

Diagnostic Ultrasound System

System Description

The Z60 is an ergonomically designed portable and ease-of-use machine for multi-specialty use like adults, pregnant women, pediatric patients and neonates.

Intended Use

- CE Region: It is applicable for adults, pregnant women, pediatric patients and neonates. It is intended for use in gynecology, obstetrics, abdominal, pediatric, small organ, cephalic, transcranial, musculo-skeletal, cardiac, vascular, urology, orthopedics, nerve and intraoperative exams.
- FDA Region: It is applicable for adults, pregnant women, pediatric patients and neonates. It is intended for use in fetal, abdominal, Intra-operative (abdominal, thoracic, and vascular), pediatric, small organ(breast, thyroid, testes), neonatal and adult cephalic, trans-rectal, trans-vaginal, musculo-skeletal(conventional, superficial), adult and pediatric cardiac, peripheral vessel, and urology exam .

General Specification

Dimensions and Weight

- Size:146±10mm×361±10mm×360±10mm (Depth×Width×Height)
- Net Weight: 7.5±0.5kg (without battery)

Electrical Power

Input power

- Voltage: 100-240V~
- Frequency: 50/60Hz
- Input current: 1.5- 0.8A

Battery

- Lithium-ion Battery Pack: 14.8 V $\equiv$, 6600 mAh
- Charge time: < 3 hours (connected on AC power supply, with the system powered off)
- Endurance time: > 100 min

Boot time

- Boot time: >38 s
- Wake up time (from standby): >7 s

Operating Environment

Ambient temperature: 0°C ~ 40°C

Relative humidity: 30% ~ 85% (no condensation)

Atmospheric pressure: 700 hPa ~ 1060 hPa

Storage & Transportation Environment

Ambient temperature: -20°C ~ 55°C

Relative humidity: 30% ~ 95% (no condensation)

Atmospheric pressure: 700 hPa ~ 1060 hPa

Probe

Probe Types

- Convex array
- Linear array
- Phased array

Scanning Methods

- Electronic convex with extend FOV
- Electronic linear with slant scanning and trapezoid
- Electronic sector

Probe Model

➢ C6-2P	Convex
➢ 6C2P	Convex
➢ 6CV1P	Endocavity
➢ CB10-4P	Bi-plane (convex & convex)
➢ 7L4BP	Linear
➢ 7L5P	Linear
➢ L14-6P	Linear
➢ V10-4BP	Convex
➢ 7LT4P	Linear
➢ 6LE7P	Linear
➢ 2P2P	Phased
➢ P7-3P	Phased
➢ D6-2P	Volume

Available Needle-guided Bracket for Probe:

➢ C6-2P	NGB-022
➢ 3C5P	NGB-006
➢ V10-4BP	NGB-004
➢ 6C2P	NGB-005
➢ 7L4BP	NGB-007
➢ 7L4P	NGB-007
➢ 7L5P	NGB-007
➢ 6LE7P	NGB-009
➢ 7LT4P	NGB-010
➢ 2P2P	NGB-011
➢ L14-6P	NGB-016

System Configuration

Standard Configuration

- Display
 - 15-inch LCD, High-Resolution 1024 x 768
 - Contrast & Brightness adjustable
 - Screen Saver: Time and picture presettable
 - Angle adjustable: 60°
- Control Panel
 - Alphanumeric Keys
 - Function Keys
 - Knobs
 - User-defined Keys: function presettable
 - 8 segment TGC
 - Trackball: Color & Speed presettable
 - Key Backlight Brightness & Volume presettable
 - Integrated Speakers
- Indicators: Power/Battery/Standby/HDD status
- Handle
- Phase Shift harmonic imaging
- Steer scanning for linear probes (2D Steer)
- iBeam™
- iClear™ (Speckle Suppression Imaging)
- iTouch™
- ExFOV Imaging
- iStation™
- 500GB integrated hard disk
- I/O Interfaces
 - Transducer port: 2 or 3 (optional)
 - Power input port: 1 (Connect to the AC power supply)
 - USB port: 4
 - VGA OUT port: 1
 - Video OUT: 1
 - S-Video OUT: 1 (Separate video output)

- Ethernet port: 1 (Connect to network)
- Remote control port: 1
- Equipotential terminal: 1
- Multi-language screen display and control panel overlay
- Application categories
 - Abdomen
 - Obstetrics
 - Gynecology
 - Cardiology
 - Small Parts
 - Urology
 - Vascular
 - Pediatric
 - Emergency
 - Nerve

Accessories

- Operator's manual
 - Basic Volume.
 - Advanced Volume
 - Acoustic Output Volume
 - Operation Note
- Gel
- Power cord
 - 3-Flat-Pin Power Cord
 - EU Power Cord
 - US Power Cord
 - UK Power Cord
- Probe holder
- Grounded Cable
- Video Printer Remote Cable

System Language

- Software display and keyboard input available: Chinese/English/Russian/Czech/Polish
- Software display available only German/Spanish/French/Italian/Portuguese/Icelandic/Norwegian/Swedish/Finnish/Turkish/Danish/Indonesian
- Control panel overlay available: Chinese/German/Spanish/French/Italian/Portuguese/Russian/Czech/Polish
- Operation manual available: Chinese/English/German/Spanish/French/Italian/Portuguese/Russian/Turkish

Options

- IMT (Auto Calculation of Intima-Media Thickness)

