GE Medical Systems

Technical Publications

Vivid q N

$C\epsilon$ 0123

Reference Manual

GEMS #: FQ092028
Rev. 02

Regulatory Requirements

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

$C\epsilon$ 0123

This manual is a reference for Vivid q N. It applies to all versions of the 12.x software for the Vivid q N ultrasound system.

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Revision History

Revision	Date	Reason for Change
1	12 August 2012	Initial release
2	10 July 2015	Change CE Notified Body to 0123

List of affected pages

Revision	Affected Pages
1	All
2	All

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Regulatory information

> ⚠️ **CAUTION** *Any changes to accessories, peripheral units or any other part of the system must be approved by the manufacturer. Ignoring this advice may compromise the regulatory approvals obtained for the product.*

Directives

The GE Healthcare Ultrasound product families are tested to meet all applicable requirements in relevant EU Directives and European/International standards.

- Council Directive 93/42/EEC concerning MDD (Medical Devices Directive): the CE label affixed to the product testifies compliance to this Directive.

   The location of the CE marking is shown in the User Manual, Direction 5400907-1000, Chapter 1 - "Safety" as specified on the "Device Labels".

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Product Classifications

The Vivid q N ultrasound unit confirms to the following classifications:

- According to 93/42/EEC Medical Device Directive, this is Class IIa Medical Device.
- According to IEC/EN 60601-1, Equipment is Class I, Type B with BF or CF Applied Parts.
- According to CISPR 11, this is Group 1, Class B ISM Equipment.
- Classification according to the degree of protection against ingress of water as detailed in the current edition of IEC 60529 (section 6.1.1).
- The system is non-protected (IPX0).
- The footswitch rate IPX8 is suitable for use in surgical rooms.
- IPX1 for external use transducers
- IPX7 for internal use transducers
- IPX8 for ICE transducers

Conformity to Standards

To fulfill the requirements of relevant EC directives and/or European Harmonized/International standards, the following documents/standards have been used:

- International Electrotechnical Commission (IEC).
    - IEC/EN 60601-1: Medical Electrical Equipment, Part 1 General Requirements for Safety
    - IEC/EN 60601-1-2: Medical electrical equipment - Part 1-2: General requirements for safety - Collateral standard: Electromagnetic compatibility - Requirements and tests
    - IEC/EN 60601-1-4: Medical electrical equipment - Part 1-4: General requirements for safety - Collateral standard: Programmable electrical medical systems
    - IEC/EN 60601-1-6: Medical electrical equipment - Part 1-6: General requirements for basic safety and essential performance - Collateral Standard: Usability
    - IEC/EN 60601-2-37: Medical Electrical Equipment Part 2-37: Particular Requirements for the Safety of Ultrasonic Medical Diagnostic and Monitoring Equipment
    - IEC/EN60601-1-1: Medical Electrical Equipment Part 1-1: General Requirements for Safety Collateral Standard: Safety Requirements for Medical Electrical Systems
- IEC/EN 62304: Medical device software - Software life-cycle processes
- Canadian Standards Association (CSA).
    - CSA 22.2, 601.1 Medical Electrical Equipment, Part 1 General Requirements for Safety.
- NEMA Standards Publication UD 2: "Acoustic Output Measurement Standard For Diagnostic Ultrasound Equipment".
- NEMA Standards Publication UD 3: "Standard for Real-Time Display of Thermal and Mechanical Acoustic Output Indices On Diagnostic Ultrasound Equipment".
- Medical Device Good Manufacturing Practice Manual issued by the FDA (Food and Drug Administration, Department of Health, USA).

Certifications

- Quality management standards for medical devices: General Electric Medical Systems is ISO 9001 and ISO13485 certified.

Software License Acknowledgements

- WindowBlinds ™ OCX © Stardock ®

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Introduction

The Vivid q N ultrasound unit is a compact, high performance portable digital ultrasound imaging system.

The system provides image generation in 2D (B Mode), Color Flow Mapping (CFM), Power Doppler (Angio), M-Mode, Color M-Mode (CMM), PW and CW Doppler spectra, Tissue Velocity Imaging / Tissue Tracking (TVI/TT), Tissue Synchronization Imaging (TSI), B Flow Imaging (BFI/Bflow) and LVO Contrast option applications.

The fully digital architecture of the Vivid q N unit allows optimal usage of all scanning modes and probe types, throughout the full spectrum of operating frequencies.

Contact information

If additional information or assistance is needed, please contact the local distributor or the appropriate support resource listed bellow:

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Chapter 1
Measurements

This chapter includes the following information:

Measurement overview

The following table shows the cardiac measurements available on the Vivid q N 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 Abd AP	Abdominal Aorta AP diameter, 2D	cm
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
Ao Sinus	Aortic Root at the Sinus, 2D	cm
AR ERO	PISA: Regurgitant Orifice Area	cm^2
AR Flow	PISA: Regurgitant Flow	ml/s
AR PHT	AV Insuf. Pressure Half Time	ms
AR Rad	PISA: Radius of Aliased Point	cm
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^2
AV Acc Time	Aortic Valve Acceleration Time	ms
AV AccT/ET	AV Acceleration to Ejection Time Ratio	
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^2
AVA (VTI)	AV Area by Continuity Equation VTI	cm^2
AVA Planimetry	Aortic Valve Area	cm^2
AVAI Planimetry	Aortic Valve Area Index	cm^2/m^2
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

Measurements

Abbreviation	Definition	Unit
CO (MOD A2C)	CO 2CH, Single Plane, MOD(Simpson)	l/min
CO (MOD A4C)	CO 4CH, Single Plane, 4CH, MOD(Simpson)	l/min
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, Teicholz	ml
EDV(Teich)	Left Ventricle Volume, Diastolic, M-mode, Teicholz	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

Abbreviation	Definition	Unit
EPSS 2D	E-Point-to-Septum Separation, 2D	cm
ERO	Effective Regurgitant Orifice	cm^2
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, Teicholz	ml
ESV(Teich)	Left Ventricle Volume, Systolic, M-mode, Teicholz	ml
HR	AV Heart Rate, Dop	BPM
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
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

Measurements

Abbreviation	Definition	Unit
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 (MOD A4C)	LA Volume, Diastolic Single Plane, MOD	ml
LAEDV (MOD BP)	LA Volume, Diastolic, Bi-Plane, MOD	ml
LAESV (MOD A4C)	LA Volume, Systolic, Single Plane, MOD	ml
LAESV (MOD BP)	LA Volume, Systolic, Bi-Plane, MOD	ml
LIMP	Left Index of Mysocardial Performance	
LVA (s)	Left Ventricular Area, Systolic, 2CH	cm^2
LVAd (A2C)	Left Ventricular Area, Diastolic, 2CH	cm^2
LVAd (A4C)	Left Ventricular Area, Diastolic, 4CH	cm^2
LVAd(sax)	LV area, SAX, Diastolic	cm^2
LVAend (d)	LV Endocardial Area, SAX	cm^2
LVAepi (d)	LV Epicardial Area, SAX	cm^2
LVAs (A4C)	Left Ventricular Area, Systolic, 4CH	cm^2
LVAs(sax)	LV area, SAX, Systolic	cm^2
LVd Mass	LV Mass, Diastolic, 2D	g
LVd Mass	LV Mass, Diastolic, M-mode	g
LVd Mass Index	LV Mass Index, Diastolic, 2D	g/m^2
LVd Mass Index	LV Mass Index, Diastolic, M-mode	g/m^2

Abbreviation	Definition	Unit
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
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^2
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^2
LVOT SV	Stroke Volume by Aortic Flow	ml

Measurements

Abbreviation	Definition	Unit
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^2
LVs Mass Index	LV Mass Index, Systolic, M-mode	g/m^2
LAAd (A2C)	Left Atrium Area, Apical 2C	cm^2
LAAd (A4C)	Left Atrium Area, Apical 4C	cm^2
MCO	Mitral Valve closure to Opening	ms
MP Area	Mitral Valve Prosthesis	cm^2
MR Acc Time	MV Regurg. Flow Acceleration	s
MR ERO	PISA: Regurgitant Orifice Area	cm^2
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 RV	PISA: Regurgitant Volume Flow	ml
MR Vel	PISA: Aliased Velocity	m/s
MR Vmax	Mitral Regurg. Peak Velocity	m/s

Abbreviation	Definition	Unit
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^2
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^2
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 SI	Stroke Volume Index by Mitral Flow	ml/m^2
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^2
MVA By PHT	Mitral Valve Area according to PHT	cm^2

Measurements

Abbreviation	Definition	Unit
MVA by plan	Mitral Valve Area, 2D	cm^2
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^2
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^2
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

Abbreviation	Definition	Unit
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^2
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^3
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^2
RJA/LAA	Regurgitant jet area ratio RJA/LAA	
RV Major	Right Ventricle Major	cm

Measurements

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^2
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^2
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^2
RAA (s)	Right Atrium Area, 2D, Systole	cm^2
SI (A-L A2C)	LV Stroke Index, Single Plane, 2CH, Area-Length	ml/m^2
SI (A-L A4C)	LV Stroke Index, Single Plane, 4CH, Area-Length	ml/m^2
SI (Biplane)	LV Stroke Index, Bi-Plane, MOD	ml/m^2

Abbreviation	Definition	Unit
SI (bullet)	LV Stroke Index, Bi-Plane, Bullet	ml/m^2
SI (MOD A2C	LV Stroke Index, Single Plane, 2CH, MOD	ml/m^2
SI (MOD A4C	LV Stroke Index, Single Plane, 4CH, MOD	ml/m^2
SI (Teich)	LV Stroke Index, Teicholz, 2D	ml/m^2
SI (Teich)	LV Stroke Index, Teicholz, M-mode	ml/m^2
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

Measurements

Abbreviation	Definition	Unit
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^2
TV ann diam	Tricuspid Valve Annulus Diameter, 2D	cm
TV Area	Tricuspid Valve Area, 2D	cm^2
TV CO	Cardiac Output by Tricuspid Flow	l/min
TV Dec Slope	Tricuspid Valve Flow Deceleration	m/s^2
TV E Velocity	Tricuspid Valve E Velocity	m/s
TV E/A Ratio	Tricuspid Valve E-Peak to A-Peak Ratio	
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

AFI Measurements

AFI shown parameters	The AFI shown parameters are shown only on screen	
Abbreviation	**Definition**	**Unit**
PSS	Peak Systolic Longitudinal Strain Segmental most negative peak longitudinal strain during systole. Replaced with a positive systolic peak if positive peak exceeds 3/4*abs(negative). Formula: S = (L-L0)/L0, where L is the instantaneous length of the segment and L0 is the initial length at start systole (QRS). The length is measured along the ROI center line.	%
PSI	Post Systolic Index (based on longitudinal strain) Segmental, percentage of post-systolic contraction Formula: PSI = 100*(PS - ESS)/PS where ESS = strain at AVC and PS = peak strain after AVC.	%
HR	HR Heart Rate Heart rate based on the time between left and right QRS markers in 2D Strain. Formula: HR = 60/Cycle time	BPM

AFI parameters exported to the Worksheet

Abbreviation	Definition	Unit
AVC	Aortic Valve Closure Time interval between QRS (start systole) and Aortic valve closure.	ms
A4C:	**Apical 4 chamber view**	
BS peak sys SL	Peak Systolic Longitudinal Strain - Basal Septum[1]	%
MS peak sys SL	Peak Systolic Longitudinal Strain - Mid Septum[1]	%
[1] Segmental most negative peak longitudinal strain during systole. Replaced with a positive systolic peak if positive peak exceeds 3/4*abs(negative).		

Abbreviation	Definition	Unit
AS peak sys SL	Peak Systolic Longitudinal Strain - Apical Septum+A19:C55[1]	%
BL peak sys SL	Peak Systolic Longitudinal Strain - Basal Lateral segment[1]	%
ML peak sys SL	Peak Systolic Longitudinal Strain - Mid Lateral segment[1]	%
AL peak sys SL	Peak Systolic Longitudinal Strain - Apical Lateral segment[1]	%
A2C:	**Apical 2 chamber view**	
BI peak sys SL	Peak Systolic Longitudinal Strain - Basal Inferior segment[1]	%
MI peak sys SL	Peak Systolic Longitudinal Strain - Mid Inferior segment[1]	%
AI peak sys SL	Peak Systolic Longitudinal Strain - Apical Inferior segment[1]	%
BA peak sys SL	Peak Systolic Longitudinal Strain - Basal Anterior segment[1]	%
MA peak sys SL	Peak Systolic Longitudinal Strain - Mid Anterior segment[1]	%
AA peak sys SL	Peak Systolic Longitudinal Strain - Apical Anterior segment[1]	%
APLAX:	**Apical long axis view**	
BP peak sys SL	Peak Systolic Longitudinal Strain - Basal Posterior segment[1]	%
MP peak sys SL	Peak Systolic Longitudinal Strain - Mid Posterior segment[1]	%
AP peak sys SL	Peak Systolic Longitudinal Strain - Apical Posterior segment[1]	%

[1] Segmental most negative peak longitudinal strain during systole. Replaced with a positive systolic peak if positive peak exceeds 3/4*abs(negative).

Abbreviation	Definition	Unit
BAS peak sys SL	Peak Systolic Longitudinal Strain - Basal Antero-septal segment[1]	%
MAS peak sys SL	Peak Systolic Longitudinal Strain - Mid Antero-septal segment[1]	%
GLPS_LAX	Global longitudinal strain in apical long axis view Peak contraction of the entire myocardial view wall. Only calculated if at least 5 segments have acceptable TQ. Formula: (MinWallLength-MaxWallLength) / MaxWallLength	%
GLPS_A4C	Global longitudinal strain in apical 4 chamber view Peak contraction of the entire myocardial view wall. Only calculated if at least 5 segments have acceptable TQ. Formula: (MinWallLength-MaxWallLength) / MaxWallLength	%
GLPS_A2C	Global longitudinal strain in apical 2 chamber view Peak contraction of the entire myocardial view wall. Only calculated if at least 5 segments have acceptable TQ. Formula: (MinWallLength-MaxWallLength) / MaxWallLength	%
GLPS_Avg	Average global longitudinal strain. Averaged between 3 views. Formula: (GLPS_LAX+GLPS_A4C+GLPS_A2C)/3	%

[1] Segmental most negative peak longitudinal strain during systole. Replaced with a positive systolic peak if positive peak exceeds 3/4*abs(negative).

Auto-EF measurements

AutoEF parameters exported to the Worksheet		
Abbreviation	**Definition**	**Unit**
Apical 4 chamber view		
HR 4Ch Q	Heart rate, calculated from 4CH clip	BPM
LVVED 4Ch Q	LV volume, calculated using the modified Simpson method (Method of discs) from 4CH clip	ml
LVVES 4Ch Q	LV volume, calculated using the modified Simpson method (Method of discs) from 4CH clip	ml
LVEF 4Ch Q	Ejection fraction, calculated from 4CH clip Formula: EF = 100*(LVVED 4Ch Q-LVVES 4Ch Q)/ LVVED 4Ch Q	%
LVSV 4Ch Q	LV Stroke Volume, calculated using the modified Simpson method (Method of discs) from 4CH clip	ml
LVCO 4Ch Q	LV Cardiac Output, calculated using the modified Simpson method (Method of discs) from 4CH clip	l/min
LVLs 4Ch Q	LV main axis size, calculated from 4CH clip	cm
LVLd 4Ch Q	LV main axis size, calculated from 4CH clip	cm
Apical 2 chamber view		
HR 2Ch Q	Heart rate, calculated from 2Ch clip	BPM
LVVED 2Ch Q	LV volume, calculated using the modified Simpson method (Method of discs) from 2Ch clip	ml
LVVES 2Ch Q	LV volume, calculated using the modified Simpson method (Method of discs) from 2Ch clip	ml
LVEF 2Ch Q	Ejection fraction, calculated from 2Ch clip Formula: EF = 100*(LVVED 2Ch Q-LVVES 2Ch Q)/ LVVED 2Ch Q	%
LVSV 2Ch Q	LV Stroke Volume, calculated using the modified Simpson method (Method of discs) from 2Ch clip	ml
LVCO 2Ch Q	LV Cardiac Output, calculated using the modified Simpson method (Method of discs) from 2Ch clip	l/min
LVLs 2Ch Q	LV main axis size, calculated from 2Ch clip	cm

AutoEF parameters exported to the Worksheet		
Abbreviation	**Definition**	**Unit**
LVLd 2Ch Q	LV main axis size, calculated from 2Ch clip	cm
Bi-plane		
LVVED BiP Q	LV volume, calculated using the modified Simpson method (Method of discs) from 4Ch and 2Ch clips	ml
LVVES BiP Q	LV volume, calculated using the modified Simpson method (Method of discs) from 4Ch and 2Ch clips	ml
LVEF BiP Q	Ejection fraction, calculated from 4Ch and 2Ch clips Formula: EF = 100*(LVVED BiP Q-LVVES BiP Q)/ LVVED BiP Q	%
LVSV BiP Q	LV Stroke Volume, calculated using the modified Simpson method (Method of discs) from 4Ch and 2Ch clips	ml
LVCO BiP Q	LV Cardiac Output, calculated using the modified Simpson method (Method of discs) from 4Ch and 2Ch clips	l/min

Measurement formulas

Formulas–Cardiac

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

%FS [Dimension, Cube/Teicholz] Mode: 2D:CF Formula: (({LVIDd}–{LVIDs})/{LVIDd}) Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz] Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]
%FS [Generic, Dimension] Mode: MM:CM:AMM Formula: (({LVIDd}–{LVIDs})/{LVIDd}) Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension] Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]
%IVS Thck [Dimension] Mode: 2D:CF Formula: (({IVSs}–{IVSd})/{IVSd}) Needs measurement: IVSs [Dimension], IVSd [Dimension] Measured by: LVs [2DLV], IVSs [2DCALIPER]
%IVS Thck [Dimension] Mode: MM:CM:AMM Formula: (({IVSs}–{IVSd})/{IVSd}) Needs measurement: IVSs [Dimension], IVSd [Dimension] Measured by: IVSs [MMDISCALIPER]
%LVPW Thck [Dimension] Mode: 2D:CF Formula: (({LVPWs}–{LVPWd})/{LVPWd}) Needs measurement: LVPWs [Dimension], LVPWd [Dimension] Measured by: LVs [2DLV], LVPWs [2DCALIPER]
%LVPW Thck [Dimension] Mode: MM:CM:AMM Formula: (({LVPWs}–{LVPWd})/{LVPWd}) Needs measurement: LVPWs [Dimension], LVPWd [Dimension] Measured by: LVPWs [MMDISCALIPER]

Ao st junct/Ao [Dimension]

Mode: 2D:CF

Formula: {Ao st junct}/{Ao Diam}

Needs measurement: Ao st junct [Dimension], Ao Diam [Dimension]

Measured by: Ao st junct [2DCALIPER]

Ao/LA [Generic, Dimension]

Mode: MM:CM:AMM

Formula: {Ao Diam}/{LA Diam}

Needs measurement: Ao Diam [Generic, Dimension], LA Diam [Generic, Dimension]

Measured by: LA/Ao [MMLAAO]

AP Area [Aortic]

Mode: CW:PW

Formula: {LVOT Diam}^2*0.785*({LVOT VTI}/{AP VTI})

Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], AP VTI [Aortic]

Measured by: AP Area [SDMANTRACE]

AR ERO [PISA]

Mode: CF:CW:PW

Formula: {AR Flow}/{AR Vmax}

Needs measurement: AR Flow [PISA], AR Vmax [PISA]

Measured by: AR Trace [AUTOCALC]

AR RV [PISA]

Mode: CF:CW:PW

Formula: {AR Flow}/{AR Vmax}*{AR VTI}

Needs measurement: AR Flow [PISA], AR Vmax [PISA], AR VTI [PISA]

Measured by: AR Trace [AUTOCALC]

AV Acc Time/ET Ratio [Aortic]

Mode: CW:PW

Formula: {AV AccT}/{AVET}

Needs measurement: AV AccT [Aortic], AVET [Aortic]

Measured by: AVET [SDTIMECALIPER]

AV Area [Dimension]

Mode: 2D:CF

Formula: 3.14/4*{AV Diam}^2

Needs measurement: AV Diam [Dimension]

Measured by: AV Diam [2DCALIPER]

AV CI [Aortic]

Mode: CW:PW

Formula: (({AV Diam}^2*0.785*{AV VTI})*{HR}/60)/{BSA}

Needs measurement: AV Diam [Aortic], AV VTI [Aortic], HR [Aortic]

Measured by: AV Trace [SDMANTRACE]

Measurements

AV CO [Aortic]

Mode: CW:PW

Formula: ({AV Diam}^2*0.785*{AV VTI})*{HR}/60

Needs measurement: AV Diam [Aortic], AV VTI [Aortic], HR [Aortic]

Measured by: AV Trace [SDMANTRACE]

AV SI [Aortic]

Mode: CW:PW

Formula: ({AV Diam}^2*0.785*{AV VTI})/{BSA}

Needs measurement: AV Diam [Aortic], AV VTI [Aortic]

Measured by: AV Trace [SDMANTRACE]

AV SV [Aortic]

Mode: CW:PW

Formula: {AV Diam}^2*0.785*{AV VTI}

Needs measurement: AV Diam [Aortic], AV VTI [Aortic]

Measured by: AV Trace [SDMANTRACE]

AVA (VTI) [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*{LVOT VTI}/{AV VTI}

Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], AV VTI [Aortic]

Measured by: AV Trace [AUTOCALC]

AVA Vmax [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*abs({LVOT Vmax}/{AV Vmax})

Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]

Measured by: AV Vmax [AUTOCALC]

AVA Vmax [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*abs({LVOT Vmax}/{AV Vmax})

Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]

Measured by: AV Trace [AUTOCALC]

AVA Vmax, Pt [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*abs({LVOT Vmax}/{AV Vmax})

Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]

Measured by: AV Vmax [AUTOCALC]

AVA Vmax, Pt [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*abs({LVOT Vmax}/{AV Vmax})

Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]

Measured by: AV Trace [AUTOCALC]

AVAI (VTI) [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*{LVOT VTI}/{AV VTI}*{BSA}

Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], AV VTI [Aortic]

Measured by: AV Trace [AUTOCALC]

AVAI Vmax [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*abs({LVOT Vmax}/{AV Vmax}*{BSA})

Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]

Measured by: AV Vmax [AUTOCALC]

AVAI Vmax [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*abs({LVOT Vmax}/{AV Vmax}*{BSA})

Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]

Measured by: AV Trace [AUTOCALC]

AVAI Vmax, Pt [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*abs({LVOT Vmax}/{AV Vmax}*{BSA})

Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]

Measured by: AV Vmax [AUTOCALC]

AVAI Vmax, Pt [Aortic]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*abs({LVOT Vmax}/{AV Vmax}*{BSA})

Needs measurement: LVOT Diam [Aortic], LVOT Vmax [Aortic], AV Vmax [Aortic]

Measured by: AV Trace [AUTOCALC]

CI A-L A2C [Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: (({LVEDV A-L A2C}-{LVESV A-L A2C})*{HR}/60)/{BSA}

Needs measurement: LVEDV A-L A2C [Single Plane A2C, AutoBiplane], LVESV A-L A2C [Single Plane A2C, AutoBiplane], HR [Single Plane A2C, AutoBiplane]

Measured by: R-R [2DCALIPER], A2C [2DAUTOVOLUME]

CI A-L A2C [Single Plane A2C]

Mode: 2D:CF

Formula: (({LVEDV A-L A2C}-{LVESV A-L A2C})*{HR}/60/Auto)/{BSA}

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]

Measurements

CI A-L A4C [Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: (({LVEDV A-L A4C}–{LVESV A-L A4C})*{HR}/60)/{BSA}

Needs measurement: LVEDV A-L A4C [Single Plane A4C, AutoBiplane], LVESV A-L A4C [Single Plane A4C, AutoBiplane], HR [Single Plane A4C, AutoBiplane]

Measured by: R-R [2DCALIPER], A4C [2DAUTOVOLUME]

CI A-L A4C [Single Plane A4C]

Mode: 2D:CF

Formula: (({LVEDV A-L A4C}–{LVESV A-L A4C})*{HR}/60)/{BSA}

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]

CI A-L LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: (({LVEDV A-L LAX}–{LVESV A-L LAX})*{HR}/60)/{BSA}

Needs measurement: LVEDV A-L LAX [Single Plane LAX, AutoBiplane], LVESV A-L LAX [Single Plane LAX, AutoBiplane], HR [Single Plane LAX, AutoBiplane]

Measured by: R-R [2DCALIPER], AutoVolume [2DAUTOVOLUME]

CI Biplane [Biplane]

Mode: 2D:CF

Formula: d = biplane({LVLd A4C},{LVDisks},{LVLd A2C},{LVDisks})

Needs measurement: LVLd A4C [Biplane], LVLd A2C [Biplane], LVLs A4C [Biplane], LVLs A2C [Biplane], HR [Biplane]

Measured by: R-R [2DCALIPER]

CI bp el [Biplane Ellipse]

Mode: 2D:CF

Formula: ((d-s)*{ECG/HeartRate}/60)/{BSA} where: s = (8/(3*3.14159))*{LVAs(A4C)}*{LVAs(sax MV)}/{2D/LVIDs} d = (8/(3*3.14159))*{LVAd A4C}*{LVAd (sax MV)}/{LVIDd}

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]

CI bullet [Bullet]

Mode: 2D:CF

Formula: ((d-s)*{ECG/HeartRate}/60)/{BSA} where: s =5/6*{LVAs(sax)}*{LVLs(apical)} d = 5/6*{LVAd sax)}*{LVLd apical}

Needs measurement: LVAd sax) [Bullet], LVLd apical [Bullet], LVAs sax) [Bullet], LVLs apical [Bullet], HR [Bullet]

Measured by: R-R [2DCALIPER]

CI MOD A2C [Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: (({LVEDV MOD A2C}–{LVESV MOD A2C})*{HR}/60)/{BSA}

Needs measurement: LVEDV MOD A2C [Single Plane A2C, AutoBiplane], LVESV MOD A2C [Single Plane A2C, AutoBiplane], HR [Single Plane A2C, AutoBiplane]

Measured by: R-R [2DCALIPER], A2C [2DAUTOVOLUME]

CI MOD A2C [Single Plane A2C]

Mode: 2D:CF

Formula: (({LVEDV MOD A2C}-{LVESV MOD A2C})*{HR}/60)/{BSA}

Needs measurement: LVEDV MOD A2C [Single Plane A2C], LVESV MOD A2C [Single Plane A2C], HR [Single Plane A2C]

Measured by: LVESV A2C [2DVOLUMETRACE]

CI MOD A4C [Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: (({LVEDV MOD A4C}-{LVESV MOD A4C})*{HR}/60)/{BSA}

Needs measurement: LVEDV MOD A4C [Single Plane A4C, AutoBiplane], LVESV MOD A4C [Single Plane A4C, AutoBiplane], HR [Single Plane A4C, AutoBiplane]

Measured by: R-R [2DCALIPER], A4C [2DAUTOVOLUME]

CI MOD A4C [Single Plane A4C]

Mode: 2D:CF

Formula: (({LVEDV MOD A4C}-{LVESV MOD A4C})*{HR}/60)/{BSA}

Needs measurement: LVEDV MOD A4C [Single Plane A4C], LVESV MOD A4C [Single Plane A4C], HR [Single Plane A4C]

Measured by: LVESV A4C [2DVOLUMETRACE]

CI MOD LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: (({LVEDV MOD LAX}-{LVESV MOD LAX})*{HR}/60)/{BSA}

Needs measurement: LVEDV MOD LAX [Single Plane LAX, AutoBiplane], LVESV MOD LAX [Single Plane LAX, AutoBiplane], HR [Single Plane LAX, AutoBiplane]

Measured by: R-R [2DCALIPER], AutoVolume [2DAUTOVOLUME]

CI mod sim [Modified Simpson]

Mode: 2D:CF

Formula: ((d-s)*{ECG/HeartRate}/60)/{BSA} where: s = ({LVLs(apical)}/9)*((4*{LVAs(sax MV)})+(2*{LVAs(sax PM)})+sqrt({LVAs(sax MV)}*{LVAs(sax PM)})) d = ({LVLd apical}/9)*((4*{LVAd (sax MV)})+(2*{LVAd sax PM})+sqrt({LVAd (sax MV)}*{LVAd sax PM}))

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]

CI(Cube) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: ((d-s)*{ECG/HeartRate}/60)/{BSA} where: s = {2D/LVIDs}^3 d = {LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz], HR [Dimension, Cube/Teicholz]

Measured by: R-R [2DCALIPER]

CI(Cube) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: ((dv-sv)*{MM/HeartRate}/60)/{BSA} where: sv = {MM/LVIDs}^3 dv = {LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension], HR [Generic, Dimension]

Measured by: Heartrate [MMTIMECALIPER]

Measurements

CI(Teich) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: ((d-s)*{ECG/HeartRate}/60)/{BSA} where: s = 7/(2.4+{2D/LVIDs})*{2D/LVIDs}^3 d = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz], HR [Dimension, Cube/Teicholz]

Measured by: R-R [2DCALIPER]

CI(Teich) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: ((dv-sv)*{MM/HeartRate}/60)/{BSA} where: sv = 7/(2.4+{MM/LVIDs})*{MM/LVIDs}^3 dv = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension], HR [Generic, Dimension]

Measured by: Heartrate [MMTIMECALIPER]

CO A-L A2C [Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV A-L A2C}–{LVESV A-L A2C})*{HR}/60

Needs measurement: LVEDV A-L A2C [Single Plane A2C, AutoBiplane], LVESV A-L A2C [Single Plane A2C, AutoBiplane], HR [Single Plane A2C, AutoBiplane]

Measured by: R-R [2DCALIPER], A2C [2DAUTOVOLUME]

CO A-L A2C [Single Plane A2C]

Mode: 2D:CF

Formula: ({LVEDV A-L A2C}–{LVESV A-L A2C})*{HR}/60

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]

CO A-L A4C [Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV A-L A4C}–{LVESV A-L A4C})*{HR}/60

Needs measurement: LVEDV A-L A4C [Single Plane A4C, AutoBiplane], LVESV A-L A4C [Single Plane A4C, AutoBiplane], HR [Single Plane A4C, AutoBiplane]

Measured by: R-R [2DCALIPER], A4C [2DAUTOVOLUME]

CO A-L A4C [Single Plane A4C]

Mode: 2D:CF

Formula: ({LVEDV A-L A4C}–{LVESV A-L A4C})*{HR}/60

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]

CO A-L LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV A-L LAX}–{LVESV A-L LAX})*{HR}/60

Needs measurement: LVEDV A-L LAX [Single Plane LAX, AutoBiplane], LVESV A-L LAX [Single Plane LAX, AutoBiplane], HR [Single Plane LAX, AutoBiplane]

Measured by: R-R [2DCALIPER], AutoVolume [2DAUTOVOLUME]

CO A-L LAX [Single Plane LAX]

Mode: 2D:CF

Formula: ({LVEDV A-L LAX}–{LVESV A-L LAX})*{HR}/60

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]

CO Biplane [Biplane]

Mode: 2D:CF

Formula: d = biplane({LVLd A4C},{LVDisks},{LVLd A2C},{LVDisks})

Needs measurement: LVLd A4C [Biplane], LVLd A2C [Biplane], LVLs A4C [Biplane], LVLs A2C [Biplane], HR [Biplane]

Measured by: R-R [2DCALIPER]

CO bp el [Biplane Ellipse]

Mode: 2D:CF

Formula: (d-s)*{ECG/HeartRate}/60 where: s = (8/(3*3.14159))*{LVAs(A4C)}*{LVAs(sax MV)}/{2D/LVIDs} d = (8/(3*3.14159))*{LVAd A4C}*{LVAd (sax MV)}/{LVIDd}

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]

CO bullet [Bullet]

Mode: 2D:CF

Formula: (d-s)*{ECG/HeartRate}/60 where: s =5/6*{LVAs(sax)}*{LVLs(apical)} d = 5/6*{LVAd sax)}*{LVLd apical}

Needs measurement: LVAd sax) [Bullet], LVLd apical [Bullet], LVLs apical [Bullet], HR [Bullet]

Measured by: R-R [2DCALIPER]

CO MOD A2C [Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD A2C}–{LVESV MOD A2C})*{HR}/60

Needs measurement: LVEDV MOD A2C [Single Plane A2C, AutoBiplane], LVESV MOD A2C [Single Plane A2C, AutoBiplane], HR [Single Plane A2C, AutoBiplane]

Measured by: R-R [2DCALIPER], A2C [2DAUTOVOLUME]

CO MOD A2C [Single Plane A2C]

Mode: 2D:CF

Formula: ({LVEDV MOD A2C}–{LVESV MOD A2C})*{HR}/60

Needs measurement: LVEDV MOD A2C [Single Plane A2C], LVESV MOD A2C [Single Plane A2C], HR [Single Plane A2C]

