

**MX7**  
**Color Doppler Ultrasound System**  
Datasheet

# 1 System Overview

## 1.1 Application

- Abdomen
- Gynecology
- Obstetrics
- Pediatric
- Cardiac
- Small Parts
- Musculo-skeletal
- Vascular
- Nerve
- Urology
- Intra-operative
- Cephalic
- Ophthalmic
- Thoracic/Pleural

## 1.2 Transducer types

- Curved array
- Linear array
- Phased array

## 1.3 Imaging modes

- B-Mode
- THI and PSH™ (Phase Shift Harmonic Imaging)
- M-Mode/Color M-mode
- Free Xros M™ (Anatomical M-mode)
- Free Xros CM™ (Curved Anatomical M-mode)
- Color Doppler Imaging
- Power Doppler Imaging/Directional PDI
- Pulsed Wave Doppler
- Continuous Wave Doppler
- TDI
- UWN+ (Ultra-Wideband Non-linear Plus) Contrast Imaging™
- Tissue Tracking QA
- Stress Echo
- Strain Elastography
- iScape™ View (Panoramic Imaging)
- Smart 3D

## 1.4 Standard features

- B-Mode

- THI and PSH™
- M-Mode
- Color Doppler Imaging
- Power Doppler Imaging and Directional PDI
- Pulsed Wave Doppler
- iBeam™ (Spatial Compound Imaging)
- iClear™ (Speckle Suppression Imaging)
- iTouch™ (Auto Image Optimization)
- Echo Boost™
- Zoom/iZoom (Full Screen Zoom)
- FCI (Frequency Compound Imaging)
- B steer
- ExFOV (Extended Field of View)
- HR Flow™ (High Resolution Flow)
- Raw data processing
- iScanHelper
- US eGateway Software
- u-Link
- 1 active probe port
- Hard drive: 256 GB SSD, optional 512GB SSD or 1TB HDD
- 4-USB
- HDMI FullHD
- iStorage
- MedTouch
- MedSight
- Net Storage
- Built-in Battery
- Power adapter
- Traveling case
- Multilingual controls overlay

## 1.5 Optional features

- iScape™ View
- Free Xros M™
- Free Xros CM™
- Tissue Doppler Imaging/ TDI QA
- Continuous Wave Doppler
- UWN+ Contrast Imaging™
- LVO (Left Ventricular Opacification)
- Strain Elastography
- Stress Echo
- Tissue Tracking QA
- Smart 3D™ (Freehand 3D)

- RIMT
- AutoEF
- Smart OB
- Smart NT
- Smart FHR OB1
- Smart Bladder
- Auto DFR
- CPP
- Auto GA
- iWorks™ (Auto Workflow Protocol)
- iNeedle™ (Needle Visualization)
- iVocal
- McAfee
- DVR Module
- DICOM
- Clinical Measurement Package
- Mobile Trolley
- ECG module
- Internal Wi-Fi
- Ultrasound gel
- Dual-Probe extend module
- U-Bank (2 batteries or 4 batteries)
- Barcode reader
- Footswitch
- iVocal Material package

## 1.6 Language support

- Software: Chinese, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Icelandic, Italian, Lithuanian, Norwegian, Polish, Portuguese, Russian, Serbian, Spanish, Swedish, Turkish
- Keyboard input: English, Chinese, French, Italian, Portuguese, Russian, Spanish, Polish, German, Czech, Turkish, Finnish, Icelandic, Danish, Norwegian, Swedish, Hungarian, Serbian
- Control panel overlay
- User manual

## 2 Physical Specification

### 2.1 Dimensions and weight

- Width: 364±5 mm
- Depth: 322±5 mm
- Height: 44±3 mm
- Weight:

- About 3.0 kg (without battery)
- About 3.5 kg (with battery)

### 2.2 Monitor

- 15.6-inch high resolution color LED monitor
- Resolution: 1920 ×1080
- Automatic brightness adjustment
- Screen Saver
- Open angle adjustable: 0 - 180°
- View angle (right/left): ≥170°

### 2.3 Handle

### 2.4 Probe port

1 port connect to a transducer

### 2.5 Electrical power

- AC adapter Input:
  - Voltage: 100 - 240V AC
  - Frequency: 50/60 Hz
  - Power input: 2.0 - 1.0A
- Battery: Lithium-Ion Battery Pack 14.4V<sup>---</sup>, 6600mAh (single battery)

### 2.6 Operating Environment

- Ambient temperature: 0 - 40 °C
- Relative humidity: 20% - 85% (no condensation)
- Atmospheric pressure: 700hPa - 1060hPa

### 2.7 Storage & Transportation Environment

- Ambient temperature: -20 - 55 °C
- Relative humidity: 20% - 95% (no condensation)
- Atmospheric pressure: 700hPa - 1060hPa

## 3 User Interface

### 3.1 Control panel

- Power/Battery Indicator
- Function Keys
- Ergonomic Soft Key Operation
- Backlit keys, ensuring accurate work in the dark room
- Programmable keys, available for user-defined functions
- Trackball, speed adjustment
- Key Brightness adjustment