- HPRF
- PW mode
- CW mode
- iScape View
- Free Xros M
- Color/Power
- Smart 3D
- 4D module
- iLive
- Smart Face
- Smart OB
- Tissue Doppler Imaging
- Color M
- Natural Touch Elastography
- UWN Contrast Imaging
- iNeedle
- iWorks
- ECG module
- ECG lead
- DICOM basic
 - Task management
 - DICOM storage
 - DICOM print
 - DICOM storage commitment
 - DICOM media storage (including DICOM DIR)
- DICOM Worklist
- DICOM MPPS
- DICOM Query/Retrieve
- DICOM OB/GYN structured report
- DICOM vascular structured report
- DICOM cardiac structured report
- Keys for optional functions
- Battery Pack
- External USB DVD drive
- Footswitch:
 - 971-SWNOM (2-pedal or 3-pedal)
- Mobile trolley: UMT-150
 - Weight: 22 kg
 - Width: 445 mm
 - Depth: 535 mm
 - Height: selective (not available after installed): 810 mm, 870 mm, 2 levels
- Mobile trolley: UMT-160
 - Weight: 21 kg
 - Width: 616 mm
 - Depth: 702 mm

➢ Height: selective (not available after installed): 1247 mm, 1147 mm, 2 levels

- Carrying Case
- Probes
- Needle-guided brackets

Peripherals Supported

- Black and White Video Printer
 - SONY UP-X898MD Analog
 - MITSUBISHI P93W-Z Analog
- Color Video Printer
- Graph / text printer
 - HP OFFICEJET PRO 8100
- LAN Accessory
 - LPA11

Exam Mode

- Adult ABD (Adult Abdomen)
- ABD-Difficult (Abdomen-Difficult)
- Ped-ABD
- GYN (Gynecology)
- OB1
- OB2/3
- Fetal Cardiac
- Kidney
- Urology
- Prostate
- Carotid
- IMT (Intima-Media Thickness)
- Upper Ext Artery
- Lower Ext Artery
- Upper Ext Vein
- Lower Ext Vein
- Thyroid
- Breast
- Testicle
- MSK (Musculoskeletal)
- Nerve
- Superficial
- Orthopedic
- Adult Cardiac
- CAR-Difficult
- TCI
- Ped-cardiac
- Neonatal Head
- Neonatal Cardiac

- EM ABD
- EM FAST
- EM OB
- EM Vascular
- EM Superficial
- CVC (Central Venous Catheterization)
- Vascular Access

Imaging Mode

- B-Mode
 - Tissue Harmonic Imaging
 - Phase Shift Harmonic Imaging
- Slant scanning for linear probes (B, color/power, PW/CW independent)
- ExFOV Imaging for Convex Probe (trapezoid imaging for linear probe)
- M Mode
- Color Mode
- Power Mode
- PW (Pulse Wave Doppler)
- HPRF (High Pulse Repeat Frequency)
- CW (Continuous Wave Doppler)
- Color M Mode (CM)
- Free Xros M Mode
- TDI (Tissue Doppler imaging)
 - TVI (Tissue Velocity Imaging)
 - TEI (Tissue Energy Imaging)
 - TVD (Tissue Velocity Doppler Imaging)
 - TVM (Tissue Doppler Velocity M Mode)
- iScape™ (iScape View)
- 3D/4D
- Natural Touch Elastography
- Contrast Imaging
- Display Mode:
 - Single window
 - B/C/D triplex mode
 - Dual live: B/C, B/TDI, B/Contrast
 - Adjustable time line display format (V1:1, V1:2, V2:1, Full)
 - Dual-split: B/C, B/TDI, B/M, B/PW, B/Free Xros M
 - Quad-split

Imaging Features

- iBeam™ (Spatial Compounding Imaging for Linear and Convex Probe)

- iScape™
- Multi-frequency probes for 2D imaging modes
- iClear™ (adaptive speckle suppression imaging for all probes)
- iTouch™ (B/PW): Auto Optimization
- TSI (Tissue Specific Imaging)
- iZoom™
- Spot Zoom and Pan Zoom

B Mode

- Display Depth
 - Minimum: 0.9 cm
 - Maximum: 38.8 cm
- Frame rate (Max.):
 - B mode: 400 fps (2P2P)
- Adjustable focus number: 4
- Adjustable focus positions (Max.): 16
- Magnification factor:
 - Spot Zoom: continuously adjustable
 - Pan Zoom: 80%-1000%
- iZoom: instant full screen view, two levels
- System dynamic range: 30~220, 5/step
- Gain: 0~100dB, 2/step
- TGC: 8
- Colorize: on/off
- Tint map: on/off, 1~25
- Gray map: 1~25
- FOV: on/ off, continuously adjustable
- ExFOV: on/ off (Trapezoid imaging for linear probe)
- Persistence: 0~7
- Rotation: 0°/90°/180°/270°
- R/L, U/D Flip
- Line Density: L, M, H, UH
- iTouch Bright: -12~12dB, 3db/step
- A.power: 32steps
- TSI: General, Fat, Fluid, Muscle
- Steer: 3 levels, linear probe only
- HScale: on/ off
- Middle line: on/ off
- iClear: on/off, 1~4
- iBeam: on/off
- Gray Invert: on/ off
- Auto Merge: on/ off, linear probe

M Mode

- Speed: 1~6
- Edge Enhance: 0~14
- M Soften: 0~14

Color Mode

- Frame rate (Max.): 405 fps (2P2P)
- PRF (kHz): 0.1 (2P2P)~ 15.5 (L14-6P)
- Flow velocities (cm/s, probe dependent): 1.0 (2P2P)~ 262.9 (2P2P)
- Gain: 0~100, 2/step
- Baseline: -8~8
- Scale: 30 levels
- Persistence: 0~4
- Smooth: 0~4
- ROI adjustment: continuously
- Color Map: V0~V10; VV0~ VV9
- Priority: 0%~100%, 11 levels
- WF: 0~7
- Line Density: L, M, H, UH
- Dual Live: on/ off
- Invert: on/ off
- B/C Align: on/ off
- Packet Size: 0~3