Measured by: LVESV A2C [2DVOLUMETRACE]

CO MOD A4C [Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD A4C}–{LVESV MOD A4C})*{HR}/60

Needs measurement: LVEDV MOD A4C [Single Plane A4C, AutoBiplane], LVESV MOD A4C [Single Plane A4C, AutoBiplane], HR [Single Plane A4C, AutoBiplane]

Measured by: R-R [2DCALIPER], A4C [2DAUTOVOLUME]

Measurements

CO MOD A4C [Single Plane A4C]

Mode: 2D:CF

Formula: ({LVEDV MOD A4C}–{LVESV MOD A4C})*{HR}/60

Needs measurement: LVEDV MOD A4C [Single Plane A4C], LVESV MOD A4C [Single Plane A4C], HR [Single Plane A4C]

Measured by: LVESV A4C [2DVOLUMETRACE]

CO MOD LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD LAX}–{LVESV MOD LAX})*{HR}/60

Needs measurement: LVEDV MOD LAX [Single Plane LAX, AutoBiplane], LVESV MOD LAX [Single Plane LAX, AutoBiplane], HR [Single Plane LAX, AutoBiplane]

Measured by: R-R [2DCALIPER], AutoVolume [2DAUTOVOLUME]

CO MOD LAX [Single Plane LAX]

Mode: 2D:CF

Formula: ({LVEDV MOD LAX}–{LVESV MOD LAX})*{HR}/60

Needs measurement: LVEDV MOD LAX [Single Plane LAX], LVESV MOD LAX [Single Plane LAX], HR [Single Plane LAX]

Measured by: LVESV LAX [2DVOLUMETRACE]

CO mod sim [Modified Simpson]

Mode: 2D:CF

Formula: (d-s)*{ECG/HeartRate}/60 where: s = ({LVLs(apical)}/9)*((4*{LVAs(sax MV)})+(2*{LVAs(sax d = ({LVLd apical}/9)*((4*{LVAd (sax MV)})+(2*{LVAd sax PM})+sqrt({LVAd (sax MV)}*{LVAd sax PM}))

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]

CO(A-L) [Generic]

Mode: 2D:CF

Formula: ({EDV(A-L)}–{ESV(A-L)})*{HR}/60

Needs measurement: ESV(A-L) [Generic], HR [Generic]

Measured by: R-R [2DCALIPER]

CO(Cube) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: (d-s)*{ECG/HeartRate}/60 where: s = {2D/LVIDs}^3 d = {LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz], HR [Dimension, Cube/Teicholz]

Measured by: R-R [2DCALIPER]

CO(Cube) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: (dv-sv)*{MM/HeartRate}/60 where: sv = {MM/LVIDs}^3 dv = {LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension], HR [Generic, Dimension]

Measured by: Heartrate [MMTIMECALIPER]

CO(Teich) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: (d-s)*{ECG/HeartRate}/60 where: s = 7/(2.4+{2D/LVIDs})*{2D/LVIDs}^3 d = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz], HR [Dimension, Cube/Teicholz]

Measured by: R-R [2DCALIPER]

CO(Teich) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: (dv-sv)*{MM/HeartRate}/60 where: sv = 7/(2.4+{MM/LVIDs})*{MM/LVIDs}^3 dv = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension], HR [Generic, Dimension]

Measured by: Heartrate [MMTIMECALIPER]

EDV bp el [Biplane Ellipse]

Mode: 2D:CF

Formula: (8/(3*3.14159))*{LVAd A4C}*{LVAd (sax MV)}/{LVIDd}

Needs measurement: LVAd A4C [Biplane Ellipse], LVAd (sax MV) [Biplane Ellipse], LVIDd [Biplane Ellipse]

Measured by: LVEF BP-EL [AUTOCALC]

EDV bullet [Bullet]

Mode: 2D:CF

Formula: 5/6*{LVAd sax)}*{LVLd apical}

Needs measurement: LVAd sax) [Bullet], LVLd apical [Bullet]

Measured by: LVEF Bullet [AUTOCALC]

EDV mod sim [Modified Simpson]

Mode: 2D:CF

Formula: ({LVLd apical}/9)*((4*{LVAd (sax MV)})+(2*{LVAd sax PM})+sqrt({LVAd (sax MV)}*{LVAd sax PM}))

Needs measurement: LVLd apical [Modified Simpson], LVAd (sax MV) [Modified Simpson], LVAd sax PM [Modified Simpson]

Measured by: EF mod sim [AUTOCALC]

EDV(Cube) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: {LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz]

Measured by: LVd [2DLV], LVIDd [2DCALIPER], EF(Cube) [AUTOCALC]

EDV(Cube) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: {LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension]

Measured by: LV Study [MMLV], LVIDd [MMDISCALIPER]

Measurements

EDV(Teich) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz]

Measured by: LVd [2DLV], LVIDd [2DCALIPER], EF(Cube) [AUTOCALC]

EDV(Teich) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension]

Measured by: LV Study [MMLV], LVIDd [MMDISCALIPER]

EF A-L A2C [Biplane, Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV A-L A2C}–{LVESV A-L A2C})/{LVEDV A-L A2C}

Needs measurement: LVEDV A-L A2C [Biplane, Single Plane A2C, AutoBiplane], LVESV A-L A2C [Biplane, Single Plane A2C, AutoBiplane]

Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C [2DAUTOVOLUME]

EF A-L A4C [Biplane, Single Plane A4C, AutoBiplane]

Mode: 2D:CF:

Formula: ({LVEDV A-L A4C}–{LVESV A-L A4C})/{LVEDV A-L A4C}

Needs measurement: LVEDV A-L A4C [Biplane, Single Plane A4C, AutoBiplane], LVESV A-L A4C [Biplane, Single Plane A4C, AutoBiplane]

Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C [2DAUTOVOLUME]

EF A-L LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV A-L LAX}–{LVESV A-L LAX})/{LVEDV A-L LAX}

Needs measurement: LVEDV A-L LAX [Single Plane LAX, AutoBiplane], LVESV A-L LAX [Single Plane LAX, AutoBiplane]

Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC], AutoVolume [2DAUTOVOLUME]

EF Biplane [Biplane, AutoBiplane]

Mode: 2D:CF

Formula: d = biplane({LVLd A4C},{LVDisks},{LVLd A2C},{LVDisks})

Needs measurement: LVLd A4C [Biplane, AutoBiplane], LVLd A2C [Biplane, AutoBiplane], LVLs A4C [Biplane, AutoBiplane], LVLs A2C [Biplane, AutoBiplane]

Measured by: EF Biplane [AUTOCALC]

EF mod sim [Modified Simpson]

Mode: 2D:CF

Formula: ({LVLd apical}/9)*((4*{LVAd (sax MV)})+(2*{LVAd sax PM})+sqrt({LVAd (sax MV)}*{LVAd sax PM}))

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]

EF(A-L) [Generic]

Mode: 2D:CF

Formula: ({EDV(A-L)}-{ESV(A-L)})/{EDV(A-L)}

Needs measurement: ESV(A-L) [Generic], EDV(A-L) [Generic]

Measured by: EF Volume [AUTOCALC]

EF(Cube) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: (d-s)/d where: s = {2D/LVIDs}^3 d = {LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz]

Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]

EF(Cube) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: (dv-sv)/dv where: sv = {MM/LVIDs}^3 dv = {LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]

Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]

EF(MOD) [Generic]

Mode: 2D:CF

Formula: ({EDV(MOD)}-{ESV(MOD)})/{EDV(MOD)}

Needs measurement: EDV(MOD) [Generic], ESV(MOD) [Generic]

Measured by: EF Volume [AUTOCALC]

EF(Teich) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: (d-s)/d where:s = 7/(2.4+{2D/LVIDs})*{2D/LVIDs}^3 d = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz]

Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]

EF(Teich) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: (dv-sv)/dv where: sv = 7/(2.4+{MM/LVIDs})*{MM/LVIDs}^3 dv = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]

Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]

ESV bp el [Biplane Ellipse]

Mode: 2D:CF

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]

ESV bullet [Bullet]

Mode: 2D:CF

Formula: 5/6*{LVAs sax)}*{LVLs apical}

Needs measurement: LVAs sax) [Bullet], LVLs apical [Bullet]

Measured by: LVEF Bullet [AUTOCALC]

Measurements

ESV mod sim [Modified Simpson]   Mode: 2D:CF   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]
ESV(Cube) [Dimension, Cube/Teicholz]   Mode: 2D:CF   Formula: {LVIDs}^3   Needs measurement: LVIDs [Dimension, Cube/Teicholz]   Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]
ESV(Cube) [Generic, Dimension]   Mode: MM:CM:AMM   Formula: {LVIDs}^3   Needs measurement: LVIDs [Generic, Dimension]   Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]
ESV(Teich) [Dimension, Cube/Teicholz]   Mode: 2D:CF   Formula: 7/(2.4+{LVIDs})*{LVIDs}^3   Needs measurement: LVIDs [Dimension, Cube/Teicholz]   Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]
ESV(Teich) [Generic, Dimension]   Mode: MM:CM:AMM   Formula: 7/(2.4+{LVIDs})*{LVIDs}^3   Needs measurement: LVIDs [Generic, Dimension]   Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]
HR (Generic, Dimension, Biplane, Modified Simpson, Cube/Teicholz, Single Plane A4C, Single Plane A2C, Single Plane LAX, Bullet, Biplane Ellipse)   Mode: 2D:CF   Formula: 60/{R-R}   Needs measurement: R-R [Generic, Dimension, Biplane, Modified Simpson, Cube/Teicholz, 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
HR [Generic, Dimension]   Mode: MM:CM:AMM   Formula: 60/{Time}   Needs measurement: Time [Generic, Dimension]   Measured by: Heartrate [MMTIMECALIPER]   Used to calculate: CO(Cube),CO(Teich),CI(Teich),CI(Cube)

HR [Generic]
Mode: CW:PW
Formula: 60/{Time}
Needs measurement: Time [Generic]
Measured by: Heartrate [SDTIMECALIPER]

IVSd/LVPWd [Dimension]
Mode: MM:CM:AMM
Formula: {IVSd}/{LVPWd}
Needs measurement: IVSd [Dimension], LVPWd [Dimension]
Measured by: LVPWd [MMDISCALIPER]

LA/Ao [Generic, Dimension]
Mode: MM:CM:AMM
Formula: {LA Diam}/{Ao Diam}
Needs measurement: LA Diam [Generic, Dimension], Ao Diam [Generic, Dimension]
Measured by: LA/Ao [MMLAAO]

LIMP [Mitral Valve, Aortic]
Mode: CW:PW
Formula: ({MCO}–{AVET})/{AVET}
Needs measurement: MCO [Mitral Valve, Aortic], AVET [Mitral Valve, Aortic]
Measured by: LIMP [AUTOCALC]

LVCI Dopp [Aortic]
Mode: PW
Formula: ({LVOT Diam}^2*0.785*{LVOT VTI}*{HR}/60)/{BSA}
Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], HR [Aortic],
Measured by: LVOT Trace [SDMANTRACE]

LVCO Dopp [Aortic]
Mode: PW
Formula: {LVOT Diam}^2*0.785*{LVOT VTI}*{HR}/60
Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic], HR [Aortic]
Measured by: LVOT Trace [SDMANTRACE]

LVd Mass (ASE) [Generic]
Mode: MM:CM:AMM
Formula: ((1.04*(({IVSd}+{LVIDd}+{LVPWd})^3-({LVIDd})^3))*0.8+0.6)/1000
Needs measurement: IVSd [Generic], LVIDd [Generic], LVPWd [Generic]
Measured by: LV Study [MMLV]

LVd Mass [Dimension]
Mode: 2D:CF
Formula: ((1.04*(({IVSd}+{LVIDd}+{LVPWd})^3-({LVIDd})^3))-13.6)/1000
Needs measurement: IVSd [Dimension], LVIDd [Dimension], LVPWd [Dimension], LVIDd [Dimension]
Measured by: LVPWd [2DCALIPER]

Measurements

LVd Mass [Generic, Dimension]

Mode: MM:CM:AMM

Formula: ((1.04*(({IVSd}+{LVIDd}+{LVPWd})^3-({LVIDd})^3))-13.6)/1000

Needs measurement: IVSd [Generic, Dimension], LVPWd [Generic, Dimension], LVIDd [Generic, Dimension]

Measured by: LV Study [MMLV], LVPWs [MMDISCALIPER]

LVd Mass A-L [Mass]

Mode: 2D:CF

Formula: 1.05*5/6*({LVAd(sax epi)}*({LVLd(apical)}+t)-{LVAd(sax PM)}*{LVLd(apical)})/1000 where: t = sqrt({LVAd sax EPI}/3.14159)-sqrt({LVAd sax PM}/3.14159)

Needs measurement: LVAd sax EPI [Mass], LVAd sax PM [Mass], LVLd apical [Mass]

Measured by: LVMass(d) [AUTOCALC]

LVd Mass I A-L [Mass]

Mode: 2D:CF

Formula: m/{BSA} where: m = 1.05*5/6*({LVAd(sax epi)}*({LVLd(apical)}+t)-{LVAd(sax PM)}*{LVLd(apical)})/1000 t = sqrt({LVAd sax EPI}/3.14159)-sqrt({LVAd sax PM}/3.14159)

Needs measurement: LVAd sax EPI [Mass], LVAd sax PM [Mass], LVLd apical [Mass]

Measured by: LVMass(d) [AUTOCALC]

LVd Mass Ind (ASE) [Generic]

Mode: MM:CM:AMM

Formula: (((1.04*(({IVSd}+{LVIDd}+{LVPWd})^3-({LVIDd})^3))*0.8+0.6)/1000)/{BSA}

Needs measurement: IVSd [Generic], LVIDd [Generic], LVPWd [Generic]

Measured by: LV Study [MMLV]

LVd Mass Index [Dimension]

Mode: 2D:CF

Formula: m/{BSA} where m = ((1.04*(({IVSd}+{LVIDd}+{LVPWd})^3-({LVIDd})^3))-13.6)/1000

Needs measurement: IVSd [Dimension], LVIDd [Dimension], LVPWd [Dimension], LVIDd [Dimension]

Measured by: LVPWd [2DCALIPER]

LVd Mass Index [Generic, Dimension]

Mode: MM:CM:AMM

Formula: (((1.04*(({IVSd}+{LVIDd}+{LVPWd})^3-({LVIDd})^3))-13.6)/1000)/{BSA}

Needs measurement: IVSd [Generic, Dimension], LVIDd [Generic, Dimension], LVPWd [Generic, Dimension]

Measured by: LV Study [MMLV], LVPWs [MMDISCALIPER]

LVEDV MOD BP [Biplane, AutoBiplane]

Mode: 2D:CF

Formula: biplane({LVLd A4C},{LVDisks},{LVLd A2C},{LVDisks})

Needs measurement: LVLd A4C [Biplane, AutoBiplane], LVLd A2C [Biplane, AutoBiplane]

Measured by: EF Biplane [AUTOCALC]

LVEF BP-EL [Biplane Ellipse]

Mode: 2D:CF

Formula: (d-s)/d where: s = (8/(3*3.14159))*{LVAs(A4C)}*{LVAs(sax MV)}/{2D/LVIDs} d = (8/(3*3.14159))*{LVAd A4C}*{LVAd (sax MV)}/{LVIDd}

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]

LVEF Bullet [Bullet]

Mode: 2D:CF

Formula: (d-s)/d where: s =5/6*{LVAs(sax)}*{LVLs(apical)} d = 5/6*{LVAd sax)}*{LVLd apical}

Needs measurement: LVAd sax) [Bullet], LVLd apical [Bullet], LVLs apical [Bullet]

Measured by: LVEF Bullet [AUTOCALC]

LVEF MOD A2C [Biplane, Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD A2C}–{LVESV MOD A2C})/{LVEDV MOD A2C}

Needs measurement: LVEDV MOD A2C [Biplane, Single Plane A2C, AutoBiplane], LVESV MOD A2C [Biplane, Single Plane A2C, AutoBiplane]

Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C [2DAUTOVOLUME]

LVEF MOD A4C [Biplane, Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD A4C}–{LVESV MOD A4C})/{LVEDV MOD A4C}

Needs measurement: LVEDV MOD A4C [Biplane, Single Plane A4C, AutoBiplane], LVESV MOD A4C [Biplane, Single Plane A4C, AutoBiplane]

Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C [2DAUTOVOLUME]

LVEF MOD LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD LAX}–{LVESV MOD LAX})/{LVEDV MOD LAX}

Needs measurement: LVEDV MOD LAX [Single Plane LAX, AutoBiplane], LVESV MOD LAX [Single Plane LAX, AutoBiplane]

Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC], AutoVolume [2DAUTOVOLUME]

LVESV MOD BP [Biplane, AutoBiplane]

Mode: 2D:CF

Formula: biplane({LVLs A4C},{LVDisks},{LVLs A2C},{LVDisks})

Needs measurement: LVLs A4C [Biplane, AutoBiplane], LVLs A2C [Biplane, AutoBiplane]

Measured by: EF Biplane [AUTOCALC]

LVIDd Index [Dimension]

Mode: 2D:CF

Formula: {LVIDd}/{BSA}

Needs measurement: LVIDd [Dimension],

Measured by: LVIDd [2DCALIPER]

Measurements

LVIDd Index [Dimension]
Mode: MM:CM:AMM
Formula: {LVIDd}/{BSA}
Needs measurement: LVIDd [Dimension]
Measured by: LVIDd [MMDISCALIPER]
LVIDs Index [Dimension]
Mode: 2D:CF
Formula: {LVIDs}/{BSA}
Needs measurement: LVIDs [Dimension]
Measured by: LVIDs [2DCALIPER]
LVIDs Index [Dimension]
Mode: MM:CM:AMM
Formula: {LVIDs}/{BSA}
Needs measurement: LVIDs [Dimension]
Measured by: LVIDs [MMDISCALIPER]
LVOT Area [Dimension]
Mode: 2D:CF
Formula: 3.14/4*{LVOT Diam}^2
Needs measurement: LVOT Diam [Dimension]
Measured by: LVOT Diam [2DCALIPER]
LVOT Diam [Aortic]
Mode: CW:PW
Formula: {LVOT Diam}
Needs measurement: LVOT Diam [Aortic]
Measured by: AP Area [SDMANTRACE]
Used to calculate: AP Area
LVOT Diam [Mitral Valve]
Mode: CW:PW
Formula: {LVOT Diam}
Needs measurement: LVOT Diam [Mitral Valve]
Measured by: MP Area [SDMANTRACE]
Used to calculate: MP Area
LVOT VTI [Aortic]
Mode: CW:PW
Formula: {LVOT VTI}
Needs measurement: LVOT VTI [Aortic]
Measured by: AP Area [SDMANTRACE]
Used to calculate: AP Area

LVOT VTI [Mitral Valve]

Mode: CW:PW

Formula: {LVOT VTI}

Needs measurement: LVOT VTI [Mitral Valve]

Measured by: MP Area [SDMANTRACE]

Used to calculate: MP Area

LVPEP/ET [Aortic]

Mode: CW:PW

Formula: {LVPEP}/{LVET}

Needs measurement: LVPEP [Aortic], LVET [Aortic]

Measured by: LVET [SDTIMECALIPER]

LVPEP/ET [Time]

Mode: MM:CM:AMM

Formula: {LVPEP}/{LVET}

Needs measurement: LVPEP [Time], LVET [Time]

Measured by: LVET [MMTIMECALIPER]

LVs Mass (ASE) [Generic]

Mode: MM:CM:AMM

Formula: ((1.04*(({IVSs}+{LVIDs}+{LVPWs})^3-({LVIDs})^3))*0.8+0.6)/1000

Needs measurement: IVSs [Generic], LVIDs [Generic], LVPWs [Generic]

Measured by: LV Study [MMLV]

LVs Mass [Dimension]

Mode: 2D:CF

Formula: ((1.04*(({IVSs}+{LVIDs}+{LVPWs})^3-({LVIDs})^3))-13.6)/1000

Needs measurement: IVSs [Dimension], LVIDs [Dimension], LVPWs [Dimension]

Measured by: LVPWs [2DCALIPER]

LVs Mass [Generic, Dimension]

Mode: MM:CM:AMM

Formula: ((1.04*(({IVSs}+{LVIDs}+{LVPWs})^3-({LVIDs})^3))-13.6)/1000

Needs measurement: IVSs [Generic, Dimension], LVIDs [Generic, Dimension], LVPWs [Generic, Dimension]

Measured by: LV Study [MMLV], LVPWs [MMDISCALIPER]

LVs Mass A-L [Mass]

Mode: 2D:CF

Formula: 1.05*5/6*({LVAs(sax epi)}*({LVLs(apical)}+t)-{LVAs(sax PM)}*{LVLs(apical)})/1000 where: t = sqrt({LVAs sax EPI}/3.14159)-sqrt({LVAs sax PM}/3.14159)

Needs measurement: LVAs sax EPI [Mass], LVAs sax PM [Mass], LVLs apical [Mass]

Measured by: LVMass(s) [AUTOCALC]

LVs Mass Ind (ASE) [Generic]

Mode: MM:CM:AMM

Formula: (((1.04*(({IVSs}+{LVIDs}+{LVPWs})^3-({LVIDs})^3))*0.8+0.6)/1000)/{BSA}

Needs measurement: IVSs [Generic], LVIDs [Generic], LVPWs [Generic]

Measured by: LV Study [MMLV]

Measurements

LVs Mass Ind A-L [Mass]

Mode: 2D:CF

Formula: m/{BSA} where: m = 1.05*5/6*({LVAs(sax epi)}*({LVLs(apical)}+t)-{LVAs(sax PM)}*{LVLs(apical)})/ 1000 t = sqrt({LVAs sax EPI}/3.14159)-sqrt({LVAs sax PM}/3.14159)

Needs measurement: LVAs sax EPI [Mass], LVAs sax PM [Mass], LVLs apical [Mass]

Measured by: LVMass(s) [AUTOCALC]

LVs Mass Index [Dimension]

Mode: 2D:CF

Formula: m/{BSA} where: m = ((1.04*(({IVSs}+{LVIDs}+{LVPWs})^3-({LVIDs})^3))-13.6)/1000

Needs measurement: IVSs [Dimension], LVIDs [Dimension], LVPWs [Dimension]

Measured by: LVPWs [2DCALIPER]

LVs Mass Index [Generic, Dimension]

Mode: MM:CM:AMM

Formula: (((1.04*(({IVSs}+{LVIDs}+{LVPWs})^3-({LVIDs})^3))-13.6)/1000)/{BSA}

Needs measurement: IVSs [Generic, Dimension], LVIDs [Generic, Dimension], LVPWs [Generic, Dimension]

Measured by: LV Study [MMLV], LVPWs [MMDISCALIPER]

LVSI Dopp [Aortic]

Mode: PW

Formula: {LVOT Diam}^2*0.785*{LVOT VTI}/{BSA}

Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic],

Measured by: LVOT Trace [SDMANTRACE]

LVSV Dopp [Aortic]

Mode: PW

Formula: {LVOT Diam}^2*0.785*{LVOT VTI}

Needs measurement: LVOT Diam [Aortic], LVOT VTI [Aortic]

Measured by: LVOT Trace [SDMANTRACE]

MP Area [Mitral Valve]

Mode: CW:PW

Formula: {LVOT Diam}^2*0.785*({LVOT VTI}/{MP VTI})

Needs measurement: LVOT Diam [Mitral Valve], LVOT VTI [Mitral Valve], MP VTI [Mitral Valve]

Measured by: MP Area [SDMANTRACE]

MR ERO [PISA]

Mode: CF:CW:PW

Formula: {MR Flow}/{MR Vmax}

Needs measurement: MR Flow [PISA], MR Vmax [PISA]

Measured by: MR Trace [AUTOCALC]

MR RV [PISA]

Mode: CF:CW:PW

Formula: {MR Flow}/{MR Vmax}*{MR VTI}

Needs measurement: MR Flow [PISA], MR Vmax [PISA], MR VTI [PISA]

Measured by: MR Trace [AUTOCALC]

MV AccT/DecT [Mitral Valve]

Mode: CW:PW

Formula: {MV AccT}/{MV DecT}

Needs measurement: MV AccT [Mitral Valve], MV DecT [Mitral Valve]

Measured by: MV AccT [SDCALIPER]

MV Area [Dimension]

Mode: 2D:CF

Formula: 3.14/4*{MV Ann Diam}^2

Needs measurement: MV Ann Diam [Dimension]

Measured by: MV Ann Diam [2DCALIPER]

MV CI [Mitral Valve]

Mode: CW:PW

Formula: {MV Ann Diam}^2*0.785*{MV VTI}*{HR}/60/{BSA}

Needs measurement: MV Ann Diam [Mitral Valve], MV VTI [Mitral Valve], HR [Mitral Valve]

Measured by: MV Trace [SDMANTRACE]

MV CO [Mitral Valve]

Mode: CW:PW

Formula: {MV Ann Diam}^2*0.785*{MV VTI}*{HR}/60

Needs measurement: MV Ann Diam [Mitral Valve], MV VTI [Mitral Valve], HR [Mitral Valve]

Measured by: MV Trace [SDMANTRACE]

MV E/A Ratio [Mitral Valve]

Mode: CW:PW

Formula: {MV E Vel}/{MV A Vel}

Needs measurement: MV E Vel [Mitral Valve], MV A Vel [Mitral Valve]

Measured by: MV A Vel [SDPTCALIPER], MV A Vel [AUTOCALC]

MV SI [Mitral Valve]

Mode: CW:PW

Formula: {MV Ann Diam}^2*0.785*{MV VTI}/{BSA}

Needs measurement: MV Ann Diam [Mitral Valve], MV VTI [Mitral Valve],

Measured by: MV Trace [SDMANTRACE]

MV SV [Mitral Valve]

Mode: CW:PW

Formula: {MV Ann Diam}^2*0.785*{MV VTI}

Needs measurement: MV Ann Diam [Mitral Valve], MV VTI [Mitral Valve]

Measured by: MV Trace [SDMANTRACE]

MVA (VTI) [Mitral Valve]

Mode: 2D:CW:PW

Formula: 3.14/4*{LVOT Diam}^2*{LVOT VTI}/{MV VTI}

Needs measurement: LVOT Diam [Mitral Valve], LVOT VTI [Mitral Valve], MV VTI [Mitral Valve]

Measured by: MV Trace [AUTOCALC]

MVA By PHT [Mitral Valve]

Mode: CW:PW

Formula: 22/({MV PHT})

Needs measurement: MV PHT [Mitral Valve]

Measured by: MV E/A Velocity [SDEA3], MV PHT [SDCALIPER]

P Vein S/D Ratio [Pulmonary Vein]

Mode: PW

Formula: {P Vein S}/{P Vein D}

Needs measurement: P Vein S [Pulmonary Vein], P Vein D [Pulmonary Vein]

Measured by: P Vein D [SDPTCALIPER]

PAEDP [Pulmonic]

Mode: CW:PW

Formula: {PRend PG}+{RAP}

Needs measurement: PRend PG [Pulmonic], RAP [Pulmonic]

Measured by: PRend Vmax [AUTOCALC]

PR ERO [PISA]

Mode: CF:CW:PW

Formula: {PR Flow}/{PR Vmax}

Needs measurement: PR Flow [PISA], PR Vmax [PISA]

Measured by: PR Trace [AUTOCALC]

PR RV [PISA]

Mode: CF:CW:PW

Formula: {PR Flow}/{PR Vmax}*{PR VTI}

Needs measurement: PR Flow [PISA], PR Vmax [PISA], PR VTI [PISA]

Measured by: PR Trace [AUTOCALC]

Pulmonic CO [Shunts, Congenital Heart]

Mode: CW:PW

Formula: {Pulmonic SV}*{Pulmonic HR}/60

Needs measurement: Pulmonic SV [Shunts, Congenital Heart], Pulmonic HR [Shunts, Congenital Heart]

Measured by: Pulmonic VTI [SDMANTRACE]

Pulmonic SV [Shunts, Congenital Heart]

Mode: CW:PW

Formula: 3.14159/4*{Pulmonic Diam}^2*{Pulmonic VTI}

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

PV A/MV A Dur [Pulmonary Vein]

Mode: PW

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]

PV A/MV VTI [Pulmonary Vein]

Mode: PW

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]

PV AccT/ET [Pulmonic]

Mode: CW:PW

Formula: {PV AccT}/{PVET}

Needs measurement: PV AccT [Pulmonic], PVET [Pulmonic]

Measured by: PVET [SDTIMECALIPER]

PV A-MV A Dur [Pulmonary Vein]

Mode: PW

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]

PV Area [Dimension]

Mode: 2D:CF

Formula: 3.14/4*{PV Ann Diam}^2

Needs measurement: PV Ann Diam [Dimension]

Measured by: PV Ann Diam [2DCALIPER]

PV CI [Pulmonic, Valvular PS]

Mode: CW:PW

Formula: (({PV Ann Diam}^2*0.785*{PV VTI})*{HR}/60)/{BSA}

Needs measurement: PV Ann Diam [Pulmonic, Valvular PS], PV VTI [Pulmonic, Valvular PS], HR [Pulmonic, Valvular PS]

Measured by: PV Trace [SDMANTRACE]

PV CO [Pulmonic, Valvular PS]

Mode: CW:PW

Formula: ({PV Ann Diam}^2*0.785*{PV VTI})*{HR}/60

Needs measurement: PV Ann Diam [Pulmonic, Valvular PS], PV VTI [Pulmonic, Valvular PS], HR [Pulmonic, Valvular PS]

Measured by: PV Trace [SDMANTRACE]

PV SI [Pulmonic, Valvular PS]

Mode: CW:PW

Formula: ({PV Ann Diam}^2*0.785*{PV VTI})/{BSA}

Needs measurement: PV Ann Diam [Pulmonic, Valvular PS], PV VTI [Pulmonic, Valvular PS]

Measured by: PV Trace [SDMANTRACE]

PV SV [Pulmonic, Valvular PS]

Mode: CW:PW

Formula: {PV Ann Diam}^2*0.785*{PV VTI}

Needs measurement: PV Ann Diam [Pulmonic, Valvular PS], PV VTI [Pulmonic, Valvular PS]

Measured by: PV Trace [SDMANTRACE]

Measurements

PVA (Vmax) [Pulmonic]
Mode: 2D:CW:PW
Formula: 3.14/4*{RVOT Diam}^2*{RVOT Vmax}/{PV Vmax}
Needs measurement: RVOT Diam [Pulmonic], RVOT Vmax [Pulmonic], PV Vmax [Pulmonic]
Measured by: PV Vmax [AUTOCALC]
PVA (Vmax) [Pulmonic]
Mode: 2D:CW:PW
Formula: 3.14/4*{RVOT Diam}^2*{RVOT Vmax}/{PV Vmax}
Needs measurement: RVOT Diam [Pulmonic], RVOT Vmax [Pulmonic], PV Vmax [Pulmonic]
Measured by: PV Trace [AUTOCALC]
PVA (VTI) [Pulmonic]
Mode: 2D:CW:PW
Formula: 3.14/4*{RVOT Diam}^2*{RVOT VTI}/{PV VTI}
Needs measurement: RVOT Diam [Pulmonic], RVOT VTI [Pulmonic], PV VTI [Pulmonic]
Measured by: PV Trace [AUTOCALC]
Qp/Qs [Shunts, Congenital Heart]
Mode: CW:PW
Formula: 3.14159/4*{Pulmonic Diam}^2*{Pulmonic VTI}/(3.14159/4*{Systemic Diam}^2*{Systemic VTI})
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]
RIMP [Pulmonic, Tricuspid Valve]
Mode: CW:PW
Formula: ({TCO}-{PVET})/{PVET}
Needs measurement: TCO [Pulmonic, Tricuspid Valve], PVET [Pulmonic, Tricuspid Valve], PVET [Pulmonic, Tricuspid Valve]
Measured by: RIMP [AUTOCALC]
RVOT Area [Dimension]
Mode: 2D:CF
Formula: 3.14/4*{RVOT Diam}^2
Needs measurement: RVOT Diam [Dimension]
Measured by: RVOT Diam [2DCALIPER]
RVOT CI [Pulmonic, Valvular PS]
Mode: PW
Formula: (({RVOT Diam}^2*0.785*{RVOT VTI})*{HR}/60)/{BSA}
Needs measurement: RVOT Diam [Pulmonic, Valvular PS], RVOT VTI [Pulmonic, Valvular PS], HR [Pulmonic, Valvular PS],
Measured by: RVOT Trace [SDMANTRACE]

RVOT CO [Pulmonic, Valvular PS]

Mode: PW

Formula: ({RVOT Diam}^2*0.785*{RVOT VTI})*{HR}/60

Needs measurement: RVOT Diam [Pulmonic, Valvular PS], RVOT VTI [Pulmonic, Valvular PS], HR [Pulmonic, Valvular PS]

Measured by: RVOT Trace [SDMANTRACE]

RVOT SI [Pulmonic, Valvular PS]

