w3d	7	46	18w6d	9	93	36w5d	21
47	19w0d	4	94	36w0d	7	47	19w1d	10	94	37w3d	19
48	19w2d	5	95	36w3d	7	48	19w3d	10	95	38w3d	22
49	19w4d	5	96	37w1d	7	49	19w5d	10	96	38w6d	25
50	19w6d	5	97	37w6d	7	50	20w0d	10	97	39w0d	22
51	20w1d	5	98	38w4d	7	51	20w3d	10	98	39w2d	20
52	20w3d	5	99	39w3d	7	52	20w5d	10	99	39w3d	22
53	20w6d	5	100	40w3d	7	53	21w0d	11	100	39w4d	20
54	21w1d	5	101	41w3d	7	54	21w3d	10	101	39w5d	20
55	21w2d	5	>101	n/a	—	55	21w5d	10	102	39w6d	19
56	21w4d	5				56	22w0d	9	103	40w0d	19
57	21w6d	5				57	22w2d	9	104	40w1d	19
58	22w2d	5				58	22w5d	9	105	40w2d	17
59	22w4d	5				59	23w0d	10	>105	n/a	—

Table 2-24: CRL: Hansmann (Fetal Age) Ultrasound Diagnosis in Obstetrics & Gynecology, 438-439, 1985 Unit: CRL (mm); Age (Weeks/Days); 2SD (mm [Known LMP] or day [Unknown LMP])

CRL	Age	2SD	CRL	Age	2SD	CRL	Age	2SD	CRL	Age	2SD
<b>Known LMP</b>											
<13	n/a	—	54	12w0d	15	96	15w3d	11	138	19w2d	15
13	7w4d	0	55	12w1d	16	97	15w3d	11	139	19w3d	15
14	7w5d	0	56	12w1d	16	98	15w4d	11	140	19w4d	15
15	8w0d	0	57	12w2d	16	99	15w4d	11	141	19w4d	16
16	8w1d	0	58	12w2d	16	100	15w5d	11	142	19w5d	16
17	8w2d	0	59	12w3d	16	101	15w5d	10	143	19w5d	16
18	8w3d	0	60	12w3d	16	102	15w6d	10	144	19w6d	16
19	8w4d	7	61	12w4d	15	103	15w6d	10	145	20w0d	16
20	8w5d	7	62	12w4d	15	104	16w0d	10	146	20w1d	17
21	8w6d	8	63	12w5d	15	105	16w1d	10	147	20w2d	17
22	9w0d	8	64	12w5d	15	106	16w2d	10	148	20w2d	17
23	9w1d	10	65	12w6d	15	107	16w2d	10	149	20w3d	17
24	9w2d	10	66	12w6d	15	108	16w3d	10	150	20w4d	17
25	9w3d	11	67	13w0d	15	109	16w3d	10	151	20w4d	0
26	9w4d	11	68	13w1d	15	110	16w4d	10	152	20w5d	0
27	9w4d	11	69	13w1d	15	111	16w4d	11	153	20w5d	0
28	9w5d	11	70	13w2d	15	112	16w5d	11	154	20w6d	0
29	9w6d	11	71	13w3d	15	113	16w5d	11	155	21w0d	0
30	10w0d	12	72	13w3d	15	114	16w6d	11	156	21w0d	0
31	10w0d	12	73	13w4d	15	115	17w0d	11	157	21w1d	0
32	10w1d	12	74	13w4d	15	116	17w1d	12	158	21w1d	0
33	10w2d	12	75	13w5d	15	117	17w2d	12	159	21w2d	0
34	10w3d	12	76	13w5d	15	118	17w2d	12	160	21w3d	0
35	10w3d	13	77	13w6d	15	119	17w3d	12	161	21w3d	0
36	10w4d	13	78	13w6d	15	120	17w3d	12	162	21w4d	0
37	10w5d	13	79	14w0d	15	121	17w4d	13	163	21w4d	0
38	10w5d	13	80	14w0d	15	122	17w5d	13	164	21w5d	0
39	10w6d	13	81	14w1d	13	123	17w5d	13	165	21w6d	0
40	10w6d	13	82	14w1d	13	124	17w6d	13	166	21w6d	0
41	11w0d	14	83	14w2d	13	125	18w0d	13	167	22w0d	0
42	11w1d	14	84	14w2d	13	126	18w1d	14	168	22w0d	0
43	11w1d	14	85	14w3d	13	127	18w1d	14	169	22w1d	0
44	11w2d	14	86	14w3d	13	128	18w2d	14	170	22w1d	0
45	11w2d	14	87	14w4d	13	129	18w2d	14	171	22w2d	0
46	11w3d	14	88	14w4d	13	130	18w3d	15	172	22w2d	0
47	11w3d	15	89	14w5d	13	131	18w4d	15	173	22w3d	0
48	11w4d	15	90	14w6d	13	132	18w4d	15	174	22w3d	0
49	11w4d	15	91	14w6d	12	133	18w5d	15	175	22w4d	0
50	11w5d	15	92	15w0d	12	134	18w6d	15	>175	n/a	—
51	11w5d	15	93	15w0d	12	135	19w0d	15			
52	11w6d	15	94	15w1d	12	136	19w1d	15			
53	11w6d	15	95	15w2d	12	137	19w1d	15			
<b>Unknown LMP</b>											

Table 2-24: CRL: Hansmann (Fetal Age) Ultrasound Diagnosis in Obstetrics & Gynecology, 438-439, 1985 Unit: CRL (mm); Age (Weeks/Days); 2SD (mm [Known LMP] or day [Unknown LMP])

CRL	Age	2SD	CRL	Age	2SD	CRL	Age	2SD	CRL	Age	2SD
<6	n/a	—	22	9w1d	7	54	12w3d	9	106	16w2d	13
6	6w1d	7	23	9w2d	7	56	12w4d	9	110	16w4d	14
7	6w2d	7	24	9w3d	7	58	12w5d	9	113	17w0d	14
8	6w4d	7	26	9w5d	7	60	12w6d	9	116	17w2d	14
9	6w6d	7	28	10w0d	8	63	13w0d	10	120	17w4d	14
10	7w0d	7	30	10w2d	8	66	13w2d	10	123	18w0d	14
11	7w2d	7	32	10w3d	8	70	13w3d	10	126	18w2d	14
12	7w3d	7	34	10w5d	8	73	13w5d	11	130	18w6d	14
13	7w4d	7	36	10w6d	8	76	13w6d	11	133	19w1d	15
14	7w6d	7	38	11w1d	8	80	14w1d	11	136	19w4d	16
15	8w0d	7	40	11w2d	8	83	14w2d	12	140	20w0d	16
16	8w2d	7	42	11w3d	8	86	14w4d	12	143	20w3d	16
17	8w3d	7	44	11w4d	9	90	14w6d	12	146	20w6d	16
18	8w4d	7	46	11w6d	9	93	15w1d	12	150	21w3d	16
19	8w5d	7	48	12w0d	9	96	15w3d	12	>150	n/a	—
20	8w6d	7	50	12w1d	9	100	15w5d	12			
21	9w0d	7	52	12w2d	9	103	16w0d	13			

Table 2-25: FL: Hansmann (Fetal Age) Ultrasound Diagnosis in Obstetrics and Gynecology, 438-439, 1985 Known/Unknown LMP; Unit: FL (mm); Age (Weeks/Days); 2SD (Week)

FL	Age	2SD	FL	Age	2SD	FL	Age	2SD	FL	Age	2SD
<12	n/a	—	28	18w4d	4	45	24w6d	5	62	32w1d	5
12	13w4d	0	29	18w6d	4	46	25w2d	5	63	32w5d	5
13	13w6d	0	30	19w2d	4	47	25w4d	5	64	33w1d	6
14	14w1d	0	31	19w4d	4	48	26w0d	5	65	33w5d	6
15	14w3d	0	32	20w0d	4	49	26w3d	5	66	34w1d	6
16	14w5d	5	33	20w3d	4	50	26w6d	5	67	34w5d	6
17	15w1d	5	34	20w5d	4	51	27w3d	5	68	35w1d	6
18	15w2d	4	35	21w1d	5	52	27w5d	5	69	35w5d	6
19	15w5d	4	36	21w3d	5	53	28w1d	5	70	36w1d	6
20	16w0d	4	37	21w6d	5	54	28w4d	5	71	36w5d	6
21	16w2d	4	38	22w1d	5	55	29w0d	5	72	37w2d	6
22	16w4d	4	39	22w4d	5	56	29w3d	6	73	37w6d	6
23	16w6d	4	40	22w6d	5	57	29w6d	6	74	38w3d	7
24	17w2d	4	41	23w2d	5	58	30w2d	6	75	39w0d	7
25	17w4d	4	42	23w5d	5	59	30w5d	5	>75	n/a	—
26	17w6d	4	43	24w0d	5	60	31w2d	5			
27	18w2d	4	44	24w3d	5	61	31w5d	5			

Table 2-26: GS: Hansmann (Fetal Age)Hansmann: M and Al: Geburtsh, u, Frauenheilk 39: 656, 1979Unit: GS (mm); Age (Days); SD (mm)

GS	Age	SD	GS	Age	SD	GS	Age	SD	GS	Age	SD
<10	n/a	—	24	47	5	39	61	5	54	76	5
10	33	5	25	48	5	40	62	5	55	77	5
11	34	5	26	49	5	41	63	5	56	78	5
12	35	5	27	50	5	42	64	5	57	79	5
13	36	5	28	51	5	43	65	5	58	80	5
14	37	5	29	52	5	44	66	5	59	81	5
15	38	5	30	53	5	45	67	5	60	82	5
16	39	5	31	54	5	46	68	5	61	83	5
17	40	5	32	55	5	47	69	5	62	84	5
18	41	5	33	56	5	48	70	5	63	85	5
19	42	5	34	57	5	49	71	5	64	86	5
20	43	5	35	58	5	50	72	5	65	87	5
21	44	5	36	58	5	51	73	5	>65	n/a	—
22	45	5	37	59	5	52	74	5			
23	46	5	38	60	5	53	75	5			

Table 2-27: HC: Hansmann (Fetal Age)Ultrasound Diagnosis in Obstetrics and Gynecology, 438-439, 1985Known/Unknown LMP; Unit: HC (mm); Age (Weeks/Days); 2SD (mm)

HC	Age	2SD	HC	Age	2SD	HC	Age	2SD	HC	Age	2SD
<105	n/a	—	165	18w4d	16	230	23w5d	18	295	29w5d	19
105	13w3d	0	170	19w0d	16	235	24w1d	18	300	30w2d	19
110	14w0d	0	175	19w3d	16	240	24w4d	18	305	30w5d	19
115	14w3d	14	180	19w5d	16	245	25w0d	18	310	31w2d	19
120	14w6d	14	185	20w1d	17	250	25w3d	18	315	32w1d	20
125	15w3d	14	190	20w4d	17	255	25w6d	18	320	32w5d	20
130	15w5d	14	195	21w0d	17	260	26w2d	18	325	33w3d	20
135	16w1d	14	200	21w2d	17	265	26w5d	18	330	34w2d	20
140	16w4d	14	205	21w5d	17	270	27w1d	18	335	35w1d	20
145	17w0d	15	210	22w1d	17	275	27w4d	19	340	36w2d	20
150	17w3d	15	215	22w4d	17	280	28w1d	19	345	37w6d	20
155	17w6d	16	220	23w0d	17	285	28w5d	19	>345	n/a	—
160	18w1d	16	225	23w3d	17	290	29w1d	19			

Table 2-28: OFD: Hansmann (Fetal Age)Ultrasound Diagnosis in Obstetrics and Gynecology, 438-439, 1985Known/Unknown LMP; Unit: OFD (mm); Age (Weeks/Days); 2SD (mm)

OFD	Age	2SD	OFD	Age	2SD	OFD	Age	2SD	OFD	Age	2SD
<34	n/a	—	54	18w4d	5	75	23w2d	7	96	29w0d	8
34	13w3d	0	55	18w6d	5	76	23w4d	7	97	29w3d	8
35	13w5d	0	56	19w0d	6	77	23w6d	7	98	29w5d	8
36	14w0d	0	57	19w2d	6	78	24w1d	7	99	30w0d	8
37	14w2d	5	58	19w3d	6	79	24w2d	7	100	30w3d	8
38	14w4d	5	59	19w5d	6	80	24w4d	7	101	30w5d	8
39	14w6d	5	60	20w0d	6	81	24w6d	7	102	31w1d	8
40	15w1d	5	61	20w1d	6	82	25w1d	7	103	31w4d	8
41	15w3d	5	62	20w2d	6	83	25w2d	7	104	32w0d	8
42	15w5d	5	63	20w4d	6	84	25w4d	7	105	32w3d	8
43	16w0d	5	64	20w6d	6	85	25w6d	7	106	32w6d	8
44	16w1d	5	65	21w0d	6	86	26w1d	7	107	33w3d	8
45	16w3d	5	66	21w2d	6	87	26w3d	7	108	33w6d	8
46	16w4d	5	67	21w4d	6	88	26w5d	7	109	34w3d	8
47	16w6d	5	68	21w5d	6	89	27w0d	7	110	35w0d	8
48	17w1d	5	69	22w0d	6	90	27w2d	7	111	35w4d	8
49	17w3d	5	70	22w1d	7	91	27w4d	8	112	36w2d	8
50	17w4d	5	71	22w3d	7	92	27w6d	8	113	37w0d	8
51	17w6d	5	72	22w4d	7	93	28w1d	8	114	38w0d	8
52	18w1d	5	73	22w6d	7	94	28w3d	8	115	39w0d	8
53	18w2d	5	74	23w1d	7	95	28w5d	8	>115	n/a	—

Table 2-29: TAD: Hansmann (Fetal Age)Hansmann: M and AI: Geburtsh, u, Frauenheilk 39: 656, 1979Unit: TAD (mm); Age (Days); SD (mm)

TAD	Age	SD	TAD	Age	SD	TAD	Age	SD	TAD	Age	SD
<20	n/a	—	41	130	4	63	179	4	85	232	5
20	87	4	42	132	4	64	182	4	86	235	5
21	89	4	43	135	4	65	184	4	87	237	5
22	91	4	44	137	4	66	186	4	88	240	5
23	93	4	45	139	4	67	188	4	89	242	5
24	95	4	46	141	4	68	191	5	90	245	5
25	97	4	47	143	4	69	193	5	91	247	5
26	99	4	48	146	4	70	195	5	92	250	5
27	101	4	49	148	4	71	198	5	93	252	5
28	103	4	50	150	4	72	200	5	94	255	5
29	105	4	51	152	4	73	203	5	95	258	5
30	107	4	52	155	4	74	205	5	96	261	5
31	109	4	53	157	4	75	208	5	97	264	5
32	111	4	54	159	4	76	210	5	98	267	5
33	113	4	55	161	4	77	212	5	99	270	5
34	115	4	56	164	4	78	215	5	100	273	5
35	117	4	57	166	4	79	217	5	101	276	5
36	119	4	58	168	4	80	220	5	102	279	5
37	122	4	59	170	4	81	222	5	103	282	5
38	124	4	60	173	4	82	225	5	>103	n/a	—
39	126	4	61	175	4	83	227	5			
40	128	4	62	177	4	84	230	5			

Table 2-30: ThD: Hansmann (Fetal Age)Ultrasound Diagnosis in Obstetrics and Gynecology, 438-439, 1985Known/Unknown LMP; Unit: ThD (mm); Age (Weeks/Days); 2SD (mm)

ThD	Age	2SD	ThD	Age	2SD	ThD	Age	2SD	ThD	Age	2SD
<20	n/a	—	41	18w5d	5	63	25w5d	7	85	33w1d	9
20	12w4d	0	42	19w0d	5	64	26w1d	7	86	33w4d	9
21	12w6d	0	43	19w3d	5	65	26w3d	7	87	33w6d	9
22	13w1d	0	44	19w5d	5	66	26w5d	7	88	34w2d	9
23	13w3d	0	45	19w6d	5	67	27w0d	7	89	34w4d	9
24	13w4d	4	46	20w2d	5	68	27w3d	8	90	35w0d	9
25	13w6d	4	47	20w4d	6	69	27w5d	8	91	35w3d	10
26	14w1d	4	48	20w6d	6	70	28w0d	8	92	35w5d	10
27	14w3d	4	49	21w2d	6	71	28w3d	8	93	36w1d	10
28	14w6d	4	50	21w4d	6	72	28w5d	8	94	36w3d	10
29	15w1d	4	51	21w6d	6	73	29w1d	8	95	36w6d	10
30	15w2d	4	52	22w1d	6	74	29w3d	8	96	37w1d	10
31	15w4d	4	53	22w4d	6	75	29w5d	8	97	37w4d	10
32	15w6d	4	54	22w6d	6	76	30w1d	8	98	38w1d	11
33	16w2d	4	55	23w1d	6	77	30w3d	8	99	38w4d	11
34	16w4d	4	56	23w3d	6	78	30w5d	8	100	38w6d	11
35	16w6d	4	57	23w6d	7	79	31w1d	8	101	39w3d	12
36	17w1d	5	58	24w1d	7	80	31w3d	8	102	39w6d	14
37	17w3d	5	59	24w3d	7	81	31w5d	8	103	40w2d	14
38	17w5d	5	60	24w6d	7	82	32w1d	9	104	40w5d	14
39	18w1d	5	61	25w1d	7	83	32w4d	9	105	41w2d	14
40	18w3d	5	62	25w3d	7	84	32w6d	9	>105	n/a	—

**Hellman**

Table 2-31: GS: Hellman (Fetal Age)A/OG 103: 789, 1969Unit: GS (mm); Age (Week); SD (Week)

GS	Age	SD	GS	Age	SD	GS	Age	SD	GS	Age	SD
<10	n/a	—	23	6.9	± 1.0	37	8.9	± 1.0	51	10.9	± 1.0
10	5.0	± 1.0	24	7.0	± 1.0	38	9.0	± 1.0	52	11.0	± 1.0
11	5.2	± 1.0	25	7.2	± 1.0	39	9.2	± 1.0	53	11.2	± 1.0
12	5.3	± 1.0	26	7.3	± 1.0	40	9.3	± 1.0	54	11.3	± 1.0
13	5.5	± 1.0	27	7.5	± 1.0	41	9.5	± 1.0	55	11.5	± 1.0
14	5.6	± 1.0	28	7.6	± 1.0	42	9.6	± 1.0	56	11.6	± 1.0
15	5.8	± 1.0	29	7.8	± 1.0	43	9.7	± 1.0	57	11.7	± 1.0
16	5.9	± 1.0	30	7.9	± 1.0	44	9.9	± 1.0	58	11.9	± 1.0
17	6.0	± 1.0	31	8.0	± 1.0	45	10.0	± 1.0	59	12.0	± 1.0
18	6.2	± 1.0	32	8.2	± 1.0	46	10.2	± 1.0	60	12.2	± 1.0
19	6.3	± 1.0	33	8.3	± 1.0	47	10.3	± 1.0	>60	n/a	—
20	6.5	± 1.0	34	8.5	± 1.0	48	10.5	± 1.0			
21	6.6	± 1.0	35	8.6	± 1.0	49	10.6	± 1.0			
22	6.8	± 1.0	36	8.8	± 1.0	50	10.7	± 1.0			

**Hill**

Table 2-32: TCD: Hill (Fetal Age)Obstet Gyn, 75: 981-984, 1990Unit: TCD (mm); Age (Weeks); SD (Week)

TCD	Age	SD	TCD	Age	SD	TCD	Age	SD
<14	n/a	—	28	24.9	± 1.01	43	33.9	± 1.2
14	15.2	± 0.5	29	25.5	± 1.01	44	34.4	± 1.2
15	15.8	± 0.5	30	26.2	± 1.01	45	34.8	± 1.2
16	16.5	± 0.5	31	26.9	± 1.01	46	35.3	± 1.2
17	17.2	± 0.5	32	27.5	± 1.01	47	35.7	± 1.2
18	17.9	± 0.5	33	28.1	± 1.01	48	36.1	± 1.6
19	18.6	± 0.9	34	28.8	± 1.01	49	36.5	± 1.6
20	19.3	± 0.9	35	29.4	± 1.01	50	36.8	± 1.6
21	20.0	± 0.9	36	30.0	± 1.2	51	37.2	± 1.6
22	20.7	± 0.9	37	30.6	± 1.2	52	37.5	± 1.6
23	21.4	± 0.9	38	31.2	± 1.2	54	38.0	± 1.6
24	22.1	± 0.9	39	31.8	± 1.2	55	38.3	± 1.6
25	22.8	± 0.9	40	32.3	± 1.2	56	38.5	± 1.6
26	23.5	± 0.9	41	32.8	± 1.2	>56	n/a	—
27	24.2	± 1.01	42	33.4	± 1.2			

**Hohler**

Table 2-33: FL: Hohler (Fetal Growth)Communications in Brief, 143: 479-481, 1982

Age (Weeks)	Min (Index)	Max (Index)
23	71	87
40	71	87

**Jeanty**

Table 2-34: AC: Jeanty (Fetal Age)Jeanty, Radiology 143: 513, 1982Unit: AC (mm); Age (Day); SD (mm)

AC	Age	2SD	AC	Age	2SD	AC	Age	2SD	AC	Age	2SD
<50	n/a	—	115	122	22	185	169	22	255	218	22
50	79	22	120	125	22	190	172	22	260	222	22
55	82	22	125	129	22	195	176	22	265	226	22
60	85	22	130	132	22	200	179	22	270	230	22
65	89	22	135	135	22	205	182	22	275	234	22
70	92	22	140	139	22	210	186	22	280	239	22
75	95	22	145	142	22	215	189	22	285	244	22
80	99	22	150	146	22	220	192	22	290	249	22
85	102	22	155	149	22	225	196	22	295	254	22
90	105	22	160	152	22	230	199	22	300	259	22
95	109	22	165	156	22	235	203	22	305	265	22
100	112	22	170	159	22	240	206	22	310	272	22
105	115	22	175	162	22	245	210	22	315	279	22
110	119	22	180	166	22	250	214	22	>315	n/a	—

Table 2-35: BD: Jeanty (Fetal Age)Jeanty: Radiology 143: 513, 1982Unit: BD (mm); Age (Days); SD (mm)

BD	Age	SD	BD	Age	SD	BD	Age	SD	BD	Age	SD
<15	n/a	—	28	127	0	42	185	0	56	243	0
15	73	0	29	131	0	43	189	0	57	247	0
16	77	0	30	135	0	44	193	0	58	251	0
17	81	0	31	139	0	45	197	0	59	256	0
18	85	0	32	143	0	46	201	0	60	260	0
19	89	0	33	147	0	47	206	0	61	264	0
20	93	0	34	152	0	48	210	0	62	268	0
21	97	0	35	156	0	49	214	0	63	272	0
22	102	0	36	160	0	50	218	0	64	276	0
23	106	0	37	164	0	51	222	0	65	281	0
24	110	0	38	168	0	52	226	0	>65	n/a	—
25	114	0	39	172	0	53	231	0			
26	118	0	40	177	0	54	235	0			
27	122	0	41	181	0	55	239	0			

Table 2-36: BPD: Jeanty (Fetal Age)Jeanty: Radiology 143: 513, 1982Unit: Meas (mm); Min/Mean/Max (Weeks/Days); Table/Graph Range: 5%:95%

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<10	n/a	n/a	n/a	53	18w4d	21w1d	23w6d
10	6w4d	9w1d	11w6d	54	18w6d	21w4d	24w1d
11	6w6d	9w4d	12w1d	55	19w1d	21w6d	24w4d
12	7w0d	9w5d	12w3d	56	19w4d	22w1d	24w6d
13	7w2d	10w0d	12w5d	57	19w6d	22w4d	25w1d
14	7w4d	10w2d	12w6d	58	20w1d	22w6d	25w4d
15	7w6d	10w4d	13w1d	59	20w4d	23w1d	25w6d
16	8w1d	10w6d	13w3d	60	20w6d	23w4d	26w1d
17	8w3d	11w1d	13w5d	61	21w1d	23w6d	26w4d
18	8w4d	11w2d	14w0d	62	21w4d	24w1d	26w6d
19	8w6d	11w4d	14w1d	63	21w6d	24w4d	27w1d
20	9w1d	11w6d	14w4d	64	22w1d	24w6d	27w4d
21	9w3d	12w1d	14w6d	65	22w4d	25w2d	27w6d
22	9w5d	12w3d	15w0d	66	22w6d	25w4d	28w2d
23	9w6d	12w4d	15w2d	67	23w2d	26w0d	28w4d
24	10w1d	12w6d	15w4d	68	23w5d	26w3d	29w0d
25	10w4d	13w1d	15w6d	69	24w0d	26w5d	29w3d
26	10w5d	13w3d	16w1d	70	24w3d	27w1d	29w6d
27	11w0d	13w5d	16w3d	71	24w6d	27w4d	30w1d
28	11w2d	14w0d	16w4d	72	25w1d	27w6d	30w4d
29	11w4d	14w1d	16w6d	73	25w4d	28w2d	30w6d
30	11w6d	14w4d	17w1d	74	26w0d	28w5d	31w2d
31	12w1d	14w6d	17w3d	75	26w3d	29w1d	31w5d
32	12w2d	15w1d	17w5d	76	26w6d	29w4d	32w1d
33	12w4d	15w2d	18w0d	77	27w1d	29w6d	32w4d
34	12w6d	15w4d	18w2d	78	27w4d	30w2d	33w0d
35	13w1d	15w6d	18w4d	79	28w0d	30w5d	33w3d
36	13w4d	16w1d	18w6d	80	28w4d	31w1d	33w6d
37	13w5d	16w3d	19w1d	81	28w6d	31w4d	34w2d
38	14w0d	16w5d	19w3d	82	29w2d	32w0d	34w5d
39	14w2d	17w0d	19w5d	83	29w6d	32w4d	35w1d
40	14w4d	17w2d	19w6d	84	30w1d	32w6d	35w4d
41	14w6d	17w4d	20w1d	85	30w5d	33w3d	36w0d
42	15w1d	17w6d	20w4d	86	31w1d	33w6d	36w4d
43	15w3d	18w1d	20w6d	87	31w4d	34w2d	37w0d
44	15w5d	18w3d	21w1d	88	32w1d	34w6d	37w3d
45	16w0d	18w5d	21w3d	89	32w4d	35w2d	37w6d
46	16w2d	19w0d	21w5d	90	33w0d	35w5d	38w3d
47	16w4d	19w2d	22w0d	91	33w4d	36w1d	38w6d
48	16w6d	19w4d	22w2d	92	34w0d	36w5d	39w3d
49	17w1d	19w6d	22w4d	93	34w4d	37w1d	39w6d
50	17w4d	20w2d	22w6d	94	35w0d	37w5d	40w3d
51	17w6d	20w4d	23w1d	95	35w4d	38w2d	40w6d
52	18w1d	20w6d	23w4d	>95	n/a	n/a	n/a

Table 2-37: BPD: Jeanty (Fetal Growth)Jeanty: Radiology 143: 513, 1982Unit: Age (Weeks/Days); Min/Mean/Max (mm); Table/Graph Range: 5%:95%

Age	Min	Mean	Max	Age	Min	Mean	Max
10.0+0	9	14	18	26.0+0	62	67	71
11.0+0	13	17	22	27.0+0	65	70	74
12.0+0	16	21	25	28.0+0	68	72	77
13.0+0	20	24	29	29.0+0	70	75	79
14.0+0	23	28	32	30.0+0	73	77	82
15.0+0	27	31	36	31.0+0	75	79	84
16.0+0	30	35	39	32.0+0	77	82	86
17.0+0	34	38	43	33.0+0	79	84	88
18.0+0	37	42	46	34.0+0	81	86	90
19.0+0	40	45	49	35.0+0	83	87	92
20.0+0	44	48	53	36.0+0	84	89	93
21.0+0	47	51	56	37.0+0	86	90	95
22.0+0	50	55	59	38.0+0	87	91	96
23.0+0	53	58	62	39.0+0	88	93	97
24.0+0	56	61	65	40.0+0	89	93	98
25.0+0	59	64	68				

Table 2-38: CRL: Jeanty (Fetal Age)Jeanty: Radiology 143: 513, 1982Unit: CRL (mm); Age (Days); SD (mm)

CRL	Age	SD	CRL	Age	SD	CRL	Age	SD	CRL	Age	SD
<5	n/a	—	17	58	5	30	69	7	43	77	7
5	44	4	18	59	5	31	70	7	44	78	7
6	45	4	19	60	5	32	70	7	45	79	7
7	46	4	20	61	5	33	71	7	46	79	7
8	48	4	21	62	6	34	72	7	47	80	7
9	50	4	22	63	6	35	73	7	48	81	7
10	51	4	23	64	6	36	73	7	49	81	7
11	52	4	24	65	6	37	74	7	50	82	7
12	53	4	25	66	6	38	75	7	51	83	7
13	54	4	26	67	7	39	76	7	52	83	7
14	55	4	27	67	7	40	76	7	53	84	7
15	56	5	28	67	7	41	76	7	54	85	7
16	57	5	29	68	7	42	77	7	>54	n/a	—

Table 2-39: FIB: Jeanty (Fetal Growth)Fetal Limb Bimetry (Letter), Radiology 147:602, 1983Unit: Age (Weeks); Min/Mean/Max (mm); Table/Graph Range: 5%:95%

Age	Min	Mean	Max	Age	Min	Mean	Max
11	2	2	2	26	32	39	43
12	5	5	5	27	35	41	47
13	8	8	8	28	36	43	47
14	6	11	10	29	40	45	50
15	10	14	18	30	38	47	52
16	6	17	22	31	40	48	57
17	7	19	31	32	40	50	56
18	10	22	28	33	43	51	59
19	18	24	30	34	46	52	56
20	18	27	30	35	51	54	57
21	24	29	34	36	51	55	56
22	21	31	37	37	55	56	58
23	23	33	44	38	54	57	59
24	26	35	41	39	55	58	62
25	33	37	42	40	54	59	62

Table 2-40: FL: Jeanty (Fetal Age)Jeanty: Radiology 143: 513, 1982Unit: Meas (mm);  
Min/Mean/Max (Weeks/Days); Table/Graph Range: 5%:95%

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<14	n/a	n/a	n/a	48	24w0d	26w1d	28w3d
14	11w5d	13w6d	16w1d	49	24w3d	26w4d	28w6d
15	12w0d	14w1d	16w3d	50	24w6d	27w0d	29w1d
16	12w3d	14w4d	16w6d	51	25w1d	27w3d	29w4d
17	12w5d	14w6d	17w1d	52	25w4d	27w6d	30w0d
18	13w0d	15w1d	17w3d	53	26w0d	28w1d	30w3d
19	13w3d	15w4d	17w6d	54	26w3d	28w4d	30w6d
20	13w5d	15w6d	18w1d	55	26w6d	29w1d	31w2d
21	14w1d	16w2d	18w4d	56	27w2d	29w4d	31w5d
22	14w3d	16w4d	18w6d	57	27w5d	29w6d	32w1d
23	14w5d	16w6d	19w1d	58	28w1d	30w2d	32w4d
24	15w1d	17w2d	19w4d	59	28w4d	30w5d	32w6d
25	15w3d	17w4d	19w6d	60	28w6d	31w1d	33w2d
26	15w6d	18w0d	20w1d	61	29w3d	31w4d	33w6d
27	16w1d	18w2d	20w4d	62	29w6d	32w0d	34w1d
28	16w4d	18w5d	20w6d	63	30w1d	32w3d	34w4d
29	16w6d	19w0d	21w1d	64	30w5d	32w6d	35w1d
30	17w1d	19w3d	21w4d	65	31w1d	33w2d	35w4d
31	17w4d	19w6d	22w0d	66	31w4d	33w5d	35w6d
32	17w6d	20w1d	22w2d	67	32w0d	34w1d	36w3d
33	18w2d	20w4d	22w5d	68	32w3d	34w4d	36w6d
34	18w5d	20w6d	23w1d	69	32w6d	35w0d	37w1d
35	19w0d	21w1d	23w3d	70	33w2d	35w4d	37w5d
36	19w3d	21w4d	23w6d	71	33w5d	35w6d	38w1d
37	19w6d	22w0d	24w1d	72	34w1d	36w3d	38w4d
38	20w1d	22w3d	24w4d	73	34w4d	36w6d	39w0d
39	20w4d	22w5d	24w6d	74	35w1d	37w2d	39w4d
40	20w6d	23w1d	25w2d	75	35w4d	37w5d	39w6d
41	21w2d	23w4d	25w5d	76	36w0d	38w1d	40w3d
42	21w5d	23w6d	26w1d	77	36w3d	38w4d	40w6d
43	22w1d	24w2d	26w4d	78	36w6d	39w1d	41w2d
44	22w4d	24w5d	26w6d	79	37w2d	39w4d	41w5d
45	22w6d	25w0d	27w1d	80	37w6d	40w0d	42w1d
46	23w1d	25w3d	27w4d	>80	n/a	n/a	n/a
47	23w4d	25w6d	28w0d				

Table 2-41: FL: Jeanty (Fetal Growth)Jeanty: Radiology 143: 513, 1982Unit: Age (Weeks/Days); Min/Mean/Max (mm); Table/Graph Range: 5%:95%

Age	Min	Mean	Max	Age	Min	Mean	Max
12.0+0	4	8	13	27.0+0	45	49	54
13.0+0	6	11	16	28.0+0	47	52	56
14.0+0	9	14	18	29.0+0	50	54	59
15.0+0	12	17	21	30.0+0	52	56	61
16.0+0	15	20	24	31.0+0	54	59	63
17.0+0	18	23	27	32.0+0	56	61	65
18.0+0	21	25	30	33.0+0	58	63	67
19.0+0	24	28	33	34.0+0	60	65	69
20.0+0	26	31	36	35.0+0	62	67	71
21.0+0	29	34	38	36.0+0	64	68	73
22.0+0	32	36	41	37.0+0	65	70	74
23.0+0	35	39	44	38.0+0	67	71	76
24.0+0	37	42	46	39.0+0	68	73	77
25.0+0	40	44	49	40.0+0	70	74	79
26.0+0	42	47	51				

Table 2-42: HC: Jeanty (Fetal Age)Jeanty: Radiology 143: 513, 1982Unit: Meas (mm); Min/Mean/Max (Weeks/Days); Table/Graph Range: 5%:95%

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<80	n/a	n/a	n/a	225	22w3d	24w3d	26w2d
80	11w3d	13w2d	15w2d	230	22w6d	24w6d	26w6d
85	11w5d	13w5d	15w4d	235	23w3d	25w3d	27w2d
90	11w7d	13w7d	15w6d	240	23w6d	25w6d	27w6d
95	12w2d	14w2d	16w2d	245	24w3d	26w3d	28w2d
100	12w4d	14w4d	16w4d	250	24w7d	26w6d	28w6d
105	12w7d	14w6d	16w6d	255	25w4d	27w3d	29w3d
110	13w2d	15w2d	17w1d	260	26w0d	28w0d	29w7d
115	13w4d	15w4d	17w4d	265	26w4d	28w4d	30w4d
120	13w6d	15w6d	17w6d	270	27w1d	29w1d	31w1d
125	14w2d	16w2d	18w1d	275	27w6d	29w5d	31w5d
130	14w4d	16w4d	18w4d	280	28w3d	30w2d	32w2d
135	14w7d	16w6d	18w6d	285	28w7d	30w7d	32w6d
140	15w2d	17w2d	19w2d	290	29w4d	31w4d	33w4d
145	15w5d	17w4d	19w4d	295	30w2d	32w1d	34w1d
150	16w0d	17w7d	19w7d	300	30w6d	32w6d	34w6d
155	16w3d	18w3d	20w2d	305	31w4d	33w4d	35w3d
160	16w6d	18w5d	20w5d	310	32w2d	34w1d	36w1d
165	17w1d	19w1d	21w1d	315	32w6d	34w6d	36w6d
170	17w4d	19w4d	21w3d	320	33w4d	35w4d	37w4d
175	17w7d	19w6d	21w6d	325	34w2d	36w2d	38w2d
180	18w3d	20w2d	22w2d	330	35w0d	37w0d	38w7d
185	18w6d	20w5d	22w5d	335	35w6d	37w5d	39w5d
190	19w1d	21w1d	23w1d	340	36w4d	38w4d	40w3d
195	19w4d	21w4d	23w4d	345	37w2d	39w2d	41w2d
200	20w1d	22w0d	23w7d	350	38w1d	40w0d	42w0d
205	20w4d	22w3d	24w3d	355	38w6d	40w6d	42w6d
210	20w7d	22w7d	24w6d	360	39w5d	41w5d	43w4d
215	21w3d	23w3d	25w3d	>360	n/a	n/a	n/a
220	21w6d	23w6d	25w6d				

Table 2-43: HC: Jeanty (Fetal Growth)Jeanty: Radiology 143: 513, 1982Unit: Age (Weeks/Days); Min/Mean/Max (mm); Table/Graph Range: 5%:95%

Age	Min	Mean	Max	Age	Min	Mean	Max
12.0+0	51	75	100	27.0+0	228	252	277
13.0+0	64	88	112	28.0+0	238	262	286
14.0+0	76	101	125	29.0+0	247	271	296
15.0+0	89	113	138	30.0+0	256	281	305
16.0+0	101	126	150	31.0+0	265	289	313
17.0+0	114	138	163	32.0+0	273	297	322
18.0+0	126	151	175	33.0+0	281	305	329
19.0+0	138	163	187	34.0+0	288	312	336
20.0+0	150	175	199	35.0+0	294	319	343
21.0+0	162	187	211	36.0+0	300	325	349
22.0+0	174	198	223	37.0+0	306	330	355
23.0+0	185	210	234	38.0+0	311	335	359
24.0+0	196	221	245	39.0+0	315	339	364
25.0+0	207	232	256	40.0+0	319	343	367
26.0+0	218	242	266				

Table 2-44: HL: Jeanty (Fetal Age)Obstetrical Ultrasound, Table 13.9, 1984Unit: Meas (mm); Min/Mean/Max (Weeks/Days); Table/Graph Range: 5%:95%

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<10	n/a	n/a	n/a	40	21w4d	24w2d	27w1d
10	9w6d	12w4d	15w2d	41	22w0d	24w6d	27w4d
11	10w1d	12w6d	15w4d	42	22w4d	25w2d	28w0d
12	10w3d	13w1d	15w6d	43	23w0d	25w5d	28w4d
13	10w6d	13w4d	16w1d	44	23w4d	26w1d	29w0d
14	11w1d	13w6d	16w4d	45	24w0d	26w5d	29w4d
15	11w3d	14w1d	16w6d	46	24w4d	27w1d	30w0d
16	11w6d	14w4d	17w2d	47	25w0d	27w5d	30w4d
17	21w1d	14w6d	17w4d	48	25w4d	28w1d	31w0d
18	12w4d	15w1d	18w0d	49	26w0d	28w6d	31w4d
19	12w6d	15w4d	18w2d	50	26w4d	29w2d	32w0d
20	13w1d	15w6d	18w5d	51	27w1d	29w6d	32w4d
21	13w4d	16w2d	19w1d	52	27w4d	30w2d	33w1d
22	13w6d	16w5d	19w3d	53	28w1d	30w6d	33w4d
23	14w2d	17w1d	19w6d	54	28w5d	31w3d	34w1d
24	14w5d	17w3d	20w1d	55	29w1d	32w0d	34w5d
25	15w1d	17w6d	20w4d	56	29w6d	32w4d	35w2d
26	15w4d	18w1d	21w0d	57	30w2d	33w1d	35w6d
27	15w6d	18w4d	21w3d	58	30w6d	33w4d	36w3d
28	16w2d	19w0d	21w6d	59	31w3d	34w1d	36w6d
29	16w5d	19w3d	22w1d	60	32w0d	34w6d	37w4d
30	17w1d	19w6d	22w4d	61	32w4d	35w2d	38w1d
31	17w4d	20w2d	23w0d	62	33w1d	35w6d	38w5d
32	18w0d	20w5d	23w4d	63	33w6d	36w4d	39w2d
33	18w3d	21w1d	23w6d	64	34w3d	37w1d	39w6d
34	18w6d	21w4d	24w2d	65	35w0d	37w5d	40w4d
35	19w2d	22w0d	24w6d	66	35w4d	38w2d	41w1d
36	19w5d	22w4d	25w1d	67	36w1d	38w6d	41w5d
37	20w1d	22w6d	25w5d	68	36w6d	39w4d	42w2d
38	20w4d	23w3d	26w1d	69	37w3d	40w1d	42w6d
39	21w1d	23w6d	26w4d	>69	n/a	n/a	n/a

Table 2-45: Radius: Jeanty (Fetal Growth)Fetal Limb Bimetry (Letter), Radiology  
147:602, 1983Unit: Age (weeks); Min/Mean/Max (mm); Table/Graph Range: 5%:95%

Age	Min	Mean	Max	Age	Min	Mean	Max
<11	n/a	n/a	n/a	26	30	37	41
11	5	5	5	27	33	39	45
12	7	7	7	28	33	40	45
13	10	10	10	29	36	42	47
14	8	13	12	30	34	43	49
15	12	15	19	31	34	44	53
16	9	18	21	32	37	45	51
17	11	20	29	33	41	46	51
18	14	22	26	34	39	47	53
19	20	24	29	35	38	48	57
20	21	27	28	36	41	48	54
21	25	29	32	37	45	49	53
22	24	31	34	38	45	49	53
23	26	32	39	39	46	50	54
24	27	34	38	40	46	50	54
25	31	36	40	>40	n/a	n/a	n/a

Table 2-46: TIB: Jeanty (Fetal Age)Obstetrical Ultrasound, Table 13.9, 1984Unit: Meas (mm); Min/Mean/Max (Weeks/Days); Table/Graph Range: 5%:95%

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<10	n/a	n/a	n/a	40	22w3d	25w2d	28w1d
10	10w4d	13w3d	16w2d	41	22w6d	25w5d	28w4d
11	10w6d	13w5d	16w4d	42	23w2d	26w1d	29w1d
12	11w1d	14w1d	17w0d	43	23w5d	26w4d	29w4d
13	11w4d	14w3d	17w2d	44	24w1d	27w1d	30w0d
14	11w6d	14w6d	17w5d	45	24w4d	27w4d	30w4d
15	12w1d	15w1d	18w0d	46	25w1d	28w0d	30w6d
16	12w4d	15w4d	18w3d	47	25w4d	28w4d	31w3d
17	13w0d	15w6d	18w6d	48	26w1d	29w0d	31w6d
18	13w2d	16w1d	19w1d	49	26w4d	29w3d	32w2d
19	13w5d	16w4d	19w4d	50	27w0d	29w6d	32w6d
20	14w1d	17w0d	19w6d	51	27w4d	30w3d	33w2d
21	14w4d	17w3d	20w2d	52	28w0d	30w6d	33w6d
22	14w6d	17w6d	20w5d	53	28w4d	31w3d	34w2d
23	15w1d	18w1d	21w1d	54	29w0d	31w6d	34w6d
24	15w4d	18w4d	21w3d	55	29w4d	32w3d	35w2d
25	16w0d	18w6d	21w6d	56	30w0d	32w6d	35w6d
26	16w3d	19w2d	22w1d	57	30w4d	33w3d	36w2d
27	16w6d	19w5d	22w4d	58	31w0d	33w6d	36w6d
28	17w1d	20w1d	23w0d	59	31w4d	34w3d	37w2d
29	17w4d	20w4d	23w4d	60	32w0d	34w6d	37w6d
30	18w1d	21w0d	23w6d	61	32w4d	35w3d	38w2d
31	18w4d	21w3d	24w2d	62	33w0d	35w6d	38w6d
32	18w6d	21w6d	24w5d	63	33w4d	36w4d	39w3d
33	19w2d	22w1d	25w1d	64	34w1d	37w0d	39w6d
34	19w5d	22w4d	25w4d	65	34w4d	37w4d	40w3d
35	20w1d	23w1d	26w0d	66	35w1d	38w0d	41w0d
36	20w4d	23w4d	26w3d	67	35w5d	38w4d	41w4d
37	21w0d	23w6d	26w6d	68	36w1d	39w1d	42w0d
38	21w4d	24w3d	27w2d	69	36w6d	39w5d	42w4d
39	21w6d	24w6d	27w5d	>69	n/a	n/a	n/a

Table 2-47: ULNA: Jeanty (Fetal Age)Obstetrical Ultrasound, Table 13.9, 1984Unit:  
Meas (mm); Min/Mean/Max (Weeks/Days); Table/Graph Range: 5%:95%

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<10	n/a	n/a	n/a	38	22w1d	25w1d	28w1d
10	10w1d	13w1d	16w1d	39	22w4d	25w4d	28w5d
11	10w4d	13w4d	16w4d	40	23w1d	26w1d	29w1d
12	10w6d	13w6d	16w6d	41	23w4d	26w5d	29w5d
13	11w1d	14w1d	17w2d	42	24w1d	27w1d	30w2d
14	11w4d	14w4d	17w5d	43	24w5d	27w5d	30w6d
15	11w6d	15w0d	18w0d	44	25w1d	28w2d	31w2d
16	12w2d	15w3d	18w3d	45	25w6d	28w6d	31w6d
17	12w5d	15w5d	18w6d	46	26w2d	29w3d	32w3d
18	13w1d	16w1d	19w1d	47	26w6d	29w6d	33w0d
19	13w4d	16w4d	19w4d	48	27w3d	30w4d	33w4d
20	13w6d	16w6d	20w0d	49	28w0d	31w1d	34w1d
21	14w2d	17w2d	20w3d	50	28w4d	31w4d	34w5d
22	14w5d	17w5d	20w6d	51	29w1d	32w1d	35w2d
23	15w1d	18w1d	21w1d	52	29w5d	32w6d	35w6d
24	15w4d	18w4d	21w4d	53	30w2d	33w3d	36w3d
25	16w0d	19w0d	22w1d	54	30w6d	34w0d	37w0d
26	16w3d	19w3d	22w4d	55	31w4d	34w4d	37w5d
27	16w6d	19w6d	22w6d	56	32w1d	35w1d	38w2d
28	17w2d	20w2d	23w3d	57	32w6d	35w6d	38w6d
29	17w5d	20w6d	23w6d	58	33w3d	36w3d	39w4d
30	18w1d	21w1d	24w2d	59	34w0d	37w1d	40w1d
31	18w4d	21w5d	24w6d	60	34w4d	37w5d	40w6d
32	19w1d	22w1d	25w1d	61	35w2d	38w2d	41w3d
33	19w4d	22w5d	25w5d	62	35w6d	39w0d	42w0d
34	20w1d	23w1d	26w1d	63	36w4d	39w4d	42w5d
35	20w4d	23w4d	26w5d	64	37w1d	40w2d	43w2d
36	21w1d	24w1d	27w1d	>64	n/a	n/a	n/a
37	21w4d	24w4d	27w5d				

**JSUM**

Table 2-48: AC, JSUM, J Med Ultrasound Vol.28 No.5 (2001)Unit: AC (cm); Age (w+d); SD (cm)

Age	AC	Age	1SD	Age	AC	Age	1SD
16	10.4	16+0	0.57	30	24.2	30+0	1.24
17	11.4	17+0	0.62	31	25.1	31+0	1.29
18	12.5	18+0	0.67	32	25.9	32+0	1.33
19	13.5	19+0	0.71	33	26.8	33+0	1.38
20	14.5	20+0	0.76	34	27.6	34+0	1.43
21	15.5	21+0	0.81	35	28.4	35+0	1.48
22	16.5	22+0	0.86	36	29.2	36+0	1.52
23	17.5	23+0	0.90	37	29.9	37+0	1.57
24	18.5	24+0	0.95	38	30.6	38+0	1.62
25	19.5	25+0	1.00	39	31.3	39+0	1.67
26	20.5	26+0	1.05	40	31.9	40+0	1.71
27	21.4	27+0	1.10	41	32.5	41+0	1.76
28	22.4	28+0	1.14	42	33.1	42+0	1.81
29	23.3	29+0	1.19				

Table 2-49: BPD, JSUM, J Med Ultrasound Vol.28 No.5 (2001)Unit: BPD (mm); Age (w+d); SD (mm)

Age	BPD	Age	1SD	Age	BPD	Age	1SD
10	12.6	10+0	2.29	27	67.4	27+0	3.23
11	15.9	11+0	2.34	28	70.1	28+0	3.29
12	19.3	12+0	2.40	29	72.6	29+0	3.35
13	22.7	13+0	2.45	30	75.1	30+0	3.40
14	26.1	14+0	2.51	31	77.4	31+0	3.46
15	29.5	15+0	2.57	32	79.6	32+0	3.51
16	32.9	16+0	2.62	33	81.7	33+0	3.57
17	36.3	17+0	2.68	34	83.6	34+0	3.62
18	39.6	18+0	2.73	35	85.3	35+0	3.68
19	43.0	19+0	2.79	36	86.9	36+0	3.74
20	46.2	20+0	2.84	37	88.3	37+0	3.79
21	49.5	21+0	2.90	38	89.6	38+0	3.85
22	52.6	22+0	2.96	39	90.6	39+0	3.90
23	55.7	23+0	3.01	40	91.5	40+0	3.96
24	58.8	24+0	3.07	41	92.2	41+0	4.01
25	61.7	25+0	3.12	42	92.6	42+0	4.07
26	64.6	26+0	3.18				

Table 2-50: CRL, JSUM, J Med Ultrasound Vol.28 No.5 (2001)Unit: GA (week+day); CRL (mm)

GA	CRL				
	5%	10%	50%	90%	95%
7W+0	5.7	6.8	10.1	16.0	17.2
7W+2	6.0	7.3	10.5	15.7	16.4
7W+4	6.5	8.1	11.3	16.0	16.6
7W+6	7.2	9.0	12.5	17.0	17.5
8W+1	8.1	10.2	14.0	18.4	19.1
8W+3	9.1	11.6	15.8	20.4	21.3
8W+5	10.3	13.1	17.8	22.7	24.0
9W+0	11.7	14.9	20.0	25.4	27.0
9W+2	13.3	16.7	22.5	28.3	30.3
9W+4	15.1	18.7	25.0	31.4	33.7
9W+6	17.1	20.9	27.6	34.6	37.3
10W+1	19.2	23.1	30.3	37.8	40.7
10W+3	21.5	25.4	33.1	41.0	44.1
10W+5	24.1	27.9	35.8	44.1	47.1
11W+0	26.7	30.4	38.4	47.0	49.8
11W+2	29.6	32.9	40.9	49.6	52.1
11W+4	32.7	35.5	43.3	51.9	53.8

Table 2-51: EFW, JSUM, J Med Ultrasound Vol.28 No.5 (2001)Unit: EFW (g); Age (w+d); 1SD (g)

Age	EFW	Age	1SD	Age	EFW	Age	1SD
18	187	18+0	30.13	30	1,470	30+0	185.98
19	247	19+0	40.47	31	1,635	31+0	202.09
20	313	20+0	51.30	32	1,805	32+0	218.68
21	387	21+0	62.61	33	1,980	33+0	235.75
22	469	22+0	74.39	34	2,156	34+0	253.30
23	560	23+0	86.66	35	2,333	35+0	271.33
24	660	24+0	99.41	36	2,507	36+0	289.84
25	771	25+0	112.64	37	2,676	37+0	308.83
26	892	26+0	126.35	38	2,838	38+0	328.30
27	1,023	27+0	140.53	39	2,989	39+0	348.25
28	1,163	28+0	155.20	40	3,125	40+0	368.68
29	1,313	29+0	170.35	41	3,244	41+0	389.59

Table 2-52: FL, JSUM, J Med Ultrasound Vol.28 No.5 (2001)Unit: FL (mm); Age (w+d); SD (mm)

Age	FL	Age	1SD	Age	FL	Age	1SD
16	20.1	16+0	2.64	30	53.8	30+0	3.11
17	22.7	17+0	2.67	31	55.8	31+0	3.15
18	25.3	18+0	2.71	32	57.8	32+0	3.18
19	27.8	19+0	2.74	33	59.6	33+0	3.21
20	30.4	20+0	2.77	34	61.4	34+0	3.25
21	32.9	21+0	2.81	35	63.0	35+0	3.28
22	35.4	22+0	2.84	36	64.6	36+0	3.31
23	37.9	23+0	2.88	37	66.0	37+0	3.35
24	40.3	24+0	2.91	38	67.4	38+0	3.38
25	42.7	25+0	2.94	39	68.6	39+0	3.42
26	45.0	26+0	2.98	40	69.6	40+0	3.45
27	47.3	27+0	3.01	41	70.6	41+0	3.48
28	49.6	28+0	3.04	42	71.4	42+0	3.52
29	51.7	29+0	3.08				

Table 2-53: MCA PI values with advance in gestationJSUM, J Med Ultrasound Vol.28 No.5 (2001)Unit: Age (Weeks)

Age	5%	10%	50%	90%	95%	Age	5%	10%	50%	90%	95%
20	1.271	1.270	1.440	1.880	1.990	31	1.446	1.515	1.933	2.436	2.489
21	1.318	1.329	1.537	1.986	2.091	32	1.425	1.493	1.915	2.420	2.468
22	1.359	1.381	1.623	2.080	2.182	33	1.397	1.464	1.887	2.394	2.435
23	1.393	1.426	1.699	2.164	2.261	34	1.363	1.427	1.849	2.356	2.390
24	1.421	1.463	1.765	2.236	2.328	35	1.324	1.383	1.800	2.308	2.335
25	1.444	1.493	1.820	2.298	2.385	36	1.277	1.331	1.741	2.248	2.268
26	1.459	1.515	1.865	2.348	2.430	37	1.225	1.272	1.671	2.178	2.191
27	1.469	1.530	1.899	2.388	2.465	38	1.167	1.205	1.591	2.096	2.102
28	1.473	1.537	1.923	2.416	2.488	39	1.102	1.131	1.501	2.004	2.001
29	1.470	1.537	1.937	2.434	2.499	40	1.031	1.050	1.400	1.900	1.890
30	1.461	1.530	1.940	2.440	2.500	41	0.954	0.961	1.289	1.786	1.767

Table 2-54: MCA RI values with advance in gestationJSUM, J Med Ultrasound Vol.28 No.5 (2001)Unit: Age (Weeks)