Power Mode

- Dynamic Range: 10~70, 5/step
- Power Map: P0~P3; dP0~dP3

PW/CW Mode

- PRF (kHz)
 - PW: 24.0 (2P2P)
 - CW: 160.0 (2P2P)
- Flow velocities (cm/s, probe dependent):
 - PW: 924 (2P2P)
 - CW: 6160 (2P2P)
- Gain: 0~100, 2/step
- Baseline: -4~4
- PRF/Scale: 30 levels
- Audio volume: 0~100%, 2%/step
- Angle: -89°~89°
- Quick Angle: -60°~60°
- SVD (CW focus depth): continuously
- Speed: 1~6
- iTouch (PW): on/off
- SV:
 - 0.5~3 mm, 0.5 mm/step
 - 3~5 mm, 1 mm/step
 - 5~10 mm, 2.5 mm/step
 - 10~20 mm, 5 mm/step
- Dynamic range: 24~72, 2/step
- Gray map: 1-25, 1/step
- Colorize: on/off

- Tint map: on/off, 1-25, 1/step
- WF: 0~6
- Duplex/Triplex: on/ off
- HPRF: on/ off
- T/F Res: 0~4
- Auto Calc: on/ off
- Auto Calc Cycle: 1~5
- Auto Calc Param: setting auto spectrum calculation results
- Trace Area: Above/ Below/ All

Tissue Velocity/Energy Imaging (included in TDI option)

- Available on phased array transducer
- Dual live: side by side displays B and B+TVI
- Acoustic output power: 32 steps
- Gain: 0-100, 2/step
- Dynamic range: 10-70, 5/step (TEI only)
- ROI size/position: adjustable
- Scale: 30 steps
- Baseline: -8~8, 1/step (TVI only)
- Wall filter: 0-7, 8 steps
- Packet size: 0-3, 4 steps
- Smooth: 0-4, 5 steps
- B/C Align: on/off
- Priority: 0%-100%, 10%/step
- Map: TVI: TVV1-TVV10
TEI: P0-P3, dP0-dP3
- Invert: on/off
- Persistence: 0-4, 5 steps
- Line density: L/M/H/UH, 4 steps

Tissue Velocity Doppler (included in TDI option)

- Available on phased array transducer
- Display formats: V1:2,V2:1,V1:1,Full
- Duplex/Triplex: on/off
- Sample gate depth: adjustable
- Scale: 30 steps
- Baseline: -4~4, 9 steps
- Audio: 0%-100%, 2%/step
- Gain: 0-100, 2/step
- Dynamic range: 24-72, 2/step
- Speed: 1-6, 6 steps
- Wall filter: 0-6, 7 steps
- Invert: on/off
- Angle: -89°~89°, 1/step
- Quick angle: 0°, -60°, 60°
- Gray map: 1-25

- Tint map: Off; 1-25
- Time/frequency resolution: 0-4, 5 steps

Free Xros M Mode

- Tint map: Off; 1-25
- Gray map: 1-25
- Display format: V1:2,V2:1,V1:1

4D

- Available on volume transducer
- Static 3D and 4D
- 4D frame rate: max. 31.1 vps
- Display formats: Single, Dual, Quad, A4:1
- Reset: Reset ALL, Reset curve, Reset orientation
- Quick Rotation: 0°, 90°, 180°, 270°
- Render type: Gray, Invert
- Accept VOL: on/off
- VOL: on/off
- Render mode: Surface, Max, Min, X-ray, iLive
- Direct: D/U, U/D, L/R, R/L, F/B, B/F (D: down, U: up, L: left, R: right, F: front, B: back)
- Threshold: 0%-100%, 1%/step
- Opacity: 0%-100%, 5 %/step
- Smooth: 0-10
- Bright: 0%-100%, 2%/step
- Contrast: 0%-100%, 2%/step
- Tint: off; 25 types
- Current window: VR, A, B, C
- MPR/VR: MPR, VR
- iClear: Off; On, 1-4 steps
- Face+: 0-3

iPage

- Slices number: 3-25
- Spacing: 0.5-10mm
- Ref. Plane: A, B, C
- Display format: 2×2, 3×3, 4×4, 5×5
- Adjust Slice
- Slice Position
- Reset Orientation

iLive

- Light Position: 6
- Render Modes: iLive

Edit

- Rotation control: X, Y, Z axis
- Tool: inside contour, outside contour; inside rect, outside rect
- Other operations: undo, undo all

Smart Face

- Face Contact: -15 – 15
- Quick Rotation: 0°, 90°, 180°, 270°

Natural Touch Elastography Mode

- Available on 7L4P and 7L4BP
- Opacity: 0-5
- Single E: On/Off
- Map: E0-E5
- Smooth: 0-5
- Invert: On/Off

UWN Contrast Imaging

- Available on C6-2P
- Timer 1: on/off
- Timer 2: on/off
- Mix Map: CT1 – CT7
- Dual live: on/off
- Destruct: on/off
- Image position: left/right
- iTouch: on/off
- iClear: on/off, 1-4

Display Annotations

- Manufacturer logo
- Hospital name: up to 64 characters can be displayed
- Exam date: 3 types selectable, YY/MM/DD, MM/DD/YY, DD/MM/YY
- Exam time: 2 formats
- Acoustic output indices: MI, TIC, TIS, TIB
- Freeze icon
- Gender
- Age
- ID: up to 64 characters can be displayed
- Other ID: up to 64 characters can be displayed
- Name: up to 64 characters can be displayed
- Probe model
- Current exam mode
- Accession#
- Operator: up to 64 characters can be displayed
- Menu
- Image
- Probe orientation mark
- Time line
- Coordinate axis, including depth, time, frequency
- TGC curve
- Focus
- Comment

- Body Mark
- Measure caliper
- Gray/color scale bar
- Thumbnail
- Help information
- Status icons
- Biopsy guideline
- Measure result window (up to 8 results can be displayed)
- Image parameters

Comments and Body Mark

Comment

Text comment

- Comment text for all exam modes
- Custom: add/delete/edit comment units in current menu.