Mode: PW

Formula: ({RVOT Diam}^2*0.785*{RVOT VTI})/{BSA}

Needs measurement: RVOT Diam [Pulmonic, Valvular PS], RVOT VTI [Pulmonic, Valvular PS],

Measured by: RVOT Trace [SDMANTRACE]

RVOT SV [Pulmonic, Valvular PS]

Mode: PW

Formula: {RVOT Diam}^2*0.785*{RVOT VTI}

Needs measurement: RVOT Diam [Pulmonic, Valvular PS], RVOT VTI [Pulmonic, Valvular PS]

Measured by: RVOT Trace [SDMANTRACE]

RVPEP/ET [Pulmonic]

Mode: CW:PW

Formula: {RVPEP}/{RVET}

Needs measurement: RVPEP [Pulmonic], RVET [Pulmonic]

Measured by: RVET [SDTIMECALIPER]

RVPEP/ET [Time]

Mode: MM:CM:AMM

Formula: {RVPEP}/{RVET}

Needs measurement: RVPEP [Time], RVET [Time]

Measured by: RVET [MMTIMECALIPER]

RVSP [Tricuspid Valve]

Mode: CW:PW

Formula: {TR maxPG}+{RAP}

Needs measurement: TR maxPG [Tricuspid Valve], RAP [Tricuspid Valve]

Measured by: TR Vmax [AUTOCALC]

SI A-L A2C [Biplane, Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV A-L A2C}–{LVESV A-L A2C})/{BSA}

Needs measurement: LVEDV A-L A2C [Biplane, Single Plane A2C, AutoBiplane], LVESV A-L A2C [Biplane, Single Plane A2C, AutoBiplane]

Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C [2DAUTOVOLUME]

Measurements

SI A-L A4C [Biplane, Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV A-L A4C}–{LVESV A-L A4C})/{BSA}

Needs measurement: LVEDV A-L A4C [Biplane, Single Plane A4C, AutoBiplane], LVESV A-L A4C [Biplane, Single Plane A4C, AutoBiplane]

Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C [2DAUTOVOLUME]

SI A-L LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV A-L LAX}–{LVESV A-L LAX})/{BSA}

Needs measurement: LVEDV A-L LAX [Single Plane LAX, AutoBiplane], LVESV A-L LAX [Single Plane LAX, AutoBiplane]

Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC], AutoVolume [2DAUTOVOLUME]

SI Biplane [Biplane, AutoBiplane]

Mode: 2D:CF

Formula: d = biplane({LVLd A4C},{LVDisks},{LVLd A2C},{LVDisks})

Needs measurement: LVLd A4C [Biplane, AutoBiplane], LVLd A2C [Biplane, AutoBiplane], LVLs A4C [Biplane, AutoBiplane], LVLs A2C [Biplane, AutoBiplane]

Measured by: EF Biplane [AUTOCALC]

SI bp el [Biplane Ellipse]

Mode: 2D:CF

Formula: (d–s)/{BSA} where: s = (8/(3*3.14159))*{LVAs(A4C)}*{LVAs(sax MV)}/{2D/LVIDs} d = (8/(3*3.14159))*{LVAd A4C}*{LVAd (sax MV)}/{LVIDd}

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]

SI bullet [Bullet]

Mode: 2D:CF

Formula: (d–s)/{BSA} where: s =5/6*{LVAs(sax)}*{LVLs(apical)} d = 5/6*{LVAd sax)}*{LVLd apical}

Needs measurement: LVAd sax) [Bullet], LVLd apical [Bullet], LVLs apical [Bullet],

Measured by: LVEF Bullet [AUTOCALC]

SI MOD A2C [Biplane, Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD A2C}–{LVESV MOD A2C})/{BSA}

Needs measurement: LVEDV MOD A2C [Biplane, Single Plane A2C, AutoBiplane], LVESV MOD A2C [Biplane, Single Plane A2C, AutoBiplane]

Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C [2DAUTOVOLUME]

SI MOD A4C [Biplane, Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD A4C}–{LVESV MOD A4C})/{BSA}

Needs measurement: LVEDV MOD A4C [Biplane, Single Plane A4C, AutoBiplane], LVESV MOD A4C [Biplane, Single Plane A4C, AutoBiplane]

Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C [2DAUTOVOLUME]

SI MOD LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: ({LVEDV MOD LAX}-{LVESV MOD LAX})/{BSA}

Needs measurement: LVEDV MOD LAX [Single Plane LAX, AutoBiplane], LVESV MOD LAX [Single Plane LAX, AutoBiplane]

Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC], AutoVolume [2DAUTOVOLUME]

SI mod sim [Modified Simpson]

Mode: 2D:CF

Formula: d-s/{BSA} where: s = ({LVLs(apical)}/9)*((4*{LVAs(sax MV)})+(2*{LVAs(sax PM)})+sqrt({LVAs(sax MV)}*{LVAs(sax PM)})) d = ({LVLd apical}/9)*((4*{LVAd (sax MV)})+(2*{LVAd sax PM})+sqrt({LVAd (sax MV)}*{LVAd sax PM}))

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]

SI(A-L) [Generic]

Mode: 2D:CF

Formula: ({EDV(A-L)}-{ESV(A-L)})/{BSA}

Needs measurement: ESV(A-L) [Generic]

Measured by: EF Volume [AUTOCALC]

SI(Cube) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: (d-s)/{BSA} where: s = {2D/LVIDs}^3 d = {LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz]

Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]

SI(Cube) [Generic]

Mode: MM:CM:AMM

Formula: (dv-sv)/{BSA} where: sv = {MM/LVIDs}^3 dv = {LVIDd}^3

Needs measurement: LVIDd [Generic], LVIDs [Generic],

Measured by: LV Study [MMLV]

SI(MOD) [Generic]

Mode: 2D:CF

Formula: ({EDV(MOD)}-{ESV(MOD)})/{BSA}

Needs measurement: EDV(MOD) [Generic], ESV(MOD) [Generic]

Measured by: EF Volume [AUTOCALC]

SI(Teich) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: (d-s)/{BSA} s = 7/(2.4+{2D/LVIDs})*{2D/LVIDs}^3 d = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz]

Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]

Measurements

SI(Teich) [Generic]

Mode: MM:CM:AMM

Formula: (dv-sv)/{BSA} where: sv = 7/(2.4+{MM/LVIDs})*{MM/LVIDs}^3 dv = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Generic], LVIDd [Generic], LVIDs [Generic]

Measured by: LV Study [MMLV]

SV A-L A2C [Biplane, Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: {LVEDV A-L A2C}–{LVESV A-L A2C}

Needs measurement: LVEDV A-L A2C [Biplane, Single Plane A2C, AutoBiplane], LVESV A-L A2C [Biplane, Single Plane A2C, AutoBiplane]

Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C [2DAUTOVOLUME]

SV A-L A4C [Biplane, Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: {LVEDV A-L A4C}–{LVESV A-L A4C}

Needs measurement: LVEDV A-L A4C [Biplane, Single Plane A4C, AutoBiplane], LVESV A-L A4C [Biplane, Single Plane A4C, AutoBiplane]

Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C [2DAUTOVOLUME]

SV A-L LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: {LVEDV A-L LAX}–{LVESV A-L LAX}

Needs measurement: LVEDV A-L LAX [Single Plane LAX, AutoBiplane], LVESV A-L LAX [Single Plane LAX, AutoBiplane]

Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC], AutoVolume [2DAUTOVOLUME]

SV Biplane [Biplane, AutoBiplane]

Mode: 2D:CF

Formula: d = biplane({LVLd A4C},{LVDisks},{LVLd A2C},{LVDisks})

Needs measurement: LVLd A4C [Biplane, AutoBiplane], LVLd A2C [Biplane, AutoBiplane], LVLs A4C [Biplane, AutoBiplane], LVLs A2C [Biplane, AutoBiplane]

Measured by: EF Biplane [AUTOCALC]

SV bp el [Biplane Ellipse]

Mode: 2D:CF

Formula: d = (8/(3*3.14159))*{LVAd A4C}*{LVAd (sax MV)}/{LVIDd}

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]

SV bullet [Bullet]

Mode: 2D:CF

Formula: d-s where: s =5/6*{LVAs(sax)}*{LVLs(apical)} d = 5/6*{LVAd sax)}*{LVLd apical}

Needs measurement: LVAd sax) [Bullet], LVLd apical [Bullet], LVLs apical [Bullet]

Measured by: LVEF Bullet [AUTOCALC]

SV MOD A2C [Biplane, Single Plane A2C, AutoBiplane]

Mode: 2D:CF

Formula: {LVEDV MOD A2C}-{LVESV MOD A2C}

Needs measurement: LVEDV MOD A2C [Biplane, Single Plane A2C, AutoBiplane], LVESV MOD A2C [Biplane, Single Plane A2C, AutoBiplane]

Measured by: EF SP A2C [AUTOCALC], LVESV A2C [2DVOLUMETRACE], A2C [2DAUTOVOLUME]

SV MOD A4C [Biplane, Single Plane A4C, AutoBiplane]

Mode: 2D:CF

Formula: {LVEDV MOD A4C}-{LVESV MOD A4C}

Needs measurement: LVEDV MOD A4C [Biplane, Single Plane A4C, AutoBiplane], LVESV MOD A4C [Biplane, Single Plane A4C, AutoBiplane]

Measured by: EF SP A4C [AUTOCALC], LVESV A4C [2DVOLUMETRACE], A4C [2DAUTOVOLUME]

SV MOD LAX [Single Plane LAX, AutoBiplane]

Mode: 2D:CF

Formula: {LVEDV MOD LAX}-{LVESV MOD LAX}

Needs measurement: LVEDV MOD LAX [Single Plane LAX, AutoBiplane], LVESV MOD LAX [Single Plane LAX, AutoBiplane]

Measured by: LVESV LAX [2DVOLUMETRACE], EF SP LAX [AUTOCALC], AutoVolume [2DAUTOVOLUME]

SV mod sim [Modified Simpson]

Mode: 2D:CF

Formula: ({LVLd apical}/9)*((4*{LVAd (sax MV)})+(2*{LVAd sax PM})+sqrt({LVAd (sax MV)}*{LVAd sax PM}))

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]

SV(A-L) [Generic]

Mode: 2D:CF

Formula: {EDV(A-L)}-{ESV(A-L)}

Needs measurement: ESV(A-L) [Generic]

Measured by: EF Volume [AUTOCALC]

SV(Cube) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: d-s where: s = {2D/LVIDs}^3 d = {LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz]

Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]

SV(Cube) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: dv-sv where: sv = {MM/LVIDs}^3 dv = {LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]

Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]

Measurements

SV(MOD) [Generic]

Mode: 2D:CF

Formula: {EDV(MOD)}-{ESV(MOD)}

Needs measurement: EDV(MOD) [Generic], ESV(MOD) [Generic]

Measured by: EF Volume [AUTOCALC]

SV(Teich) [Dimension, Cube/Teicholz]

Mode: 2D:CF

Formula: d-s where: s = 7/(2.4+{2D/LVIDs})*{2D/LVIDs}^3 d = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Dimension, Cube/Teicholz], LVIDs [Dimension, Cube/Teicholz]

Measured by: LVs [2DLV], LVIDs [2DCALIPER], EF(Cube) [AUTOCALC]

SV(Teich) [Generic, Dimension]

Mode: MM:CM:AMM

Formula: dv-sv where: sv = 7/(2.4+{MM/LVIDs})*{MM/LVIDs}^3 dv = 7/(2.4+{LVIDd})*{LVIDd}^3

Needs measurement: LVIDd [Generic, Dimension], LVIDs [Generic, Dimension]

Measured by: LV Study [MMLV], LVIDs [MMDISCALIPER]

Systemic CO [Shunts, Congenital Heart]

Mode: CW:PW

Formula: {Systemic SV}*{Systemic HR}/60

Needs measurement: Systemic SV [Shunts, Congenital Heart], Systemic HR [Shunts, Congenital Heart]

Measured by: Systemic VTI [SDMANTRACE]

Systemic SV [Shunts, Congenital Heart]

Mode: CW:PW

Formula: 3.14159/4*{Systemic Diam}^2*{Systemic VTI}

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

TR ERO [PISA]

Mode: CF:CW:PW

Formula: {TR Flow}/{TR Vmax}

Needs measurement: TR Flow [PISA], TR Vmax [PISA]

Measured by: TR Trace [AUTOCALC]

TR RV [PISA]

Mode: CF:CW:PW

Formula: {TR Flow}/{TR Vmax}*{TR VTI}

Needs measurement: TR Flow [PISA], TR Vmax [PISA], TR VTI [PISA]

Measured by: TR Trace [AUTOCALC]

TV AccT/DecT [Tricuspid Valve]

Mode: CW:PW

Formula: {TV AccT}/{TV Dec Time}

Needs measurement: TV AccT [Tricuspid Valve], TV Dec Time [Tricuspid Valve]

Measured by: TV AccT [SDCALIPER]

TV Area [Dimension]

Mode: 2D:CF

Formula: 3.14/4*{TV Ann Diam}^2

Needs measurement: TV Ann Diam [Dimension]

Measured by: TV Ann Diam [2DCALIPER]

TV CI [Tricuspid Valve]

Mode: CW:PW

Formula: (({TV Ann Diam}^2*0.785*{TV VTI})*{HR}/60)/{BSA}

Needs measurement: TV Ann Diam [Tricuspid Valve], TV VTI [Tricuspid Valve], HR [Tricuspid Valve]

Measured by: TV Trace [SDMANTRACE]

TV CO [Tricuspid Valve]

Mode: CW:PW

Formula: ({TV Ann Diam}^2*0.785*{TV VTI})*{HR}/60

Needs measurement: TV Ann Diam [Tricuspid Valve], TV VTI [Tricuspid Valve], HR [Tricuspid Valve]

Measured by: TV Trace [SDMANTRACE]

TV E/A Ratio [Tricuspid Valve]

Mode: CW:PW

Formula: {TV E Vel}/{TV A Vel}

Needs measurement: TV E Vel [Tricuspid Valve], TV A Vel [Tricuspid Valve]

Measured by: TV A Vel [SDPTCALIPER]

TV SI [Tricuspid Valve]

Mode: CW:PW

Formula: ({TV Ann Diam}^2*0.785*{TV VTI})/{BSA}

Needs measurement: TV Ann Diam [Tricuspid Valve], TV VTI [Tricuspid Valve]

Measured by: TV Trace [SDMANTRACE]

TV SV [Tricuspid Valve]

Mode: CW:PW

Formula: {TV Ann Diam}^2*0.785*{TV VTI}

Needs measurement: TV Ann Diam [Tricuspid Valve], TV VTI [Tricuspid Valve]

Measured by: TV Trace [SDMANTRACE]

TVA (Vmax) [Tricuspid Valve]

Mode: 2D:CW:PW

Formula: 3.14/4*{RVOT Diam}^2*{RVOT Vmax}/{TV Vmax}

Needs measurement: RVOT Diam [Tricuspid Valve], RVOT Vmax [Tricuspid Valve], TV Vmax [Tricuspid Valve]

Measured by: TV Vmax [AUTOCALC]

TVA (Vmax) [Tricuspid Valve]

Mode: 2D:CW:PW

Formula: 3.14/4*{RVOT Diam}^2*{RVOT Vmax}/{TV Vmax}

Needs measurement: RVOT Diam [Tricuspid Valve], RVOT Vmax [Tricuspid Valve], TV Vmax [Tricuspid Valve]

Measured by: TV Trace [AUTOCALC]

Measurements

TVA (VTI) [Tricuspid Valve]

Mode: 2D:CW:PW

Formula: 3.14/4*{RVOT Diam}^2*{RVOT VTI}/{TV VTI}

Needs measurement: RVOT Diam [Tricuspid Valve], RVOT VTI [Tricuspid Valve], TV VTI [Tricuspid Valve]

Measured by: TV [AUTOCALC]

Vcf mean [Dimension]

Mode: MM:CM:AMM

Formula: ({LVIDd}–{LVIDs})/({LVIDd}*{LVET})

Needs measurement: LVIDd [Dimension], LVIDs [Dimension], LVET [Dimension]

Measured by: Vcf [MMTIMECALIPER]

Vcf mn (corr) [Dimension]

Mode: MM:CM:AMM

Formula: ({LVIDd}–{LVIDs})/({LVIDd}*({LVET}/sqrt({Time})))

Needs measurement: LVIDd [Dimension], LVIDs [Dimension], LVET [Dimension], Time [Dimension]

Measured by: Vcf [MMTIMECALIPER]

Formulas–Generic

Calc Mnemonic	Calc Name	Input Measurements	Formula
BSA	Body Surface Area	Patient weight (kg) and height (m)	$0.007184 \times \text{Weight}^{0.425} \times \text{Height}^{0.725}$
BSA	Body Surface Area	Patient weight (kg)	$0.1 \times \text{Weight}^{0.667}$
MaxPG	Maximum Pressure Gradient	two Doppler blood flow peak velocities	$\text{MaxPG[mmHg]}=4 \times (v1^2-v2^2)$
MeanPG	Mean Pressure Gradient	flow velocities from one time marker to another time marker in a Doppler display	$\text{MeanPG[mmHg]}= 4 \times \sum_{i=1}^{n}(Vi^2)/n$
% Stenosis	Stenosis Ratio	two areas (by ellipse, trace, circle or distance)	$\% \text{ Stenosis}= [1-(A_{residual}/A_{lumen})] \times 100$
PI	Pulsatility Index	two Doppler blood flow peak velocities and TAMAX	$PI=(V_{max}-V_{diastole})/TAMAX^a$
RI	Resistivity Index	two Doppler blood flow peak velocities	$RI=(V_{max}-V_{diastole})/V_{max}{}^a$
HR	Heart Rate (beats/minute)	one 2 beat time interval	$\text{HR[BPM]}=120[\text{sec}]/2\text{beat time [sec]}$
A/B Ratio	Velocities Ratio	two Doppler blood flow peak velocities	$A/B=V_1/V_2$
TAMAX	Time Averaged Maximum Velocity (Trace Method is Peak or manual)	two time marks in a Doppler display	$\text{TAMAX}=\text{sum}\{Vt\}$ from t1 to t2/(t2-t1) [cm/s or m/s]
TAMIN	Time Averaged Minimum Velocity (Trace method is Floor)	two time marks in a Doppler display	$\text{TAMIN}=\text{sum}\{V_t\}$ 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	$\text{TAMEAN}=\text{sum}\{V_t\}$ from t1 to t2/(t2-t1) [cm/s or m/s]

a.Vdiastole = Vmin or Vend-diastole (depends on preset selection)

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

Calc Name	Input Measurements	Formula
Volume (spheroidal)	three distances	Vol[ml]= (π/6)xd1xd2xd3
Volume (spheroidal)	one distance d1, one ellipse, d2 major axis, d3 minor axis	Vol[ml]= (π/6)xd1xd2xd3
Volume Flow	two time marks in a Doppler display, and one distance	Volume Flow = 60 X TAmean X VFdiam X VFdiam X (π/4)

Formulas–Vascular

Vascular Calculation Formulas

Calc Mnemonic	Calc Name	Input Measurements	Formula
RT ECA	Right External Carotid Artery Velocity	one Doppler blood flow peak velocity	RT ECA=v1 [cm/s or m/s]
RT CCA	Right Common Carotid Artery Velocity	one Doppler blood flow peak velocity	RT CCA=v1 [cm/s or m/s]
RT BIFURC	Right Carotid Bifurcation Velocity	one Doppler blood flow peak velocity	RT BIFURC=v1 [cm/s or m/s]
RT ICA	Right Internal Carotid Artery Velocity	one Doppler blood flow peak velocity	RT ICA=v1 [cm/s or m/s]
RT ICA/CCA	Right Internal Carotid Artery Velocity/Common Carotid Artery Velocity Ratio	two Doppler blood flow peak velocities	RT ICA/CCA=V_{ICA}/V_{CCA}
LT ECA, LT CCA, LT BIFURC, LT ICA, LT ICA/CCA	Same as above, for Left Carotid Artery	Same as above	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)	% Stenosis=[1-($A_{residual}$/ A_{lumen})]x100
S/D Ratio	Systolic Velocity/Diastolic Velocities Ratio	two Doppler blood flow peak velocities	S/D=$V_{systole}$/$V_{diastole}$[a]
PI	Pulsatility Index	two Doppler blood flow peak velocities and TAMAX	PI=(V_{max}-$V_{diastole}$)/ TAMAX[a]
RI	Resistivity Index	two Doppler blood flow peak velocities	RI=(V_{max}-$V_{diastole}$)/ V_{max}[a]
HR	Heart Rate (beats/minute)	one 2 beat time interval (measured manually or automatically)	HR[BPM]=120[sec]/ 2 beat time[sec]

a.$V_{diastole}$ = V_{min} or $V_{end-diastole}$ (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 $(GA)^3$	
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
EF	Ejection Fraction	two distances on M-Mode (End-diastolic dimension and End-systolic dimension on M-Mode)	EF = (1 - Ds^3 / Dd^3)	n/a

CUA Hadlock Formulas

Calc Mnemonic	Calc Name	Formula
CUA[a]	Composite Ultrasound Age	1. $CUA (BPD) = 9.54 + 1.482 * BPD + 0.1676 * BPD^2$ 2. $CUA (HC) = 8.96 + 0.540 * HC + 0.0003 * HC^3$ 3. $CUA (AC) = 8.14 + 0.753 * AC + 0.0036 * AC^2$ 4. $CUA (FL) = 10.35 + 2.460 * FL + 0.170 * FL^2$ 5. $CUA (BPD, HC) = 10.32 + 0.009 * HC2 + 1.3200 * BPD + 0.00012 * HC^3$ 6. $CUA (BPD, AC) = 9.57 + 0.524 * AC + 0.1220 * BPD^2$ 7. $CUA (BPD, FL) = 10.50 + 0.197 * BPD * FL + 0.9500 * FL + 0.7300 * BPD$ 8. $CUA (HC, AC) = 10.31 + 0.012 * HC2 + 0.3850 * AC$ 9. $CUA (HC, FL) = 11.19 + 0.070 * HC * FL + 0.2630 * HC$ 10. $CUA (AC, FL) = 10.47 + 0.442 *AC + 0.3140 * FL^2 -0.0121 * FL^3$ 11. $CUA (BPD, HC, AC) = 10.58 + 0.005 * HC2 + 0.3635 * AC + 0.02864 * BPD * AC$ 12. $CUA (BPD, HC, FL) = 11.38 = 0.070 * HC * FL + 0.9800 * BPD$ 13. $CUA (BPD, AC, FL) = 10.61 + 0.175 * BPD * FL + 0.2970 * AC + 0.7100 * FL$ 14. $CUA (HC, AC, FL) = 10.33 + 0.031 * HC * FL + 0.3610 * HC + 0.0298 * AC * FL$ 15. $CUA (BPD, HC, AC, FL) = 10.85 + 0.060 * HC * FL + 0.6700 * BPD + 0.1680 * AC$
Author Reference: Hadlock, Radiology, 1984 152:497-501		
[a]) 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&A Preset Menu. If other authors are used, CUA automatically changes to AUA and an average value is displayed.		

EFW Calculation Formulas

Calc Mnemonic	Calc Name	Input Measurements	Formula	Author Reference
EFW	Estimated Fetal Weight	AC and HC	EFW [kg] = 10^(1.182+(0.0273*HC [cm])+(0.07057*AC [cm] - (0.00063*AC [cm]^2)- (0.0002184*AC [cm] * HC [cm]))	Hadlock, Radiology, 150:535, 1984
EFW	Estimated Fetal Weight	BPD, AC, and FL	EFW [g]=10^(1.335-(0.0034*AC [cm] * FL [cm]) + (0.0316 * BPD [cm]) + (0.0457 * AC [cm]) + (0.1623 * FL [cm]	Hadlock, AJOG, 151:333, 1985
EFW	Estimated Fetal Weight	AC, HC, and FL	EFW [g]=10^(1.326-(0.00326 * AC [cm] * FL [cm]) + (0.0107 * HC [cm]) + (0.0438 * AC [cm]) + (0.158 * FL [cm]))	Hadlock, AJOG, 151:333, 1985
EFW	Estimated Fetal Weight	AC, HC, BPD, FL	EFW [g] = 10^(1.3596-(0.00386 * AC [cm] * FL [cm]) + (0.0064 * HC [cm]) + (0.00061 * BPD [cm] * AC [cm]) + (0.0424 * AC [cm]) + (0.174 * FL [cm]))	Hadlock, AJOG, 151:333, 1985
EFW	Estimated Fetal Weight	AC and FL	EFW [g] = 10^(1.304 + 0.05281 * AC [cm] + 0.1938 * FL [cm] - 0.004 * AC [cm] * FL [cm])	Hadlock, Radiology, 150:535, 1984
EFW	Estimated Fetal Weight		EFW [g] = -3200.40479 + 157.07186 * AC [cm] + 15.90391 * BPD [cm]^2	Merz
EFW	Estimated Fetal Weight		EFW [g] = 0.515263 - 0.105775 * BPD [mm] + (0.000930707 * BPD [mm]^2 + 0.0649145 * TAD [mm] - 0.00020562 * TAD [mm]^2	German
EFW	Estimated Fetal Weight	AC and BPD	EFW [kg] = 10^(-1.7492 + 0.166 * BPD [cm] + 0.046 * AC [cm] - 2.646 * AC [cm] * BPD [cm]/1000)	Shepard, AJOG, 142:47, 1982
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

Calc Mnemonic	Calc Name	Input Measurements	Formula	Author Reference
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
EFW	Estimated Fetal Weight	BPD, AxT, FL [cm]	EFW1 [g] =1.07 * BPD [cm]^3 + 3.42 * AxT [cm2] * 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 [cm2] * LV [cm]	Tokyo Shinozuka

Amniotic Fluid Index (AFI)

The normal values are considered to be:

- 36-40 weeks
- 0-5 cm = very low
- 5.1-8.0 cm = low
- 8.1-18.0 cm = normal
- >18.0 = high
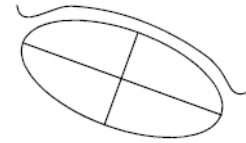
Sagittal

Dr. Rutherford/Dr. Phelan, *Obstetrics and Gynecology*, Volume 70, No. 3, Part 1, p.353-6, Sept. 1987.

- 28-40 weeks
- 15.0 cm = average
- >20.0 - 24.0 = hydramnios
- <5.0-6.0 = Oligohydramnios
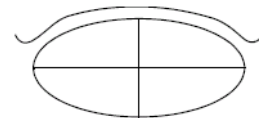
Transverse

Dr. C.C. Smith, *The Female Patient*, Volume 15, p.85-97, March 1990.

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		
UtPFD	Uterus Portio-Fundus Distance		
UtAP	Anterior-Posterior Uterus Diameter		
UtQ	Transverse Uterus Diameter		
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		
Lt. Ov-RI	Left Ovarian Vessel Resistive Index	two Doppler blood flow peak velocities	Lt. Ov-RI= $(V_{max}-V_{diastole})/V_{max}$ [a]
Ut-RI	Uterine Vessel Resistive Index	two Doppler blood flow peak velocities	Ut-RI= $(V_{max}-V_{diastole})/V_{max}$ [a]
Rt. Ov-RI	Right Ovarian Vessel Resistive Index	two Doppler blood flow peak velocities	Rt. Ov-RI= $(V_{max}-V_{diastole})/V_{max}$ [a]

Calc Mnemonic	Calc Name	Input Measurements	Formula
LtOvFo[ml]	Left Ovary Follicles	One distance[b]	$D1[cm]^3 \times \pi/6$
		Two distances[b]	$D1[cm]^2 \times D2x[cm]\ \pi/6$: (D1<D2)
			$D1[cm] \times D2[cm]\ 2x\ \pi/6$: (D2<D1)
		Three distances	$D1[cm] \times D2[cm]x\ D3[cm] \times \pi/6$
RtOvFo[ml]	Right Ovary Follicles	One distance[b]	$D1[cm]^3 \times \pi/6$
		Two distances[b]	$D1[cm]^2 \times D2[cm] \times \pi/6$: (D1 <D2)
			$D1[cm] \times D2[cm]2 \times \pi/6$: (D2 <D1)
		Three distances	$D1[cm] \times D2[cm] \times D3[cm] \times \pi/6$
Lt. Ov-PI	Left Ovarian Vessel Pulsatility Index		
Rt. Ov-PI	Right Ovarian Vessel Pulsatility Index		

[a]) $V_{diastole} = V_{min}$ or $V_{end\text{-}diastole}$ (depends on preset selection)

[b]) To calculate LtOvFo or RtOvFo with one (or two distances), press the **CLEAR** key after the first (or second distance) measurement(s).

Measurement accuracy

General

When using the Measurement and Analysis (M&A) package, 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

See also "Optimizing Measurement Accuracy" below for recommended techniques.

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.

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.

Screen pixel resolution

The display screen is composed of an array of square picture elements (pixels). The smallest resolvable unit is +/- 1pixel. 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

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

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.

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 table below.

Measurement	Range	Accuracy	Comments
2D Calipers			
Distance	1 - 10 cm	7%	
	> 10 cm	5%	
Area	>1 cm^2	10%	
Volume (area + distance)	20 - 150 cm^3	10 ml	
M-mode Calipers			
Distance	1 - 10 cm	7%	
dt	0.5 - 1.5 s	0.5%	With optimal sweep speed setting
ECG alignment with M-mode data	All ranges	+/- 10 ms	
Spectrum Calipers			
Velocity	0.2 - 1.5 m/s	6%	
dt	0.5 - 1.5 s	0.5%	With optimal sweep speed setting
ECG alignment with Doppler data	All ranges	+/- 10 ms	
Q Analysis			
Velocity from TVI data		10%	
Strain	-5 to -25%	+/-3 percentage points	
Strain rate	-2.0 to + 2.0 1/sec	20%	

Measurement	Range	Accuracy	Comments
2D Auto EF			
ES Volume	20 - 120 ml	+/-35 ml	

Measurements

Measurement	Range	Accuracy	Comments
ED Volume	20 - 120 ml	+/-45 ml	
Ejection Fraction	30 - 80%	+/-15 percentage points	
ESV_BiP or EDV_BiP	20 - 120 ml	+/-20 ml	
AFI			
Global Longitudinal Strain	-5 to -25%	+/-3 percentage points	
Regional Longitudinal Strain	0 to -25%	+/-9 percentage points	

DICOM SR Measurements

DICOM Structured Reporting (SR) is a standardized format for medical results. Vivid q N and EchoPAC PC supports the specialized form for Adult Echo and Vascular Ultrasound ("Supplement 72" and "Supplement 71" respectively, issued by the DICOM Standards Committee) for M&A results.

Note: For a full comprehensive table of DICOM SR measurements, please refer to the relevant Conformance Statement document located on the following GE Healthcare WEB site:

http://www.gehealthcare.com/usen/interoperability/dicom/products/ultrasound_dicom.html

"Supplements 71 and 72" do not support all M&A results from Vivid q N and EchoPAC PC. "Supplement 72" limits the information that is possible to send to the following:

- Publicly coded parameters, no pediatric or fetal cardiac and no unassigned measurements.
- Basic modes: 2D, M-mode, Color Flow, PW and CW Doppler.
- Publicly coded methods, no Modified Simpson or Bullet methods.
- Basic derivations (Average and Last); no references between 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).