Age	5%	10%	50%	90%	95%	Age	5%	10%	50%	90%	95%
20	0.717	0.718	0.775	0.842	0.871	31	0.769	0.789	0.865	0.922	0.928
21	0.731	0.735	0.793	0.857	0.883	32	0.762	0.783	0.862	0.920	0.925
22	0.742	0.749	0.808	0.871	0.894	33	0.755	0.775	0.857	0.916	0.920
23	0.753	0.761	0.821	0.883	0.903	34	0.745	0.766	0.851	0.911	0.914
24	0.761	0.772	0.833	0.894	0.911	35	0.733	0.754	0.843	0.904	0.907
25	0.767	0.780	0.743	0.903	0.918	36	0.720	0.740	0.833	0.895	0.898
26	0.772	0.787	0.851	0.910	0.923	37	0.705	0.725	0.821	0.885	0.888
27	0.775	0.791	0.857	0.916	0.927	38	0.688	0.707	0.808	0.873	0.876
28	0.776	0.793	0.862	0.920	0.929	39	0.669	0.688	0.793	0.859	0.863
29	0.775	0.794	0.865	0.922	0.930	40	0.649	0.666	0.775	0.844	0.849
30	0.773	0.792	0.865	0.923	0.930	41	0.627	0.643	0.757	0.827	0.833

Table 2-55: UMA PI values with advance in gestationJSUM, J Med Ultrasound Vol.28  
No.5 (2001)Unit: Age (Weeks)

Age	5%	10%	50%	90%	95%	Age	5%	10%	50%	90%	95%
20	1.118	1.144	1.390	1.620	1.688	31	0.766	0.821	0.986	1.161	1.285
21	1.075	1.106	1.340	1.565	1.641	32	0.747	0.802	0.965	1.135	1.261
22	1.034	1.069	1.293	1.513	1.597	33	0.731	0.785	0.947	1.112	1.238
23	0.996	1.034	1.249	1.464	1.554	34	0.716	0.770	0.931	1.091	1.218
24	0.959	1.001	1.207	1.417	1.514	35	0.704	0.757	0.918	1.073	1.199
25	0.925	0.970	1.168	1.373	1.475	36	0.694	0.746	0.907	1.057	1.182
26	0.893	0.941	1.131	1.331	1.438	37	0.686	0.736	0.899	1.044	1.168
27	0.863	0.913	1.097	1.292	1.404	38	0.681	0.728	0.893	1.033	1.155
28	0.836	0.887	1.065	1.255	1.371	39	0.677	0.722	0.890	1.025	1.145
29	0.810	0.863	1.036	1.221	1.341	40	0.676	0.718	0.890	1.020	1.136
30	0.787	0.841	1.010	1.190	1.312	41	0.677	0.716	0.892	1.017	1.129

Table 2-56: UMA RI values with advance in gestationJSUM, J Med Ultrasound Vol.28  
No.5 (2001)Unit: Age (Weeks)

Age	5%	10%	50%	90%	95%	Age	5%	10%	50%	90%	95%
20	0.698	0.722	0.778	0.820	0.846	31	0.535	0.589	0.648	0.700	0.746
21	0.680	0.707	0.763	0.808	0.836	32	0.524	0.580	0.640	0.690	0.738
22	0.663	0.692	0.749	0.796	0.826	33	0.513	0.573	0.632	0.681	0.730
23	0.646	0.679	0.735	0.785	0.816	34	0.503	0.565	0.625	0.672	0.723
24	0.630	0.665	0.722	0.774	0.807	35	0.494	0.559	0.619	0.663	0.716
25	0.615	0.653	0.710	0.763	0.798	36	0.485	0.552	0.613	0.654	0.708
26	0.600	0.640	0.698	0.752	0.788	37	0.477	0.547	0.608	0.645	0.702
27	0.586	0.629	0.687	0.741	0.780	38	0.469	0.542	0.603	0.636	0.695
28	0.572	0.618	0.676	0.730	0.771	39	0.462	0.538	0.599	0.628	0.688
29	0.559	0.608	0.666	0.720	0.762	40	0.456	0.534	0.596	0.620	0.682
30	0.547	0.598	0.657	0.710	0.754	41	0.450	0.531	0.593	0.612	0.676

**Kurtz**

Table 2-57: BPD: Kurtz (Fetal Age)Journal of Clinical Ultrasound, 8: 319-326, 1980Unit: BPD (mm); Age (Days); SD (mm)

BPD	Age	SD	BPD	Age	SD	BPD	Age	SD	BPD	Age	SD
<21	n/a	—	40	125	4	60	168	5	80	222	5
21	84	4	41	127	4	61	170	5	81	225	5
22	87	4	42	129	4	62	173	5	82	229	5
23	91	4	43	131	4	63	175	5	83	232	5
24	93	4	44	133	4	64	178	5	84	235	5
25	95	4	45	135	4	65	181	5	85	238	5
26	97	4	46	137	4	66	183	5	86	241	5
27	99	4	47	139	4	67	186	5	87	244	5
28	101	4	48	141	4	68	188	5	88	248	5
29	103	4	49	143	4	69	191	5	89	252	5
30	105	4	50	145	4	70	194	5	90	257	5
31	107	4	51	147	4	71	196	5	91	262	5
32	109	4	52	149	4	72	199	5	92	267	5
33	111	4	53	151	4	73	201	5	93	272	5
34	113	4	54	153	4	74	204	5	94	276	5
35	115	4	55	155	5	75	207	5	95	280	5
36	117	4	56	157	5	76	210	5	96	284	5
37	119	4	57	160	5	77	213	5	97	288	5
38	121	4	58	162	5	78	216	5	98	293	5
39	123	4	59	165	5	79	219	5	>98	n/a	—

**Mayden**

Table 2-58: IOD: Mayden (Fetal Age)Am J Obstet Gynecol 144:289, 1982Unit: Meas (mm); Mean (Weeks)

Meas	Mean	Meas	Mean	Meas	Mean	Meas	Mean
5	11.6	11	17.9	16	24.3	19	32.5
5	11.6	12	18.4	16	24.7	19	33.0
6	12.1	12	18.9	16	25.2	19	33.5
6	12.6	12	19.4	16	25.2	19	34.0
6	12.6	13	19.4	17	25.7	19	34.4
7	13.1	13	19.9	17	26.2	19	35.0
7	13.6	13	20.4	17	26.2	19	35.4
7	13.6	13	20.4	17	26.7	19	35.9
8	14.1	14	20.9	17	27.2	19	36.4
8	14.6	14	21.3	17	27.6	19	36.9
8	14.6	14	21.3	17	28.1	19	37.3
9	15.0	14	21.8	18	28.6	19	37.8
9	15.5	14	22.3	18	29.1	19	38.3
9	15.5	15	22.3	18	29.6	19	38.3
10	16.0	15	22.8	18	30.0	19	39.3
10	16.5	15	23.3	18	30.6	19	39.8
10	16.5	15	23.3	18	31.0		
10	17.0	15	23.8	18	31.5		
11	17.5	16	24.3	18	32.0		

Table 2-59: OOD: Mayden (Fetal Age)Am J Obstet Gynecol 144:289, 1982Unit: Meas (mm); Mean (Weeks)

Meas	Mean	Meas	Mean	Meas	Mean	Meas	Mean
13	11.6	28	17.9	42	24.3	52	32.5
14	11.6	30	18.4	43	24.7	53	33.0
15	12.1	31	18.9	43	25.2	54	33.5
16	12.6	32	19.4	44	25.2	54	34.0
17	12.6	32	19.4	44	25.7	54	34.4
17	13.1	33	19.9	45	26.2	55	35.0
18	13.6	34	20.4	45	26.2	55	35.4
19	13.6	34	20.4	46	26.7	56	35.9
20	14.1	35	20.9	46	27.2	56	36.4
21	14.6	36	21.3	47	27.6	57	36.9
21	14.6	36	21.3	47	28.1	57	37.3
22	15.0	37	21.8	48	28.6	58	37.8
23	15.5	38	22.3	48	29.1	58	38.3
24	15.5	38	22.3	49	29.6	58	38.3
25	16.0	39	22.8	50	30.0	59	39.3
25	16.5	40	23.3	50	30.6	59	39.8
26	16.5	40	23.3	51	31.0		
27	17.0	41	23.8	51	31.5		
27	17.5	41	24.3	52	32.0		

**Mercer**

Table 2-60: Ft: Mercer (Fetal Age)Am J Obstet Gynecol, 156: 350-355, 1987Unit: Meas (mm); Min/Mean/Max (Weeks); Table/Graph Range: 2SD

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<10	n/a	n/a	n/a	50	24.3	26.4	28.4
10	11.5	12.5	13.5	52	24.9	27.1	29.3
12	12.1	13.1	14.2	54	25.7	27.9	30.1
14	12.7	13.8	14.9	56	26.4	28.4	30.9
16	13.3	14.4	15.5	58	27.1	29.4	31.8
18	13.9	15.1	16.3	60	27.8	30.2	32.6
20	14.5	15.7	17.0	62	28.5	31.0	33.5
22	15.1	16.4	17.7	64	29.3	31.8	34.3
24	15.7	17.1	18.4	66	30.0	32.6	35.2
26	16.3	17.7	19.1	68	30.7	33.4	36.1
28	16.9	18.4	19.9	70	31.5	34.2	36.9
30	17.6	19.1	20.6	72	32.2	35.0	37.8
32	18.2	19.8	21.4	74	33.0	35.9	38.7
34	18.9	20.5	22.1	76	33.8	36.8	39.6
36	19.5	21.2	22.9	78	34.5	37.5	40.5
38	20.2	21.9	23.7	80	35.3	38.4	41.4
40	20.8	22.7	24.5	82	36.1	39.2	42.4
42	21.5	23.4	25.2	84	36.9	40.1	43.3
44	22.2	24.1	26.0	86	37.7	41.0	44.2
46	22.9	24.9	26.8	>86	n/a	n/a	n/a
48	23.6	25.6	27.6				

## Merz

Table 2-61: AC: Merz (Fetal Age) Habilitationsschrift, Mainz University Women's Hospital, 1988, Unit: Meas (mm); Min/Mean/Max (Weeks); Table/Graph Range: 5%:95%

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<56	n/a	n/a	n/a	148	19w2d	20w6d	22w3d
56	10w6d	12w1d	13w2d	150	19w4d	21w1d	22w4d
58	11w1d	12w2d	13w4d	152	19w5d	21w1d	22w6d
60	11w2d	12w4d	13w5d	154	19w6d	21w3d	23w0d
62	11w4d	12w5d	13w6d	156	20w1d	21w4d	23w1d
64	11w5d	12w6d	14w1d	158	20w1d	21w6d	23w3d
66	11w6d	13w1d	14w2d	160	20w3d	22w0d	23w4d
68	12w0d	13w2d	14w4d	162	20w4d	22w1d	23w6d
70	12w1d	13w4d	14w5d	164	20w6d	22w3d	24w0d
72	12w3d	13w4d	14w6d	166	21w0d	22w4d	24w1d
74	12w4d	13w6d	15w1d	168	21w1d	22w6d	24w3d
76	12w6d	14w0d	15w2d	170	21w2d	23w0d	24w4d
78	12w6d	14w1d	15w4d	172	21w4d	23w1d	24w6d
80	13w1d	14w3d	15w5d	174	21w5d	23w2d	25w0d
82	13w2d	14w4d	15w6d	176	21w6d	23w4d	25w1d
84	13w4d	14w6d	16w1d	178	22w1d	23w5d	25w3d
86	13w5d	15w0d	16w2d	180	22w1d	23w6d	25w4d
88	13w6d	15w1d	16w4d	182	22w3d	24w1d	25w6d
90	14w0d	15w3d	16w5d	184	22w4d	24w2d	26w0d
92	14w1d	15w4d	16w6d	186	22w6d	24w4d	26w1d
94	14w3d	15w5d	17w1d	188	23w0d	24w5d	26w3d
96	14w4d	15w6d	17w2d	190	23w1d	24w6d	26w4d
98	14w6d	16w1d	17w4d	192	23w2d	25w0d	26w6d
100	14w6d	16w2d	17w5d	194	23w4d	25w1d	27w0d
102	15w1d	16w4d	17w6d	196	23w5d	25w3d	27w1d
104	15w2d	16w5d	18w1d	198	23w6d	25w4d	27w3d
106	15w4d	16w6d	18w2d	200	24w1d	25w6d	27w4d
108	15w5d	17w1d	18w3d	202	24w2d	26w0d	27w6d
110	15w6d	17w2d	18w4d	204	24w3d	26w1d	27w6d
112	16w0d	17w3d	18w6d	206	24w4d	26w3d	28w1d
114	16w1d	17w4d	19w0d	208	24w6d	26w4d	28w2d
116	16w3d	17w6d	19w1d	210	25w0d	26w6d	28w4d
118	16w4d	18w0d	19w3d	212	25w1d	27w0d	28w5d
120	16w6d	18w1d	19w4d	214	25w2d	27w1d	28w6d
122	17w0d	18w3d	19w6d	216	25w4d	27w2d	29w1d
124	17w1d	18w4d	20w0d	218	25w5d	27w4d	29w2d
126	17w2d	18w6d	20w1d	220	25w6d	27w5d	29w4d
128	17w4d	19w0d	20w3d	222	26w1d	27w6d	29w5d
130	17w5d	19w1d	20w4d	224	26w2d	28w1d	29w6d
132	17w6d	19w2d	20w6d	226	26w3d	28w2d	30w1d
134	18w0d	19w4d	21w0d	228	26w4d	28w4d	30w2d
136	18w1d	19w5d	21w1d	230	26w6d	28w5d	30w4d
138	18w3d	19w6d	21w3d	232	27w0d	28w6d	30w5d
140	18w4d	20w1d	21w4d	234	27w1d	29w0d	30w6d
142	18w6d	20w2d	21w6d	236	27w3d	29w1d	31w1d
144	19w0d	20w4d	22w0d	238	27w4d	29w3d	31w2d
146	19w1d	20w5d	22w1d	240	27w5d	29w4d	31w4d

Table 2-61: AC: Merz (Fetal Age) Habilitationsschrift, Mainz University Women's Hospital, 1988, Unit: Meas (mm); Min/Mean/Max (Weeks); Table/Graph Range: 5%:95%

Meas	Min	Mean	Max	Meas	Min	Mean	Max
242	27w6d	29w6d	31w5d	298	33w0d	35w1d	37w1d
244	28w1d	30w0d	31w6d	300	33w1d	35w2d	37w3d
246	28w2d	30w1d	32w1d	302	33w3d	35w4d	37w4d
248	28w3d	30w3d	32w2d	304	33w4d	35w5d	37w6d
250	28w4d	30w4d	32w4d	306	33w5d	35w6d	38w0d
252	28w6d	30w6d	32w5d	308	33w6d	36w1d	38w1d
254	29w0d	30w6d	32w6d	310	34w1d	36w2d	38w3d
256	29w1d	31w1d	33w1d	312	34w2d	36w4d	38w4d
258	29w3d	31w2d	33w2d	314	34w4d	36w4d	38w6d
260	29w4d	31w4d	33w4d	316	34w4d	36w6d	39w0d
262	29w5d	31w5d	33w5d	318	34w6d	37w0d	39w1d
264	29w6d	31w6d	33w6d	320	35w0d	37w1d	39w3d
266	30w1d	32w1d	34w1d	322	35w1d	37w3d	39w4d
268	30w2d	32w2d	34w2d	324	35w3d	37w4d	39w6d
270	30w4d	32w4d	34w4d	326	35w4d	37w6d	40w0d
272	30w4d	32w5d	34w5d	328	35w5d	38w0d	40w1d
274	30w6d	32w6d	34w6d	330	35w6d	38w1d	40w3d
276	31w0d	33w0d	35w1d	332	36w1d	38w3d	40w4d
278	31w1d	33w1d	35w2d	334	36w2d	38w4d	40w6d
280	31w3d	33w3d	35w4d	336	36w4d	38w5d	41w0d
282	31w4d	33w4d	35w5d	338	36w5d	38w6d	41w1d
284	31w5d	33w6d	35w6d	340	36w6d	39w1d	41w3d
286	31w6d	34w0d	36w1d	342	37w0d	39w2d	41w4d
288	32w1d	34w1d	36w2d	344	37w1d	39w4d	41w6d
290	32w2d	34w3d	36w4d	346	37w3d	39w5d	42w0d
292	32w4d	34w4d	36w5d	348	37w4d	39w6d	42w1d
294	32w4d	34w5d	36w6d	>348	n/a	n/a	n/a
296	32w6d	34w6d	37w1d				

Table 2-62: AC: Merz (Fetal Growth) Habilitationsschrift, Mainz University Women's Hospital, 1988 Unit: Age (Weeks); Min/Mean/Max (mm); Table/Graph Range 5%:95%

Age	Min	Mean	Max	Age	Min	Mean	Max
12.5	50	62	74	27.5	202	222	242
13.0	55	67	80	28.0	207	227	247
13.5	60	73	85	28.5	212	232	252
14.0	65	78	91	29.0	217	237	257
14.5	71	83	96	29.5	221	242	263
15.0	76	89	102	30.0	226	247	268
15.5	81	94	108	30.5	231	252	273
16.0	86	100	114	31.0	235	257	278
16.5	91	105	119	31.5	240	262	283
17.0	96	111	125	32.0	244	266	288
17.5	102	116	131	32.5	249	271	293
18.0	107	122	136	33.0	253	276	298
18.5	112	127	142	33.5	258	280	303
19.0	117	132	148	34.0	262	285	308
19.5	122	138	153	34.5	266	289	313
20.0	127	143	159	35.0	270	294	317
20.5	133	149	165	35.5	275	298	322
21.0	138	154	170	36.0	279	303	327
21.5	143	159	176	36.5	283	307	331
22.0	148	165	181	37.0	287	311	336
22.5	153	170	187	37.5	290	315	340
23.0	158	175	193	38.0	294	319	344
23.5	163	181	198	38.5	298	323	348
24.0	168	186	204	39.0	301	327	352
24.5	173	191	209	39.5	305	331	356
25.0	178	196	215	40.0	308	334	360
25.5	183	202	220	40.5	311	338	364
26.0	188	207	226	41.0	314	341	367
26.5	193	212	231	41.5	317	343	370
27.0	198	217	236				

Table 2-63: BPD: Merz (Fetal Age)Habilitationsschrift, Mainz University Women’s Hospital, 1988Unit: BPD (mm); % Age (Weeks/Days)

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<21	n/a	n/a	n/a	62	22w1d	24w1d	26w1d
21	10w5d	12w1d	13w5d	63	22w4d	24w4d	26w4d
22	10w6d	12w3d	13w6d	64	22w6d	24w6d	26w6d
23	11w1d	12w5d	14w1d	65	23w1d	25w1d	27w1d
24	11w4d	13w0d	14w4d	66	23w4d	25w4d	27w4d
25	11w5d	13w1d	14w5d	67	23w6d	25w6d	27w6d
26	12w0d	13w4d	15w0d	68	24w1d	26w1d	28w2d
27	12w1d	13w6d	15w3d	69	24w3d	26w4d	28w4d
28	12w4d	14w1d	15w5d	70	24w5d	26w6d	28w6d
29	12w5d	14w2d	15w6d	71	25w1d	27w1d	29w2d
30	13w0d	14w4d	16w1d	72	25w4d	27w4d	29w5d
31	13w2d	14w6d	16w4d	73	25w6d	27w6d	30w0d
32	13w4d	15w1d	16w6d	74	26w1d	28w2d	30w3d
33	13w6d	15w3d	17w0d	75	26w4d	28w4d	30w5d
34	14w0d	15w5d	17w3d	76	26w6d	29w0d	31w1d
35	14w2d	16w0d	17w5d	77	27w1d	29w3d	31w4d
36	14w4d	16w2d	18w0d	78	27w4d	29w6d	32w0d
37	14w6d	16w4d	18w1d	79	27w6d	30w1d	32w2d
38	15w1d	16w6d	18w4d	80	28w2d	30w4d	32w5d
39	15w3d	17w1d	18w6d	81	28w5d	30w6d	33w1d
40	15w5d	17w3d	19w1d	82	29w1d	31w2d	33w4d
41	15w6d	17w5d	19w4d	83	29w4d	31w5d	33w6d
42	16w1d	18w0d	19w6d	84	29w6d	32w1d	34w2d
43	16w4d	18w2d	20w1d	85	30w2d	32w4d	34w6d
44	16w6d	18w4d	20w3d	86	30w5d	32w6d	35w1d
45	17w1d	18w6d	20w5d	87	31w0d	33w2d	35w4d
46	17w3d	19w1d	21w0d	88	31w4d	33w6d	36w1d
47	17w4d	19w3d	21w1d	89	31w6d	34w1d	36w4d
48	17w6d	19w5d	21w4d	90	32w2d	34w4d	36w6d
49	18w1d	20w0d	21w6d	91	32w6d	35w1d	37w3d
50	18w4d	20w3d	22w1d	92	33w1d	35w4d	37w6d
51	18w6d	20w5d	22w4d	93	33w4d	35w6d	38w1d
52	19w1d	21w0d	22w6d	94	34w0d	36w3d	38w6d
53	19w3d	21w2d	23w1d	95	34w4d	36w6d	39w2d
54	19w5d	21w4d	23w4d	96	34w6d	37w2d	39w5d
55	20w0d	21w6d	23w6d	97	35w3d	37w6d	40w1d
56	20w2d	22w1d	24w1d	98	35w6d	38w2d	40w5d
57	20w4d	22w4d	24w3d	99	36w3d	38w6d	41w1d
58	20w6d	22w6d	24w5d	100	36w6d	39w2d	41w6d
59	21w1d	23w1d	25w1d	101	37w2d	39w6d	42w2d
60	21w4d	23w4d	25w4d	102	37w6d	40w2d	42w6d
61	21w6d	23w6d	25w6d	>102	n/a	n/a	n/a

Table 2-64: BPD: Merz (Fetal Growth) Habilitationsschrift, Mainz University Women's Hospital, 1988 Unit: Age (Weeks); Min/Mean/Max (mm); Table/Graph Range 5%:95%

Age	Min	Mean	Max	Age	Min	Mean	Max
12.5	21	25	29	27.5	68	73	78
13.0	23	26	30	28.0	69	74	79
13.5	24	28	31	28.5	71	76	81
14.0	25	29	33	29.0	72	77	82
14.5	27	31	35	29.5	73	78	84
15.0	28	32	36	30.0	74	80	85
15.5	30	34	38	30.5	76	81	86
16.0	31	35	39	31.0	77	82	88
16.5	33	37	41	31.5	78	83	89
17.0	35	39	43	32.0	79	85	90
17.5	36	40	45	32.5	80	86	91
18.0	38	42	46	33.0	81	87	92
18.5	40	44	48	33.5	82	88	93
19.0	41	46	50	34.0	83	89	95
19.5	43	47	52	34.5	84	90	96
20.0	45	49	53	35.0	85	91	97
20.5	46	51	55	35.5	86	92	97
21.0	48	52	57	36.0	87	92	98
21.5	49	54	59	36.5	87	93	99
22.0	51	56	60	37.0	88	94	100
22.5	53	57	62	37.5	89	95	101
23.0	54	59	64	38.0	89	95	101
23.5	56	61	65	38.5	90	96	102
24.0	57	62	67	39.0	90	96	103
24.5	59	64	69	39.5	91	97	103
25.0	61	65	70	40.0	91	97	103
25.5	62	67	72	40.5	91	97	104
26.0	64	68	73	41.0	91	98	104
26.5	65	70	75	41.5	92	98	104
27.0	66	71	77				

Table 2-65: FL: Merz (Fetal Age)Habilitationsschrift, Mainz University Women's Hospital, 1988Unit: FL (mm); % Age (Weeks/Days)

Meas	Min	Mean	Max	Meas	Min	Mean	Max
<10	n/a	n/a	n/a	46	23w4d	25w3d	27w1d
10	11w1d	12w2d	13w4d	47	24w0d	25w6d	27w4d
11	11w4d	12w5d	13w6d	48	24w3d	26w1d	28w0d
12	11w6d	13w0d	14w1d	49	24w5d	26w4d	28w2d
13	12w1d	13w2d	14w4d	50	25w1d	26w6d	28w5d
14	12w3d	13w5d	15w0d	51	25w4d	27w2d	29w1d
15	12w5d	14w0d	15w2d	52	25w6d	27w5d	29w4d
16	13w1d	14w3d	15w5d	53	26w1d	28w1d	30w0d
17	13w3d	14w5d	16w0d	54	26w4d	28w4d	30w4d
18	13w6d	15w1d	16w3d	55	27w0d	29w0d	31w0d
19	14w1d	15w3d	16w5d	56	27w3d	29w3d	31w3d
20	14w4d	15w6d	17w1d	57	27w6d	29w6d	31w6d
21	14w6d	16w1d	17w3d	58	28w1d	30w1d	32w1d
22	15w1d	16w4d	17w6d	59	28w4d	30w4d	32w4d
23	15w3d	16w6d	18w1d	60	29w0d	31w0d	33w0d
24	15w6d	17w1d	18w4d	61	29w4d	31w4d	33w4d
25	16w1d	17w4d	19w1d	62	29w6d	31w6d	33w6d
26	16w3d	17w6d	19w3d	63	30w2d	32w2d	34w2d
27	16w6d	18w2d	19w6d	64	30w6d	32w6d	34w6d
28	17w1d	18w4d	20w1d	65	31w1d	33w1d	35w1d
29	17w4d	19w0d	20w4d	66	31w4d	33w4d	35w4d
30	17w6d	19w3d	20w6d	67	32w0d	34w1d	36w1d
31	18w1d	19w5d	21w1d	68	32w3d	34w4d	36w4d
32	18w4d	20w1d	21w4d	69	32w6d	35w0d	37w1d
33	18w6d	20w4d	22w1d	70	33w2d	35w3d	37w4d
34	19w1d	20w6d	22w3d	71	33w6d	35w6d	38w0d
35	19w4d	21w1d	22w6d	72	34w1d	36w2d	38w3d
36	20w0d	21w4d	23w1d	73	34w4d	36w6d	39w0d
37	20w2d	21w6d	23w4d	74	35w1d	37w2d	39w4d
38	20w5d	22w2d	23w6d	75	35w4d	37w5d	39w6d
39	21w0d	22w5d	24w3d	76	36w0d	38w1d	40w3d
40	21w3d	23w1d	24w6d	77	36w4d	38w5d	40w6d
41	21w5d	23w3d	25w1d	78	37w0d	39w1d	41w3d
42	22w1d	23w6d	25w4d	79	37w3d	39w4d	41w6d
43	22w4d	24w1d	25w6d	80	37w6d	40w1d	42w2d
44	22w6d	24w4d	26w3d	>80	n/a	n/a	n/a
45	23w1d	25w0d	26w6d				

Table 2-66: FL: Merz (Fetal Growth)Habilitationsschrift, Mainz University Women's Hospital, 1988Unit: Age (Weeks); Min/Mean/Max (mm); Table/Graph Range 5%:95%)

Age	Min	Mean	Max	Age	Min	Mean	Max
12.5	6	9	12	27.5	48	52	57
13.0	8	11	14	28.0	49	53	58
13.5	10	13	16	28.5	50	55	59
14.0	11	15	18	29.0	51	56	60
14.5	13	16	20	29.5	52	57	61
15.0	15	18	21	30.0	53	58	62
15.5	16	20	23	30.5	54	59	63
16.0	18	21	25	31.0	55	60	64
16.5	19	23	26	31.5	56	61	66
17.0	21	24	28	32.0	57	62	67
17.5	22	26	29	32.5	58	63	68
18.0	24	27	31	33.0	59	64	69
18.5	25	29	32	33.5	60	65	70
19.0	27	30	34	34.0	61	66	71
19.5	28	32	35	34.5	62	67	72
20.0	29	33	37	35.0	63	68	73
20.5	31	35	38	35.5	64	69	74
21.0	32	36	40	36.0	65	70	74
21.5	33	37	41	36.5	66	70	75
22.0	35	39	42	37.0	66	71	76
22.5	36	40	44	37.5	67	72	77
23.0	37	41	45	38.0	68	73	78
23.5	39	43	46	38.5	69	74	79
24.0	40	44	48	39.0	69	74	79
24.5	41	45	49	39.5	70	75	80
25.0	42	46	50	40.0	71	76	81
25.5	43	48	52	40.5	71	76	81
26.0	45	49	53	41.0	72	77	82
26.5	46	50	54	41.5	72	77	83
27.0	47	51	55				

Table 2-67: HC: Merz (Fetal Age) Habilitationsschrift, Mainz University Women's Hospital, 1988 Unit: HC (mm); % Age (Weeks/Days)

Meas	Min	Mean	Max	Meas	Min	Mean	Max
>72	n/a	n/a	n/a	172	17w6d	19w2d	20w6d
72	11w0d	12w1d	13w1d	174	17w6d	19w3d	20w6d
74	11w1d	12w2d	13w4d	176	18w0d	19w4d	21w1d
76	11w1d	12w3d	13w4d	178	18w1d	19w6d	21w3d
78	11w2d	12w4d	13w5d	180	18w2d	19w6d	21w4d
80	11w4d	12w5d	13w6d	182	18w4d	20w1d	21w5d
82	11w4d	12w6d	14w0d	184	18w4d	20w1d	21w6d
84	11w5d	12w6d	14w1d	186	18w6d	20w3d	22w0d
86	11w6d	13w1d	14w2d	188	19w0d	20w4d	22w1d
88	12w0d	13w1d	14w3d	190	19w1d	20w5d	22w2d
90	12w1d	13w2d	14w4d	192	19w2d	20w6d	22w4d
92	12w2d	13w4d	14w5d	194	19w4d	21w1d	22w5d
94	12w3d	13w4d	14w6d	196	19w4d	21w1d	22w6d
96	12w4d	13w5d	14w6d	198	19w5d	21w3d	23w0d
98	12w5d	13w6d	15w1d	200	19w6d	21w4d	23w2d
100	12w6d	14w0d	15w1d	202	20w0d	21w5d	23w3d
102	12w6d	14w1d	15w4d	204	20w1d	21w6d	23w4d
104	13w0d	14w2d	15w4d	206	20w3d	22w1d	23w6d
106	13w1d	14w3d	15w5d	208	20w4d	22w1d	23w6d
108	13w2d	14w4d	15w6d	210	20w5d	22w3d	24w1d
110	13w3d	14w5d	16w0d	212	20w6d	22w4d	24w2d
112	13w4d	14w6d	16w1d	214	21w0d	22w5d	24w3d
114	13w5d	15w0d	16w2d	216	21w1d	22w6d	24w4d
116	13w6d	15w1d	16w3d	218	21w3d	23w1d	24w6d
118	14w0d	15w2d	16w4d	220	21w4d	23w2d	25w0d
120	14w1d	15w3d	16w5d	222	21w6d	23w4d	25w1d
122	14w1d	15w4d	17w0d	224	21w6d	23w4d	25w2d
124	14w2d	15w5d	17w1d	226	22w1d	23w6d	25w4d
126	14w3d	15w6d	17w1d	228	22w1d	24w0d	25w6d
128	14w4d	16w0d	17w3d	230	22w3d	24w1d	26w0d
130	14w5d	16w1d	17w4d	232	22w4d	24w3d	26w1d
132	14w6d	16w2d	17w5d	234	22w5d	24w4d	26w2d
134	15w0d	16w3d	17w6d	236	22w6d	24w5d	26w4d
136	15w1d	16w4d	18w0d	238	23w1d	24w6d	26w5d
138	15w2d	16w5d	18w1d	240	23w2d	25w1d	26w6d
140	15w4d	16w6d	18w2d	242	23w4d	25w2d	27w1d
142	15w4d	17w0d	18w3d	244	23w5d	25w4d	27w2d
144	15w6d	17w1d	18w4d	246	23w6d	25w5d	27w4d
146	15w6d	17w2d	18w5d	248	24w1d	25w6d	27w5d
148	16w0d	17w4d	19w0d	250	24w1d	26w0d	27w6d
150	16w1d	17w4d	19w1d	252	24w3d	26w1d	28w0d
152	16w2d	17w6d	19w2d	254	24w4d	26w3d	28w1d
154	16w3d	17w6d	19w3d	256	24w6d	26w4d	28w3d
156	16w4d	18w1d	19w4d	258	25w0d	26w6d	28w4d
158	16w5d	18w1d	19w5d	260	25w1d	27w0d	28w6d
160	16w6d	18w3d	19w6d	262	25w3d	27w1d	29w0d
162	17w0d	18w4d	20w0d	264	25w4d	27w3d	29w1d
164	17w1d	18w5d	20w1d	266	25w6d	27w4d	29w3d
166	17w2d	18w6d	20w2d	268	26w0d	27w6d	29w4d
168	17w4d	19w0d	20w4d	270	26w1d	28w1d	30w0d
170	17w4d	19w1d	20w4d	272	26w3d	28w2d	30w1d

Table 2-67: HC: Merz (Fetal Age) Habilitationsschrift, Mainz University Women's Hospital, 1988 Unit: HC (mm); % Age (Weeks/Days)

Meas	Min	Mean	Max	Meas	Min	Mean	Max
274	26w4d	28w4d	30w3d	322	32w0d	34w1d	36w1d
276	26w6d	28w5d	30w4d	324	32w2d	34w3d	36w4d
278	27w0d	28w6d	30w6d	326	32w4d	34w5d	36w6d
280	27w1d	29w1d	31w0d	328	32w6d	34w6d	37w0d
282	27w3d	29w2d	31w1d	330	33w1d	35w1d	37w2d
284	27w5d	29w4d	31w4d	332	33w2d	35w4d	37w5d
286	27w6d	29w6d	31w5d	334	33w4d	35w6d	38w0d
288	28w1d	30w0d	31w6d	336	33w6d	36w1d	38w2d
290	28w2d	30w1d	32w1d	338	34w1d	36w3d	38w4d
292	28w4d	30w4d	32w3d	340	34w3d	36w4d	38w6d
294	28w6d	30w5d	32w4d	342	34w5d	36w6d	39w1d
296	29w0d	30w6d	32w6d	344	35w0d	37w1d	39w3d
298	29w1d	31w1d	33w0d	346	35w2d	37w4d	39w5d
300	29w3d	31w3d	33w3d	348	35w4d	37w6d	40w1d
302	29w4d	31w4d	33w4d	350	35w6d	38w1d	40w4d
304	29w6d	31w6d	33w6d	352	36w1d	38w4d	40w6d
306	30w1d	32w1d	34w1d	354	36w4d	38w6d	41w1d
308	30w2d	32w2d	34w2d	356	36w6d	39w1d	41w3d
310	30w4d	32w4d	34w4d	358	37w1d	39w4d	41w6d
312	30w6d	32w6d	34w6d	360	37w4d	39w6d	42w1d
314	31w1d	33w1d	35w1d	362	37w6d	40w1d	42w3d
316	31w3d	33w3d	35w3d	364	38w1d	40w4d	42w6d
318	31w4d	33w4d	35w4d	>364	n/a	n/a	n/a
320	31w6d	33w6d	36w0d				

Table 2-68: HC: Merz (Fetal Growth) Habilitationsschrift, Mainz University Women's Hospital, 1988 Unit: Age (Weeks); Min/Mean/Max (mm); Table/Graph Range 5%:95%

Age	Min	Mean	Max	Age	Min	Mean	Max
12.5	80	92	104	27.5	253	268	284
13.0	84	96	108	28.0	258	273	289
13.5	89	101	113	28.5	263	278	294
14.0	94	106	119	29.0	268	283	299
14.5	100	112	124	29.5	272	288	303
15.0	105	118	130	30.0	277	292	308
15.5	111	124	137	30.5	281	297	313
16.0	117	130	143	31.0	285	301	317
16.5	123	136	149	31.5	289	305	321
17.0	130	143	156	32.0	293	309	325
17.5	136	149	162	32.5	297	313	329
18.0	142	155	168	33.0	300	316	333
18.5	148	162	175	33.5	303	320	336
19.0	155	168	181	34.0	307	323	340
19.5	161	174	188	34.5	310	326	343
20.0	167	181	194	35.0	313	329	346
20.5	173	187	201	35.5	315	332	349
21.0	180	193	207	36.0	318	335	352
21.5	186	200	214	36.5	320	337	354
22.0	192	206	220	37.0	322	339	356
22.5	198	212	226	37.5	324	341	359
23.0	204	218	232	38.0	326	343	361
23.5	210	224	238	38.5	327	345	362
24.0	216	230	244	39.0	329	346	364
24.5	221	236	250	39.5	330	348	365
25.0	227	241	256	40.0	331	349	366
25.5	232	247	262	40.5	332	349	367
26.0	238	253	267	41.0	332	350	368
26.5	243	258	273	41.5	332	350	369
27.0	248	263	278				

**Moore**

Table 2-69: AFI: Moore Unit: Age (Days); Min/Max (mm); Table/Graph Range (2.5%: 97.5%)

Age	Min	Max	CRL	Age	SD	CRL	Age	SD
16	73	201	25	89	240	34	72	278
17	77	211	26	89	242	35	70	279
18	80	220	27	85	245	36	68	279
19	83	225	28	86	249	37	66	275
20	86	230	29	84	254	38	65	269
21	88	233	30	82	258	39	64	255
22	89	235	31	79	263	40	63	240
23	90	237	32	77	269	41	63	216
24	90	238	33	74	274	42	63	192

**Nelson**

Table 2-70: CRL: Nelson (Fetal Age) Journal of Clinical Ultrasound, 9: 67-70, 1981 Unit: CRL (mm); GA (Days)

CRL	GA	CRL	GA	CRL	GA	CRL	GA	CRL	GA
14	59	34	71	54	83	74	95	94	107
15	60	35	72	55	84	75	96	95	108
16	61	36	73	56	85	76	97	96	109
17	61	37	73	57	85	77	97	97	109
18	62	38	74	58	86	78	98	98	110
19	62	39	74	59	86	79	98	99	110
20	63	40	75	60	87	80	99	100	111
21	64	41	76	61	88	81	100	101	112
22	64	42	76	62	88	82	100	102	112
23	65	43	77	63	89	83	101	103	113
24	65	44	77	64	89	84	101	104	113
25	66	45	78	65	90	85	102	105	114
26	67	46	79	66	91	86	103	106	115
27	67	47	79	67	91	87	103	107	115
28	68	48	80	68	92	88	104	108	116
29	68	49	80	69	92	89	104	109	116
30	69	50	81	70	93	90	105	110	117
31	70	51	82	71	94	91	106	111	118
32	70	52	82	72	94	92	106		
33	71	53	83	73	95	93	107		

**Osaka**

Table 2-71: BPD: Osaka (Fetal Age), Osaka University Method 1989, 3 by Univ. Osaka, Unit: BPD (mm); Age (Days); SD (mm)

BPD	Age	SD	BPD	Age	SD	BPD	Age	SD	BPD	Age	SD
<13	n/a	—	33	107	2.4	54	152	3.0	75	203	3.5
13	70	1.9	34	109	2.5	55	154	3.0	76	206	3.5
14	71	1.9	35	112	2.5	56	157	3.0	77	209	3.5
15	73	1.9	36	114	2.5	57	159	3.1	78	212	3.5
16	75	1.9	37	116	2.5	58	161	3.1	79	214	3.6
17	77	2.0	38	118	2.6	59	164	3.1	80	217	3.6
18	78	2.0	39	120	2.6	60	166	3.1	81	220	3.6
19	80	2.0	40	122	2.6	61	168	3.2	82	224	3.6
20	82	2.1	41	124	2.7	62	171	3.2	83	227	3.6
21	84	2.1	42	126	2.7	63	173	3.2	84	230	3.7
22	86	2.1	43	128	2.7	64	175	3.2	85	234	3.7
23	88	2.1	44	130	2.7	65	178	3.3	86	237	3.7
24	90	2.2	45	132	2.8	66	180	3.3	87	238	3.7
25	92	2.2	46	135	2.8	67	182	3.3	88	245	3.7
26	94	2.2	47	137	2.8	68	185	3.3	89	249	3.8
27	96	2.3	48	139	2.8	69	187	3.3	90	254	3.8
28	98	2.3	49	141	2.9	70	190	3.4	91	259	3.8
29	99	2.3	50	143	2.9	71	193	3.4	92	265	3.8
30	101	2.3	51	145	2.9	72	195	3.4	93	273	3.9
31	103	2.4	52	148	2.9	73	198	3.4	94	280	3.9
32	105	2.4	53	150	3.0	74	200	3.5	>94	n/a	—

Table 2-72: CRL: Osaka (Fetal Age), Osaka University Method 1989, 3 by Univ. Osaka, Unit: CRL (mm); Age (Days); SD (mm)

CRL	Age	SD	CRL	Age	SD	CRL	Age	SD	CRL	Age	SD
<9	n/a	—	23	65	4.0	38	75	5.5	53	84	6.9
9	50	1.7	24	66	4.1	39	76	5.7	54	85	7.0
10	52	2.0	25	66	4.1	40	76	5.7	55	85	7.0
11	53	2.2	26	67	4.3	41	77	5.8	56	86	7.2
12	55	2.5	27	68	4.5	42	77	5.8	57	86	7.2
13	56	2.6	28	69	4.6	43	78	6.0	58	87	7.3
14	57	2.8	29	69	4.6	44	79	6.1	59	87	7.3
15	58	2.9	30	70	4.8	45	79	6.1	60	88	7.5
16	59	3.1	31	71	4.9	46	80	6.3	61	89	7.6
17	60	3.2	32	71	4.9	47	80	6.3	62	89	7.6
18	61	3.4	33	72	5.1	48	81	6.4	63	90	7.8
19	62	3.5	34	73	5.2	49	82	6.6	>63	n/a	—
20	63	3.7	35	73	5.2	50	83	6.7			
21	63	3.7	36	74	5.4	51	83	6.7			
22	64	3.8	37	74	5.4	52	83	6.7			

Table 2-73: EFW: Osaka (Fetal Age), Osaka University Method 1989, 3 by Univ.  
Osaka, Unit: EFW (grams); Age (Days); SD (grams)

EFW	Age	SD	EFW	Age	SD	EFW	Age	SD	EFW	Age	SD
<137	n/a	—	590	160	81	1420	203	171	2360	242	268
137	112	29	600	160	81	1440	204	174	2380	243	271
140	113	29	610	161	83	1460	205	176	2400	244	274
150	115	29	620	162	85	1480	206	178	2420	245	276
160	116	30	630	162	85	1500	207	181	2440	245	276
170	118	30	640	163	87	1520	208	183	2460	246	279
180	120	31	650	164	89	1540	209	185	2480	247	282
190	121	32	660	164	89	1560	210	188	2500	248	285
200	123	33	670	165	91	1580	210	188	2520	249	288
210	124	34	680	165	91	1600	211	190	2540	249	288
220	126	35	690	166	92	1620	212	192	2560	250	290
230	127	36	700	167	94	1640	213	195	2580	251	293
240	128	37	720	168	96	1660	214	197	2600	252	296
250	130	39	740	169	98	1680	215	200	2620	253	299
260	131	40	760	170	100	1700	216	202	2640	254	302
270	132	41	780	171	102	1720	216	202	2660	254	302
280	133	42	800	173	106	1740	217	204	2680	255	305
290	134	43	820	174	108	1760	218	207	2700	256	308
300	135	44	840	175	110	1780	219	209	2720	257	311
310	136	45	860	176	112	1800	220	212	2740	258	314
320	137	46	880	177	114	1820	220	212	2760	259	317
330	138	48	900	178	116	1840	221	214	2780	259	317
340	139	49	920	179	118	1860	222	217	2800	260	320
350	140	50	940	180	120	1880	223	219	2820	261	323
360	141	51	960	181	123	1900	224	222	2840	262	326
370	142	53	980	182	125	1920	224	222	2860	263	329
380	143	54	1000	183	127	1940	225	224	2880	264	332
390	144	56	1020	185	131	1960	226	227	2900	265	335
400	145	57	1040	186	133	1980	227	229	2920	266	339
410	146	58	1060	187	135	2000	228	232	2940	266	339
420	147	60	1080	188	138	2020	229	234	2960	267	342
430	148	61	1100	189	140	2040	229	234	2980	268	345
440	149	63	1120	190	142	2060	230	237	3000	269	348
450	149	63	1140	191	144	2080	231	239	3020	270	352
460	150	65	1160	192	146	2100	232	242	3040	271	355
470	151	66	1180	193	149	2120	233	244	3060	272	358
480	152	68	1200	194	151	2140	233	244	3080	273	362
490	153	69	1220	195	153	2160	234	247	3100	274	365
500	153	69	1240	195	153	2180	235	250	3120	275	369
510	154	71	1260	196	155	2200	236	252	3140	276	372
520	155	73	1280	197	158	2220	236	252	3160	277	376
530	155	73	1300	198	160	2240	237	255	3180	278	379
540	156	74	1320	199	162	2260	238	257	3200	279	383
550	157	76	1340	200	164	2280	239	260	3220	280	387
560	157	76	1360	201	167	2300	240	263	>3220	n/a	—
570	158	78	1380	202	169	2320	241	265			
580	159	80	1400	203	171	2340	241	265			

Table 2-74: FL: Osaka (Fetal Age), Osaka University Method 1989, 3 by Univ. Osaka, Unit: FL (mm); Age (Days); SD (mm)

FL	Age	SD	FL	Age	SD	FL	Age	SD	FL	Age	SD
<9	n/a	—	25	127	2.3	42	172	2.6	59	227	2.9
9	91	2.1	26	130	2.3	43	175	2.6	60	230	2.9
10	93	2.1	27	132	2.3	44	178	2.6	61	235	2.9
11	95	2.1	28	135	2.4	45	181	2.6	62	239	2.9
12	97	2.2	29	137	2.4	46	184	2.6	63	242	3.0
13	99	2.2	30	140	2.4	47	186	2.6	64	247	3.0
14	102	2.2	31	142	2.4	48	190	2.7	65	250	3.0
15	104	2.2	32	145	2.4	49	193	2.7	66	255	3.0
16	106	2.2	33	147	2.4	50	196	2.7	67	258	3.0
17	108	2.2	34	150	2.4	51	199	2.7	68	260	3.1
18	110	2.2	35	152	2.5	52	202	2.6	69	269	3.1
19	113	2.2	36	155	2.5	53	205	2.8	70	274	3.1
20	115	2.3	37	158	2.5	54	209	2.8	71	279	3.2
21	118	2.3	38	162	2.5	55	212	2.8	>71	n/a	—
22	120	2.3	39	163	2.5	56	216	2.8			
23	122	2.3	40	166	2.5	57	220	2.8			
24	125	2.3	41	169	2.6	58	223	2.9			

Table 2-75: FTA: Osaka (Fetal Age), Osaka University Method 1989, 3 by Univ. Osaka, Unit: FTA (mm2); Age (Days); SD (mm2)

FTA	Age	SD	FTA	Age	SD	FTA	Age	SD	FTA	Age	SD
<560	n/a	—	2600	159	330	4800	205	560	7000	246	800
560	98	120	2700	162	340	4900	207	570	7100	248	820
600	100	120	2800	164	350	5000	209	580	7200	250	830
700	103	130	2900	166	360	5100	211	590	7300	252	840
800	108	150	3000	168	370	5200	213	600	7400	254	860
900	113	160	3100	170	380	5300	215	610	7500	256	870
1000	115	170	3200	173	390	5400	216	620	7600	258	880
1100	117	170	3300	175	400	5500	218	630	7700	260	900
1200	122	190	3400	177	410	5600	220	640	7800	262	910
1300	125	200	3500	179	420	5700	222	650	7900	264	930
1400	128	210	3600	181	430	5800	224	670	8000	265	930
1500	130	220	3700	183	440	5900	226	680	8100	268	960
1600	134	230	3800	185	450	6000	227	680	8200	270	970
1700	137	240	3900	187	460	6100	229	700	8300	273	990
1800	139	250	4000	189	470	6200	231	710	8400	274	1000
1900	142	260	4100	191	480	6300	233	720	8500	276	1010
2000	145	270	4200	193	490	6400	235	730	8600	279	1040
2100	147	280	4300	195	500	6500	237	750	8660	280	1040
2200	150	290	4400	197	510	6600	238	750	>8660	n/a	—
2300	152	300	4500	199	520	6700	240	760			
2400	155	310	4600	201	530	6800	242	780			
2500	157	330	4700	203	540	6900	244	790			

Table 2-76: HL: Osaka (Fetal Age), Osaka University Method 1989, 3 by Univ. Osaka,  
Unit: HL (mm); Age (Days); SD (mm)

HL	Age	SD	HL	Age	SD	HL	Age	SD	HL	Age	SD
<10	n/a	—	23	123	2.2	37	164	2.4	51	217	2.6
10	91	2.0	24	126	2.2	38	167	2.4	52	222	2.6
11	93	2.0	25	129	2.2	39	170	2.4	53	227	2.7
12	96	2.0	26	132	2.2	40	174	2.4	54	232	2.7
13	98	2.1	27	134	2.2	41	178	2.4	55	237	2.7
14	100	2.1	28	137	2.2	42	182	2.5	56	242	2.7
15	103	2.1	29	140	2.3	43	185	2.5	57	248	2.8
16	105	2.1	30	143	2.3	44	188	2.5	58	254	2.8
17	108	2.1	31	145	2.3	45	192	2.5	59	260	2.8
18	110	2.1	32	149	2.3	46	196	2.5	60	267	2.9
19	113	2.1	33	151	2.3	47	200	2.5	61	275	2.9
20	115	2.1	34	155	2.3	48	204	2.6	62	280	2.9
21	117	2.1	35	158	2.3	49	208	2.6	>62	n/a	—
22	121	2.2	36	161	2.4	50	213	2.6			

Paris

Table 2-77: BPD: Paris (Fetal Age), Unit: BPD (mm); Age (Days); SD (mm)

BPD	Age	SD	BPD	Age	SD	BPD	Age	SD	BPD	Age	SD
<13	n/a	—	33	110	3	54	158	4	75	210	5
13	77	3	34	113	3	55	161	4	76	213	5
14	78	3	35	115	3	56	163	4	77	217	5
15	79	3	36	117	3	57	165	4	78	220	5
16	80	3	37	119	3	58	168	4	79	224	5
17	81	3	38	121	3	59	170	4	80	227	5
18	82	3	39	123	3	60	172	4	81	231	5
19	83	3	40	126	4	61	175	4	82	234	5
20	84	3	41	128	4	62	177	4	83	238	5
21	85	3	42	130	4	63	179	4	84	242	5
22	87	3	43	133	4	64	182	4	85	247	5
23	89	3	44	135	4	65	184	4	86	252	5
24	91	3	45	137	4	66	187	4	87	256	5
25	93	3	46	140	4	67	189	4	88	261	5
26	95	3	47	142	4	68	192	4	89	266	5
27	97	3	48	144	4	69	194	4	90	287	5
28	100	3	49	147	4	70	197	4	>90	n/a	—
29	102	3	50	149	4	71	199	4			
30	104	3	51	151	4	72	202	4			
31	106	3	52	154	4	73	204	4			
32	108	3	53	156	4	74	207	4			

Table 2-78: CRL: Paris (Fetal Age), Unit: CRL (mm); Age (Days); SD (mm)

CRL	Age	SD	CRL	Age	SD	CRL	Age	SD	CRL	Age	SD
<5	n/a	—	25	64	7	46	78	7	67	90	7
5	42	4	26	65	7	47	79	7	68	90	7
6	43	4	27	66	7	48	79	7	69	91	7
7	44	4	28	66	7	49	80	7	70	91	7
8	46	4	29	67	7	50	80	7	71	91	7
9	47	4	30	68	7	51	81	7	72	92	7
10	49	4	31	69	7	52	82	7	73	92	7
11	50	4	32	70	7	53	82	7	74	93	7
12	51	4	33	70	7	54	83	7	75	93	7
13	52	4	34	71	7	55	84	7	76	94	7
14	53	4	35	71	7	56	84	7	77	94	7
15	54	4	36	72	7	57	85	7	78	94	7
16	55	5	37	73	7	58	85	7	79	95	7
17	56	5	38	73	7	59	86	7	80	95	7
18	57	5	39	74	7	60	86	7	81	96	7
19	58	6	40	74	7	61	87	7	82	96	7
20	59	6	41	75	7	62	87	7	83	97	7
21	60	6	42	76	7	63	88	7	84	97	7
22	61	6	43	76	7	64	88	7	85	98	7
23	63	6	44	77	7	65	89	7	>85	n/a	—
24	63	7	45	77	7	66	89	7			

Table 2-79: FL: Paris (Fetal Age), Unit: FL (mm); Age (Days); SD (mm)

FL	Age	SD	FL	Age	SD	FL	Age	SD	FL	Age	SD
<15	n/a	—	31	137	5	48	183	5	65	238	5
15	98	4	32	139	5	49	186	5	66	241	5
16	100	4	33	142	5	50	189	5	67	245	5
17	102	4	34	145	5	51	192	5	68	248	5
18	105	4	35	148	5	52	194	5	69	252	5
19	107	4	36	150	5	53	197	5	70	255	5
20	109	4	37	153	5	54	200	5	71	259	5
21	112	4	38	156	5	55	203	5	72	262	5
22	114	4	39	159	5	56	206	5	73	266	5
23	116	4	40	161	5	57	210	5	74	271	5
24	119	4	41	164	5	58	213	5	75	276	5
25	121	4	42	167	5	59	217	5	76	281	5
26	123	4	43	170	5	60	219	5	77	287	5
27	126	5	44	172	5	61	221	5	>77	n/a	—
28	128	5	45	175	5	62	224	5			
29	131	5	46	178	5	63	231	5			
30	134	5	47	181	5	64	234	5			

Table 2-80: Ft: Paris (Fetal Age), Unit: Ft (mm); Age (Days); SD (mm)