Arrow

- Arrow size
- Arrow position
- Arrow orientation

Body Mark

Application package

- Body marks for all exam modes:
- Custom: import/delete body marks

Storage/ Connection

- 500G integrated hard disk
- External DVD-R/W
- 4 USB ports
- Image archive on hard disk, DVD, Medsight, network storage (iStorage) or temporary saving in cine memory
- Clipboard
- Thumbnail
- Single-frame image formats: BMP, JPG, TIFF, DCM, FRM (supports off-line analysis)
- Multi-frame images formats: AVI, DCM, CIN, (supports off-line analysis)
- Storage area:
 - Image area: 640*522
 - Standard area: 800*600
 - Full-screen: 1024*768
- iVision: Demo player
- Cine review: Auto, Manual (auto review segment can be set), supports linked cine review for 2D,

M/D images.

- Cine memory capacity (Max.)
 - Clip length presettable: 1-60s
 - B mode: 12394 frames
 - M mode: 181.1 s
 - PW/CW: 169.6 s
 - Color: 9763 frames
- Max. frames in HDD
 - 2.25M (JPG format)
 - 2.83M (FRM format)
- iStorage
- DICOM:
 - DICOM Basic
 - Task management
 - DICOM storage
 - DICOM print
 - DICOM storage commitment
 - DICOM media storage (including DICOM DIR)
 - DICOM Worklist
 - Query/ Retrieve
 - Structured Report (SR)
 - MPPS
- MedSight
 - An interactive app that lets you transfer clinical images straight from Mindray Ultrasound system to a smart device, such as mobile phone or tablet PC.
 - Needs to be installed on mobile terminal
 - Transfer images or clips from system to mobile terminal through WiFi
 - Support Android powered system.

iStation™

Intelligent patient data management system

- Integrated search engine for patient data
- Detailed patient information view
- Intelligent data backup/ restore
- Patient data/ image sending
- Patient data deleting
- Exam managing: create new exam, activate exam and continue exam
- Recycle Bin
- Task manager

Measure/Calc/Study

Caliper

B-mode

Distance
Ellipse
Trace
Spline
Cross
Angle
Double Dist
Trace Len
Trace Len(Spline)
Parallel
B-Profile
B-Hist(Ellipse)
B-Hist(Trace)
B-Hist(Spline)
B-Hist(Rectangle)
Depth
Color Vel
Color Vel Profile
IMT

Volume

Volume
Volume(Ellipse)
Volume(E+Dist.)

Ratio(A)

Ratio(Trace)
Ratio(Ellipse)
Ratio(Spline)
Ratio(Cross)

Volume Flow

Vas Area
TAMEAN
TAMAX

M-mode

HR
Slope
Distance
Time
Velocity
Doppler mode
PS/ED
Vel

HR

Time

Acceleration

D Trace

Volume Flow

Vas Area
TAMEAN
TAMAX

Application

Abdomen

B-Mode

Liver
Renal L
Renal H
Renal W
Cortex
Adrenal L
Adrenal H
Adrenal W
CBD
Portal V Diam
CHD
GB L
GB H
GB wall th
Panc duct
Panc head
Panc body
Panc tail
Spleen
Aorta Diam
Aorta Bif
Iliac Diam
Pre-BL L
Pre-BL H
Pre-BL W
Post-BL L
Post-BL H
Post-BL W
Ureter

Renal Vol
Pre-BL Vol
Post-BL Vol
Mictur.Vol

-----	BPD
Kidney	OFD
Renal L	HC
Renal H	AC
Renal W	FL
Cortex	TAD
Bladder	APAD
Pre-BL L	TCD
Pre-BL W	CM
Pre-BL H	LVW
Post-BL L	HW
Post-BL W	OOD
Post-BL H	IOD
Adrenal	HUM
Adrenal L	Ulna
Adrenal W	RAD
Adrenal H	Tibia
D-Mode	FIB
Ren A Org	CLAV
Arcuate A	Vertebrae
Segment A	MP
Interlobar A	Foot
Renal A	Ear
M Renal A	APTD
Renal V	TTD
Aorta	FTA
Celiac Axis	THD
SMA	HrtC
C Hepatic A	TC
Hepatic A	Umb VD
Splenic A	F-kidney
IVC	Mat Kidney
Portal V	Cervix L
M Portal V	AF
Hepatic V	NF
Lt Hepatic V	Orbit
Rt Hepatic V	PL Thickness
M Hepatic V	Sac Diam1
Splenic V	Sac Diam2
SMV	Sac Diam3
Obstetrics	AF1
B-Mode	AF2
GS	AF3
YS	AF4
CRL	LVIDd
NT	LVIDs