Chapter 2
OB 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[a] (Fetal Age)
Unit: 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 & 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
<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	00	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)(Continued)
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, 1985
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
<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
Known LMP											
<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			
Unknown LMP											

Table 2-24: CRL: Hansmann (Fetal Age) (Continued)
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 AI: Geburtsh, u, Frauenheilk 39: 656, 1979
Unit: 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, 1985
Known/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, 1985
Known/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 Al: Geburtsh, u, Frauenheilk 39: 656, 1979
Unit: 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, 1985
Known/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, 1969
Unit: 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, 1990
Unit: 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, 1982
Unit: 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, 1982
Unit: 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, 1982
Unit: 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, 1982
Unit: 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, 1982
Unit: 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, 1983
Unit: 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, 1982
Unit: 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, 1982
Unit: 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, 1982
Unit: 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, 1982
Unit: 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, 1984
Unit: 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, 1983
Unit: 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, 1984
Unit: 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, 1984
Unit: 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 gestation
JSUM, 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 gestation
JSUM, 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 gestation
JSUM, 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 gestation
JSUM, 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, 1980
Unit: 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, 1982
Unit: 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, 1982
Unit: 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, 1987
Unit: 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	146	19w1d	20w5d	22w1d
56	10w6d	12w1d	13w2d	148	19w2d	20w6d	22w3d
58	11w1d	12w2d	13w4d	150	19w4d	21w1d	22w4d
60	11w2d	12w4d	13w5d	152	19w5d	21w1d	22w6d
62	11w4d	12w5d	13w6d	154	19w6d	21w3d	23w0d
64	11w5d	12w6d	14w1d	156	20w1d	21w4d	23w1d
66	11w6d	13w1d	14w2d	158	20w1d	21w6d	23w3d
68	12w0d	13w2d	14w4d	160	20w3d	22w0d	23w4d
70	12w1d	13w4d	14w5d	162	20w4d	22w1d	23w6d
72	12w3d	13w4d	14w6d	164	20w6d	22w3d	24w0d
74	12w4d	13w6d	15w1d	166	21w0d	22w4d	24w1d
76	12w6d	14w0d	15w2d	168	21w1d	22w6d	24w3d
78	12w6d	14w1d	15w4d	170	21w2d	23w0d	24w4d
80	13w1d	14w3d	15w5d	172	21w4d	23w1d	24w6d
82	13w2d	14w4d	15w6d	174	21w5d	23w2d	25w0d
84	13w4d	14w6d	16w1d	176	21w6d	23w4d	25w1d
86	13w5d	15w0d	16w2d	178	22w1d	23w5d	25w3d
88	13w6d	15w1d	16w4d	180	22w1d	23w6d	25w4d
90	14w0d	15w3d	16w5d	182	22w3d	24w1d	25w6d
92	14w1d	15w4d	16w6d	184	22w4d	24w2d	26w0d
94	14w3d	15w5d	17w1d	186	22w6d	24w4d	26w1d
96	14w4d	15w6d	17w2d	188	23w0d	24w5d	26w3d
98	14w6d	16w1d	17w4d	190	23w1d	24w6d	26w4d
100	14w6d	16w2d	17w5d	192	23w2d	25w0d	26w6d
102	15w1d	16w4d	17w6d	194	23w4d	25w1d	27w0d
104	15w2d	16w5d	18w1d	196	23w5d	25w3d	27w1d
106	15w4d	16w6d	18w2d	198	23w6d	25w4d	27w3d
108	15w5d	17w1d	18w3d	200	24w1d	25w6d	27w4d
110	15w6d	17w2d	18w4d	202	24w2d	26w0d	27w6d
112	16w0d	17w3d	18w6d	204	24w3d	26w1d	27w6d
114	16w1d	17w4d	19w0d	206	24w4d	26w3d	28w1d
116	16w3d	17w6d	19w1d	208	24w6d	26w4d	28w2d
118	16w4d	18w0d	19w3d	210	25w0d	26w6d	28w4d
120	16w6d	18w1d	19w4d	212	25w1d	27w0d	28w5d
122	17w0d	18w3d	19w6d	214	25w2d	27w1d	28w6d
124	17w1d	18w4d	20w0d	216	25w4d	27w2d	29w1d
126	17w2d	18w6d	20w1d	218	25w5d	27w4d	29w2d
128	17w4d	19w0d	20w3d	220	25w6d	27w5d	29w4d
130	17w5d	19w1d	20w4d	222	26w1d	27w6d	29w5d
132	17w6d	19w2d	20w6d	224	26w2d	28w1d	29w6d
134	18w0d	19w4d	21w0d	226	26w3d	28w2d	30w1d
136	18w1d	19w5d	21w1d	228	26w4d	28w4d	30w2d
138	18w3d	19w6d	21w3d	230	26w6d	28w5d	30w4d
140	18w4d	20w1d	21w4d	232	27w0d	28w6d	30w5d
142	18w6d	20w2d	21w6d	234	27w1d	29w0d	30w6d
144	19w0d	20w4d	22w0d	236	27w3d	29w1d	31w1d

Table 2-61: AC: Merz (Fetal Age)(Continued)
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
238	27w4d	29w3d	31w2d	298	33w0d	35w1d	37w1d
240	27w5d	29w4d	31w4d	300	33w1d	35w2d	37w3d
242	27w6d	29w6d	31w5d	302	33w3d	35w4d	37w4d
244	28w1d	30w0d	31w6d	304	33w4d	35w5d	37w6d
246	28w2d	30w1d	32w1d	306	33w5d	35w6d	38w0d
248	28w3d	30w3d	32w2d	308	33w6d	36w1d	38w1d
250	28w4d	30w4d	32w4d	310	34w1d	36w2d	38w3d
252	28w6d	30w6d	32w5d	312	34w2d	36w4d	38w4d
254	29w0d	30w6d	32w6d	314	34w4d	36w4d	38w6d
256	29w1d	31w1d	33w1d	316	34w4d	36w6d	39w0d
258	29w3d	31w2d	33w2d	318	34w6d	37w0d	39w1d
260	29w4d	31w4d	33w4d	320	35w0d	37w1d	39w3d
262	29w5d	31w5d	33w5d	322	35w1d	37w3d	39w4d
264	29w6d	31w6d	33w6d	324	35w3d	37w4d	39w6d
266	30w1d	32w1d	34w1d	326	35w4d	37w6d	40w0d
268	30w2d	32w2d	34w2d	328	35w5d	38w0d	40w1d
270	30w4d	32w4d	34w4d	330	35w6d	38w1d	40w3d
272	30w4d	32w5d	34w5d	332	36w1d	38w3d	40w4d
274	30w6d	32w6d	34w6d	334	36w2d	38w4d	40w6d
276	31w0d	33w0d	35w1d	336	36w4d	38w5d	41w0d
278	31w1d	33w1d	35w2d	338	36w5d	38w6d	41w1d
280	31w3d	33w3d	35w4d	340	36w6d	39w1d	41w3d
282	31w4d	33w4d	35w5d	342	37w0d	39w2d	41w4d
284	31w5d	33w6d	35w6d	344	37w1d	39w4d	41w6d
286	31w6d	34w0d	36w1d	346	37w3d	39w5d	42w0d
288	32w1d	34w1d	36w2d	348	37w4d	39w6d	42w1d
290	32w2d	34w3d	36w4d	>348	n/a	n/a	n/a
292	32w4d	34w4d	36w5d				
294	32w4d	34w5d	36w6d				
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, 1988
Unit: 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, 1988
Unit: 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, 1988
Unit: 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)(Continued)
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 (mm^2); Age (Days); SD (mm^2)

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 (cm^2); 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 (cm^2)

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 (cm^2); 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 information

This chapter includes the following information:

The real-time display of acoustic output indices

The Vivid q N has real-time display features according to Track 3 in the FDA 510(k) Guidance. 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. Neither are displayed if the value is below 0.4. 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.

The Vivid q N chooses the correct category based on mode of operation and chosen application, and presents only one TI to the operator. It is therefore important that the operator chooses the right application.

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).

The MI will not exceed a value of 1.9 according to Track 3 in the FDA 510(k) guidance of 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 95% confidence level.

Parameter	Estimated accuracy[a]	Measurement precision	
		M/Color/PW/CW	2D/CFM mode
Pressure, MI	± 25%	± 15%	
Power, TI	± 50%	± 30%	± 40%
Frequency	± 1%[b]	± 1%	

a. Accuracy = (Measured value - displayed value)/displayed value * 100%
b. The displayed Frequency value shown on the screen may differ from the actual value of fc which is used to calculate the estimated MI parameter

Concerns Surrounding the Use of Diagnostic Ultrasound

During a diagnostic ultrasound examination, high frequency sound penetrates and interacts with tissue in and around the area of anatomy to be imaged. Only a small portion of this sound energy is reflected back to the probe for use in constructing the image while the remainder is dissipated within the tissue. The interaction of sound energy with tissue at sufficiently high levels can produce biological effects (aka bioeffects) of either a mechanical or thermal nature. Although the generation of bioeffect is intentional with therapeutic ultrasound, it is generally undesired in diagnostic applications and may be harmful in some conditions.

Note: The American Institute of Ultrasound in Medicine (AIUM) has published a document entitled "Medical Ultrasound Safety". This three part document covers Bioeffects and Biophysics, Prudent Use and Implementing ALARA.

Ultrasound users should read the AIUM documents to become more familiar with Ultrasound safety. A copy of this document is included as part of the DOC-CD (GE P/N 5390423).

To contact the AIUM concerning their publications:
- In the USA, by telephone at 1-800-638-5352.
- To write them, use the following address:
  AIUM
  14750 Sweitzer Lane
  Suite 100
  Laurel, MD, USA 20707-5906

Default Settings and Output Levels

The default acoustic output level will not exceed a thermal index (TI) of 3.0 or a mechanical index (MI) of 1.5.

The maximum default TI is 50% of the maximum possible TI (6.0) and the maximum default MI is 80% of the maximum possible MI (1.9).

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 all applications is:
- ISPTA ≤ 720 mW/cm^2
- MI ≤ 1.9
- TI ≤ 6
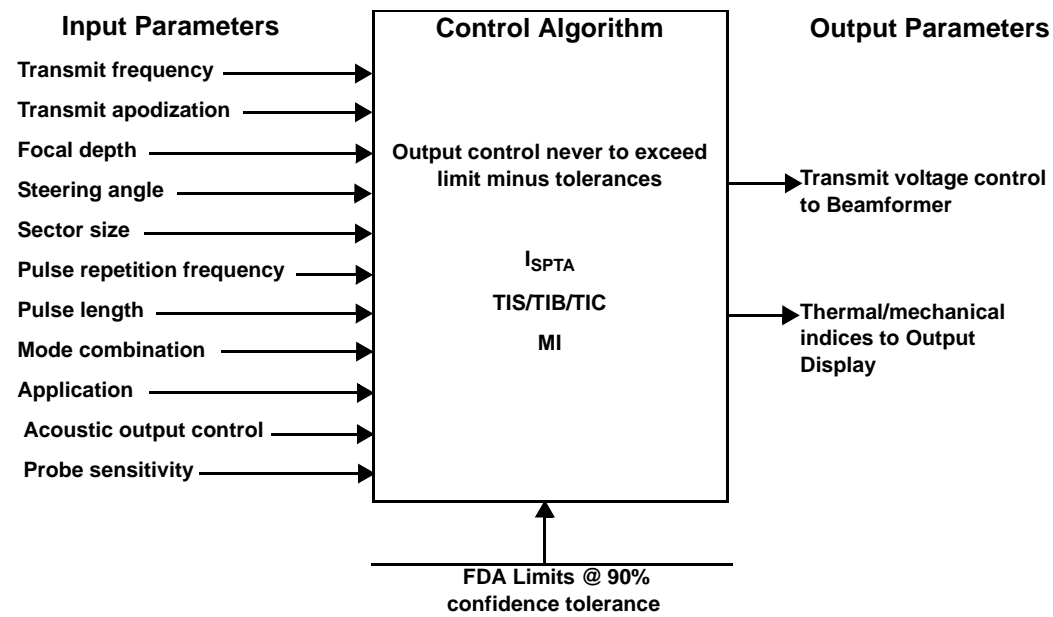
Figure 3-1 The Vivid q N Acoustic Output Control Scheme

Track 3 Summary Table

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 wordwide. Please refer to your local language User Manual for an overview of the probes that are supported in your country.

Operating Mode	Transducer Model		
	3Sc-RS	M4S-RS	5S-RS
2D	Yes	Yes	Yes
M-Mode	Yes	Yes	Yes
PW Doppler	Yes	Yes	Yes
CW Doppler	Yes	Yes	Yes
CFM	Yes	Yes	Yes
CMM	Yes	Yes	Yes

Operating Mode	Transducer Model			
	6S-RS	7S-RS	10S-RS	12S-RS
2D	Yes	Yes	Yes	Yes
M-Mode	Yes	Yes	Yes	Yes
PW Doppler	Yes	Yes	Yes	Yes
CW Doppler	Yes	Yes	Yes	Yes
CFM	Yes	Yes	Yes	Yes
CMM	Yes	Yes	Yes	Yes

Operating Mode	Transducer Model			
	8L-RS	9L-RS	12L-RS	i12L-RS
2D	Yes	Yes	Yes	Yes
M-Mode	Yes	Yes	Yes	Yes
PW Doppler	Yes	Yes	Yes	Yes
CW Doppler	-	-	-	-
CFM	Yes	Yes	Yes	Yes
CMM	Yes	Yes	Yes	Yes

Operating Mode	Transducer Model		
	4C-RS	8C-RS	e8C-RS
2D	Yes	Yes	Yes
M-Mode	Yes	Yes	Yes
PW Doppler	Yes	Yes	Yes
CW Doppler	-	-	-
CFM	Yes	Yes	Yes
CMM	Yes	Yes	Yes

Operating Mode	Transducer Model		
	6T-RS	6Tc-RS	9T-RS
2D	Yes	Yes	Yes
M-Mode	Yes	Yes	Yes
PW Doppler	Yes	Yes	Yes
CW Doppler	Yes	Yes	Yes
CFM	Yes	Yes	Yes
CMM	Yes	Yes	Yes

Operating Mode	Transducer Model	
	P2D-RS	**P6D-RS**
2D	-	-
M-Mode	-	-
PW Doppler	-	-
CW Doppler	Yes	Yes
CFM	-	-
CMM	-	-

Operating Mode	Transducer Model	
	AcuNav8™	**AcuNav™ 10/ SoundStar™ 3D 10FG / eco 10FG**
2D	Yes	Yes
M-Mode	Yes	Yes
PW Doppler	Yes	Yes
CW Doppler	Yes	Yes
CFM	Yes	Yes
CMM	Yes	Yes

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:

FDA	IEC	Meaning—IEC 60601-2-37 / FDA & NEMA UD2, UD3
a	α	*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*
f_c	f_{awf}	*Acoustic Working Frequency* / Center frequency
I_{pa}	I_{pa}	*Pulse-Average Intensity*
$I_{pa.3}$	$I_{pa,\alpha}$	*Attenuated Pulse-Average Intensity*
PII	I_{pi}	*Pulse-Intensity Integral*
$PII_{.3}$	$I_{pi,\alpha}$	*Attenuated Pulse-Intensity Integral*
I_{TA}	$I_{ta}(z)$	*Temporal-Average Intensity*
$I_{TA.3}(Z)$	$I_{ta,\alpha}(z)$	*Attenuated Temporal-Average Intensity* / (at depth z)
$I_{SPTA}(Z)$	$I_{zpta}(z)$	*Spatial-Peak Temporal-Average Intensity*
$I_{SPTA.3}(Z)$	$I_{zpta,\alpha}(z)$	*Attenuated Spatial-Peak Temporal-Average Intensity*
MI	*MI*	*Mechanical Index*
W_o	P	*Output Power* / Time average acoustic power at the source
$W_{.3}(Z)$	P_α	*Attenuated Output Power* / Time average acoustic power derated to depth z
W_{o1}	P_1	*Bounded Output Power* / Power emitted from the central 1cm of aperture
PII	p_i	*Pulse Pressure Squared Integral / Pulse intensity integral*
p_r	p_r	*Peak-Rarefactional Acoustic Pressure* / (same)
$p_{r.3}$	$p_{r,\alpha}$	*Attenuated Peak-Rarefactional Acoustic Pressure* / (same)
PRF	*prr*	*Pulse Repetition Rate* / Pulse repetition frequency

FDA	IEC	Meaning—IEC 60601-2-37 / FDA & NEMA UD2, UD3
TI	*TI*	*Thermal Index* / (same)
TIB	*TIB*	*Bone Thermal Index* / (same)
TIC	*TIC*	*Cranial-Bone Thermal Index* / (same)
TIS	*TIS*	*Soft-Tissue Thermal Index* / (same)
PD	t_d	*Pulse Duration* / (same)
x_{-12}, y_{-12}	*X, Y*	*-12 dB Output Beam Dimensions* / (same)
Z	*z*	*Distance from the Source to a Specified Point* / (same)
Z_{sp}	z_b	*Depth for TIB* / Depth at which the relevant index is maximum
Z_{bp}	z_{bp}	*Break-Point Depth* / (same)
Z_{sp}	z_s	*Depth for TIS* / Depth at whcih the relevant index is maximum

Translations of definitions, symbols, and abbreviations

The following definitions, symbols and abbreviations, used in the acoustic output reporting tables, have been translated into several languages. See the following tables:

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English

Symbol	Unit	Definition
MI	n/a	Mechanical Index
TIS$_{scan}$	n/a	Soft Tissue Thermal Index in auto-scanning mode
TIS$_{non-scan}$	n/a	Soft Tissue Thermal Index in non-auto-scanning mode
TIB	n/a	Bone Thermal Index
TIC	n/a	Cranial Thermal Index
A$_{aprt}$	cm^2	Area of the active aperture
P$_{r.3}$	MPa	Derated peak rarefactional pressure (MPa) associated with the transmit pattern giving rise to the value reported under **MI**
W$_o$	mW	Ultrasonic power, except for **TIS$_{scan}$**, in which case it is the ultrasonic power passing through a one centimeter window
W$_{.3(z1)}$	mW	Derated ultrasonic power at axial distance **z$_1$**
I$_{TA.3(Z1)}$	mW/cm^2	Derated spatial-peak, temporal-average intensity at axial distance **z$_1$**
Z$_1$	cm	Axial distance corresponding to the location of max [min(**W$_{.3}$(z)**, **I$_{TA.3}$(z)** x 1 cm2)], where z $\geq$ zbp
Z$_{bp}$	cm	1.69(**A$_{aprt}$**)$^{1/2}$
Z$_{sp}$	cm	For **MI**, the axial distance at which pr.3 is measured For **TIB**, the axial distance at which TIB is a maximum (i.e. $z_{sp} = z_{B.3}$)
d$_{eq}$(z)	cm	Equivalent beam diameter as a function of axial distance z, and is equal to $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$, where $I_{TA}(z)$ is the temporal-average intensity as a function of z

Symbol	Unit	Definition
f_c	Mhz	Center frequency For **MI,** f_c is the center frequency associated with the transmit pattern giving rise to the maximum reported value of **MI**. For **TI**, for combined modes involving transmit patterns of unequal center frequency, f_c is defined as the overall range of center frequencies of the respective transmit patterns
Dim. of A$_{aprt}$	cm	Active aperture dimensions for the azimuthal and elevational planes
PD	μs	Pulse duration associated with the transmit pattern giving rise to the reported value of **MI**
PRF	Hz	Pulse repetition frequency associated with the transmit pattern giving rise to the reported value of **MI**
P$_r$ @ PII$_{max}$	MPa	Peak rarefactional pressure at the point where the freefield, spatial-peak pulse intensity integral is a maximum
D$_{eq}$ @ PII$_{max}$	cm	Equivalent beam diameter at the point where the freefield, spatial-peak pulse intensity integral is a maximum
FL	cm	Focal length, or azimutal and elevational lengths, if different
I$_{PA.3}$ @ MI$_{max}$	W/cm^2	Derated pulse average intensity at the point of maximum reported **MI**
ROI	n/a	Region Of Interest
TB	n/a	Trackball
CF	n/a	Color Flow Mode
CM	n/a	Color M Mode
PW/CW	n/a	Pulsed Wave/Continuous Wave Doppler

Chinese

符号	单位	定义
MI	不适用	机械指数
TIS_{scan}	不适用	自动扫描模式下的软组织热敏指数
$TIS_{non-scan}$	不适用	非自动扫描模式下的软组织热敏指数
TIB	不适用	骨组织热敏指数
TIC	不适用	头盖骨热敏指数
A_{aprt}	cm^2	有效孔径区
$P_{r.3}$	MPa	与可以产生 MI 报告值的传送模式关联的减额最大稀薄压 （MPa）
W_o	mW	超声功率，除了在使用 TIS_{scan} 的情况下，此时，它是指一厘米窗口内通过的超声功率
$W_{.3}(z_1)$	mW	减额超声功率 （轴长 z_1）
$I_{TA.3}(z_1)$	mW/cm^2	减额空间峰值、时间平均强度 （轴长 z_1）
z_1	cm	与 $\max[\min(W_{.3}(z), I_{TA.3}(z) \times 1\ cm^2)]$ 位置相对应的轴长，其中 $z \geq z_{bp}$
z_{bp}		$1.69(A_{aprt})^{1/2}$
$d_{eq}(z)$	cm	等效波束直径，轴长 z 的函数，等于 $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$，其中 $I_{TA}(z)$ 为时间平均强度，z 的函数
f_c	MHz	中心频率 对于 MI，f_c 为与可以产生 MI 最大报告值的传送模式关联的中心频率。 对于 TI，用于包括不同中心频率传送模式的组合模式时，f_c 定义为各个传送模式的所有中心频率
Dim. of A_{aprt}	cm	用于水平平面和垂直平面的有效孔径
PD	μs	与可以产生 MI 报告值的传送模式关联的脉冲持续时间
PRF	Hz	与可以产生 MI 报告值的传送模式关联的脉冲重复频率
P_r @ PII_{max}	MPa	自由场、空间峰值脉冲强度积分最大处的峰值稀薄压
d_{eq} @ PII_{max}	cm	自由场、空间峰值脉冲强度积分最大处的等效波束直径
FL	cm	焦距，或者水平长度和垂直高度 （如果不同）
$I_{PA.3}$ @ MI_{max}	W/cm^2	MI 最大报告值处的减额脉冲平均强度
ROI	不适用	兴趣区
TB	不适用	轨迹球
CF	不适用	彩色模式
CM	不适用	彩色 M 模式
PW/CW	不适用	脉冲波 / 连续波多普勒

Danish

Symboler	Enhed	Definition
MI	n/a	Mekanisk indeks
TIS$_{scan}$	n/a	Termisk indeks for blødt væv i automatisk scanningsmode
TIS$_{non-scan}$	n/a	Termisk indeks over blødt væv i ikke-automatisk scanningsmode
TIB	n/a	Termisk indeks for knogler
TIC	n/a	Termisk indeks for kranieknogle
A$_{aptr}$	cm^2	Område af den aktive blænde
P$_{r.3}$	MPa	Belastningsreduceret, fortyndet maksimumtryk (MPa), der er knyttet til det sendemønster, der giver værdien, som er angivet for **MI**
W$_o$	mW	Ultralydeffekt, undtagen for **TIS$_{scan}$** hvor ultralydeffekten passerer gennem et vindue på 1 cm
W$_{.3}$(z$_1$)	mW	Belastningsreduceret ultralydeffekt ved aksialafstand z_1
I$_{TA.3}$(z$_1$)	mW/cm^2	Belastningsreduceret, tidsmæssigt gennemsnitsintensitet med rumligt maksimum ved aksialafstand z_1
z$_1$	cm	Aksialafstanden svarer til placeringen af maks. [min. (**W$_{.3}$(z)**, **I$_{TA.3}$(z)** x 1 cm^2)], hvor $z \geq z_{bp}$
z$_{bp}$		1.69(**A$_{blænde}$**)$^{1/2}$
d$_{eq}$(z)	cm	Tilsvarende strålediameter som funktion af aksialafstanden z, og lig med $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$, hvor $I_{TA}(z)$ er den tidsmæssige gennemsnitsintensitet som funktion af z
f$_c$	MHz	Centerfrekvens Vedr. **MI** er **f$_c$** centerfrekvensen, der er knyttet til det sendemønster, der giver den maksimalt rapporterede værdi af **MI**. Vedr. **TI** i kombinerede mode, der involverer sendemønstre med ulige centerfrekvens, defineres **f$_c$** som det overordnede område af centerfrekvenser for de pågældende sendemønstre
Dim. of A$_{aptr}$	cm	Mål for aktiv blænde for azimut- og elevationsplan
PD	µs	Pulsvarighed, der er knyttet til det sendemønster, der giver værdien, som er angivet for **MI**
PRF	Hz	Pulsvarighedsfrekvensen, der er knyttet til det sendemønster, der giver værdien, som er angivet for **MI**
P$_r$ @ PII$_{max}$	MPa	Maksimalt fortyndet tryk ved det punkt, hvor det frie, rumlige maksimum for pulsintensitetsintegralet er størst

Symboler	Enhed	Definition
d_{eq} @ PII_{max}	cm	Tilsvarende strålediameter ved det punkt, hvor det frie, rumlige maksimum for pulsintensitetsintegralet er størst
FL	cm	Fokuslængde eller azimut- og elevationslængde, hvis de er forskellige
$I_{PA.3}$ @ MI_{max}	W/cm^2	Belastningsreduceret gennemsnitspulsintensitet ved det maksimalt rapporterede punkt **MI**
ROI	n/a	Interesseområde
TB	n/a	Trackball
CF	n/a	Farve-Flow-Mode
CM	n/a	Farve-M-Mode
PW/CW	n/a	Pulsed Wave/Continuous Wave Doppler

French

Symboles	Unité	Définition
MI	n/d	Indice mécanique
TIS_{scan}	n/d	Indice thermique pour les tissus mous en mode d'auto-examen
$TIS_{non-scan}$	n/d	Indice thermique pour les tissus mous en mode de non-auto-examen
TIB	n/d	Indice thermique pour les os
TIC	n/d	Indice thermique crânien
A_{aprt}	cm^2	Zone d'ouverture active
$P_{r.3}$	MPa	Tensions rares de pic non notées (MPa) associées au schéma de transmission et donnant lieu à la valeur indiquée sous MI
W_o	mW	Puissance échographique, sauf pour l'examen ITS_{acq}, auquel cas il s'agit de la puissance échographique passant par une fenêtre d'un cm.
$W_{.3}(z_1)$	mW	Puissance échographique non cotée à distance axiale z_1
$I_{TA.3}(z_1)$	mW/cm^2	Pic spatial non coté, intensité temporelle moyenne à distance axiale z_1
z_1	cm	Distance axiale correspondant à l'emplacement du max $[min(W_{.3}(z), I_{TA.3}(z) \times 1\ cm^2)]$, où $z \geq z_{bp}$
z_{bp}		$1.69(A_{aprt})^{1/2}$
$d_{eq}(z)$	cm	Diamètre de faisceau équivalent comme fonction de la distance axiale z, et égal à $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$, où $I_{TA}(z)$ est l'intensité moyenne temporelle fonction de z
f_c	MHz	Fréquence centrale Pour MI, f_c est la fréquence centrale associée au schéma de transmission qui donne lieu à la valeur rapportée maximale de MI. Pour TI, pour des modes combinés impliquant des schémas de transmission de fréquence centrale inégale, f_c est défini comme la gamme totale des fréquences centrales des schémas de transmission respectifs
Dim. of A_{aprt}	cm	Dimensions d'ouverture active pour les plans azimutaux et d'élévation
PD	µs	Durée de pulsation associée au schéma de transmission donnant lieu à la valeur rapportée de MI
PRF	Hz	Fréquence de répétition associée au schéma de transmission donnant lieu à la valeur rapportée de MI
P_r @ PII_{max}	MPa	Tension de pic rare au point maximal de champ libre, d'intégrale d'intensité de pic spatial

Symboles	Unité	Définition
d_{eq} @ PII_{max}	cm	Diamètre de faisceau équivalent au point maximal de champ libre, d'intégrale d'intensité de pic spatial
FL	cm	Longueur focale ou longueurs azimutales et d'élévation, si elles sont différentes
$I_{PA.3}$ @ MI_{max}	W/cm^2	Intensité moyenne de pulsation non cotée au point maximum reporté **MI**
ROI	n/d	Région d'intérêt
TB	n/d	Trackball
CF	n/d	Mode de flux de couleurs
CM	n/d	Mode M Couleur
PW/CW	n/d	Doppler à ondes pulsées/continues

German

Symbole	Einheit	Bedeutung
MI	nicht zutreffend	Mechanischer Index
TIS$_{scan}$	nicht zutreffend	Soft Tissue Thermal Index im Auto-Scanning-Modus
TIS$_{non-scan}$	nicht zutreffend	Soft Tissue Thermal Index im Nicht-Auto-Scanning-Modus
TIB	nicht zutreffend	Bone Thermal Index
TIC	nicht zutreffend	Cranial Thermal Index
A$_{aprt}$	cm^2	Fläche der aktiven Apertur
P$_{r.3}$	MPa	Freigesetzter maximaler Verdünnungs-Druck (MPa) bei dem verwendeten Sendemuster, das zu dem unter **MI** angegebenen Wert führt
W$_o$	mW	Ultraschallleistung, außer beim **TIS$_{scan}$** , bei dem es sich um die Ultraschallleistung durch ein Ein-Zentimeter-Fenster handelt
W$_{.3}(z_1)$	mW	Freigesetzte Ultraschallleistung bei Axialabstand z_1
I$_{TA.3}(z_1)$	mW/cm^2	Freigesetzter räumlicher Spitzen- und zeitlicher Mittelwert der Intensität im Axialabstand z_1
z$_1$	cm	Axialabstand entsprechend der Position von max. [min.($W_{.3}(z)$, $I_{TA.3}(z)$ x 1 cm^2)], wobei $z \geq z_{bp}$
z$_{bp}$		$1.69(A_{aprt})^{1/2}$
d$_{eq}(z)$	cm	Äquivalenter Strahldurchmesser als Funktion des Axialabstands z und gleich $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$, wobei $I_{TA}(z)$ die zeitlich gemittelte Intensität als Funktion von z ist.
f$_c$	MHz	Mittenfrequenz Für **MI** ist **f$_c$** die Mittenfrequenz bei dem Sendemuster, das zum Maximalwert von **MI** führt. Für **TI** bei kombinierten Betriebsarten mit Sendemustern von ungleicher Mittenfrequenz ist **f$_c$** definiert als der Gesamtbereich der Mittenfrequenzen der jeweiligen Sendemuster
Dim. of A$_{aprt}$	cm	Maße der aktiven Apertur für die Azimutal- und die Elevationsebene
PD	µs	Pulsdauer des Sendemusters, das zum angegebenen Wert von **MI** führt
PRF	Hz	Pulswiederholungsfrequenz des Sendemusters, das zum angegebenen Wert von **MI** führt

Symbole	Einheit	Bedeutung
P_r @ $PII_{max.}$	MPa	Maximaler Verdünnungs-Druck an dem Punkt, an dem der räumliche Spitzenwert des Pulsintensitätsintegrals im freien Feld ein Maximum ist
d_{eq} @ $PII_{max.}$	cm	Äquivalenter Strahldurchmesser an dem Punkt, an dem der räumliche Spitzenwert des Pulsintensitätsintegrals im freien Feld ein Maximum ist
FL	cm	Fokuslänge bzw. Azimutal- und Elevationslänge, falls unterschiedlich
$I_{PA.3}$ @ $MI_{max.}$	W/cm^2	Reduzierter Pulsmittelwert der Intensität am Punkt des maximalen angegebenen **MI**
ROI	nicht zutreffend	Einstellbare Ausschnittsgröße
TB	nicht zutreffend	Trackball
CF	nicht zutreffend	Farbfluss-Modus
CM	nicht zutreffend	Farb-M-Modus
PW/CW	nicht zutreffend	Pulsed-Wave-/Continuous-Wave-Doppler

Italian

Simboli	Unità	Definizione
MI	n/a	Indice Meccanico
TIS_{scan}	n/a	Indice termico tessuti molli in modalità di scansione automatica
$TIS_{non-scan}$	n/a	Indice termico tessuti molli in modalità di scansione non automatica
TIB	n/a	Indice termico delle ossa
TIC	n/a	Indice termico cranico
A_{aprt}	cm^2	Area dell'apertura attiva
$P_{r.3}$	MPa	Pressione di rarefazione di picco a prestazioni ridotte (MPa) associata allo schema di trasmissione che genera il valore riportato alla voce **MI**
W_o	mW	Potenza ultrasuoni, tranne per $TIS_{scansione}$ nel qual caso corrisponde alla potenza degli ultrasuoni che passa attraverso una finestra di un centimetro
$W_{.3}(z_1)$	mW	Potenza ultrasuoni a prestazioni ridotte in corrispondenza della distanza assiale z_1
$I_{TA.3}(z_1)$	mW/cm^2	Intensità media temporale, picco spaziale a prestazioni ridotte in corrispondenza della distanza assiale z_1
z_1	cm	Distanza assiale corrispondente alla posizione di max $[min(W_{.3}(z), I_{TA.3}(z) \times 1\ cm^2)]$, dove $z \geq z_{bp}$
z_{bp}		$1.69(A_{aprt})^{1/2}$
$d_{eq}(z)$	cm	Diametro raggio equivalente in funzione della distanza assiale z e pari a $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$, dove $I_{TA}(z)$ è l'intensità media temporale in funzione di z
f_c	MHz	Frequenza della parte centrale Per **MI**, f_c è la frequenza della parte centrale associata allo schema di trasmissione che genera il valore massimo riportato di **MI** Per **TI**, per le modalità che comportano schemi di trasmissione con frequenza della parte centrale ineguale, f_c è definito come la gamma totale delle frequenze della parte centrale dei rispettivi schemi di trasmissione
Dim. of A_{aprt}	cm	Le dimensioni dell'apertura attiva per i piani azimutali e verticali
PD	µs	Durata degli impulsi associata allo schema di trasmissione che genera il valore riportato di **MI**
PRF	Hz	Frequenza di ripetizione degli impulsi associata allo schema di trasmissione che genera il valore riportato di **MI**