Ft	Age	SD	Ft	Age	SD	Ft	Age	SD	Ft	Age	SD
<13	n/a	—	29	133	4	46	173	4	63	221	4
13	91	2	30	135	4	47	175	4	64	224	4
14	94	2	31	137	4	48	178	4	65	227	4
15	97	2	32	140	4	49	180	4	66	231	5
16	100	2	33	142	4	50	183	4	67	234	5
17	103	3	34	144	4	51	185	4	68	238	5
18	106	3	35	147	4	52	188	4	69	242	5
19	109	3	36	149	4	53	190	4	70	246	5
20	112	4	37	151	4	54	193	4	71	250	5
21	114	4	38	154	4	55	196	4	72	254	5
22	116	4	39	156	4	56	199	4	73	258	5
23	119	4	40	158	4	57	202	4	74	262	5
24	121	4	41	161	4	58	205	4	75	266	6
25	123	4	42	163	4	59	208	4	>75	n/a	—
26	126	4	43	165	4	60	211	4			
27	128	4	44	168	4	61	215	4			
28	130	4	45	170	4	62	218	4			

Table 2-81: TAD: Paris (Fetal Age), Unit: TAD (mm); Age (Days); SD (mm)

TAD	Age	SD	TAD	Age	SD	TAD	Age	SD	TAD	Age	SD
<10	n/a	—	32	116	0	55	171	0	78	229	0
10	84	0	33	118	0	56	174	0	79	232	0
11	84	0	34	120	0	57	176	0	80	234	0
12	85	0	35	122	0	58	179	0	81	237	0
13	86	0	36	124	0	59	181	0	82	239	0
14	87	0	37	126	0	60	184	0	83	242	0
15	87	0	38	128	0	61	186	0	84	245	0
16	88	0	39	131	0	62	189	0	85	248	0
17	89	0	40	133	0	63	191	0	86	252	0
18	90	0	41	136	0	64	194	0	87	255	0
19	91	0	42	138	0	65	196	0	88	259	0
20	92	0	43	141	0	66	199	0	89	262	0
21	94	0	44	143	0	67	201	0	90	266	0
22	96	0	45	146	0	68	204	0	91	269	0
23	98	0	46	148	0	69	207	0	92	273	0
24	100	0	47	151	0	70	209	0	93	276	0
25	102	0	48	153	0	71	212	0	94	280	0
26	104	0	49	156	0	72	214	0	95	283	0
27	106	0	50	158	0	73	217	0	96	287	0
28	108	0	51	161	0	74	219	0	>96	n/a	—
29	110	0	52	163	0	75	222	0			
30	112	0	53	166	0	76	224	0			
31	114	0	54	169	0	77	227	0			

## Rempen

Table 2-82: BPD: Rempen (Fetal Age), Der Frauenarzt 32, 4 (1991) 425-30' Known LMP (left)—Unknown LMP (right), Unit: BPD (mm); Age (Weeks/Days); 2SD (mm [Known LMP] or day [Unknown LMP])

BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD	BPD	Age	2SD
<2	n/a	—	15	10w2d	4	<3	n/a	—	16	10w4d	8
2	6w2d	4	16	10w5d	4	3	6w6d	8	17	10w6d	8
3	6w4d	4	17	11w0d	4	4	7w1d	8	18	11w1d	8
4	6w6d	4	18	11w2d	4	5	7w3d	8	19	11w3d	8
5	7w1d	4	19	11w5d	4	6	7w5d	8	20	11w5d	8
6	7w4d	4	20	12w0d	4	7	8w0d	8	21	12w0d	8
7	7w6d	4	21	12w2d	4	8	8w2d	8	22	12w2d	8
8	8w1d	4	22	12w4d	4	9	8w4d	8	23	12w4d	8
9	8w3d	4	23	13w0d	4	10	8w6d	8	24	12w6d	8
10	8w5d	4	24	13w2d	4	11	9w1d	8	25	13w1d	8
11	9w1d	4	>24	n/a	—	12	9w3d	8	26	13w3d	8
12	9w3d	4				13	9w5d	8	27	13w5d	8
13	9w5d	4				14	10w0d	8	>27	n/a	—
14	10w0d	4				15	10w2d	8			

Table 2-83: BPD: Rempen (Fetal Growth), Der Frauenarzt 32, 4 (1991) 425-30, Unit: Age (Weeks/Days); Mean (mm); 2SD (mm); Table/Graph Range (5%:95%)

Age	Mean	SD	Age	Mean	SD	Age	Mean	SD
6w2d	2.0	3.7	8w5d	9.8	3.7	11w1d	17.4	3.7
6w3d	2.5	3.7	8w6d	10.3	3.7	11w2d	17.9	3.7
6w4d	3.0	3.7	9w0d	10.7	3.7	11w3d	18.3	3.7
6w5d	3.4	3.7	9w1d	11.2	3.7	11w4d	18.7	3.7
6w6d	3.9	3.7	9w2d	11.6	3.7	11w5d	19.2	3.7
7w0d	4.3	3.7	9w3d	12.1	3.7	11w6d	19.6	3.7
7w1d	4.8	3.7	9w4d	12.5	3.7	12w0d	20.0	3.7
7w2d	5.3	3.7	9w5d	13.0	3.7	12w1d	20.5	3.7
7w3d	5.7	3.7	9w6d	13.4	3.7	12w2d	20.9	3.7
7w4d	6.2	3.7	10w0d	13.9	3.7	12w3d	21.3	3.7
7w5d	6.7	3.7	10w1d	14.3	3.7	12w4d	21.8	3.7
7w6d	7.1	3.7	10w2d	14.8	3.7	12w5d	22.2	3.7
8w0d	7.6	3.7	10w3d	15.2	3.7	12w6d	22.6	3.7
8w1d	8.0	3.7	10w4d	15.7	3.7	13w0d	23.1	3.7
8w2d	8.5	3.7	10w5d	16.1	3.7	13w1d	23.5	3.7
8w3d	8.9	3.7	10w6d	16.5	3.7	13w2d	23.9	3.7
8w4d	9.4	3.7	11w0d	17.0	3.7			

Table 2-84: CRL: Rempen (Fetal Age), Der Frauenarzt 32, 4 (1991) 425-30, Known LMP (left)—Unknown LMP (right), Unit: CRL (mm); Age (Weeks/Days); 2SD (mm [Known LMP] or day [Unknown LMP])

CRL	Age	2SD	CRL	Age	2SD	CRL	Age	2SD	CRL	Age	2SD
<1	n/a	—	40	10w5d	8	<2	n/a	—	41	10w5d	7
1	5w5d	8	41	10w6d	8	2	6w0d	6	42	10w6d	6
2	5w6d	8	42	11w0d	8	3	6w1d	6	43	11w0d	7
3	6w0d	8	43	11w0d	8	4	6w2d	6	44	11w0d	7
4	6w1d	8	44	11w1d	8	5	6w3d	6	45	11w1d	6
5	6w2d	8	45	11w2d	8	6	6w4d	6	46	11w2d	7
6	6w3d	8	46	11w2d	8	7	6w5d	6	47	11w2d	7
7	6w4d	8	47	11w3d	8	8	6w6d	6	48	11w3d	6
8	6w6d	8	48	11w4d	8	9	7w0d	6	49	11w4d	7
9	6w6d	8	49	11w4d	8	10	7w1d	6	50	11w4d	6
10	7w0d	8	50	11w5d	8	11	7w2d	6	51	11w5d	6
11	7w2d	8	51	11w6d	8	12	7w3d	6	52	11w5d	7
12	7w2d	8	52	12w0d	8	13	7w4d	7	53	11w6d	6
13	7w4d	8	53	12w0d	8	14	7w5d	7	54	12w0d	7
14	7w4d	8	54	12w1d	8	15	7w6d	7	55	12w0d	7
15	7w5d	8	55	12w2d	8	16	7w6d	7	56	12w1d	6
16	7w6d	8	56	12w2d	8	17	8w0d	7	57	12w1d	7
17	8w0d	8	57	12w3d	8	18	8w1d	6	58	12w2d	6
18	8w1d	8	58	12w3d	8	19	8w2d	6	59	12w3d	7
19	8w2d	8	59	12w4d	8	20	8w3d	6	60	12w3d	6
20	8w3d	8	60	12w5d	8	21	8w4d	7	61	12w4d	7
21	8w4d	8	61	12w5d	8	22	8w5d	7	62	12w4d	6
22	8w5d	8	62	12w6d	8	23	8w5d	7	63	12w5d	7
23	8w6d	8	63	13w0d	8	24	8w6d	7	64	12w5d	7
24	8w6d	8	64	13w0d	8	25	9w0d	6	65	12w6d	6
25	9w0d	8	65	13w1d	8	26	9w1d	6	66	12w6d	7
26	9w1d	8	66	13w2d	8	27	9w2d	7	67	13w0d	6
27	9w2d	8	>66	n/a	—	28	9w3d	7	68	13w0d	7
28	9w3d	8				29	9w3d	7	69	13w1d	6
29	9w4d	8				30	9w4d	7	70	13w1d	7
30	9w4d	8				31	9w5d	7	71	13w2d	7
31	9w5d	8				32	9w6d	7	72	13w2d	6
32	9w6d	8				33	9w6d	7	73	13w3d	7
33	10w0d	8				34	10w0d	6	74	13w3d	6
34	10w1d	8				35	10w1d	6	75	13w4d	7
35	10w1d	8				36	10w2d	7	76	13w4d	6
36	10w2d	8				37	10w2d	7	77	13w4d	7
37	10w3d	8				38	10w3d	6	78	13w5d	6
38	10w4d	8				39	10w4d	6	>78	n/a	—
39	10w4d	8				40	10w5d	7			

Table 2-85: CRL: Rempen (Fetal Growth), Der Frauenarzt 32, 4 (1991) 425-30, Unit: Age (Weeks/Days); Mean (mm); 2SD (mm); Table/Graph Range (5%:95%)

Age	Mean	SD	Age	Mean	SD	Age	Mean	SD
5w5d	1.2	7.8	8w2d	18.9	7.8	10w6d	41.3	7.8
5w6d	2.1	7.8	8w3d	20.0	7.8	11w0d	42.6	7.8
6w0d	3.0	7.8	8w4d	21.1	7.8	11w1d	44.0	7.8
6w1d	3.8	7.8	8w5d	22.3	7.8	11w2d	45.4	7.8
6w2d	4.7	7.8	8w6d	23.5	7.8	11w3d	46.9	7.8
6w3d	5.7	7.8	9w0d	24.6	7.8	11w4d	48.3	7.8
6w4d	6.6	7.8	9w1d	25.8	7.8	11w5d	49.8	7.8
6w5d	7.5	7.8	9w2d	27.0	7.8	11w6d	51.2	7.8
6w6d	8.5	7.8	9w3d	28.3	7.8	12w0d	52.7	7.8
7w0d	9.5	7.8	9w4d	29.5	7.8	12w1d	54.2	7.8
7w1d	10.5	7.8	9w5d	30.7	7.8	12w2d	55.7	7.8
7w2d	11.5	7.8	9w6d	32.0	7.8	12w3d	57.3	7.8
7w3d	12.5	7.8	10w0d	33.3	7.8	12w4d	58.8	7.8
7w4d	13.5	7.8	10w1d	34.6	7.8	12w5d	60.3	7.8
7w5d	14.6	7.8	10w2d	35.9	7.8	12w6d	61.9	7.8
7w6d	15.6	7.8	10w3d	37.2	7.8	13w0d	63.5	7.8
8w0d	16.7	7.8	10w4d	38.5	7.8	13w1d	65.1	7.8
8w1d	17.8	7.8	10w5d	39.9	7.8	13w2d	66.7	7.8

Table 2-86: GS: Rempen (Fetal Age), Der Frauenarzt 32, 4 (1991) 425-30, Known LMP (left)—Unknown LMP (right), Unit: GS (mm); Age (Weeks/Days); 2SD (mm [Known LMP] or day [Unknown LMP])

GS	Age	2SD	GS	Age	2SD	GS	Age	2SD	GS	Age	2SD
<1	n/a	—	38	9w1d	11	<1	n/a	—	38	9w1d	10
1	4w4d	11	39	9w2d	11	1	4w5d	10	39	9w2d	10
2	4w5d	11	40	9w4d	11	2	4w6d	10	40	9w3d	10
3	4w6d	11	41	9w5d	11	3	5w0d	10	41	9w4d	10
4	5w0d	11	42	9w6d	11	4	5w1d	10	42	9w5d	10
5	5w0d	11	43	10w0d	11	5	5w2d	10	43	9w6d	10
6	5w1d	11	44	10w1d	11	6	5w2d	10	44	9w6d	10
7	5w2d	11	45	10w2d	11	7	5w3d	10	45	10w0d	10
8	5w3d	11	46	10w3d	11	8	5w4d	10	46	10w1d	10
9	5w3d	11	47	10w4d	11	9	5w5d	10	47	10w2d	10
10	5w4d	11	48	10w6d	11	10	5w5d	10	48	10w3d	10
11	5w5d	11	49	11w0d	11	11	5w6d	10	49	10w4d	10
12	5w6d	11	50	11w1d	11	12	6w0d	10	50	10w5d	10
13	6w0d	11	51	11w2d	11	13	6w1d	10	51	10w6d	10
14	6w0d	11	52	11w4d	11	14	6w2d	10	52	11w0d	10
15	6w1d	11	53	11w5d	11	15	6w2d	10	53	11w1d	10
16	6w2d	11	54	12w0d	11	16	6w3d	10	54	11w2d	10
17	6w3d	11	55	12w1d	11	17	6w4d	10	55	11w3d	10
18	6w4d	11	56	12w2d	11	18	6w5d	10	56	11w4d	10
19	6w5d	11	57	12w4d	11	19	6w6d	10	57	11w5d	10
20	6w6d	11	58	12w5d	11	20	6w6d	10	58	11w6d	10
21	6w6d	11	59	13w0d	11	21	7w0d	10	59	12w0d	10
22	7w0d	11	60	13w1d	11	22	7w1d	10	60	12w1d	10
23	7w1d	11	>60	n/a	—	23	7w2d	10	61	12w2d	10
24	7w2d	11				24	7w3d	10	62	12w3d	10
25	7w3d	11				25	7w4d	10	63	12w4d	10
26	7w4d	11				26	7w4d	10	64	12w5d	10
27	7w5d	11				27	7w5d	10	65	12w6d	10
28	7w6d	11				28	7w6d	10	66	13w0d	10
29	8w0d	11				29	8w0d	10	67	13w1d	10
30	8w0d	11				30	8w1d	10	68	13w2d	10
31	8w1d	11				31	8w2d	10	69	13w3d	10
32	8w2d	11				32	8w3d	10	70	13w4d	10
33	8w3d	11				33	8w3d	10	71	13w5d	10
34	8w4d	11				34	8w4d	10	72	14w0d	10
35	8w5d	11				35	8w5d	10	73	14w1d	10
36	8w6d	11				36	8w6d	10	>73	n/a	—
37	9w0d	11				37	9w0d	10			

Table 2-87: GS: Rempen (Fetal Growth), Der Frauenarzt 32, 4 (1991) 425-30, Unit: Age (Weeks/Days); Mean (mm); 2SD (mm); Table/Graph Range (5%:95%)

Age	Mean	SD	Age	Mean	SD	Age	Mean	SD
4w4d	0.5	10.5	7w4d	26.2	10.5	10w4d	46.6	10.5
4w5d	1.8	10.5	7w5d	27.3	10.5	10w5d	47.4	10.5
4w6d	3.2	10.5	7w6d	28.4	10.5	10w6d	48.2	10.5
5w0d	4.5	10.5	8w0d	29.5	10.5	11w0d	49.0	10.5
5w1d	5.8	10.5	8w1d	30.5	10.5	11w1d	49.8	10.5
5w2d	7.1	10.5	8w2d	31.6	10.5	11w2d	50.6	10.5
5w3d	8.4	10.5	8w3d	32.6	10.5	11w3d	51.4	10.5
5w4d	9.7	10.5	8w4d	33.6	10.5	11w4d	52.1	10.5
5w5d	10.9	10.5	8w5d	34.6	10.5	11w5d	52.9	10.5
5w6d	12.2	10.5	8w6d	35.6	10.5	11w6d	53.6	10.5
6w0d	13.4	10.5	9w0d	36.6	10.5	12w0d	54.3	10.5
6w1d	14.6	10.5	9w1d	37.6	10.5	12w1d	55.1	10.5
6w2d	15.9	10.5	9w2d	38.5	10.5	12w2d	55.8	10.5
6w3d	17.1	10.5	9w3d	39.5	10.5	12w3d	56.4	10.5
6w4d	18.3	10.5	9w4d	40.4	10.5	12w4d	57.1	10.5
6w5d	19.4	10.5	9w5d	41.3	10.5	12w5d	57.8	10.5
6w6d	20.6	10.5	9w6d	42.2	10.5	12w6d	58.4	10.5
7w0d	21.7	10.5	10w0d	43.1	10.5	13w0d	59.1	10.5
7w1d	22.9	10.5	10w1d	44.0	10.5	13w1d	59.7	10.5
7w2d	24.0	10.5	10w2d	44.9	10.5	13w2d	60.3	10.5
7w3d	25.1	10.5	10w3d	45.7	10.5			

## Robinson

Table 2-88: CRL: Robinson (Fetal Age), Br J Gynecol, 82: 702, 1975, Unit: CRL (mm); Age (Days); SD (mm)

CRL	Age	SD	CRL	Age	SD	CRL	Age	SD	CRL	Age	SD
<7	n/a	—	26	64	5	46	78	7	66	90	7
7	45	4	27	65	5	47	79	7	67	90	7
8	46	4	28	66	6	48	79	7	68	91	7
9	47	4	29	67	6	49	80	7	69	91	7
10	48	4	30	68	6	50	81	7	70	91	7
11	50	4	31	69	7	51	82	7	71	92	7
12	52	4	32	69	7	52	83	7	72	92	7
13	53	4	33	70	7	53	83	7	73	93	7
14	54	4	34	70	7	54	83	7	74	93	7
15	55	4	35	71	7	55	84	7	75	93	7
16	56	4	36	72	7	56	84	7	76	94	7
17	57	4	37	72	7	57	84	7	77	94	7
18	58	4	38	73	7	58	85	7	78	95	7
19	59	4	39	74	7	59	85	7	79	95	7
20	60	4	40	74	7	60	86	7	80	96	7
21	60	4	41	75	7	61	86	7	81	97	7
22	61	4	42	75	7	62	87	7	82	98	7
23	62	4	43	76	7	63	88	7	>82	n/a	—
24	63	5	44	77	7	64	89	7			
25	64	5	45	77	7	65	90	7			

## Tokyo

Table 2-89: APTDxTTD: Tokyo (Fetal Age), Tokyo University Method 1986, 6 by University Tokyo, Unit: Meas (cm2); Age (Weeks/Days); SD (Days)

Meas	Age	SD	Meas	Age	SD	Meas	Age	SD
<10	n/a	—	38	25w6d	± 10d	68	33w3d	± 15d
10	16w1d	± 8d	40	26w3d	± 11d	70	33w6d	± 16d
12	17w0d	± 8d	42	27w0d	± 11d	72	34w2d	± 16d
14	17w6d	± 8d	44	27w3d	± 11d	74	34w6d	± 17d
16	18w4d	± 8d	46	28w0d	± 12d	76	35w3d	± 17d
18	19w3d	± 8d	48	28w4d	± 12d	78	35w6d	± 17d
20	20w1d	± 8d	50	29w0d	± 12d	80	36w3d	± 18d
22	20w6d	± 9d	52	29w3d	± 13d	82	37w0d	± 18d
24	21w4d	± 9d	54	30w0d	± 13d	84	37w4d	± 18d
26	22w2d	± 9d	56	30w3d	± 13d	86	38w1d	± 18d
28	22w6d	± 9d	58	31w0d	± 14d	88	38w5d	± 19d
30	23w4d	± 9d	60	31w3d	± 14d	90	39w2d	± 19d
32	24w1d	± 10d	62	31w6d	± 14d	>90	n/a	—
34	24w5d	± 10d	64	32w3d	± 15d			
36	25w2d	± 10d	66	32w6d	± 15d			

Table 2-90: APTDxTTD by Gestational Age: Tokyo, Tokyo University Method 1986, 6 by University Tokyo

Weeks	-1.64 SD	-1.5 SD	-1.28 SD	Mean	+1.28 SD	+1.5 SD	+1.64 SD
16.0	7.0	7.4	7.9	11.2	14.6	15.1	15.5
17.0	8.7	9.0	9.7	13.3	17.0	17.6	18.0
18.0	10.5	10.9	11.6	15.6	19.6	20.3	20.7
19.0	12.5	13.0	13.7	18.1	22.4	23.2	23.6
20.0	14.7	15.2	16.1	20.8	25.5	26.3	26.8
21.0	17.1	17.6	18.5	23.6	28.8	29.6	30.2
22.0	19.6	20.2	21.2	26.7	32.2	33.2	33.8
23.0	22.2	22.9	23.9	29.9	35.9	36.9	37.5
24.0	25.0	25.7	26.8	33.2	39.7	40.8	41.5
25.0	27.9	28.6	29.8	36.7	43.6	44.8	45.6
26.0	30.9	31.7	33.0	40.3	47.7	49.0	49.8
27.0	33.9	34.8	36.2	44.1	52.0	53.3	54.2
28.0	37.1	38.0	39.4	47.9	56.3	57.8	58.7
29.0	40.3	41.3	42.8	51.8	60.8	62.3	63.3
30.0	43.5	44.5	46.2	55.7	65.3	66.9	68.0
31.0	46.8	47.9	49.6	59.7	69.9	71.6	72.7
32.0	50.0	51.2	53.0	63.8	74.5	76.4	77.6
33.0	53.3	54.5	56.5	67.8	79.2	81.2	82.4
34.0	56.5	57.8	59.9	71.9	83.9	86.0	87.3
35.0	59.7	61.1	63.3	75.9	88.6	90.8	92.2
36.0	62.8	64.3	66.6	79.9	93.3	95.6	97.0
37.0	65.9	67.4	69.8	83.9	97.9	100.3	101.9
38.0	68.8	70.4	72.9	87.7	102.5	105.0	106.7
39.0	71.6	73.3	76.0	91.5	107.0	109.7	111.4
40.0	74.3	76.1	78.9	95.1	111.4	114.2	116.0
41.0	76.8	78.6	81.6	98.6	115.7	118.6	120.5
42.0	79.1	81.1	84.1	102.0	119.8	122.9	124.8

Table 2-91: BPD: Tokyo (Fetal Age), Tokyo University Method 1986, 6 by University Tokyo, Unit: BPD (mm); Age (Days); SD (Days)

BPD	Age	SD	BPD	Age	SD	BPD	Age	SD	BPD	Age	SD
<20	n/a	—	38	123	± 5	57	164	± 6	76	213	± 8
20	85	± 6	39	125	± 5	58	167	± 6	77	216	± 8
21	87	± 6	40	127	± 5	59	169	± 6	78	218	± 8
22	89	± 6	41	129	± 5	60	171	± 6	79	221	± 8
23	92	± 6	42	131	± 5	61	174	± 7	80	225	± 8
24	94	± 6	43	133	± 5	62	176	± 7	81	228	± 8
25	96	± 6	44	135	± 5	63	179	± 7	82	231	± 8
26	98	± 6	45	138	± 6	64	181	± 7	83	234	± 9
27	100	± 6	46	140	± 6	65	183	± 7	84	238	± 9
28	102	± 6	47	142	± 6	66	186	± 7	85	241	± 9
29	102	± 6	48	144	± 6	67	188	± 7	86	245	± 9
30	106	± 5	49	146	± 6	68	191	± 7	87	249	± 9
31	108	± 5	50	148	± 6	69	194	± 7	88	253	± 9
32	110	± 5	51	151	± 6	70	196	± 7	89	258	± 9
33	112	± 5	52	153	± 6	71	199	± 8	90	262	± 9
34	114	± 5	53	154	± 6	72	201	± 8	>90	n/a	—
35	116	± 5	54	157	± 6	73	204	± 8			
36	118	± 5	55	160	± 6	74	207	± 8			
37	120	± 5	56	162	± 6	75	210	± 8			

Table 2-92: CRL: Tokyo (Fetal Age), Tokyo University Method 1986, 6 by University Tokyo, Unit: CRL (mm); Age (Days); SD (Days)

CRL	Age	SD	CRL	Age	SD	CRL	Age	SD	CRL	Age	SD
<13	n/a	—	22	64	± 7	32	73	± 7	42	81	± 7
13	55	± 8	23	65	± 7	33	74	± 7	43	81	± 7
14	56	± 9	24	66	± 7	34	74	± 7	44	82	± 7
15	57	± 10	25	67	± 7	35	75	± 7	45	83	± 7
16	58	± 8	26	68	± 7	36	76	± 7	46	84	± 7
17	59	± 9	27	68	± 7	37	77	± 7	47	84	± 7
18	60	± 10	28	69	± 7	38	78	± 7	48	85	± 7
19	61	± 8	29	70	± 7	39	78	± 7	49	86	± 7
20	62	± 9	30	71	± 7	40	79	± 7	50	86	± 7
21	63	± 7	31	72	± 7	41	80	± 7	>50	n/a	—

Table 2-93: FL: Tokyo (Fetal Age), Tokyo University Method 1986, 6 by University Tokyo, Unit: FL (mm); Age (Days); SD (mm)

FL	Age	SD	FL	Age	SD	FL	Age	SD	FL	Age	SD
<33	n/a	—±	43	175	± 6	54	210	± 7	65	251	± 8
33	143	6	44	178	± 6	55	214	± 7	66	256	± 8
34	146	± 6	45	181	± 6	56	217	± 7	67	260	± 8
35	149	± 6	46	185	± 7	57	220	± 7	68	266	± 7
36	153	± 6	47	188	± 7	58	224	± 7	69	271	± 7
37	156	± 6	48	191	± 7	59	228	± 8	70	278	± 7
38	159	± 6	49	194	± 7	60	231	± 8	71	286	± 6
39	162	± 6	50	197	± 7	61	235	± 8	>71	n/a	—
40	166	± 6	51	200	± 7	62	239	± 8			
41	169	± 6	52	204	± 7	63	243	± 8			
42	172	± 6	53	207	± 7	64	247	± 8			

Table 2-94: GS: Tokyo (Fetal Age), Tokyo University Method 1986, 6 by University Tokyo, Unit: GS (mm); Age (Days); SD (Days)

GS	Age	SD	GS	Age	SD	GS	Age	SD	GS	Age	SD
<12	n/a	—	22	43	± 7	33	56	± 0	44	66	± 0
12	31	± 7	23	44	± 7	34	57	± 0	45	67	± 0
13	32	± 7	24	46	± 7	35	58	± 0	46	68	± 0
14	33	± 7	25	47	± 7	36	59	± 0	47	69	± 0
15	34	± 7	26	48	± 8	37	60	± 0	48	70	± 0
16	36	± 7	27	49	± 9	38	61	± 0	49	71	± 0
17	37	± 7	28	50	± 10	39	62	± 0	50	72	± 0
18	38	± 7	29	51	± 0	40	63	± 0	>50	n/a	—
19	40	± 7	30	52	± 0	41	64	± 0			
20	41	± 7	31	53	± 0	42	65	± 0			
21	42	± 7	32	55	± 0	43	65	± 0			

Table 2-95: LV: Tokyo (Fetal Age), Tokyo University Method 1986, 6 by University  
Tokyo, Unit: LV (mm); Age (Days); SD (Days)

LV	Age	SD	LV	Age	SD	LV	Age	SD	LV	Age	SD
<44	n/a	—	55	181	± 7	67	217	± 10	79	260	± 10
44	154	± 5	56	183	± 8	68	220	± 10	80	264	± 10
45	157	± 5	57	186	± 8	69	224	± 10	81	267	± 10
46	159	± 5	58	189	± 8	70	227	± 11	82	271	± 10
47	161	± 5	59	192	± 8	71	231	± 11	83	275	± 10
48	163	± 5	60	195	± 9	72	234	± 11	84	278	± 10
49	166	± 6	61	198	± 9	73	238	± 11	85	282	± 10
50	168	± 6	62	201	± 9	74	241	± 11	86	285	± 10
51	171	± 6	63	204	± 9	75	245	± 11	>86	n/a	—
52	173	± 6	64	207	± 10	76	249	± 11			
53	176	± 7	65	210	± 10	77	252	± 11			
54	178	± 7	66	213	± 10	78	256	± 11			

**Tokyo Shinozuka**

Table 2-96: AC: Tokyo Shinozuka (Fetal Age), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: AC (cm); Age (Weeks/Days); SD (cm)

AC	Age	1SD	AC	Age	1SD	AC	Age	1SD
<10	n/a	—	18	23w3d	0.9	27	33w1d	1.4
10	15w3d	0.5	19	24w3d	1.0	28	34w2d	1.4
11	16w4d	0.6	20	25w3d	1.0	29	35w4d	1.5
12	17w4d	0.6	21	26w3d	1.1	30	37w0d	1.6
13	18w4d	0.7	22	27w3d	1.1	31	38w2d	1.6
14	19w4d	0.7	23	28w4d	1.2	32	39w6d	1.7
15	20w3d	0.8	24	29w4d	1.2	33	41w2d	1.8
16	21w3d	0.8	25	30w5d	1.3	>33	n/a	—
17	22w3d	0.9	26	31w6d	1.3			

Table 2-97: AC: Tokyo Shinozuka (Fetal Growth), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: Age (Weeks/Days); Min/Mean/Max (cm); Table/Graph Range: 1.64SD

Age	Min	Mean	Max	Age	Min	Mean	Max
16	9.3	10.9	12.5	30	22.0	24.7	27.3
17	10.3	12.0	13.6	31	22.8	25.6	28.3
18	11.2	13.0	14.7	32	23.5	26.5	29.2
19	12.2	14.0	15.8	33	24.3	27.3	30.1
20	13.1	15.1	16.9	34	25.0	28.1	31.0
21	14.0	16.1	18.0	35	25.7	28.9	31.9
22	15.0	17.1	19.1	36	26.4	29.7	32.7
23	15.9	18.1	20.2	37	27.0	30.4	33.5
24	16.8	19.1	21.2	38	27.6	31.1	34.3
25	17.7	20.1	22.3	39	28.2	31.8	35.0
26	18.6	21.0	23.3	40	28.8	32.4	35.7
27	19.5	22.0	24.4	41	29.3	33.0	36.4
28	20.3	22.9	25.4	42	29.7	33.6	37.0
29	21.1	23.8	26.4				

Table 2-98: AxT (APTDxTTD): Tokyo Shinozuka (Fetal Age), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: AxT (mm); Age (Weeks/Days); SD (cm2)

AxT	Age	1SD	AxT	Age	1SD	AxT	Age	1SD
<10	n/a	—	38	25w6d	5.5	68	33w3d	8.8
10	16w1d	2.5	40	26w3d	5.7	70	33w6d	9.1
12	17w0d	2.7	42	27w0d	6.0	72	34w2d	9.3
14	17w6d	2.9	44	27w3d	6.1	74	34w6d	9.6
16	18w4d	3.1	46	28w0d	6.4	76	35w3d	9.9
18	19w3d	3.4	48	28w4d	6.6	78	35w6d	10.1
20	20w1d	3.6	50	29w0d	6.8	80	36w3d	10.2
22	20w6d	3.8	52	29w3d	7.0	82	37w0d	10.7
24	21w4d	4.0	54	30w0d	7.2	84	37w4d	11.0
26	22w2d	4.3	56	30w3d	7.4	86	38w1d	11.3
28	22w6d	4.4	58	31w0d	7.7	88	38w5d	11.7
30	23w4d	4.7	60	31w3d	7.9	90	39w2d	12.0
32	24w1d	4.9	62	31w6d	8.1	>90	n/a	—
34	24w5d	5.1	64	32w3d	8.4			
36	25w2d	5.3	66	32w6d	8.6			

Table 2-99: AxT (APTDxTTD): Tokyo Shinozuka (Fetal Growth), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: Age (Weeks); Min/Mean/Max (cm2); Table/Graph Range: 1.64SD

Age	Min	Mean	Max	Age	Min	Mean	Max
16	7.0	11.2	15.5	30	43.5	55.7	68.0
17	8.7	13.3	18.0	31	46.8	59.7	72.7
18	10.5	15.6	20.7	32	50.0	63.8	77.6
19	12.5	18.1	23.6	33	53.3	67.8	82.4
20	14.7	20.8	26.8	34	56.5	71.9	87.3
21	17.1	23.6	30.2	35	59.7	75.9	92.2
22	19.6	26.7	33.8	36	62.8	79.9	97.0
23	22.2	29.9	37.5	37	65.9	83.9	101.9
24	25.0	33.2	41.5	38	68.8	87.7	106.7
25	27.9	36.7	45.6	39	71.6	91.5	111.4
26	30.9	40.3	49.8	40	74.3	95.1	116.0
27	33.9	44.1	54.2	41	76.8	98.6	120.5
28	37.1	47.9	58.7	42	79.1	102.0	124.8
29	40.3	51.8	63.3				

Table 2-100: BPD: Tokyo Shinozuka (Fetal Age), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: BPD (mm); Age (Weeks/Days); SD (mm)

BPD	Age	1SD	BPD	Age	1SD	BPD	Age	1SD
<13	n/a	—	39	17w6d	2.7	66	26w3d	3.2
13	10w1d	2.3	40	18w1d	2.7	67	26w6d	3.2
14	10w3d	2.3	41	18w3d	2.8	68	27w2d	3.3
15	10w5d	2.3	42	18w5d	2.8	69	27w4d	3.3
16	11w0d	2.3	43	19w0d	2.8	70	28w0d	3.3
17	11w2d	2.4	44	19w2d	2.8	71	28w3d	3.3
18	11w4d	2.4	45	19w4d	2.8	72	28w5d	3.3
19	11w6d	2.4	46	20w0d	2.8	73	29w1d	3.4
20	12w1d	2.4	47	20w2d	2.9	74	29w4d	3.4
21	12w3d	2.4	48	20w4d	2.9	75	30w0d	3.4
22	12w6d	2.4	49	20w6d	2.9	76	30w3d	3.4
23	13w1d	2.5	50	21w1d	2.9	77	30w6d	3.4
24	13w3d	2.5	51	21w3d	2.9	78	31w2d	3.5
25	13w5d	2.5	52	21w6d	2.9	79	31w5d	3.5
26	14w0d	2.5	53	22w1d	3.0	80	32w1d	3.5
27	14w2d	2.5	54	22w3d	3.0	81	32w5d	3.6
28	14w4d	2.5	55	22w5d	3.0	82	33w1d	3.6
29	14w6d	2.6	56	23w1d	3.0	83	33w5d	3.6
30	15w1d	2.6	57	23w3d	3.0	84	34w2d	3.6
31	15w3d	2.6	58	23w5d	3.1	85	34w6d	3.7
32	15w5d	2.6	59	24w1d	3.1	86	35w3d	3.7
33	16w0d	2.6	60	24w3d	3.1	87	36w0d	3.7
34	16w2d	2.6	61	24w5d	3.1	88	36w5d	3.8
35	16w4d	2.7	62	25w1d	3.1	89	37w4d	3.8
36	16w6d	2.7	63	25w3d	3.1	90	38w3d	3.9
37	17w1d	2.7	64	25w5d	3.2	>90	n/a	—
38	17w4d	2.7	65	26w1d	3.2			

Table 2-101: BPD: Tokyo Shinozuka (Fetal Growth), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: Age (Weeks); Min/Mean/Max (mm); Table/Graph Range: 1.64SD

Age	Min	Mean	Max	Age	Min	Mean	Max
10	10.5	14.3	18.1	27	63.4	68.7	74.1
11	13.7	17.6	21.5	28	65.9	71.4	76.8
12	17.0	21.0	25.0	29	68.3	73.9	79.4
13	20.4	24.4	28.5	30	70.6	76.3	81.9
14	23.7	27.8	32.0	31	72.8	78.5	84.2
15	27.0	31.2	35.5	32	74.8	80.6	86.5
16	30.3	34.6	39.0	33	76.7	82.6	88.5
17	33.5	38.0	42.4	34	78.5	84.5	90.4
18	36.8	41.3	45.8	35	80.1	86.1	92.2
19	40.0	44.6	49.2	36	81.5	87.6	93.8
20	43.2	47.9	52.6	37	82.7	89.0	95.2
21	46.3	51.1	55.9	38	83.8	90.1	96.5
22	49.3	54.2	59.1	39	84.6	91.1	97.5
23	52.3	57.3	62.3	40	85.3	91.8	98.4
24	55.2	60.3	65.3	41	85.8	92.4	99.0
25	58.0	63.2	68.4	42	86.0	92.8	99.5
26	60.8	66.0	71.3				

Table 2-102: CRL: Tokyo Shinozuka (Fetal Age), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: CRL (mm); Age (Weeks/Days); SD (mm)

CRL	Age	1SD	CRL	Age	1SD	CRL	Age	1SD
<5	n/a	—	20	8w6d	3.7	36	10w6d	5.9
5	6w3d	1.1	21	9w0d	3.9	37	11w0d	6.0
6	6w4d	1.3	22	9w1d	4.0	38	11w0d	6.0
7	6w6d	1.6	23	9w2d	4.2	39	11w1d	6.2
8	7w0d	1.7	24	9w3d	4.3	40	11w2d	6.3
9	7w1d	1.9	25	9w4d	4.5	41	11w3d	6.5
10	7w2d	2.0	26	9w4d	4.5	42	11w3d	6.5
11	7w3d	2.2	27	9w5d	4.6	43	11w4d	6.6
12	7w4d	2.3	28	9w6d	4.8	44	11w5d	6.8
13	7w5d	2.5	29	10w0d	4.9	45	11w6d	6.9
14	7w6d	2.6	30	10w1d	5.1	46	11w6d	6.9
15	8w1d	2.9	31	10w2d	5.2	47	12w0d	7.1
16	8w2d	3.1	32	10w3d	5.4	48	12w1d	7.2
17	8w3d	3.3	33	10w4d	5.5	49	12w1d	7.2
18	8w4d	3.4	34	10w5d	5.7	50	12w2d	7.4
19	8w5d	3.6	35	10w6d	5.9	>50	n/a	—

Table 2-103: CRL: Tokyo Shinozuka (Fetal Growth), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: Age (Weeks/Days); Mean (mm); SD (mm); Table/Graph Range: 1.64SD

Age	Mean	SD	Age	Mean	SD	Age	Mean	SD
7w0d	7.9	1.7	9w1d	21.2	4.0	11w2d	40.0	6.3
7w1d	8.6	1.9	9w2d	22.3	4.2	11w3d	41.4	6.5
7w2d	9.3	2.0	9w3d	23.4	4.3	11w4d	42.9	6.6
7w3d	10.1	2.2	9w4d	24.5	4.5	11w5d	44.4	6.8
7w4d	10.9	2.3	9w5d	25.7	4.6	11w6d	45.9	6.9
7w5d	11.7	2.5	9w6d	26.8	4.8	12w0d	47.4	7.1
7w6d	12.5	2.6	10w0d	28.0	4.9	12w1d	49.0	7.2
8w0d	13.4	2.8	10w1d	29.3	5.1	12w2d	50.6	7.4
8w1d	14.3	2.9	10w2d	30.5	5.2	12w3d	52.2	7.5
8w2d	15.2	3.1	10w3d	31.8	5.4	12w4d	53.9	7.7
8w3d	16.1	3.3	10w4d	33.1	5.5	12w5d	55.5	7.8
8w4d	17.1	3.4	10w5d	34.4	5.7	12w6d	57.2	8.0
8w5d	18.1	3.6	10w6d	35.8	5.9	13w0d	58.9	8.2
8w6d	19.1	3.7	11w0d	37.1	6.0			
9w0d	20.1	3.9	11w1d	38.5	6.2			

Table 2-104: EFW: Tokyo Shinozuka (Fetal Age), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: EFW (grams); Age (Weeks/Days); SD (grams)

EFW	Age	1SD	EFW	Age	1SD	EFW	Age	1SD
<250	n/a	—	1200	28w3d	162	2200	34w2d	258
250	19w3d	45	1250	28w5d	166	2250	34w4d	264
300	20w0d	51	1300	29w1d	173	2300	34w6d	269
350	20w4d	58	1350	29w3d	177	2350	35w1d	274
400	21w2d	66	1400	29w5d	181	2400	35w3d	279
450	21w5d	71	1450	30w0d	186	2450	35w5d	284
500	22w2d	78	1500	30w2d	191	2500	35w7d	290
550	22w6d	85	1550	30w5d	197	2550	36w2d	295
600	23w2d	90	1600	30w7d	202	2600	36w4d	301
650	23w6d	98	1650	31w2d	207	2650	36w6d	306
700	24w2d	103	1700	31w4d	211	2700	37w2d	314
750	24w5d	109	1750	31w6d	216	2750	37w4d	320
800	25w2d	116	1800	32w1d	221	2800	37w6d	325
850	25w5d	122	1850	32w3d	226	2850	38w1d	331
900	26w1d	128	1900	32w5d	231	2900	38w4d	340
950	26w4d	134	1950	32w7d	236	2950	38w6d	345
1000	26w6d	138	2000	33w1d	238	3000	39w2d	354
1050	27w2d	145	2050	33w3d	243	>3000	n/a	—
1100	27w5d	151	2100	33w5d	248			
1150	28w0d	155	2150	34w0d	253			

Table 2-105: EFW: Tokyo Shinozuka (Fetal Growth), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: Age (Weeks); Min/Mean/Max (grams); Table/Graph Range: 1.64SD

Age	Min	Mean	Max	Age	Min	Mean	Max
18	158	216	274	30	1234	1552	1870
19	204	279	355	31	1375	1720	2064
20	256	349	442	32	1520	1892	2265
21	314	427	539	33	1667	2068	2469
22	381	513	645	34	1814	2244	2675
23	456	609	761	35	1960	2420	2880
24	541	714	888	36	2102	2592	3083
25	634	830	1026	37	2236	2758	3280
26	737	956	1175	38	2360	2915	3469
27	849	1092	1334	39	2471	3059	3647
28	970	1237	1504	40	2565	3187	3809
29	1099	1391	1683	41	2639	3296	3952

Table 2-106: FL: Tokyo Shinozuka (Fetal Age), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: FL (mm); Age (Weeks/Days); SD (mm)

FL	Age	1SD	FL	Age	1SD	FL	Age	1SD
<20	n/a	—	37	22w2d	2.9	55	30w5d	3.1
20	16w1d	2.6	38	22w5d	2.9	56	31w2d	3.2
21	16w3d	2.7	39	23w1d	2.9	57	31w6d	3.2
22	16w6d	2.7	40	23w4d	2.9	58	32w3d	3.2
23	17w1d	2.7	41	24w0d	2.9	59	33w0d	3.2
24	17w3d	2.7	42	24w3d	2.9	60	33w3d	3.2
25	17w6d	2.7	43	24w6d	2.9	61	34w0d	3.2
26	18w1d	2.7	44	25w3d	3.0	62	34w4d	3.3
27	18w3d	2.7	45	25w6d	3.0	63	35w1d	3.3
28	18w6d	2.7	46	26w2d	3.0	64	35w5d	3.3
29	19w1d	2.7	47	26w5d	3.0	65	36w2d	3.3
30	19w4d	2.8	48	27w2d	3.0	66	37w0d	3.3
31	20w0d	2.8	49	27w5d	3.0	67	37w4d	3.4
32	20w2d	2.8	50	28w2d	3.1	68	38w1d	3.4
33	20w5d	2.8	51	28w5d	3.1	69	38w5d	3.4
34	21w1d	2.8	52	29w2d	3.1	70	39w3d	3.4
35	21w3d	2.8	53	29w5d	3.1	>70	n/a	—
36	21w6d	2.8	54	30w2d	3.1			

Table 2-107: FL: Tokyo Shinozuka (Fetal Growth), Shinozuka Jpn J Med Ultrasonics vol 23: 12 1996, Unit: Age (Weeks); Min/Mean/Max (mm); Table/Graph Range: 1.64SD

Age	Min	Mean	Max	Age	Min	Mean	Max
16	17.1	21.4	25.8	30	49.7	54.8	60.0
17	19.6	24.0	28.4	31	51.6	56.8	62.0
18	22.1	26.5	31.0	32	53.5	58.7	64.0
19	24.6	29.1	33.6	33	55.2	60.5	65.8
20	27.1	31.6	36.2	34	56.9	62.2	67.6
21	29.5	34.1	38.8	35	58.4	63.8	69.2
22	31.9	36.6	41.3	36	59.9	65.3	70.8
23	34.3	39.1	43.8	37	61.2	66.7	72.2
24	36.7	41.5	46.3	38	62.4	68.0	73.6
25	39.0	43.9	48.7	39	63.5	69.1	74.7
26	41.3	46.2	51.1	40	64.4	70.1	75.8
27	43.5	48.4	53.4	41	65.3	71.0	76.7
28	45.6	50.6	55.7	42	65.9	71.7	77.5
29	47.7	52.8	57.9				

**Williams**

Table 2-108: EFW: Williams (Fetal Growth), Unit: Age (Weeks); Min/Mean/Max (grams)

Age	Min	Mean	Max	Age	Min	Mean	Max
22.0	320	513	746	34.0	1728	2394	3132
23.0	365	589	861	35.0	1974	2628	3333
24.0	417	675	989	36.0	2224	2849	3521
25.0	477	773	1132	37.0	2455	3052	3706
26.0	546	882	1289	38.0	2642	3227	3867
27.0	627	1005	1463	39.0	2790	3364	3994
28.0	720	1143	1653	40.0	2881	3462	4080
29.0	829	1298	1859	41.0	2946	3524	4127
30.0	955	1484	2136	42.0	3011	3589	4185
31.0	1100	1695	2402	43.0	3044	3626	4221
32.0	1284	1920	2673	44.0	3043	3633	4233
33.0	1499	2155	2910				

**Yarkoni**

Table 2-109: CLA:Yarkoni S, Journal of Ultrasound in Medicine, 4:467-470, 1985 (Fetal Age), Unit: Meas (mm); Min/Mean/Max (Weeks/Days)

Meas	Min	Mean	Max	Meas	Min	Mean	Max
11	8w3d	13w6d	17w2d	29	23w2d	28w5d	32w1d
12	9w1d	14w4d	18w1d	30	24w0d	29w4d	34w0d
13	10w0d	14w3d	19w6d	31	25w6d	29w2d	34w6d
14	11w6d	15w2d	20w5d	32	26w5d	30w1d	35w4d
15	12w5d	16w1d	21w4d	33	27w4d	31w0d	35w3d
16	12w3d	18w0d	21w3d	34	27w3d	32w6d	36w2d
17	13w2d	18w5d	22w2d	35	28w1d	33w5d	37w1d
18	14w1d	19w4d	23w0d	36	29w0d	33w3d	39w0d
19	16w0d	19w3d	24w6d	37	30w6d	34w2d	39w5d
20	16w6d	20w2d	25w5d	38	31w5d	35w1d	40w4d
21	17w4d	21w1d	26w4d	39	32w4d	37w0d	40w3d
22	17w3d	22w6d	26w2d	40	32w2d	37w6d	41w2d
23	18w2d	23w5d	27w1d	41	33w1d	38w4d	42w0d
24	19w1d	24w4d	28w0d	42	35w0d	38w3d	43w6d
25	21w0d	24w3d	29w6d	43	35w6d	39w2d	44w5d
26	21w5d	25w1d	30w5d	44	36w5d	40w1d	45w4d
27	22w4d	26w0d	30w3d	45	36w3d	41w6d	45w3d
28	22w3d	27w6d	31w2d				

---

## Chapter 3

# Acoustic and Probe Surface Temperature Information

*This chapter describes:*

*'The real-time display of acoustic output indices' on page 3-2*

*'Track 3 ALARA Educational Program' on page 3-6*

*'Default Settings and Output Levels' on page 3-7*

*'Controls Affecting Acoustic Output' on page 3-8*

*'Probe surface temperature safety mechanisms' on page 3-11*

*'Acoustic Parameters as Measured in Water' on page 3-12*

*'Acoustic Output Reporting Tables for Track 3/IEC 60601-2-37' on page 3-71*

# The real-time display of acoustic output indices

The Venue has real-time display features according to Track 3 in the FDA 510(k) Guidance of September 9, 2008. It displays both a thermal (TI) and a mechanical (MI) index in all operating modes. These two indices are intended to estimate the potential for thermal and mechanical bioeffects induced by ultrasound. Both TI and MI are displayed with increments of 0.1. The displayed (estimated) TI and MI are nominal values.

## Thermal Index

TI is defined as:  $TI = \frac{W_0}{W_{deg}}$

where:  $W_0$  is the time-averaged acoustic power and  $W_{deg}$  is the estimated power necessary to raise the target tissue one degree C.

The displayed TI is an estimate of temperature increase of soft tissue or bone, presented to make it easier for the operator to implement the ALARA (As Low As Reasonably Achievable) principle. There are three thermal index categories:

- **TIS:** Soft tissue thermal index. The main TI category. Used for applications that do not image bone.
- **TIB:** Bone thermal index (bone located in a focal region). Used for fetal application.
- **TIC:** Cranial bone thermal index (bone located close to the surface). Used for transcranial application.

Venue chooses the correct category based on mode of operation and chosen application, and presents the relevant TI category to the operator. It is therefore important that the operator chooses the right application. The system also provides the ability to select the display of any of the TI categories regardless of the current application.

## The real-time display of acoustic output indices

The British Medical Ultrasound Society has suggested some maximum scanning times relative to displayed TI as follows:

<b>Obstetric scanning</b>		
<b>TI</b>	<b>time</b>	<b>Note</b>
0.0–0.7	Unlimited	Monitor TIS up to 10 weeks post LMP, TIB thereafter
0.7–1.0	< 60 min	
1.0–1.5	< 30 min	
1.5–2.0	< 15 min	
2.0–2.5	< 4 min	
2.5–3.0	< 1 min	

<b>Neonatal trans-cranial &amp; spinal scanning</b>		
<b>TI</b>	<b>time</b>	<b>Note</b>
0.0–0.7	Unlimited	Monitor TIC. MI>0.7 should be used with caution in the presence of contrast agents.
0.7–1.0	< 60 min	
1.0–1.5	< 30 min	
1.5–2.0	< 15 min	
2.0–2.5	< 4 min	
2.5–3.0	< 1 min	

<b>Neonatal general and cardiac scanning</b>		
<b>TI</b>	<b>time</b>	<b>Note</b>
0.0–1.0	Unlimited	Monitor TIB. MI>0.7 should be used with caution in the presence of contrast agents.
1.0–1.5	< 120 min	
1.5–2.0	< 60 min	
2.0–2.5	< 15 min	
2.5–3.0	< 4 min	

<b>Adult trans-cranial scanning</b>		
<b>TI</b>	<b>time</b>	<b>Note</b>
0.0–1.0	Unlimited	Monitor TIC. MI>0.7 should be used with caution in the presence of contrast agents.
1.0–1.5	< 30 min	
1.5–2.0	< 15 min	
2.0–2.5	< 4 min	
2.5–3.0	< 1 min	

<b>General Abdominal, Peripheral Vascular and other scanning (excluding the eye)</b>		
<b>TI</b>	<b>time</b>	<b>Note</b>
0.0–1.0	Unlimited	Monitor TIB or TIC if bone closer than 1 cm, TIS if no bone is in the image. MI>0.7 should be used with caution in the presence of contrast agents.
1.0–1.5	< 120 min	
1.5–2.0	< 60 min	
2.0–2.5	< 15 min	
2.5–3.0	< 4 min	

*NOTE: Venue does not monitor the thermal exposure time.*

**References**

- The British Medical Ultrasound Society. Guidelines for the safe use of diagnostic ultrasound equipment.
- American Institute of Ultrasound in Medicine Consensus Report on Potential Bioeffects of Diagnostic Ultrasound.

**Mechanical Index**

MI is the estimated likelihood of tissue damage due to cavitation.

MI is defined as:

$$MI = \frac{P_{r,3}(Z_{sp})}{\sqrt{f_c}}$$

where  $p_{r,3}$  is the derated (attenuated) peak rarefactional (negative) pressure (MPa) and  $f_c$  is the center frequency (MHz).

$Z_{sp}$  is the depth at which the max  $p_{r,3}$  has been measured.

The MI will not exceed a value of 1.9 according to Track 3 in the FDA 510(k) guidance of September 9, 2008.

## Display Accuracy and Acoustic Measurement Uncertainties

The display accuracy and measurement precision of the output display are summarized in the table below. Accuracy of the output display (TI, MI) parameters depends on the measurement system precision, the acoustic model used to calculate the parameters and variation in the acoustic output of probes and systems. The measurement precision and overall accuracy of the measurements have been assessed by determining both the random and the systematic uncertainties and given in percent at 90% confidence level for MI and TI from and above the 0.4 limit given the output display standard NEMA UD-3.2004.

Parameter	Estimated accuracy <sup>a</sup>	Measurement precision
Pressure, MI	±25%	±15%
Power, TI	±50%	±30%
Frequency <sup>b</sup>	±1%	±1%

a. Accuracy = (Measured value - displayed value)/displayed value \* 100%. b. For the measurement system.

# Track 3 ALARA Educational Program

The user should be familiar with the enclosed document “Medical Ultrasound Safety”, published by AIUM (American Institute of Ultrasound in Medicine). This document is acceptable to FDA as meeting the content of the ALARA educational program. ALARA is an acronym for the principle of prudent use of diagnostic ultrasound by obtaining the diagnostic information at an output that is **As Low As Reasonably Achievable**. In addition to the AIUM document, the sections ‘The real-time display of acoustic output indices’ on *page 3-2* and ‘Controls Affecting Acoustic Output’ on *page 3-8* should be studied carefully in order to implement ALARA.

# Default Settings and Output Levels

The output level will not exceed the default level until the user intentionally increases the power level by adjusting the power control on the system.

The output level will return to default each time

- a new probe is chosen
- a new application is chosen
- a new patient is chosen.

# Controls Affecting Acoustic Output

The initial means by which the user can affect acoustic output are by 1) selecting a probe, 2) selecting an application (exam category) and then 3) selecting the imaging mode or particular imaging characteristics. After these selections are made, the only user control that can affect the output is the acoustic output control. This is achieved through an acoustic output control scheme in which all parameters that directly or indirectly affect acoustic output are fed to the control algorithm. The algorithm estimates all relevant parameters and compares them to the FDA limits.