LV Diam	CI
LA Diam	FL/HC(Hadlock)
RVIDd	HC(c)
RVIDs	HrtC/TC
RV Diam	TCD/AC
RA Diam	LVW/HW
IVSd	LVD/RVD
IVSs	LAD/RAD
IVS	AoD/MPAD
LV Area	LAD/AoD
LA Area	MAD
RV Area	-----
RA Area	AFI
Ao Diam	AF1
MPA Diam	AF2
LVOT Diam	AF3
RVOT Diam	AF4
Facial Angle	
HrtA	M-Mode
MV Diam(Z-Score)	FHR
PV Diam(Z-Score)	LVIDd
Ao Asc Diam(Z-Score)	LVIDs
Ao Desc Diam(Z-Score)	RVIDd
Duct Art Diam(Z-Score)	RVIDs
TV Diam(Z-Score)	IVSd
LPA Diam(Z-Score)	IVSs
RPA Diam(Z-Score)	RVIDd(Z-Score)
IVC Diam(Z-Score)	LVIDd(Z-Score)
AV Diam(Z-Score)	
MPA Diam(Z-Score)	D-Mode
RV Diam(Z-Score)	Umb A
LV Diam(Z-Score)	Duct Veno
RV Area(Z-Score)	Placenta A
LV Area(Z-Score)	MCA
RVIDd(Z-Score)	Fetal Ao
LVIDd(Z-Score)	Desc Aorta
AC(c)	Ut A
-----	Ovarian A
Mean Sac Diam	FHR
AFI	
EFW	Cardiology
EFW2	B-Mode
HC/AC(Campbell)	LA Diam(2D)
FL/AC	LA Major
FL/BPD	LA Minor
AXT	RA Major

RA Minor
 LV Major
 LV Minor
 RV Major
 RV Minor
 LA Area
 RA Area
 LV Area(d)
 LV Area(s)
 RV Area(d)
 RV Area(s)
 LVIDd(2D)
 LVIDs(2D)
 LVIDd(Teich-2D)
 LVIDs(Teich-2D)
 LVIDd(Cube-2D)
 LVIDs(Cube-2D)
 LVIDd(Gibson-2D)
 LVIDs(Gibson-2D)
 RVDd(2D)
 RVDs(2D)
 LVPWd(2D)
 LVPWs(2D)
 RVAWd(2D)
 RVAWs(2D)
 IVSd(2D)
 IVSs(2D)
 Ao Diam(2D)
 Ao Arch Diam(2D)
 Ao Asc Diam(2D)
 Ao Desc Diam(2D)
 Ao Isthmus(2D)
 Ao st junct(2D)
 Ao Sinus Diam(2D)
 Duct Art Diam
 Pre Ductal
 Post Ductal
 ACS(2D)
 LVOT Diam(2D)
 AV Diam
 AVA
 PV Diam
 LPA Diam(2D)
 RPA Diam(2D)
 MPA Diam(2D)
 RVOT Diam(2D)

MV Diam
 MVA
 MCS(2D)
 MV EPSS(2D)
 TV Diam
 TVA
 IVC Diam(Insp)
 IVC Diam(Expir)
 SVC Diam(Insp)
 SVC Diam(Expir)
 LCA Diam
 RCA Diam
 VSD Diam
 ASD Diam
 PDA Diam
 PFO Diam
 PEd(2D)
 PEs(2D)
 Diastole(Teich-2D)
 Systole(Teich-2D)
 Diastole(Cube-2D)
 Systole(Cube-2D)
 Diastole(Gibson-2D)
 Systole(Gibson-2D)
 HR(Teich 2D)
 HR(Cube 2D)
 HR(Gibson 2D)

 LA/Ao(2D)
 Ao/LA(2D)

 S-P Ellipse
 LVLd apical(SP Ellipse)
 LVAd apical(SP Ellipse)
 LVLs apical(SP Ellipse)
 LVAs apical(SP Ellipse)
 HR(SP Ellipse)
 B-P Ellipse
 LVIDd(BP Ellipse)
 LVIDs(BP Ellipse)
 LVAd sax MV(BP Ellipse)
 LVAs sax MV(BP Ellipse)
 LVAd apical(BP Ellipse)
 LVAs apical(BP Ellipse)
 HR(BP Ellipse)
 Bullet

LVLd apical(Bullet)
 LVLs apical(Bullet)
 LVAd sax MV(Bullet)
 LVAs sax MV(Bullet)
 HR(Bullet)
 Mod.Simpson
 LVLd apical(Simp)
 LVLs apical(Simp)
 LVAd sax MV(Simp)
 LVAs sax MV(Simp)
 LVAd sax PM(Simp)
 LVAs sax PM(Simp)
 HR(Mod Simpson)
 Simp SP(A2C)
 EDV(Simp SP-A2C)
 ESV(Simp SP-A2C)
 HR(Simp SP A2C)
 Simp SP(A4C)
 EDV(Simp SP-A4C)
 ESV(Simp SP-A4C)
 HR(Simp SP A4C)
 Simpson BP
 EDV(Simp BP-A2C)
 ESV(Simp BP-A2C)
 EDV(Simp BP-A4C)
 ESV(Simp BP-A4C)
 HR(Simp BP)
 Cube(2D)
 LVIDd(Cube-2D)
 LVIDs(Cube-2D)
 HR(Cube 2D)
 Teichholz(2D)
 LVIDd(Teich-2D)
 LVIDs(Teich-2D)
 HR(Teich 2D)
 Gibson(2D)
 LVIDd(Gibson-2D)
 LVIDs(Gibson-2D)
 HR(Gibson 2D)
 LA Vol(A-L)
 LA Diam(LA Vol A-L)
 LAA(A2C)
 LAA(A4C)
 LA Vol(Simp)
 LA Vol(A2C)
 LA Vol(A4C)