Simboli	Unità	Definizione
P_r @ PII_{max}	MPa	Pressione di rarefazione di picco in corrispondenza del punto in cui l'integrale dell'intensità degli impulsi di picco spaziale a campo libero è al massimo
d_{eq} @ PII_{max}	cm	Diametro del raggio equivalente in corrispondenza del punto in cui l'integrale dell'intensità degli impulsi di picco spaziale a campo libero è al massimo
FL	cm	Lunghezza focale o lunghezze azimutali e verticali, se diverse
$I_{PA.3}$ @ MI_{max}	W/cm^2	Intensità della media degli impulsi a prestazioni ridotte in corrispondenza del punto del valore massimo riportato **MI**
ROI	n/a	Regione di interesse
TB	n/a	Trackball
CF	n/a	Color Flow
CM	n/a	Color M-Mode
PW/CW	n/a	Doppler PW/CW

Japanese

記 号	単 位	定 義
MI	n/a	機械的指数。
TIS$_{scan}$	n/a	軟組織熱的指数。自動スキャンモードで使用。
TIS$_{non-scan}$	n/a	軟組織 熱的指数。自動スキャンモード以外で使用。
TIB	n/a	軟骨熱的指数。
TIC	n/a	頭蓋熱的指数。
A$_{aprt}$	cm^2	アクティブアパーチャーの面積。
P$_{r.3}$	MPa	緩和ピーク疎密圧力（MPa）。計測値 **MI** を発生する透過パターンで使用。
W$_o$	mW	超音波出力。**TIS$_{scan}$** では使用せず。TIS スキャンでは、1 センチメートルの窓を通過する超音波出力です。
W$_{.3}$(z$_1$)	mW	軸距離が **z$_1$** のときの緩和超音波出力。
I$_{TA.3}$(z$_1$)	mW/cm^2	緩和空間ピーク。軸距離が z$_1$ のときの時間平均密度。
z$_1$	cm	最大位置に対する軸距離 [min(**W$_{.3}$(z)**, **I$_{TA.3}$(z)** x 1 cm^2）] ここで、z ≥ z$_{bp}$
z$_{bp}$		1.69(**A$_{aprt}$**)$^{1/2}$
d$_{eq}$(z)	cm	軸距離 z に換算した等価ビーム直径。[(4/π)(W$_0$/I$_{TA}$(z))]$^{1/2}$ と同等。 ここで、I$_{TA}$(z) は z に換算した時間平均密度。
f$_c$	（MHz）	中心周波数。 **MI** では、**f$_c$** は、最大計測値 **MI** を発生する透過パターンで使用する中心周波数。 **TI** の場合、不等中心周波数が発生する組み合わせモードでは、**f$_c$** は、各透過パターンの中心周波数の全範囲であると定義できます。
Dim. of A$_{aprt}$	cm	方位平面と高度平面におけるアクティブアパーチャーの規模。
PD	μs	パルス持続時間。計測値 **MI** を発生する透過パターンで使用。
PRF	Hz	パルス繰り返し周波数。計測値 **MI** を発生する透過パターンで使用。
P$_r$ @ PII$_{max}$	MPa	フリーフィールド、空間 ピークパルス密度積分が最大のときのピーク希薄圧力。
d$_{eq}$ @ PII$_{max}$	cm	フリーフィールド、空間 ピークパルス密度積分が最大になる地点での等価ビーム直径。
FL	cm	焦点距離、方位距離、または高度距離 （異なる場合）。
I$_{PA.3}$ @ MI$_{max}$	W/cm^2	最大計測値 **MI** を発生する地点における緩和パルス平均密度。

記 号	単 位	定 義
関心領域	n/a	関心領域
TB	n/a	トラックボール
CF	n/a	カラーフローモード
CM	n/a	カラー M モード
PW/CW	n/a	パルス波 / 連続波ドプラー

Latin America Spanish

Símbolos	Unidad	Definición
MI	n/a	Índice Mecánico
TIS_{scan}	n/a	Índice Termal del Tejido Suave en el modo de auto-examinación
$TIS_{non-scan}$	n/a	Índice Termal del Tejido Suave en el modo de no-auto-examinación
TIB	n/a	Índice Termal del hueso
TIC	n/a	Índice Termal Craneal
A_{aprt}	cm^2	Área de la abertura activa
$P_{r.3}$	MPa	Presión rarefaccional máxima desratiza (MPa) asociada con el patrón transmitido aumentando el valor reportado bajo MI
W_O	mW	Potencia ultrasónica, con excepción para la **Examinación TIS** en la cual el caso es que la potencia ultrasónica pasando a través de una ventana de centímetro
$W_{.3}(z_1)$	mW	Potencia ultrasónica desratizada a una distancia axial z_1
$I_{TA.3}(z_1)$	mW/cm^2	Pico espacial desratizado, intensidad del promedio-temporal en la intensidad axial z_1
z_1	cm	Distancia axial correspondiente a la ubicación de máx [mín($W_{.3}(z)$, $ITA_{.3}(z)$ x 1 cm^2)], donde $z \geq zbp$
z_{bp}		$1.69(Aaprt)^{1/2}$
$d_{eq}(z)$	cm	Diámetro del haz equivalente como una función de distancia axial z, y es igual a $[(4/\pi)(W_0/ITA(z))]^{1/2}$, donde ITA(z) es la intensidad del promedio temporal como una función de z
fc	MHz	Centro de Frecuencia Para **MI**, **fc** es el centro de frecuencia asociado con el patrón de transmisión aumentando al máximo el valor reportado de **MI**. para **TI**, los modos combinados incluyendo los patrones transmitidos del centro de la frecuencia desigual, **fc** es definido como el rango general del centro de frecuencias de los patrones respectivos transmitidos
Dim. of A_{aprt}	cm	Dimensiones de abertura activa para los planos "azimuthal" y elevacionales
PD	µs	Duración del Pulso asociado con el patrón transmitido aumentando el valor reportado de **MI**
PRF	Hz	Frecuencia de reproducción del pulso asociado con el patrón transmitido aumentado en el valor reportado de **MI**
P_r @ PII_{max}	MPa	Presión rarefaccional máxima al punto del campo libre, intensidad integral pico del pulso espacial es un máximo

Símbolos	Unidad	Definición
d_{eq} @ PII_{max}	cm	El diámetro del haz equivalente al punto donde el campo libre, el pico espacial, intensidad integral del pulso es un máximo
FL	cm	Longitud focal o longitudes "azimutal" y elevacional, si es diferente
$I_{PA.3}$ @ MI_{max}	W/cm^2	La intensidad del promedio del pulso desratizado al punto máximo reportado de **MI**
ROI	n/a	Región de Interés
TB	n/a	"Trackball"
CF	n/a	Modo del Flujo de Color
CM	n/a	Modo de Color
PW/CW	n/a	Onda Pulsada/Onda Doppler Continua

Brazilian Portuguese

Símbolos	Unidade	Definição
MI	n/d	Índice mecânico
TIS_{scan}	n/d	Índice térmico do tecido mole no modo de varredura automática
$TIS_{non-scan}$	n/d	Índice térmico do tecido mole no modo de varredura não automática
TIB	n/d	Índice térmico do osso
TIC	n/d	Indice térmico craniano
A_{aprt}	cm^2	Área da abertura ativa
$P_{r.3}$	MPa	Pressão de rarefação de pico reduzido (MPa) associada com a elevação fornecida do padrão de transmissão para o valor relatado sob **MI**
W_o	mW	A energia ultra-sônica, exceto por $TIS_{varr.}$ no qual a energia ultra-sônica passa por uma janela de um centímetro
$W_{.3}(z_1)$	mW	Energia ultra-sônica reduzida na distância axial z_1
$I_{TA.3}(z_1)$	mW/cm^2	Pico espacial reduzido, intensidade média temporal na distância axial z_1
z_1	cm	Distância axial correspondente ao local de máx [mín($W_{.3}(z)$, $I_{TA.3}(z)$ x 1 cm^2)], onde $z \geq z_{bp}$
z_{bp}		$1.69(A_{aprt})^{1/2}$
$d_{eq}(z)$	cm	Diâmetro equivalente do feixe como uma função da distância axial z é igual a $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$, onde $I_{TA}(z)$ é a intensidade média temporal como uma função de z
f_c	Mhz	Freqüência central Para **MI**, f_c é a freqüência central associada com a elevação fornecida do padrão de transmissão para o valor máximo relatado de **MI**. Para **TI**, para os modos combinados envolvendo padrões de transmissão de freqüência central desigual, f_c é definido como o intervalo total de freqüências centrais dos respectivos padrões de transmissão
Dim. of A $_{aprt}$	cm	Dimensões da abertura ativa para os planos azimutais e de elevação
PD	µs	Duração do pulso associado à elevação fornecida do padrão de transmissão para o valor relatado de **MI**
PRF	Hz	Freqüência de repetição do pulso associado à elevação fornecida do padrão de transmissão para o valor relatado de **MI**
P_r @ PII_{max}	MPa	Pressão de rarefação do pico no ponto onde o campo livre, o integral de pulso do pico espacial é um máximo

Símbolos	Unidade	Definição
d_{eq} @ PII_{max}	cm	Diâmetro de feixe equivalente no ponto onde o campo livre, o integral de pulso do pico espacial é um máximo
CF	cm	Comprimento focal ou comprimentos de azimute e elevação, se forem diferentes
$I_{PA.3}$ @ MI_{max}	W/cm^2	Intensidade média do pulso reduzida no ponto do **MI** máximo relatado
ROI	n/d	Região de interesse
TB	n/d	Trackball
CF	n/d	Modo de fluxo colorido
CM	n/d	Modo M colorido
PW/CW	n/d	Doppler de onda pulsada/onda contínua

Swedish

Symboler	Enhet	Definition
MI	n/a	Mekaniskt index
TIS$_{scan}$	n/a	Termiskt index för mjuk vävnad i automatiskt skanningsmode
TIS$_{non\text{-}scan}$	n/a	Termiskt index för mjuk vävnad i icke-automatiskt skanningsmode
TIB	n/a	Termiskt index för benvävnad
TIC	n/a	Termiskt index för kranialt
A$_{aprt}$	cm^2	Område för aktiv bländare
P$_{r.3}$	MPa	Undervärderat topptryck (MPa) associerat med rörelsemönstret som resulterar i värdet som rapporteras under **MI**
W$_o$	mW	Ultraljudskraft med undantag för **TIS$_{\text{-skanning}}$** då i vilket fall ultraljudskraften passerar genom ett en centimeter tjock fönster
W$_{.3}$(z$_1$)	mW	Undervärderad ultraljudskraft vid axiell distans **z$_1$**
I$_{TA.3}$(z$_1$)	mW/cm^2	Undervärderad spatial topp, temporal genomsnittsinentsitet via axiell diskans z$_1$
z$_1$	cm	Axiell distans korresponderande mot lokaliseringen av max [min(**W$_{.3}$(z)** , **I$_{TA.3}$(z)** x 1 cm^2)], där z $\geq$ z$_{bp}$
z$_{bp}$		1.69(**A$_{aprt}$**)$^{1/2}$
d$_{eq}$(z)	cm	Ekvivalent stråldiameter som en funktion av axiell distans z och är lika med [(4/π)(W$_0$/I$_{TA}$(z))]$^{1/2}$, där$_{TA}$(z) är den temporala genomsnittsintensiteten com en funktion av z
f$_c$	MHz	Centrumfrekvens För **MI**, **f$_c$** är centrumfrekvensen associerad med överföringsmönstret som ger upphov till det maximala rapportvärdet av **MI**. För **TI**, för kombinderade inställningar (mode) som involverar överföringsmönster av olika centrumfrekvens **f$_c$** sär definierad som genomsnittsintervallet av centrumfrekvenser av respektive överförelsemönster
Dim. of A$_{aprt}$	cm	Aktiva bländardimensioner för azimutal- och lutande plan
PD	µs	Pulstryck associerat med överförelsemönstret som ger upphov till det rapporterade värdet i **MI**
PRF	Hz	Pulsrepetitionsfrekvens associerat med överförelsemönstret som ger upphov till det rapporterade värdet i **MI**
P$_r$ @ PII$_{max}$	MPa	Ovanligt topptryck när frifältet, spatiala toppvärdet för pulsintensitetens integral är på max
d$_{eq}$ @ PII$_{max}$	cm	Ekvivalent stråldiameter när frifältet, spatiala toppvärdet för pulsintensitetens integral är på max

Symboler	Enhet	Definition
FL	cm	Fokal längd eller azimutal- och lutande längder är olika
$I_{PA.3} @ MI_{max}$	W/cm^2	Undervärderad pulsgenomsnittsintensitet vid maximalt rapporterad **MI**
ROI	n/a	Studerat område
TB	n/a	Styrkula
CF	n/a	Färgflödesläge
CM	n/a	Färg-M-mode
PW/CW	n/a	Pulsed Wave (PW-)/Continuous Wave (CW)-doppler

Norwegian

Symboler	Enhet	Definisjon
MI	n/a	Mekanisk Indeks
TIS_{scan}	n/a	Bløtdel Thermal Index i auto-skanning modus
$TIS_{non-scan}$	n/a	Bløtdel Thermal Index i non-auto-skanning modus
TIB	n/a	Bone Thermal Index
TIC	n/a	Kraniell Thermal Index
A_{aprt}	cm^2	Område for den aktive åpningen
$P_{r.3}$	MPa	Redusert maksimalt trykk (MPa) assosiert med sendemønsteret som gir grunnlag for verdien som angis under MI
W_o	mW	Ultralydeffekt, bortsett fra TIS_{scan} hvor det er ultralydeffekten som passerer gjennom et 1 centimeter vindu.
$W_{.3}(z_1)$	mW	Redusert ultralydeffekt i aksial avstand z_1
$I_{TA.3}(z_1)$	mW/cm^2	Redusert romlig-peak, temporal-gjennomsnitt intensitet ved aksial avstand z_1
z_1	cm	Aksial distanse svarende til plasseringen av maks $[min(W_{.3}(z), I_{TA.3}(z) \times 1\ cm^2)]$, hvor $z \geq z_{bp}$
z_{bp}		$1.69(A_{aprt})^{1/2}$
$d_{eq}(z)$	cm	Ekvivalent strålediameter som en funksjon av aksial distanse z, er lik $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$, hvor $I_{TA}(z)$ er den temporale-gjennomsnitt intensiteten som en funksjon av z
f_c	MHz	Senterfrekvensen for MI, f_c er senterfrekvensen som er forbundet med sendemønsteret som er bakgrunnen for den maksimale rapporterte verdien av MI. For TI, for kombinerte moduser som involverer sendemønstre av ulik senterfrekvens, f_c er definert som det samlede området av senterfrekvenser for de respektive sendemønstrene
Dim. of A_{aprt}	cm	Aktive apertur dimensjoner for de azimuthale og opphevede planene
PD	µs	Pulsvarighet assosiert med sendemønsteret gir grunnlag for den rapporterte verdien av MI
PRF	Hz	Puls repetisjonsfrekvens assosiert med sendemønsteret som gir grunnlag for den rapporterte verdien av MI
P_r @ PII_{max}	MPa	Peak trykket ved det punkt hvor, romlig-peak pulsintensitet integralet er ved maksimum

d_{eq} @ PII_{max}	cm	Ekvivalent strålediameter ved det punktet hvor romlig-peak pulsintensitet integralet er ved maksimum
FL	cm	Fokal lengde, eller azimutale og høydelengder, er forskjellige
$I_{PA.3}$ @ MI_{max}	W/cm^2	Redusert puls gjennomsnitt intensitet ved punktet for maksimum **MI**
ROI	n/a	Interesseområde
TB	n/a	Trackball
CF	n/a	Fargedoppler modus
CM	n/a	Farge M Mode
PW/CW	n/a	Pulset/Kontinuerlig Doppler

Finnish

Symbolit	Laite	Kuvaus
MI	e/k	Mekaaninen indeksi
TIS_{scan}	e/k	Kudoksen lämpöindeksi automaattisessa skannaustilassa
$TIS_{non\text{-}scan}$	e/k	Kudoksen lämpöindeksi manuaalisessa skannaustilassa
TIB	e/k	Luun lämpöindeksi
TIC	e/k	Kalloluun lämpöindeksi
A_{aprt}	cm^2	Aktiivisen apertuurin alue
$P_{r.3}$	MPa	Alennettu huippuvaimenemisen paine (MPa), joka liittyy siirtotapaan ja nostaa kohdassa **MI** ilmoitettua arvoa.
W_o	mW	Ultraääniteho, lukuun ottamatta TIS_{scan}, jolloin se on yhden senttimetrin levyisen ikkunan kautta kulkeva ultraääniteho.
$W_{.3}(z_1)$	mW	Alennettu ultraääniteho aksiaalisella etäisyydellä z_1
$I_{TA.3}(z_1)$	mW/cm^2	Alennettu spatiaalihuippu, väliaikainen tiheyskeskiarvo aksiaalisella etäisyydellä z_1
z_1	cm	Maksimin sijaintia vastaava aksiaalinen etäisyys [minimi ($W_{.3}(z)$, $I_{TA.3}(z)$ x 1 cm^2)], jossa $z \geq z_{bp}$
z_{bp}		$1.69(A_{aprt})^{1/2}$
$d_{eq}(z)$	cm	Vastaava säteen halkaisija aksiaalisen etäisyyden z toimintona, joka vastaa $[(4/\pi)(W_0/I_{TA}(z))]^{1/2}$, jossa $I_{TA}(z)$ on z:n toiminnon lämpökeskiarvon tiheys.
f_c	MHz	Keskustaajuus Kohdan **MI**, f_c keskustaajuus liittyy siirtotapaan ja nostaa kohdassa **MI** ilmoitettua maksimiarvoa. **TI** yhdistelmätiloille, jotka liittyvät erilaisten keskustaajuuksien siirtokuvioihin, f_c määritetään vastaavien keskuskuvioiden kokonaisalueena.
Dim. of A_{aprt}	cm	Aktiivisen apertuurin mitat atsimutaalisille ja kohotetuille tasoille.
PD	µs	Siirtokuvioon liittyvä pulssin kesto, joka nostaa kohdassa **MI** ilmoitettua arvoa.
PRF	Hz	Siirtokuvioon liittyvä pulssin toistotaajuus, joka nostaa kohdassa **MI** ilmoitettua arvoa.
P_r @ PII_{max}	MPa	Huippuohentumisen paine pisteessä, jossa vapaa-kenttä, spatiaalisen huippupulssin tiheyden integraali, on maksimiarvossa.
d_{eq} @ PII_{max}	cm	Vastaava säteen halkaisija pisteessä, jossa vapaa-kenttä, spatiaalisen huippupulssin tiheyden integraali, on maksimiarvossa.

FL	cm	Tarkennuspituus tai atsimutaalinen ja kohotettu pituus (jos arvot eroavat).
$I_{PA.3}$ @ MI_{max}	W/cm^2	Alennetun pulssikeskiarvon tiheys maksimipisteessä, joka ilmoitetaan kohdassa **MI**
ROI	e/k	Kiinnostusalueet
TB	e/k	Ohjauspallo
CF	e/k	Värivirtaustila
CM	e/k	Värillinen M-tila
PW/CW	e/k	Pulssi-/jatkuva doppler

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

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

Explanation of Footnotes

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

p.   Display of this index is not required for this operating mode.

q.   This probe is not intended for transcranial or neonatal cephalic uses.

r.   This formulation for TIS is less than that for an alternate formulation in this mode.

If so, the table entries are replaced by a "#", meaning: no data are provided for this operating condition since the maximum reported value is not reported for the reason listed.

If neither an index or a footnote is given, this means that the index is irrelevant for this transducer/mode combination.

Multiple focal-zones

When using multiple focal-zones on Vivid q N, 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:

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

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

$$TI = \sum_{all\ zones} TI_{zone} \cdot t_{zone}$$
$$W_0 = \sum_{all\ zones} W_{0_{zone}} \cdot t_{zone}$$

t_{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.

Transducer Model: 3Sc-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.51	0.65	-	-	-	1.93
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.13					
	P	W_0	(mW)		137.84	-		-	137.84
	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)	2.15	1.90	-	-	-	1.90
	Dim of A_{aprt}	X	(cm)		1.92	-	-	-	1.92
		Y	(cm)		1.30	-	-	-	1.30
Other Info	t_d	PD	(µsec)	0.68					
	prr	PRF	(Hz)	24					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.40					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.74	-	-		0.74
		FL_y	(cm)		0.48	-	-		0.48
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	162					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		2	3	-	-	-	3
	Frequency	(MHz)		2.42	2.00	-	-	-	2.00
	Width	(deg or ratio to max width)		75.00	60.00	-	-	-	60.00
	Depth	(mm)		300	300	-	-	-	300
	Focus	(mm)		18	118	-	-	-	118

Transducer Model: 3Sc-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.49	-	-	0.37	1.18	0.82
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.95					
	P	W_0	(mW)		-	-		51.14	58.41
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				24.26		
	z_s	z_1	(cm)				6.70		
	z_{bp}	z_{bp}	(cm)				2.58		
	z_b	z_{sp}	(cm)					6.20	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	5.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.43	
	f_{awf}	f_c	(MHz)	1.90	-	-	1.90	1.90	1.90
	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	(μsec)	0.90					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	$P_r@ PII_{max}$	(Mpa)	2.86					
	d_{eq} at max I_{pi}	$d_{eq}@ PII_{max}$	(cm)				0.43		
	Focal Length	FL_x	(cm)		-	-	0.72		0.72
		FL_y	(cm)		-	-	0.48		0.48
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}@ MI_{max}$	(W/cm^2)	164					
Operator Control	Power	(dB)		0	-	-	0	0	0
	Beam angle	(deg)		0	-	-	0	0	0
	Frequency	(MHz)		2.00	-	-	2.00	2.00	2.00
	Depth	(mm)		300	-	-	300	300	300
	Focus	(mm)		93	-	-	118	93	118

Transducer Model: **3Sc-RS**

Operating Mode: CMM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.48	-	-	1.43	2.57	2.43
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.72					
	P	W_0	(mW)		-	-		103.09	135.51
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				25.02		
	z_s	z_1	(cm)				6.80		
	z_{bp}	z_{bp}	(cm)				2.34		
	z_b	z_{sp}	(cm)					6.20	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	5.60					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.41	
	f_{awf}	f_c	(MHz)	2.45	-	-	3.60	2.25	3.60
	Dim of A_{aprt}	X	(cm)		-	-	1.59	1.59	1.59
		Y	(cm)		-	-	1.30	1.30	1.30
Other Info	t_d	PD	(µsec)	1.03					
	prr	PRF	(Hz)	247					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.76					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.41	
	Focal Length	FL_x	(cm)		-	-	0.56		0.56
		FL_y	(cm)		-	-	0.28		0.28
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	128					
Operator Control	Power		(dB)	0	-	-	0	0	0
	PRF		(Hz)	247	-	-	5618	5618	5618
	ROI span		(mm)	155	-	-	10	10	10
	ROI center		(mm)	30	-	-	110	110	110
	Sample Volume		(mm)	0.86	-	-	1.45	1.52	1.45
	Frequency		(MHz)	2.50	-	-	3.64	2.22	3.64

Transducer Model: 3Sc-RS

Operating Mode: CFM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.50	1.89	-	-	-	3.96
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.10				
	P	W_0	(mW)		187.83	-		-	187.83
	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)					-	
	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)	2.10	2.48	-	-	-	2.48
	Dim of A_{aprt}	X	(cm)		1.38	-	-	-	1.38
		Y	(cm)		1.30	-	-	-	1.30
Other Info	t_d	PD	(µsec)	0.67					
	prr	PRF	(Hz)	34					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.36					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.20	-	-		0.20
		FL_y	(cm)		0.64	-	-		0.64
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	163					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		0	0	-	-	-	0
	PRF	(Hz)		750	750	-	-	-	750
	ROI Span	(mm)		20	10	-	-	-	10
	ROI Center	(mm)		70	30	-	-	-	30
	Sample Volume	(mm)		1.00	1.50	-	-	-	1.50
	ROI Width	(deg or ratio to max width)		15.00	90.00	-	-	-	90.00
	Frequency	(MHz)		3.64	2.50	-	-	-	2.50

Transducer Model: 3Sc-RS

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.37	-	1.84	-	2.52	2.49
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.79					
	P	W_0	(mW)		-	106.43		106.43	106.43
	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)					2.60	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	5.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.50	
	f_{awf}	f_c	(MHz)	1.90	-	3.63	-	3.64	3.63
	Dim of A_{aprt}	X	(cm)		-	0.69	-	0.69	0.69
		Y	(cm)		-	1.30	-	1.30	1.30
Other Info	t_d	PD	(μsec)	0.96					
	prr	PRF	(Hz)	1046					
	p_r at max I_{pi}	$P_r@$ PII_{max}	(Mpa)	2.57					
	d_{eq} at max I_{pi}	$d_{eq}@$ PII_{max}	(cm)					0.50	
	Focal Length	FL_x	(cm)		-	0.28	-		0.28
		FL_y	(cm)		-	0.92	-		0.92
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}@$ MI_{max}	(W/cm^2)	155					
Operator Control	Power		(dB)	0	-	0	-	0	0
	Beam angle		(deg)	0	-	0	-	0	0
	Sample vol. position		(mm)	51	-	20	-	20	20
	Sample Volume		(mm)	1.04	-	6.02	-	6.02	6.02
	Scale		(m/s)	0.40	-	2.91	-	2.91	2.91
	Frequency		(MHz)	1.82	-	3.64	-	3.64	3.64

Transducer Model: 3Sc-RS

Operating Mode: CW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			(a)	-	1.47	-	4.70	3.89
	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	#				
	P	W_0	(mW)		-	139.34		166.13	166.13
Assoc. Acoustic Param.	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)					3.50	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.51	
	f_{awf}	f_c	(MHz)	#	-	2.22	-	1.82	1.82
	Dim of A_{aprt}	X	(cm)		-	0.69	-	0.69	0.69
		Y	(cm)		-	1.30	-	1.30	1.30
Other Info	t_d	PD	(μsec)	#					
	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)					0.51	
	Focal Length	FL_x	(cm)		-	0.46	-		0.52
		FL_y	(cm)		-	0.64	-		0.68
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	#					
Operator Control	Sample vol. Position	(mm)		-	-	93	-	72	72
	Frequency	(MHz)		-	-	2.22	-	1.82	1.82

Note:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
No data are reported for this **operating condition** since the **global maximum** index value is not reported for the reason listed.

Transducer Model: M4S-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.43	0.85	-	-	-	2.07
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.16					
	P	W_0	(mW)		146.28	-		-	146.28
	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)	5.68					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	2.65	2.25	-	-	-	2.25
	Dim of A_{aprt}	X	(cm)		1.89	-	-	-	1.89
		Y	(cm)		1.30	-	-	-	1.30
Other Info	t_d	PD	(ms)	0.57					
	prr	PRF	(Hz)	31					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	3.63					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		1.60	-	-		1.60
		FL_y	(cm)		0.54	-	-		0.54
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	240					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		1	1	-	-	-	3
	Frequency	(MHz)		3.33	1.60	-	-	-	2.50
	Width	(deg or ratio to max width)		65.00	10.00	-	-	-	75.00
	Depth	(mm)		300	300	-	-	-	300
	Focus	(mm)		70	150	-	-	-	300

Transducer Model: M4S-RS

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				1.45	-	-	0.40	1.47	0.86
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.36					
	P	W_0	(mW)		-	-		61.87	65.81
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				33.39		
	z_s	z_1	(cm)				4.80		
	z_{bp}	z_{bp}	(cm)				2.79		
	z_b	z_{sp}	(cm)					6.80	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	6.00					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.44	
	f_{awf}	f_c	(MHz)	2.80	-	-	2.05	1.65	2.05
	Dim of A_{aprt}	X	(cm)		-	-	2.20	2.20	2.20
		Y	(cm)		-	-	1.30	1.30	1.30
Other Info	t_d	PD	(ms)	0.56					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	4.21					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.44	
	Focal Length	FL_x	(cm)		-	-	1.60		1.60
		FL_y	(cm)		-	-	0.40		0.40
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	225					
Operator Control	Power		(dB)	0	-	-	0	0	0
	Beam Angle		(deg)	0	-	-	0	0	0
	Frequency		(MHz)	3.64	-	-	2.50	1.60	2.50
	Depth		(mm)	300	-	-	300	300	300
	Focus		(mm)	70	-	-	250	95	250

Transducer Model: M4S-RS

Operating Mode: CMM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.49	-	-	0.81	2.32	1.86
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.80					
	P	W_0	(mW)		-	-		96.53	99.59
	Min of $[P_\alpha(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA.3}(Z_1)]$	(mW)				30.94		
	z_s	z_1	(cm)				6.60		
	z_{bp}	z_{bp}	(cm)				2.39		
	z_b	z_{sp}	(cm)					6.60	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	5.69					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.36	
	f_{awf}	f_c	(MHz)	2.50	-	-	2.50	2.50	2.50
	Dim of A_{aprt}	X	(cm)		-	-	1.61	1.61	1.61
		Y	(cm)		-	-	1.30	1.30	1.30
Other Info	t_d	PD	(ms)	0.62					
	prr	PRF	(Hz)	250					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.94					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.36	
	Focal Length	FL_x	(cm)		-	-	0.36		0.36
		FL_y	(cm)		-	-	0.32		0.34
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	184					
Operator Control	Power		(dB)	0	-	-	0	0	0
	PRF		(Hz)	250	-	-	5618	5618	5618
	ROI Span		(mm)	10	-	-	10	10	10
	ROI Center		(mm)	80	-	-	110	110	110
	Sample Volume		(mm)	0.76	-	-	1.51	1.51	1.51
	Frequency		(MHz)	2.50	-	-	2.50	2.50	2.50

Transducer Model: M4S-RS

Operating Mode: CFM

Index Label				MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value				1.38	1.64	-	-	-	3.77
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	0.78					
	P	W_0	(mW)		110.79	-		-	112.56
	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)	7.89					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	2.68	2.70	-	-	-	2.65
	Dim of A_{aprt}	X	(cm)		0.96	-	-	-	0.96
		Y	(cm)		0.65	-	-	-	0.65
Other Info	t_d	PD	(ms)	1.85					
	prr	PRF	(Hz)	250					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	1.62					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.14	-	-		0.14
		FL_y	(cm)		0.92	-	-		0.94
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	27					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		0	0	-	-	-	0
	PRF	(Hz)		250	250	-	-	-	250
	ROI Span	(mm)		10	10	-	-	-	10
	ROI Center	(mm)		120	20	-	-	-	20
	Sample Voume	(mm)		1.43	1.43	-	-	-	1.43
	ROI Width	(deg or ratio to max width)		15.00	15.00	-	-	-	15.00
	Frequency	(MHz)		2.67	2.67	-	-	-	2.67

Transducer Model: M4S-RS

Operating Mode: PW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.46	-	1.69	-	3.56	3.73
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.16				
	P	W_0	(mW)		-	97.97		126.14	133.15
	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)					4.49	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	4.86					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.37	
	f_{awf}	f_c	(MHz)	2.40	-	3.63	-	2.50	2.50
	Dim of A_{aprt}	X	(cm)		-	0.82	-	0.96	0.96
		Y	(cm)		-	0.65	-	0.65	0.65
Other Info	t_d	PD	(ms)	0.95					
	prr	PRF	(Hz)	1266					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	3.24					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.37	
	Focal Length	FL_x	(cm)		-	0.30	-		0.36
		FL_y	(cm)		-	0.44	-		0.56
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	170					
Operator Control	Power		(dB)	0	-	0	-	0	0
	Beam Angle		(cm)	0	-	0	-	0	0
	Sample Volume Position		(mm)	51	-	31	-	31	31
	Sample Volume		(mm)	1.00	-	8.55	-	8.58	8.58
	Scale		(m/s)	0.40	-	2.40	-	2.40	2.40
	Frequency		(MHz)	2.50	-	3.64	-	2.50	2.50

Transducer Model: M4S-RS

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	1.42	-	4.05	3.79
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	#				
	P	W_0	(mW)		-	118.94		129.09	135.03
	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)					3.78	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.45	
	f_{awf}	f_c	(MHz)	#	-	2.50	-	1.82	1.82
	Dim of A_{aprt}	X	(cm)		-	0.96	-	0.96	0.96
		Y	(cm)		-	0.65	-	0.65	0.65
Other Info	t_d	PD	(ms)	#					
	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)					0.45	
	Focal Length	FL_x	(cm)		-	0.38	-		0.50
		FL_y	(cm)		-	0.32	-		0.36
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	#					
Operator Control	Sample Volume Position		(mm)	-	-	31	-	31	31
	Frequency		(MHz)	-	-	2.50	-	1.82	1.82

Notes:

(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 5S-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.51	0.61	-	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.15				
	P	W_0	(mW)		70.71	-		-	#
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	4.58				
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	2.20	2.20	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.24	-	-	-	#
		Y	(cm)		1.20	-	-	-	#
Other Info	t_d	PD	(µsec)	0.73				
	prr	PRF	(Hz)	400				
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.05				
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)				-	
	Focal Length	FL_x	(cm)		0.40	-	-		#
		FL_y	(cm)		0.28	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	224				
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		3	3	-	-	-	-
	Frequency	(MHz)		2.00	2.00	-	-	-	-
	ROI Width	(deg or ratio to max width)		10.00	30.00	-	-	-	-
	Depth	(mm)		300	300	-	-	-	-
	Focus	(mm)		90	90	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 5S-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.51	-	-	0.23	0.97	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.62				
	P	W_0	(mW)		-	-		18.03	#
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				8.50		
	z_s	z_1	(cm)				4.58		
	z_{bp}	z_{bp}	(cm)				1.97		
	z_b	z_{sp}	(cm)					4.58	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	4.58					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.34	
	f_{awf}	f_c	(MHz)	2.38	-	-	2.38	2.38	#
	Dim of A_{aprt}	X	(cm)		-	-	1.24	1.24	#
		Y	(cm)		-	-	1.20	1.20	#
Other Info	t_d	PD	(μsec)	0.66					
	prr	PRF	(Hz)	2431					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.35					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.34	
	Focal Length	FL_x	(cm)		-	-	0.46		#
		FL_y	(cm)		-	-	0.28		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	143					
Operator Control	Power	(dB)		0	-	-	0	0	-
	Beam angle	(deg)		0	-	-	0	0	-
	Frequency	(MHz)		2.22	-	-	2.22	2.22	-
	Depth	(mm)		300	-	-	300	300	-
	Focus	(mm)		90	-	-	90	90	-

Transducer Model: 5S-RS

Operating Mode: CMM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.51	-	-	0.43	1.41	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.63					
	P	W_0	(mW)		-	-		4.28	#
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				3.24		
	z_s	z_1	(cm)				4.68		
	z_{bp}	z_{bp}	(cm)				1.97		
	z_b	z_{sp}	(cm)					4.68	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	4.48					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.39	
	f_{awf}	f_c	(MHz)	2.38	-	-	2.20	2.38	#
	Dim of A_{aprt}	X	(cm)		-	-	1.24	1.24	#
		Y	(cm)		-	-	1.20	1.20	#
Other Info	t_d	PD	(µsec)	0.66					
	prr	PRF	(Hz)	2431					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.35					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.39	
	Focal Length	FL_x	(cm)		-	-	0.38		#
		FL_y	(cm)		-	-	0.32		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	139					
Operator Control	Power	(dB)		0	-	-	0	0	-
	PDF	(Hz)		4505	-	-	249	2825	-
	ROI Span	(mm)		115	-	-	10	245	-
	ROI Center	(mm)		60	-	-	20	60	-
	Sample Volume	(mm)		1.44	-	-	0.96	1.44	-
	Frequency	(MHz)		2.67	-	-	2.67	2.67	-

Transducer Model: 5S-RS

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.51	0.56	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.24				
	P	W_0	(mW)		43.44	-		-	#
	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)	4.58					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	2.20	2.50	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.24	-	-	-	#
		Y	(cm)		1.20	-	-	-	#
Other Info	t_d	PD	(µsec)	0.73					
	prr	PRF	(Hz)	400					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.17					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.64	-	-		#
		FL_y	(cm)		0.28	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	214					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		1	1	-	-	-	-
	PDF	(Hz)		1500	1500	-	-	-	-
	ROI Span	(mm)		70	70	-	-	-	-
	ROI Center	(mm)		100	100	-	-	-	-
	Sample Volume	(mm)		1.26	1.26	-	-	-	-
	ROI Width	(deg or ratio to max width)		15.00	15.00	-	-	-	-
	Frequency	(MHz)		2.50	2.50	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 5S-RS

Operating Mode: PW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.10	-	1.16	1.12	2.78	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$ (Mpa)	1.36					
	P	W_0 (mW)		-	70.96		131.70	#
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$ (mW)				51.62		
	z_s	z_1 (cm)				4.99		
	z_{bp}	z_{bp} (cm)				1.97		
	z_b	z_{sp} (cm)					5.09	
	z at max $I_{pi\,\alpha}$	z_{sp} (cm)	5.09					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$ (cm)					0.49	
	f_{awf}	f_c (MHz)	2.65	-	2.70	2.63	2.65	#
	Dim of A_{aprt}	X (cm)		-	0.77	1.24	1.24	#
		Y (cm)		-	1.20	1.20	1.20	#
Other Info	t_d	PD (μsec)	2.49					
	prr	PRF (Hz)	1374					
	p_r at max I_{pi}	P_r@ PII_{max} (Mpa)	2.17					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max} (cm)					0.49	
	Focal Length	FL_x (cm)		-	0.32	1.04		#
		FL_y (cm)		-	0.28	0.26		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max} (W/cm²)	81					
Operator Control	Power	(dB)	0	-	0	0	0	-
	Beam angle	(deg)	0	-	0	0	0	-
	Sample vol. position	(mm)	279	-	20	279	279	-
	Sample volume	(mm)	2.44	-	2.44	2.44	2.44	-
	Scale	(m/sec)	0.40	-	0.40	0.40	0.40	-
	Frequency	(MHz)	2.67	-	2.67	2.67	2.67	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 5S-RS

Operating Mode: CW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			(a)	-	1.46	-	3.69	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	#				
	P	W_0	(mW)		-	110.41		110.41	#
	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)					3.58	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.41	
	f_{awf}	f_c	(MHz)	#	-	2.50	-	2.50	#
	Dim of A_{aprt}	X	(cm)		-	0.54	-	0.54	#
		Y	(cm)		-	1.20	-	1.20	#
Other Info	t_d	PD	(µsec)	#					
	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)					0.41	
	Focal Length	FL_x	(cm)		-	0.46	-		#
		FL_y	(cm)		-	0.44	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	#					
Operator Control	Sample vol. position		(mm)	-	-	279	-	279	-
	Frequency		(MHz)	-	-	2.50	-	2.50	-

Notes:

(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).

(b) This probe is not intended for transcranial or neonatal cephalic use.

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6S-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.47	1.17	-	-	-	1.85
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.33					
	P	W_0	(mW)		63.01	-		-	80.37
	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)	2.89					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.00	3.95	-	-	-	3.00
	Dim of A_{aprt}	X	(cm)		1.02	-	-	-	1.02
		Y	(cm)		0.90	-	-	-	0.90
Other Info	t_d	PD	(ms)	0.43					
	prr	PRF	(Hz)	240					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	3.17					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.20	-	-		0.50
		FL_y	(cm)		0.28	-	-		0.22
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	261					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		3	2	-	-	-	2
	Frequency	(MHz)		3.33	3.08	-	-	-	3.08
	Width	(deg or ratio to max width)		20.00	10.00	-	-	-	10.00
	Depth	(mm)		160	160	-	-	-	160
	Focus	(mm)		50	80	-	-	-	80

Transducer Model: 6S-RS

Operating Mode: M-Mode

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.28	-	0.76	-	0.57	0.73
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.48				
	P	W_0	(mW)		-	31.81		31.81	31.81
	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)					1.56	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.56					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.74	
	f_{awf}	f_c	(MHz)	3.95	-	5.00	-	5.00	5.00
	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	(ms)	0.50					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	3.51					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.74	
	Focal Length	FL_x	(cm)		-	0.86	-		0.86
		FL_y	(cm)		-	0.64	-		0.64
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	272					
Operator Control	Power	(dB)		0	-	0	-	0	0
	Beam Angle	(deg)		0	-	0	-	0	0
	Frequency	(MHz)		4.00	-	5.00	-	5.00	5.00
	Depth	(mm)		160	-	160	-	160	160
	Focus	(mm)		25	-	100	-	100	100

Transducer Model: 6S-RS

Operating Mode: CMM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.31	-	1.05	-	1.82	1.46
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa) 1.79					
	P	W_0	(mW)	-	51.55		56.54	51.55
	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)				3.88	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm) 3.08					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)				0.32	
	f_{awf}	f_c	(MHz) 3.38	-	3.10	-	3.20	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	(µs) 1.48					
	prr	PRF	(Hz) 2500					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa) 2.56					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)				0.32	
	Focal Length	FL_x	(cm)	-	0.58	-		0.58
		FL_y	(cm)	-	0.24	-		0.24
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²) 137					
Operator Control	Power	(dB)	0	-	0	-	0	0
	PRF	(Hz)	2500	-	4505	-	4505	4505
	ROI Span	(mm)	60	-	10	-	10	10
	ROI Center	(mm)	20	-	110	-	110	110
	Sample Volume	(mm)	1.10	-	0.64	-	0.64	0.64
	Frequency	(MHz)	3.33	-	3.08	-	3.08	3.08

Transducer Model: 6S-RS

Operating Mode: CFM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				1.47	1.25	-	-	-	1.86
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.64					
	P	W_0	(mW)		73.82	-		-	73.82
	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)	3.99					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.25	3.35	-	-	-	3.35
	Dim of A_{aprt}	X	(cm)		1.02	-	-	-	1.02
		Y	(cm)		0.90	-	-	-	0.90
Other Info	t_d	PD	(µs)	0.71					
	prr	PRF	(Hz)	502					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.56					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.54	-	-		0.54
		FL_y	(cm)		0.22	-	-		0.22
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	103					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		0	2	-	-	-	0
	PRF	(Hz)		2000	3500	-	-	-	2000
	ROI Span	(mm)		10	30	-	-	-	10
	ROI Center	(mm)		100	40	-	-	-	100
	Sample Voume	(mm)		0.59	1.07	-	-	-	0.59
	ROI Width	(deg or ratio to max width)		20.00	15.00	-	-	-	20.00
	Frequency	(MHz)		3.33	3.08	-	-	-	3.33

Transducer Model: 6S-RS

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.20	-	1.53	-	2.23	1.93
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.98				
	P	W_0	(mW)		-	80.89		50.80	55.39
	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)					2.89	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.88					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.27	
	f_{awf}	f_c	(MHz)	3.20	-	3.98	-	3.20	3.93
	Dim of A_{aprt}	X	(cm)		-	1.02	-	0.51	0.45
		Y	(cm)		-	0.90	-	0.90	0.90
Other Info	t_d	PD	(µs)	1.08					
	prr	PRF	(Hz)	1684					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.72					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.27	
	Focal Length	FL_x	(cm)		-	0.88	-		0.28
		FL_y	(cm)		-	0.38	-		0.34
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	185					
Operator Control	Power		(dB)	0	-	0	-	0	0
	Beam Angle		(cm)	0	-	0	-	0	0
	Sample Volume Position		(mm)	20	-	114	-	10	10
	Sample Volume		(mm)	0.97	-	0.99	-	0.97	0.99
	Scale		(m/s)	0.40	-	0.40	-	0.80	0.80
	Frequency		(MHz)	3.08	-	4.00	-	3.08	4.00

Transducer Model: 6S-RS

Operating Mode: CW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			(a)	-	0.75	-	1.99	1.65
	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	#				
	P	W_0	(mW)		-	39.45		47.36	47.36
Assoc. Acoustic Param.	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)					2.64	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	#					
	$d_{eq}\,(z_b)$	$d_{eq}\,(Z_{sp})$	(cm)					0.31	
	f_{awf}	f_c	(MHz)	#	-	4.00	-	3.08	3.08
	Dim of A_{aprt} X		(cm)		-	0.45	-	0.45	0.45
	Dim of A_{aprt} Y		(cm)		-	0.90	-	0.90	0.90
Other Info	t_d	PD	(µs)	#					
	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)					0.31	
	Focal Length FL_x		(cm)		-	0.30	-		0.34
	Focal Length FL_y		(cm)		-	0.34	-		0.40
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	#					
Operator Control	Sample Volume Position		(mm)	-	-	103	-	155	155
	Frequency		(MHz)	-	-	4.00	-	3.08	3.08

Notes:

(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 7S-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.29	1.31	-	-	-	1.59
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.36					
	P	W_0	(mW)		57.79	-		-	57.79
	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)					-	
	z at max $I_{pi\,\alpha}$ z_{sp}		(cm)	2.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.40	4.75	-	-	-	4.75
	Dim of A_{aprt}	X	(cm)		0.93	-	-	-	0.93
		Y	(cm)		0.70	-	-	-	0.70
Other Info	t_d	PD	(μsec)	0.42					
	prr	PRF	(Hz)	35					
	p_r at max I_{pi} P_r@ PII_{max}		(Mpa)	3.28					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.66	-	-		0.66
		FL_y	(cm)		0.22	-	-		0.22
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	303					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		1	1	-	-	-	1
	Frequency	(MHz)		3.33	4.00	-	-	-	5.00
	Width	(deg or ratio to max width)		75.00	75.00	-	-	-	90.00
	Depth	(mm)		160	160	-	-	-	160
	Focus	(mm)		50	45	-	-	-	80

Transducer Model: 7S-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.24	-	0.36	-	0.73	0.44
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.19					
	P	W_0	(mW)		-	15.83		12.84	15.83
	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)					2.80	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.90					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.19	
	f_{awf}	f_c	(MHz)	3.40	-	4.80	-	3.90	4.80
	Dim of A_{aprt}	X	(cm)		-	0.93	-	0.93	0.93
		Y	(cm)		-	0.70	-	0.70	0.70
Other Info	t_d	PD	(μsec)	0.42					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.07					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.19	
	Focal Length	FL_x	(cm)		-	0.76	-		0.76
		FL_y	(cm)		-	0.22	-		0.22
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	281					
Operator Control	Power	(dB)		0	-	0	-	0	0
	Beam angle	(deg)		0	-	0	-	0	0
	Frequency	(MHz)		3.33	-	5.00	-	4.00	5.00
	Depth	(mm)		160	-	160	-	160	160
	Focus	(mm)		50	-	140	-	40	140

Transducer Model: **7S-RS**

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.24	-	1.02	-	1.61	1.32
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.99					
	P	W_0	(mW)		-	43.59		30.68	43.59
	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)					3.40	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	3.10					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.21	
	f_{awf}	f_c	(MHz)	3.55	-	4.43	-	3.68	4.43
	Dim of A_{aprt}	X	(cm)		-	0.93	-	0.93	0.93
		Y	(cm)		-	0.70	-	0.70	0.70
Other Info	t_d	PD	(μsec)	0.72					
	prr	PRF	(Hz)	250					
	p_r at max I_{pi}	P_r @ PII_{max}	(Mpa)	2.91					
	d_{eq} at max I_{pi}	d_{eq} @ PII_{max}	(cm)					0.21	
	Focal Length	FL_x	(cm)		-	0.40	-		0.40
		FL_y	(cm)		-	0.16	-		0.16
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$ @ MI_{max}	(W/cm²)	177					
Operator Control	Power	(dB)		0	-	0	-	0	0
	PRF	(Hz)		250	-	4000	-	3497	4000
	ROI Span	(mm)		10	-	300	-	60	300
	ROI Center	(mm)		80	-	60	-	60	60
	Sample Volume	(mm)		0.56	-	1.08	-	1.02	1.08
	Frequency	(MHz)		3.64	-	4.44	-	3.64	4.44

Transducer Model: 7S-RS

Operating Mode: CFM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.25	1.50	-	-	-	1.77
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.36					
	P	W_0	(mW)		59.84	-		-	49.22
	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)					-	
	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)	3.80	4.98	-	-	-	4.45
	Dim of A_{aprt}	X	(cm)		0.93	-	-	-	0.93
		Y	(cm)		0.70	-	-	-	0.70
Other Info	t_d	PD	(μsec)	0.68					
	prr	PRF	(Hz)	248					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.07					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.76	-	-		0.78
		FL_y	(cm)		0.20	-	-		0.28
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	99					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		0	0	-	-	-	0
	PRF	(Hz)		250	250	-	-	-	4000
	ROI Span	(mm)		10	10	-	-	-	300
	ROI Center	(mm)		40	40	-	-	-	60
	Sample Volume	(mm)		0.56	0.56	-	-	-	1.08
	ROI Width	(deg or ratio to max width)		25.00	25.00	-	-	-	15.00
	Frequency	(MHz)		3.64	3.64	-	-	-	4.44

Transducer Model: **7S-RS**

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.13	-	1.80	-	2.85	2.34
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.07				
	P	W_0	(mW)		-	85.07		79.87	85.07
	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)					2.10	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.33	
	f_{awf}	f_c	(MHz)	3.63	-	4.45	-	4.43	4.45
	Dim of A_{aprt}	X	(cm)		-	0.93	-	0.93	0.93
		Y	(cm)		-	0.70	-	0.70	0.70
Other Info	t_d	PD	(µsec)	1.07					
	prr	PRF	(Hz)	1873					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.93					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.33	
	Focal Length	FL_x	(cm)		-	0.78	-		0.78
		FL_y	(cm)		-	0.28	-		0.28
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	217					
Operator Control	Power	(dB)		0	-	0	-	0	0
	Beam angle	(deg)		0	-	0	-	0	0
	Sample vol. position	(mm)		31	-	83	-	83	83
	Sample Volume	(mm)		0.98	-	0.99	-	0.99	0.99
	Scale	(m/sec)		0.40	-	3.85	-	3.85	3.85
	Frequency	(MHz)		3.64	-	4.44	-	4.44	4.44

Transducer Model: **7S-RS**

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	0.43	-	1.22	0.93
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	#				
	P	W_0	(mW)		-	22.40		21.59	22.40
	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)					2.00	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.23	
	f_{awf}	f_c	(MHz)	#	-	4.00	-	4.00	4.00
	Dim of A_{aprt}	X	(cm)		-	0.41	-	0.41	0.41
		Y	(cm)		-	0.70	-	0.70	0.70
Other Info	t_d	PD	(µsec)	#					
	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)					0.23	
	Focal Length	FL_x	(cm)		-	0.24	-		0.24
		FL_y	(cm)		-	0.28	-		0.28
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	#					
Operator Control	Sample vol. Position		(mm)	-	-	51	-	51	51
	Frequency		(MHz)	-	-	4.00	-	4.00	4.00

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
No data are reported for this **operating condition** since the **global maximum** index value is not reported for the reason listed.

Transducer Model: 10S-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan $A_{aprt} \leq 1$	non-scan $A_{aprt} > 1$		
Maximum Index Value			0.82	0.31	-	-	-	0.45
Assoc. Acoustic Param.	IEC / FDA / Units							
	$P_{r,\alpha}$ / $P_{r.3}$ / (Mpa)		1.78					
	P / W_0 / (mW)			10.94	-		-	11.25
	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)		1.90					
	$d_{eq}(z_b)$ / $d_{eq}(Z_{sp})$ / (cm)						-	
	f_{awf} / f_c / (MHz)		5.50	5.88	-	-	-	5.38
	Dim of A_{aprt}	X / (cm)		0.62	-	-	-	0.62
		Y / (cm)		0.50	-	-	-	0.50
Other Info	t_d / PD / (µsec)		0.40					
	prr / PRF / (Hz)		44					
	p_r at max I_{pi} / P_r@ PII$_{max}$ / (Mpa)		2.56					
	d_{eq} at max I_{pi} / d_{eq}@ PII$_{max}$ / (cm)						-	
	Focal Length	FL$_x$ / (cm)		0.48	-	-		0.44
		FL$_y$ / (cm)		0.14	-	-		0.08
	$I_{pi\,\alpha}$ at max MI / $I_{PA.3}$@ MI$_{max}$ / (W/cm^2)		141					
Operator Control	Power / (dB)		0	0	-	-	-	0
	Tilt / (deg)		0	0	-	-	-	0
	Framerate / (index)		1	1	-	-	-	3
	Frequency / (MHz)		6.15	5.00	-	-	-	6.15
	Width / (deg or ratio to max width)		90.00	90.00	-	-	-	90.00
	Depth / (mm)		120	120	-	-	-	120
	Focus / (mm)		40	7	-	-	-	100

Transducer Model: 10S-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.22		0.05	-	0.26	0.08
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.73				
	P	W_0	(mW)		-	1.87		1.97	2.01
	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)	1.40					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.10	
	f_{awf}	f_c	(MHz)	5.00	-	5.50	-	5.00	5.00
	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	(μsec)	0.32					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.48					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.10	
	Focal Length	FL_x	(cm)		-	0.40	-		0.08
		FL_y	(cm)		-	0.10	-		0.08
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	430					
Operator Control	Power	(dB)		0	-	0	-	0	0
	Beam angle	(deg)		0	-	0	-	0	0
	Frequency	(MHz)		5.00	-	6.15	-	5.00	5.00
	Depth	(mm)		120	-	120	-	120	120
	Focus	(mm)		15	-	100	-	20	20

Transducer Model: **10S-RS**

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.16	-	0.20	-	0.76	0.35
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.52					
	P	W_0	(mW)		-	7.86		7.86	7.86
	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)					2.10	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.00					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.14	
	f_{awf}	f_c	(MHz)	4.45	-	4.80	-	4.80	4.80
	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	(μsec)	3.03					
	prr	PRF	(Hz)	5000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.06					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.14	
	Focal Length	FL_x	(cm)		-	0.16	-		0.16
		FL_y	(cm)		-	0.12	-		0.12
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	23					
Operator Control	Power	(dB)		0	-	0	-	0	0
	PRF	(Hz)		5000	-	5000	-	5000	5000
	ROI Span	(mm)		45	-	45		45	45
	ROI Center	(mm)		30	-	40	-	40	40
	Sample Vol.	(mm)		0.50		0.35	-	0.35	0.35
	Frequency	(MHz)		4.00	-	4.00	-	4.00	4.00

Transducer Model: **10S-RS**

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.82	0.46	-	-	-	0.80
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	0.86					
	P	W_0	(mW)		15.93	-		-	15.93
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.68	5.05	-	-	-	5.05
	Dim of A_{aprt}	X	(cm)		0.62	-	-	-	0.62
		Y	(cm)		0.50	-	-	-	0.50
Other Info	t_d	PD	(μsec)	0.94					
	prr	PRF	(Hz)	248					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	1.33					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.28	-	-		0.28
		FL_y	(cm)		0.12	-	-		0.12
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	38					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		0	0	-	-	-	0
	PRF	(Hz)		250	248	-	-	-	248
	ROI Span	(mm)		70	25	-	-	-	25
	ROI Center	(mm)		35	50	-	-	-	50
	Sample vol.	(mm)		0.78	0.74	-	-	-	0.74
	ROI Width	(deg or ratio to max width)		15.00	20.00	-	-	-	20.00
	Frequency	(MHz)		5.71	5.00	-	-	-	5.00

Transducer Model: **10S-RS**

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.67	-	0.47	-	0.84	0.59
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.34					
	P	W_0	(mW)		-	14.89		13.70	14.89
	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)	1.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.20	
	f_{awf}	f_c	(MHz)	4.08	-	6.65	-	6.63	6.65
	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	(μsec)	1.74					
	prr	PRF	(Hz)	2075					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	1.72					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.20	
	Focal Length	FL_x	(cm)		-	0.52	-		0.52
		FL_y	(cm)		-	0.08	-		0.08
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	74					
Operator Control	Power	(dB)		0	-	0	-	0	0
	Beam angle	(deg)		0	-	0	-	0	0
	Sample vol. position	(mm)		20	-	155	-	155	155
	Sample Volume	(mm)		1.49	-	1.53	-	1.53	1.53
	Scale	(m/sec)		0.40	-	0.60	-	0.60	0.60
	Frequency	(MHz)		4.00	-	6.67	-	6.67	6.67

Transducer Model: **10S-RS**

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	0.09	-	0.45	0.29
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	#					
	P	W_0	(mW)		-	4.88		4.88	4.88
	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)					1.20	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.18	
	f_{awf}	f_c	(MHz)	#	-	4.00	-	4.00	4.00
	Dim of A_{aprt}	X	(cm)		-	0.27	-	0.27	0.27
		Y	(cm)		-	0.50	-	0.50	0.50
Other Info	t_d	PD	(μsec)	#					
	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)					0.18	
	Focal Length	FL_x	(cm)		-	0.20	-		0.20
		FL_y	(cm)		-	0.14	-		0.14
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	#					
Operator Control	Sample vol. position	(mm)		-	-	103	-	103	103
	Frequency	(MHz)		-	-	4.00	-	4.00	4.00

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
\# No data are reported for this **operating condition** since the **global maximum** index value is not reported for the reason listed.

Transducer Model: 12S-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.33	0.80	-	-	-	1.10
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.71					
	P	W_0	(mW)		22.48	-		-	28.98
	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)	1.84					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.88	7.25	-	-	-	4.88
	Dim of A_{aprt}	X	(cm)		0.62	-	-	-	0.62
		Y	(cm)		0.55	-	-	-	0.55
Other Info	t_d	PD	(μsec)	0.31					
	prr	PRF	(Hz)	128					
	p_r at max I_{pi} P_r@ PII_{max}		(Mpa)	3.70					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.49	-	-		0.42
		FL_y	(cm)		0.23	-	-		0.13
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	284					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		3	2	-	-	-	2
	Frequency	(MHz)		5.00	8.00	-	-	-	5.00
	Width	(deg or ratio to max width)		20.00	10	-	-	-	20.00
	Depth	(mm)		120	120	-	-	-	120
	Focus	(mm)		44	89	-	-	-	99

Transducer Model: **12S-RS**

Operating Mode: M-Mode

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.31		0.12	-	0.31	0.20
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.92					
	P	W_0	(mW)		-	5.22		5.00	5.22
	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)					2.05	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.05					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.18	
	f_{awf}	f_c	(MHz)	5.00	-	4.88	-	5.00	4.88
	Dim of A_{aprt} X		(cm)		-	0.62	-	0.62	0.62
	Y		(cm)		-	0.55	-	0.55	0.55
Other Info	t_d	PD	(μsec)	0.30					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	4.16					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.18	
	Focal Length FL_x		(cm)		-	0.40	-		0.40
	FL_y		(cm)		-	0.14	-		0.14
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	354					
Operator Control	Power	(dB)		0	-	0	-	0	0
	Beam angle	(deg)		0	-	0	-	0	0
	Frequency	(MHz)		5.00	-	5.00	-	5.00	5.00
	Depth	(mm)		120	-	120	-	120	120
	Focus	(mm)		44	-	89	-	44	89

Transducer Model: **12S-RS**

Operating Mode: CMM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.19	-	0.58	-	1.50	0.91
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.91					
	P	W_0	(mW)		-	22.72		18.61	22.72
	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)					2.05	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.15					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.15	
	f_{awf}	f_c	(MHz)	5.05	-	5.10	-	5.10	5.10
	Dim of A_{aprt}	X	(cm)		-	0.62	-	0.62	0.62
		Y	(cm)		-	0.55	-	0.55	0.55
Other Info	t_d	PD	(μsec)	0.56					
	prr	PRF	(Hz)	5000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.78					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.15	
	Focal Length	FL_x	(cm)		-	0.28	-		0.28
		FL_y	(cm)		-	0.12	-		0.12
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	207					
Operator Control	Power	(dB)		0	-	0	-	0	0
	PRF	(Hz)		5000	-	3497	-	5000	3497
	ROI Span	(mm)		75	-	45		75	45
	ROI Center	(mm)		30	-	55	-	30	55
	Sample Vol.	(mm)		0.47		0.47	-	0.47	0.47
	Frequency	(MHz)		5.00	-	5.00	-	5.00	5.00

Transducer Model: **12S-RS**

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.23	0.24	-	-	-	0.42
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	0.63					
	P	W_0	(mW)		7.59	-		-	7.59
	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)	2.15					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.10	4.30	-	-	-	4.30
	Dim of A_{aprt}	X	(cm)		0.62	-	-	-	0.62
		Y	(cm)		0.55	-	-	-	0.55
Other Info	t_d	PD	(μsec)	0.84					
	prr	PRF	(Hz)	248					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	0.92					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.30	-	-		0.30
		FL_y	(cm)		0.13	-	-		0.13
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	18					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		0	0	-	-	-	0
	PRF	(Hz)		250	250	-	-	-	280
	ROI Span	(mm)		40	40	-	-	-	40
	ROI Center	(mm)		35	25	-	-	-	25
	Sample vol.	(mm)		0.60	0.57	-	-	-	0.57
	ROI Width	(deg or ratio to max width)		15.00	15.00	-	-	-	15.00
	Frequency	(MHz)		5.00	4.00	-	-	-	4.00

Acoustic information

Transducer Model: **12S-RS**

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.91	-	1.81	-	2.32	2.16
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.95					
	P	W_0	(mW)		-	56.88		53.84	56.88
	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)					1.53	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.05					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.26	
	f_{awf}	f_c	(MHz)	4.98	-	6.68	-	6.68	6.68
	Dim of A_{aprt}	X	(cm)		-	0.62	-	0.62	0.62
		Y	(cm)		-	0.55	-	0.55	0.55
Other Info	t_d	PD	(µsec)	1.21					
	prr	PRF	(Hz)	2577					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.77					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.26	
	Focal Length	FL_x	(cm)		-	0.49	-		0.49
		FL_y	(cm)		-	0.29	-		0.29
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	147					
Operator Control	Power	(dB)		0	-	0	-	0	0
	Beam angle	(deg)		0	-	0	-	0	0
	Sample vol. position	(mm)		238	-	124	-	124	124
	Sample Volume	(mm)		1.03	-	1.03	-	1.03	1.03
	Scale	(m/sec)		0.40	-	0.40	-	0.40	0.40
	Frequency	(MHz)		5.00	-	6.67	-	6.67	6.67

Transducer Model: **12S-RS**

Operating Mode: CW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			(a)	-	0.61	-	1.45	1.39
	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$ (Mpa)	#					
	P	W_0 (mW)		-	22.52		21.85	22.52
Assoc. Acoustic Param.	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)					1.66	
	z at max $I_{pi\,\alpha}$	z_{sp} (cm)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$ (cm)					0.18	
	f_{awf}	f_c (MHz)	#	-	5.71	-	5.71	5.71
	Dim of A_{aprt}	X (cm)		-	0.23	-	0.23	0.23
		Y (cm)		-	0.55	-	0.55	0.55
Other Info	t_d	PD (μsec)	#					
	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)					0.18	
	Focal Length	FL_x (cm)		-	0.26	-		0.26
		FL_y (cm)		-	0.11	-		0.11
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max} (W/cm^2)	#					
Operator Control	Sample vol. position (mm)		-	-	114	-	31	114
	Frequency (MHz)		-	-	5.71	-	5.71	5.71

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
\# No data are reported for this **operating condition** since the **global maximum** index value is not reported for the reason listed.

Transducer Model: e8C-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.14	0.31	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.38				
	P	W_0	(mW)		12.21	-		-	#
	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)	1.79					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.75	5.25	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.58	-	-	-	#
		Y	(cm)		0.50	-	-	-	#
Other Info	t_d	PD	(µsec)	0.32					
	prr	PRF	(Hz)	13					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.20					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.32	-	-		#
		FL_y	(cm)		0.20	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	254					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		1	1	-	-	-	-
	Frequency	(MHz)		5.00	5.00	-	-	-	-
	Width	(deg or ratio to max width)		120.00	120.00	-	-	-	-
	Depth	(mm)		140	140	-	-	-	-
	Focus	(mm)		28	28	-	-	-	-

Notes:

(b) This probe is not intended for transcranial or neonatal cephalic use.