Output levels remain below the limits with a 90% confidence margin. The absolute maximum allowable output for Ophthalmic applications is:

- ISPTA less than or equal to  $50 \text{ mW/cm}^2$
- MI less than or equal to 0.23
- TI less than or equal to 1

The absolute maximum allowable output for all other applications is:

- ISPTA less than or equal to  $720 \text{ mW/cm}^2$
- MI less than or equal to 1.9
- TI less than or equal to 6

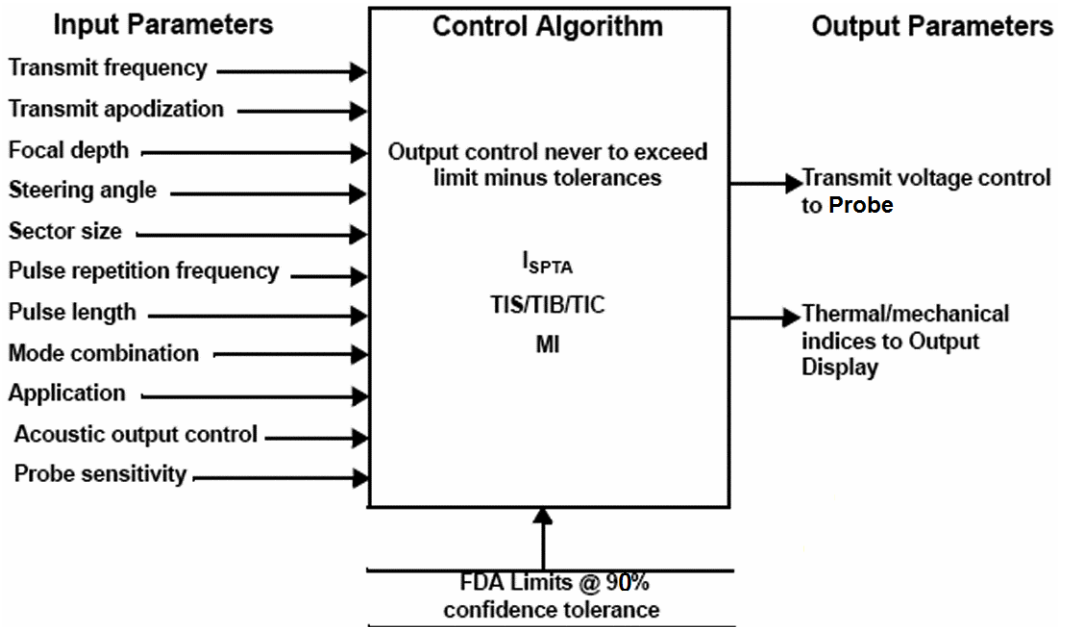


Figure 3-1. The Acoustic Output Control Scheme

The following table summarizes the mode/probe combinations for which the global maximum displayed MI or TI may be greater than 1.0. For each probe/mode combination checked, a Track 3 acoustic output table exists.

Not all probes listed may be supported worldwide. Please refer to your local language User Manual for an overview of the probes that are supported in your country.

### Track 3 Summary Table

Operating Mode	Transducer Model					
	3Sc-RS	9L-RS	C1-5-RS	12L-RS	L12n-RS	8C-RS
B-Mode (2D)	Yes	Yes	Yes	Yes	Yes	Yes
M-Mode	Yes	Yes	Yes	Yes	Yes	Yes
Pulsed Doppler (PW)	Yes	Yes	Yes	Yes	Yes	Yes
CW Doppler (CW)	Yes	-	-	-	-	-
Color Flow	Yes	Yes	Yes	Yes	Yes	Yes
Color M-Mode	Yes	Yes	Yes	Yes	Yes	Yes

Operating Mode	Transducer Model				
	E8C-RS	6Tc-RS	L8-18i-RS	L4-12t-RS	6S-RS
B-Mode (2D)	Yes	Yes	Yes	Yes	Yes
M-Mode	Yes	Yes	Yes	Yes	Yes
Pulsed Doppler (PW)	Yes	Yes	Yes	Yes	Yes
CW Doppler (CW)	-	Yes	-	-	-
Color Flow	Yes	Yes	Yes	Yes	Yes
Color M-Mode	Yes	Yes	-	Yes	Yes

# Probe surface temperature safety mechanisms

Venue has a Probe Surface Temperature Control Algorithm to ensure that each probe is set up and run within temperature limits given by the harmonized safety standard IEC60601-2-37. The Control Algorithm is implemented in the software and calibrated by laboratory measurements of surface temperature on each probe type. A Control Algorithm Input Parameter check is performed during setup of each new scan, and any detected error in the input, and/or malfunction are protected by software error handling that aborts setup and prevents start of scanning. The system has monitoring of voltage and power used by the ultrasound transmits circuitry and probe. If transmit voltage or power exceeds expected values, the transmit voltage will be set to zero and scanning will stop. This mechanism will protect against illegal setup and/or probe defects.

These safety mechanisms are designed to ensure that the surface temperature for each probe supported by the system, is kept within values listed in the table “Maximum Probe Temperature” in Chapter “Probes” of the system’s user manual.

No particular user actions are required for the proper functioning of the described safety mechanisms.

# Acoustic Parameters as Measured in Water

## Definitions, symbols and abbreviations

The following definitions, symbols and abbreviations are used in the acoustic output reporting tables in this chapter:

IEC	FDA	Meaning—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	Acoustic Attenuation Coefficient / Derating factor (usually 0.3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12db Output Beam Area / Active aperture area
$C_{MI}$		Normalizing Coefficient
$D_{eq}$	$D_{eq}$	Equivalent Aperture Diameter / (same)
$d_{-6}$	$d_{-6}$	Pulse Beam Width / Beam diameter at -6 dB
$d_{eq}$	$d_{eq}$	Equivalent Beam Diameter
$awf$	$f_c$	Acoustic Working Frequency / Center frequency
$I_{pa}$	$I_{pa}$	Pulse-Average Intensity
$I_{pa,a}$	$I_{pa,3}$	Attenuated Pulse-Average Intensity
$I_{pi}$	$PII$	Pulse-Intensity Integral
$I_{pi,a}$	$PII,3$	Attenuated Pulse-Intensity Integral
$I_{ta}(z)$	$I_{TA}$	Temporal-Average Intensity
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Attenuated Temporal-Average Intensity / (at depth z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Spatial-Peak Temporal-Average Intensity
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Attenuated Spatial-Peak Temporal-Average Intensity
$MI$	$MI$	Mechanical Index
$P$	$W_0$	Output Power / Time average acoustic power at the source

IEC	FDA	Meaning—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$P_a$	$W_{.3}(Z)$	<i>Attenuated Output Power / Time average acoustic power derated to depth z</i>
$P_f$	$W_{01}$	<i>Bounded Output Power / Power emitted from the central 1cm of aperture</i>
$p_i$	PII	<i>Pulse Pressure Squared Integral / Pulse intensity integral</i>
$p_r$	$p_r$	<i>Peak-Rarefactional Acoustic Pressure / (same)</i>
$P_{ra}$	$P_{r.3}$	<i>Attenuated Peak-Rarefactional Acoustic Pressure / (same)</i>
$pr$	PRF	<i>Pulse Repetition Rate / Pulse repetition frequency</i>
$T_I$	TI	<i>Thermal Index / (same)</i>
$T_{IB}$	TIB	<i>Bone Thermal Index / (same)</i>
$T_{IC}$	TIC	<i>Cranial-Bone Thermal Index / (same)</i>
$T_{IS}$	TIS	<i>Soft-Tissue Thermal Index / (same)</i>
$t_d$	PD	<i>Pulse Duration / (same)</i>
$X, Y$	$X_{-12}, Y_{-12}$	<i>-12 dB Output Beam Dimensions / (same)</i>
$z$	Z	<i>Distance from the Source to a Specified Point / (same)</i>
$z_{bp}$	$Z_{sp}$	<i>Depth for TIB / Depth at which the relevant index is maximum</i>
$z_{bp}$	$Z_{bp}$	<i>Break-Point Depth / (same)</i>
$z_s$	$Z_{sp}$	<i>Depth for TIS / Depth at which the relevant index is maximum</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Означава—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	<i>Acoustic Attenuation Coefficient</i> (Коефициент на акустично атенюиране) / Фактор на освобождаване (обикновено 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	<i>-12db Output Beam Area</i> (Зона на изходящ лъч) / <i>Active aperture area</i> (Активна апертурна зона)
$C_{MI}$		<i>Коефициент на нормализиране</i>
$D_{eq}$	$D_{eq}$	<i>Equivalent Aperture Diameter</i> (Еквивалентен диаметър на апертура) / (същото)
$d_{-6}$	$d_{-6}$	<i>Pulse Beam Width</i> (Ширина на пулсов лъч) / Диаметър на лъча при -6 dB
$d_{eq}$	$d_{eq}$	<i>Еквивалентен диаметър на лъча</i>
$awf$	$f_c$	<i>Acoustic Working Frequency</i> (Акустична работна честота) / Централна честота
$I_{pa}$	$I_{pa}$	<i>Пулс-средна интензивност</i>
$I_{pa,a}$	$I_{pa,3}$	<i>Атенюирана пулс-средна интензивност</i>
$I_{pi}$	$P_{II}$	<i>Интеграл пулс-интензивност</i>
$I_{pi,a}$	$P_{II,3}$	<i>Атенюиран интеграл пулс-интензивност</i>
$I_{ta}(z)$	$I_{TA}$	<i>Темпорална-средна интензивност</i>
$I_{ta,a}(z)$	$I_{TA,3}(z)$	<i>Attenuated Temporal-Average Intensity</i> (Атенюирана темпорална-средна интензивност) / (при дълбочина $z$ )
$I_{zpta}(z)$	$I_{SPTA}(z)$	<i>Пространствена-пик темпорална-средна интензивност</i>
$I_{zpta,a}(z)$	$I_{SPTA,3}(z)$	<i>Атенюирана пространствена-пик темпорална-средна интензивност</i>
$MI$	$MI$	<i>Механичен индекс</i>
$P$	$W_0$	<i>Output Power</i> (Изходна мощност) / Времева средна акустична мощност при източника
$P_a$	$W_{,3}(z)$	<i>Attenuated Output Power</i> (Атенюирана изходна мощност) / Времева средна акустична мощност, освободена до дълбочина $z$
$P_1$	$W_{01}$	<i>Bounded Output Power</i> (Насочена изходна мощност) / Мощност, излъчена от централния 1 cm на апертурата
$p_i$	$P_{II}$	<i>Pulse Pressure Squared Integral</i> (Интеграл на пулс и налягане на квадрат) / Интеграл пулс интензивност
$p_r$	$P_r$	<i>Peak-Rarefactional Acoustic Pressure</i> (Пик-разредено акустично налягане) / (същото)

IEC	FDA	Означава—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$P_{ra}$	$P_{r,3}$	<i>Attenuated Peak-Rarefactional Acoustic Pressure</i> (Атенюирано пик-разредено акустично налягане) / (същото)
$p_{rr}$	PRF	<i>Pulse Repetition Rate</i> (Коефициент на пулс повторение) / Честота на пулс повторение
$TI$	TI	<i>Thermal Index</i> (Температурен индекс) / (същото)
$TIB$	TIB	<i>Bone Thermal Index</i> (Температурен индекс за костна тъкан) / (същото)
$TIC$	TIC	<i>Cranial-Bone Thermal Index</i> (Температурен индекс за черепни кости) / (същото)
$TIS$	TIS	<i>Soft-Tissue Thermal Index</i> (Температурен индекс за мека тъкан) / (същото)
$t_d$	PD	<i>Pulse Duration</i> (Продължителност на пулс) / (същото)
X, Y	x-12:y-12	<i>-12 dB Output Beam Dimensions</i> (Размери на изходящ лъч) / (същото)
z	Z	<i>Distance from the Source to a Specified Point</i> (Разстояние от източника до определена точка) / (същото)
$z_{bp}$	$Z_{sp}$	<i>Depth for TIB</i> (Дълбочина за TIB) / Дълбочина, при която съответният индекс е максимален
$z_{bp}$	$Z_{bp}$	<i>Break-Point Depth</i> (Пределна дълбочина) / (същото)
$z_s$	$Z_{sp}$	<i>Depth for TIS</i> (Дълбочина за TIS) / Дълбочина, при която съответният индекс е максимален

IEC	FDA	Význam—IEC 60601-2-37 / FDA a NEMA UD2, UD3
$a$	$a$	Akustický koeficient zeslabení / faktor snížení (obvykle 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	Výstupní plocha paprsku pro -12 db / plocha aktivní apertury
$C_{MI}$		Normalizační koeficient
$D_{eq}$	$D_{eq}$	Ekvivalentní průměr apertury / (stejně)
$d_{-6}$	$d_{-6}$	Šířka pulzního paprsku / průměr paprsku při -6 dB
$d_{eq}$	$d_{eq}$	Ekvivalentní průměr paprsku
$avf$	$f_c$	Akustický pracovní kmitočet / střední frekvence
$l_{pa}$	$l_{pa}$	Pulzní průměrovaná intenzita
$l_{pa,a}$	$l_{pa,3}$	Zeslabená pulzní průměrovaná intenzita
$l_{pi}$	PII	Integrální pulzní intenzita
$l_{pi,a}$	PII <sub>3</sub>	Zeslabená integrální pulzní intenzita
$l_{ta}(z)$	$l_{TA}$	Časově průměrovaná intenzita
$l_{ta,a}(z)$	$l_{TA,3}(Z)$	Zeslabená časově průměrovaná intenzita / (při hloubce z)
$l_{zpta}(z)$	$l_{SPTA}(Z)$	Prostorově špičková časově průměrovaná intenzita
$l_{zpta,a}(z)$	$l_{SPTA,3}(Z)$	Zeslabená prostorově špičková časově průměrovaná intenzita
$MI$	MI	Mechanický index
$P$	$W_0$	Výstupní výkon / časově průměrovaný akustický výkon u zdroje
$P_a$	$W_{,3}(Z)$	Zeslabený výstupní výkon / časově průměrovaný akustický výkon přepočítaný na hloubku z
$P_1$	$W_{01}$	Omezený výstupní výkon/ výkon vydávaný z centrální 1cm apertury
$p_i$	PII	Pulzní/tlakový kvadratický integrál / integrál pulzní intenzity
$p_r$	$p_r$	Špičkový refrakční akustický tlak / (stejně)
$p_{ra}$	$p_{r,3}$	Zeslabený špičkový refrakční akustický tlak / (stejně)
$prf$	PRF	Pulzní opakovací frekvence / rychlost
$TI$	TI	Teplotní index / (stejně)
$TIB$	TIB	Teplotní index kostí / (stejně)

IEC	FDA	Význam—IEC 60601-2-37 / FDA a NEMA UD2, UD3
<i>TIC</i>	TIC	<i>Teplotní index kostí lebeční / (stejně)</i>
<i>TIS</i>	TIS	<i>Teplotní index měkké tkáně / (stejně)</i>
<i>t<sub>d</sub></i>	PD	<i>Trvání impulzu / (stejně)</i>
<i>X, Y</i>	<i>x<sub>-12</sub>, y<sub>-12</sub></i>	<i>Rozměry výstupního paprsku pro -12 dB / (stejně)</i>
<i>z</i>	Z	<i>Vzdálenost zdroje k specifikovanému bodu / (stejně)</i>
<i>z<sub>bp</sub></i>	<i>Z<sub>sp</sub></i>	<i>Hloubka pro TIB / hloubka, při které je příslušný index maximální</i>
<i>z<sub>bp</sub></i>	<i>Z<sub>bp</sub></i>	<i>Hloubka bodu přerušeni / (stejně)</i>
<i>z<sub>s</sub></i>	<i>Z<sub>sp</sub></i>	<i>Hloubka pro TIS / hloubka, při které je příslušný index maximální</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Står for - IEC 60601-2-37 / FDA og NEMA UD2, UD3
$a$	$a$	Akustisk dæmpningskoefficient / Reduktionsfaktor (normalt 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	Areal af outputstråle ved -12db / Aktivt åbningsareal
$C_{MI}$		Normaliseringskoefficient
$D_{eq}$	$D_{eq}$	Ækvivalent åbningsdiameter / (samme)
$d_{-6}$	$d_{-6}$	Bredde af pulsstråle / Strålediameter ved -6 dB
$d_{eq}$	$d_{eq}$	Ækvivalent strålediameter
$awf$	$f_c$	Akustisk driftsfrekvens / Midterfrekvens
$I_{pa}$	$I_{pa}$	Gennemsnitlig pulsintensitet
$I_{pa,a}$	$I_{pa,3}$	Dæmpet gennemsnitlig pulsintensitet
$I_{pi}$	PII	Integreret pulsintensitet
$I_{pi,a}$	PII <sub>3</sub>	Integreret dæmpet gennemsnitlig pulsintensitet
$I_{ta}(z)$	$I_{TA}$	Gennemsnitsintensitet pr. arealenhed
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Dæmpet gennemsnitsintensitet pr. arealenhed / (i dybden z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Spatiel gennemsnitsintensitet pr. tidsenhed
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Dæmpet spatiel gennemsnitsintensitet pr. tidsenhed
$MI$	MI	Mekanisk indeks
$P$	$W_0$	Outputeffekt / Tidsmidlet akustisk effekt ved kilden
$P_a$	$W_{,3}(Z)$	Dæmpet outputeffekt / Reduceret tidsmidlet akustisk effekt i dybden z
$P_f$	$W_{01}$	Begrænset outputeffekt/ Udsendt effekt fra åbningens midte (1 cm)
$p_i$	PII	Integreret pulstryk opløftet i anden potens / Integreret pulsintensitet
$p_r$	$p_r$	Peak -rarefikationsakustisk tryk / (samme)
$p_{ra}$	$p_{r,3}$	Dæmpet peak-rarefikationsakustisk tryk / (samme)
$p_{rr}$	PRF	Pulsrepetitions hastighed / Pulsrepetitionsfrekvens
$TI$	TI	Termisk indeks / (samme)
$TIB$	TIB	Termisk indeks for knogler / (samme)

IEC	FDA	Står for - IEC 60601-2-37 / FDA og NEMA UD2, UD3
<i>TIC</i>	TIC	<i>Termisk indeks for kranieknogler / (samme)</i>
<i>TIS</i>	TIS	<i>Termisk indeks for blødt væv / (samme)</i>
<i>t<sub>d</sub></i>	PD	<i>Pulsvarighed / (samme)</i>
<i>X, Y</i>	<i>x<sub>-12</sub>:y<sub>-12</sub></i>	<i>Dimensioner for outputstråle ved -12 db / (samme)</i>
<i>z</i>	Z	<i>Afstand fra kilden til et bestemt punkt / (samme)</i>
<i>z<sub>bp</sub></i>	<i>Z<sub>sp</sub></i>	<i>Dybde for TIB / Den dybde, hvor det relevante indeks er maksimalt</i>
<i>z<sub>bp</sub></i>	<i>Z<sub>bp</sub></i>	<i>Brudpunktsdybde / (samme)</i>
<i>z<sub>s</sub></i>	<i>Z<sub>sp</sub></i>	<i>Dybde for TIS / Den dybde, hvor det relevante indeks er maksimalt</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Bedeutung – IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	<i>Akustischer Dämpfungskoeffizient/Unterlastungsgrad (in der Regel 0,3 dB/cm-MHz)</i>
$A_{aprt}$	$A_{aprt}$	<i>-12 db Ausgangsstrahlbereich/aktiver Aperturbereich</i>
$C_{MI}$		<i>Normalisierungskoeffizient</i>
$D_{eq}$	$D_{eq}$	<i>Äquivalenter Aperturdurchmesser/(gleich)</i>
$d_{-6}$	$d_{-6}$	<i>Pulsstrahlbreite/Strahldurchmesser bei -6 dB</i>
$d_{eq}$	$d_{eq}$	<i>Äquivalenter Strahldurchmesser</i>
$awf$	$f_c$	<i>Akustische Arbeitsfrequenz/Zentralfrequenz</i>
$I_{pa}$	$I_{pa}$	<i>Mittlere Pulsintensität</i>
$I_{pa,a}$	$I_{pa,3}$	<i>Abgeschwächte mittlere Pulsintensität</i>
$I_{pi}$	PII	<i>Integral der Pulsintensität</i>
$I_{pi,a}$	PII,3	<i>Integral der abgeschwächten Pulsintensität</i>
$I_{ta}(z)$	$I_{TA}$	<i>Zeitgemittelte Intensität</i>
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	<i>Abgeschwächte zeitgemittelte Intensität/(bei Tiefe z)</i>
$I_{zpta}(z)$	$I_{SPTA}(Z)$	<i>Räumliche zeitgemittelte Spitzenintensität</i>
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	<i>Abgeschwächte räumliche zeitgemittelte Spitzenintensität</i>
$MI$	MI	<i>Mechanischer Index (MI)</i>
$P$	$W_0$	<i>Ausgangsleistung/zeitgemittelte akustische Leistung an der Quelle</i>
$P_a$	$W_{,3}(Z)$	<i>Abgeschwächte Ausgangsleistung/zeitgemittelte akustische Leistung reduziert auf Tiefe z</i>
$P_1$	$W_{01}$	<i>Begrenzte Ausgangsleistung/von der mittleren 1-cm-Fläche der Apertur emittierte Leistung</i>
$P_I$	PII	<i>Pulsdruck-Quadratintegral/Pulsintensitätsintegral</i>
$p_r$	$P_r$	<i>Negativer akustischer Spitzendruck/(gleich)</i>
$P_{ra}$	$P_{r,3}$	<i>Abgeschwächter negativer akustischer Spitzendruck/(gleich)</i>
$prf$	PRF	<i>Pulswiederholrate/Pulswiederholfrequenz</i>
$TI$	TI	<i>Thermischer Index/(gleich)</i>

IEC	FDA	Bedeutung – IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Thermischer Index für Knochen/(gleich)</i>
<i>TIC</i>	TIC	<i>Thermischer Index für Schädelknochen/(gleich)</i>
<i>TIS</i>	TIS	<i>Thermischer Index für Weichgewebe/(gleich)</i>
$t_d$	PD	<i>Pulsdauer/(gleich)</i>
X, Y	$x_{-12}, y_{-12}$	<i>-12 dB Ausgangsstrahldimensionen/(gleich)</i>
<i>z</i>	Z	<i>Abstand von der Quelle bis zu einem bestimmten Punkt/(gleich)</i>
$z_{bp}$	$Z_{sp}$	<i>Tiefe für TIB/Tiefe, an der der relevante Index am höchsten ist</i>
$z_{bp}$	$Z_{bp}$	<i>Break-Point-Tiefe/(gleich)</i>
$z_s$	$Z_{sp}$	<i>Tiefe für TIS/Tiefe, an der der relevante Index am höchsten ist</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Tähendus – IEC 60601-2-37 / FDA ja NEMA UD2, UD3
$a$	$a$	Akustilise sumbuuse koefitsient / vähendustegur (tavaliselt 0,3 dB / cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12 db väljundkiire ala / apertuuri aktiivne ala
$C_{MI}$		Normaliseerimiskoeffitsient
$D_{eq}$	$D_{eq}$	Apertuuri ekvivalentdiameeter / (sama)
$d_{-6}$	$d_{-6}$	Impulsskiire laius / kiire diameeter -6 dB juures
$d_{eq}$	$d_{eq}$	Kiire ekvivalentdiameeter
$awf$	$f_c$	Akustiline töösagedus / kesksagedus
$I_{pa}$	$I_{pa}$	Impulsi keskmine intensiivsus
$I_{pa,a}$	$I_{pa,3}$	Impulsi sumbunud keskmine intensiivsus
$I_{pi}$	PII	Impulsi intensiivsusintegraal
$I_{pi,a}$	PII,3	Impulsi sumbunud intensiivsuse integraal
$I_{ta}(z)$	$I_{TA}$	Ajaliselt keskmistatud intensiivsus
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Sumbunud ajaliselt keskmistatud intensiivsus / (sügavuse z juures)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Ajaliselt keskmistatud intensiivsuse ruumiline tippväärtus
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Sumbunud ajaliselt keskmistatud intensiivsuse ruumiline tippväärtus
$MI$	MI	Mehaaniline indeks
$P$	$W_0$	Väljundvõimsus / aegkeskmine akustiline võimsus allikas
$P_a$	$W_{,3}(Z)$	Sumbunud väljundvõimsus / sügavuse z suhtes vähendatud aegkeskmine akustiline võimsus
$P_1$	$W_{01}$	Piiritletud väljundvõimsus / apertuuri keskmise 1 cm võimsus
$p_i$	PII	Impulsirõhu ruuduintegraal / impulsi intensiivsuse integraal
$p_r$	$P_r$	Akustiline tipphõrenemisrõhk / (sama)
$P_{ra}$	$P_{r,3}$	Sumbunud akustiline tipphõrenemisrõhk / (sama)
$prr$	PRF	Impulsi kordusmäär / impulsi kordamissagedus
$TI$	TI	Soojusindeks / (sama)

IEC	FDA	Tähendus – IEC 60601-2-37 / FDA ja NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Luu soojusindeks / (sama)</i>
<i>TIC</i>	TIC	<i>Kraniaalluu soojusindeks / (sama)</i>
<i>TIS</i>	TIS	<i>Pehmekoe soojusindeks / (sama)</i>
$t_d$	PD	<i>Impulsi kestus / (sama)</i>
X, Y	X <sub>-12</sub> , Y <sub>-12</sub>	<i>-12 dB väljundkiire mõõtmised / (sama)</i>
z	Z	<i>Kaugus allikast määratud punktini / (sama)</i>
$z_{bp}$	Z <sub>sp</sub>	<i>TIB sügavus / sügavus, mille korral vastav indeks on maksimaalne</i>
$z_{bp}$	Z <sub>bp</sub>	<i>Katkestuspunkti sügavus / (sama)</i>
$z_s$	Z <sub>sp</sub>	<i>TIS-i sügavus / sügavus, mille korral vastav indeks on maksimaalne</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Ερμηνεία—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	Συντελεστής ακουστικής εξασθένησης / Παράγοντας μείωσης (συνήθως 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12db Εμβαδόν δέσμης εξόδου / Εμβαδόν ενεργού ανοίγματος
$C_{MI}$		Συντελεστής εξομάλυνσης
$D_{eq}$	$D_{eq}$	Ισοδύναμη διάμετρος ανοίγματος / (ίδιο)
$d_{-6}$	$d_{-6}$	Πλάτος παλμού δέσμης / Διάμετρος δέσμης στα -6 dB
$d_{eq}$	$d_{eq}$	Ισοδύναμη διάμετρος δέσμης
$awf$	$f_c$	Συχνότητα ακουστικής λειτουργίας / Κεντρική συχνότητα
$I_{pa}$	$I_{pa}$	Παλμική μέση ένταση
$I_{pa,a}$	$I_{pa,3}$	Εξασθενημένη παλμική μέση ένταση
$I_{pi}$	$P_{II}$	Παλμική ακέραια ένταση
$I_{pi,a}$	$P_{II,3}$	Εξασθενημένη παλμική ακέραια ένταση
$I_{ta}(z)$	$I_{TA}$	Χρονική μέση ένταση
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Εξασθενημένη χρονική-μέση ένταση / (σε βάθος z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Χωρική μέγιστη, χρονική μέση ένταση
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Εξασθενημένη χωρική μέγιστη, χρονική μέση ένταση
$MI$	$MI$	Μηχανικός δείκτης (MI)
$P$	$W_0$	Ισχύς εξόδου / Χρονική μέση ακουστική ισχύς στην πηγή
$P_a$	$W_{,3}(Z)$	Εξασθενημένη ισχύς εξόδου / Χρονική μέση ακουστική ισχύς μειωμένη σε βάθος z
$P_1$	$W_{01}$	Περιορισμένη ισχύς εξόδου / Ισχύς που εκπέμπεται από το κεντρικό 1 cm του ανοίγματος
$p_i$	$P_{II}$	Ακέραια πίεση παλμών στο τετράγωνο / Παλμική ακέραια ένταση
$p_r$	$P_r$	Μέγιστη τιμή αραιώσης της ακουστικής πίεσης / (ίδιο)
$p_{ra}$	$P_{r,3}$	Εξασθενημένη μέγιστη τιμή αραιώσης της ακουστικής πίεσης / (ίδιο)
$p_{rr}$	$PRF$	Ρυθμός επανάληψης παλμών / Συχνότητα επανάληψης παλμών
$TI$	$TI$	Θερμικός δείκτης / (ίδιο)

IEC	FDA	Ερμηνεία—IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIB</i>	TIB	Θερμικός δείκτης οστών / (ίδιο)
<i>TIC</i>	TIC	Θερμικός δείκτης κρανιακού οστού / (ίδιο)
<i>TIS</i>	TIS	Θερμικός δείκτης μαλακού ιστού / (ίδιο)
$t_d$	PD	Διάρκεια παλμού / (ίδιο)
<i>X, Y</i>	$x_{-12}, y_{-12}$	-12 dB Διαστάσεις δέσμης εξόδου / (ίδιο)
<i>z</i>	Z	Απόσταση από την πηγή σε συγκεκριμένο σημείο / (ίδιο)
$z_{bp}$	$Z_{sp}$	Βάθος για τον <i>TIB</i> / Βάθος στο οποίο ο σχετικός δείκτης είναι στο μέγιστο
$z_{bp}$	$Z_{bp}$	<i>Break-Point Depth</i> / (ίδιο)
$z_s$	$Z_{sp}$	Βάθος για τον <i>TIS</i> / Βάθος στο οποίο ο σχετικός δείκτης είναι στο μέγιστο

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Significado—IEC 60601-2-37 / FDA y NEMA UD2, UD3
$a$	$a$	<i>Coefficiente de atenuación acústica</i> / Factor no nominal (generalmente 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	<i>Área del haz de salida de -12db</i> / Área de apertura activa
$C_{MI}$		<i>Coefficiente de normalización</i>
$D_{eq}$	$D_{eq}$	<i>Diámetro de apertura equivalente</i> / (igual)
$d_{-6}$	$d_{-6}$	<i>Ancho del haz pulsado</i> / Diámetro del haz en -6 dB
$d_{eq}$	$d_{eq}$	<i>Diámetro del haz equivalente</i>
$awf$	$f_c$	<i>Frecuencia acústica activa</i> / Frecuencia central
$I_{pa}$	$I_{pa}$	<i>Intensidad del pulso promedio</i>
$I_{pa,a}$	$I_{pa,3}$	<i>Intensidad del pulso promedio atenuada</i>
$I_{pi}$	PII	<i>Integral de la intensidad del pulso</i>
$I_{pi,a}$	PII,3	<i>Integral de la intensidad del pulso atenuada</i>
$I_{ta}(z)$	$I_{TA}$	<i>Intensidad promedio temporal</i>
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	<i>Intensidad promedio temporal atenuada</i> / (en profundidad z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	<i>Intensidad promedio temporal y máxima espacial</i>
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	<i>Intensidad promedio temporal y máxima espacial atenuada</i>
$MI$	MI	<i>Índice mecánico</i>
$P$	$W_0$	<i>Potencia acústica</i> / Potencia acústica promediada en el tiempo, en el origen
$P_a$	$W_{,3}(Z)$	<i>Potencia acústica atenuada</i> / Potencia acústica promediada en el tiempo, con valor no nominal a profundidad z
$P_1$	$W_{01}$	<i>Potencia acústica enlazada</i> / Potencia emitida a 1 cm de la apertura central
$p_i$	PII	<i>Integral al cuadrado de la presión del pulso</i> / Integral de la intensidad del pulso
$p_r$	$P_r$	<i>Presión acústica de rarefacción máxima</i> / (igual)
$P_{ra}$	$P_{r,3}$	<i>Presión acústica de rarefacción máxima atenuada</i> / (igual)
$prf$	PRF	<i>Velocidad de repetición de pulsos</i> / Frecuencia de repetición de pulsos
$TI$	TI	<i>Índice térmico</i> / (igual)

IEC	FDA	Significado—IEC 60601-2-37 / FDA y NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Índice térmico óseo/ (igual)</i>
<i>TIC</i>	TIC	<i>Índice térmico óseo craneal / (igual)</i>
<i>TIS</i>	TIS	<i>Índice térmico de tejido blando / (igual).</i>
$t_d$	PD	<i>Duración del pulso/ (igual)</i>
X, Y	x <sub>-12</sub> ,y <sub>-12</sub>	<i>Dimensiones del haz de salida de -12 dB / (igual)</i>
z	Z	<i>Distancia desde el origen hasta un punto especificado / (igual)</i>
$z_{bp}$	$Z_{sp}$	<i>Profundidad para <math>IT_o</math> / Profundidad en la que el índice relevante es el valor máximo</i>
$z_{bp}$	$Z_{bp}$	<i>Profundidad límite / (igual)</i>
$z_s$	$Z_{sp}$	<i>Profundidad para <math>IT_b</math> / Profundidad en la que el índice relevante es el valor máximo</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Merkitys — IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	Akustinen vaimennuskertoin / Rasituksen pienentämiskertoin (yleensä 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12db:n lähtökeilan alue / Aktiivinen apertuurialue
$C_{MI}$		Normalisointikerroin
$D_{eq}$	$D_{eq}$	Aukon ekvivalenttihalkaisija / (sama)
$d_{-6}$	$d_{-6}$	Pulssikeilan leveys / Keilan halkaisija -6 dB:ssä
$d_{eq}$	$d_{eq}$	Säteen ekvivalenttihalkaisija
$awf$	$f_c$	Akustinen toimintataajuus / Keskitajuus
$l_{pa}$	$l_{pa}$	Pulssin keskiarvointensiteetti
$l_{pa,a}$	$l_{pa,3}$	Vaimennettu pulssin keskiarvointensiteetti
$l_{pi}$	PII	Pulssin intensiteetin integraali
$l_{pi,a}$	PII,3	Vaimennettu pulssin intensiteetin integraali
$l_{ta}(z)$	$l_{TA}$	Intensiteetin ajallinen keskiarvo
$l_{ta,a}(z)$	$l_{TA,3}(Z)$	Vaimennettu huippuarvo ja aikakeskiarvo / (syvyydessä z)
$l_{zpta}(z)$	$l_{SPTA}(Z)$	Enimmäisintensiteetti
$l_{zpta,a}(z)$	$l_{SPTA,3}(Z)$	Vaimennettu enimmäisintensiteetti
$MI$	MI	Mekaaninen indeksi
$P$	$W_0$	Lähtöteho / Ajan mukaan keskiarvotettu lähteen akustinen teho
$P_a$	$W_{,3}(Z)$	Vaimennettu lähtöteho / Ajan mukaan keskiarvotettu akustinen teho, alennettu syvyyteen z
$P_1$	$W_{01}$	Rajoitettu lähtöteho/ Teho, joka lähetetään 1 cm:n keskiaukosta
$p_i$	PII	Pulssipaineen neljän integraali / Pulssin intensiteetin integraali
$p_r$	$p_r$	Piikin harventumakohdan akustinen paine / (sama)
$P_{ra}$	$P_{r,3}$	Vaimennettu piikin harventumakohdan akustinen paine / (sama)
$prf$	PRF	Pulssin toistonopeus / Pulssin toistotaajuus
$TI$	TI	Lämpöindeksi / (sama)

IEC	FDA	Merkitys — IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Luun lämpöindeksi / (sama)</i>
<i>TIC</i>	TIC	<i>Kraniaalisen luun lämpöindeksi / (sama)</i>
<i>TIS</i>	TIS	<i>Pehmytkudoksen lämpöindeksi / (sama)</i>
$t_d$	PD	<i>Pulssin kesto / (sama)</i>
X, Y	x <sub>-12</sub> , y <sub>-12</sub>	<i>-12db:n lähtökeilan mitat / (sama)</i>
z	Z	<i>Etäisyys lähteestä määritettyyn kohtaan / (sama)</i>
$z_{bp}$	Z <sub>sp</sub>	<i>TIB-syvyys / Syvyys, jossa asianomainen indeksi saavuttaa enimmäisarvonsa</i>
$z_{bp}$	Z <sub>bp</sub>	<i>Pysäytyskohdan syvyys / (sama)</i>
$z_s$	Z <sub>sp</sub>	<i>TIS-syvyys / Syvyys, jossa asianomainen indeksi saavuttaa enimmäisarvonsa</i>

## Acoustic and Probe Surface Temperature Information

CEI	FDA	Signification : CEI 60601-2-37 / FDA et NEMA UD2, UD3
$a$	$a$	Coefficient d'atténuation acoustique / Facteur de charge (habituellement 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	Aire du faisceau de sortie -12 db / Aire d'ouverture active
$C_{MI}$		Coefficient de normalisation
$D_{eq}$	$D_{eq}$	Diamètre d'ouverture équivalente / (identique)
$d_{-6}$	$d_{-6}$	Largeur du faisceau pulsé / Diamètre faisceau à -6 dB
$d_{eq}$	$d_{eq}$	Diamètre faisceau équivalent
$f_{awf}$	$f_c$	Fréquence d'exploitation acoustique / Fréquence centrale
$I_{pa}$	$I_{pa}$	Intensité moyenne sur la durée d'impulsion
$I_{pa,a}$	$I_{pa,3}$	Intensité moyenne atténuée sur la durée d'impulsion
$I_{pi}$	PII	Intégrale des intensités des ultrasons en impulsion
$I_{pi,a}$	PII,3	Intégrale atténuée des intensités des ultrasons en impulsion
$I_{ta}(z)$	$I_{TA}$	Moyenne temporelle des intensités
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Moyenne temporelle atténuée des intensités / (à la profondeur z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Valeur maximale de la moyenne spatiale des intensités
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Valeur maximale de la moyenne spatiale atténuée des intensités
$MI$	MI	Indice mécanique
$P$	$W_0$	Puissance de sortie / Puissance acoustique à moyenne temporelle au niveau de la source
$P_a$	$W_{,3}(Z)$	Puissance de sortie atténuée / Puissance acoustique à moyenne temporelle déclassée à la profondeur z
$P_1$	$W_{01}$	Puissance de sortie limitée / Puissance émise à partir du cm (1) central d'ouverture
$p_i$	PII	Intégrale au carré de la tension différentielle / Intégrale des intensités des ultrasons en impulsion
$p_r$	$P_r$	Pression de raréfaction maximale / (identique)
$P_{ra}$	$P_{r,3}$	Pression de raréfaction maximale atténuée / (identique)
$p_{rr}$	PRF	Taux de récurrence des impulsions / Fréquence de répétition des impulsions

CEI	FDA	Signification : CEI 60601-2-37 / FDA et NEMA UD2, UD3
<i>TI</i>	TI	<i>Indice thermique / (identique)</i>
<i>TIB</i>	TIB	<i>Indice thermique osseux / (identique)</i>
<i>TIC</i>	TIC	<i>Indice thermique osseux crânien / (identique)</i>
<i>TIS</i>	TIS	<i>Indice thermique des tissus mous / (identique)</i>
<i>t<sub>d</sub></i>	PD	<i>Durée de l'impulsion / (identique)</i>
<i>X, Y</i>	<i>x<sub>-12</sub>.y<sub>-12</sub></i>	<i>Dimensions du faisceau de sortie -12 dB / (identique)</i>
<i>z</i>	Z	<i>Distance par rapport à la source en un point donné / (identique)</i>
<i>z<sub>bp</sub></i>	Z <sub>sp</sub>	<i>Profondeur de ITb / Profondeur à laquelle l'indice concerné est maximal</i>
<i>z<sub>bp</sub></i>	Z <sub>bp</sub>	<i>Profondeur du point d'inflexion / (identique)</i>
<i>z<sub>s</sub></i>	Z <sub>sp</sub>	<i>Profondeur de ITs / Profondeur à laquelle l'indice concerné est maximal</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Značenje—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	Koeficijent akustičnog prigušivanja/ Faktor slabljenja (obično 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	Područje izlaznog snopa na -12 db/ Područje aktivnog otvora
$C_{MI}$		Koeficijent normalizacije
$D_{eq}$	$D_{eq}$	Ekvivalentni promjer otvora/ (isto)
$d_{-6}$	$d_{-6}$	Širina pulsnog snopa/ Promjer snopa pri -6 dB
$d_{eq}$	$d_{eq}$	Ekvivalentni promjer snopa
$awf$	$f_c$	Radna akustična frekvencija/ Središnja frekvencija
$I_{pa}$	$I_{pa}$	Prosječan intenzitet pulsa
$I_{pa,a}$	$I_{pa,3}$	Prigušeni puls-prosječan intenzitet
$I_{pi}$	PII	Integralni intenzitet pulsa
$I_{pi,a}$	PII,3	Prigušeni puls-integralni intenzitet
$I_{ta}(z)$	$I_{TA}$	Intenzitet s vremenskim prosjekom
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Prigušeni intenzitet s vremenskim prosjekom / (na dubini z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Vršni prostorni intenzitet izračunat s vremenskih prosjekom
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Prigušeni vršni prostorni intenzitet izračunat s vremenskim prosjekom
$MI$	MI	Mehanički indeks
$P$	$W_0$	Izlazna snaga/ Akustična snaga s vremenskim prosjekom na izvoru
$P_a$	$W_{,3}(Z)$	Prigušena izlazna snaga/ Akustična snaga s vremenskim prosjekom snižena na dubinu z
$P_1$	$W_{01}$	Granična izlazna snaga / Snaga emitirana iz središnjeg 1cm otvora
$p_i$	PII	Kvadrat integrala pulsnog tlaka/ Integral intenziteta pulsa
$p_r$	$P_r$	Vršni akustični tlak/ (isto)
$P_{ra}$	$P_{r,3}$	Prigušeni vršni akustični tlak/ (isto)
$prf$	PRF	Stopa ponavljanja pulsa/ Frekvencija ponavljanja pulsa
$TI$	TI	Termalni indeks/ (isto)

IEC	FDA	Značenje—IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Termalni indeks kosti/ (isto)</i>
<i>TIC</i>	TIC	<i>Termalni indeks kosti lubanje/ (isto)</i>
<i>TIS</i>	TIS	<i>Termalni indeks mekog tkiva/ (isto)</i>
$t_d$	PD	<i>Trajanje pulsa/ (isto)</i>
X, Y	x <sub>-12</sub> ,y <sub>-12</sub>	<i>Dimenzije izlaznog snopa na -12 dB/ (isto)</i>
z	Z	<i>Udaljenost od izvora do određene točke/ (isto)</i>
$z_{bp}$	Z <sub>sp</sub>	<i>Dubina za TIB/ Dubina na kojoj je relevantni indeks maksimalan</i>
$z_{bp}$	Z <sub>bp</sub>	<i>Dubina točke loma/ (isto)</i>
$z_s$	Z <sub>sp</sub>	<i>Dubina za TIS/ Dubina na kojoj je relevantni indeks maksimalan</i>

IEC	FDA	Jelentés – IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	<i>Akustikai gyengülési együttható / csökkentési faktor (általában 0,3 dB/cm-MHz)</i>
$A_{aprt}$	$A_{aprt}$	<i>-12db-es leadott nyaláb területe / aktív ablak területe</i>
$C_{MI}$		<i>Normalizálási együttható</i>
$D_{eq}$	$D_{eq}$	<i>Ekvivalens ablakátmérő / (ugyanaz)</i>
$d_{-6}$	$d_{-6}$	<i>Impulzusnyaláb-szélesség / nyalábátmérő -6 dB-nél</i>
$d_{eq}$	$d_{eq}$	<i>Ekvivalens nyalábátmérő</i>
$awf$	$f_c$	<i>Hatékony akusztikai frekvencia / középső frekvencia</i>
$l_{pa}$	$l_{pa}$	<i>Impulzusátlagolt intenzitás</i>
$l_{pa,a}$	$l_{pa,3}$	<i>Gyengített impulzusátlagolt intenzitás</i>
$l_{pi}$	$PII$	<i>Impulzus-intenzitás integrál</i>
$l_{pi,a}$	$PII,3$	<i>Gyengített impulzus-intenzitás integrál</i>
$l_{ta}(z)$	$l_{TA}$	<i>Időátlagolt intenzitás</i>
$l_{ta,a}(z)$	$l_{TA,3}(z)$	<i>Gyengített időátlagolt intenzitás / (z mélységre)</i>
$l_{zpta}(z)$	$l_{SPTA}(z)$	<i>Időátlagolt intenzitás térbeli csúcscértéke</i>
$l_{zpta,a}(z)$	$l_{SPTA,3}(z)$	<i>Gyengített időátlagolt intenzitás térbeli csúcscértéke</i>
$MI$	$MI$	<i>Mechanikai index</i>
$P$	$W_0$	<i>Leadott teljesítmény / időátlagolt akusztikai teljesítmény a forrásnál</i>
$P_a$	$W_{,3}(z)$	<i>Gyengített leadott teljesítmény / időátlagolt akusztikai teljesítmény z mélységre csökkentve</i>
$P_1$	$W_{01}$	<i>Korlátozott leadott teljesítmény / az ablak központi 1 centiméterén kibocsátott teljesítmény</i>
$p_i$	$PII$	<i>Impulzusnyomás négyzetes integrálja / impulzus-intenzitás integrál</i>
$p_r$	$P_r$	<i>Akusztikus ritkulási nyomás csúcscértéke / (ugyanaz)</i>
$p_{ra}$	$P_{r,3}$	<i>Gyengített akusztikus ritkulási nyomás csúcscértéke / (ugyanaz)</i>
$prf$	$PRF$	<i>Impulzusismétlési sebesség / impulzusismétlési frekvencia</i>
$TI$	$TI$	<i>Hőindex / (ugyanaz)</i>

IEC	FDA	Jelentés – IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Csonthőindex / (ugyanaz)</i>
<i>TIC</i>	TIC	<i>Koponyacsont-hőindex / (ugyanaz)</i>
<i>TIS</i>	TIS	<i>Lágyszöveti hőindex / (ugyanaz)</i>
$t_d$	PD	<i>Impulzus-időtartam / (ugyanaz)</i>
<i>X, Y</i>	$x_{-12}, y_{-12}$	<i>-12 dB-es kibocsátott nyaláb dimenziói / (ugyanaz)</i>
<i>z</i>	Z	<i>A forrás és egy adott pont közti távolság / (ugyanaz)</i>
$z_{bp}$	$Z_{sp}$	<i>TIB mélység / Az a mélység, ahol a vonatkozó index értéke a legmagasabb</i>
$z_{bp}$	$Z_{bp}$	<i>Töréspont mélysége / (ugyanaz)</i>
$z_s$	$Z_{sp}$	<i>TIS mélység / Az a mélység, ahol a vonatkozó index értéke a legmagasabb</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Bermakna—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	<i>Koefisien Atenuasi Akustik / Faktor derasi (biasanya 0,3 dB/cm-MHz)</i>
$A_{aprt}$	$A_{aprt}$	<i>Area Sinar Output -12db/Area apertur aktif</i>
$C_{MI}$		<i>Koefisien Penormalan</i>
$D_{eq}$	$D_{eq}$	<i>Diameter Apertur Serupa / (sama)</i>
$d_{-6}$	$d_{-6}$	<i>Lebar Sinar Pulsa / Diameter sinar pada -6 dB</i>
$d_{eq}$	$d_{eq}$	<i>Diameter Sinar Serupa</i>
$awf$	$f_c$	<i>Frekuensi Kerja Akustik/Frekuensi pusat</i>
$I_{pa}$	$I_{pa}$	<i>Intensitas Rata-rata Pulsa</i>
$I_{pa,a}$	$I_{pa,3}$	<i>Intensitas Rata-rata Pulsa Teranetuasi</i>
$I_{pi}$	PII	<i>Integral Intensitas-Pulsa</i>
$I_{pi,a}$	PII <sub>3</sub>	<i>Integral Intensitas-Pulsa Teranetuasi</i>
$I_{ta}(z)$	$I_{TA}$	<i>Intensitas Rata-rata Temporal</i>
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	<i>Intensitas Rata-rata Temporal Teranetuasi/(pada kedalaman z)</i>
$I_{zpta}(z)$	$I_{SPTA}(Z)$	<i>Intensitas Rata-rata Temporal Puncak-Spasial</i>
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	<i>Intensitas Rata-rata Temporal Puncak-Spasial Teranetuasi</i>
$MI$	MI	<i>Mechanical Index (Indeks Mekanis)</i>
$P$	$W_0$	<i>Daya Output/Daya akustik rata-rata waktu pada sumber</i>
$P_a$	$W_{,3}(Z)$	<i>Daya Output Teranetuasi/Daya akustik rata-rata waktu yang diderasi hingga kedalaman z</i>
$P_1$	$W_{01}$	<i>Daya Output Terikat / Daya yang dipancarkan dari tengah 1 cm dari apertur</i>
$p_i$	PII	<i>Integral Persegi Tekanan Pulsa/Integral intensitas pulsa</i>
$p_r$	$p_r$	<i>Tekanan Akustik Puncak-Rarefaksional/(sama)</i>
$P_{ra}$	$P_{r,3}$	<i>Tekanan Akustik Puncak-Rarefaksional Teranetuasi/(sama)</i>
$prf$	PRF	<i>Laju Pengulangan Pulsa/Frekuensi pengulangan pulsa</i>
$TI$	TI	<i>Indeks Termal/(sama)</i>
$TIB$	TIB	<i>Indeks Termal Tulang/(sama)</i>

IEC	FDA	Bermakna—IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIC</i>	TIC	<i>Indeks Termal Tulang Kranial/(sama)</i>
<i>TIS</i>	TIS	<i>Indeks Termal Jaringan Lunak/(sama)</i>
$t_d$	PD	<i>Durasi Pulsa/(sama)</i>
<i>X, Y</i>	$x_{-12}, y_{-12}$	<i>Dimensi Sinar Output -12 dB/(sama)</i>
<i>z</i>	Z	<i>Jarak dari Sumber ke Titik yang Ditetapkan/(sama)</i>
$z_{bp}$	$Z_{sp}$	<i>Kedalaman untuk TIB/Kedalaman di mana indeks yang relevan sudah maksimum</i>
$z_{bp}$	$Z_{bp}$	<i>Kedalaman Break-Point/(sama)</i>
$z_s$	$Z_{sp}$	<i>Kedalaman untuk TIS / Kedalaman di mana indeks yang relevan sudah maksimum</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Significato—IEC 60601-2-37/FDA & NEMA UD2, UD3
$a$	$a$	<i>Coefficiente di attenuazione acustica/Fattore di declassamento (generalmente 0,3 dB/cm-MHz)</i>
$A_{aprt}$	$A_{aprt}$	<i>Area del fascio di potenza -12db/Area dell'apertura attiva</i>
$C_{MI}$		<i>Coefficiente di normalizzazione</i>
$D_{eq}$	$D_{eq}$	<i>Diametro dell'apertura equivalente/(uguale)</i>
$d_{-6}$	$d_{-6}$	<i>Larghezza del fascio dell'impulso/Diametro del fascio a -6 dB</i>
$d_{eq}$	$d_{eq}$	<i>Diametro del fascio equivalente</i>
$awf$	$f_c$	<i>Frequenza operativa acustica/Frequenza centrale</i>
$I_{pa}$	$I_{pa}$	<i>Intensità media dell'impulso</i>
$I_{pa,a}$	$I_{pa,3}$	<i>Intensità media dell'impulso attenuata</i>
$I_{pi}$	$PII$	<i>Integrale di intensità dell'impulso</i>
$I_{pi,a}$	$PII,3$	<i>Integrale di intensità dell'impulso attenuata</i>
$I_{ta}(z)$	$I_{TA}$	<i>Intensità media temporale</i>
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	<i>Intensità media temporale attenuata/(alla profondità z)</i>
$I_{zpta}(z)$	$I_{SPTA}(Z)$	<i>Intensità media temporale di picco spaziale</i>
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	<i>Intensità media temporale di picco spaziale attenuata</i>
$MI$	$MI$	<i>Indice Meccanico</i>
$P$	$W_0$	<i>Potenza nominale in uscita/Potenza acustica media temporale all'alimentatore</i>
$P_a$	$W_{,3}(Z)$	<i>Potenza nominale in uscita attenuata/Potenza acustica media temporale declassata alla profondità z</i>
$P_1$	$W_{01}$	<i>Potenza nominale in uscita legata/Potenza emessa da 1 cm centrale dell'apertura</i>
$p_i$	$PII$	<i>Integrale al quadrato di pressione dell'impulso/Integrale di intensità dell'impulso</i>
$p_r$	$P_r$	<i>Pressione acustica di picco rarefazionale/(uguale)</i>
$p_{ra}$	$P_{r,3}$	<i>Pressione acustica di picco rarefazionale attenuata/(uguale)</i>
$p_{rr}$	$PRF$	<i>Frequenza di ripetizione degli impulsi/Frequenza di ripetizione degli impulsi</i>

IEC	FDA	Significato—IEC 60601-2-37/FDA & NEMA UD2, UD3
<i>TI</i>	TI	<i>Indice termico</i> (uguale)
<i>TIB</i>	TIB	<i>Indice termico delle ossa</i> (uguale)
<i>TIC</i>	TIC	<i>Indice termico delle ossa craniche</i> (uguale)
<i>TIS</i>	TIS	<i>Indice termico dei tessuti molli</i> (uguale)
$t_d$	PD	<i>Durata dell'impulso</i> (uguale)
<i>X, Y</i>	$x_{-12}, y_{-12}$	<i>Dimensioni del fascio di potenza -12dB</i> (uguale)
<i>z</i>	Z	<i>Distanza dall'alimentatore a un punto specificato</i> (uguale)
$z_{bp}$	$Z_{sp}$	<i>Profondità TIB/Profondità alla quale l'indice relativo è al massimo</i>
$z_{bp}$	$Z_{bp}$	<i>Profondità del punto di rottura</i> (uguale)
$z_s$	$Z_{sp}$	<i>Profondità TIS/Profondità alla quale l'indice relativo è al massimo</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	意味 — IEC 60601-2-37/FDA および NEMA UD2、UD3
$a$	$a$	超音波減衰係数 / 低減率 (通常は 0.3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12db 送信ビーム面積 / 有効開口部面積
$C_{MI}$		正規化係数
$D_{eq}$	$D_{eq}$	等価的開口径 / (同上)
$d_{-6}$	$d_{-6}$	パルスビーム幅 / -6 dB でのビーム径
$d_{eq}$	$d_{eq}$	等価的ビーム径
$awf$	$f_c$	超音波作動周波数 / 中央周波数
$I_{pa}$	$I_{pa}$	パルス平均強度
$I_{pa,a}$	$I_{pa,3}$	減衰パルス平均強度
$I_{pi}$	PII	パルス強度積分値
$I_{pi,a}$	PII <sub>3</sub>	減衰パルス強度積分値
$I_{ta}(z)$	$I_{TA}$	時間平均強度
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	減衰の時間的平均値 / (深さ $z$ )
$I_{zpta}(z)$	$I_{SPTA}(Z)$	音の強さが最大値 / 極限値をとる点での音の強さの時間的平均値
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	音の強さが最大値 / 極限値をとる点での減衰した音の強さの時間的平均値
$MI$	MI	メカニカルインデックス
$P$	$W_0$	超音波出力 / 超音波発生源における時間平均超音波出力
$P_a$	$W_{,3}(Z)$	減衰超音波出力 / 深さ $z$ まで低減した時間平均超音波出力
$P_f$	$W_{01}$	有界超音波出力 / 開口部の中心 1 cm から発射される超音波出力
$p_i$	PII	パルス圧二乗積分値 / パルス強度積分値
$p_r$	$P_r$	ピーク粗密超音波圧 / (同上)
$P_{ra}$	$P_{r,3}$	減衰ピーク粗密超音波圧 / (同上)
$prr$	PRF	パルス繰り返し速度 / パルス繰り返し周波数
$TI$	TI	サーマルインデックス / (同上)
$TIB$	TIB	骨のサーマルインデックス / (同上)