RA Vol(Simp)
 RA Vol(A4C)
 LV Mass(Cube-2D)
 IVSd(LV Mass Cube-2D)
 LVIDd(LV Mass Cube-2D)
 LVPWd(LV Mass Cube-2D)
 LV Mass(T-E)
 LVAd sax Epi(LV Mass T-E)
 LVAd sax Endo(LV Mass T-E)
 a
 d
 LV Mass(A-L)
 LVAd sax Epi(LV Mass A-L)
 LVAd sax Endo(LV Mass A-L)
 LVLd apical(LV Mass A-L)
 MVA(VTI)
 LVOT Diam(MVA VTI)
 LVOT VTI(MVA VTI)
 MV VTI(MVA VTI)
 AVA(VTI)
 LVOT Diam(AVA VTI)
 LVOT VTI(AVA VTI)
 AV VTI(AVA VTI)
 Qp/Qs
 AV Diam(Qp/Qs)
 AV VTI(Qp/Qs)
 AV HR(Qp/Qs)
 PV Diam(Qp/Qs)
 PV VTI(Qp/Qs)
 PV HR(Qp/Qs)
 PISA MR
 MR Rad
 MR Als Vel
 MR VTI(PISA MR)
 PISA AR
 AR Rad
 AR Als Vel
 AR VTI(PISA AR)
 PISA TR
 TR Rad
 TR Als Vel
 TR VTI(PISA TR)
 PISA PR
 PR Rad
 PR Als Vel
 PR VTI(PISA PR)

M-Mode

LA Diam(M)
 LVIDd(M)
 LVIDs(M)
 LVIDd(Teich-M)
 LVIDs(Teich-M)
 LVIDd(Cube-M)
 LVIDs(Cube-M)
 LVIDd(Gibson-M)
 LVIDs(Gibson-M)
 RVDd(M)
 RVDs(M)
 LVPWd(M)
 LVPWs(M)
 RVAWd(M)
 RVAWs(M)
 IVSd(M)
 IVSs(M)
 Ao Diam(M)
 Ao Arch Diam(M)
 Ao Asc Diam(M)
 Ao Desc Diam(M)
 Ao Isthmus(M)
 Ao st junct(M)
 Ao Sinus Diam(M)
 LVOT Diam(M)
 ACS(M)
 LPA Diam(M)
 RPA Diam(M)
 MPA Diam(M)
 RVOT Diam(M)
 MV E Amp
 MV A Amp
 MV E-F Slope
 MV D-E Slope
 MV DE
 MCS(M)
 MV EPSS(M)
 PEd(M)
 PEs(M)
 LVPEP(M)
 LVET(M)
 RVPEP(M)
 RVET(M)
 Diastole(Teich-M)

Systole(Teich-M)
 Diastole(Cube-M)
 Systole(Cube-M)
 Diastole(Gibson-M)
 Systole(Gibson-M)
 HR(Teich M)
 HR(Cube M)
 HR(Gibson M)
 HR

 LA/Ao(M)
 Ao/LA(M)

 LV Tei Index(M)
 MV C-O dur(M)
 LVET(LV Tei Index-M)
 Cube(M)
 LVIDd(Cube-M)
 LVIDs(Cube-M)
 HR(Cube M)
 Teichholz(M)
 LVIDd(Teich-M)
 LVIDs(Teich-M)
 HR(Teich M)
 Gibson(M)
 LVIDd(Gibson-M)
 LVIDs(Gibson-M)
 HR(Gibson M)
 LV Mass(Cube-M)
 IVSd(LV Mass Cube-M)
 LVIDd(LV Mass Cube-M)
 LVPWd(LV Mass Cube-M)

D-Mode

MV Vmax
 MV E Vel
 MV A Vel
 MV E VTI
 MV A VTI
 MV VTI
 MV AccT
 MV DecT
 IVRT
 IVCT
 MV E Dur
 MV A Dur
 LVOT Vmax

LVOT VTI
 LVOT AccT
 AAO Vmax
 DAA Vmax
 AV Vmax
 AV VTI
 LVPEP(Doppler)
 LVET(Doppler)
 AV AccT
 AV DecT
 RVET(Doppler)
 RVPEP(Doppler)
 TV Vmax
 TV E Vel
 TV A Vel
 TV VTI
 TV AccT
 TV DecT
 TV A Dur
 RVOT Vmax
 RVOT VTI
 PV Vmax
 PV VTI
 PV AccT
 MPA Vmax
 RPA Vmax
 LPA Vmax
 PVein S Vel
 PVein D Vel
 PVein A Vel
 PVein A Dur
 PVein S VTI
 PVein D VTI
 PVein DecT
 IVC Vel(Insp)
 IVC Vel(Expir)
 SVC Vel(Insp)
 SVC Vel(Expir)
 MR Vmax
 MR VTI
 MS Vmax
 dP/dt
 AR Vmax
 AR VTI
 AR DecT
 AR PHT

AR Ved
 TR Vmax
 TR Vmax(RVSP)
 TR VTI
 PR Vmax
 PR VTI
 PR PHT
 PR Ved
 RAP
 VSD Vmax
 ASD Vmax
 PDA Vel(d)
 PDA Vel(s)
 Coarc Pre-Duct
 Coarc Post-Duct
 Ea(medial)
 Aa(medial)
 ARa(medial)
 DRa(medial)
 Sa(medial)
 Ea(lateral)
 Aa(lateral)
 ARa(lateral)
 DRa(lateral)
 Sa(lateral)
 HR
 AV HR
 MV HR
 TV HR
 PV HR
 LVOT HR
 RVOT HR

 MV E/A
 MVA(PHT)
 TV E/A
 TVA(PHT)

 MVA(VTI)
 LVOT Diam(MVA VTI)
 LVOT VTI(MVA VTI)
 MV VTI(MVA VTI)
 AVA(VTI)
 LVOT Diam(AVA VTI)
 LVOT VTI(AVA VTI)
 AV VTI(AVA VTI)