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: e8C-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.96		0.10	-	0.38	(b)
	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.17					
	P	W_0	(mW)		-	2.57		2.57	#
Assoc. Acoustic Param.	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)					1.27	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.47					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.20	
	f_{awf}	f_c	(MHz)	4.75	-	4.13	-	4.13	#
	Dim of A_{aprt}	X	(cm)		-	0.41	-	0.41	#
		Y	(cm)		-	0.50	-	0.50	#
Other Info	t_d	PD	(μsec)	0.33					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.76					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.20	
	Focal Length	FL_x	(cm)		-	0.14	-		#
		FL_y	(cm)		-	0.30	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	199					
Operator Control	Power	(dB)	0	-	0	-	0	-
	Beam angle	(deg)	0	-	0	-	0	-
	Frequency	(MHz)	5.00	-	4.00	-	4.00	-
	Depth	(mm)	140	-	140	-	140	-
	Focus	(mm)	21	-	21	-	21	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: e8C-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.93	-	0.13	-	0.47	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	0.86				
	P	W_0	(mW)		-	3.85		3.85	#
	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)					1.76	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.97					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.14	
	f_{awf}	f_c	(MHz)	5.50	-	5.05	-	5.05	#
	Dim of A_{aprt}	X	(cm)		-	0.75	-	0.75	#
		Y	(cm)		-	0.50	-	0.50	#
Other Info	t_d	PD	(μsec)	0.29					
	prr	PRF	(Hz)	250					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	1.25					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.14	
	Focal Length	FL_x	(cm)		-	0.08	-		#
		FL_y	(cm)		-	0.24	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	23					
Operator Control	Power	(dB)		0	-	0	-	0	-
	PDF	(Hz)		250	-	5000	-	5000	-
	ROI Span	(mm)		15	-	20	-	20	-
	ROI Center	(mm)		20	-	20	-	20	-
	Sample vol.	(mm)		0.37	-	0.88	-	0.88	-
	Frequency	(MHz)		5.00	-	5.00	-	5.00	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: e8C-RS

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.14	0.35	-	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	0.75					
	P	W_0	(mW)		16.11	-		-	#
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.96					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.15	4.95	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.24	-	-	-	#
		Y	(cm)		0.50	-	-	-	#
Other Info	t_d	PD	(μsec)	1.02					
	prr	PRF	(Hz)	385					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	0.99					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.92	-	-		#
		FL_y	(cm)		0.28	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	17					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	0	-	-	-	-
	PRF	(Hz)		5000	5000	-	-	-	-
	ROI Span	(mm)		20	20	-	-	-	-
	ROI Center	(mm)		20	20	-	-	-	-
	Sample vol.	(mm)		0.89	0.89	-	-	-	-
	ROI Width	(deg or ratio to max width)		30.00	30.00	-	-	-	-
	Frequency	(MHz)		4.00	4.00	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: **e8C-RS**

Operating Mode: PW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.19	-	0.38	-	0.93	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.65				
	P	W_0	(mW)		-	13.85		9.99	#
	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)					1.85	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.85					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.13	
	f_{awf}	f_c	(MHz)	5.00	-	5.70	-	5.00	#
	Dim of A_{aprt}	X	(cm)		-	1.24	-	0.87	#
		Y	(cm)		-	0.50	-	0.50	#
Other Info	t_d	PD	(µsec)	2.31					
	prr	PRF	(Hz)	449					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.65					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.13	
	Focal Length	FL_x	(cm)		-	0.96	-		#
		FL_y	(cm)		-	0.28	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	376					
Operator Control	Power	(dB)		0	-	0	-	0	-
	Beam angle	(deg)		0	-	0	-	0	-
	Sample vol. position	(mm)		20	-	269	-	20	-
	Sample volume	(mm)		2.03	-	2.00	-	2.03	-
	Scale	(m/sec)		0.07	-	0.05	-	0.07	-
	Frequency	(MHz)		5.00	-	5.71	-	5.00	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 3C-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.0	(a)	-	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.8					
	P	W_0	(mW)		#	-		-	#
	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)	4.2				-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)						
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.5	#	-	-	-	#
	Dim of A_{aprt}	X	(cm)		#	-	-	-	#
		Y	(cm)		#	-	-	-	#
Other Info	t_d	PD	(ms)	0.6					
	prr	PRF	(Hz)	7252					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	3.0					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		#	-	-		#
		FL_y	(cm)		#	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	113					
Operator Control		Power	(dB)	0	#	-	-	-	#
		Focus	(cm)	4.6	#	-	-	-	#
		Range	(cm)	8	#	-	-	-	#
		2D Angle	(deg)	30.0	#	-	-	-	#

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed

Transducer Model: 3C-RS

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				1.1	-		0.2	0.6	(a)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.0					
	P	W_0	(mW)		-	-		18.8	#
	Min of $[P_\alpha(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA.3}(Z_1)]$	(mW)				12.3		
	z_s	z_1	(cm)				1.8		
	z_{bp}	z_{bp}	(cm)				1.8		
	z_b	z_{sp}	(cm)	4.2				4.0	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)						
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.27	
	f_{awf}	f_c	(MHz)	3.5	-	-	3.5	3.5	#
	Dim of A_{aprt}	X	(cm)		-	-	1.1	1.1	#
		Y	(cm)		-	-	1.0	1.0	#
Other Info	t_d	PD	(ms)	0.7					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.8					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					2.8	
	Focal Length	FL_x	(cm)		-	-	4.7		#
		FL_y	(cm)		-	-	5.0		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	166					
Operator Control		Power	(dB)	0	-	-	0	0	#
		Focus	(cm)	4.6			4.6	4.6	#
		Range	(cm)	20.0	-	-	20.0	20.0	#

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed

Transducer Model: 3C-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.9	-	-	0.2	0.5	(a)
	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.7					
	P	W_0	(mW)		-	-		14.5	#
Assoc. Acoustic Param.	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				90.5		
	z_s	z_1	(cm)				1.8		
	z_{bp}	z_{bp}	(cm)				1.8		
	z_b	z_{sp}	(cm)	4.2				3.7	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)						
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.24	
	f_{awf}	f_c	(MHz)	3.5	-	-	3.1	3.1	#
	Dim of A_{aprt}	X	(cm)		-	-	1.6	1.6	#
		Y	(cm)		-	-	1.0	1.0	#
Other Info	t_d	PD	(ms)	0.7					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.8					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.20	
	Focal Length	FL_x	(cm)		-	-	3.3		#
		FL_y	(cm)		-	-	5.0		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	166					
Operator Control		Power	(dB)	0	-	-	0	0	#
		Range	(cm)	8.0	-	-	8.0	8.0	#
		ROI depth	(cm)	3.3	-	-	3.3	3.3	#
		Velocity	(m/sec)	Max.	-	-	Max.	Max.	#
		ROI length	(mm)	45	-	-	45	45	#

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed

Transducer Model: **3C-RS**

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.9	1.5	-	-	-	(a)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.7					
	P	W_0	(mW)		98.5	-		-	#
	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)	3.8				-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)						
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.1	3.1	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.6	-	-	-	#
		Y	(cm)		1.0	-	-	-	#
Other Info	t_d	PD	(ms)	1.8					
	prr	PRF	(Hz)	9615					
	p_r at max I_{pi}	P_r@ PII$_{max}$	(MPa)	2.6					
	d_{eq} at max I_{pi}	d_{eq}@ PII$_{max}$	(cm)					-	
	Focal Length	FL_x	(cm)		3.2	3.3	-		#
		FL_y	(cm)		5.0	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI$_{max}$	(W/cm^2)	126					
Operator Control	Power	(dB)		0	0	-	-	-	#
	Range	(cm)		8.0	8.0	-	-	-	#
	ROI start depth	(cm)		1.0	1.0	-	-	-	#
	Dopp. PRF	(KHz)		9.2	9.2	-	-	-	#
	ROI length	(mm)		45	45	-	-	-	#
	ROI width	(deg)		14	14	-	-	-	#
	2D Angle	(deg)		30	30	-	-	-	#

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed

Transducer Model: 3C-RS

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.8	-	-	0.4	1.8	(a)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.4					
	P	W_0	(mW)		-	-		42.0	#
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				27.8		
	z_s	z_1	(cm)				1.9		
	z_{bp}	z_{bp}	(cm)				1.9		
	z_b	z_{sp}	(cm)	3.7				3.7	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)						
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)				0.24		
	f_{awf}	f_c	(MHz)	3.1	-	-	3.1	3.1	#
	Dim of A_{aprt}	X	(cm)		-	-	1.3	1.3	#
		Y	(cm)		-	-	1.0	1.0	#
Other Info	t_d	PD	(ms)	0.9					
	prr	PRF	(Hz)	2900					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.0					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.24	
	Focal Length	FL_x	(cm)		-	-	3.2		#
		FL_y	(cm)		-	-	5.0		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	97					
Operator Control		Power	(dB)	0	-	-	0	0	#
		Range	(cm)	8.0	-	-	8.0	8.0	#
		SV depth	(cm)	3.0	-	-	3.0	3.0	#
		Velocity	(m/sec)	0.6	-	-	3.4	3.4	#
		SV	(mm)	1	-	-	2	2	#

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed

Transducer Model: 4C-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.53	0.47	-	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.15					
	P	W_0	(mW)		29.16	-		-	#
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	4.63					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	1.80	2.95	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.69	-	-	-	#
		Y	(cm)		1.30	-	-	-	#
Other Info	t_d	PD	(µsec)	1.03					
	prr	PRF	(Hz)	25					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	1.53					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.10	-	-		#
		FL_y	(cm)		0.60	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	79					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	1	-	-	-	-
	Frequency	(MHz)		1.51	3.08	-	-	-	-
	Width	(deg or ratio to max width)		45.00	58.00	-	-	-	-
	Depth	(mm)		300	300	-	-	-	-
	Focus	(mm)		45	41	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 4C-RS

Operating Mode: M-Mode

	Index Label			MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
	Maximum Index Value			1.39	-	-	0.30	0.72	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.24					
	P	W_0	(mW)		-	-		36.36	#
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				13.48		
	z_s	z_1	(cm)				5.42		
	z_{bp}	z_{bp}	(cm)				2.37		
	z_b	z_{sp}	(cm)					5.42	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	4.47					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.42	
	f_{awf}	f_c	(MHz)	3.10	-	-	2.65	2.65	#
	Dim of A_{aprt}	X	(cm)		-	-	1.64	1.64	#
		Y	(cm)		-	-	1.30	1.30	#
Other Info	t_d	PD	(μsec)	0.47					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.62					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.42	
	Focal Length	FL_x	(cm)		-	-	0.55		#
		FL_y	(cm)		-	-	0.30		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	196					
Operator Control	Power	(dB)		0	-	-	0	0	-
	Beam angle	(deg)		0	-	-	0	0	-
	Frequency	(MHz)		3.64	-	-	2.76	2.76	-
	Depth	(mm)		300	-	-	300	300	-
	Focus	(mm)		45	-	-	90	90	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 4C-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.44	-	-	1.04	2.06	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.11					
	P	W_0	(mW)		-	-		141.65	#
	Min of $[P_\alpha(Z_s),$ $I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1),$ $I_{TA.3}(Z_1)]$	(mW)				53.78		
	z_s	z_1	(cm)				5.88		
	z_{bp}	z_{bp}	(cm)				3.26		
	z_b	z_{sp}	(cm)					5.88	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	5.18					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.61	
	f_{awf}	f_c	(MHz)	3.60	-	-	2.53	2.53	#
	Dim of A_{aprt}	X	(cm)		-	-	3.04	3.04	#
		Y	(cm)		-	-	1.30	1.30	#
Other Info	t_d	PD	(µsec)	1.26					
	prr	PRF	(Hz)	5814					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.12					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.61	
	Focal Length	FL_x	(cm)		-	-	1.35		#
		FL_y	(cm)		-	-	0.30		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	69					
Operator Control	Power	(dB)		0	-	-	0	0	
	PRF	(Hz)		5814	-	-	4000	4000	
	ROI Span	(mm)		100	-	-	105	105	
	ROI Center	(mm)		40	-	-	110	110	
	Sample vol.	(mm)		1.13	-	-	1.11	1.11	
	Frequency	(MHz)		3.64	-	-	2.50	2.50	

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 4C-RS

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.56	1.16	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.78				
	P	W_0	(mW)		197.14	-		-	#
	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)	4.98				
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	2.25	2.65	-	-	-	#
	Dim of A_{aprt}	X	(cm)		2.46	-	-	-	#
		Y	(cm)		1.30	-	-	-	#
Other Info	t_d	PD	(μsec)	2.12				
	prr	PRF	(Hz)	251				
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.62				
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.20	-	-		#
		FL_y	(cm)		0.30	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	144				
Operator Control	Power	(dB)		0	0	-	-	-	
	Tilt	(deg)		0	0	-	-	-	
	Framerate	(index)		0	0	-	-	-	
	PRF	(Hz)		250	500	-	-	-	
	ROI Span	(mm)		100	135	-	-	-	
	ROI Center	(mm)		20	50	-	-	-	
	Sample vol.	(mm)		1.76	1.64	-	-	-	
	ROI Width	(deg or ratio to max width)		20.00	15.00	-	-	-	
	Frequency	(MHz)		2.22	2.67	-	-	-	

Notes:

(b) This probe is not intended for transcranial or neonatal cephalic use.

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 4C-RS

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				1.15	-	-	0.70	2.79	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.88					
	P	W_0	(mW)		-	-		68.95	#
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				44.20		
	z_s	z_1	(cm)				2.10		
	z_{bp}	z_{bp}	(cm)				1.69		
	z_b	z_{sp}	(cm)					2.10	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	5.39					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.36	
	f_{awf}	f_c	(MHz)	3.03	-	-	3.08	3.08	#
	Dim of A_{aprt}	X	(cm)		-	-	0.87	0.87	#
		Y	(cm)		-	-	1.30	1.30	#
Other Info	t_d	PD	(µsec)	1.90					
	prr	PRF	(Hz)	779					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.29					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.36	
	Focal Length	FL_x	(cm)		-	-	0.10		#
		FL_y	(cm)		-	-	0.90		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	162					
Operator Control	Power		(dB)	0	-	-	0	0	
	Beam angle		(deg)	0	-	-	0	0	
	Sample vol. position		(mm)	62	-	-	20	20	
	Sample vol.		(mm)	1.57	-	-	4.52	4.52	
	Scale		(m/sec)	0.20	-	-	1.49	1.49	
	Frequency		(MHz)	3.08	-	-	3.08	3.08	

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 8C-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.39	0.74	-	-	-	1.09
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	3.65					
	P	W_0	(mW)		37.62	-		-	37.62
	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)	0.73					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	6.88	4.88	-	-	-	4.88
	Dim of A_{aprt}	X	(cm)		1.18	-	-	-	1.18
		Y	(cm)		0.50	-	-	-	0.50
Other Info	t_d	PD	(µsec)	0.32					
	prr	PRF	(Hz)	51					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	4.34					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.94	-	-		0.94
		FL_y	(cm)		0.30	-	-		0.30
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	334					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		0	0	-	-	-	0
	Frequency	(MHz)		8.00	8.00	-	-	-	5.71
	Width	(deg or ratio to max width)		40.00	40.00	-	-	-	30.00
	Depth	(mm)		140	140	-	-	-	140
	Focus	(mm)		7	7	-	-	-	133

Transducer Model: 8C-RS

Operating Mode: M-Mode

	Index Label			MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
	Maximum Index Value			0.98	-	0.08	-	0.19	0.15
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.55					
	P	W_0	(mW)		-	2.41		2.85	3.23
	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)					1.47	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	0.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.21	
	f_{awf}	f_c	(MHz)	7.00	-	6.63	-	4.75	4.75
	Dim of A_{aprt}	X	(cm)		-	0.46	-	0.41	0.46
		Y	(cm)		-	0.50	-	0.50	0.50
Other Info	t_d	PD	(μsec)	0.23					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.88					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.21	
	Focal Length	FL_x	(cm)		-	0.32	-		0.32
		FL_y	(cm)		-	0.28	-		0.28
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	201					
Operator Control	Power		(dB)	0	-	0	-	0	0
	Beam angle		(deg)	0	-	0	-	0	0
	Frequency		(MHz)	8.00	-	8.00	-	5.00	5.00
	Depth		(mm)	140	-	140	-	140	140
	Focus		(mm)	7	-	98	-	21	133

Transducer Model: 8C-RS

Operating Mode: CMM

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				0.80	-	0.10	-	0.39	0.20
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	0.66					
	P	W_0	(mW)		-	4.86		4.39	4.86
	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)					1.84	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.95					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.16	
	f_{awf}	f_c	(MHz)	5.70	-	4.20	-	4.15	4.20
	Dim of A_{aprt}	X	(cm)		-	0.71	-	0.71	0.71
		Y	(cm)		-	0.50	-	0.50	0.50
Other Info	t_d	PD	(µsec)	0.89					
	prr	PRF	(Hz)	3497					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	0.97					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					0.16	
	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^2)	19					
Operator Control	Power	(dB)		0	-	0	-	0	0
	PRF	(Hz)		3497	-	5000	-	5000	5000
	ROI Span	(mm)		20	-	20	-	20	20
	ROI Center	(mm)		20	-	20	-	20	20
	Sample vol.	(mm)		0.85	-	0.89	-	0.89	0.89
	Frequency	(MHz)		5.71	-	4.00	-	4.00	4.00

Transducer Model: 8C-RS

Operating Mode: CFM

	Index Label			MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
	Maximum Index Value			1.06	0.45	-	-	-	0.68
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.61					
	P	W_0	(mW)		16.71	-		-	16.71
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.95					
	$d_{eq}\,(z_b)$	$d_{eq}\,(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.10	5.10	-	-	-	5.10
	Dim of A_{aprt}	X	(cm)		0.71	-	-	-	0.71
		Y	(cm)		0.50	-	-	-	0.50
Other Info	t_d	PD	(μsec)	0.49					
	prr	PRF	(Hz)	313					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.26					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.08	-	-		0.08
		FL_y	(cm)		0.28	-	-		0.28
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	116					
Operator Control	Power	(dB)		0	0	-	-	-	0
	Tilt	(deg)		0	0	-	-	-	0
	Framerate	(index)		1	1	-	-	-	1
	PDF	(Hz)		5000	5000	-	-	-	5000
	ROI Span	(mm)		35	35	-	-	-	35
	ROI Center	(mm)		20	20	-	-	-	20
	Sample Vol.	(mm)		0.50	0.50	-	-	-	0.50
	ROI Width	(deg or ratio to max width)		30.00	30.00	-	-	-	30.00
	Frequency	(MHz)		5.00	5.00	-	-	-	5.00

Transducer Model: 8C-RS

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.03	-	0.34	-	1.10	0.60
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.05				
	P	W_0	(mW)		-	12.66		12.77	12.77
	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)					1.20	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.95					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					0.19	
	f_{awf}	f_c	(MHz)	4.00	-	5.70	-	4.03	4.03
	Dim of A_{aprt}	X	(cm)		-	1.24	-	0.44	0.44
		Y	(cm)		-	0.50	-	0.50	0.50
Other Info	t_d	PD	(μsec)	7.27					
	prr	PRF	(Hz)	257					
	p_r at max I_{pi}	P_r@ PII$_{max}$	(Mpa)	2.69					
	d_{eq} at max I_{pi}	d_{eq}@ PII$_{max}$	(cm)					0.19	
	Focal Length	FL_x	(cm)		-	1.12	-		0.12
		FL_y	(cm)		-	0.28	-		0.30
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	190					
Operator Control	Power	(dB)		0	-	0	-	0	0
	Beam angle	(deg)		0	-	0	-	0	0
	Sample vol. position	(mm)		20	-	228	-	10	10
	Sample vol.	(mm)		5.98	-	2.00	-	2.01	2.01
	Scale	(m/sec)		0.05	-	0.05	-	0.20	0.20
	Frequency	(MHz)		4.00	-	5.71	-	4.00	4.00

Transducer Model: 8L-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.59	0.99	-	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	3.48					
	P	W_0	(mW)		43.87	-		-	#
	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)	1.74					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.38	4.20	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.83	-	-	-	#
		Y	(cm)		0.40	-	-	-	#
Other Info	t_d	PD	(µsec)	0.31					
	prr	PRF	(Hz)	40					
	p_r at max I_{pi}	P_r@ PII$_{max}$	(Mpa)	4.80					
	d_{eq} at max I_{pi}	d_{eq}@ PII$_{max}$	(cm)					-	
	Focal Length	FL$_x$	(cm)		1.20	-	-		#
		FL$_y$	(cm)		0.14	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI$_{max}$	(W/cm^2)	599					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	1	-	-	-	-
	Frequency	(MHz)		5.33	4.00	-	-	-	-
	Width	(deg or ratio to max width)		1.00	0.70	-	-	-	-
	Depth	(mm)		100	100	-	-	-	-
	Focus	(mm)		20	45	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 8L-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.61	-	0.59	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	3.52					
	P	W_0	(mW)		-	14.41		-	#
	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)	1.67					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.38	-	4.15	-	-	#
	Dim of A_{aprt}	X	(cm)		-	1.83	-	-	#
		Y	(cm)		-	0.40	-	-	#
Other Info	t_d	PD	(μsec)	0.31					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	4.80					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	1.20	-		#
		FL_y	(cm)		-	0.14	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	5.73					
Operator Control	Power	(dB)		0	-	0	-	0	-
	Beam angle	(deg)		0	-	0	-	-	-
	Frequency	(MHz)		5.33	-	4.00	-	-	-
	Depth	(mm)		100	-	100	-	-	-
	Focus	(mm)		20	-	45	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 8L-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.58	-	0.15	-	-	(b)
	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.66					
	P	W_0	(mW)		-	4.12		-	#
Assoc. Acoustic Param.	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)	1.36					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.00	-	6.68	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.51	-	-	#
		Y	(cm)		-	0.40	-	-	#
Other Info	t_d	PD	(μsec)	0.95					
	prr	PRF	(Hz)	3497					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.10					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.04	-		#
		FL_y	(cm)		-	0.20	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	150					
Operator Control	Power	(dB0		0	-	0	-	-	-
	PRF	(Hz)		3497	-	3497	-	-	-
	ROI Span	(mm)		30	-	10	-	-	-
	ROI Center	(mm)		15	-	10	-	-	-
	Sample vol.	(mm)		0.88	-	1.10	-	-	-
	Frequency	(MHz)		5.00	-	6.67	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 8L-RS

Operating Mode: CFM

Index Label				MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value				1.59	0.91	-	-	-	(b)
	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.27					
	P	W_0	(mW)		33.80	-		-	#
	Min of $[P_\alpha(Z_s), I_{ta,\alpha}(Z_s)]$	Min of $[W_{.3}(Z_1), I_{TA.3}(Z_1)]$	(mW)				-		
Assoc. Acoustic Param.	z_s	z_1	(cm)				-		
	z_{bp}	z_{bp}	(cm)				-		
	z_b	z_{sp}	(cm)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.46					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	6.70	5.05	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.92	-	-	-	#
		Y	(cm)		0.40	-	-	-	#
	t_d	PD	(μsec)	1.28					
	prr	PRF	(Hz)	245					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.19					
Other Info	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		1.20	-	-		#
		FL_y	(cm)		0.12	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	234					
	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	2	-	-	-	-
	PRF	(Hz)		247	750	-	-	-	-
Operator Control	ROI Span	(mm)		10	160	-	-	-	-
	ROI Center	(mm)		10	10	-	-	-	-
	Sample vol.	(mm)		1.10	1.12	-	-	-	-
	ROI width	(deg or ratio to max width)		0.51	0.20	-	-	-	-
	Frequency	(MHz)		6.67	5.00	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 8L-RS

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.51	-	0.17	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.98					
	P	W_0	(mW)		-	7.86		-	#
	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)	1.02					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.95	-	4.45	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.42	-	-	#
		Y	(cm)		-	0.40	-	-	#
Other Info	t_d	PD	(µsec)	1.06					
	prr	PRF	(Hz)	450					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.55					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	1.10	-		#
		FL_y	(cm)		-	0.12	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	528					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam angle	(deg)		0	-	0	-	-	-
	Sample vol. position	(mm)		16	-	16	-	-	-
	Sample vol.	(mm)		0.96	-	3.97	-	-	-
	Scale	(m/sec)		0.07	-	1.99	-	-	-
	Frequency	(MHz)		5.00	-	4.44	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9L-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.39	0.76	-	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.53					
	P	W_0	(mW)		47.55	-		-	#
	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)	3.00					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.35	4.88	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.45	-	-	-	#
		Y	(cm)		0.60	-	-	-	#
Other Info	t_d	PD	(μsec)	0.57					
	prr	PRF	(Hz)	61					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.17					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.92	-	-		#
		FL_y	(cm)		0.14	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	158					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	1	-	-	-	-
	Frequency	(MHz)		3.08	5.71	-	-	-	-
	Width	(deg or ratio to max width)		0.70	1.00	-	-	-	-
	Depth	(mm)		120	120	-	-	-	-
	Focus	(mm)		30	54	-	-	-	-

Notes:

(b) This probe is not intended for transcranial or neonatal cephalic use.

No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: **9L-RS**

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.38	-	0.31	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.97					
	P	W_0	(mW)		-	13.07		-	#
	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)	2.65					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.88	-	5.00	-	-	#
	Dim of A_{aprt}	X	(cm)		-	1.47	-	-	#
		Y	(cm)		-	0.60	-	-	#
Other Info	t_d	PD	(μsec)	0.31					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r @ PII_{max}	(Mpa)	4.64					
	d_{eq} at max I_{pi}	d_{eq} @ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	1.20	-		#
		FL_y	(cm)		-	0.14	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$ @ MI_{max}	(W/cm²)	433					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam angle	(deg)		0	-	0	-	-	-
	Frequency	(MHz)		5.71	-	5.71	-	-	-
	Depth	(mm)		120	-	120	-	-	-
	Focus	(mm)		30	-	114	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9L-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.38	-	0.12	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.47					
	P	W_0	(mW)		-	4.98		-	#
	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)	3.38					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	6.55	-	4.55	-	-	#
	Dim of A_{aprt}	X	(cm)		-	1.01	-	-	#
		Y	(cm)		-	0.60	-	-	#
Other Info	t_d	PD	(μsec)	0.78					
	prr	PRF	(Hz)	250					
	p_r at max I_{pi}	$P_r@$ PII_{max}	(Mpa)	3.14					
	d_{eq} at max I_{pi}	$d_{eq}@$ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.08	-		#
		FL_y	(cm)		-	0.14	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}@$ MI_{max}	(W/cm²)	116					
Operator Control	Power	(dB0		0	-	0	-	-	-
	PRF	(Hz)		250	-	3497	-	-	-
	ROI Span	(mm)		70	-	10	-	-	-
	ROI Center	(mm)		30	-	20	-	-	-
	Sample vol.	(mm)		0.70	-	0.74	-	-	-
	Frequency	(MHz)		6.67	-	4.44	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9L-RS

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.32	1.76	-	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.05					
	P	W_0	(mW)		120.90	-		-	#
	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)	2.95					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.50	4.45	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.52	-	-	-	#
		Y	(cm)		0.60	-	-	-	#
Other Info	t_d	PD	(µsec)	0.79					
	prr	PRF	(Hz)	567					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.25					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.08	-	-		#
		FL_y	(cm)		0.16	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	255					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	0	-	-	-	-
	PRF	(Hz)		8000	2500	-	-	-	-
	ROI Span	(mm)		10	10	-	-	-	-
	ROI Center	(mm)		25	25	-	-	-	-
	Sample vol.	(mm)		0.74	1.18	-	-	-	-
	ROI width	(deg or ratio to max width)		0.20	1.00	-	-	-	-
	Frequency	(MHz)		4.44	4.44	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9L-RS

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.09	-	0.33	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.22				
	P	W_0	(mW)		-	15.79		-	#
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	2.29					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.43	-	4.45	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.92	-	-	#
		Y	(cm)		-	0.60	-	-	#
Other Info	t_d	PD	(μsec)	1.73					
	prr	PRF	(Hz)	285					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.14					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.14	-		#
		FL_y	(cm)		-	0.16	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	279					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam angle	(deg)		0	-	0	-	-	-
	Sample vol. position	(mm)		32	-	36	-	-	-
	Sample vol.	(mm)		1.54	-	5.48	-	-	-
	Scale	(m/sec)		0.05	-	0.05	-	-	-
	Frequency	(MHz)		4.44	-	4.44	-	-	-

Notes:

(b) This probe is not intended for transcranial or neonatal cephalic use.

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 12L-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.39	1.87	-	-	-	(b)
	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	3.71					
	P	W_0	(mW)		79.01	-		-	#
Assoc. Acoustic Param.	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)	1.27					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	7.50	6.38	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.26	-	-	-	#
		Y	(cm)		0.40	-	-	-	#
Other Info	t_d	PD	(µsec)	0.30					
	prr	PRF	(Hz)	77					
	p_r at max I_{pi}	P_r @ PII_{max}	(Mpa)	5.16					
	d_{eq} at max I_{pi}	d_{eq} @ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.92	-	-		#
		FL_y	(cm)		0.08	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$ @ MI_{max}	(W/cm²)	475					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	0	-	-	-	-
	Frequency	(MHz)		8.00	6.15	-	-	-	-
	Width	(deg or ratio to max width)		0.90	0.70	-	-	-	-
	Depth	(mm)		60	60	-	-	-	-
	Focus	(mm)		18	57	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 12L-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.41	-	0.27	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	3.56					
	P	W_0	(mW)		-	9.41		-	#
	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)	1.54					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	7.50	-	6.13	-	-	#
	Dim of A_{aprt}	X	(cm)		-	1.18	-	-	#
		Y	(cm)		-	0.40	-	-	#
Other Info	t_d	PD	(μsec)	0.31					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	5.31					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.66	-		#
		FL_y	(cm)		-	0.10	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	490					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam angle	(deg)		0	-	0	-	-	-
	Frequency	(MHz)		8.00	-	6.15	-	-	-
	Depth	(mm)		60	-	60	-	-	-
	Focus	(mm)		18	-	30	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 12L-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.35	-	0.08	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	3.29				
	P	W_0	(mW)		-	1.96		-	#
	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)	1.36					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	6.63	-	6.68	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.90	-	-	#
		Y	(cm)		-	0.40	-	-	#
Other Info	t_d	PD	(μsec)	0.35					
	prr	PRF	(Hz)	247					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	4.50					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.04	-		#
		FL_y	(cm)		-	0.10	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	549					
Operator Control	Power	(dB)		0	-	0	-	-	-
	PRF	(Hz)		247	-	3497	-	-	-
	ROI Span	(mm)		10	-	35	-	-	-
	ROI Center	(mm)		15	-	15	-	-	-
	Sample vol.	(mm)		0.32	-	0.92	-	-	-
	Frequency	(MHz)		6.67	-	6.67	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: **12L-RS**

Operating Mode: CFM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.46	1.06	-	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$ (Mpa)	3.42					
	P	W_0 (mW)		31.57	-		-	#
	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)	1.36					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$ (cm)					-	
	f_{awf}	f_c (MHz)	5.88	6.70	-	-	-	#
	Dim of A_{aprt}	X (cm)		0.78	-	-	-	#
		Y (cm)		0.40	-	-	-	#
Other Info	t_d	PD (μsec)	0.43					
	prr	PRF (Hz)	245					
	p_r at max I_{pi}	P_r@ PII_{max} (Mpa)	4.51					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max} (cm)					-	
	Focal Length	FL_x (cm)		0.04	-	-		#
		FL_y (cm)		0.08	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max} (W/cm^2)	607					
Operator Control	Power (dB)		0	0	-	-	-	-
	Tilt (deg)		0	0	-	-	-	-
	Framerate (index)		0	0	-	-	-	-
	PRF (Hz)		247	12000	-	-	-	-
	ROI Span (mm)		10	10	-	-	-	-
	ROI Center (mm)		10	10	-	-	-	-
	Sample vol. (mm)		0.36	0.92	-	-	-	-
	ROI Width (deg or ratio to max width)		0.20	0.20	-	-	-	-
	Frequency (MHz)		5.71	6.67	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 12L-RS

Operating Mode: PW

Index Label				MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value				1.41	-	0.63	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	3.53					
	P	W_0	(mW)		-	19.85		-	#
	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)	1.28					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	6.63	-	6.66	-	-	#
	Dim of A_{aprt} X		(cm)		-	1.02	-	-	#
	Dim of A_{aprt} Y		(cm)		-	0.40	-	-	#
Other Info	t_d	PD	(µsec)	1.17					
	prr	PRF	(Hz)	427					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	4.73					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length FL_x		(cm)		-	0.60	-		#
	Focal Length FL_y		(cm)		-	0.08	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	557					
Operator Control	Power		(dB)	0	-	0	-	-	-
	Beam angle		(deg)	0	-	0	-	-	-
	Sample vol. position		(mm)	20	-	40	-	-	-
	Sample vol.		(mm)	1.03	-	6.48	-	-	-
	Scale		(m/sec)	0.05	-	1.39	-	-	-
	Frequency		(MHz)	6.67	-	6.67	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: i12L-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.00	0.20	-	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.84					
	P	W_0	(mW)		6.40	-		-	#
	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)	1.48					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	8.00	7.75	-	-	-	#
	Dim of A_{aprt}	X	(cm)		1.12	-	-	-	#
		Y	(cm)		0.70	-	-	-	#
Other Info	t_d	PD	(ms)	0.18					
	prr	PRF	(Hz)	42					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	4.27					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.04	-	-		#
		FL_y	(cm)		0.20	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	457					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	0	-	-	-	-
	Frequency	(MHz)		10.00	10.00	-	-	-	-
	Width	(deg or ratio to max width)		0.40	0.40	-	-	-	-
	Depth	(mm)		60	60	-	-	-	-
	Focus	(mm)		15	18	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: i12L-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.97	-	0.02	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.74				
	P	W_0	(mW)		-	0.49		-	#
	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)	1.21					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	8.00	-	8.00	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.60	-	-	#
		Y	(cm)		-	0.70	-	-	#
Other Info	t_d	PD	(ms)	0.17					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	3.83					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.04	-		#
		FL_y	(cm)		-	0.04	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	318					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam Angle	(deg)		0	-	0	-	-	-
	Frequency	(MHz)		10.00	-	10.00	-	-	-
	Depth	(mm)		60	-	60	-	-	-
	Focus	(mm)		15	-	15	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: i12L-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.33	-	0.08	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	3.42				
	P	W_0	(mW)		-	2.97		-	#
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	0.86					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	6.55	-	5.15	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.73	-	-	#
		Y	(cm)		-	0.70	-	-	#
Other Info	t_d	PD	(ms)	0.67					
	prr	PRF	(Hz)	500					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	4.15					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.08	-		#
		FL_y	(cm)		-	0.12	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	655					
Operator Control	Power	(dB)		0	-	0	-	-	-
	PRF	(Hz)		500	-	11905	-	-	-
	ROI Span	(mm)		19	-	38	-	-	-
	ROI Center	(mm)		9	-	18	-	-	-
	Sample Volume	(mm)		0.61	-	0.64	-	-	-
	Frequency	(MHz)		6.67	-	5.00	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: i12L-RS

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.86	0.21	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.75				
	P	W_0	(mW)		7.86	-		-	#
	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)	0.82					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.15	5.15	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.18	-	-	-	#
		Y	(cm)		0.70	-	-	-	#
Other Info	t_d	PD	0.52	0.82					
	prr	PRF	(Hz)	1667					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.03					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.14	-	-		#
		FL_y	(cm)		0.06	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	104					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	0	-	-	-	-
	PRF	(Hz)		10000	248	-	-	-	-
	ROI Span	(mm)		11	3	-	-	-	-
	ROI Center	(mm)		3	3	-	-	-	-
	Sample Voume	(mm)		0.64	0.64	-	-	-	-
	ROI Width	(deg or ratio to max width)		0.10	0.10	-	-	-	-
	Frequency	(MHz)		5.00	5.00	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: i12L-RS

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				1.30	-	0.03	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.64					
	P	W_0	(mW)		-	1.77		-	#
	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)					-	
	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)	4.13	-	4.13	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.31	-	-	#
		Y	(cm)		-	0.70	-	-	#
Other Info	t_d	PD	(ms)	1.03					
	prr	PRF	(Hz)	545					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.92					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.12	-		#
		FL_y	(cm)		-	0.06	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	294					
Operator Control	Power		(dB)	0	-	0	-	-	-
	Beam Angle		(cm)	0	-	0	-	-	-
	Sample Volume Position		(mm)	12	-	12	-	-	-
	Sample Volume		(mm)	1.04	-	1.04	-	-	-
	Scale		(m/s)	0.10	-	0.10	-	-	-
	Frequency		(MHz)	4.00	-	4.00	-	-	-

Notes:

(b) This probe is not intended for transcranial or neonatal cephalic use.