IEC	FDA	意味 — IEC 60601-2-37/FDA および NEMA UD2、UD3
TIC	TIC	頭蓋骨のサーマルインデックスI (同上)
TIS	TIS	軟組織のサーマルインデックスI (同上)
t <sub>d</sub>	PD	パルス持続時間I (同上)
X, Y	x-12,y-12	-12 dB 出力ビーム形状I (同上)
z	Z	超音波発生源から指定した点までの距離I (同上)
z <sub>bp</sub>	Z <sub>sp</sub>	TIB 深さ/TIB のインデックスが最大となる深さ
z <sub>bp</sub>	Z <sub>bp</sub>	転換点深さI (同上)
z <sub>s</sub>	Z <sub>sp</sub>	TIS 深さ/TIS のインデックスが最大となる深さ

## Acoustic and Probe Surface Temperature Information

IEC	FDA	의미 —IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	음향 감쇠 계수 / 저감 계수 ( 대개 0.3dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12db 출력 빔 면적 / 활성 개구 면적
$C_{MI}$		정규화 계수
$D_{eq}$	$D_{eq}$	등가 개구 직경 ( 동일 )
$d_{-6}$	$d_{-6}$	펄스 빔 너비 / 빔 직경 , 조건 -6dB
$d_{eq}$	$d_{eq}$	등가 빔 직경
$awf$	$f_c$	음향 작동 주파수 / 중심 주파수
$I_{pa}$	$I_{pa}$	펄스 평균 강도
$I_{pa,a}$	$I_{pa,3}$	감쇠 펄스 평균 강도
$I_{pi}$	PII	펄스 강도 적분
$I_{pi,a}$	PII <sub>3</sub>	감쇠 펄스 강도 적분
$I_{ta}(z)$	$I_{TA}$	시간- 평균 강도
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	감쇠 시간 평균 강도 / ( 깊이 z )
$I_{zpta}(z)$	$I_{SPTA}(Z)$	공간- 정점 시간- 평균 강도
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	감쇠 공간- 정점 시간- 평균 강도
$MI$	MI	기계적 지수
$P$	$W_0$	소스의 출력 전원 / 시간 평균 음향 출력
$P_a$	$W_{,3}(Z)$	깊이 z 까지 경감된 감쇠 출력 전원 / 시간 평균 음향 출력
$P_f$	$W_{01}$	바운드된 출력 전원 / 개구 중심 1cm 내에서 방출되는 전원
$p_i$	PII	펄스 압력 제곱 적분 / 펄스 강도 적분
$p_r$	$P_r$	정점- 피막 음향 압력 ( 동일 )
$P_{ra}$	$P_{r,3}$	감쇠 정점- 피막 음향 압력 ( 동일 )
$prf$	PRF	펄스 반복률 / 펄스 반복 주파수
$TI$	TI	열 지수 ( 동일 )
$TIB$	TIB	빠 열 지수 ( 동일 )

IEC	FDA	의미 —IEC 60601-2-37 / FDA & NEMA UD2, UD3
TIC	TIC	두께골 열 지수 / (동일)
TIS	TIS	연조직 열 지수 / (동일)
$t_d$	PD	펄스 기간 / (동일)
X, Y	X-12, Y-12	-12dB 출력 범 크기 / (동일)
z	Z	소스에서부터 지정된 지점까지의 거리 / (동일)
$z_{bp}$	$Z_{sp}$	TIB의 깊이 / 관련 지수가 최대값이 되는 깊이
$z_{bp}$	$Z_{bp}$	파단점 깊이 / (동일)
$z_s$	$Z_{sp}$	TIS의 깊이 / 관련 지수가 최대값이 되는 깊이

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Reiškia: IEC 60601-2-37 / FDA ir NEMA UD2, UD3
$a$	$a$	„Acoustic Attenuation Coefficient“ (akustinio silpninimo koeficientas) / sumažinimo faktorius (dažniausiai 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	„-12db Output Beam Area“ (-12 db išvesties spindulio sritis) / aktyvios apertūros sritis
$C_{MI}$		Normalizavimo koeficientas
$D_{eq}$	$D_{eq}$	„Equivalent Aperture Diameter“ (atitinkamas apertūros skersmuo) / (tas pats)
$d_{-6}$	$d_{-6}$	„Pulse Beam Width“ (pulso spindulio plotis) / spindulio skersmuo esant -6 dB
$d_{eq}$	$d_{eq}$	Atitinkamo spindulio skersmuo
$awf$	$f_c$	„Acoustic Working Frequency“ (akustinis darbinis dažnis) / dažnis centre
$I_{pa}$	$I_{pa}$	Vidutinis pulso intensyvumas
$I_{pa,a}$	$I_{pa,3}$	Sumažinto pulso vidutinis intensyvumas
$I_{pi}$	$P_{II}$	Pulso intensyvumo integralas
$I_{pi,a}$	$P_{II,3}$	Sumažinto pulso intensyvumo integralas
$I_{ta}(z)$	$I_{TA}$	Laikinas vidutinis intensyvumas
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	„Attenuated Temporal-Average Intensity“ (sumažintas laikinas vidutinis intensyvumas) / (esant $z$ gyliui)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Erdvinio piko laikinas vidutinis intensyvumas
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Sumažinto erdvinio piko laikinas vidutinis intensyvumas
$MI$	$MI$	Mechaniniai rodikliai
$P$	$W_0$	„Output Power“ (Maitinimo išvestis) / laiko vidutinė akustinė išvestis šaltinyje
$P_a$	$W_{,3}(Z)$	„Attenuated Output Power“ (sumažinta išvesties galia) / laiko vidutinė akustinė galia, sumažinta iki $z$ gylio
$P_f$	$W_{01}$	„Bounded Output Power“ (ribota maitinimo išvestis) / maitinimas iš apertūros 1 cm centro
$p_i$	$P_{II}$	„Pulse Pressure Squared Integral“ (pulso spaudimo kvadratinis integralas) / pulso intensyvumo integralas
$p_r$	$P_r$	„Peak-Rarefactional Acoustic Pressure“ (piko praretintos akustikos slėgis) / (tas pats)
$P_{ra}$	$P_{r,3}$	„Attenuated Peak-Rarefactional Acoustic Pressure“ (sumažintas piko praretintos akustikos spaudimas) / (tas pats)

IEC	FDA	Reiškia: IEC 60601-2-37 / FDA ir NEMA UD2, UD3
<i>pr</i>	PRF	„ <i>Pulse Repetition Rate</i> “ (pulso pakartojimo dažnis) / pulso pakartojimo dažnis
<i>TI</i>	TI	„ <i>Thermal Index</i> “ (terminis rodiklis) / (tas pats)
<i>TIB</i>	TIB	„ <i>Bone Thermal Index</i> “ (kaulų terminis rodiklis) / (tas pats)
<i>TIC</i>	TIC	„ <i>Cardiac-Bone Thermal Index</i> “ (kaulų / širdies terminis rodiklis) / (tas pats)
<i>TIS</i>	TIS	„ <i>Soft-Tissue Thermal Index</i> “ (minkštųjų audinių terminis rodiklis) / (tas pats)
<i>t<sub>d</sub></i>	PD	„ <i>Pulse Duration</i> “ (pulso trukmė) / (tas pats)
<i>X, Y</i>	x-12.y-12	„ <i>-12 dB Output Beam Dimensions</i> “ (-12 išvesties spindulio matmenys) / (tas pats)
<i>z</i>	Z	„ <i>Distance from the Source to a Specified Point</i> “ (atstumas nuo šaltinio iki nurodyto taško) / (tas pats)
<i>z<sub>bp</sub></i>	Z <sub>sp</sub>	„ <i>Depth for TIB</i> “ (gylis nuo TIB) / gylis, kuriame atitinkamas rodiklis yra maksimalus
<i>z<sub>bp</sub></i>	Z <sub>bp</sub>	„ <i>Break-Point Depth</i> “ (peržengto taško gylis) / (tas pats)
<i>z<sub>s</sub></i>	Z <sub>sp</sub>	„ <i>Depth for TIS</i> “ (gylis nuo TIS) / gylis, kuriame atitinkamas rodiklis yra maksimalus

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Nozīme — IEC 60601-2-37/FDA & NEMA UD2, UD3
$a$	$a$	Skaņas absorbcijas koeficients/Pazeminājuma faktors (parasti 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12db Izejošā stara apgabals/Aktīvā atvēruma apgabals
$C_{MI}$		Normalizēšanas koeficients
$D_{eq}$	$D_{eq}$	Ekvivalents atvēruma diametrs/(tāds pats)
$d_{-6}$	$d_{-6}$	Impulsa stara platums/Stara diametrs pie -6 dB
$d_{eq}$	$d_{eq}$	Līdzvērtīgs stara diametrs
$awf$	$f_c$	Akustiskās darbības frekvence/Centrālā frekvence
$I_{pa}$	$I_{pa}$	Impulsa vidējā intensitāte
$I_{pa,a}$	$I_{pa,3}$	Vājināta impulsa vidējā intensitāte
$I_{pi}$	PII	Impulsa intensitāte
$I_{pi,a}$	PII,3	Absorbētā integrāla pulsa intensitāte
$I_{ta}(z)$	$I_{TA}$	Temporālā vidējā intensitāte
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Absorbētā temporālā vidējā intensitāte/(pie dziļuma z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Maksimālā intensitāte ultraskaņas starā, kas vidējota impulsa atkārtosšanās periodā
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Absorbētā maksimālā intensitāte ultraskaņas starā, kas vidējota impulsa atkārtosšanās periodā
$MI$	MI	Mehāniskais indekss
$P$	$W_0$	Izvades jauda/Vidējais akustiskās jaudas laiks avotā
$P_a$	$W_{.3}(Z)$	Absorbēta izvades jauda/Vidējais akustiskās jaudas laiks mazināties līdz dziļumam z
$P_1$	$W_{01}$	Ierobežota izvades jauda /Jauda, kas tiek izstarota no centrālā 1 cm lielā atvēruma
$p_i$	PII	Integrāls impulsa spiediens kvadrātā/Integrāla pulsa intensitāte
$p_r$	$P_r$	Maksimālais retinātais akustiskais spiediens/(tāds pats)
$p_{ra}$	$P_{r,3}$	Absorbētais maksimālais retinātais akustiskais spiediens/(tāds pats)
$p_{rr}$	PRF	Impulsa atkārtosšanās temps/Impulsa atkārtosšanās biežums

IEC	FDA	Nozīme — IEC 60601-2-37/FDA & NEMA UD2, UD3
<i>TI</i>	TI	<i>Termiskais indekss/(tāds pats)</i>
<i>TIB</i>	TIB	<i>Kaulu termiskais indekss/(tāds pats)</i>
<i>TIC</i>	TIC	<i>Galvaskausa kaulu termiskais indekss/(tāds pats)</i>
<i>TIS</i>	TIS	<i>Miksto audu termiskais indekss/(tāds pats)</i>
$t_d$	PD	<i>Impulsa ilgums/(tāds pats)</i>
<i>X, Y</i>	$x_{-12}, y_{-12}$	<i>-12 dB Izejošā stara izmēri/(tādi paši)</i>
<i>z</i>	Z	<i>Attālums no avota līdz norādītajam punktam/(tāds pats)</i>
$z_{bp}$	$Z_{sp}$	<i>Dziļums TIB/Dziļums, kuru sasniedzot attiecīgajam indeksam ir maksimālā vērtība</i>
$z_{bp}$	$Z_{bp}$	<i>Pārtraukumpunkta dziļums/(tāds pats)</i>
$z_s$	$Z_{sp}$	<i>Dziļums TIB/Dziļums, kuru sasniedzot attiecīgajam indeksam ir maksimālā vērtība</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA:	Betekenis-IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	<i>Akoestische attenuatiecoëfficiënt / verminderingsfactor (meestal 0,3 dB/cm-MHz)</i>
$A_{aprt}$	$A_{aprt}$	<i>-12db output straalgebied / Actief openingsgebied</i>
$C_{MI}$		<i>Normalisatiecoëfficiënt</i>
$D_{eq}$	$D_{eq}$	<i>Equivalente diameter opening / (idem)</i>
$d_{-6}$	$d_{-6}$	<i>Pulsbundelbreedte / bundeldiameter bij -6 dB</i>
$d_{eq}$	$d_{eq}$	<i>Equivalent straaldiameter</i>
$awf$	$f_c$	<i>Akoestische werkfrequentie / Centrumfrequentie</i>
$I_{pa}$	$I_{pa}$	<i>Puls-gemiddelde intensiteit</i>
$I_{pa,a}$	$I_{pa,3}$	<i>Geattenueerde puls - gemiddelde intensiteit</i>
$I_{pi}$	$P_{II}$	<i>Integraal pulsintensiteit</i>
$I_{pi,a}$	$P_{II,3}$	<i>Integraal geattenueerde pulsintensiteit</i>
$I_{ta}(z)$	$I_{TA}$	<i>Temporaal-gemiddelde intensiteit</i>
$I_{ta,a}(z)$	$I_{TA,3}(z)$	<i>Geattenueerde temporaal-gemiddelde intensiteit / (op diepte z)</i>
$I_{zpta}(z)$	$I_{SPTA}(z)$	<i>Spatieële piek temporaal-gemiddelde intensiteit</i>
$I_{zpta,a}(z)$	$I_{SPTA,3}(z)$	<i>Geattenueerde spatieële piek temporaal-gemiddelde intensiteit</i>
$MI$	$MI$	<i>Mechanische index</i>
$P$	$W_o$	<i>Outputvermogen / tijdgemiddelde van akoestisch vermogen bij de bron</i>
$P_a$	$W_{,3}(z)$	<i>Geattenueerd outputvermogen / tijdgemiddelde van akoestisch vermogen verminderd naar diepte z</i>
$P_1$	$W_{o1}$	<i>Begrensd outputvermogen / vermogen uitgezonden vanaf de centrale 1 cm van de opening</i>
$p_i$	$P_{II}$	<i>Kwadratintegraal pulsdruk / integraal pulsintensiteit</i>
$p_r$	$P_r$	<i>Peak-Rarefactional Acoustic Pressure / (idem)</i>
$p_{ra}$	$P_{r,3}$	<i>Geattenueerd Peak-Rarefactional Acoustic Pressure / (idem)</i>
$p_{rr}$	$PRF$	<i>Pulsherhalingssnelheid / pulsherhalingsfrequentie</i>
$TI$	$TI$	<i>Thermische index / (idem)</i>

IEC	FDA:	Betekenis-IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Thermische index voor bot / (idem)</i>
<i>TIC</i>	TIC	<i>Thermische index voor schedelbot / (idem)</i>
<i>TIS</i>	TIS	<i>Thermische index voor weke delen / (idem)</i>
$t_d$	PD	<i>Pulsduur / (idem)</i>
X, Y	x <sub>-12</sub> , y <sub>-12</sub>	<i>-12 dB output straalafmetingen / (idem)</i>
z	Z	<i>Afstand vanaf de bron tot een gespecificeerd punt / (idem)</i>
$z_{bp}$	Z <sub>sp</sub>	<i>Diepte voor TIB / diepte waarbij de relevante index maximaal is</i>
$z_{bp}$	Z <sub>bp</sub>	<i>Breekpuntdiepte / (idem)</i>
$z_s$	Z <sub>sp</sub>	<i>Diepte voor TIS / diepte waarbij de relevante index maximaal is</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Forklaring–IEC 60601-2-37 / FDA og NEMA UD2, UD3
$a$	$a$	Akustisk dempingskoeffisient / reduksjonsfaktor (vanligvis 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12 dB utgangsstråleområde / aktivt aperturområde
$C_{MI}$		Normaliserende koeffisient
$D_{eq}$	$D_{eq}$	Ekvivalent aperturdiameter / (samme)
$d_{-6}$	$d_{-6}$	Pulsstrålebredde / strålediameter ved -6 dB
$d_{eq}$	$d_{eq}$	Ekvivalent strålediameter
$awf$	$f_c$	Akustisk arbeidsfrekvens / senterfrekvens
$I_{pa}$	$I_{pa}$	Gjennomsnittlig pulsintensitet
$I_{pa,a}$	$I_{pa,3}$	Dempet gjennomsnittlig pulsintensitet
$I_{pi}$	PII	Pulsintensitetsintegral
$I_{pi,a}$	PII <sub>3</sub>	Dempet pulsintensitetsintegral
$I_{ta}(z)$	$I_{TA}$	Tidsgjennomsnittlig intensitet
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Dempet tidsgjennomsnittlig intensitet / (ved dybde z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Spatialt toppunkt, tidsgjennomsnittlig intensitet
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Dempet spatialt toppunkt, tidsgjennomsnittlig intensitet
$MI$	MI	Mekanisk indeks
$P$	$W_0$	Ultralydeffekt / tidsgjennomsnittlig akustisk utgangseffekt ved kilden
$P_a$	$W_{,3}(Z)$	Dempet ultralydeffekt / tidsgjennomsnittlig akustisk utgangseffekt redusert til dybde z
$P_1$	$W_{01}$	Begrenset ultralydeffekt / effekt avgitt fra apertursenterområde på 1 cm
$p_i$	PII	Kvadrert pulstrykkintegral / pulsintensitetsintegral
$p_r$	$p_r$	Toppunkt-uttytning, akustisk trykk / (samme)
$p_{ra}$	$p_{r,3}$	Dempet toppunkt-uttytning, akustisk trykk / (samme)
$pr$	PRF	Pulsrepetisjonshastighet / pulsrepetisjonsfrekvens
$TI$	TI	Termisk indeks / (samme)
$TIB$	TIB	Termisk indeks for ben / (samme)

IEC	FDA	Forklaring–IEC 60601-2-37 / FDA og NEMA UD2, UD3
<i>TIC</i>	TIC	<i>Termisk indeks for kraniet / (samme)</i>
<i>TIS</i>	TIS	<i>Termisk indeks for bløtvev / (samme)</i>
<i>t<sub>d</sub></i>	PD	<i>Pulsvarighet / (samme)</i>
<i>X, Y</i>	<i>x<sub>-12</sub>, y<sub>-12</sub></i>	<i>Mål for -12 dB utgangseffektstråle / (samme)</i>
<i>z</i>	Z	<i>Avstand fra kilden til et angitt punkt / (samme)</i>
<i>z<sub>bp</sub></i>	<i>Z<sub>sp</sub></i>	<i>Dybde for TIB / dybde der den relevante indeksen er maksimal</i>
<i>z<sub>bp</sub></i>	<i>Z<sub>bp</sub></i>	<i>Bruddpunktsdybde / (samme)</i>
<i>z<sub>s</sub></i>	<i>Z<sub>sp</sub></i>	<i>Dybde for TIS / dybde der den relevante indeksen er maksimal</i>

IEC	FDA	Znaczenie — IEC 60601-2-37 / FDA i NEMA UD2, UD3
$a$	$a$	Współczynnik tłumienia sygnału akustycznego / Współczynnik obniżenia mocy zwykle 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	Powierzchnia wiązki wyjściowej na poziomie -12 dB / Aktywna powierzchnia apertury
$C_{MI}$		Współczynnik normalizacji
$D_{eq}$	$D_{eq}$	Równoważna średnica apertury / (tak samo)
$d_{-6}$	$d_{-6}$	Szerokość wiązki impulsu / Średnica wiązki na poziomie -6 dB
$d_{eq}$	$d_{eq}$	Równoważna średnica wiązki
$awf$	$f_c$	Akustyczna częstotliwość robocza / Częstotliwość środkowa
$I_{pa}$	$I_{pa}$	Średnie natężenie impulsu
$I_{pa,a}$	$I_{pa,3}$	Średnie natężenie impulsu tłumionego
$I_{pi}$	$PII$	Całka natężenia impulsu
$I_{pi,a}$	$PII,3$	Całka natężenia impulsu tłumionego
$I_{ta}(z)$	$I_{TA}$	Średnia czasowa natężenia
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Średnia czasowa natężenia sygnału tłumionego / (na głębokości z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Średnia czasowa szczytowego natężenia na danym obszarze
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Średnia czasowa szczytowego natężenia sygnału tłumionego na danym obszarze
$MI$	$MI$	Wskaźnik mechaniczny
$P$	$W_0$	Moc wyjściowa / Średnia czasowa mocy akustycznej u źródła
$P_a$	$W_{,3}(Z)$	Tłumiona moc wyjściowa / Średnia czasowa mocy akustycznej odniesiona do głębokości z
$P_1$	$W_{01}$	Ograniczona moc wyjściowa / Moc emitowana ze środkowej części apertury o średnicy 1 cm
$p_i$	$PII$	Całka kwadratowa ciśnienia impulsu / Całka natężenia impulsu
$p_r$	$P_r$	Szczytowe ciśnienie akustyczne rozrzedzenia / (tak samo)
$P_{ra}$	$P_{r,3}$	Szczytowe tłumione ciśnienie akustyczne rozrzedzenia / (tak samo)
$prf$	$PRF$	Szybkość powtarzania impulsów / Częstotliwość powtarzania impulsów

IEC	FDA	Znaczenie — IEC 60601-2-37 / FDA i NEMA UD2, UD3
<i>TI</i>	TI	<i>Wskaźnik termiczny / (tak samo)</i>
<i>TIB</i>	TIB	<i>Wskaźnik termiczny kości / (tak samo)</i>
<i>TIC</i>	TIC	<i>Wskaźnik termiczny kości czaszki / (tak samo)</i>
<i>TIS</i>	TIS	<i>Wskaźnik termiczny tkanki miękkiej / (tak samo)</i>
<i>t<sub>d</sub></i>	PD	<i>Czas trwania impulsu / (tak samo)</i>
<i>X, Y</i>	<i>x<sub>-12</sub>, y<sub>-12</sub></i>	<i>Wymiary wiązki wyjściowej na poziomie -12 dB / (tak samo)</i>
<i>z</i>	Z	<i>Odległość od źródła do określonego punktu / (tak samo)</i>
<i>z<sub>bp</sub></i>	Z <sub>sp</sub>	<i>Głębokość TIB / Głębokość, na której dany wskaźnik osiąga wartość maksymalną</i>
<i>z<sub>bp</sub></i>	Z <sub>bp</sub>	<i>Głębokość punktu granicznego / (tak samo)</i>
<i>z<sub>s</sub></i>	Z <sub>sp</sub>	<i>Głębokość TIS / Głębokość, na której dany wskaźnik osiąga wartość maksymalną</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Significado — IEC 60601-2-37 / FDA e NEMA UD2, UD3
$a$	$a$	<i>Coefficiente de atenuação acústica / Fator de redução (geralmente 0,3 dB/cm-MHz)</i>
$A_{aprt}$	$A_{aprt}$	<i>Área do feixe de potência de -12 db / Área de abertura ativa</i>
$C_{MI}$		<i>Coefficiente de normalização</i>
$D_{eq}$	$D_{eq}$	<i>Diâmetro de abertura equivalente / (idem)</i>
$d_{-6}$	$d_{-6}$	<i>Largura do feixe de pulsos / Diâmetro do feixe a -6 dB</i>
$d_{eq}$	$d_{eq}$	<i>Diâmetro equivalente do feixe</i>
$awf$	$f_c$	<i>Frequência de atividade acústica / Frequência central</i>
$I_{pa}$	$I_{pa}$	<i>Intensidade média do pulso</i>
$I_{pa,a}$	$I_{pa,3}$	<i>Intensidade média de pulso atenuado</i>
$I_{pi}$	PII	<i>Integral de intensidade de pulso</i>
$I_{pi,a}$	PII,3	<i>Integral de intensidade de pulso atenuado</i>
$I_{ta}(z)$	$I_{TA}$	<i>Intensidade média temporal</i>
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	<i>Intensidade média temporal atenuada / (na profundidade z)</i>
$I_{zpta}(z)$	$I_{SPTA}(Z)$	<i>Intensidade média temporal do pico espacial</i>
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	<i>Intensidade média temporal atenuada do pico espacial</i>
$MI$	MI	<i>Índice mecânico</i>
$P$	$W_0$	<i>Potência de saída / Média de tempo de potência acústica na fonte</i>
$P_a$	$W_{,3}(Z)$	<i>Potência de saída atenuada / Média de tempo de potência acústica reduzida na profundidade z</i>
$P_1$	$W_{01}$	<i>Potência de saída limitada / Potência emitida a partir de 1 cm central da abertura</i>
$P_i$	PII	<i>Integral de pressão de pulso elevada ao quadrado / Integral de intensidade de pulso</i>
$P_r$	$P_r$	<i>Pressão acústica de rarefação do pico / (idem)</i>
$P_{ra}$	$P_{r,3}$	<i>Pressão acústica atenuada de rarefação do pico / (idem)</i>
$prf$	PRF	<i>Taxa de repetição de pulsos / Frequência de repetição de pulsos</i>
$TI$	TI	<i>Índice térmico / (idem)</i>

IEC	FDA	Significado — IEC 60601-2-37 / FDA e NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Índice térmico dos ossos / (idem)</i>
<i>TIC</i>	TIC	<i>Índice térmico dos ossos cranianos / (idem)</i>
<i>TIS</i>	TIS	<i>Índice térmico dos tecidos moles / (idem)</i>
$t_d$	PD	<i>Duração do pulso / (idem)</i>
X, Y	$x_{-12}, y_{-12}$	<i>Dimensões do feixe de saída de -12 dB / (idem)</i>
<i>z</i>	Z	<i>Distância da fonte até um ponto específico / (idem)</i>
$z_{bp}$	$Z_{sp}$	<i>Profundidade da TIB / Profundidade em que o índice em questão atinge seu valor máximo</i>
$z_{bp}$	$Z_{bp}$	<i>Profundidade do ponto de interrupção / (idem)</i>
$z_s$	$Z_{sp}$	<i>Profundidade da TIS / Profundidade em que o índice em questão atinge seu valor máximo</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Semnificație—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	<i>Coefficient de atenuare acustică / Factor de reducere (de obicei 0,3 dB/cm-MHz)</i>
$A_{aprt}$	$A_{aprt}$	<i>Suprafață fascicul de ieșire la -12db / Suprafață apertură activă</i>
$C_{MI}$		<i>Coefficient de normalizare</i>
$D_{eq}$	$D_{eq}$	<i>Diametru echivalent al aperturii / (aceleași)</i>
$d_{-6}$	$d_{-6}$	<i>Lățime fascicul pulsat / Diametru fascicul la -6 dB</i>
$d_{eq}$	$d_{eq}$	<i>Diametru echivalent al fasciculului</i>
$awf$	$f_c$	<i>Frecvență acustică de lucru / Frecvență centru</i>
$I_{pa}$	$I_{pa}$	<i>Intensitate medie puls</i>
$I_{pa,a}$	$I_{pa,3}$	<i>Intensitate medie puls atenuat</i>
$I_{pi}$	$P_{II}$	<i>Intensitate integrală puls</i>
$I_{pi,a}$	$P_{II,3}$	<i>Intensitate integrală puls atenuat</i>
$I_{ta}(z)$	$I_{TA}$	<i>Intensitate temporală medie</i>
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	<i>Intensitate atenuată mediată în timp / (la adâncimea z)</i>
$I_{zpta}(z)$	$I_{SPTA}(Z)$	<i>Intensitate spațială de vârf temporală medie</i>
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	<i>Intensitate spațială atenuată de vârf temporală medie</i>
$MI$	$MI$	<i>Indice mecanic</i>
$P$	$W_0$	<i>Putere de ieșire / Putere acustică la sursă, mediată în timp</i>
$P_a$	$W_{,3}(Z)$	<i>Putere de ieșire atenuată / Putere acustică redusă la adâncimea z, mediată în timp</i>
$P_1$	$W_{01}$	<i>Putere de ieșire limitată / Putere emisă din 1 cm central al aperturii</i>
$p_i$	$P_{II}$	<i>Integrala pătratelor presiunilor pulsului / Integrala intensității pulsului</i>
$p_r$	$P_r$	<i>Presiune acustică rarefracțională de vârf / (aceeași)</i>
$p_{ra}$	$P_{r,3}$	<i>Presiune acustică rarefracțională de vârf atenuată / (aceeași)</i>
$pr$	$PRF$	<i>Rată de repetiție puls / Frecvență de repetiție puls</i>
$TI$	$TI$	<i>Indice termic / (aceeași)</i>

IEC	FDA	Semnificație—IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Indice termic osos / (aceeași)</i>
<i>TIC</i>	TIC	<i>Indice termic osos cranian / (aceeași)</i>
<i>TIS</i>	TIS	<i>Indice termic al țesutului moale / (aceeași)</i>
$t_d$	PD	<i>Durață puls / (aceeași)</i>
X, Y	x <sub>-12</sub> , y <sub>-12</sub>	<i>Dimensiuni fascicul de ieșire la -12 dB / (aceeași)</i>
z	Z	<i>Distanța de la sursă la un punct specificat / (aceeași)</i>
$z_{bp}$	Z <sub>sp</sub>	<i>Adâncimea pentru TIB / Adâncimea la care indicele relevant este maxim</i>
$z_{bp}$	Z <sub>bp</sub>	<i>Adâncime punct de absorbție / (aceeași)</i>
$z_s$	Z <sub>sp</sub>	<i>Adâncimea pentru TIS / Adâncimea la care indicele relevant este maxim</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Значение — IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	Коэффициент акустического затухания/Коэффициент снижения мощности (обычно 0,3 дБ/см-МГц)
$A_{aprt}$	$A_{aprt}$	Площадь исходящего пучка -12 дБ/Площадь активной апертуры
$C_{MI}$		Нормирующий коэффициент
$D_{eq}$	$D_{eq}$	Эквивалентный диаметр апертуры/(то же самое)
$d_{-6}$	$d_{-6}$	Ширина импульсного пучка/Диаметр пучка при -6 дБ
$d_{eq}$	$d_{eq}$	Эквивалентный диаметр пучка
$f_{avg}$	$f_c$	Рабочая акустическая частота/Средняя частота
$I_{pa}$	$I_{pa}$	Средняя интенсивность импульса
$I_{pa,a}$	$I_{pa,3}$	Средняя интенсивность затухающего импульса
$I_{pi}$	$P_{II}$	Интегральная интенсивность импульса
$I_{pi,a}$	$P_{II,3}$	Интегральная интенсивность затухающего импульса
$I_{ta}(z)$	$I_{TA}$	Средняя интенсивность по времени
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Средняя интенсивность затухающего сигнала по времени/(на глубине $z$ )
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Максимальная пространственная и усредненная по времени интенсивность
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Максимальная пространственная и усредненная по времени интенсивность затухающего сигнала
$MI$	$MI$	Механический индекс
$P$	$W_0$	Выходная мощность/Усредненная по времени акустическая мощность у источника
$P_a$	$W_{,3}(Z)$	Выходная мощность затухающего сигнала/Усредненная по времени акустическая мощность при ослаблении сигнала на глубине $z$
$P_f$	$W_{01}$	Ограниченная выходная мощность/Мощность выходного сигнала в центре апертуры (1 см)
$p_i$	$P_{II}$	Квадратичный интеграл давления импульса/Интеграл интенсивности импульса
$p_r$	$P_r$	Пиковое акустическое давление разрежения/(то же самое)
$P_{ra}$	$P_{r,3}$	Пиковое акустическое давление разрежения затухающего сигнала/(то же самое)

IEC	FDA	Значение — IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>prf</i>	PRF	<i>Скорость повторения импульсов/Частота повторения импульсов</i>
<i>TI</i>	TI	<i>Тепловой индекс/(то же самое)</i>
<i>TIB</i>	TIB	<i>Тепловой индекс костной ткани/(то же самое)</i>
<i>TIC</i>	TIC	<i>Тепловой индекс черепной ткани/(то же самое)</i>
<i>TIS</i>	TIS	<i>Тепловой индекс мягких тканей/(то же самое)</i>
<i>t<sub>d</sub></i>	PD	<i>Продолжительность импульса/(то же самое)</i>
<i>X, Y</i>	<i>x<sub>-12</sub>·y<sub>-12</sub></i>	<i>Размеры исходящего пучка -12 дБ/(то же самое)</i>
<i>z</i>	Z	<i>Расстояние от источника до указанной точки/(то же самое)</i>
<i>z<sub>bp</sub></i>	<i>Z<sub>sp</sub></i>	<i>Глубина для TIB/Глубина, на которой данный индекс имеет максимальное значение</i>
<i>z<sub>bp</sub></i>	<i>Z<sub>bp</sub></i>	<i>Глубина точки прерывания/(то же самое)</i>
<i>z<sub>s</sub></i>	<i>Z<sub>sp</sub></i>	<i>Глубина для TIS/Глубина, на которой данный индекс имеет максимальное значение</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Význam—IEC 60601-2-37 / FDA & NEMA UD2, UD3
$a$	$a$	Súčiniteľ útlmu hluku/činiteľ odľahčenia (obyčajne 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12db Výstupná plocha zväzku/aktívna plocha otvoru
$C_{MI}$		Súčiniteľ normalizovania
$D_{eq}$	$D_{eq}$	Ekvivalentný priemer otvoru/(rovnaký)
$d_{-6}$	$d_{-6}$	Šírka impulzového zväzku/priemer zväzku pri -6 dB
$d_{eq}$	$d_{eq}$	Ekvivalentný priemer zväzku
$awf$	$f_c$	Akustická pracovná frekvencia/stredná frekvencia
$l_{pa}$	$l_{pa}$	Impulz-priemerná intenzita
$l_{pa,a}$	$l_{pa,3}$	Utlmený impulz-priemerná intenzita
$l_{pi}$	PII	Impulz-integrál intenzity
$l_{pi,a}$	PII <sub>3</sub>	Utlmený impulz-integrál intenzity
$l_{ta}(z)$	$l_{TA}$	Časová-priemerná intenzita
$l_{ta,a}(z)$	$l_{TA,3}(Z)$	Utlmená časová-priemerná intenzita/ (pri hĺbke z)
$l_{zpta}(z)$	$l_{SPTA}(Z)$	Priestorová-vrcholová časová-priestorová intenzita
$l_{zpta,a}(z)$	$l_{SPTA,3}(Z)$	Utlmená priestorová-vrcholová časová-priestorová intenzita
$MI$	MI	Mechanický index
$P$	$W_0$	Výstupný výkon/ časový priemer akustického výkonu pri zdroji
$P_a$	$W_{,3}(Z)$	Utlmený výstupný výkon/ časový priemer akustického výkonu znížený na hĺbku z
$P_1$	$W_{01}$	Obmedzený výstupný výkon/ výkon vydávaný zo stredného 1 cm otvoru
$p_i$	PII	Integrál impulzu tlaku na druhú/ integrál intenzity impulzu
$p_r$	$p_r$	Vrcholový-akustický tlak riedenia vzduchu/ (rovnaký)
$p_{ra}$	$p_{r,3}$	Utlmený vrcholový-akustický tlak riedenia vzduchu/ (rovnaký)
$prf$	PRF	Opakovací kmitočet impulzov/ opakovacia frekvencia impulzov
$TI$	TI	Tepelný index/ (rovnaký)
$TIB$	TIB	Tepelný index kostí/ (rovnaký)

IEC	FDA	Význam—IEC 60601-2-37 / FDA & NEMA UD2, UD3
<i>TIC</i>	TIC	<i>Tepelný index kraniálnej kostí</i> (rovnaký)
<i>TIS</i>	TIS	<i>Tepelný index mäkkého tkaniva</i> (rovnaký)
$t_d$	PD	<i>Doba impulzu</i> (rovnaká)
X, Y	x <sub>-12</sub> , y <sub>-12</sub>	<i>-12 dB rozmery výstupného zväzku</i> (rovnaké)
z	Z	<i>Vzdialenosť od zdroja k stanovenému bodu</i> (rovnaká)
$z_{bp}$	$Z_{sp}$	<i>Hĺbka pre TIB/ hĺbka, pri ktorej je príslušný index maximálny</i>
$z_{bp}$	$Z_{bp}$	<i>Dynamická hĺbka</i> (rovnaká)
$z_s$	$Z_{sp}$	<i>Hĺbka pre TIS/ hĺbka, pri ktorej je príslušný index maximálny</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Pomen – IEC 60601-2-37 / FDA in NEMA UD2, UD3
$a$	$a$	atenuacijski koeficient zvoka / faktor slabitve (običajno 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	izhodna površina snopa -12 dB / površina aktivne odprtine
$C_{MI}$		normalizacijski koeficient
$D_{eq}$	$D_{eq}$	ekvivalentni premer odprtine / (enako)
$d_{-6}$	$d_{-6}$	širina impulznega snopa / premer snopa pri -6 dB
$d_{eq}$	$d_{eq}$	ekvivalentni premer snopa
$avf$	$f_c$	delovna frekvenca zvoka / središčna frekvenca
$I_{pa}$	$I_{pa}$	povprečna jakost impulza
$I_{pa,a}$	$I_{pa,3}$	atenuacijska povprečna jakost impulza
$I_{pi}$	PII	integral jakosti impulza
$I_{pi,a}$	PII <sub>3</sub>	atenuacijski integral jakosti impulza
$I_{ta}(z)$	$I_{TA}$	povprečna jakost v času
$I_{ta,a}(z)$	$I_{TA,3}(z)$	atenuacijska povprečna jakost v času / (pri globini z)
$I_{zpta}(z)$	$I_{SPTA}(z)$	prostorsko-vršna časovno povprečna jakost
$I_{zpta,a}(z)$	$I_{SPTA,3}(z)$	atenuacijska prostorsko-vršna časovno povprečna jakost
$MI$	MI	mehanski indeks
$P$	$W_0$	izhodna moč / časovno povprečena moč zvoka pri viru
$P_a$	$W_{,3}(z)$	atenuacijska izhodna moč / časovno povprečena moč zvoka pri viru zmanjšana za globino z
$P_1$	$W_{01}$	omejena izhodna moč / moč, oddana od središčnega 1 cm odprtine
$p_i$	PII	integral kvadratnega pulznega tlaka / integral pulznega tlaka
$p_r$	$p_r$	največji negativni zvočni tlak / (enako)
$P_{ra}$	$P_{r,3}$	atenuacijski največji negativni zvočni tlak / (enako)
$pr$	PRF	hitrost ponavljanja impulza / frekvenca ponavljanja impulza
$TI$	TI	toplotni indeks / (enako)
$TIB$	TIB	toplotni indeks kosti / (enako)

IEC	FDA	Pomen – IEC 60601-2-37 / FDA in NEMA UD2, UD3
<i>TIC</i>	TIC	<i>toplotni indeks lobanjskih kosti / (enako)</i>
<i>TIS</i>	TIS	<i>toplotni indeks mehkih tkiv / (enako)</i>
$t_d$	PD	<i>trajanje impulza / (enako)</i>
<i>X, Y</i>	<i>x<sub>-12</sub>, y<sub>-12</sub></i>	<i>izhodne mere snopa -12 dB / (enako)</i>
<i>z</i>	Z	<i>razdalja od vira do določene točke / (enako)</i>
$z_{bp}$	$Z_{sp}$	<i>razdalja za TIB / razdalja, pri kateri določeni indeks doseže najvišjo vrednost</i>
$z_{bp}$	$Z_{bp}$	<i>globina točke preloma / (enako)</i>
$z_s$	$Z_{sp}$	<i>globina za TIS / globina, pri kateri določeni indeks doseže najvišjo vrednost</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Značenje – IEC 60601-2-37 / FDA i NEMA UD2, UD3
$a$	$a$	Koeficijent akustičkog slabljenja / Faktor umanjenja (najčešće 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	Zona izlaznog snopa za -12dB / Aktivna zona aperture
$C_{MI}$		Koeficijent normalizacije
$D_{eq}$	$D_{eq}$	Ekvivalentni prečnik aperture / (isto)
$d_{-6}$	$d_{-6}$	Širina snopa pulsa / Prečnik snopa pri -6 dB
$d_{eq}$	$d_{eq}$	Ekvivalentni prečnik snopa
$awf$	$f_c$	Radna akustička frekvencija / Centralna frekvencija
$I_{pa}$	$I_{pa}$	Srednji intenzitet pulsa
$I_{pa,a}$	$I_{pa,3}$	Srednji intenzitet oslabljenog pulsa
$I_{pi}$	PII	Integral intenziteta pulsa
$I_{pi,a}$	PII,3	Integral intenziteta oslabljenog pulsa
$I_{ta}(z)$	$I_{TA}$	Intenzitet usrednjen po vremenu
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Oslabljen intenzitet usrednjen po vremenu / (na dubini z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Prostorni vršni intenzitet usrednjen po vremenu
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Oslabljen prostorni vršni intenzitet usrednjen po vremenu
$MI$	MI	Mehanički indeks
$P$	$W_0$	Izlazna snaga / Akustička snaga na izvoru, usrednjena po vremenu
$P_a$	$W_{,3}(Z)$	Oslabljena izlazna snaga / Akustička snaga usrednjena po vremenu, umanjena na dubinu z
$P_1$	$W_{01}$	Omeđena izlazna snaga/ Snaga emitovana iz središnjeg dela aperture prečnika 1 cm
$p_i$	PII	Integral kvadrata pulsa pritiska / Integral intenziteta pulsa
$p_r$	$P_r$	Izuzetni vršni akustički pritisak / (isto)
$p_{ra}$	$P_{r,3}$	Oslabljeni izuzetni vršni akustički pritisak / (isto)
$prr$	PRF	Brzina pulsiranja / Frekvencija ponavljanja pulsa
$TI$	TI	Termalni indeks / (isto)

IEC	FDA	Značenje – IEC 60601-2-37 / FDA i NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Termalni indeks kostiju / (isto)</i>
<i>TIC</i>	TIC	<i>Termalni indeks kostiju lobanje / (isto)</i>
<i>TIS</i>	TIS	<i>Termalni indeks mekog tkiva / (isto)</i>
$t_d$	PD	<i>Trajanje pulsa / (isto)</i>
<i>X, Y</i>	$x_{-12}, y_{-12}$	<i>Dimenzije izlaznog snopa za -12 dB / (isto)</i>
<i>z</i>	Z	<i>Rastojanje od izvora do određene tačke / (isto)</i>
$z_{bp}$	$Z_{sp}$	<i>Dubina za TIB / Dubina na kojoj je odgovarajući indeks maksimalan</i>
$z_{bp}$	$Z_{bp}$	<i>Tačka prekida / (isto)</i>
$z_s$	$Z_{sp}$	<i>Dubina za TIS / Dubina na kojoj je odgovarajući indeks maksimalan</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Innebörd – IEC 60601-2-37/FDA och NEMA UD2, UD3
$a$	$a$	Akustisk förtunningskoefficient/nedgraderingsfaktor (vanligtvis 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12 db strålyta för utmatning/aktiv bländaryta
$C_{MI}$		Normaliseringskoefficient
$D_{eq}$	$D_{eq}$	Ekvivalent diameter på bländare/(samma)
$d_{-6}$	$d_{-6}$	Pulsens strålbredd/stråldiameter vid -6 dB
$d_{eq}$	$d_{eq}$	Ekvivalent diameter på stråle
$awf$	$f_c$	Akustisk arbetsfrekvens/central frekvens
$I_{pa}$	$I_{pa}$	Intensitet för medelpuls
$I_{pa,a}$	$I_{pa,3}$	Intensitet för förtunnad medelpuls
$I_{pi}$	PII	Intensitetsintegral för puls
$I_{pi,a}$	PII,3	Intensitetsintegral för förtunnad puls
$I_{ta}(z)$	$I_{TA}$	Temporal medelintensitet
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Förtunnad temporal medelintensitet/(vid djup z)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Högsta spatiala, temporal medelintensiteten
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Förtunnad högsta spatiala, temporal medelintensiteten
$MI$	$MI$	Mekaniskt index
$P$	$W_0$	Utmatningsström/tidsgenomsnittlig akustisk ström vid källan
$P_a$	$W_{,3}(Z)$	Förtunnad utmatningsström/tidsgenomsnittlig akustisk ström nedgraderad till djup z
$P_1$	$W_{01}$	Bunden utmatningsström/utsänd ström från den centrala 1 cm av bländaren
$p_i$	PII	Upphöjd pulstrycksintegral/pulsintensitetsintegral
$p_r$	$p_r$	Högsta förtunning av akustiskt tryck/(samma)
$P_{ra}$	$P_{r,3}$	Förtunnad högsta förtunning av akustiskt tryck/(samma)
$prf$	PRF	Pulsrepetitionstakt/pulsrepetitionsfrekvens
$TI$	$TI$	Termalindex/(samma)

IEC	FDA	Innebörd – IEC 60601-2-37/FDA och NEMA UD2, UD3
<i>TIB</i>	TIB	<i>Termalindex för ben/(samma)</i>
<i>TIC</i>	TIC	<i>Termalindex för kraniellt ben/(samma)</i>
<i>TIS</i>	TIS	<i>Termalindex för mjukvävnad/(samma)</i>
$t_d$	PD	<i>Pulsduration/(samma)</i>
X, Y	$x_{-12}, y_{-12}$	<i>-12 dB stråldimensioner för utmatning/(samma)</i>
<i>z</i>	Z	<i>Avstånd från källan till en specifik punkt/(samma)</i>
$z_{bp}$	$Z_{sp}$	<i>Djup för TIB/djup, vid vilket relevant index är maximalt</i>
$z_{bp}$	$Z_{bp}$	<i>Brytpunktsdjup/(samma)</i>
$z_s$	$Z_{sp}$	<i>Djup för TIS/djup, vid vilket relevant index är maximalt</i>

## Acoustic and Probe Surface Temperature Information

IEC	FDA	Anlamı—IEC 60601-2-37 / FDA ve NEMA UD2, UD3
$a$	$a$	Akustik Zayıflama Katsayısı / Güç kaybı faktörü (genellikle 0,3 dB/cm-MHz)
$A_{aprt}$	$A_{aprt}$	-12db Çıkış Demeti Alanı / Aktif açıklık alanı
$C_{MI}$		Normalizasyon Katsayısı
$D_{eq}$	$D_{eq}$	Eşdeğer Açıklık Çapı / (aynı)
$d_{-6}$	$d_{-6}$	Darbe Demetinin Genişliği / -6 dB'de demetin genişliği
$d_{eq}$	$d_{eq}$	Eşdeğer Demet Çapı
$f_{avf}$	$f_c$	Akustik Çalışma Frekansı / Merkez frekans
$I_{pa}$	$I_{pa}$	Darbe-Ortalama Yoğunluk
$I_{pa,a}$	$I_{pa,3}$	Zayıflatılmış Darbe-Ortalama Yoğunluk
$I_{pi}$	PII	Darbe-Yoğunluk İntegrali
$I_{pi,a}$	PII,3	Zayıflatılmış Darbe-Yoğunluk İntegrali
$I_{ta}(z)$	$I_{TA}$	Zamansal-Ortalama Yoğunluk
$I_{ta,a}(z)$	$I_{TA,3}(Z)$	Zayıflatılmış Zamansal-Ortalama Yoğunluk / (z derinliğinde)
$I_{zpta}(z)$	$I_{SPTA}(Z)$	Uzaysal-Tepe Zamansal-Ortalama Yoğunluk
$I_{zpta,a}(z)$	$I_{SPTA,3}(Z)$	Zayıflatılmış Uzaysal-Tepe Zamansal-Ortalama Yoğunluk
$MI$	MI	Mekanik İndeks
$P$	$W_0$	Çıkış Gücü / Kaynaktaki zaman ortalamalı akustik güç
$P_a$	$W_{,3}(Z)$	Zayıflatılmış Çıkış Gücü / z derinliğinde zayıflamış zaman ortalamalı akustik güç
$P_1$	$W_{01}$	Sınırlanmış Çıkış Gücü / 1cm açıklıkta merkezden yayılan güç
$p_i$	PII	Darbe Basıncı Kare İntegrali / Darbe şiddetinin integrali
$p_r$	$p_r$	Tepe-Azaltılmış Akustik Basınç / (aynı)
$p_{ra}$	$p_{r,3}$	Zayıflatılmış Tepe-Azaltılmış Akustik Basınç / (aynı)
$p_{rr}$	PRF	Darbe Tekrarlama Oranı / Darbe tekrarlama frekansı
$TI$	TI	Termal İndeks / (aynı)
$TIB$	TIB	Kemik Termal İndeksi / (aynı)

IEC	FDA	Anlamı—IEC 60601-2-37 / FDA ve NEMA UD2, UD3
TIC	TIC	Kafatası Kemiği Termal İndeksi / (aynı)
TIS	TIS	Yumuşak Doku Termal İndeksi / (aynı)
$t_d$	PD	Darbe Süresi / (aynı)
X, Y	x-12,y-12	-12 dB Çıkış Demeti Boyutları / (aynı)
z	Z	Kaynak ile Belirli Bir Nokta Arasındaki Mesafe / (aynı)
$z_{bp}$	$Z_{sp}$	TIB Derinliği / Söz konusu indeksin maksimuma ulaştığı derinlik
$z_{bp}$	$Z_{bp}$	Kırılma Noktası Derinliği / (aynı)
$z_s$	$Z_{sp}$	TIS Derinliği / Söz konusu indeksin maksimuma ulaştığı derinlik

## Explanation of Footnotes

The mechanical and thermal indices may be replaced by one of the following footnotes because of the reasons listed:

- a: Display of this index is not required for this operating mode.
- b: This probe is not intended for transcranial or neonatal cephalic uses.
- c: This formulation for TIS is less than that for an alternate formulation in this mode.
- #: No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

## Multiple focal-zones

When using multiple focal-zones on Venue, the time in one frame is divided between the different focal-zones. When measuring this, the MI is found as the maximum MI of all zones:

$$MI = \max_{\text{all zones}} (MI)$$

while the TI and  $W_0$  is found as the time-weighted sum of all zones:

$$TI = \sum_{\text{all zones}} TI_{\text{zone}} \cdot t_{\text{zone}}$$

$$W_0 = \sum_{\text{all zones}} W_{0\text{zone}} \cdot t_{\text{zone}}$$

$t_{\text{zone}}$  is the time fraction used per zone in a frame.

Some of the parameters in the acoustic output report tables will have one value per zone. In this case, the range of the parameter values is reported. The number of zones and which zone has the greater MI is also given in the tables.

## Operating Conditions

All table entries are with the operating conditions specified at the end of the table.

# Acoustic Output Reporting Tables for Track 3/IEC 60601-2-37

Not all probes listed may be supported worldwide. Please refer to your local language User Manual for an overview of the probes that are supported in your country.