LV Tei Index(Doppler)
 MV C-O dur(Doppler)
 LVET(LV Tei Index-Doppler)

RVSP
 TR Vmax(RVSP)
 RAP

PAEDP
 PR Ved(PAEDP)
 RAP

RV Tei Index
 TV C-O dur
 RVET(RV Tei Index)

Qp/Qs
 AV Diam(Qp/Qs)
 AV VTI(Qp/Qs)
 AV HR(Qp/Qs)
 PV Diam(Qp/Qs)
 PV VTI(Qp/Qs)
 PV HR(Qp/Qs)

PISA MR
 MR Rad
 MR Als Vel
 MR VTI(PISA MR)

PISAAR
 AR Rad
 AR Als Vel
 AR VTI(PISA AR)

PISA TR
 TR Rad
 TR Als Vel
 TR VTI(PISA TR)

PISA PR
 PR Rad
 PR Als Vel
 PR VTI(PISA PR)

Vascular

B-Mode

CCA IMT
 Bulb IMT
 ICA IMT
 ECA IMT

 Stenosis D
 Stenosis A

 IMT

CCA IMT
 Bulb IMT
 ICA IMT
 ECA IMT

D-Mode
 CCA
 Bulb
 ICA
 ECA
 Vert A
 Innom A
 Subclav A
 Axill A
 Brachial A
 Ulnar A
 Radial A
 Subclav V
 Axill V
 Cephalic V
 Basilic V
 Ulnar V
 Radial V
 C.Iliac A
 Ex.Iliac A
 CFA
 SFA
 Pop A
 TP Trunk A
 Peroneal A
 P.Tib A
 A.Tib A
 Dors.Ped A
 C.Iliac V
 Ex.Iliac V
 Femoral V
 Saph V
 Pop V
 TP Trunk V
 Sural V
 Soleal V
 Peroneal V
 P.Tib V
 A.Tib V
 ACA
 MCA
 PCA

AComA	Follicle5 H
PComA	Follicle6 L
BA	Follicle6 W
IIA	Follicle6 H
DFA	Follicle7 L
Ba V	Follicle7 W
Brachial V	Follicle7 H
IIV	Follicle8 L
CFV	Follicle8 W
SFV	Follicle8 H
DFV	Follicle9 L
SSV	Follicle9 W
ASP	Follicle9 H
BSP	Follicle10 L
-----	Follicle10 W
ICA/CCA	Follicle10 H
-----	Follicle11 L
ABI	Follicle11 W
ASP	Follicle11 H
BSP	Follicle12 L
Gynecology	Follicle12 W
B-Mode	Follicle12 H
UT L	Follicle13 L
UT H	Follicle13 W
UT W	Follicle13 H
Cervix L	Follicle14 L
Cervix H	Follicle14 W
Cervix W	Follicle14 H
Endo	Follicle15 L
Ovary L	Follicle15 W
Ovary H	Follicle15 H
Ovary W	Follicle16 L
Follicle1 L	Follicle16 W
Follicle1 W	Follicle16 H
Follicle1 H	-----
Follicle2 L	Ovary Vol
Follicle2 W	UT Vol
Follicle2 H	UT SUM
Follicle3 L	UT-L/CX-L
Follicle3 W	Follicle1
Follicle3 H	Follicle2
Follicle4 L	Follicle3
Follicle4 W	Follicle4
Follicle4 H	Follicle5
Follicle5 L	Follicle6
Follicle5 W	Follicle7

Follicle8
Follicle9
Follicle10
Follicle11
Follicle12
Follicle13
Follicle14
Follicle15
Follicle16

Uterus

UT L
UT H
UT W

Endo

Uterine Cervix

Cervix L
Cervix H
Cervix W

Ovary

Ovary L
Ovary W
Ovary H

Follicle1

Follicle1 L
Follicle1 W
Follicle1 H

Follicle2

Follicle2 L
Follicle2 W
Follicle2 H

Follicle3

Follicle3 L
Follicle3 W
Follicle3 H

Follicle4

Follicle4 L
Follicle4 W
Follicle4 H

Follicle5

Follicle5 L
Follicle5 W
Follicle5 H

Follicle6

Follicle6 L
Follicle6 W

Follicle6 H
Follicle7
Follicle7 L
Follicle7 W
Follicle7 H
Follicle8
Follicle8 L
Follicle8 W
Follicle8 H