No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6T-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.16	0.45	-	-	-	(b)
	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.37					
	P	W_0	(mW)		21.15	-		-	#
Assoc. Acoustic Param.	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)	2.80					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.50	4.50	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.93	-	-	-	#
		Y	(cm)		0.80	-	-	-	#
Other Info	t_d	PD	(µs)	0.47					
	prr	PRF	(Hz)	41					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.65					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.14	-	-		#
		FL_y	(cm)		0.32	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	140					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		1	1	-	-	-	-
	Frequency	(MHz)		6.15	6.15	-	-	-	-
	Width	(deg or ratio to max width)		75.00	75.00	-	-	-	-
	Depth	(mm)		200	200	-	-	-	-
	Focus	(mm)		50	50	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6T-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.01		0.13	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.81				
	P	W_0	(mW)		-	8.26		-	#
	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)	2.98					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.20	-	3.25	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.77	-	-	#
		Y	(cm)		-	0.80	-	-	#
Other Info	t_d	PD	(μs)	0.66					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.52					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.22	-		#
		FL_y	(cm)		-	0.42	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	121					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam angle	(deg)		0	-	0	-	-	-
	Frequency	(MHz)		2.86	-	2.86	-	-	-
	Depth	(mm)		200	-	200	-	-	-
	Focus	(mm)		70	-	70	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6T-RS

Operating Mode: CMM

Index Label				MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value				1.08	-	0.65	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.20					
	P	W_0	(mW)		-	26.19		-	#
	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)	3.30					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.70	-	4.93	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.93	-	-	#
		Y	(cm)		-	0.80	-	-	#
Other Info	t_d	PD	(µs)	1.07					
	prr	PRF	(Hz)	4505					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	1.84					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.30	-		#
		FL_y	(cm)		-	0.20	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	91					
Operator Control	Power		(dB)	0	-	0	-	-	-
	PRF		(Hz)	4505	-	3425	-	-	-
	ROI Span		(mm)	45	-	300	-	-	-
	ROI Center		(mm)	90	-	70	-	-	-
	Sample Vol.		(mm)	0.96	-	1.00	-	-	-
	Frequency		(MHz)	3.63	-	5.00	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6T-RS

Operating Mode: CFM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.11	0.41	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	0.77				
	P	W_0	(mW)		14.46	-		-	#
	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)	3.75	3.45	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.93	-	-	-	#
		Y	(cm)		0.80	-	-	-	#
Other Info	t_d	PD	(μs)	1.09					
	prr	PRF	(Hz)	751					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	1.17					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.18	-	-		#
		FL_y	(cm)		0.32	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	26					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		3	0	-	-	-	-
	PRF	(Hz)		750	250	-	-	-	-
	ROI Span	(mm)		95	20	-	-	-	-
	ROI Center	(mm)		90	40	-	-	-	-
	Sample vol.	(mm)		0.96	0.60	-	-	-	-
	ROI Width	(deg or ratio to max width)		15.00	30.00	-	-	-	-
	Frequency	(MHz)		3.64	3.08	-	-	-	-

Notes:

(b) This probe is not intended for transcranial or neonatal cephalic use.

No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6T-RS

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.15	-	0.94	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	1.98					
	P	W_0	(mW)		-	53.21		-	#
	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)	3.10					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.25	-	3.70	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.93	-	-	#
		Y	(cm)		-	0.80	-	-	#
Other Info	t_d	PD	(µs)	1.11					
	prr	PRF	(Hz)	1712					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.80					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.28	-		#
		FL_y	(cm)		-	0.22	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	158					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam angle	(deg)		0	-	0	-	-	-
	Sample vol. position	(mm)		93	-	93	-	-	-
	Sample vol.	(mm)		1.02	-	1.02	-	-	-
	Scale	(m/sec)		0.40	-	5.08	-	-	-
	Frequency	(MHz)		3.08	-	3.63	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6T-RS

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	0.85	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	#				
	P	W_0	(mW)		-	30.40		-	#
	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)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	#	-	4.00	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.41	-	-	#
		Y	(cm)		-	0.80	-	-	#
Other Info	t_d	PD	(µs)	#					
	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)					-	
	Focal Length	FL_x	(cm)		-	0.34	-		#
		FL_y	(cm)		-	0.60	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	#					
Operator Control	Sample vol. position		(mm)	-	-	51	-	-	-
	Frequency		(MHz)	-	-	4.00	-	-	-

Notes:

(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).

(b) This probe is not intended for transcranial or neonatal cephalic use.

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6Tc-RS

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.23	0.40	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.17				
	P	W_0	(mW)		16.15	-		-	#
	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)	3.10	5.25	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.93	-	-	-	#
		Y	(cm)		0.80	-	-	-	#
Other Info	t_d	PD	(ms)	0.59				
	prr	PRF	(Hz)	62				
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.57				
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.04	-	-		#
		FL_y	(cm)		0.58	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	132				
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		3	1	-	-	-	-
	Frequency	(MHz)		2.86	6.15	-	-	-	-
	Width	(deg or ratio to max width)		75.00	30.00	-	-	-	-
	Depth	(mm)		200	200	-	-	-	-
	Focus	(mm)		20	20	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6Tc-RS

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.18	-	0.11	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.08					
	P	W_0	(mW)		-	7.59		-	#
	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)	1.67					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.15	-	3.15	-	-	#
	Dim of A_{aprt} — X		(cm)		-	0.77	-	-	#
	Dim of A_{aprt} — Y		(cm)		-	0.80	-	-	#
Other Info	t_d	PD	(ms)	0.61					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.49					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length — FL_x		(cm)		-	0.12	-		#
	Focal Length — FL_y		(cm)		-	0.62	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	120					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam Angle	(deg)		0	-	0	-	-	-
	Frequency	(MHz)		2.86	-	2.86	-	-	-
	Depth	(mm)		200	-	200	-	-	-
	Focus	(mm)		20	-	20	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6Tc-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.21	-	0.37	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.53					
	P	W_0	(mW)		-	18.43		-	#
	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)	3.68	-	3.88	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.93	-	-	#
		Y	(cm)		-	0.80	-	-	#
Other Info	t_d	PD	(ms)	1.10					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.29					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.08	-		#
		FL_y	(cm)		-	0.58	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	123					
Operator Control	Power	(dB)		0	-	0	-	-	-
	PRF	(Hz)		1000	-	3497	-	-	-
	ROI Span	(mm)		100	-	20	-	-	-
	ROI Center	(mm)		90	-	20	-	-	-
	Sample Volume	(mm)		0.95	-	0.60	-	-	-
	Frequency	(MHz)		3.63	-	3.63	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6Tc-RS

Operating Mode: CFM

	Index Label			MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
	Maximum Index Value			1.25	0.61	-	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	0.96					
	P	W_0	(mW)		28.26	-		-	#
	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)	3.50					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.70	3.65	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.93	-	-	-	#
		Y	(cm)		0.80	-	-	-	#
Other Info	t_d	PD	(ms)	1.09					
	prr	PRF	(Hz)	251					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	1.50					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.12	-	-		#
		FL_y	(cm)		0.48	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	51					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	0	-	-	-	-
	PRF	(Hz)		250	248	-	-	-	-
	ROI Span	(mm)		100	20	-	-	-	-
	ROI Center	(mm)		90	20	-	-	-	-
	Sample Voume	(mm)		0.95	0.95	-	-	-	-
	ROI Width	(deg or ratio to max width)		30.00	15.00	-	-	-	-
	Frequency	(MHz)		3.64	3.64	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6Tc-RS

Operating Mode: PW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.33	-	0.62	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.49				
	P	W_0	(mW)		-	37.25		-	#
	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)	1.21					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	3.50	-	3.50	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.49	-	-	#
		Y	(cm)		-	0.80	-	-	#
Other Info	t_d	PD	(ms)	0.87					
	prr	PRF	(Hz)	1873					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.88					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.12	-		#
		FL_y	(cm)		-	0.72	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	259					
Operator Control	Power		(dB)	0	-	0	-	-	-
	Beam Angle		(cm)	0	-	0	-	-	-
	Sample Volume Position		(mm)	10	-	10	-	-	-
	Sample Volume		(mm)	0.94	-	0.94	-	-	-
	Scale		(m/s)	0.40	-	0.40	-	-	-
	Frequency		(MHz)	3.30	-	3.30	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 6Tc-RS

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	0.56	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	#				
	P	W_0	(mW)		-	35.86		-	#
	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)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	#	-	3.30	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.41	-	-	#
		Y	(cm)		-	0.80	-	-	#
Other Info	t_d	PD	(ms)	#					
	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)					-	
	Focal Length	FL_x	(cm)		-	0.26	-		#
		FL_y	(cm)		-	0.66	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	#					
Operator Control	Sample Volume Position		(mm)	-	-	31	-	-	-
	Frequency		(MHz)	-	-	3.30	-	-	-

Notes:

(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).

(b) This probe is not intended for transcranial or neonatal cephalic use.

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9T-RS

Operating Mode: 2D

				MI	TIS			TIB non-scan	TIC
Index Label					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				1.19	0.44	-	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.80					
	P	W_0	(mW)		13.57	-		-	#
	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)	0.90					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.50	6.88	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.49	-	-	-	#
		Y	(cm)		0.65	-	-	-	#
Other Info	t_d	PD	(µsec)	0.31					
	prr	PRF	(Hz)	82					
	p_r at max I_{pi}	P_r@ PII$_{max}$	(Mpa)	3.31					
	d_{eq} at max I_{pi}	d_{eq}@ PII$_{max}$	(cm)					-	
	Focal Length	FL_x	(cm)		0.04	-	-		#
		FL_y	(cm)		0.56	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI$_{max}$	(W/cm²)	233					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		1	3	-	-	-	-
	Frequency	(MHz)		7.27	7.27	-	-	-	-
	Width	(deg or ratio to max width)		60.00	30.00	-	-	-	-
	Depth	(mm)		140	140	-	-	-	-
	Focus	(mm)		9	9	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9T-RS

Operating Mode: M-Mode

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.23	-	0.10	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.89					
	P	W_0	(mW)		-	3.71		-	#
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	0.90					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.50	-	5.75	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.49	-	-	#
		Y	(cm)		-	0.65	-	-	#
Other Info	t_d	PD	(µsec)	0.33					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.42					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.04	-		#
		FL_y	(cm)		-	0.56	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	229					
Operator Control	Power	(dB)		0	-	0	-	-	-
	Beam angle	(deg)		0	-	0	-	-	-
	Frequency	(MHz)		7.27	-	7.27	-	-	-
	Depth	(mm)		140	-	140	-	-	-
	Focus	(mm)		9	-	9	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9T-RS

Operating Mode: CMM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.32	-	0.54	-	-	(b)
	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.83				
	P	W_0	(mW)		-	21.73		-	#
Assoc. Acoustic Param.	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)	1.69					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.95	-	5.05	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.59	-	-	#
		Y	(cm)		-	0.65	-	-	#
Other Info	t_d	PD	(μsec)	0.83					
	prr	PRF	(Hz)	347					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	3.77					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.08	-		#
		FL_y	(cm)		-	0.50	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	252					
Operator Control	Power	(dB)		0	-	0	-	-	-
	PRF	(Hz)		347	-	2000	-	-	-
	ROI Span	(mm)		10	-	10	-	-	-
	ROI Center	(mm)		20	-	20	-	-	-
	Sample vol.	(mm)		0.68	-	0.68	-	-	-
	Frequency	(MHz)		5.00	-	5.00	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9T-RS

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.19	0.59	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	0.60				
	P	W_0	(mW)		21.44	-		-	#
	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)	2.20					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.00	5.10	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.59	-	-	-	#
		Y	(cm)		0.65	-	-	-	#
Other Info	t_d	PD	(µsec)	0.81					
	prr	PRF	(Hz)	349					
	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_x	(cm)		0.14	-	-		#
		FL_y	(cm)		0.44	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	13					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		0	0	-	-	-	-
	PRF	(Hz)		350	350	-	-	-	-
	ROI Span	(mm)		10	10	-	-	-	-
	ROI Center	(mm)		20	35	-	-	-	-
	Sample vol.	(mm)		0.68	0.68	-	-	-	-
	ROI Width	(deg or ratio to max width)		45.00	15.00	-	-	-	-
	Frequency	(MHz)		5.00	5.00	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9T-RS

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.08	-	0.78	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	2.33					
	P	W_0	(mW)		-	32.71		-	#
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm)	1.00					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.95	-	5.03	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.49	-	-	#
		Y	(cm)		-	0.65	-	-	#
Other Info	t_d	PD	(μsec)	1.00					
	prr	PRF	(Hz)	2604					
	p_r at max I_{pi}	P_r@ PII_{max}	(Mpa)	2.76					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.08	-		#
		FL_y	(cm)		-	0.50	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	210					
Operator Control	Power		(dB)	0	-	0	-	-	-
	Beam angle		(deg)	0	-	0	-	-	-
	Sample vol. position		(mm)	10	-	10	-	-	-
	Sample vol.		(mm)	1.00	-	1.48	-	-	-
	Scale		(m/sec)	0.40	-	0.40	-	-	-
	Frequency		(MHz)	5.00	-	5.00	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: 9T-RS

Operating Mode: CW

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			(a)	-	0.63	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	#					
	P	W_0	(mW)		-	26.53		-	#
	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)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	#	-	5.00	-	-	#
	Dim of A_{aprt} — X	X	(cm)		-	0.26	-	-	#
	Dim of A_{aprt} — Y	Y	(cm)		-	0.65	-	-	#
Other Info	t_d	PD	(µsec)	#					
	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)					-	
	Focal Length — FL_x	FL_x	(cm)		-	0.14	-		#
	Focal Length — FL_y	FL_y	(cm)		-	0.50	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	#					
Operator Control	Sample vol. position		(mm)	-	-	300	-	-	-
	Frequency		(MHz)	-	-	5.00	-	-	-

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: P2D-RS

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	0.57	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	#					
	P	W_0	(mW)		-	59.66		-	#
	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)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	#	-	2.00	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.68	-	-	#
		Y	(cm)		-	1.15	-	-	#
Other Info	t_d	PD	(µsec)	#					
	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)					-	
	Focal Length	FL_x	(cm)		-	0.36	-		#
		FL_y	(cm)		-	0.48	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	#					
Operator Control	Sample vol. position		(mm)	-	-	85	-	-	-
	Frequency		(MHz)	-	-	2.00	-	-	-

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: P6D-RS

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	0.07	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(Mpa)	#				
	P	W_0	(mW)		-	2.84		-	#
	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)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	#	-	5.00	-	-	#
	Dim of A_{aprt} X		(cm)		-	0.30	-	-	#
	Dim of A_{aprt} Y		(cm)		-	0.27	-	-	#
Other Info	t_d	PD	(μsec)	#					
	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)					-	
	Focal Length FL_x		(cm)		-	0.32	-		#
	Focal Length FL_y		(cm)		-	0.34	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	#					
Operator Control	Sample vol. position		(mm)	-	-	20	-	-	-
	Frequency		(MHz)	-	-	5.00	-	-	-

Notes:
(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav8

Operating Mode: 2D

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.15	1.26	-	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units						
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	3.08					
	P	W_0	(mW)		36.62	-		-	#
	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)	0.55					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	7.13	7.25	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.70	-	-	-	#
		Y	(cm)		0.19	-	-	-	#
Other Info	t_d	PD	(ms)	0.25					
	prr	PRF	(Hz)	17					
	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)		0.58	-	-		#
		FL_y	(cm)		0.14	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	352					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		1	1	-	-	-	-
	Frequency	(MHz)		8.00	8.00	-	-	-	-
	Width	(deg or ratio to max width)		60.00	75.00	-	-	-	-
	Depth	(mm)		160	160	-	-	-	-
	Focus	(mm)		99	99	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav8

Operating Mode: M-Mode

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				1.14	-	0.31	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	3.05					
	P	W_0	(mW)		-	8.73		-	#
	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)	0.55					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	7.13	-	7.38	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.70	-	-	#
		Y	(cm)		-	0.19	-	-	#
Other Info	t_d	PD	(ms)	0.25					
	prr	PRF	(Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	3.49					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.58	-		#
		FL_y	(cm)		-	0.16	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	307					
Operator Control	Power		(dB)	0	-	0	-	-	-
	Beam Angle		(deg)	0	-	0	-	-	-
	Frequency		(MHz)	8.00	-	8.00	-	-	-
	Depth		(mm)	160	-	160	-	-	-
	Focus		(mm)	99	-	69	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav8

Operating Mode: CMM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.13	-	0.43	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.62				
	P	W_0	(mW)		-	16.18		-	#
	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)	0.55					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.95	-	4.95	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.70	-	-	#
		Y	(cm)		-	0.19	-	-	#
Other Info	t_d	PD	(ms)	0.92					
	prr	PRF	(Hz)	2000					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	1.78					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.58	-		#
		FL_y	(cm)		-	0.16	-	#	
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	94					
Operator Control	Power		(dB)	0	-	0	-	-	-
	PRF		(Hz)	2000	-	2000	-	-	-
	ROI Span		(mm)	90	-	90	-	-	-
	ROI Center		(mm)	20	-	20	-	-	-
	Sample Volume		(mm)	0.73	-	0.73	-	-	-
	Frequency		(MHz)	5.00	-	5.00	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav8

Operating Mode: CFM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.17	0.98	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$ (MPa)	0.96					
	P	W_0 (mW)		12.98	-		-	#
	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)	0.55					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$ (cm)					-	
	f_{awf}	f_c (MHz)	4.95	5.00	-	-	-	#
	Dim of A_{aprt}	X (cm)		0.70	-	-	-	#
		Y (cm)		0.19	-	-	-	#
Other Info	t_d	PD (ms)	0.93					
	prr	PRF (Hz)	496					
	p_r at max I_{pi}	P_r@ PII$_{max}$ (MPa)	1.06					
	d_{eq} at max I_{pi}	d_{eq}@ PII$_{max}$ (cm)					-	
	Focal Length	FL$_x$ (cm)		0.58	-	-		#
		FL$_y$ (cm)		0.14	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI$_{max}$ (W/cm²)	30					
Operator Control	Power (dB)		0	0	-	-	-	-
	Tilt (deg)		0	0	-	-	-	-
	Framerate (index)		0	0	-	-	-	-
	PRF (Hz)		500	500	-	-	-	-
	ROI Span (mm)		25	25	-	-	-	-
	ROI Center (mm)		40	40	-	-	-	-
	Sample Voume (mm)		0.73	0.73	-	-	-	-
	ROI Width (deg or ratio to max width)		15.00	15.00	-	-	-	-
	Frequency (MHz)		5.00	5.00	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav8

Operating Mode: PW

Index Label				MI	TIS			TIB non-scan	TIC
					scan	non-scan			
						$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value				0.57	-	0.81	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.26					
	P	W_0	(mW)		-	25.50		-	#
	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)	0.51					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	5.00	-	6.70	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.62	-	-	#
		Y	(cm)		-	0.19	-	-	#
Other Info	t_d	PD	(ms)	1.11					
	prr	PRF	(Hz)	2577					
	p_r at max I_{pi}	P_r @ PII_{max}	(MPa)	1.38					
	d_{eq} at max I_{pi}	d_{eq} @ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.56	-		#
		FL_y	(cm)		-	0.14	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$ @ MI_{max}	(W/cm^2)	56					
Operator Control	Power		(dB)	0	-	0	-	-	-
	Beam Angle		(cm)	0	-	0	-	-	-
	Sample Volume Position		(mm)	50	-	50	-	-	-
	Sample Volume		(mm)	1.02	-	2.52	-	-	-
	Scale		(m/s)	0.40	-	0.60	-	-	-
	Frequency		(MHz)	5.00	-	6.67	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav8

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	0.10	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	#				
	P	W_0	(mW)		-	4.19		-	#
	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)	#					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	#	-	5.00	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.18	-	-	#
		Y	(cm)		-	0.19	-	-	#
Other Info	t_d	PD	(ms)	#					
	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)					-	
	Focal Length	FL_x	(cm)		-	0.08	-		#
		FL_y	(cm)		-	0.18	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	#					
Operator Control	Sample Volume Position		(mm)	-	-	130	-	-	-
	Frequency		(MHz)	-	-	5.00	-	-	-

Notes:

(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).

(b) This probe is not intended for transcranial or neonatal cephalic use.

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav™ 10/ SoundStar™ 3D 10FG / eco 10FG

Operating Mode: 2D

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.03	1.07	-	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.64					
	P	W_0	(mW)		34.69	-		-	#
	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)	0.72					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	6.88	6.50	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.70	-	-	-	#
		Y	(cm)		0.30	-	-	-	#
Other Info	t_d	PD	(ms)	0.22					
	prr	PRF	(Hz)	47					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	3.13					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.62	-	-		#
		FL_y	(cm)		0.22	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	305					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		1	1	-	-	-	-
	Frequency	(MHz)		8.00	8.00	-	-	-	-
	Width	(deg or ratio to max width)		45.00	45.00	-	-	-	-
	Depth	(mm)		160	160	-	-	-	-
	Focus	(mm)		34	99	-	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav™ 10/SoundStar™ 3D 10FG / eco 10FG

Operating Mode: M-Mode

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.04	-	0.27	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$ (MPa)	2.11					
	P	W_0 (mW)		-	7.83		-	#
	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)					-	
	z at max $I_{pi\,\alpha}$	z_{sp} (cm)	0.72					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$ (cm)					-	
	f_{awf}	f_c (MHz)	4.75	-	7.25	-	-	#
	Dim of A_{aprt}	X (cm)		-	0.70	-	-	#
		Y (cm)		-	0.30	-	-	#
Other Info	t_d	PD (ms)	0.60					
	prr	PRF (Hz)	1000					
	p_r at max I_{pi}	P_r@ PII_{max} (MPa)	2.37					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max} (cm)					-	
	Focal Length	FL_x (cm)		-	0.58	-		#
		FL_y (cm)		-	0.24	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max} (W/cm^2)	95					
Operator Control	Power	(dB)	0	-	0	-	-	-
	Beam Angle	(deg)	0	-	0	-	-	-
	Frequency	(MHz)	4.44	-	8.00	-	-	-
	Depth	(mm)	160	-	160	-	-	-
	Focus	(mm)	29	-	79	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav™ 10/SoundStar™ 3D 10FG / eco 10FG

Operating Mode: CMM

Index Label			MI	TIS scan	TIS non-scan $A_{aprt} \leq 1$	TIS non-scan $A_{aprt} > 1$	TIB non-scan	TIC
Maximum Index Value			1.05	-	0.28	-	-	(b)
Assoc. Acoustic Param.	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa) 1.12					
	P	W_0	(mW)	-	6.24		-	#
	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)				-	
	z at max $I_{pi\,\alpha}$	z_{sp}	(cm) 1.77					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)				-	
	f_{awf}	f_c	(MHz) 4.15	-	6.65	-	-	#
	Dim of A_{aprt} X		(cm)	-	0.70	-	-	#
	Dim of A_{aprt} Y		(cm)	-	0.30	-	-	#
Other Info	t_d	PD	(ms) 1.17					
	prr	PRF	(Hz) 6024					
	p_r at max I_{pi} P_r@ PII_{max}		(MPa) 1.44					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)				-	
	Focal Length	FL_x	(cm)	-	0.52	-		#
	Focal Length	FL_y	(cm)	-	0.26	-	#	
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2) 46					
Operator Control	Power	(dB)	0	-	0	-	-	-
	PRF	(Hz)	6024	-	4000	-	-	-
	ROI Span	(mm)	30	-	200	-	-	-
	ROI Center	(mm)	20	-	20	-	-	-
	Sample Volume	(mm)	0.74	-	0.77	-	-	-
	Frequency	(MHz)	4.00	-	6.67	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav™ 10/SoundStar™ 3D 10FG / eco 10FG

Operating Mode: CFM

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			1.05	1.35	-	-	-	(b)
	IEC	FDA	Units						
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	2.01					
	P	W_0	(mW)		37.23	-		-	#
	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)	0.72					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	6.60	6.60	-	-	-	#
	Dim of A_{aprt}	X	(cm)		0.70	-	-	-	#
		Y	(cm)		0.30	-	-	-	#
Other Info	t_d	PD	(ms)	0.45					
	prr	PRF	(Hz)	250					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	2.36					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		0.60	-	-		#
		FL_y	(cm)		0.22	-	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm^2)	144					
Operator Control	Power	(dB)		0	0	-	-	-	-
	Tilt	(deg)		0	0	-	-	-	-
	Framerate	(index)		1	1	-	-	-	-
	PRF	(Hz)		250	250	-	-	-	-
	ROI Span	(mm)		110	110	-	-	-	-
	ROI Center	(mm)		35	35	-	-	-	-
	Sample Voume	(mm)		0.42	0.42	-	-	-	-
	ROI Width	(deg or ratio to max width)		15.00	15.00	-	-	-	-
	Frequency	(MHz)		6.67	6.67	-	-	-	-

Notes:

(b) This probe is not intended for transcranial or neonatal cephalic use.

\# No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav™ 10/SoundStar™ 3D 10FG / eco 10FG

Operating Mode: PW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			0.63	-	1.01	-	-	(b)
	IEC	FDA	Units					
Assoc. Acoustic Param.	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	1.38				
	P	W_0	(mW)		-	31.89		-	#
	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)	0.67					
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	4.13	-	6.65	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.62	-	-	#
		Y	(cm)		-	0.30	-	-	#
Other Info	t_d	PD	(ms)	1.06					
	prr	PRF	(Hz)	2092					
	p_r at max I_{pi}	P_r@ PII_{max}	(MPa)	1.52					
	d_{eq} at max I_{pi}	d_{eq}@ PII_{max}	(cm)					-	
	Focal Length	FL_x	(cm)		-	0.52	-		#
		FL_y	(cm)		-	0.22	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	44					
Operator Control	Power		(dB)	0	-	0	-	-	-
	Beam Angle		(cm)	0	-	0	-	-	-
	Sample Volume Position		(mm)	20	-	80	-	-	-
	Sample Volume		(mm)	0.97	-	0.97	-	-	-
	Scale		(m/s)	0.40	-	0.40	-	-	-
	Frequency		(MHz)	4.00	-	6.67	-	-	-

Notes:
(b) This probe is not intended for transcranial or neonatal cephalic use.
No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Transducer Model: AcuNav™ 10/SoundStar™ 3D 10FG / eco 10FG

Operating Mode: CW

Index Label			MI	TIS			TIB non-scan	TIC
				scan	non-scan			
					$A_{aprt} \leq 1$	$A_{aprt} > 1$		
Maximum Index Value			(a)	-	0.17	-	-	(b)
	IEC	FDA	Units					
	$P_{r,\alpha}$	$P_{r.3}$	(MPa)	#				
	P	W_0	(mW)		-	7.14		-	#
Assoc. Acoustic Param.	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)	#				
	$d_{eq}(z_b)$	$d_{eq}(Z_{sp})$	(cm)					-	
	f_{awf}	f_c	(MHz)	#	-	5.00	-	-	#
	Dim of A_{aprt}	X	(cm)		-	0.18	-	-	#
		Y	(cm)		-	0.30	-	-	#
Other Info	t_d	PD	(ms)	#				
	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)				-	
	Focal Length	FL$_x$	(cm)		-	0.08	-		#
		FL$_y$	(cm)		-	0.22	-		#
	$I_{pi\,\alpha}$ at max MI	$I_{PA.3}$@ MI_{max}	(W/cm²)	#				
Operator Control	Sample Volume Position		(mm)	-	-	160	-	-	-
	Frequency		(MHz)	-	-	5.00	-	-	-

Notes:

(a) This index is not required for this operating mode; see section 4.1.3.1 of the "Output Display Standard" (NEMA UD-3).

(b) This probe is not intended for transcranial or neonatal cephalic use.

No data are reported for this operating condition since the global maximum index value is not reported for the reason listed.

Chapter 4

Electromagnetic Compatibility

Vivid q N is intended for use in the electromagnetic environment specified in the tables below.

The user of Vivid q N should assure that the device is used in such an environment.

Guidance and manufacturer's declaration

Guidance and manufacturer's declaration – electromagnetic emissions		
Emissions test	**Compliance**	**Electromagnetic environment - guidance**
RF emission CISPR 11 EN55011	Group 1	Vivid q N uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emission CISPR 11 EN55011	Class A	Vivid q N system is suitable for use in all establishments, other than domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emission EN/IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions EN/IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) EC/IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV ± 8 kV	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrostatic transient / burst EC/IEC 61000-4-4	± 2 kV for power-supply lines ± 1 kV for input/output lines	± 2 kV ± 1 kV	Mains power quality should be that of a typical commercial or hospital environment.
Surge EC/IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	± 1 kV ± 2 kV	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines EC/IEC 61000-4-11	< 5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles < 5 % U_T (>95 % dip in U_T) for 5 sec	Compliance for all test levels. Controlled shutdown with return to pre-disturbance condition after operator's intervention. (Power-on switch)	Mains power quality should be that of a typical commercial or hospital environment. If the user of Vivid q N requires continued operation during power mains interruptions, it is recommended that Vivid q N is powered from an uninterruptible power supply or a battery.

Power frequency (50/60 Hz) magnetic field EC/IEC 61000-4-8	3 A/m	3A/m 50 and 60Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE	U_T is the a. c. mains voltage prior to application of the test level.		

Electromagnetic Compatibility

Guidance and manufacturer's declaration – electromagnetic immunity.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment – guidance** [c]
Conducted RF EC/IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms [V$_1$]	Portable and mobile RF communications equipment should be used no closer to any part of Vivid q N, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = [\dfrac{3,5}{V_1}]\sqrt{P}$ $d = [\dfrac{3,5}{E_1}]\sqrt{P}$ 80 MHz to 800 MHz
Conducted RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3V/m [E$_1$]	$d = [\dfrac{7}{E_1}]\sqrt{P}$ 800 MHz to 2,5 GHz where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).[b] Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b] Interference may occur in the vicinity of equipment marked with the following symbol:
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic is affected by absorption and reflection from structures, objects and people.			

[a] Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which Vivid q N is used exceeds the applicable RF compliance level above, Vivid q N should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating Vivid q N.

[b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

[c] See examples of calculated separation distances in next table.

Recommended separation distances between portable and mobile RF communications equipment and Vivid q N			
Vivid q N is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Vivid q N can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and Vivid q N as recommended below, according to the maximum output power of the communications equipment			
Rated maximum output of transmitter W	**Separation distance according to frequency of transmitter m**		
	150 kHz to 80 MHz $d = [\frac{3{,}5}{V_1}]\sqrt{P}$	80 MHz to 800 MHz $d = [\frac{3{,}5}{E_1}]\sqrt{P}$	800 MHz to 2,5 GHz $d = [\frac{7}{E_1}]\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For transmitters rated at a maximum output power not listed above the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

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