*NOTE: Section A in the tables refers to measurements that were performed per standard IEC 62359 Edition 1.0 2005-04, While Section B in the tables refers to measurements that were performed per standard IEC 62359 Edition 2.1 2017-09.*

Section A: Acoustic output reporting tables per standard IEC 62359

Edition 1.0 2005-04

Transducer Model: 3Sc-RS

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.52	1.27	-	-	-	2.44
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.20					
	P	$W_0$	(mW)		162.08	-	-	-	174.27
	Min of $[P_\alpha(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_3(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)				-		
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	5.30					
	$d_{eq}(Z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	2.20	3.16	-	-	-	2.40
Dim of $A_{aprt}$	X	(cm)		1.92	-	-	-	1.92	
	Y	(cm)		1.30	-	-	-	1.30	
Other Info	$t_d$	PD	( $\mu s$ )	0.82					
	prr	PRF	(Hz)	196.59					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.30					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		1.30	-	-		1.55
		$FL_y$	(cm)		0.63	-	-		0.66
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	165.14						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	1.00	1.00	-	-	-	1.00	
	Frequency	(MHz)	2.50	4.00	-	-	-	2.50	
	Width	(deg or ratio to max width)	10.00	10.00	-	-	-	10.00	
	Depth	(mm)	120.00	150.00	-	-	-	280.00	
	Focus	(mm)	109.05	136.05	-	-	-	253.05	

**Transducer Model: 3Sc-RS**

Operating Mode: M-Mode

Index Label				MI	TIS		TIB non-scan	TIC	
					scan	non-scan			
						Aaprt ≤ 1			Aaprt > 1
Global Maximum Index Value				1.57	-	-	0.68	1.34	1.54
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.27					
	P	$W_0$	(mW)		-	-		103.71	109.61
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				53.97		
	$Z_s$	$Z_1$	(cm)				4.10		
	$Z_{bp}$	$Z_{bp}$	(cm)				2.68		
	$Z_b$	$Z_{sp}$	(cm)					4.30	
	z at max $I_{pi,\alpha}$	$Z_{sp}$	(cm)	5.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.78	
	$f_{awf}$	$f_c$	(MHz)	2.20	-	-	2.33	2.34	2.33
	Dim of $A_{aprt}$	X	(cm)		-	-	1.92	1.92	1.92
Y		(cm)		-	-	1.30	1.30	1.30	
Other Info	$t_d$	PD	( $\mu$ s)	0.82					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.36					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.78	
	Focal Length	$FL_x$	(cm)		-	-	1.59		1.59
		$FL_y$	(cm)		-	-	0.69		0.69
$I_{pi,\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	167.18						
Operator Control	Power	(dB)	0.00	-	-	0.00	0.00	0.00	
	Beam Angle	(deg)	0.00	-	-	0.00	0.00	0.00	
	Frequency	(MHz)	2.50	-	-	2.50	2.50	2.50	
	Depth	(mm)	120.00	-	-	360.00	320.00	360.00	
	Focus	(mm)	109.05	-	-	300.00	289.05	300.00	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 3Sc-RS

Operating Mode: CM

Index Label				MI	TIS		TIB non-scan	TIC	
					scan	non-scan			
						Aaprt ≤ 1			Aaprt > 1
Global Maximum Index Value				1.36	-	-	1.15	2.58	2.09
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.01					
	P	$W_0$	(mW)		-	-		120.32	120.32
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				4.46		
	$Z_s$	$Z_1$	(cm)				4.90		
	$Z_{bp}$	$Z_{bp}$	(cm)				2.11		
	$Z_b$	$Z_{sp}$	(cm)					5.20	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	5.30					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.41	
	$f_{awf}$	$f_c$	(MHz)	2.25	-	-	3.50	3.50	3.50
	Dim of $A_{aprt}$	X	(cm)		-	-	1.20	1.20	1.20
Y		(cm)		-	-	1.30	1.30	1.30	
Other Info	$t_d$	PD	( $\mu$ s)	0.80					
	prr	PRF	(Hz)	275.75					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.03					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.41	
	Focal Length	$FL_x$	(cm)		-	-	0.23		0.23
		$FL_y$	(cm)		-	-	0.57		0.57
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	143.34						
Operator Control	Power	(dB)	0.00	-	-	0.00	0.00	0.00	
	PRF	(Hz)	2500.00	-	-	7936.51	7936.51	7936.51	
	ROI Span	(mm)	65.00	-	-	65.00	65.00	65.00	
	ROI Center	(mm)	110.00	-	-	20.00	20.00	20.00	
	Sample Volume	(mm)	1.01	-	-	1.22	1.22	1.22	
	Frequency	(MHz)	3.57	-	-	3.57	3.57	3.57	

**Transducer Model: 3Sc-RS**

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.42	1.25	-	-	-	2.29
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.19					
	P	$W_0$	(mW)		156.19	-	-	-	156.19
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	5.10					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	2.36	2.98	-	-	-	2.98
	Dim of $A_{aprt}$	X	(cm)		1.74	-	-	-	1.74
		Y	(cm)		1.30	-	-	-	1.30
Other Info	$t_d$	PD	( $\mu$ s)	0.78					
	prr	PRF	(Hz)	7936.51					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.32					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.23	-	-		0.23
		$FL_y$	(cm)		0.59	-	-		0.59
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	194.25						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	0.00	
	PRF	(Hz)	7936.51	4464.29	-	-	-	4464.29	
	ROI Span	(mm)	65.00	65.00	-	-	-	65.00	
	ROI Center	(mm)	70.00	40.00	-	-	-	40.00	
	Sample Volume	(mm)	0.83	1.14	-	-	-	1.14	
	ROI Width	(deg or ratio to max width)	10.00	65.00	-	-	-	65.00	
Frequency	(MHz)	2.78	3.13	-	-	-	3.13		

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 3Sc-RS

Operating Mode: PW

Index Label				MI	TIS		TIB non-scan	TIC	
					scan	non-scan			
						Aaprt ≤ 1			Aaprt > 1
Global Maximum Index Value				1.29	-	-	1.52	3.36	3.24
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.03					
	P	$W_0$	(mW)		-	-		161.27	231.08
	Min of $[P_{\alpha}(Z_s),$ $I_{TA,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				63.80		
	$Z_s$	$Z_1$	(cm)				6.90		
	$Z_{bp}$	$Z_{bp}$	(cm)				2.68		
	$Z_b$	$Z_{sp}$	(cm)					6.50	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	4.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.78	
	$f_{awf}$	$f_c$	(MHz)	2.50	-	-	2.45	2.45	2.45
	Dim of $A_{aprt}$	X	(cm)		-	-	1.92	1.92	1.92
Y		(cm)		-	-	1.30	1.30	1.30	
Other Info	$t_d$	PD	( $\mu$ s)	0.51					
	prr	PRF	(Hz)	1168.22					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.08					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.78	
	Focal Length	$FL_x$	(cm)		-	-	0.71		0.71
		$FL_y$	(cm)		-	-	0.43		0.43
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	244.09						
Operator Control	Power	(dB)	0.00	-	-	0.00	0.00	0.00	
	Beam Angle	(deg)	0.00	-	-	0.00	0.00	0.00	
	Sample Volume Position	(mm)	52.48	-	-	124.98	124.98	124.98	
	Sample Volume	(mm)	1.00	-	-	2.00	2.00	2.00	
	Scale	(m/s)	0.40	-	-	1.63	1.63	1.63	
	Frequency	(MHz)	1.85	-	-	2.50	2.50	2.50	

**Transducer Model: 3Sc-RS**

Operating Mode: CW

Index Label				MI	TIS		TIB non-scan	TIC	
					scan	non-scan			
						Aaprt ≤ 1			Aaprt > 1
Global Maximum Index Value				a	-	-	0.95	3.56	2.83
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	#					
	P	$W_0$	(mW)		-	-		122.56	128.40
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				74.91		
	$Z_s$	$Z_1$	(cm)				3.70		
	$Z_{bp}$	$Z_{bp}$	(cm)				1.70		
	$Z_b$	$Z_{sp}$	(cm)					3.80	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.14	
	$f_{awf}$	$f_c$	(MHz)	#	-	-	2.00	2.00	2.00
	Dim of $A_{aprt}$	X	(cm)		-	-	0.78	0.78	0.78
Y		(cm)		-	-	1.30	1.30	1.30	
Other Info	$t_d$	PD	( $\mu$ s)	#					
	prr	PRF	(Hz)	#					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	#					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.14	
	Focal Length	$FL_x$	(cm)		-	-	0.51		0.51
		$FL_y$	(cm)		-	-	0.69		0.69
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	#						
Operator Control	Sample Volume Position	(mm)	#	-	-	300	78	300	
	Frequency	(MHz)	#	-	-	2	2	2	

a, #: see 'Explanation of Footnotes' on page 3-70.

Transducer Model: 3Sc-RS

Ophthalmic application

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.16	0.04	-	-	-	0.07
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.30					
	P	$W_0$	(mW)		5.09	-		-	5.09
	Min of $[P_\alpha(Z_s),$ $I_{\text{ta},\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1),$ $I_{\text{TA},3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{\text{bp}}$	$Z_{\text{bp}}$	(cm)				-		
	$Z_b$	$Z_{\text{sp}}$	(cm)					-	
	z at max $I_{\text{pi } \alpha}$	$Z_{\text{sp}}$	(cm)	7.30					
	$d_{\text{eq}}(Z_b)$	$d_{\text{eq}}(Z_{\text{sp}})$	(cm)					-	
	$f_{\text{awf}}$	$f_c$	(MHz)	3.52	3.54	-	-	-	3.54
Dim of $A_{\text{aprt}}$	X	(cm)		1.92	-	-	-	1.92	
	Y	(cm)		1.30	-	-	-	1.30	
Other Info	$t_d$	PD	( $\mu\text{s}$ )	0.53					
	prr	PRF	(Hz)	268.64					
	$p_r$ at max $I_{\text{pi}}$	$P_r @ P_{\text{II}_{\text{max}}}$	(MPa)	0.72					
	$d_{\text{eq}}$ at max $I_{\text{pi}}$	$d_{\text{eq}} @ P_{\text{II}_{\text{max}}}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.63	-	-		0.63
		$FL_y$	(cm)		0.38	-	-		0.38
$I_{\text{pi } \alpha}$ at max $MI$	$I_{\text{PA},3} @$ $MI_{\text{max}}$	(W/cm <sup>2</sup> )	3.94						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	1.00	2.00	-	-	-	2.00	
	Frequency	(MHz)	4.00	4.00	-	-	-	4.00	
	Width	(deg or ratio to max width)	10.00	45.00	-	-	-	45.00	
	Depth	(mm)	150.00	160.00	-	-	-	160.00	
	Focus	(mm)	136.05	145.05	-	-	-	145.05	

**Transducer Model: 3Sc-RS**

Ophthalmic application

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.20	0.26	-	-	-	0.40
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.37					
	P	$W_0$	(mW)		27.44	-	-	-	27.44
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	7.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	3.55	3.50	-	-	-	3.50
	Dim of $A_{aprt}$	X	(cm)		1.74	-	-	-	1.74
Y		(cm)		1.30	-	-	-	1.30	
Other Info	$t_d$	PD	( $\mu$ s)	1.48					
	prr	PRF	(Hz)	4950.50					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.88					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	FL <sub>x</sub>	(cm)		0.61	-	-		0.61
		FL <sub>y</sub>	(cm)		0.33	-	-		0.33
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	7.08						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	1.00	1.00	-	-	-	1.00	
	PRF	(Hz)	4950.50	4950.50	-	-	-	4950.50	
	ROI Span	(mm)	20.00	20.00	-	-	-	20.00	
	ROI Center	(mm)	120.00	120.00	-	-	-	120.00	
	Sample Volume	(mm)	1.56	1.56	-	-	-	1.56	
	ROI Width	(deg or ratio to max width)	10.00	10.00	-	-	-	10.00	
	Frequency	(MHz)	3.57	3.57	-	-	-	3.57	

Transducer Model: 9L-RS

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.03	1.22	-	-	-	2.07
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.33					
	P	$W_0$	(mW)		76.84	-		-	76.84
	Min of $[P_\alpha(Z_s), I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1), I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	5.40	3.75	-	-	-	3.75
	Dim of $A_{aprt}$	X	(cm)		1.13	-	-	-	1.13
Y		(cm)		0.60	-	-	-	0.60	
Other Info	$t_d$	PD	( $\mu s$ )	0.37					
	prr	PRF	(Hz)	176.00					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	3.26					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.73	-	-		0.73
		$FL_y$	(cm)		0.18	-	-		0.18
$I_{pi\alpha}$ at max MI	$I_{PA,3}@ MI_{max}$	(W/cm <sup>2</sup> )	232.04						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	1.00	0.00	-	-	-	0.00	
	Frequency	(MHz)	6.00	3.00	-	-	-	3.00	
	Width	(deg or ratio to max width)	0.70	0.70	-	-	-	0.70	
	Depth	(mm)	40.00	70.00	-	-	-	70.00	
Focus	(mm)	32.71	56.71	-	-	-	56.71		

**Transducer Model: 9L-RS**

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.07	-	0.40	-	0.73	0.61
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.38					
	P	$W_0$	(mW)		-	16.25		28.27	29.68
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.90	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.90					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.21	
	$f_{awf}$	$f_c$	(MHz)	5.14	-	5.12	-	3.82	3.80
	Dim of $A_{aprt}$	X	(cm)		-	1.45	-	1.91	1.91
Y		(cm)		-	0.60	-	0.60	0.60	
Other Info	$t_d$	PD	( $\mu$ s)	0.32					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.33					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.21	
	Focal Length	$FL_x$	(cm)		-	1.06	-		1.53
		$FL_y$	(cm)		-	0.21	-		0.19
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	178.37						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	6.00	-	6.00	-	3.00	3.00	
	Depth	(mm)	90.00	-	90.00	-	120.00	120.00	
	Focus	(mm)	72.71	-	72.71	-	96.71	96.71	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 9L-RS

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.07	-	0.69	-	1.64	1.15
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.39					
	P	$W_0$	(mW)		-	45.08		55.94	56.14
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					4.40	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.90					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.18	
	$f_{awf}$	$f_c$	(MHz)	5.15	-	4.40	-	4.40	4.99
	Dim of $A_{aprt}$	X	(cm)		-	1.83	-	1.83	1.83
Y		(cm)		-	0.60	-	0.60	0.60	
Other Info	$t_d$	PD	( $\mu$ s)	0.31					
	prr	PRF	(Hz)	709.70					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	3.35					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					1.18	
	Focal Length	$FL_x$	(cm)		-	0.11	-		0.11
		$FL_y$	(cm)		-	0.30	-		0.28
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	187.39						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	10000.00	-	10000.00	-	10000.00	10000.00	
	ROI Span	(mm)	30.00	-	30.00	-	30.00	30.00	
	ROI Center	(mm)	30.00	-	30.00	-	30.00	30.00	
	Sample Volume	(mm)	0.66	-	0.66	-	0.66	0.71	
	Frequency	(MHz)	4.17	-	4.17	-	4.17	5.00	

**Transducer Model: 9L-RS**

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.23	1.59	-	-	-	1.98
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.21					
	P	$W_0$	(mW)		68.06	-	-	-	68.06
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	2.00					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	3.30	4.99	-	-	-	4.99
	Dim of $A_{aprt}$	X	(cm)		1.03	-	-	-	1.03
Y		(cm)		0.60	-	-	-	0.60	
Other Info	$t_d$	PD	( $\mu$ s)	0.77					
	prf	PRF	(Hz)	11904.76					
	$p_r$ at max $I_{pi}$	$P_r @ PII_{max}$	(MPa)	2.78					
	$d_{eq}$ at max $I_{pi}$	$d_{eq} @ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.10	-	-		0.10
		$FL_y$	(cm)		0.16	-	-		0.16
$I_{pi\alpha}$ at max MI	$I_{PA,3} @$ $MI_{max}$	(W/cm <sup>2</sup> )	218.28						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	2.00	2.00	-	-	-	2.00	
	PRF	(Hz)	11904.76	3496.50	-	-	-	3496.50	
	ROI Span	(mm)	30.00	30.00	-	-	-	30.00	
	ROI Center	(mm)	10.00	10.00	-	-	-	10.00	
	Sample volume	(mm)	1.06	0.71	-	-	-	0.71	
	ROI Width	(deg or ratio to max width)	0.20	0.80	-	-	-	0.80	
Frequency	(MHz)	3.13	5.00	-	-	-	5.00		

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 9L-RS

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.13	-	1.25	-	2.44	1.54
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.04					
	P	$W_0$	(mW)		-	52.47		59.76	59.76
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.70	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.90					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.97	
	$f_{awf}$	$f_c$	(MHz)	3.58	-	5.00	-	3.58	3.58
	Dim of $A_{aprt}$	X	(cm)		-	1.17	-	1.23	1.23
Y		(cm)		-	0.60	-	0.60	0.60	
Other Info	$t_d$	PD	( $\mu$ s)	6.97					
	prr	PRF	(Hz)	250.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	2.58					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.97	
	Focal Length	$FL_x$	(cm)		-	0.61	-		0.72
		$FL_y$	(cm)		-	0.15	-		0.18
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	215.69						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	56.60	-	51.88	-	56.60	56.60	
	Sample Volume	(mm)	6.00	-	16.00	-	6.00	6.00	
	Scale	(m/s)	0.05	-	0.05	-	0.05	0.05	
	Frequency	(MHz)	3.57	-	5.00	-	3.57	3.57	

**Transducer Model: 9L-RS**

Ophthalmic application

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.17	0.01	-	-	-	0.02
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.34					
	P	$W_0$	(mW)		0.33	-	-	-	0.33
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.80					
	$d_{eq}(Z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	3.85	3.85	-	-	-	3.63
	Dim of $A_{aprt}$	X	(cm)		0.64	-	-	-	0.32
Y		(cm)		0.60	-	-	-	0.60	
Other Info	$t_d$	PD	( $\mu$ s)	0.57					
	prr	PRF	(Hz)	93.38					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.43					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.19	-	-		0.26
		$FL_y$	(cm)		0.18	-	-		0.28
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	2.43						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	1.00	
	Frequency	(MHz)	3.00	3.00	-	-	-	2.80	
	Width	(deg or ratio to max width)	0.70	0.70	-	-	-	0.70	
	Depth	(mm)	80.00	80.00	-	-	-	40.00	
Focus	(mm)	32.71	32.71	-	-	-	16.71		

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 9L-RS

Ophthalmic application

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.17	0.03	-	-	-	0.05
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.34					
	P	$W_0$	(mW)		1.01	-	-	-	1.03
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	3.85	6.15	-	-	-	4.92
	Dim of $A_{aprt}$	X	(cm)		0.39	-	-	-	0.39
Y		(cm)		0.60	-	-	-	0.60	
Other Info	$t_d$	PD	( $\mu$ s)	0.58					
	prr	PRF	(Hz)	4950.50					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.43					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	FL <sub>x</sub>	(cm)		0.09	-	-		0.10
		FL <sub>y</sub>	(cm)		0.46	-	-		0.47
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	2.41						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	2.00	-	-	-	0.00	
	PRF	(Hz)	4950.50	4950.50	-	-	-	4950.50	
	ROI Span	(mm)	25.00	25.00	-	-	-	25.00	
	ROI Center	(mm)	10.00	10.00	-	-	-	10.00	
	Sample volume	(mm)	0.75	0.69	-	-	-	0.75	
	ROI Width	(deg or ratio to max width)	0.20	0.20	-	-	-	0.20	
	Frequency	(MHz)	5.00	6.25	-	-	-	5.00	

**Transducer Model: C1-5-RS**

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.16	2.17	-	-	-	3.37
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	1.76					
	P	$W_0$	(mW)		154.77	-		-	139.67
	Min of $[P_\alpha(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	4.80					
	$d_{eq}(Z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	2.42	2.95	-	-	-	2.95
	Dim of $A_{aprt}$	X	(cm)		0.91	-	-	-	0.73
Y		(cm)		1.15	-	-	-	1.15	
Other Info	$t_d$	PD	( $\mu s$ )	0.68					
	prr	PRF	(Hz)	84.38					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	2.63					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.27	-	-		0.34
		$FL_y$	(cm)		0.47	-	-		0.47
	$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	117.42					
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	1.00	1.00	-	-	-	1.00	
	Frequency	(MHz)	2.50	3.00	-	-	-	3.00	
	Width	(deg or ratio to max width)	30.00	30.00	-	-	-	30.00	
	Depth	(mm)	80.00	50.00	-	-	-	40.00	
	Focus	(mm)	73.10	46.10	-	-	-	37.10	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: C1-5-RS

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.14	-	-	0.63	1.32	1.14
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	1.89					
	P	$W_0$	(mW)		-	84.83		62.95	84.83
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					6.60	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.60					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.74	
	$f_{awf}$	$f_c$	(MHz)	2.85	-	2.70	-	1.95	2.70
	Dim of $A_{aprt}$	X	(cm)		-	2.38	-	2.06	2.38
Y		(cm)		-	1.15	-	1.15	1.15	
Other Info	$t_d$	PD	( $\mu$ s)	0.72					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	2.21					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.74	
	Focal Length	$FL_x$	(cm)		-	1.98	-		1.98
		$FL_y$	(cm)		-	0.35	-		0.35
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	129.63						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	3.00	-	3.00	-	1.50	3.00	
	Depth	(mm)	50.00	-	220.00	-	170.00	220.00	
	Focus	(mm)	31.10	-	199.10	-	103.10	199.10	

**Transducer Model: C1-5-RS**

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.12	-	1.31	-	2.78	2.02
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.15					
	P	$W_0$	(mW)		-	79.77		76.81	51.79
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.80	
	z at max $I_{pi\ \alpha}$	$Z_{sp}$	(cm)	1.60					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.94	
	$f_{awf}$	$f_c$	(MHz)	3.10	-	3.55	-	3.56	2.04
	Dim of $A_{aprt}$	X	(cm)		-	0.68	-	0.60	0.28
Y		(cm)		-	1.15	-	1.15	1.15	
Other Info	$t_d$	PD	( $\mu$ s)	3.06					
	prr	PRF	(Hz)	776.84					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	2.55					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.94	
	Focal Length	$FL_x$	(cm)		-	0.22	-		0.38
		$FL_y$	(cm)		-	0.78	-		0.98
$I_{pi\ \alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	144.49						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	749.63	-	749.63	-	749.63	1497.01	
	ROI Span	(mm)	100.00	-	100.00	-	100.00	100.00	
	ROI Center	(mm)	30.00	-	30.00	-	20.00	110.00	
	Sample Volume	(mm)	2.82	-	2.94	-	2.94	3.67	
	Frequency	(MHz)	3.13	-	3.57	-	3.57	2.00	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: C1-5-RS

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.15	2.39	-	-	-	4.02
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	1.77					
	P	$W_0$	(mW)		150.38	-	-	-	136.55
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	4.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	2.45	3.55	-	-	-	3.10
	Dim of $A_{aprt}$	X	(cm)		0.85	-	-	-	0.43
Y		(cm)		1.15	-	-	-	1.15	
Other Info	$t_d$	PD	( $\mu$ s)	0.52					
	prr	PRF	(Hz)	346.74					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	2.66					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.27	-	-		0.24
		$FL_y$	(cm)		0.31	-	-		0.88
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	145.86						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	5.00	0.00	-	-	-	1.00	
	PRF	(Hz)	346.74	7042.25	-	-	-	749.63	
	ROI Span	(mm)	60.00	60.00	-	-	-	60.00	
	ROI Center	(mm)	40.00	90.00	-	-	-	100.00	
	Sample volume	(mm)	0.77	2.40	-	-	-	1.71	
	ROI Width	(deg or ratio to max width)	15.00	25.00	-	-	-	15.00	
Frequency	(MHz)	2.50	3.57	-	-	-	3.13		

**Transducer Model: C1-5-RS**

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.17	-	1.01	-	2.10	1.97
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.16					
	P	$W_0$	(mW)		-	59.67		57.03	44.93
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.80	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	3.60					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.97	
	$f_{awf}$	$f_c$	(MHz)	3.55	-	3.55	-	3.55	3.55
	Dim of $A_{aprt}$	X	(cm)		-	0.84	-	0.64	0.22
Y		(cm)		-	1.15	-	1.15	1.15	
Other Info	$t_d$	PD	( $\mu$ s)	2.21					
	prr	PRF	(Hz)	250.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.35					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.97	
	Focal Length	$FL_x$	(cm)		-	0.26	-		0.25
		$FL_y$	(cm)		-	0.42	-		1.01
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	170.44						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	42.17	-	42.17	-	31.81	11.10	
	Sample Volume	(mm)	2.00	-	2.00	-	2.00	2.00	
	Scale	(m/s)	0.09	-	0.80	-	0.60	0.60	
	Frequency	(MHz)	3.57	-	3.57	-	3.57	3.57	

Transducer Model: 12L-RS

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.47	0.77	-	-	-	1.67
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.25					
	P	$W_0$	(mW)		23.40	-		-	23.40
	Min of $[P_\alpha(Z_s), I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1), I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	5.04	6.88	-	-	-	6.88
	Dim of $A_{aprt}$	X	(cm)		0.24	-	-	-	0.24
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu s$ )	1.21					
	prr	PRF	(Hz)	95.53					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	4.01					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.12	-	-		0.12
		$FL_y$	(cm)		0.22	-	-		0.22
$I_{pi\alpha}$ at max MI	$I_{PA,3}@ MI_{max}$	(W/cm <sup>2</sup> )	79.26						
Operator Control	Power	(dB)		0.00	0.00	-	-	-	0.00
	Tilt	(deg)		0.00	0.00	-	-	-	0.00
	Framerate	(index)		2.00	0.00	-	-	-	0.00
	Frequency	(MHz)		5.50	7.00	-	-	-	7.00
	Width	(deg or ratio to max width)		0.70	0.70	-	-	-	0.70
	Depth	(mm)		25.00	15.00	-	-	-	15.00
	Focus	(mm)		19.37	11.87	-	-	-	11.87

**Transducer Model: 12L-RS**

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.42	-	0.31	-	0.47	0.38
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.10					
	P	$W_0$	(mW)		-	9.73		12.00	12.00
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.40	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.78	
	$f_{awf}$	$f_c$	(MHz)	5.09	-	6.78	-	4.88	4.97
	Dim of $A_{aprt}$	X	(cm)		-	1.20	-	1.20	1.20
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.41					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.83					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.78	
	Focal Length	$FL_x$	(cm)		-	0.96	-		0.96
		$FL_y$	(cm)		-	0.16	-		0.15
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	210.33						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	3.50	-	7.00	-	5.50	5.50	
	Depth	(mm)	25.00	-	80.00	-	80.00	80.00	
	Focus	(mm)	19.37	-	60.62	-	60.62	60.62	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 12L-RS

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.46	-	0.27	-	1.02	0.37
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.19					
	P	$W_0$	(mW)		-	11.90		12.06	11.90
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					2.50	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.88	
	$f_{awf}$	$f_c$	(MHz)	5.07	-	4.77	-	4.60	4.77
	Dim of $A_{aprt}$	X	(cm)		-	1.51	-	1.51	1.51
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.82					
	prr	PRF	(Hz)	28.95					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	3.93					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					0.88	
	Focal Length	$FL_x$	(cm)		-	0.07	-		0.07
		$FL_y$	(cm)		-	0.23	-		0.23
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	112.92						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	349.90	-	5000.00	-	2500.00	5000.00	
	ROI Span	(mm)	30.00	-	30.00	-	30.00	30.00	
	ROI Center	(mm)	15.00	-	20.00	-	20.00	20.00	
	Sample Volume	(mm)	0.63	-	0.63	-	1.33	0.63	
	Frequency	(MHz)	4.55	-	4.55	-	4.55	4.55	

**Transducer Model: 12L-RS**

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.59	1.54	-	-	-	2.40
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.48					
	P	$W_0$	(mW)		40.91	-		-	78.03
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	4.79	8.12	-	-	-	4.60
	Dim of $A_{aprt}$	X	(cm)		0.92	-	-	-	1.51
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.98					
	prr	PRF	(Hz)	10000.00					
	$p_r$ at max $I_{pi}$	$P_r @ PII_{max}$	(MPa)	4.46					
	$d_{eq}$ at max $I_{pi}$	$d_{eq} @ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.05	-	-		0.07
		$FL_y$	(cm)		0.12	-	-		0.26
$I_{pi\alpha}$ at max $MI$	$I_{PA,3} @$ $MI_{max}$	(W/cm <sup>2</sup> )	341.02						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	2.00	1.00	-	-	-	1.00	
	PRF	(Hz)	10000.00	7936.51	-	-	-	2000.00	
	ROI Span	(mm)	30.00	30.00	-	-	-	30.00	
	ROI Center	(mm)	10.00	15.00	-	-	-	30.00	
	Sample volume	(mm)	0.63	0.47	-	-	-	1.33	
	ROI Width	(deg or ratio to max width)	1.00	0.80	-	-	-	1.00	
Frequency	(MHz)	4.55	8.33	-	-	-	4.55		

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 12L-RS

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.55	-	0.99	-	2.22	1.48
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.36					
	P	$W_0$	(mW)		-	41.44		41.44	41.44
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.50	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.70	
	$f_{awf}$	$f_c$	(MHz)	5.00	-	5.03	-	5.03	5.03
	Dim of $A_{aprt}$	X	(cm)		-	0.96	-	0.96	0.96
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	1.14					
	prr	PRF	(Hz)	326.37					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.35					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.70	
	Focal Length	$FL_x$	(cm)		-	0.59	-		0.59
		$FL_y$	(cm)		-	0.14	-		0.14
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	509.96						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	30.10	-	43.69	-	43.69	43.69	
	Sample Volume	(mm)	1.00	-	1.00	-	1.00	1.00	
	Scale	(m/s)	0.05	-	0.40	-	0.40	0.40	
	Frequency	(MHz)	5.00	-	5.00	-	5.00	5.00	

**Transducer Model: 12L-RS**

Ophthalmic application

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.17	0.01	-	-	-	0.03
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.44					
	P	$W_0$	(mW)		0.31	-		-	0.31
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.80					
	$d_{eq}(Z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	7.38	7.45	-	-	-	7.45
Dim of $A_{aprt}$	X	(cm)		0.10	-	-	-	0.10	
	Y	(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.30					
	prr	PRF	(Hz)	23.56					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.70					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.14	-	-		0.14
		$FL_y$	(cm)		0.35	-	-		0.35
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	6.18						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	1.00	-	-	-	1.00	
	Frequency	(MHz)	7.00	7.00	-	-	-	7.00	
	Width	(deg or ratio to max width)	0.70	0.70	-	-	-	0.70	
	Depth	(mm)	70.00	10.00	-	-	-	10.00	
	Focus	(mm)	28.62	4.62	-	-	-	4.62	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 12L-RS

Ophthalmic application

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.17	0.03	-	-	-	0.03
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.36					
	P	$W_0$	(mW)		0.73	-	-	-	0.73
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	4.65	8.30	-	-	-	8.30
	Dim of $A_{aprt}$	X	(cm)		0.57	-	-	-	0.57
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.82					
	prr	PRF	(Hz)	10000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.49					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	FL <sub>x</sub>	(cm)		0.05	-	-		0.05
		FL <sub>y</sub>	(cm)		0.23	-	-		0.23
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ MI <sub>max</sub>	(W/cm <sup>2</sup> )	3.64						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	2.00	0.00	-	-	-	0.00	
	PRF	(Hz)	10000.00	2500.00	-	-	-	2500.00	
	ROI Span	(mm)	25.00	25.00	-	-	-	25.00	
	ROI Center	(mm)	20.00	10.00	-	-	-	10.00	
	Sample volume	(mm)	0.89	1.07	-	-	-	1.07	
	ROI Width	(deg or ratio to max width)	0.80	0.30	-	-	-	0.30	
	Frequency	(MHz)	4.55	8.33	-	-	-	8.33	

**Transducer Model: L12n-RS**

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.40	0.78	-	-	-	1.63
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.15					
	P	$W_0$	(mW)		23.94	-		-	24.62
	Min of $[P_\alpha(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.40					
	$d_{eq}(Z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	5.04	6.88	-	-	-	5.24
	Dim of $A_{aprt}$	X	(cm)		0.28	-	-	-	0.28
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu s$ )	1.62					
	prr	PRF	(Hz)	47.77					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	4.02					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.11	-	-		0.13
		$FL_y$	(cm)		0.19	-	-		0.21
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	60.30						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	1.00	0.00	-	-	-	0.00	
	Frequency	(MHz)	5.50	7.00	-	-	-	4.50	
	Width	(deg or ratio to max width)	0.90	0.70	-	-	-	0.70	
	Depth	(mm)	25.00	15.00	-	-	-	15.00	
	Focus	(mm)	23.12	14.12	-	-	-	14.12	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L12n-RS

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.47	-	0.34	-	0.49	0.40
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.27					
	P	$W_0$	(mW)		-	13.77		13.77	13.77
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.30	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.30					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.86	
	$f_{awf}$	$f_c$	(MHz)	5.12	-	5.23	-	5.08	5.08
	Dim of $A_{aprt}$	X	(cm)		-	1.46	-	1.46	1.46
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.39					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.12					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.86	
	Focal Length	$FL_x$	(cm)		-	1.19	-		1.18
		$FL_y$	(cm)		-	0.14	-		0.15
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	246.74						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	4.50	-	5.50	-	5.50	5.50	
	Depth	(mm)	25.00	-	80.00	-	80.00	80.00	
	Focus	(mm)	23.12	-	72.62	-	72.62	72.62	

**Transducer Model: L12n-RS**

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.41	-	0.26	-	0.96	0.36
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.18					
	P	$W_0$	(mW)		-	10.89		6.27	11.11
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					0.90	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.40					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.51	
	$f_{awf}$	$f_c$	(MHz)	5.08	-	4.74	-	4.88	4.60
	Dim of $A_{aprt}$	X	(cm)		-	1.51	-	0.51	1.51
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.86					
	prr	PRF	(Hz)	121.40					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	4.07					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					0.51	
	Focal Length	$FL_x$	(cm)		-	0.07	-		0.08
		$FL_y$	(cm)		-	0.25	-		0.24
$I_{pi\alpha}$ at max <i>MI</i>	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	115.34						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	2000.00	-	5000.00	-	5000.00	7936.51	
	ROI Span	(mm)	20.57	-	18.40	-	20.57	18.40	
	ROI Center	(mm)	10.00	-	25.00	-	10.00	20.00	
	Sample Volume	(mm)	0.51	-	0.83	-	0.51	1.33	
	Frequency	(MHz)	4.55	-	4.55	-	4.55	4.55	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L12n-RS

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.47	2.17	-	-	-	3.93
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.15					
	P	$W_0$	(mW)		98.53	-	-	-	98.53
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\ \alpha}$	$Z_{sp}$	(cm)	1.30					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	4.61	4.61	-	-	-	4.61
	Dim of $A_{aprt}$	X	(cm)		0.78	-	-	-	0.78
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	1.34					
	prr	PRF	(Hz)	3496.50					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.88					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.07	-	-		0.07
		$FL_y$	(cm)		0.14	-	-		0.14
$I_{pi\ \alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	450.97						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	0.00	
	PRF	(Hz)	3496.50	3496.50	-	-	-	3496.50	
	ROI Span	(mm)	20.57	20.57	-	-	-	20.57	
	ROI Center	(mm)	25.00	25.00	-	-	-	25.00	
	Sample volume	(mm)	1.27	1.27	-	-	-	1.27	
	ROI Width	(deg or ratio to max width)	0.80	0.80	-	-	-	0.80	
Frequency	(MHz)	4.55	4.55	-	-	-	4.55		

**Transducer Model: L12n-RS**

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.50	-	0.99	-	2.16	1.47
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.27					
	P	$W_0$	(mW)		-	41.22		41.22	41.22
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.50	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.70	
	$f_{awf}$	$f_c$	(MHz)	5.00	-	5.03	-	5.03	5.03
	Dim of $A_{aprt}$	X	(cm)		-	0.96	-	0.96	0.96
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	1.14					
	prr	PRF	(Hz)	326.37					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.24					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.70	
	Focal Length	$FL_x$	(cm)		-	0.63	-		0.63
		$FL_y$	(cm)		-	0.14	-		0.14
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	483.22						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	30.10	-	43.69	-	43.69	43.69	
	Sample Volume	(mm)	1.00	-	1.00	-	1.00	1.00	
	Scale	(m/s)	0.05	-	0.40	-	0.40	0.40	
	Frequency	(MHz)	5.00	-	5.00	-	5.00	5.00	

Transducer Model: L12n-RS

Ophthalmic application

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.16	0.02	-	-	-	0.02
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.50					
	P	$W_0$	(mW)		0.53	-		-	0.32
	Min of $[P_\alpha(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.50					
	$d_{eq}(Z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	8.48	8.48	-	-	-	8.52
Dim of $A_{aprt}$	X	(cm)		1.00	-	-	-	0.20	
	Y	(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu s$ )	0.31					
	prr	PRF	(Hz)	26.67					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.77					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.67	-	-		0.14
		$FL_y$	(cm)		0.09	-	-		0.15
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	4.92						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	1.00	
	Frequency	(MHz)	12.00	12.00	-	-	-	12.00	
	Width	(deg or ratio to max width)	0.70	0.70	-	-	-	0.70	
	Depth	(mm)	55.00	55.00	-	-	-	10.00	
	Focus	(mm)	50.12	50.12	-	-	-	9.62	

**Transducer Model: L12n-RS**

Ophthalmic application

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.17	0.03	-	-	-	0.04
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.36					
	P	$W_0$	(mW)		1.37	-	-	-	1.44
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	2.30					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	4.60	8.30	-	-	-	4.60
	Dim of $A_{aprt}$	X	(cm)		1.65	-	-	-	1.65
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	1.33					
	prr	PRF	(Hz)	11904.76					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.52					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	FL <sub>x</sub>	(cm)		0.04	-	-		0.07
		FL <sub>y</sub>	(cm)		0.15	-	-		0.27
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	3.48						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	0.00	
	PRF	(Hz)	11904.76	4000.00	-	-	-	4000.00	
	ROI Span	(mm)	25.22	25.22	-	-	-	25.22	
	ROI Center	(mm)	25.00	30.00	-	-	-	30.00	
	Sample volume	(mm)	1.27	1.07	-	-	-	1.27	
	ROI Width	(deg or ratio to max width)	0.20	0.80	-	-	-	1.00	
	Frequency	(MHz)	4.55	8.33	-	-	-	4.55	

Transducer Model: 8C-RS

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.80	0.53	-	-	-	1.19
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.06					
	P	$W_0$	(mW)		19.80	-		-	19.80
	Min of $[P_\alpha(Z_s), I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1), I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	0.70					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	5.64	5.62	-	-	-	5.62
	Dim of $A_{aprt}$	X	(cm)		0.27	-	-	-	0.27
Y		(cm)		0.50	-	-	-	0.50	
Other Info	$t_d$	PD	( $\mu s$ )	0.21					
	prr	PRF	(Hz)	231.81					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	2.36					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.11	-	-		0.11
		$FL_y$	(cm)		0.31	-	-		0.43
$I_{pi\alpha}$ at max MI	$I_{PA,3}@ MI_{max}$	(W/cm <sup>2</sup> )	170.85						
Operator Control	Power	(dB)		0.00	0.00	-	-	-	0.00
	Tilt	(deg)		0.00	0.00	-	-	-	0.00
	Framerate	(index)		3.00	3.00	-	-	-	3.00
	Frequency	(MHz)		6.00	6.00	-	-	-	6.00
	Width	(deg or ratio to max width)		30.00	30.00	-	-	-	30.00
	Depth	(mm)		30.00	30.00	-	-	-	30.00
	Focus	(mm)		9.43	9.43	-	-	-	9.43

**Transducer Model: 8C-RS**

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.03	-	0.08	-	0.19	0.12
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.33					
	P	$W_0$	(mW)		-	3.00		3.00	3.00
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.80	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.63	
	$f_{awf}$	$f_c$	(MHz)	5.37	-	5.37	-	5.37	5.37
	Dim of $A_{aprt}$	X	(cm)		-	0.62	-	0.62	0.62
Y		(cm)		-	0.50	-	0.50	0.50	
Other Info	$t_d$	PD	( $\mu$ s)	0.23					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.25					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.63	
	Focal Length	$FL_x$	(cm)		-	0.14	-		0.14
		$FL_y$	(cm)		-	0.30	-		0.30
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	250.05						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	6.00	-	6.00	-	6.00	6.00	
	Depth	(mm)	30.00	-	30.00	-	30.00	30.00	
	Focus	(mm)	24.43	-	24.43	-	24.43	24.43	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 8C-RS

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.29	-	0.28	-	1.11	0.60
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.62					
	P	$W_0$	(mW)		-	12.71		12.67	12.71
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.30	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.30					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.53	
	$f_{awf}$	$f_c$	(MHz)	4.53	-	4.53	-	4.55	4.53
	Dim of $A_{aprt}$	X	(cm)		-	0.43	-	0.43	0.43
Y		(cm)		-	0.50	-	0.50	0.50	
Other Info	$t_d$	PD	( $\mu$ s)	0.59					
	prr	PRF	(Hz)	1497.01					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.21					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.53	
	Focal Length	$FL_x$	(cm)		-	0.13	-		0.13
		$FL_y$	(cm)		-	0.32	-		0.32
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	370.97						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	1497.01	-	1497.01	-	1497.01	1497.01	
	ROI Span	(mm)	10.00	-	10.00	-	10.00	10.00	
	ROI Center	(mm)	70.00	-	70.00	-	70.00	70.00	
	Sample Volume	(mm)	0.62	-	0.62	-	0.62	0.62	
	Frequency	(MHz)	4.55	-	4.55	-	4.55	4.55	

**Transducer Model: 8C-RS**

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.44	0.57	-	-	-	1.29
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.92					
	P	$W_0$	(mW)		25.74	-	-	-	25.74
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	4.53	4.55	-	-	-	4.55
	Dim of $A_{aprt}$	X	(cm)		0.41	-	-	-	0.41
Y		(cm)		0.50	-	-	-	0.50	
Other Info	$t_d$	PD	( $\mu$ s)	0.45					
	prr	PRF	(Hz)	349.90					
	$p_r$ at max $I_{pi}$	$P_r @ PII_{max}$	(MPa)	3.53					
	$d_{eq}$ at max $I_{pi}$	$d_{eq} @ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.15	-	-		0.15
		$FL_y$	(cm)		0.32	-	-		0.32
$I_{pi\alpha}$ at max <i>MI</i>	$I_{PA,3} @$ $MI_{max}$	(W/cm <sup>2</sup> )	371.56						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	1.00	2.00	-	-	-	2.00	
	PRF	(Hz)	349.90	349.90	-	-	-	349.90	
	ROI Span	(mm)	45.00	360.00	-	-	-	360.00	
	ROI Center	(mm)	30.00	70.00	-	-	-	70.00	
	Sample volume	(mm)	0.44	0.87	-	-	-	0.87	
	ROI Width	(deg or ratio to max width)	20.00	15.00	-	-	-	15.00	
Frequency	(MHz)	4.55	4.55	-	-	-	4.55		

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 8C-RS

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.37	-	0.47	-	1.37	0.99
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.02					
	P	$W_0$	(mW)		-	19.93		19.91	19.93
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.60	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.30					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.50	
	$f_{awf}$	$f_c$	(MHz)	4.97	-	5.00	-	5.00	5.00
	Dim of $A_{aprt}$	X	(cm)		-	0.40	-	0.40	0.40
Y		(cm)		-	0.50	-	0.50	0.50	
Other Info	$t_d$	PD	( $\mu$ s)	2.29					
	prr	PRF	(Hz)	320.10					
	$p_r$ at max $I_{pi}$	$P_r @ PII_{max}$	(MPa)	3.78					
	$d_{eq}$ at max $I_{pi}$	$d_{eq} @ PII_{max}$	(cm)					0.50	
	Focal Length	$FL_x$	(cm)		-	0.18	-		0.18
		$FL_y$	(cm)		-	0.27	-		0.27
$I_{pi\alpha}$ at max MI	$I_{PA,3} @$ $MI_{max}$	(W/cm <sup>2</sup> )	319.68						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	41.00	-	40.97	-	40.97	40.97	
	Sample Volume	(mm)	2.00	-	6.00	-	6.00	6.00	
	Scale	(m/s)	0.05	-	0.10	-	0.10	0.10	
	Frequency	(MHz)	5.00	-	5.00	-	5.00	5.00	

**Transducer Model: E8C-RS**

Operating Mode: 2D

Index Label				MI	TIS		TIB non-scan	TIC	
					scan	non-scan			
						Aaprt ≤ 1			Aaprt > 1
Global Maximum Index Value				0.49	0.42	-	-	0.67	
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	1.16					
	P	$W_0$	(mW)		15.11	-	-	15.11	
	Min of $[P_\alpha(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)			-	-		
	$Z_s$	$Z_1$	(cm)			-	-		
	$Z_{bp}$	$Z_{bp}$	(cm)			-	-		
	$Z_b$	$Z_{sp}$	(cm)				-		
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.80					
	$d_{eq}(Z_b)$	$d_{eq}(Z_{sp})$	(cm)				-		
	$f_{awf}$	$f_c$	(MHz)	5.79	5.79	-	-	5.79	
	Dim of $A_{aprt}$	X	(cm)		0.50	-	-	0.50	
Y		(cm)		0.50	-	-	0.50		
Other Info	$t_d$	PD	( $\mu s$ )	0.21					
	prr	PRF	(Hz)	486.12					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	1.67					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)				-		
	Focal Length	$FL_x$	(cm)		0.12	-	-	0.12	
		$FL_y$	(cm)		0.29	-	-	0.29	
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	78.64						
Operator Control	Power	(dB)	0.00	0.00	-	-	0.00		
	Tilt	(deg)	0.00	0.00	-	-	0.00		
	Framerate	(index)	3.00	3.00	-	-	3.00		
	Frequency	(MHz)	6.00	6.00	-	-	6.00		
	Width	(deg or ratio to max width)	30.00	30.00	-	-	30.00		
	Depth	(mm)	20.00	20.00	-	-	20.00		
	Focus	(mm)	18.43	18.43	-	-	18.43		

## Acoustic and Probe Surface Temperature Information

**Transducer Model: E8C-RS**

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.08	-	0.07	-	0.20	0.12
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.44					
	P	$W_0$	(mW)		-	2.81		2.79	2.81
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.60	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.60					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.57	
	$f_{awf}$	$f_c$	(MHz)	5.37	-	5.34	-	5.37	5.34
	Dim of $A_{aprt}$	X	(cm)		-	0.50	-	0.50	0.50
Y		(cm)		-	0.50	-	0.50	0.50	
Other Info	$t_d$	PD	( $\mu$ s)	0.23					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.29					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.57	
	Focal Length	$FL_x$	(cm)		-	0.12	-		0.12
		$FL_y$	(cm)		-	0.36	-		0.36
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	263.31						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	6.00	-	6.00	-	6.00	6.00	
	Depth	(mm)	20.00	-	20.00	-	20.00	20.00	
	Focus	(mm)	18.43	-	18.43	-	18.43	18.43	

**Transducer Model: E8C-RS**

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.39	-	0.41	-	1.31	0.81
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.15					
	P	$W_0$	(mW)		-	17.12		17.02	17.12
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.60	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.53	
	$f_{awf}$	$f_c$	(MHz)	5.45	-	4.95	-	4.95	4.95
	Dim of $A_{aprt}$	X	(cm)		-	0.42	-	0.43	0.43
Y		(cm)		-	0.50	-	0.50	0.50	
Other Info	$t_d$	PD	( $\mu$ s)	0.70					
	prr	PRF	(Hz)	749.63					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.42					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.53	
	Focal Length	$FL_x$	(cm)		-	0.14	-		0.14
		$FL_y$	(cm)		-	0.31	-		0.31
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	370.43						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	749.63	-	4464.29	-	4464.29	4464.29	
	ROI Span	(mm)	10.00	-	10.00	-	10.00	10.00	
	ROI Center	(mm)	120.00	-	20.00	-	20.00	20.00	
	Sample Volume	(mm)	0.56	-	0.81	-	0.81	0.81	
	Frequency	(MHz)	5.56	-	5.00	-	5.00	5.00	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: E8C-RS

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.62	0.31	-	-	-	0.75
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	1.68					
	P	$W_0$	(mW)		12.68	-	-	-	12.83
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	0.60					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	6.33	4.49	-	-	-	4.48
	Dim of $A_{aprt}$	X	(cm)		0.41	-	-	-	0.41
Y		(cm)		0.50	-	-	-	0.50	
Other Info	$t_d$	PD	( $\mu$ s)	0.20					
	prr	PRF	(Hz)	11904.76					
	$p_r$ at max $I_{pi}$	$P_r @ PII_{max}$	(MPa)	1.92					
	$d_{eq}$ at max $I_{pi}$	$d_{eq} @ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.16	-	-		0.16
		$FL_y$	(cm)		0.32	-	-		0.33
$I_{pi\alpha}$ at max $MI$	$I_{PA,3} @$ $MI_{max}$	(W/cm <sup>2</sup> )	71.91						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	2.00	2.00	-	-	-	2.00	
	PRF	(Hz)	11904.76	11904.76	-	-	-	11904.76	
	ROI Span	(mm)	45.00	45.00	-	-	-	45.00	
	ROI Center	(mm)	20.00	20.00	-	-	-	20.00	
	Sample volume	(mm)	0.60	0.60	-	-	-	0.60	
	ROI Width	(deg or ratio to max width)	25.00	25.00	-	-	-	25.00	
Frequency	(MHz)	4.17	4.17	-	-	-	4.17		

**Transducer Model: E8C-RS**

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.30	-	0.29	-	1.20	0.57
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.76					
	P	$W_0$	(mW)		-	13.24		13.05	13.24
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.50	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.58	
	$f_{awf}$	$f_c$	(MHz)	4.55	-	4.55	-	4.55	4.55
	Dim of $A_{aprt}$	X	(cm)		-	0.52	-	0.52	0.52
Y		(cm)		-	0.50	-	0.50	0.50	
Other Info	$t_d$	PD	( $\mu$ s)	2.20					
	prr	PRF	(Hz)	292.06					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.50					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.58	
	Focal Length	$FL_x$	(cm)		-	0.12	-		0.12
		$FL_y$	(cm)		-	0.32	-		0.32
$I_{pi\alpha}$ at max <i>MI</i>	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	459.21						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	15.35	-	15.36	-	15.36	15.36	
	Sample Volume	(mm)	2.00	-	4.00	-	4.00	4.00	
	Scale	(m/s)	0.05	-	0.05	-	0.05	0.05	
	Frequency	(MHz)	4.55	-	4.55	-	4.55	4.55	

Transducer Model: 6Tc-RS

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.96	0.37	-	-	-	0.77
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	1.67					
	P	$W_0$	(mW)		23.85	-		-	23.85
	Min of $[P_\alpha(Z_s), I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1), I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	2.57					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	3.22	3.27	-	-	-	3.27
	Dim of $A_{aprt}$	X	(cm)		0.59	-	-	-	0.59
Y		(cm)		0.80	-	-	-	0.80	
Other Info	$t_d$	PD	( $\mu s$ )	0.55					
	prr	PRF	(Hz)	46.62					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	2.22					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.15	-	-		0.15
		$FL_y$	(cm)		0.74	-	-		0.74
$I_{pi\alpha}$ at max MI	$I_{PA,3}@ MI_{max}$	(W/cm <sup>2</sup> )	109.46						
Operator Control	Power	(dB)		0.00	0.00	-	-	-	0.00
	Tilt	(deg)		0.00	0.00	-	-	-	0.00
	Framerate	(index)		2.00	1.00	-	-	-	1.00
	Frequency	(MHz)		3.00	3.00	-	-	-	3.00
	Width	(deg or ratio to max width)		80.00	30.00	-	-	-	30.00
	Depth	(mm)		200.00	40.00	-	-	-	40.00
	Focus	(mm)		70.00	12.00	-	-	-	12.00

**Transducer Model: 6Tc-RS**

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.11	-	0.19	-	0.37	0.19
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	1.94					
	P	$W_0$	(mW)		-	7.31		6.92	7.31
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					2.26	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	2.26					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.97	
	$f_{awf}$	$f_c$	(MHz)	3.21	-	5.42	-	3.21	5.42
	Dim of $A_{aprt}$	X	(cm)		-	0.93	-	0.93	0.93
Y		(cm)		-	0.80	-	0.80	0.80	
Other Info	$t_d$	PD	( $\mu$ s)	0.55					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	2.49					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.97	
	Focal Length	$FL_x$	(cm)		-	0.09	-		0.09
		$FL_y$	(cm)		-	0.54	-		0.54
$I_{pi\alpha}$ at max <i>MI</i>	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	148.89						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	3.00	-	6.00	-	3.00	6.00	
	Depth	(mm)	160.00	-	120.00	-	160.00	120.00	
	Focus	(mm)	40.00	-	30.00	-	40.00	30.00	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 6Tc-RS

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.50	-	0.40	-	0.88	0.55
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.66					
	P	$W_0$	(mW)		-	19.68		21.41	21.41
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					3.07	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	2.67					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.97	
	$f_{awf}$	$f_c$	(MHz)	3.12	-	4.30	-	3.60	3.60
	Dim of $A_{aprt}$	X	(cm)		-	0.93	-	0.93	0.93
Y		(cm)		-	0.80	-	0.80	0.80	
Other Info	$t_d$	PD	( $\mu$ s)	0.69					
	prr	PRF	(Hz)	500.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.55					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.97	
	Focal Length	$FL_x$	(cm)		-	0.22	-		0.24
		$FL_y$	(cm)		-	0.25	-		0.26
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	237.10						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	500.00	-	5000.00	-	5000.00	5000.00	
	ROI Span	(mm)	100.00	-	100.00	-	100.00	100.00	
	ROI Center	(mm)	120.00	-	50.00	-	50.00	50.00	
	Sample Volume	(mm)	0.69	-	1.08	-	1.18	1.18	
	Frequency	(MHz)	4.17	-	4.17	-	3.57	3.57	

**Transducer Model: 6Tc-RS**

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.17	0.42	-	-	-	0.73
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.03					
	P	$W_0$	(mW)		24.53	-	-	-	24.53
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	2.77					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	3.16	3.64	-	-	-	3.64
	Dim of $A_{aprt}$	X	(cm)		0.70	-	-	-	0.70
Y		(cm)		0.80	-	-	-	0.80	
Other Info	$t_d$	PD	( $\mu$ s)	0.53					
	prr	PRF	(Hz)	3496.50					
	$p_r$ at max $I_{pi}$	$P_r @ PII_{max}$	(MPa)	2.75					
	$d_{eq}$ at max $I_{pi}$	$d_{eq} @ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.26	-	-		0.26
		$FL_y$	(cm)		0.48	-	-		0.48
$I_{pi\alpha}$ at max <i>MI</i>	$I_{PA,3} @$ $MI_{max}$	(W/cm <sup>2</sup> )	170.71						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	3.00	-	-	-	3.00	
	PRF	(Hz)	3496.50	4000.00	-	-	-	4000.00	
	ROI Span	(mm)	100.00	100.00	-	-	-	100.00	
	ROI Center	(mm)	80.00	90.00	-	-	-	90.00	
	Sample volume	(mm)	0.64	0.88	-	-	-	0.88	
	ROI Width	(deg or ratio to max width)	30.00	30.00	-	-	-	30.00	
Frequency	(MHz)	3.13	3.57	-	-	-	3.57		

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 6Tc-RS

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.76	-	0.49	-	1.50	0.99
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	1.30					
	P	$W_0$	(mW)		-	24.57		28.05	28.05
	Min of $[P_{\alpha}(Z_s),$ $I_{TA,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.06	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	2.67					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.71	
	$f_{awf}$	$f_c$	(MHz)	3.15	-	4.15	-	3.60	3.60
	Dim of $A_{aprt}$	X	(cm)		-	0.93	-	0.49	0.49
Y		(cm)		-	0.80	-	0.80	0.80	
Other Info	$t_d$	PD	( $\mu$ s)	2.33					
	prr	PRF	(Hz)	1633.99					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	1.74					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.71	
	Focal Length	$FL_x$	(cm)		-	0.15	-		0.14
		$FL_y$	(cm)		-	0.39	-		0.71
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	73.08						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	124.48	-	59.75	-	19.42	19.42	
	Sample Volume	(mm)	2.00	-	2.00	-	2.00	2.00	
	Scale	(m/s)	0.40	-	2.00	-	2.71	2.71	
	Frequency	(MHz)	3.13	-	4.17	-	3.57	3.57	

**Transducer Model: 6Tc-RS**

Operating Mode: CW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				a	-	0.45	-	0.98	0.84
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	#					
	P	$W_0$	(mW)		-	22.80		19.44	22.80
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.02	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.68	
	$f_{awf}$	$f_c$	(MHz)	#	-	3.75	-	3.75	3.75
	Dim of $A_{aprt}$	X	(cm)		-	0.45	-	0.45	0.45
Y		(cm)		-	0.80	-	0.80	0.80	
Other Info	$t_d$	PD	( $\mu$ s)	#					
	prr	PRF	(Hz)	#					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	#					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.02	
	Focal Length	$FL_x$	(cm)		-	0.33	-		0.33
		$FL_y$	(cm)		-	0.61	-		0.61
$I_{pi\alpha}$ at max <i>MI</i>	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	#						
Operator Control	Sample Volume Position	(mm)	#	-	300.00	-	300.00	300.00	
	Frequency	(MHz)	#	-	4.17	-	4.17	4.17	

a, #: see 'Explanation of Footnotes' on page 3-70.