Follicle9

Follicle9 L
Follicle9 W
Follicle9 H

Follicle10

Follicle10 L
Follicle10 W
Follicle10 H

Follicle11

Follicle11 L
Follicle11 W
Follicle11 H

Follicle12

Follicle12 L
Follicle12 W
Follicle12 H

Follicle13

Follicle13 L
Follicle13 W
Follicle13 H

Follicle14

Follicle14 L
Follicle14 W
Follicle14 H

Follicle15

Follicle15 L
Follicle15 W
Follicle15 H

Follicle16

Follicle16 L
Follicle16 W

Follicle16 H

Urology

B-Mode

Renal L
Renal H
Renal W

Cortex

Adrenal L

Adrenal H

Adrenal W

Prostate L

Prostate H

Prostate W

Seminal L

Seminal H

Seminal W

Testicular L

Testicular H

Testicular W

Ureter

Pre-BL L

Pre-BL H

Pre-BL W

Post-BL L

Post-BL H

Post-BL W

Prostate Mass1 d1

Prostate Mass1 d2

Prostate Mass1 d3

Prostate Mass2 d1

Prostate Mass2 d2

Prostate Mass2 d3

Prostate Mass3 d1

Prostate Mass3 d2

Prostate Mass3 d3

Testicular Mass1 d1

Testicular Mass1 d2

Testicular Mass1 d3

Testicular Mass2 d1

Testicular Mass2 d2

Testicular Mass2 d3

Testicular Mass3 d1

Testicular Mass3 d2

Testicular Mass3 d3

Renal Vol

Prostate Vol

Testicular Vol

Pre-BL Vol

Post-BL Vol

Mictur.Vol

Kidney

Renal L

Renal H

Renal W

Cortex

Adrenal

Adrenal L

Adrenal W

Adrenal H

Prostate

Prostate W

Prostate H

Prostate L

Seminal Vesicle

Seminal L

Seminal W

Seminal H

Testis

Testicular L

Testicular W

Testicular H

Bladder

Pre-BL L

Pre-BL W

Pre-BL H

Post-BL L

Post-BL W

Post-BL H

Prostate Mass1

Prostate Mass1 d1

Prostate Mass1 d2

Prostate Mass1 d3

Prostate Mass2

Prostate Mass2 d1

Prostate Mass2 d2

Prostate Mass2 d3

Prostate Mass3

Prostate Mass3 d1

Prostate Mass3 d2

Prostate Mass3 d3

Testicular Mass1

Testicular Mass1 d1

Testicular Mass1 d2

Testicular Mass1 d3

Testicular Mass2

Testicular Mass2 d1

Testicular Mass2 d2
 Testicular Mass2 d3
 Testicular Mass3
 Testicular Mass3 d1
 Testicular Mass3 d2
 Testicular Mass3 d3

Small Parts

B-Mode

Thyroid L
 Thyroid H
 Thyroid W
 Isthmus H
 Testicular L
 Testicular H
 Testicular W
 Breast Mass1 d1
 Breast Mass1 d2
 Breast Mass1 d3
 Breast Mass2 d1
 Breast Mass2 d2
 Breast Mass2 d3
 Breast Mass3 d1
 Breast Mass3 d2
 Breast Mass3 d3
 Thyroid Mass1 d1
 Thyroid Mass1 d2
 Thyroid Mass1 d3
 Thyroid Mass2 d1
 Thyroid Mass2 d2
 Thyroid Mass2 d3
 Thyroid Mass3 d1
 Thyroid Mass3 d2
 Thyroid Mass3 d3

Thyroid Vol

Thyroid

Thyroid L
 Thyroid W
 Thyroid H

Testis

Testicular L
 Testicular W
 Testicular H

Breast Mass1

Breast Mass1 d1

Breast Mass1 d2
 Breast Mass1 d3
 Breast Mass2
 Breast Mass2 d1
 Breast Mass2 d2
 Breast Mass2 d3

Breast Mass3

Breast Mass3 d1
 Breast Mass3 d2
 Breast Mass3 d3

Thyroid Mass1

Thyroid Mass1 d1
 Thyroid Mass1 d2
 Thyroid Mass1 d3

Thyroid Mass2

Thyroid Mass2 d1
 Thyroid Mass2 d2
 Thyroid Mass2 d3

Thyroid Mass3

Thyroid Mass3 d1
 Thyroid Mass3 d2
 Thyroid Mass3 d3

D-Mode

STA

ITA

Orthopedics

B-mode

HIP
 HIP-Graf
 HIP(α)
 HIP(β)
 d/D

Emergency

B-Mode

Renal L
 Renal H
 Renal W
 CBD
 Portal V Diam
 CHD
 GB wall th
 Aorta Diam
 Aorta Bif
 Ureter
 Pre-BL L
 Pre-BL H

Pre-BL W
 Post-BL L
 Post-BL H
 Post-BL W
 GS
 YS
 CRL
 BPD
 UT L
 UT H
 UT W
 Endo
 Ovary L
 Ovary H
 Ovary W

 Renal Vol
 Pre-BL Vol
 Post-BL Vol
 Mictur.Vol
 Ovary Vol
 UT Vol
 UT SUM

 Uterus
 UT L
 UT H
 UT W
 Endo
 Ovary
 Ovary L
 Ovary W
 Ovary H
 Kidney
 Renal L
 Renal H
 Renal W
 Cortex
 Bladder
 Pre-BL L
 Pre-BL W
 Pre-BL H
 Post-BL L
 Post-BL W
 Post-BL H

M-Mode
 FHR

 D-Mode
 FHR
Auto Calculation
 PS
 ED
 MD
 PPG
 TAMAX
 Vol Flow(TAMAX)
 TAMEAN
 Vol Flow(TAMEAN)
 DT
 MPG
 MMPG
 VTI
 AT
 S/D
 D/S
 PI
 RI
 PV
 HR

Diagnostic Report

- View/add images
- Data edit
- Print
- Save/ load comment
- export (to PDF/RTF file)
- View history report
- Obstetric analysis
- Fetal growth curve

Safety & Conformance

Quality Standards

- ISO 9001:2008
- ISO 13485:2003

Design Standards

- EN 60601-1 and IEC 60601-1
- EN 60601-1-2 and IEC 60601-1-2
- EN 60601-2-37 and IEC60601-2-37
- EN ISO 14971 and ISO 14971
- EN ISO10993-1 and ISO10993-1
- EN 62366 and IEC 62366

- EN 62304 and IEC 62304
- EN ISO 17664
- EN 1041
- EN 980
- IEC 60878

CE Declaration

The ultrasound system is fully in conformance with the Council Directive 93/42/EEC Concerning Medical Devices, as amended by 2007/47/EC. The number adjacent to the CE marking (0123) is the number of the EU-notified body that certified meeting the

requirements of the Directive.

Not all features or specifications described in this document may be available in all probes and/or modes.

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