Transducer Model: L8-18i-RS

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.35	0.35	-	-	-	0.67
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.65					
	P	$W_0$	(mW)		10.64	-		-	7.38
	Min of $[P_\alpha(Z_s), I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1), I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.10					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	7.30	7.16	-	-	-	7.37
	Dim of $A_{aprt}$	X	(cm)		0.75	-	-	-	0.15
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu s$ )	0.85					
	prr	PRF	(Hz)	81.20					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	4.81					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.08	-	-		0.09
		$FL_y$	(cm)		0.13	-	-		0.31
$I_{pi\alpha}$ at max MI	$I_{PA,3}@ MI_{max}$	(W/cm <sup>2</sup> )	134.87						
Operator Control	Power	(dB)		0.00	0.00	-	-	-	0.00
	Tilt	(deg)		0.00	0.00	-	-	-	0.00
	Framerate	(index)		2.00	0.00	-	-	-	2.00
	Frequency	(MHz)		9.00	7.50	-	-	-	9.00
	Width	(deg or ratio to max width)		1.00	0.70	-	-	-	0.70
	Depth	(mm)		15.00	20.00	-	-	-	15.00
	Focus	(mm)		11.15	18.65	-	-	-	3.65

**Transducer Model: L8-18i-RS**

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.42	-	0.32	-	0.43	0.34
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.46					
	P	$W_0$	(mW)		-	12.31		12.31	12.31
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.40	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.60					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.92	
	$f_{awf}$	$f_c$	(MHz)	6.30	-	5.76	-	5.76	5.76
	Dim of $A_{aprt}$	X	(cm)		-	1.65	-	1.65	1.65
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.22					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.90					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.92	
	Focal Length	$FL_x$	(cm)		-	1.00	-		1.00
		$FL_y$	(cm)		-	0.13	-		0.13
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	499.41						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	7.50	-	5.00	-	5.00	5.00	
	Depth	(mm)	20.00	-	45.00	-	45.00	45.00	
	Focus	(mm)	18.65	-	41.15	-	41.15	41.15	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L8-18i-RS

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.43	0.89	-	-	-	0.76
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.59					
	P	$W_0$	(mW)		19.64	-	-	-	19.64
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.40					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	6.34	9.67	-	-	-	9.67
	Dim of $A_{aprt}$	X	(cm)		0.85	-	-	-	0.85
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.88					
	prr	PRF	(Hz)	347.71					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.87					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.09	-	-		0.09
		$FL_y$	(cm)		0.08	-	-		0.08
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	267.83						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	2.00	0.00	-	-	-	0.00	
	PRF	(Hz)	347.71	1497.01	-	-	-	1497.01	
	ROI Span	(mm)	11.39	11.39	-	-	-	11.39	
	ROI Center	(mm)	10.00	15.00	-	-	-	15.00	
	Sample volume	(mm)	0.35	0.38	-	-	-	0.38	
	ROI Width	(deg or ratio to max width)	0.20	0.80	-	-	-	0.80	
Frequency	(MHz)	6.25	10.00	-	-	-	10.00		

**Transducer Model: L8-18i-RS**

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.47	-	0.57	-	1.28	0.68
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.41					
	P	$W_0$	(mW)		-	9.58		13.74	14.16
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA.3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.60	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.40					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.52	
	$f_{awf}$	$f_c$	(MHz)	5.60	-	12.45	-	6.29	6.25
	Dim of $A_{aprt}$	X	(cm)		-	0.98	-	0.54	0.54
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	1.16					
	prr	PRF	(Hz)	356.89					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.48					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.52	
	Focal Length	$FL_x$	(cm)		-	0.56	-		0.17
		$FL_y$	(cm)		-	0.08	-		0.13
$I_{pi\alpha}$ at max <i>MI</i>	$I_{PA.3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	522.23						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	27.16	-	41.02	-	25.96	25.96	
	Sample Volume	(mm)	1.00	-	1.00	-	1.00	1.00	
	Scale	(m/s)	0.05	-	0.30	-	0.30	0.30	
	Frequency	(MHz)	5.55	-	12.50	-	6.25	6.25	

Transducer Model: L4-12t-RS

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.47	0.64	-	-	-	1.59
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.05					
	P	$W_0$	(mW)		28.55	-		-	23.99
	Min of $[P_\alpha(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	4.83	4.50	-	-	-	5.00
	Dim of $A_{aprt}$	X	(cm)		0.82	-	-	-	0.28
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu s$ )	0.29					
	prr	PRF	(Hz)	41.55					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	3.92					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.52	-	-		0.14
		$FL_y$	(cm)		0.15	-	-		0.26
	$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	300.22					
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	0.00	
	Frequency	(MHz)	3.50	3.50	-	-	-	3.50	
	Width	(deg or ratio to max width)	0.70	0.70	-	-	-	0.70	
	Depth	(mm)	45.00	45.00	-	-	-	15.00	
	Focus	(mm)	27.62	41.12	-	-	-	14.12	

**Transducer Model: L4-12t-RS**

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.47	-	0.38	-	0.51	0.41
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.21					
	P	$W_0$	(mW)		-	11.69		14.02	14.02
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.30	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.40					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.86	
	$f_{awf}$	$f_c$	(MHz)	4.97	-	6.74	-	4.90	4.90
	Dim of $A_{aprt}$	X	(cm)		-	1.46	-	1.46	1.46
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.37					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.08					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.86	
	Focal Length	$FL_x$	(cm)		-	1.18	-		1.17
		$FL_y$	(cm)		-	0.15	-		0.15
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	274.30						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	5.50	-	7.00	-	5.50	5.50	
	Depth	(mm)	30.00	-	80.00	-	80.00	80.00	
	Focus	(mm)	24.62	-	72.62	-	72.62	72.62	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L4-12t-RS

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.46	-	0.35	-	1.05	0.44
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.21					
	P	$W_0$	(mW)		-	14.86		14.86	14.91
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					3.10	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.40					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.96	
	$f_{awf}$	$f_c$	(MHz)	4.99	-	4.88	-	4.88	4.60
	Dim of $A_{aprt}$	X	(cm)		-	1.80	-	1.80	1.80
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.93					
	prr	PRF	(Hz)	61.63					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.09					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.96	
	Focal Length	$FL_x$	(cm)		-	0.84	-		0.08
		$FL_y$	(cm)		-	0.29	-		0.29
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	110.17						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	749.63	-	7936.51	-	7936.51	10000.00	
	ROI Span	(mm)	30.00	-	30.00	-	30.00	30.00	
	ROI Center	(mm)	15.00	-	30.00	-	30.00	20.00	
	Sample Volume	(mm)	0.39	-	0.53	-	0.53	1.33	
	Frequency	(MHz)	6.25	-	4.55	-	4.55	4.55	

**Transducer Model: L4-12t-RS**

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.50	1.06	-	-	-	2.04
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.34					
	P	$W_0$	(mW)		56.53	-		-	67.30
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\ \alpha}$	$Z_{sp}$	(cm)	1.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	4.79	7.13	-	-	-	5.00
	Dim of $A_{aprt}$	X	(cm)		2.00	-	-	-	2.00
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	0.77					
	prr	PRF	(Hz)	11904.76					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	4.29					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		1.24	-	-		1.26
		$FL_y$	(cm)		0.11	-	-		0.14
$I_{pi\ \alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	127.35						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	1.00	1.00	-	-	-	1.00	
	PRF	(Hz)	11904.76	11904.76	-	-	-	5952.38	
	ROI Span	(mm)	30.00	30.00	-	-	-	30.00	
	ROI Center	(mm)	30.00	30.00	-	-	-	30.00	
	Sample volume	(mm)	0.43	1.12	-	-	-	1.07	
	ROI Width	(deg or ratio to max width)	0.20	0.20	-	-	-	0.20	
Frequency	(MHz)	5.00	7.14	-	-	-	5.00		

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L4-12t-RS

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.57	-	0.94	-	2.08	1.40
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	3.41					
	P	$W_0$	(mW)		-	39.13		39.13	39.13
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.50	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.70	
	$f_{awf}$	$f_c$	(MHz)	5.00	-	5.02	-	5.02	5.02
	Dim of $A_{aprt}$	X	(cm)		-	0.96	-	0.96	0.96
Y		(cm)		-	0.40	-	0.40	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	1.17					
	prr	PRF	(Hz)	326.37					
	$p_r$ at max $I_{pi}$	$P_r @ PII_{max}$	(MPa)	4.42					
	$d_{eq}$ at max $I_{pi}$	$d_{eq} @ PII_{max}$	(cm)					0.70	
	Focal Length	$FL_x$	(cm)		-	0.59	-		0.59
		$FL_y$	(cm)		-	0.14	-		0.14
$I_{pi\alpha}$ at max <i>MI</i>	$I_{PA,3} @$ $MI_{max}$	(W/cm <sup>2</sup> )	487.03						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	30.10	-	43.69	-	43.69	43.69	
	Sample Volume	(mm)	1.00	-	1.00	-	1.00	1.00	
	Scale	(m/s)	0.05	-	0.40	-	0.40	0.40	
	Frequency	(MHz)	5.00	-	5.00	-	5.00	5.00	

**Transducer Model: L4-12t-RS**

Ophthalmic application

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.16	0.02	-	-	-	0.03
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.48					
	P	$W_0$	(mW)		0.39	-		-	0.27
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	1.60					
	$d_{eq}(Z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	8.38	8.51	-	-	-	7.36
Dim of $A_{aprt}$	X	(cm)		1.00	-	-	-	0.08	
	Y	(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu s$ )	0.27					
	prr	PRF	(Hz)	26.67					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.76					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.57	-	-		0.14
		$FL_y$	(cm)		0.12	-	-		0.37
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	5.15						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	0.00	
	Frequency	(MHz)	12.00	12.00	-	-	-	7.00	
	Width	(deg or ratio to max width)	0.70	0.70	-	-	-	0.80	
	Depth	(mm)	55.00	55.00	-	-	-	10.00	
	Focus	(mm)	50.12	50.12	-	-	-	4.00	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L4-12t-RS

Ophthalmic application

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				0.16	0.03	-	-	-	0.04
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	0.36					
	P	$W_0$	(mW)		1.01	-	-	-	1.41
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\ \alpha}$	$Z_{sp}$	(cm)	2.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	4.60	8.30	-	-	-	4.60
	Dim of $A_{aprt}$	X	(cm)		1.51	-	-	-	1.51
Y		(cm)		0.40	-	-	-	0.40	
Other Info	$t_d$	PD	( $\mu$ s)	1.32					
	prr	PRF	(Hz)	2994.01					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	0.53					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	FL <sub>x</sub>	(cm)		0.05	-	-		0.07
		FL <sub>y</sub>	(cm)		0.13	-	-		0.24
$I_{pi\ \alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	3.38						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	0.00	
	PRF	(Hz)	2994.01	2994.01	-	-	-	2994.01	
	ROI Span	(mm)	25.00	25.00	-	-	-	25.00	
	ROI Center	(mm)	30.00	30.00	-	-	-	30.00	
	Sample volume	(mm)	1.27	1.07	-	-	-	1.27	
	ROI Width	(deg or ratio to max width)	0.20	0.80	-	-	-	1.00	
	Frequency	(MHz)	4.55	8.33	-	-	-	4.55	

**Transducer Model: 6S-RS**

Operating Mode: 2D

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.26	1.21	-	-	-	1.94
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.11					
	P	$W_0$	(mW)		84.02	-	-	-	84.02
	Min of $[P_\alpha(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{,3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	3.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	2.90	3.10	-	-	-	3.10
	Dim of $A_{aprt}$	X	(cm)		1.02	-	-	-	1.02
Y		(cm)		0.90	-	-	-	0.90	
Other Info	$t_d$	PD	( $\mu$ s)	0.52					
	prr	PRF	(Hz)	43.11					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	2.91					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.56	-	-		0.56
		$FL_y$	(cm)		0.24	-	-		0.24
	$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	200.97					
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	2.00	2.00	-	-	-	2.00	
	Frequency	(MHz)	2.70	3.20	-	-	-	3.20	
	Width	(deg or ratio to max width)	65.00	10.00	-	-	-	10.00	
	Depth	(mm)	40.00	110.00	-	-	-	110.00	
	Focus	(mm)	40.60	110.60	-	-	-	110.60	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 6S-RS

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.55	-	1.06	-	1.83	1.53
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.65					
	P	$W_0$	(mW)		-	49.97		61.21	66.42
	Min of $[P_{\alpha}(Z_s),$ $I_{\alpha,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					3.40	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	3.30					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.08	
	$f_{awf}$	$f_c$	(MHz)	3.05	-	4.44	-	3.00	3.00
	Dim of $A_{aprt}$	X	(cm)		-	1.02	-	1.02	1.02
Y		(cm)		-	0.90	-	0.90	0.90	
Other Info	$t_d$	PD	( $\mu$ s)	0.50					
	prr	PRF	(Hz)	1000.00					
	$p_r$ at max $I_{pi\alpha}$	$P_r@ PII_{max}$	(MPa)	3.75					
	$d_{eq}$ at max $I_{pi\alpha}$	$d_{eq}@ PII_{max}$	(cm)					1.08	
	Focal Length	$FL_x$	(cm)		-	0.91	-		0.81
		$FL_y$	(cm)		-	0.68	-		0.28
$I_{pi\alpha}$ at max MI	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	308.53						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Frequency	(MHz)	3.20	-	5.00	-	3.20	3.20	
	Depth	(mm)	110.00	-	120.00	-	110.00	160.00	
	Focus	(mm)	77.60	-	120.60	-	110.60	160.60	

**Transducer Model: 6S-RS**

Operating Mode: CM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.62	-	1.49	-	2.37	2.13
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.61					
	P	$W_0$	(mW)		-	59.33		91.74	92.44
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					4.20	
	z at max $I_{pi\ \alpha}$	$Z_{sp}$	(cm)	3.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.08	
	$f_{awf}$	$f_c$	(MHz)	3.00	-	5.85	-	3.10	3.10
	Dim of $A_{aprt}$	X	(cm)		-	1.02	-	1.02	1.02
Y		(cm)		-	0.90	-	0.90	0.90	
Other Info	$t_d$	PD	( $\mu$ s)	0.57					
	prr	PRF	(Hz)	366.66					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.63					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.08	
	Focal Length	$FL_x$	(cm)		-	0.81	-		0.68
		$FL_y$	(cm)		-	0.28	-		0.28
$I_{pi\ \alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	188.05						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	PRF	(Hz)	349.90	-	5000.00	-	7936.51	7936.51	
	ROI Span	(mm)	55.00	-	55.00	-	55.00	55.00	
	ROI Center	(mm)	60.00	-	100.00	-	20.00	20.00	
	Sample Volume	(mm)	0.50	-	1.26	-	1.07	1.07	
	Frequency	(MHz)	3.33	-	5.56	-	3.13	3.13	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 6S-RS

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.62	1.38	-	-	-	1.99
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.65					
	P	$W_0$	(mW)		55.24	-	-	-	86.36
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					-	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	3.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	$f_{awf}$	$f_c$	(MHz)	3.00	5.90	-	-	-	3.10
	Dim of $A_{aprt}$	X	(cm)		1.02	-	-	-	1.02
Y		(cm)		0.90	-	-	-	0.90	
Other Info	$t_d$	PD	( $\mu$ s)	0.58					
	prr	PRF	(Hz)	250.00					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.69					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					-	
	Focal Length	$FL_x$	(cm)		0.82	-	-		0.68
		$FL_y$	(cm)		0.28	-	-		0.28
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	184.14						
Operator Control	Power	(dB)	0.00	0.00	-	-	-	0.00	
	Tilt	(deg)	0.00	0.00	-	-	-	0.00	
	Framerate	(index)	0.00	0.00	-	-	-	0.00	
	PRF	(Hz)	250.00	3496.50	-	-	-	2994.01	
	ROI Span	(mm)	55.00	55.00	-	-	-	55.00	
	ROI Center	(mm)	60.00	30.00	-	-	-	60.00	
	Sample volume	(mm)	0.50	1.39	-	-	-	1.42	
	ROI Width	(deg or ratio to max width)	10.00	115.00	-	-	-	105.00	
Frequency	(MHz)	3.33	5.56	-	-	-	3.13		

**Transducer Model: 6S-RS**

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				1.40	-	1.61	-	2.60	2.08
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	2.39					
	P	$W_0$	(mW)		-	73.57		89.97	89.97
	Min of $[P_{\alpha}(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA,3}(Z_1)]$	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					3.90	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	3.40					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					1.08	
	$f_{awf}$	$f_c$	(MHz)	3.05	-	4.58	-	3.30	3.30
	Dim of $A_{aprt}$	X	(cm)		-	1.02	-	1.02	1.02
Y		(cm)		-	0.90	-	0.90	0.90	
Other Info	$t_d$	PD	( $\mu$ s)	1.02					
	prr	PRF	(Hz)	1607.72					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	3.41					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					1.08	
	Focal Length	$FL_x$	(cm)		-	0.88	-		0.53
		$FL_y$	(cm)		-	0.35	-		0.25
$I_{pi\alpha}$ at max $MI$	$I_{PA,3}@$ $MI_{max}$	(W/cm <sup>2</sup> )	222.36						
Operator Control	Power	(dB)	0.00	-	0.00	-	0.00	0.00	
	Beam Angle	(deg)	0.00	-	0.00	-	0.00	0.00	
	Sample Volume Position	(mm)	89.14	-	300.00	-	114.37	114.37	
	Sample Volume	(mm)	1.00	-	1.50	-	1.50	1.50	
	Scale	(m/s)	0.40	-	0.40	-	0.80	0.80	
	Frequency	(MHz)	2.78	-	4.54	-	3.33	3.33	

## Acoustic and Probe Surface Temperature Information

**Transducer Model: 6S-RS**

Operating Mode: CW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						Aaprt ≤ 1	Aaprt > 1		
Global Maximum Index Value				a	-	0.83	-	2.08	1.83
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r,3}$	(MPa)	#					
	P	$W_0$	(mW)		-	52.44		45.46	52.44
	Min of [ $P_{\alpha}(Z_s)$ , $I_{\alpha,\alpha}(Z_s)$ ]	Min of [ $W_{.3}(Z_1)$ , $I_{TA,3}(Z_1)$ ]	(mW)				-		
	$Z_s$	$Z_1$	(cm)				-		
	$Z_{bp}$	$Z_{bp}$	(cm)				-		
	$Z_b$	$Z_{sp}$	(cm)					1.10	
	z at max $I_{pi\alpha}$	$Z_{sp}$	(cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.72	
	$f_{awf}$	$f_c$	(MHz)	#	-	3.00	-	3.00	3.00
	Dim of $A_{aprt}$	X	(cm)		-	0.45	-	0.45	0.45
Y		(cm)		-	0.90	-	0.90	0.90	
Other Info	$t_d$	PD	( $\mu$ s)	#					
	prr	PRF	(Hz)	#					
	$p_r$ at max $I_{pi}$	$P_r@ PII_{max}$	(MPa)	#					
	$d_{eq}$ at max $I_{pi}$	$d_{eq}@ PII_{max}$	(cm)					0.72	
	Focal Length	$FL_x$	(cm)		-	0.36	-		0.36
		$FL_y$	(cm)		-	0.42	-		0.42
$I_{pi\alpha}$ at max MI	$I_{PA,3}@ MI_{max}$	(W/cm <sup>2</sup> )	#						
Operator Control	Sample Volume Position	(mm)	#	-	300.00	-	20.00	300.00	
	Frequency	(MHz)	#	-	3.00	-	3.00	3.00	

a, #: see 'Explanation of Footnotes' on page 3-70.

**Section B: Acoustic output reporting tables per standard IEC 62359  
Edition 2.1**

**Transducer Model: 3Sc-RS**

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.52	0.98		0.98		2.44
Index component value				0.98	0.98	0.98	0.98	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.25					
	P	(mW)		162.08		162.08		174.27
	$P_{1x1}$	(mW)		64.93		64.93		
	$z_s$	(cm)			4.30			
	$z_b$	(cm)					2.70	
	$z_{MI}$	(cm)	5.30					
	$z_{pii,\alpha}$	(cm)	5.30					
	$f_{awf}$	(MHz)	2.20	3.16		3.16		2.40
Other Information	prr	(Hz)	2556.00					
	srr	(Hz)	196.60					
	$n_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	165.10					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	218.60					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	489.10					
	$p_r$ at $z_{pii}$	(MPa)	3.30					
Operating Control Conditions	Depth	(cm)	12.00	15.00		15.00		28.00
	Frequency	(MHz)	2.50	4.00		4.00		2.50
	Width	(°)	10.00	10.00		10.00		10.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		196.59	208.59		208.59		190.71
	Framerate	(index)	1.00	1.00		1.00		1.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Tc	Tc		Tc		Tc

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 3Sc-RS

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.57	0.68		1.34		1.54
Index component value			0.49	0.68	0.46	1.34	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.33				
	P	(mW)		109.61	103.71		109.61
	$P_{1x1}$	(mW)		43.91	41.55		
	$z_s$	(cm)		3.60			
	$z_b$	(cm)				4.00	
	$z_{MI}$	(cm)	5.20				
	$z_{pii,\alpha}$	(cm)	5.20				
	$f_{awf}$	(MHz)	2.20	2.33		2.34	
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	167.20				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	137.70				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	313.25				
	$p_r$ at $z_{pii}$	(MPa)	3.36				
Operating Control Conditions	Depth	(cm)	12.00	36.00	32.00		36.00
	Frequency	(MHz)	2.50	2.50	2.50		2.50
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		Tc	Tc	Tc		Tc

Transducer Model: 3Sc-RS

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.36	1.22		2.58		2.09
Index component value				1.22	1.15	1.22	2.58	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.05					
	P	(mW)		120.32		120.32		120.32
	$P_{1x1}$	(mW)		74.54		74.54		
	$Z_s$	(cm)			2.20			
	$Z_b$	(cm)					4.90	
	$Z_{MI}$	(cm)	5.30					
	$Z_{pii,\alpha}$	(cm)	5.30					
	$f_{awf}$	(MHz)	2.25	3.50		3.50		3.50
Other Information	prr	(Hz)	267.00					
	srr	(Hz)	0.00					
	$n_{pps}$		27575.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	143.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	177.80					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	619.20					
	$p_r$ at $z_{pii}$	(MPa)	3.03					
Operating Control Conditions	Image Depth	(cm)	10.90	5.36		5.36		5.36
	M Frequency	(MHz)	2.50	2.50		2.50		2.50
	CM Frequency	(MHz)	3.57	3.57		3.57		3.57
	ROI span	(cm)	6.50	6.50		6.50		6.50
	ROI center	(cm)	11.00	2.00		2.00		2.00
	SampleVol	(mm)	1.00	1.20		1.20		1.20
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		Tc	Tc		Tc		Tc	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 3Sc-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.42	0.96		0.96		2.29
Index component value				0.96	0.96	0.96	0.96	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.18					
	P	(mW)		156.19		156.19		156.19
	$P_{1x1}$	(mW)		68.65		68.65		
	$Z_s$	(cm)			2.60			
	$Z_b$	(cm)					5.00	
	$Z_{MI}$	(cm)	5.10					
	$Z_{pii,\alpha}$	(cm)	5.10					
	$f_{awf}$	(MHz)	2.36	2.98		2.98		2.98
Other Information	prr	(Hz)	1553.00					
	srr	(Hz)	42.00					
	$n_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	194.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	175.70					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	435.00					
	$p_r$ at $z_{pii}$	(MPa)	3.32					
Operating Control Conditions	Image Depth	(cm)	5.51	6.11		6.11		6.11
	2D Frequency	(MHz)	2.50	2.50		2.50		2.50
	CF Frequency	(MHz)	2.78	3.13		3.13		3.13
	ROI span	(cm)	6.50	6.50		6.50		6.50
	ROI center	(cm)	7.00	4.00		4.00		4.00
	Width	(°)	10.00	65.00		65.00		65.00
	Sample Volume	(cm)	0.80	0.11		0.11		0.11
	Framerate	(index)	0.00	0.00		0.00		0.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		Tc	Tc		Tc		Tc	

**Transducer Model: 3Sc-RS**

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.29	1.52		3.36		3.24
Index component value			1.08	1.52	0.75	3.36	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.04				
	P	(mW)		231.08	161.27		231.08
	$P_{1x1}$	(mW)		92.58	64.61		
	$Z_s$	(cm)		3.40			
	$Z_b$	(cm)				6.00	
	$Z_{MI}$	(cm)	4.80				
	$Z_{pii,\alpha}$	(cm)	4.80				
	$f_{awf}$	(MHz)	2.50	2.45		2.45	
Other Information	prr	(Hz)	1168.00				
	srr	(Hz)	0.00				
	$n_{pps}$		116822.40				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	244.10				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	145.80				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	338.45				
	$p_r$ at $z_{pii}$	(MPa)	3.08				
Operating Control Conditions	Frequency	(MHz)	1.85	2.50	2.50		2.50
	Sample Volume size	(mm)	1.00	2.00	2.00		2.00
	Sample Volume position	(cm)	5.14	12.39	12.39		12.39
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Scale	(m/s)	0.40	1.63	1.63		1.63
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		Tc	Tc	Tc		Tc

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 3Sc-RS

Operating Mode: CW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		0.08	0.95		3.56		2.83
Index component value			0.94	0.95	0.90	3.56	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	0.11				
	P	(mW)		128.40	122.56		128.40
	$P_{1x1}$	(mW)		98.77		94.28	
	$Z_s$	(cm)		1.80			
	$Z_b$	(cm)				3.60	
	$Z_{MI}$	(cm)	3.90				
	$Z_{pii,\alpha}$	(cm)	3.90				
	$f_{awf}$	(MHz)	2.00	2.00		2.00	
Other Information	prr	(Hz)	500000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		50000000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	0.40				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	381.20				
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	679.57				
	$p_r$ at $z_{pii}$	(MPa)	0.15				
Operating Control Conditions	Frequency	(MHz)	2	2		2	
	Focus Position	(cm)	30	30		7.84	
	Beam Angle	(°)	0	0		0	
	Power	(dB)	0	0		0	
	Application		Tc	Tc		Tc	

**Transducer Model: 3Sc-RS**

Ophthalmic application

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.16	0.03		0.03		0.07
Index component value				0.03	0.03	0.03	0.03	
Acoustic Parameters	$P_{r,\alpha}$ at $Z_{MI}$	(MPa)	0.29					
	P	(mW)		5.09		5.09		5.09
	$P_{1x1}$	(mW)		2.04		2.04		
	$Z_s$	(cm)			4.10			
	$Z_b$	(cm)					2.70	
	$Z_{MI}$	(cm)	6.00					
	$Z_{pii,\alpha}$	(cm)	6.00					
	$f_{awf}$	(MHz)	3.55	3.54		3.54		3.54
Other Information	prr	(Hz)	2955.00					
	srr	(Hz)	268.60					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $Z_{pii,\alpha}$	(W/cm <sup>2</sup> )	3.00					
	$I_{spta,\alpha}$ at $Z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	0.80					
	$I_{spta}$ at $Z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	3.70					
	$p_r$ at $Z_{pii}$	(MPa)	0.63					
Operating Control Conditions	Depth	(cm)	15.00	16.00		16.00		16.00
	Frequency	(MHz)	4.00	4.00		4.00		4.00
	Width	(°)	10.00	45.00		45.00		45.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		268.64	65.67		65.67		65.67
	Framerate	(index)	1.00	2.00		2.00		2.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Ophthalmic	Ophthalmic		Ophthalmic		Ophthalmic

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 3Sc-RS

Ophthalmic application

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.20	0.20		0.20		0.40
Index component value				0.20	0.20	0.20	0.20	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	0.39					
	P	(mW)		27.44		27.44		27.44
	$P_{1x1}$	(mW)		12.09		12.09		
	$z_s$	(cm)			2.70			
	$z_b$	(cm)					2.60	
	$z_{MI}$	(cm)	7.20					
	$z_{pii,\alpha}$	(cm)	7.20					
	$f_{awf}$	(MHz)	3.55	3.50		3.50		3.50
Other Information	prr	(Hz)	4040.00					
	srr	(Hz)	0.00					
	$n_{pps}$		101011.60					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	7.10					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	16.40					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	96.20					
	$p_r$ at $z_{pii}$	(MPa)	0.88					
Operating Control Conditions	Image Depth	(cm)	13.11	13.11		13.11		13.11
	2D Frequency	(MHz)	4.00	4.00		4.00		4.00
	CF Frequency	(MHz)	3.57	3.57		3.57		3.57
	ROI span	(cm)	2.00	2.00		2.00		2.00
	ROI center	(cm)	12.00	12.00		12.00		12.00
	Width	(°)	10.00	10.00		10.00		10.00
	Sample Volume	(cm)	0.16	0.16		0.16		0.16
	Framerate	(index)	1.00	1.00		1.00		1.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		Ophthalmic	Ophthalmic		Ophthalmic		Ophthalmic	

**Transducer Model: 9L-RS**

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.03	0.84		0.84		2.07
Index component value				0.84	0.84	0.84	0.84	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.39					
	$P$	(mW)		76.84		76.84		76.84
	$P_{1x1}$	(mW)		46.92		46.92		
	$z_s$	(cm)			1.40			
	$z_b$	(cm)					1.60	
	$z_{MI}$	(cm)	1.80					
	$z_{pii,\alpha}$	(cm)	1.80					
	$f_{awf}$	(MHz)	5.40	3.75		3.75		3.75
Other Information	$p_{rr}$	(Hz)	7392.00					
	$s_{rr}$	(Hz)	176.00					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	232.00					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	39.10					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	76.60					
	$p_r$ at $z_{pii}$	(MPa)	3.26					
Operating Control Conditions	Depth	(cm)	4.00	7.00		7.00		7.00
	Frequency	(MHz)	6.00	3.00		3.00		3.00
	Width	(°)	1.00	1.00		1.00		1.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		176.00	119.18		119.18		119.18
	Framerate	(index)	1.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Abdo	Abdo		Abdo		Abdo

## Acoustic and Probe Surface Temperature Information

**Transducer Model: 9L-RS**

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.07	0.33		0.74		0.61
Index component value			0.28	0.33	0.27	0.74	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.43				
	P	(mW)		29.68	28.27		29.68
	$P_{1x1}$	(mW)		15.55		14.81	
	$Z_s$	(cm)			1.90		
	$Z_b$	(cm)				1.90	
	$Z_{MI}$	(cm)	1.90				
	$Z_{pii,\alpha}$	(cm)	1.90				
	$f_{awf}$	(MHz)	5.14	3.80		3.82	
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	178.40				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	56.40				
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	115.08				
	$p_r$ at $z_{pii}$	(MPa)	3.33				
Operating Control Conditions	Depth	(cm)	9.00	12.00	12.00		12.00
	Frequency	(MHz)	6.00	3.00	3.00		3.00
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		Abdo	Abdo	Abdo		Abdo

**Transducer Model: 9L-RS**

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.07	0.67		1.64		1.15
Index component value				0.63	0.67	0.57	1.64	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.42					
	P	(mW)		56.14		55.94		56.14
	$P_{1x1}$	(mW)		28.85		28.52		
	$Z_s$	(cm)			1.80			
	$Z_b$	(cm)					4.30	
	$Z_{MI}$	(cm)	1.90					
	$Z_{pii,\alpha}$	(cm)	1.90					
	$f_{awf}$	(MHz)	5.15	4.99		4.40		4.99
Other Information	prr	(Hz)	710.00					
	srr	(Hz)	0.00					
	$n_{pps}$		70970.30					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	187.40					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	389.90					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	1416.72					
	$p_r$ at $z_{pii}$	(MPa)	3.35					
Operating Control Conditions	Image Depth	(cm)	7.27	4.57		4.57		4.57
	M Frequency	(MHz)	6.00	3.00		3.00		3.00
	CM Frequency	(MHz)	4.17	5.00		4.17		5.00
	ROI span	(cm)	3.00	3.00		3.00		3.00
	ROI center	(cm)	3.00	3.00		3.00		3.00
	SampleVol	(mm)	0.70	0.70		0.70		0.70
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		Abdo	Abdo		Abdo		Abdo	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 9L-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.23	1.25		1.25		1.98
Index component value				1.25	1.25	1.25	1.25	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.24					
	P	(mW)		68.06		68.06		68.06
	$P_{1x1}$	(mW)		52.14		52.14		
	$z_s$	(cm)			1.40			
	$z_b$	(cm)					2.30	
	$z_{MI}$	(cm)	2.00					
	$z_{pii,\alpha}$	(cm)	2.00					
	$f_{awf}$	(MHz)	3.30	4.99		4.99		4.99
Other Information	prr	(Hz)	1631.00					
	srr	(Hz)	0.00					
	$n_{pps}$		81538.30					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	218.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	229.90					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	377.50					
	$p_r$ at $z_{pii}$	(MPa)	2.78					
Operating Control Conditions	Image Depth	(cm)	2.57	2.57		2.57		2.57
	2D Frequency	(MHz)	3.00	6.00		6.00		6.00
	CF Frequency	(MHz)	3.13	5.00		5.00		5.00
	ROI span	(cm)	3.00	3.00		3.00		3.00
	ROI center	(cm)	1.00	1.00		1.00		1.00
	Width	(°)	0.00	1.00		1.00		1.00
	Sample Volume	(cm)	0.11	0.07		0.07		0.07
	Framerate	(index)	2.00	2.00		2.00		2.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		Abdo	Abdo		Abdo		Abdo	

**Transducer Model: 9L-RS**

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.13	1.07		2.44		1.54
Index component value			1.07	0.74	0.83	2.44	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.14				
	P	(mW)		52.47	59.76		59.76
	$P_{1x1}$	(mW)		44.95		48.66	
	$z_s$	(cm)		1.50			
	$z_b$	(cm)				1.70	
	$z_{MI}$	(cm)	1.90				
	$z_{pii,\alpha}$	(cm)	1.90				
	$f_{awf}$	(MHz)	3.58	5.00		3.58	3.58
Other Information	prr	(Hz)	250.00				
	srr	(Hz)	0.00				
	$n_{pps}$		25000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	215.70				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	375.70				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	611.55				
	$p_r$ at $z_{pii}$	(MPa)	2.58				
Operating Control Conditions	Frequency	(MHz)	3.57	5.00		3.57	3.57
	Sample Volume size	(mm)	6.00	16.00		6.00	6.00
	Sample Volume position	(cm)	4.00	4.00		4.00	0.40
	Beam Angle	(°)	0.00	0.00		0.00	0.00
	Scale	(m/s)	0.05	0.05		0.05	0.05
	Power	(dB)	0.00	0.00		0.00	0.00
	Application		Abdo	Abdo		Abdo	Abdo

Transducer Model: 9L-RS

Ophthalmic application

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.17	0.003		0.003		0.02
Index component value				0.003	0.003	0.003	0.003	
Acoustic Parameters	$P_{r,\alpha}$ at $Z_{MI}$	(MPa)	0.33					
	P	(mW)		0.33		0.33		0.33
	$P_{1x1}$	(mW)		0.14		0.14		
	$Z_s$	(cm)			0.80			
	$Z_b$	(cm)					1.40	
	$Z_{MI}$	(cm)	2.00					
	$Z_{pii,\alpha}$	(cm)	2.00					
	$f_{awf}$	(MHz)	3.85		3.69		3.69	
Other Information	prr	(Hz)	5416.00					
	srr	(Hz)	93.40					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $Z_{pii,\alpha}$	(W/cm <sup>2</sup> )	2.30					
	$I_{spta,\alpha}$ at $Z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	0.50					
	$I_{spta}$ at $Z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	0.80					
	$p_r$ at $Z_{pii}$	(MPa)	0.44					
Operating Control Conditions	Depth	(cm)	8.00	4.00		4.00		4.00
	Frequency	(MHz)	3.00	2.80		2.80		2.80
	Width	(°)	1.00	1.00		1.00		1.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		93.38	65.38		65.38		65.38
	Framerate	(index)	0.00	1.00		1.00		1.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Ophthalmic	Ophthalmic		Ophthalmic		Ophthalmic

Acoustic Output Reporting Tables for Track 3/IEC 60601-2-37

**Transducer Model: 9L-RS**

Ophthalmic application

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.17	0.03		0.03		0.05
Index component value				0.03	0.03	0.03	0.03	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	0.33					
	P	(mW)		1.01		1.01		1.03
	$P_{I \times I}$	(mW)		0.96		0.96		
	$Z_s$	(cm)			0.90			
	$Z_b$	(cm)					0.90	
	$Z_{MI}$	(cm)	2.00					
	$Z_{pii,\alpha}$	(cm)	2.00					
	$f_{awf}$	(MHz)	3.85	6.15		6.15		4.92
Other Information	$p_{rr}$	(Hz)	1027.00					
	$s_{rr}$	(Hz)	17.70					
	$n_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	2.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	5.60					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	9.70					
	$p_r$ at $z_{pii}$	(MPa)	0.44					
Operating Control Conditions	Image Depth	(cm)	3.27	0.97		0.97		0.97
	2D Frequency	(MHz)	3.00	3.00		3.00		3.00
	CF Frequency	(MHz)	5.00	6.25		6.25		5.00
	ROI span	(cm)	2.50	2.50		2.50		2.50
	ROI center	(cm)	1.00	1.00		1.00		1.00
	Width	(°)	0.00	0.00		0.00		0.00
	Sample Volume	(cm)	0.08	0.07		0.07		0.08
	Framerate	(index)	0.00	2.00		2.00		0.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Ophthalmic	Ophthalmic		Ophthalmic		Ophthalmic

Transducer Model: C1-5-RS

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.16	1.25		1.25		3.37
Index component value				1.25	1.25	1.25	1.25	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	1.81					
	$P$	(mW)		154.77		154.77		139.67
	$P_{1x1}$	(mW)		89.26		89.26		
	$z_s$	(cm)			1.80			
	$z_b$	(cm)					3.50	
	$z_{MI}$	(cm)	4.80					
	$z_{pii,\alpha}$	(cm)	4.80					
	$f_{awf}$	(MHz)	2.42	2.95		2.95		2.95
Other Information	$p_{rr}$	(Hz)	3797.00					
	$s_{rr}$	(Hz)	84.40					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	117.40					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	50.70					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	113.60					
	$p_r$ at $z_{pii}$	(MPa)	2.63					
Operating Control Conditions	Depth	(cm)	8.00	5.00	5.00	5.00	4.00	
	Frequency	(MHz)	2.50	3.00	3.00	3.00	3.00	
	Width	(°)	30.00	30.00	30.00	30.00	30.00	
	Tilt	(deg)	0.00	0.00	0.00	0.00	0.00	
	Frame rate		84.38	300.37	300.37	300.37	350.14	
	Framerate	(index)	1.00	1.00	1.00	1.00	1.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
	Application		Abdo	Abdo	Abdo	Abdo	Abdo	

**Transducer Model: C1-5-RS**

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC	
			At surface	Below surface	At surface	Below surface		
Maximum: Index value		1.22	0.64		1.32		1.14	
Index component value			0.40	0.64	0.24	1.32		
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.06					
	P	(mW)		84.83	62.95		84.83	
	$P_{1x1}$	(mW)		30.99		26.51		
	$z_s$	(cm)		2.90				
	$z_b$	(cm)				3.20		
	$z_{MI}$	(cm)	0.60					
	$z_{pii,\alpha}$	(cm)	1.10					
	$f_{awf}$	(MHz)	2.88	2.70		1.95		2.70
Other Information	prr	(Hz)	1000.00					
	srr	(Hz)	0.00					
	$n_{pps}$		100000.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	89.70					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	64.40					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	98.32					
	$p_r$ at $z_{pii}$	(MPa)	2.19					
Operating Control Conditions	Depth	(cm)	2.00	22.00		17.00		22.00
	Frequency	(MHz)	3.00	3.00		1.50		3.00
	Beam Angle	(°)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Abdo	Abdo		Abdo		Abdo

## Acoustic and Probe Surface Temperature Information

### Transducer Model: C1-5-RS

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.32	1.14		2.78		2.02
Index component value				1.14	0.90	1.10	2.78	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	1.88					
	P	(mW)		79.77		76.81		51.79
	$P_{1x1}$	(mW)		67.91		65.34		
	$Z_s$	(cm)			1.60			
	$Z_b$	(cm)					1.80	
	$Z_{MI}$	(cm)	0.30					
	$Z_{pii,\alpha}$	(cm)	1.00					
	$f_{awf}$	(MHz)	2.01	3.55		3.56		2.04
Other Information	prr	(Hz)	790.00					
	srr	(Hz)	0.00					
	$n_{pps}$		78955.40					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	53.90					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	163.10					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	323.27					
	$p_r$ at $z_{pii}$	(MPa)	1.92					
Operating Control Conditions	Image Depth	(cm)	1.68	4.11		3.61		1.68
	M Frequency	(MHz)	3.00	1.50		1.50		3.00
	CM Frequency	(MHz)	2.00	3.57		3.57		2.00
	ROI span	(cm)	10.00	10.00		10.00		10.00
	ROI center	(cm)	11.00	3.00		2.00		11.00
	SampleVol	(mm)	3.70	2.90		2.90		3.70
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Abdo	Abdo		Abdo		Abdo

**Transducer Model: C1-5-RS**

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.15	1.73		1.73		4.02
Index component value				1.73	1.73	1.73	1.73	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	1.80					
	P	(mW)		136.55		136.55		136.55
	$P_{1x1}$	(mW)		118.42		118.42		
	$Z_s$	(cm)			1.20			
	$Z_b$	(cm)					1.20	
	$Z_{MI}$	(cm)	4.80					
	$Z_{pii,\alpha}$	(cm)	4.80					
	$f_{awf}$	(MHz)	2.44	3.10		3.10		3.10
Other Information	prr	(Hz)	817.00					
	srr	(Hz)	18.10					
	$n_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	116.80					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	38.30					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	78.70					
	$p_r$ at $z_{pii}$	(MPa)	2.64					
Operating Control Conditions	Image Depth	(cm)	7.31	2.61		2.61		2.61
	2D Frequency	(MHz)	2.50	3.00		3.00		3.00
	CF Frequency	(MHz)	2.50	3.13		3.13		3.13
	ROI span	(cm)	6.00	6.00		6.00		6.00
	ROI center	(cm)	4.00	10.00		10.00		10.00
	Width	(°)	15.00	15.00		15.00		15.00
	Sample Volume	(cm)	0.08	0.17		0.17		0.17
	Framerate	(index)	5.00	1.00		1.00		1.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		Abdo	Abdo		Abdo		Abdo	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: C1-5-RS

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.17	0.88		2.10		1.97
Index component value			0.88	0.67	0.84	2.10	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.21				
	P	(mW)		59.67	57.03		44.93
	$P_{1x1}$	(mW)		51.89		49.59	
	$Z_s$	(cm)			1.70		
	$Z_b$	(cm)				1.80	
	$Z_{MI}$	(cm)	3.60				
	$Z_{pii,\alpha}$	(cm)	3.60				
	$f_{awf}$	(MHz)	3.55	3.55		3.55	
Other Information	prr	(Hz)	250.00				
	srr	(Hz)	0.00				
	$n_{pps}$		25000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	170.40				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	94.10				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	234.95				
	$p_r$ at $z_{pii}$	(MPa)	3.35				
Operating Control Conditions	Frequency	(MHz)	3.57	3.57	3.57		3.57
	Sample Volume size	(mm)	2.00	2.00	2.00		2.00
	Sample Volume position	(cm)	4.11	4.11	3.07		1.00
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Scale	(m/s)	0.09	0.80	0.60		0.60
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		Abdo	Abdo	Abdo		Abdo

Transducer Model: 12L-RS

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.47	0.44		0.44		1.67
Index component value				0.44	0.44	0.44	0.44	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.31					
	$P$	(mW)		19.34		19.34		23.40
	$P_{1x1}$	(mW)		13.67		13.67		
	$z_s$	(cm)			1.10			
	$z_b$	(cm)					1.20	
	$z_{MI}$	(cm)	1.20					
	$z_{pii,\alpha}$	(cm)	1.20					
	$f_{awf}$	(MHz)	5.04	6.73		6.73		6.88
Other Information	$p_{rr}$	(Hz)	4585.00					
	$s_{rr}$	(Hz)	95.50					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	79.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	38.80					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	59.20					
	$p_r$ at $z_{pii}$	(MPa)	4.01					
Operating Control Conditions	Depth	(cm)	2.50	6.00		6.00		1.50
	Frequency	(MHz)	5.50	7.00		7.00		7.00
	Width	(°)	1.00	1.00		1.00		1.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		95.53	35.55		35.55		142.19
	Framerate	(index)	2.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		PedAbd	PedAbd		PedAbd		PedAbd	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 12L-RS

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.42	0.26		0.47		0.38
Index component value			0.26	0.18	0.24	0.47	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.21				
	P	(mW)		9.73	12.00		12.00
	$P_{1x1}$	(mW)		8.11		10.00	
	$Z_s$	(cm)		1.20			
	$Z_b$	(cm)				1.20	
	$Z_{MI}$	(cm)	1.20				
	$Z_{pii,\alpha}$	(cm)	1.20				
	$f_{awf}$	(MHz)	5.09	6.78		4.88	
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	210.30				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	166.60				
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	256.01				
	$p_r$ at $z_{pii}$	(MPa)	3.83				
Operating Control Conditions	Depth	(cm)	2.50	8.00		8.00	8.00
	Frequency	(MHz)	3.50	7.00		5.50	5.50
	Beam Angle	(°)	0.00	0.00		0.00	0.00
	Power	(dB)	0.00	0.00		0.00	0.00
	Application		PedAbd	PedAbd		PedAbd	PedAbd

**Transducer Model: 12L-RS**

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.46	0.19		1.02		0.37
Index component value				0.19	0.18	0.18	1.02	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.30					
	P	(mW)		11.90		12.06		11.90
	$P_{1x1}$	(mW)		8.24		8.20		
	$Z_s$	(cm)			1.40			
	$Z_b$	(cm)					2.50	
	$Z_{MI}$	(cm)	1.20					
	$Z_{pii,\alpha}$	(cm)	1.20					
	$f_{awf}$	(MHz)	5.07	4.77		4.60		4.77
Other Information	prr	(Hz)	29.00					
	srr	(Hz)	0.00					
	$n_{pps}$		2895.40					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	112.90					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	76.80					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	174.54					
	$p_r$ at $z_{pii}$	(MPa)	3.93					
Operating Control Conditions	Image Depth	(cm)	1.81	2.56		2.56		2.56
	M Frequency	(MHz)	3.50	3.50		3.50		3.50
	CM Frequency	(MHz)	4.55	4.55		4.55		4.55
	ROI span	(cm)	3.00	3.00		3.00		3.00
	ROI center	(cm)	1.50	2.00		2.00		2.00
	SampleVol	(mm)	0.60	0.60		1.30		0.60
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		PedAbd	PedAbd		PedAbd		PedAbd

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 12L-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.59	1.28		1.28		2.40
Index component value				1.28	1.28	1.28	1.28	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.48					
	$P$	(mW)		40.91		40.91		78.03
	$P_{1x1}$	(mW)		33.51		33.51		
	$z_s$	(cm)			1.10			
	$z_b$	(cm)					1.40	
	$z_{MI}$	(cm)	1.50					
	$z_{pii,\alpha}$	(cm)	1.50					
	$f_{awf}$	(MHz)	4.79	8.12		8.12		4.60
Other Information	$p_{rr}$	(Hz)	10627.00					
	$s_{rr}$	(Hz)	0.00					
	$n_{pps}$		70844.90					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	341.00					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	276.40					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	453.20					
	$p_r$ at $z_{pii}$	(MPa)	4.46					
Operating Control Conditions	Image Depth	(cm)	1.56	1.56	1.56	1.56	2.56	
	2D Frequency	(MHz)	7.00	7.00	7.00	7.00	5.50	
	CF Frequency	(MHz)	4.55	8.33	8.33	8.33	4.55	
	ROI span	(cm)	3.00	3.00	3.00	3.00	3.00	
	ROI center	(cm)	1.00	1.50	1.50	1.50	3.00	
	Width	(°)	1.00	1.00	1.00	1.00	1.00	
	Sample Volume	(cm)	0.06	0.05	0.05	0.05	0.13	
	Framerate	(index)	2.00	1.00	1.00	1.00	1.00	
	Scale	(m/s)	0.00	0.00	0.00	0.00	0.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
Application		PedAbd	PedAbd	PedAbd	PedAbd	PedAbd		

Transducer Model: 12L-RS

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.55	0.99		2.22		1.48
Index component value			0.99	0.68	0.99	2.22	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.46				
	P	(mW)		41.44	41.44		41.44
	$P_{1x1}$	(mW)		41.44	41.44		
	$z_s$	(cm)			1.10		
	$z_b$	(cm)				1.10	
	$z_{MI}$	(cm)	1.50				
	$z_{pii,\alpha}$	(cm)	1.50				
	$f_{awf}$	(MHz)	5.00	5.03		5.03	
Other Information	prr	(Hz)	326.00				
	srr	(Hz)	0.00				
	$n_{pps}$		32637.10				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	510.00				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	188.90				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	323.79				
	$p_r$ at $z_{pii}$	(MPa)	4.35				
Operating Control Conditions	Frequency	(MHz)	5.00	5.00	5.00	5.00	5.00
	Sample Volume size	(mm)	1.00	1.00	1.00	1.00	1.00
	Sample Volume position	(cm)	1.80	3.20	3.20	3.20	3.20
	Beam Angle	(°)	0.00	0.00	0.00	0.00	0.00
	Scale	(m/s)	0.05	0.40	0.40	0.40	0.40
	Power	(dB)	0.00	0.00	0.00	0.00	0.00
	Application		MSK_Sup	MSK_Sup	MSK_Sup	MSK_Sup	MSK_Sup

Transducer Model: 12L-RS

Ophthalmic application

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.17	0.01		0.01		0.04
Index component value				0.01	0.01	0.01	0.01	
Acoustic Parameters	$P_{r,\alpha}$ at $Z_{MI}$	(MPa)	0.45					
	P	(mW)		0.31		0.31		0.31
	$P_{1x1}$	(mW)		0.13		0.13		
	$Z_s$	(cm)			0.40			
	$Z_b$	(cm)					0.40	
	$Z_{MI}$	(cm)	1.90					
	$Z_{pii,\alpha}$	(cm)	1.90					
	$f_{awf}$	(MHz)	7.37	7.45		7.45		7.45
Other Information	prr	(Hz)	1885.00					
	srr	(Hz)	43.80					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $Z_{pii,\alpha}$	(W/cm <sup>2</sup> )	5.50					
	$I_{spta,\alpha}$ at $Z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	0.10					
	$I_{spta}$ at $Z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	0.40					
	$p_r$ at $Z_{pii}$	(MPa)	0.72					
Operating Control Conditions	Depth	(cm)	7.00	1.00		1.00		1.00
	Frequency	(MHz)	7.00	7.00		7.00		7.00
	Width	(°)	1.00	1.00		1.00		1.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		43.83	188.32		188.32		188.32
	Framerate	(index)	3.00	1.00		1.00		1.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Ophthalmic	Ophthalmic		Ophthalmic		Ophthalmic

Acoustic Output Reporting Tables for Track 3/IEC 60601-2-37

**Transducer Model: 12L-RS**

Ophthalmic application

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.17	0.03		0.03		0.03
Index component value				0.03	0.03	0.03	0.03	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	0.45					
	P	(mW)		0.73		0.73		0.73
	$P_{I \times I}$	(mW)		0.71		0.71		
	$Z_s$	(cm)			0.90			
	$Z_b$	(cm)					1.00	
	$Z_{MI}$	(cm)	1.80					
	$Z_{pii,\alpha}$	(cm)	1.80					
	$f_{awf}$	(MHz)	7.39	8.30		8.30		8.30
Other Information	$p_{rr}$	(Hz)	971.00					
	$s_{rr}$	(Hz)	22.10					
	$n_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	6.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	4.60					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	6.40					
	$p_r$ at $z_{pii}$	(MPa)	0.70					
Operating Control Conditions	Image Depth	(cm)	2.86	0.96		0.96		0.96
	2D Frequency	(MHz)	7.00	7.00		7.00		7.00
	CF Frequency	(MHz)	4.55	8.33		8.33		8.33
	ROI span	(cm)	2.50	2.50		2.50		2.50
	ROI center	(cm)	1.00	1.00		1.00		1.00
	Width	(°)	0.00	0.00		0.00		0.00
	Sample Volume	(cm)	0.13	0.11		0.11		0.11
	Framerate	(index)	0.00	0.00		0.00		0.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Ophthalmic	Ophthalmic		Ophthalmic'		Ophthalmic

Transducer Model: L12n-RS

Operating Mode: 2D

Index Label		MI	TIS		TIB		TIC	
			At surface	Below surface	At surface	Below surface		
Maximum: Index value		1.40	0.58		0.58		1.63	
Index component value			0.58	0.58	0.58	0.58		
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.15					
	P	(mW)		25.55	25.55		24.62	
	$P_{1x1}$	(mW)		18.15		18.15		
	$z_s$	(cm)			1.20			
	$z_b$	(cm)				1.20		
	$z_{MI}$	(cm)	1.40					
	$z_{pii,\alpha}$	(cm)	1.40					
	$f_{awf}$	(MHz)	5.04	6.76		6.76		5.24
Other Information	prr	(Hz)	4585.00					
	srr	(Hz)	47.80					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	60.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	30.60					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	50.40					
	$p_r$ at $z_{pii}$	(MPa)	4.02					
Operating Control Conditions	Depth	(cm)	2.50	6.00	6.00		1.50	
	Frequency	(MHz)	5.50	7.00	7.00		4.50	
	Width	(°)	1.00	1.00	1.00		1.00	
	Tilt	(deg)	0.00	0.00	0.00		0.00	
	Frame rate		47.77	32.88	32.88		92.84	
	Framerate	(index)	1.00	0.00	0.00		0.00	
	Power	(dB)	0.00	0.00	0.00		0.00	
	Application		Thyroid	Carotid	Carotid		Carotid	

**Transducer Model: L12n-RS**

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.47	0.28		0.49		0.40
Index component value			0.28	0.19	0.23	0.49	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.31				
	P	(mW)		10.13	13.77		13.77
	$P_{1x1}$	(mW)		8.58	9.43		
	$z_s$	(cm)		1.20			
	$z_b$	(cm)				1.30	
	$z_{MI}$	(cm)	1.30				
	$z_{pii,\alpha}$	(cm)	1.30				
	$f_{awf}$	(MHz)	5.12	6.94		5.08	
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	246.70				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	182.50				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	296.60				
	$p_r$ at $z_{pii}$	(MPa)	4.12				
Operating Control Conditions	Depth	(cm)	2.50	6.50	8.00		8.00
	Frequency	(MHz)	4.50	7.00	5.50		5.50
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		Thyroid	Thyroid	Thyroid		Thyroid

## Acoustic and Probe Surface Temperature Information

**Transducer Model: L12n-RS**

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.41	0.18		0.97		0.36
Index component value				0.18	0.16	0.15	0.97	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.18					
	P	(mW)		10.89		6.27		11.11
	$P_{1x1}$	(mW)		7.54		6.27		
	$Z_s$	(cm)			1.40			
	$Z_b$	(cm)					0.90	
	$Z_{MI}$	(cm)	1.40					
	$Z_{pii,\alpha}$	(cm)	1.40					
	$f_{awf}$	(MHz)	5.08	4.74		4.88		4.60
Other Information	prr	(Hz)	121.00					
	srr	(Hz)	0.00					
	$n_{pps}$		12139.70					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	115.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	306.30					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	420.57					
	$p_r$ at $z_{pii}$	(MPa)	4.07					
Operating Control Conditions	Image Depth	(cm)	2.31	2.56		0.87		2.56
	M Frequency	(MHz)	4.50	7.00		4.50		5.50
	CM Frequency	(MHz)	4.55	4.55		4.55		4.55
	ROI span	(cm)	2.10	1.80		2.10		1.80
	ROI center	(cm)	1.00	2.50		1.00		2.00
	SampleVol	(mm)	0.50	0.80		0.50		1.30
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		Thyroid	Carotid		Thyroid		Carotid	

Transducer Model: L12n-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.47	1.39		1.39		3.93
Index component value				1.39	1.39	1.39	1.39	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.15					
	P	(mW)		98.53		98.53		98.53
	$P_{1x1}$	(mW)		62.94		62.94		
	$z_s$	(cm)			1.00			
	$z_b$	(cm)					1.20	
	$z_{MI}$	(cm)	1.30					
	$z_{pii,\alpha}$	(cm)	1.30					
	$f_{awf}$	(MHz)	4.61	4.61		4.61		4.61
Other Information	prr	(Hz)	14346.00					
	srr	(Hz)	0.00					
	$n_{pps}$		27587.60					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	451.00					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	249.70					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	378.50					
	$p_r$ at $z_{pii}$	(MPa)	3.88					
Operating Control Conditions	Image Depth	(cm)	1.33	1.33		1.33		1.33
	2D Frequency	(MHz)	5.50	5.50		5.50		5.50
	CF Frequency	(MHz)	4.55	4.55		4.55		4.55
	ROI span	(cm)	2.10	2.10		2.10		2.10
	ROI center	(cm)	2.50	2.50		2.50		2.50
	Width	(°)	1.00	1.00		1.00		1.00
	Sample Volume	(cm)	0.13	0.13		0.13		0.13
	Framerate	(index)	0.00	0.00		0.00		0.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		Thyroid	Thyroid		Thyroid		Thyroid	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L12n-RS

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.50	0.99		2.16		1.47
Index component value			0.99	0.67	0.99	2.16	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.36				
	P	(mW)		41.22	41.22		41.22
	$P_{1x1}$	(mW)		41.22	41.22		
	$Z_s$	(cm)			1.10		
	$Z_b$	(cm)				1.10	
	$Z_{MI}$	(cm)	1.50				
	$Z_{pii,\alpha}$	(cm)	1.50				
	$f_{awf}$	(MHz)	5.00	5.03		5.03	
Other Information	prr	(Hz)	326.00				
	srr	(Hz)	0.00				
	$n_{pps}$		32637.10				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	483.20				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	179.20				
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	307.77				
	$p_r$ at $z_{pii}$	(MPa)	4.24				
Operating Control Conditions	Frequency	(MHz)	5.00	5.00	5.00		5.00
	Sample Volume size	(mm)	1.00	1.00	1.00		1.00
	Sample Volume position	(cm)	1.80	3.20	3.20		3.20
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Scale	(m/s)	0.05	0.40	0.40		0.40
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		MSK_Sup	MSK_Sup	MSK_Sup		MSK_Sup

**Transducer Model: L12n-RS**

Ophthalmic application

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.16	0.02		0.02		0.03
Index component value				0.02	0.02	0.02	0.02	
Acoustic Parameters	$P_{r,\alpha}$ at $Z_{MI}$	(MPa)	0.45					
	P	(mW)		0.53		0.53		0.32
	$P_{1x1}$	(mW)		0.40		0.40		
	$Z_s$	(cm)			1.10			
	$Z_b$	(cm)					1.40	
	$Z_{MI}$	(cm)	1.60					
	$Z_{pii,\alpha}$	(cm)	1.60					
	$f_{awf}$	(MHz)	8.51	8.48		8.48		8.52
Other Information	prr	(Hz)	2881.00					
	srr	(Hz)	26.70					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $Z_{pii,\alpha}$	(W/cm <sup>2</sup> )	4.30					
	$I_{spta,\alpha}$ at $Z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	0.90					
	$I_{spta}$ at $Z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	2.20					
	$p_r$ at $Z_{pii}$	(MPa)	0.76					
Operating Control Conditions	Depth	(cm)	5.50	5.50		5.50		1.00
	Frequency	(MHz)	12.00	12.00		12.00		12.00
	Width	(°)	1.00	1.00		1.00		1.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		26.67	26.67		26.67		189.02
	Framerate	(index)	0.00	0.00		0.00		1.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Ophthalmic	Ophthalmic		Ophthalmic		Ophthalmic

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L12n-RS

Ophthalmic application

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.17	0.03		0.03		0.04
Index component value				0.03	0.03	0.03	0.03	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	0.36					
	P	(mW)		1.37		1.37		1.44
	$P_{I \times I}$	(mW)		0.83		0.83		
	$Z_s$	(cm)			1.40			
	$Z_b$	(cm)					2.80	
	$Z_{MI}$	(cm)	2.30					
	$Z_{pii,\alpha}$	(cm)	2.30					
	$f_{awf}$	(MHz)	4.60	8.30		8.30		4.60
Other Information	prr	(Hz)	4837.00					
	srr	(Hz)	0.00					
	$n_{pps}$		53748.60					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	3.50					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	3.70					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	7.40					
	$p_r$ at $z_{pii}$	(MPa)	0.52					
Operating Control Conditions	Image Depth	(cm)	2.31	2.81	2.81	2.81	2.81	
	2D Frequency	(MHz)	5.50	5.50	5.50	5.50	5.50	
	CF Frequency	(MHz)	4.55	8.33	8.33	8.33	4.55	
	ROI span	(cm)	2.50	2.50	2.50	2.50	2.50	
	ROI center	(cm)	2.50	3.00	3.00	3.00	3.00	
	Width	(°)	0.00	1.00	1.00	1.00	1.00	
	Sample Volume	(cm)	0.13	0.11	0.11	0.11	0.13	
	Framerate	(index)	0.00	0.00	0.00	0.00	0.00	
	Scale	(m/s)	0.00	0.00	0.00	0.00	0.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
	Application		Ophthalmic	Ophthalmic	Ophthalmic	Ophthalmic	Ophthalmic	

**Transducer Model: 8C-RS**

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.92	0.53		0.53		1.19
Index component value				0.53	0.53	0.53	0.53	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.19					
	$P$	(mW)		19.80		19.80		19.80
	$P_{1x1}$	(mW)		19.80		19.80		
	$z_s$	(cm)			0.70			
	$z_b$	(cm)					0.70	
	$z_{MI}$	(cm)	0.40					
	$z_{pii,\alpha}$	(cm)	0.70					
	$f_{awf}$	(MHz)	5.64	5.62		5.62		5.62
Other Information	$p_{rr}$	(Hz)	12054.00					
	$s_{rr}$	(Hz)	231.80					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	170.90					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	50.60					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	66.40					
	$p_r$ at $z_{pii}$	(MPa)	2.36					
Operating Control Conditions	Depth	(cm)	3.00	3.00	3.00	3.00	2.00	
	Frequency	(MHz)	6.00	6.00	6.00	6.00	6.00	
	Width	(°)	30.00	30.00	30.00	30.00	30.00	
	Tilt	(deg)	0.00	0.00	0.00	0.00	0.00	
	Frame rate		231.81	231.81	231.81	231.81	231.81	
	Framerate	(index)	3.00	3.00	3.00	3.00	3.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
	Application		'@Ped'	'@Ped'	'@Ped'	'@Ped'	'@Ped'	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 8C-RS

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.03	0.08		0.19		0.12
Index component value			0.08	0.05	0.08	0.19	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.37				
	P	(mW)		3.00	3.00		3.00
	$P_{1x1}$	(mW)		3.00		3.00	
	$Z_s$	(cm)			1.00		
	$Z_b$	(cm)				1.70	
	$Z_{MI}$	(cm)	1.60				
	$Z_{pii,\alpha}$	(cm)	1.60				
	$f_{awf}$	(MHz)	5.34	5.37		5.37	
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	240.80				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	56.70				
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	105.38				
	$p_r$ at $z_{pii}$	(MPa)	3.15				
Operating Control Conditions	Depth	(cm)	3.00	3.00	3.00		3.00
	Frequency	(MHz)	6.00	6.00	6.00		6.00
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		'@Abdo'	'@Abdo'	'@Abdo'		'@Abdo'

Transducer Model: 8C-RS

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.29	0.28		1.11		0.60
Index component value				0.28	0.21	0.28	1.11	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.74					
	P	(mW)		12.71		12.67		12.71
	$P_{1x1}$	(mW)		12.71		12.67		
	$Z_s$	(cm)			0.80			
	$Z_b$	(cm)					1.20	
	$Z_{MI}$	(cm)	1.30					
	$Z_{pii,\alpha}$	(cm)	1.30					
	$f_{awf}$	(MHz)	4.53	4.53		4.55		4.53
Other Information	prr	(Hz)	1580.00					
	srr	(Hz)	0.00					
	$n_{pps}$		158031.60					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	371.00					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	349.60					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	536.48					
	$p_r$ at $z_{pii}$	(MPa)	3.21					
Operating Control Conditions	Image Depth	(cm)	1.54	1.54		1.54		1.54
	M Frequency	(MHz)	6.00	6.00		6.00		6.00
	CM Frequency	(MHz)	4.55	4.55		4.55		4.55
	ROI span	(cm)	1.00	1.00		1.00		1.00
	ROI center	(cm)	7.00	7.00		7.00		7.00
	SampleVol	(mm)	0.60	0.60		0.60		0.60
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		'@Abdo'	'@Abdo'		'@Abdo'		'@Abdo'

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 8C-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.44	0.57		0.57		1.29
Index component value				0.57	0.57	0.57	0.57	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.06					
	P	(mW)		25.74		25.74		25.74
	$P_{1x1}$	(mW)		25.74		25.74		
	$z_s$	(cm)			0.80			
	$z_b$	(cm)					1.30	
	$z_{MI}$	(cm)	1.20					
	$z_{pii,\alpha}$	(cm)	1.20					
	$f_{awf}$	(MHz)	4.53	4.55		4.55		4.55
Other Information	prr	(Hz)	3349.00					
	srr	(Hz)	0.00					
	$n_{pps}$		33485.60					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	371.60					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	100.80					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	146.10					
	$p_r$ at $z_{pii}$	(MPa)	3.53					
Operating Control Conditions	Image Depth	(cm)	1.54	1.54	1.54	1.54	1.54	
	2D Frequency	(MHz)	6.00	6.00	6.00	6.00	6.00	
	CF Frequency	(MHz)	4.55	4.55	4.55	4.55	4.55	
	ROI span	(cm)	4.50	36.00	36.00	36.00	36.00	
	ROI center	(cm)	3.00	7.00	7.00	7.00	7.00	
	Width	(°)	20.00	0.00	15.00	15.00	15.00	
	Sample Volume	(cm)	0.40	0.90	0.90	0.90	0.90	
	Framerate	(index)	1.00	2.00	2.00	2.00	2.00	
	Scale	(m/s)	0.00	0.00	0.00	0.00	0.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
Application		'@Ped'	'@Ped'	'@Ped'	'@Ped'	'@Ped'		

Transducer Model: 8C-RS

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.37	0.48		1.37		0.99
Index component value			0.48	0.36	0.47	1.37	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.06				
	P	(mW)		19.93	19.91		19.93
	$P_{I \times I}$	(mW)		19.93	19.91		
	$Z_s$	(cm)		0.80			
	$Z_b$	(cm)				1.40	
	$Z_{MI}$	(cm)	1.30				
	$Z_{pii,\alpha}$	(cm)	1.30				
	$f_{awf}$	(MHz)	4.97	5.00		5.00	
Other Information	prr	(Hz)	320.00				
	srr	(Hz)	0.00				
	$n_{pps}$		32010.20				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	319.70				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	234.10				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	378.23				
	$p_r$ at $z_{pii}$	(MPa)	3.78				
Operating Control Conditions	Frequency	(MHz)	5.00	5.00	5.00		5.00
	Sample Volume size	(mm)	2.00	6.00	6.00		6.00
	Sample Volume position	(cm)	1.00	1.00	1.00		1.00
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Scale	(m/s)	0.05	0.10	0.10		0.10
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		'@Cardiac'	'@Cardiac'	'@Cardiac'		'@Cardiac'

Transducer Model: E8C-RS

Operating Mode: 2D

Index Label		MI	TIS		TIB		TIC	
			At surface	Below surface	At surface	Below surface		
Maximum: Index value		0.49	0.42		0.42		0.67	
Index component value			0.42	0.42	0.42	0.42		
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	1.17					
	$P$	(mW)		15.11	15.11		15.11	
	$P_{1x1}$	(mW)		15.11		15.11		
	$z_s$	(cm)			0.90			
	$z_b$	(cm)				1.70		
	$z_{MI}$	(cm)	1.80					
	$z_{pii,\alpha}$	(cm)	1.80					
	$f_{awf}$	(MHz)	5.79	5.79		5.79		5.79
Other Information	$p_{rr}$	(Hz)	20903.00					
	$s_{rr}$	(Hz)	486.10					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	78.60					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	30.20					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	62.00					
	$p_r$ at $z_{pii}$	(MPa)	1.67					
Operating Control Conditions	Depth	(cm)	2.00	2.00	2.00	2.00	2.00	
	Frequency	(MHz)	6.00	6.00	6.00	6.00	6.00	
	Width	(°)	30.00	30.00	30.00	30.00	30.00	
	Tilt	(deg)	0.00	0.00	0.00	0.00	0.00	
	Frame rate		486.12	486.12	486.12	486.12	486.12	
	Framerate	(index)	3.00	3.00	3.00	3.00	3.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
	Application		'@Gyn'	'@Gyn'	'@Gyn'	'@Gyn'	'@Gyn'	

**Transducer Model: E8C-RS**

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.08	0.07		0.20		0.12
Index component value			0.07	0.05	0.07	0.20	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.51				
	P	(mW)		2.81	2.79		2.81
	$P_{1x1}$	(mW)		2.81	2.79		
	$Z_s$	(cm)			0.90		
	$Z_b$	(cm)				1.50	
	$Z_{MI}$	(cm)	1.60				
	$Z_{pii,\alpha}$	(cm)	1.60				
	$f_{awf}$	(MHz)	5.37	5.34		5.37	
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	263.30				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	61.40				
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	112.96				
	$p_r$ at $z_{pii}$	(MPa)	3.29				
Operating Control Conditions	Depth	(cm)	2.00	2.00	2.00		2.00
	Frequency	(MHz)	6.00	6.00	6.00		6.00
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		'@Ob'	'@Ob'	'@Ob'		'@Ob'

## Acoustic and Probe Surface Temperature Information

### Transducer Model: E8C-RS

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.39	0.41		1.31		0.81
Index component value				0.41	0.31	0.40	1.31	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.24					
	P	(mW)		17.12		17.02		17.12
	$P_{1x1}$	(mW)		17.12		17.02		
	$z_s$	(cm)			0.80			
	$z_b$	(cm)					1.50	
	$z_{MI}$	(cm)	1.80					
	$z_{pii,\alpha}$	(cm)	1.80					
	$f_{awf}$	(MHz)	5.45	4.95		4.95		4.95
Other Information	prr	(Hz)	792.00					
	srr	(Hz)	0.00					
	$n_{pps}$		79206.30					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	370.40					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	212.80					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	420.67					
	$p_r$ at $z_{pii}$	(MPa)	4.42					
Operating Control Conditions	Image Depth	(cm)	2.54	1.54		1.54		1.54
	M Frequency	(MHz)	5.00	6.00		6.00		6.00
	CM Frequency	(MHz)	5.56	5.00		5.00		5.00
	ROI span	(cm)	1.00	1.00		1.00		1.00
	ROI center	(cm)	12.00	2.00		2.00		2.00
	SampleVol	(mm)	0.60	0.80		0.80		0.80
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		'@Ob'	'@Ob'		'@Ob'		'@Ob'

Transducer Model: E8C-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.71	0.31		0.31		0.75
Index component value				0.31	0.31	0.31	0.31	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	1.76					
	P	(mW)		12.68		12.68		12.83
	$P_{1x1}$	(mW)		12.68		12.68		
	$z_s$	(cm)			0.80			
	$z_b$	(cm)					1.40	
	$z_{MI}$	(cm)	0.30					
	$z_{pii,\alpha}$	(cm)	0.60					
	$f_{awf}$	(MHz)	6.06	4.49		4.49		4.48
Other Information	prr	(Hz)	6146.00					
	srr	(Hz)	68.30					
	$n_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	67.10					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	33.50					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	49.70					
	$p_r$ at $z_{pii}$	(MPa)	1.87					
Operating Control Conditions	Image Depth	(cm)	0.64	1.54		1.54		1.54
	2D Frequency	(MHz)	8.00	8.00		8.00		8.00
	CF Frequency	(MHz)	4.17	4.17		4.17		4.17
	ROI span	(cm)	4.50	4.50		4.50		4.50
	ROI center	(cm)	2.00	2.00		2.00		2.00
	Width	(°)	25.00	25.00		25.00		25.00
	Sample Volume	(cm)	0.60	0.60		0.60		0.60
	Framerate	(index)	2.00	2.00		2.00		2.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		'@Gyn'	'@Gyn'		'@Gyn'		'@Gyn'	

## Acoustic and Probe Surface Temperature Information

**Transducer Model: E8C-RS**

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.30	0.29		1.21		0.58
Index component value			0.29	0.22	0.28	1.21	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.76				
	P	(mW)		13.24	13.05		13.24
	$P_{1x1}$	(mW)		13.24	13.05		
	$Z_s$	(cm)		0.90			
	$Z_b$	(cm)				1.40	
	$Z_{MI}$	(cm)	1.50				
	$Z_{pii,\alpha}$	(cm)	1.50				
	$f_{awf}$	(MHz)	4.55	4.55	4.55		4.55
Other Information	prr	(Hz)	292.00				
	srr	(Hz)	0.00				
	$n_{pps}$		29205.60				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	459.20				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	294.90				
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	472.55				
	$p_r$ at $z_{pii}$	(MPa)	3.50				
Operating Control Conditions	Frequency	(MHz)	4.55	4.55	4.55		4.55
	Sample Volume size	(mm)	2.00	4.00	4.00		4.00
	Sample Volume position	(cm)	1.00	1.00	1.00		1.00
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Scale	(m/s)	0.05	0.05	0.05		0.05
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		'@Ob'	'@Ob'	'@Ob'		'@Ob'

Transducer Model: 6Tc-RS

Operating Mode: 2D

Index Label		MI	TIS		TIB		TIC	
			At surface	Below surface	At surface	Below surface		
Maximum: Index value		0.96	0.37		0.37		0.77	
Index component value			0.37	0.37	0.37	0.37		
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	1.72					
	$P$	(mW)		23.85		23.85		23.85
	$P_{1x1}$	(mW)		23.85		23.85		
	$z_s$	(cm)			1.17			
	$z_b$	(cm)					1.17	
	$z_{MI}$	(cm)	2.57					
	$z_{pii,\alpha}$	(cm)	2.57					
	$f_{awf}$	(MHz)	3.22	3.27		3.27		3.27
Other Information	$p_{rr}$	(Hz)	3450.00					
	$s_{rr}$	(Hz)	46.60					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	109.50					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	11.70					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	20.80					
	$p_r$ at $z_{pii}$	(MPa)	2.22					
Operating Control Conditions	Depth	(cm)	20.00	4.00	4.00	4.00	4.00	
	Frequency	(MHz)	3.00	3.00	3.00	3.00	3.00	
	Width	(°)	80.00	30.00	30.00	30.00	30.00	
	Tilt	(deg)	0.00	0.00	0.00	0.00	0.00	
	Frame rate		46.62	225.10	225.10	225.10	225.10	
	Framerate	(index)	2.00	1.00	1.00	1.00	1.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
Application		'@Cardiac'	'@Cardiac'	'@Cardiac'	'@Cardiac'	'@Cardiac'		

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 6Tc-RS

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.11	0.19		0.37		0.19
Index component value			0.19	0.11	0.11	0.37	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.00				
	P	(mW)		7.31	6.92		7.31
	$P_{1x1}$	(mW)		7.31	6.92		
	$z_s$	(cm)			1.46		
	$z_b$	(cm)				2.06	
	$z_{MI}$	(cm)	2.26				
	$z_{pii,\alpha}$	(cm)	2.26				
	$f_{awf}$	(MHz)	3.21	5.42		3.21	5.42
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	148.90				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	81.10				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	135.95				
	$p_r$ at $z_{pii}$	(MPa)	2.49				
Operating Control Conditions	Depth	(cm)	16.00	12.00	16.00		12.00
	Frequency	(MHz)	3.00	6.00	3.00		6.00
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		'@Cardiac'	'@Cardiac'	'@Cardiac'		'@Cardiac'

Transducer Model: 6Tc-RS

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.50	0.40		0.88		0.55
Index component value				0.40	0.26	0.37	0.88	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.66					
	P	(mW)		19.68		21.41		21.41
	$P_{1x1}$	(mW)		19.68		21.41		
	$Z_s$	(cm)			1.46			
	$Z_b$	(cm)					2.87	
	$Z_{MI}$	(cm)	2.67					
	$Z_{pii,\alpha}$	(cm)	2.67					
	$f_{awf}$	(MHz)	3.12	4.30		3.60		3.60
Other Information	prr	(Hz)	35.00					
	srr	(Hz)	0.00					
	$n_{pps}$		3511.30					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	237.10					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	72.50					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	154.32					
	$p_r$ at $z_{pii}$	(MPa)	3.55					
Operating Control Conditions	Image Depth	(cm)	8.80	30.00		30.00		30.00
	M Frequency	(MHz)	3.00	3.00		6.00		6.00
	CM Frequency	(MHz)	4.17	4.17		3.57		3.57
	ROI span	(cm)	10.00	10.00		10.00		10.00
	ROI center	(cm)	12.00	5.00		5.00		5.00
	SampleVol	(mm)	0.70	1.10		1.20		1.20
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		'@Cardiac'	'@Cardiac'		'@Cardiac'		'@Cardiac'	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 6Tc-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.17	0.42		0.42		0.73
Index component value				0.42	0.42	0.42	0.42	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.05					
	P	(mW)		24.53		24.53		24.53
	$P_{1x1}$	(mW)		24.53		24.53		
	$Z_s$	(cm)			1.27			
	$Z_b$	(cm)					2.77	
	$Z_{MI}$	(cm)	2.87					
	$Z_{pii,\alpha}$	(cm)	2.87					
	$f_{awf}$	(MHz)	3.10	3.64		3.64		3.64
Other Information	prr	(Hz)	908.00					
	srr	(Hz)	12.30					
	$n_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	155.60					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	30.90					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	61.90					
	$p_r$ at $z_{pii}$	(MPa)	2.70					
Operating Control Conditions	Image Depth	(cm)	12.00	30.00		30.00		30.00
	2D Frequency	(MHz)	3.00	3.00		3.00		3.00
	CF Frequency	(MHz)	3.13	3.57		3.57		3.57
	ROI span	(cm)	10.00	10.00		10.00		10.00
	ROI center	(cm)	8.00	9.00		9.00		9.00
	Width	(°)	30.00	30.00		30.00		30.00
	Sample Volume	(cm)	0.60	0.90		0.90		0.90
	Framerate	(index)	0.00	3.00		3.00		3.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		'@Cardiac'	'@Cardiac'		'@Cardiac'		'@Cardiac'	

Transducer Model: 6Tc-RS

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		0.76	0.49		1.50		0.99
Index component value			0.49	0.30	0.48	1.50	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	1.35				
	P	(mW)		24.57	28.05		28.05
	$P_{1x1}$	(mW)		24.57	28.05		
	$z_s$	(cm)			1.56		
	$z_b$	(cm)				1.06	
	$z_{MI}$	(cm)	2.67				
	$z_{pii,\alpha}$	(cm)	2.67				
	$f_{awf}$	(MHz)	3.15	4.15		3.60	
Other Information	prr	(Hz)	1634.00				
	srr	(Hz)	0.00				
	$n_{pps}$		163398.70				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	73.10				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	278.40				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	513.52				
	$p_r$ at $z_{pii}$	(MPa)	1.74				
Operating Control Conditions	Frequency	(MHz)	3.13	4.17		3.57	3.57
	Sample Volume size	(mm)	2.00	2.00		2.00	2.00
	Sample Volume position	(cm)	6.18	4.11		1.00	1.00
	Beam Angle	(°)	0.00	0.00		0.00	0.00
	Scale	(m/s)	0.40	2.00		2.71	2.71
	Power	(dB)	0.00	0.00		0.00	0.00
	Application		'@Cardiac'	'@Cardiac'		'@Cardiac'	'@Cardiac'

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 6Tc-RS

Operating Mode: CW

Index Label		MI	TIS		TIB		TIC	
			At surface	Below surface	At surface	Below surface		
Maximum: Index value		0.05	0.45		0.97		0.84	
Index component value			0.45	0.34	0.39	0.97		
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	0.09					
	P	(mW)		22.80	19.44		22.80	
	$P_{I \times I}$	(mW)		22.80	19.44			
	$Z_s$	(cm)			1.02			
	$Z_b$	(cm)				1.02		
	$Z_{MI}$	(cm)	1.02					
	$Z_{pii,\alpha}$	(cm)	1.02					
	$f_{awf}$	(MHz)	3.75	3.75		3.75		3.75
Other Information	prr	(Hz)	1000000.00					
	srr	(Hz)	0.00					
	npps		10000000.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	0.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	200.60					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	261.02					
	$p_r$ at $z_{pii}$	(MPa)	0.10					
Operating Control Conditions	Frequency	(MHz)	4.17	4.17		4.17		4.17
	Focus Position	(cm)	15.92	300		300		300
	Beam Angle	(°)	0	0		0		0
	Power	(dB)	0	0		0		0
	Application		'@Cardiac'	'@Cardiac'		'@Cardiac'		'@Cardiac'

Transducer Model: L4-12t-RS

Operating Mode: 2D

Index Label		MI	TIS		TIB		TIC	
			At surface	Below surface	At surface	Below surface		
Maximum: Index value		1.47	0.51		0.51		1.59	
Index component value			0.51	0.51	0.51	0.51		
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.23					
	$P$	(mW)		22.94		22.94		23.99
	$P_{1x1}$	(mW)		15.77		15.77		
	$z_s$	(cm)			1.20			
	$z_b$	(cm)				1.20		
	$z_{MI}$	(cm)	1.50					
	$z_{pii,\alpha}$	(cm)	1.50					
	$f_{awf}$	(MHz)	4.83	6.81		6.81		5.00
Other Information	$p_{rr}$	(Hz)	3698.00					
	$s_{rr}$	(Hz)	41.60					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	300.20					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	37.20					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	61.80					
	$p_r$ at $z_{pii}$	(MPa)	3.92					
Operating Control Conditions	Depth	(cm)	4.50	6.50	6.50	1.50		
	Frequency	(MHz)	3.50	7.00	7.00	3.50		
	Width	(°)	1.00	1.00	1.00	1.00		
	Tilt	(deg)	0.00	0.00	0.00	0.00		
	Frame rate		41.55	32.87	32.87	99.89		
	Framerate	(index)	0.00	0.00	0.00	0.00		
	Power	(dB)	0.00	0.00	0.00	0.00		
Application		PedAbd	PedAbd	PedAbd	PedAbd			

## Acoustic and Probe Surface Temperature Information

**Transducer Model: L4-12t-RS**

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC	
			At surface	Below surface	At surface	Below surface		
Maximum: Index value		1.47	0.26		0.51		0.41	
Index component value			0.26	0.19	0.23	0.51		
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.28					
	P	(mW)		11.12	14.02		14.02	
	$P_{1x1}$	(mW)		8.18		9.60		
	$Z_s$	(cm)		1.30				
	$Z_b$	(cm)				1.30		
	$Z_{MI}$	(cm)	1.40					
	$Z_{pii,\alpha}$	(cm)	1.40					
	$f_{awf}$	(MHz)	4.97	6.68		4.90		4.90
Other Information	prr	(Hz)	1000.00					
	srr	(Hz)	0.00					
	$n_{pps}$		100000.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	274.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	189.10					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	307.31					
	$p_r$ at $z_{pii}$	(MPa)	4.08					
Operating Control Conditions	Depth	(cm)	3.00	7.50		8.00		8.00
	Frequency	(MHz)	5.50	7.00		5.50		5.50
	Beam Angle	(°)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		PedAbd	PedAbd		PedAbd		PedAbd

Transducer Model: L4-12t-RS

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.46	0.22		1.05		0.44
Index component value				0.21	0.22	0.21	1.05	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.26					
	P	(mW)		14.77		14.86		14.91
	$P_{I \times I}$	(mW)		9.07		9.09		
	$Z_s$	(cm)			1.50			
	$Z_b$	(cm)					3.00	
	$Z_{MI}$	(cm)	1.40					
	$Z_{pii,\alpha}$	(cm)	1.40					
	$f_{awf}$	(MHz)	4.99	4.90		4.88		4.60
Other Information	prr	(Hz)	62.00					
	srr	(Hz)	0.00					
	$n_{pps}$		6162.80					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	110.20					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	88.90					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	306.71					
	$p_r$ at $z_{pii}$	(MPa)	4.09					
Operating Control Conditions	Image Depth	(cm)	2.46	3.06		3.06		3.06
	M Frequency	(MHz)	5.50	5.50		5.50		5.50
	CM Frequency	(MHz)	6.25	4.55		4.55		4.55
	ROI span	(cm)	3.00	3.00		3.00		3.00
	ROI center	(cm)	1.50	3.00		3.00		2.00
	SampleVol	(mm)	0.40	0.50		0.50		1.30
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		PedAbd	PedAbd		PedAbd		PedAbd	

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L4-12t-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.50	0.91		0.91		2.04
Index component value				0.91	0.91	0.91	0.91	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.29					
	P	(mW)		56.53		56.53		67.30
	$P_{1x1}$	(mW)		29.39		29.39		
	$Z_s$	(cm)			1.60			
	$Z_b$	(cm)					1.60	
	$Z_{MI}$	(cm)	1.50					
	$Z_{pii,\alpha}$	(cm)	1.50					
	$f_{awf}$	(MHz)	4.79	7.13		7.13		5.00
Other Information	prr	(Hz)	4174.00					
	srr	(Hz)	46.90					
	$n_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	127.30					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	209.70					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	357.50					
	$p_r$ at $z_{pii}$	(MPa)	4.29					
Operating Control Conditions	Image Depth	(cm)	2.76	4.56		4.56		4.56
	2D Frequency	(MHz)	3.50	3.50		3.50		3.50
	CF Frequency	(MHz)	5.00	7.14		7.14		5.00
	ROI span	(cm)	3.00	3.00		3.00		3.00
	ROI center	(cm)	3.00	3.00		3.00		3.00
	Width	(°)	0.00	0.00		0.00		0.00
	Sample Volume	(cm)	0.04	0.11		0.11		0.11
	Framerate	(index)	1.00	1.00		1.00		1.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		PedAbd	PedAbd		PedAbd		PedAbd	

Transducer Model: L4-12t-RS

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.57	0.94		2.08		1.40
Index component value			0.94	0.64	0.94	2.08	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.50				
	P	(mW)		39.13	39.13		39.13
	$P_{1x1}$	(mW)		39.13	39.13		
	$z_s$	(cm)			1.10		
	$z_b$	(cm)				1.10	
	$z_{MI}$	(cm)	1.50				
	$z_{pii,\alpha}$	(cm)	1.50				
	$f_{awf}$	(MHz)	5.00	5.02		5.02	
Other Information	prr	(Hz)	326.00				
	srr	(Hz)	0.00				
	$n_{pps}$		32637.10				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	487.00				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	185.60				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	318.31				
	$p_r$ at $z_{pii}$	(MPa)	4.42				
Operating Control Conditions	Frequency	(MHz)	5.00	5.00	5.00	5.00	5.00
	Sample Volume size	(mm)	1.00	1.00	1.00	1.00	1.00
	Sample Volume position	(cm)	1.80	3.20	3.20	3.20	3.20
	Beam Angle	(°)	0.00	0.00	0.00	0.00	0.00
	Scale	(m/s)	0.05	0.40	0.40	0.40	0.40
	Power	(dB)	0.00	0.00	0.00	0.00	0.00
	Application		MSK_Sup	MSK_Sup	MSK_Sup	MSK_Sup	MSK_Sup

Transducer Model: L4-12t-RS

Ophthalmic application

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.16	0.01		0.01		0.03
Index component value				0.01	0.01	0.01	0.01	
Acoustic Parameters	$P_{r,\alpha}$ at $Z_{MI}$	(MPa)	0.45					
	P	(mW)		0.49		0.49		0.27
	$P_{1x1}$	(mW)		0.33		0.33		
	$Z_s$	(cm)			1.30			
	$Z_b$	(cm)					1.50	
	$Z_{MI}$	(cm)	1.60					
	$Z_{pii,\alpha}$	(cm)	1.60					
	$f_{awf}$	(MHz)	8.38	8.38		8.38		7.36
Other Information	prr	(Hz)	2881.00					
	srr	(Hz)	26.70					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $Z_{pii,\alpha}$	(W/cm <sup>2</sup> )	5.20					
	$I_{spta,\alpha}$ at $Z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	0.90					
	$I_{spta}$ at $Z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	2.20					
	$p_r$ at $Z_{pii}$	(MPa)	0.76					
Operating Control Conditions	Depth	(cm)	5.50	7.00		7.00		1.00
	Frequency	(MHz)	12.00	12.00		12.00		7.00
	Width	(°)	1.00	1.00		1.00		1.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		26.67	20.94		20.94		101.01
	Framerate	(index)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		Ophthalmic	Ophthalmic		Ophthalmic		Ophthalmic

Acoustic Output Reporting Tables for Track 3/IEC 60601-2-37

**Transducer Model: L4-12t-RS**

Ophthalmic application

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			0.16	0.03		0.03		0.04
Index component value				0.03	0.03	0.03	0.03	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	0.35					
	P	(mW)		1.01		1.01		1.41
	$P_{I \times I}$	(mW)		0.67		0.67		
	$Z_s$	(cm)			1.40			
	$Z_b$	(cm)					2.50	
	$Z_{MI}$	(cm)	2.50					
	$Z_{pii,\alpha}$	(cm)	2.50					
	$f_{awf}$	(MHz)	4.60	8.30		8.30		4.60
Other Information	$p_{rr}$	(Hz)	6356.00					
	$s_{rr}$	(Hz)	6.60					
	$n_{pps}$		70619.60					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	3.40					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	4.40					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	9.80					
	$p_r$ at $z_{pii}$	(MPa)	0.53					
Operating Control Conditions	Image Depth	(cm)	2.56	2.56	2.56	2.56	2.56	
	2D Frequency	(MHz)	7.00	7.00	7.00	7.00	7.00	
	CF Frequency	(MHz)	4.55	8.33	8.33	8.33	4.55	
	ROI span	(cm)	2.50	2.50	2.50	2.50	2.50	
	ROI center	(cm)	3.00	3.00	3.00	3.00	3.00	
	Width	(°)	0.00	1.00	1.00	1.00	1.00	
	Sample Volume	(cm)	0.13	0.11	0.11	0.11	0.13	
	Framerate	(index)	0.00	0.00	0.00	0.00	0.00	
	Scale	(m/s)	0.00	0.00	0.00	0.00	0.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
	Application		Ophthalmic	Ophthalmic	Ophthalmic	Ophthalmic	Ophthalmic	

Transducer Model: 6S-RS

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.26	1.21		1.21		1.94
Index component value				1.21	1.21	1.21	1.21	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.14					
	P	(mW)		84.02		84.02		84.02
	$P_{1x1}$	(mW)		82.05		82.05		
	$z_s$	(cm)			1.70			
	$z_b$	(cm)					3.50	
	$z_{MI}$	(cm)	3.20					
	$z_{pii,\alpha}$	(cm)	3.20					
	$f_{awf}$	(MHz)	2.90	3.10		3.10		3.10
Other Information	pr	(Hz)	2932.00					
	srr	(Hz)	43.10					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	201.00					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	36.10					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	67.40					
	$\rho_r$ at $z_{pii}$	(MPa)	2.91					
Operating Control Conditions	Depth	(cm)	4.00	11.00		11.00		11.00
	Frequency	(MHz)	2.70	3.20		3.20		3.20
	Width	(°)	65.00	10.00		10.00		10.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		43.11	254.07		254.07		254.07
	Framerate	(index)	2.00	2.00		2.00		2.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		PedAbd	PedAbd		PedAbd		PedAbd

**Transducer Model: 6S-RS**

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.55	1.03		1.83		1.53
Index component value			1.03	0.63	0.85	1.83	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.68				
	P	(mW)		49.97	61.21		66.42
	$P_{1x1}$	(mW)		48.80	59.78		
	$z_s$	(cm)		1.70			
	$z_b$	(cm)				3.20	
	$z_{MI}$	(cm)	3.40				
	$z_{pii,\alpha}$	(cm)	3.40				
	$f_{awf}$	(MHz)	3.00	4.44		3.00	
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	259.40				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	271.60				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	569.35				
	$p_r$ at $z_{pii}$	(MPa)	3.68				
Operating Control Conditions	Depth	(cm)	11.00	12.00	11.00		16.00
	Frequency	(MHz)	3.20	5.00	3.20		3.20
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		PedAbd	PedAbd	PedAbd		PedAbd

## Acoustic and Probe Surface Temperature Information

### Transducer Model: 6S-RS

Operating Mode: M+CM

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.62	1.46		2.37		2.13
Index component value				1.46	0.79	1.32	2.37	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.81					
	P	(mW)		59.33		91.74		92.44
	$P_{1x1}$	(mW)		57.94		89.59		
	$Z_s$	(cm)			1.70			
	$Z_b$	(cm)					3.80	
	$Z_{MI}$	(cm)	3.20					
	$Z_{pii,\alpha}$	(cm)	3.20					
	$f_{awf}$	(MHz)	3.00	5.85		3.10		3.10
Other Information	prr	(Hz)	367.00					
	srr	(Hz)	0.00					
	$n_{pps}$		36665.50					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	188.00					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	45.10					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	94.61					
	$p_r$ at $z_{pii}$	(MPa)	3.63					
Operating Control Conditions	Image Depth	(cm)	30.00	30.00		30.00		30.00
	M Frequency	(MHz)	3.20	3.20		3.20		3.20
	CM Frequency	(MHz)	3.33	5.56		3.13		3.13
	ROI span	(cm)	5.50	5.50		5.50		5.50
	ROI center	(cm)	6.00	10.00		2.00		2.00
	SampleVol	(mm)	0.50	1.30		1.10		1.10
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		PedAbd	PedAbd		PedAbd		PedAbd	

**Transducer Model: 6S-RS**

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.62	1.38		1.38		1.99
Index component value				1.38	1.38	1.38	1.38	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.80					
	P	(mW)		55.24		55.24		86.36
	$P_{1x1}$	(mW)		53.95		53.95		
	$Z_s$	(cm)			1.70			
	$Z_b$	(cm)					3.20	
	$Z_{MI}$	(cm)	3.20					
	$Z_{pii,\alpha}$	(cm)	3.20					
	$f_{awf}$	(MHz)	3.00	5.90		5.90		3.10
Other Information	prr	(Hz)	474.00					
	srr	(Hz)	0.00					
	$n_{pps}$		23682.90					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	184.10					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	86.50					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	170.80					
	$p_r$ at $z_{pii}$	(MPa)	3.69					
Operating Control Conditions	Image Depth	(cm)	30.00	30.00		30.00		30.00
	2D Frequency	(MHz)	2.90	2.70		2.70		2.70
	CF Frequency	(MHz)	3.33	5.56		5.56		3.13
	ROI span	(cm)	5.50	5.50		5.50		5.50
	ROI center	(cm)	6.00	3.00		3.00		6.00
	Width	(°)	10.00	115.00		115.00		105.00
	Sample Volume	(cm)	0.05	0.14		0.14		0.14
	Framerate	(index)	0.00	0.00		0.00		0.00
	Scale	(m/s)	0.00	0.00		0.00		0.00
	Power	(dB)	0.00	0.00		0.00		0.00
Application		PedAbd	PedAbd		PedAbd		PedAbd	

## Acoustic and Probe Surface Temperature Information

Transducer Model: 6S-RS

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.40	1.57		2.60		2.08
Index component value			1.57	0.94	1.38	2.60	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	2.45				
	P	(mW)		73.57	89.97		89.97
	$P_{1x1}$	(mW)		71.85	87.86		
	$Z_s$	(cm)		1.70			
	$Z_b$	(cm)				3.60	
	$Z_{MI}$	(cm)	3.40				
	$Z_{pii,\alpha}$	(cm)	3.40				
	$f_{awf}$	(MHz)	3.05	4.58	3.30		3.30
Other Information	prr	(Hz)	1608.00				
	srr	(Hz)	0.00				
	$n_{pps}$		160771.70				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	222.40				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	366.00				
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	759.66				
	$p_r$ at $z_{pii}$	(MPa)	3.41				
Operating Control Conditions	Frequency	(MHz)	2.78	4.54	3.33		3.33
	Sample Volume size	(mm)	1.00	1.50	1.50		1.50
	Sample Volume position	(cm)	4.11	24.82	5.14		5.14
	Beam Angle	(°)	0.00	0.00	0.00		0.00
	Scale	(m/s)	0.40	0.40	0.80		0.80
	Power	(dB)	0.00	0.00	0.00		0.00
	Application		PedAbd	PedAbd	PedAbd		PedAbd

**Transducer Model: 6S-RS**

Operating Mode: CW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		0.06	0.83		2.05		1.83
Index component value			0.83	0.65	0.72	2.05	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	0.10				
	P	(mW)		52.44	45.46		52.44
	$P_{1x1}$	(mW)		52.44	45.46		
	$z_s$	(cm)			1.10		
	$z_b$	(cm)				1.10	
	$z_{MI}$	(cm)	2.80				
	$z_{pii,\alpha}$	(cm)	2.80				
	$f_{awf}$	(MHz)	3.00	3.00		3.00	
Other Information	prr	(Hz)	1000000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	0.30				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	288.00				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	526.29				
	$p_r$ at $z_{pii}$	(MPa)	0.13				
Operating Control Conditions	Frequency	(MHz)	3.33	3.33		3.33	3.33
	Focus Position	(cm)	30	30		2.03	30
	Beam Angle	(°)	0	0		0	0
	Power	(dB)	0	0		0	0
	Application		PedAbd	PedAbd		PedAbd	PedAbd

Transducer Model: L8-18i-RS

Operating Mode: 2D

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.35	0.34		0.34		0.67
Index component value				0.34	0.34	0.34	0.34	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.65					
	$P$	(mW)		10.64		10.64		7.38
	$P_{IxI}$	(mW)		10.55		10.55		
	$z_s$	(cm)			1.00			
	$z_b$	(cm)					1.60	
	$z_{MI}$	(cm)	1.10					
	$z_{pii,\alpha}$	(cm)	1.10					
	$f_{awf}$	(MHz)	7.30	7.16		7.16		7.37
Other Information	$p_{rr}$	(Hz)	5034.00					
	$s_{rr}$	(Hz)	81.20					
	$\eta_{pps}$		1.00					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	134.90					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	15.20					
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	26.40					
	$p_r$ at $z_{pii}$	(MPa)	4.81					
Operating Control Conditions	Depth	(cm)	1.50	2.00		2.00		1.50
	Frequency	(MHz)	9.00	7.50		7.50		9.00
	Width	(°)	1.00	1.00		1.00		1.00
	Tilt	(deg)	0.00	0.00		0.00		0.00
	Frame rate		81.20	38.16		38.16		77.19
	Framerate	(index)	2.00	0.00		0.00		2.00
	Power	(dB)	0.00	0.00		0.00		0.00
	Application		ArteryVA	ArteryVA		ArteryVA		ArteryVA

**Transducer Model: L8-18i-RS**

Operating Mode: M-Mode

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.42	0.20		0.43		0.34
Index component value			0.20	0.19	0.20	0.43	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.57				
	P	(mW)		12.31	12.31		12.31
	$P_{1x1}$	(mW)		7.46	7.46		
	$z_s$	(cm)		1.40			
	$z_b$	(cm)				1.40	
	$z_{MI}$	(cm)	1.60				
	$z_{pii,\alpha}$	(cm)	1.60				
	$f_{awf}$	(MHz)	6.30	5.76		5.76	
Other Information	prr	(Hz)	1000.00				
	srr	(Hz)	0.00				
	$n_{pps}$		100000.00				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	499.40				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	216.00				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	463.57				
	$p_r$ at $z_{pii}$	(MPa)	4.90				
Operating Control Conditions	Depth	(cm)	2.00	4.50	4.50		4.50
	Frequency	(MHz)	7.50	5.00		5.00	5.00
	Beam Angle	(°)	0.00	0.00		0.00	0.00
	Power	(dB)	0.00	0.00		0.00	0.00
	Application		ArteryVA	ArteryVA		ArteryVA	ArteryVA

## Acoustic and Probe Surface Temperature Information

### Transducer Model: L8-18i-RS

Operating Mode: 2D+CF

Index Label			MI	TIS		TIB		TIC
				At surface	Below surface	At surface	Below surface	
Maximum: Index value			1.43	0.81		0.81		0.76
Index component value				0.81	0.81	0.81	0.81	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.59					
	P	(mW)		19.64		19.64		19.64
	$P_{1x1}$	(mW)		17.75		17.75		
	$Z_s$	(cm)			1.00			
	$Z_b$	(cm)					1.20	
	$Z_{MI}$	(cm)	1.40					
	$Z_{pii,\alpha}$	(cm)	1.40					
	$f_{awf}$	(MHz)	6.34	9.67		9.67		9.67
Other Information	prr	(Hz)	1173.00					
	srr	(Hz)	0.00					
	$n_{pps}$		29327.10					
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	267.80					
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	75.70					
	$I_{spta}$ at $z_{pii}$ or $Z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	139.60					
	$p_r$ at $z_{pii}$	(MPa)	4.87					
Operating Control Conditions	Image Depth	(cm)	1.45	1.45	1.45	1.45	1.45	
	2D Frequency	(MHz)	9.00	9.00	9.00	9.00	9.00	
	CF Frequency	(MHz)	6.25	10.00	10.00	10.00	10.00	
	ROI span	(cm)	1.10	1.10	1.10	1.10	1.10	
	ROI center	(cm)	1.00	1.50	1.50	1.50	1.50	
	Width	(°)	0.00	1.00	1.00	1.00	1.00	
	Sample Volume	(cm)	0.03	0.04	0.04	0.04	0.04	
	Framerate	(index)	2.00	0.00	0.00	0.00	0.00	
	Scale	(m/s)	0.00	0.00	0.00	0.00	0.00	
	Power	(dB)	0.00	0.00	0.00	0.00	0.00	
Application		ArteryVA	ArteryVA	ArteryVA	ArteryVA	ArteryVA		

Transducer Model: L8-18i-RS

Operating Mode: PW

Index Label		MI	TIS		TIB		TIC
			At surface	Below surface	At surface	Below surface	
Maximum: Index value		1.47	0.59		1.30		0.68
Index component value			0.59	0.23	0.41	1.30	
Acoustic Parameters	$P_{r,\alpha}$ at $z_{MI}$	(MPa)	3.48				
	P	(mW)		9.93	13.53		14.16
	$P_{1x1}$	(mW)		9.93	13.53		
	$Z_s$	(cm)			1.10		
	$Z_b$	(cm)				1.50	
	$Z_{MI}$	(cm)	1.40				
	$Z_{pii,\alpha}$	(cm)	1.40				
	$f_{awf}$	(MHz)	5.60	12.51		6.29	6.25
Other Information	prr	(Hz)	357.00				
	srr	(Hz)	0.00				
	$n_{pps}$		35688.80				
	$I_{pa,\alpha}$ at $z_{pii,\alpha}$	(W/cm <sup>2</sup> )	522.20				
	$I_{spta,\alpha}$ at $z_{pii,\alpha}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	216.20				
	$I_{spta}$ at $z_{pii}$ or $z_{sii,\alpha}$	(mW/cm <sup>2</sup> )	373.34				
	$p_r$ at $z_{pii}$	(MPa)	4.48				
Operating Control Conditions	Frequency	(MHz)	5.55	12.50	6.25	6.25	
	Sample Volume size	(mm)	1.00	1.00	1.00	1.00	
	Sample Volume position	(cm)	1.60	3.60	1.60	1.60	
	Beam Angle	(°)	0.00	0.00	0.00	0.00	
	Scale	(m/s)	0.05	0.30	0.30	0.30	
	Power	(dB)	0.00	0.00	0.00	0.00	
	Application		MSK_Sup	ArteryLower	ArteryLower	ArteryLower	

# Max Temperature Reporting Table

Probe	Max Temp (°C) (Simulated use)	Max Temp (°C) (Still air)
3SC-RS	41.7	38.9
6S-RS	42.0	38.4
9L-RS	39.8	36.1
12L-RS	40.5	34.0
L4-12t-RS	39.2	34.3
C1-5-RS	39.3	37.3
L8-18i-RS	42.3	40.4
8C-RS	42.2	44.7
E8C-RS	37.9	36.5
6Tc-RS	40.5	30.4
L12n-RS	41.3	40.8

**NOTE:** *Lens temperature measured under following conditions per IEC 60601-2-37:*

1. The ambient temperature was 23 °C ±3 °C
2. Thermocouple was placed at the geometric center of the lens.
3. Test object near human temperatures:
  - a. Thermal phantom at 37°C for non-external probes.
  - b. Thermal phantom at 33°C (or 23°C) for external probes.
4. Temperature rise measurements:
  - a. Thermal phantom at 23 °C ±3 °C for all probes.

Temperature rise is measured and added to 33 for External-Use probes or 37 °C for Non-External Use probes.

5. Probe placed upright in contact with above thermal phantom.
6. Auto-freeze capability is disabled.
7. Lens temperature is monitored for 30 minutes.
8. Overall uncertainty for test object near human temperatures 0.17°C
9. Overall uncertainty for temperature rise 0.34°C.



# Appendices

## Statements on the safety of ultrasound

October 1982, revised March 1983 and October 1983

Diagnostic ultrasound has been in use for over 35 years. Given its known benefits and recognized efficacy for medical diagnosis, including use during human pregnancy, the American Institute of Ultrasound In Medicine herein addresses the clinical safety of such use:

No confirmed biological effects on patients or instrument operators caused by exposure at intensities typical of present diagnostic ultrasound instruments have ever been reported. Although the possibility exists that such biological effects may be identified in the future, current data indicate that the benefits to patients of the prudent use of diagnostic ultrasound outweigh the risks, if any, that may be present.

## AIUM Statement on Mammalian in Vivo Ultrasonic Biological Effects

August 1976, revised October 1978, reaffirmed October 1982 and October 1983

In the low megahertz frequency range there have been (as of this date) no independently confirmed significant biological effects in mammalian tissues exposed to intensities "a" below  $100 \text{ mW/cm}^2$ . For ultrasound exposure times "b" less than 500 seconds and greater than 1 second, such effects have not been demonstrated even at higher intensities when the product of intensity "a" and exposure time "b" is less than  $50 \text{ Joules/cm}^2$ .

- Spatial peak, temporal average as measured in a free field in water.
- Total time, this includes off-time as well as on-time for a repeated pulse regime.



## A

Acoustic Measurement Uncertainties, 3-5  
Acoustic output, 3-2  
ALARA, 3-6

## C

Control Scheme, 3-9

## D

DICOM SR, 1-57

## I

IEC 60601-2-37, 3-71  
ISPTA, 3-8

## M

Measurement  
    accuracy, 1-53  
    formulas, 1-14  
    introduction, 1-2  
MI definition, 3-4

## O

OB, 2-2

## T

TI categories, 3-2  
TI definition, 3-2  
Track 3, 3-10, 3-71