- Integrated speakers, audio volume adjustment

### 3.2 Touch screen

- 12.3-inch high sensitivity anti-glare color touch screen
- Resolution: 1920×720
- Digital brightness and contrast adjustment through preset
- Viewing angle: ≥170 degrees
- Support touch screen gestures
- Automatically select probe when choosing preset

### 3.3 System boot-up

- Boot-up from complete shut-down: less than 26 sec
- Shut down: less than 30 sec

### 3.4 Comments

- Supports text input and arrow
- Adjustable text size and arrow size and direction
- Supports home position
- Covers various application
- More than 800 comments items for versatile application
- User customizable

### 3.5 Bodymark

More than 232 bodymarks for versatile application

### 3.6 Screen information\* (presettable)

Common info:

- Mindray logo
- Hospital name
- Exam date
- Exam time
- Acoustic power
- Mechanical index
- Tissue thermal index
- ID, Last name, First Name, Middle initial, Gender, Age
- Probe model
- ECG icon (when ECG connected)
- Operator
- TGC Curve

- Focus position
- Thumbnail
- Imaging parameters
- Help guidance
- Dynamic Trackball indices

**\*Not all items are listed in this part, detail info please refer to user manual.**

## 4 Imaging Parameters

### 4.1 Overview

- Digital beamformer
- Digital Dynamic Pixel Focusing (DPF)
- Up to 1032192 channels
- System Frequency Range: 1 - 23 MHz
- 64-beam forming

### 4.2 B-mode

- Frame rate (max): 1041 f/s
- A.Power: depend on probe
- TGC: 8 sliders
- Depth: max 40cm, 30 Levels
- Gain: 0 - 100, 1/step
- Steer: 5 Levels (available on linear transducers)
- FOV: on/off
- FOV Size: random adjustable
- FOV Position: random adjustable
- Image Quality: Pen/Gen/Res/HPen/HGen/HRes/HGen-FFR/HRes-FFR (depends on transducer)
- Persistence: 0 - 7, 1/step
- Dyn Ra.: 30 - 350 (depends on transducer)
- Gray level: 256
- Tint Map: off, 1 - 8, 1/step
- ExFov: off, 1 - 2 ((depends on transducer, extended FOV available on convex and linear transducers)
- iClear: Off, 1 - 7, 1/step
- iBeam: Off, 1 - 3, 1/step
- Line Density: L, M, H, UH
- L/R Flip: on/off
- U/D Flip: on/off
- Rotation: 0, 90°, 180°, 270°
- iTouch: On/off
- iTouch: -12 - 12, 3db/step
- LGC: 8 point
- Dual Live: on/off

- Auto Merge: on/off (available on linear transducers)
- H Scale: on/off
- Echo Boost: off, 1 (available on phased transducers)
- Smooth: 0 - 6, 1/step
- TSI (Tissue Specific Imaging): General, Muscle, Fluid, Fat
- Zoom Value: 0.8 - 10
- HDScope: off, 1 - 3, 1/step
- V1:1: on/off (available on linear transducers)
- iNeedle:
  - B/iNeedle (on/off)
  - Needle Dir.: Auto, Left, Right

### 4.3 THI and PSH

- Available on all types of transducer
- Patent PSH™ technology, obtains purer harmonic, better contrast resolution, higher SNR, exceptional high frequency harmonic
- iClear™ available
- Image quality: depends on transducers

### 4.4 M-mode

- A.Power: depend on probe
- Gain: 0 - 100, 1/step
- Depth: same as B
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Dynamic Range: 30 - 180 (depends on transducer)
- Gray Map: 1 - 8, 1/step
- Tint Map: Off, 1 - 8, 1/step
- Display format: V2:3, V3:2, H2:3, V3:1, FULL
- M Soften: 0 - 4, 1/step
- Edge Enhance: 0 - 3, 1/step
- Color M-mode available (convex and phased probe only)

### 4.5 Free Xros M

- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Tint Map: Off, 1 - 8, 1/step
- Display Format: V2:3, V3:2, H2:3, V3:1
- Color Free Xros M available
- Gray Map: 1 - 8, 1/step

- Angle: adjustable
- Display: Cur./All; show A/B/C On/Off

### 4.6 Free Xros CM

- Only available on TDI
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Tint Map: Off, 1 - 8, 1/step
- Display Format: V2:3, V3:2, H2:3, V3:1
- Gray Map: 1 - 8, 1/step
- Angle: adjustable
- Edit, Undo, Delete function for curved line

### 4.7 Color Doppler Imaging

- Frame rate (max): 331 f/s
- PRF: 0.1 kHz - 14.3 kHz
- Velocity: 1.0 cm/s - 148.9 cm/s
- HR Flow™: High Resolution Flow provides better image quality and flow sensitivity
- A.power: same as B
- Gain: 0 - 100, 2/step
- Baseline: -8 - 8, 1/step
- Scale: 30 levels
- Quick Steer (available on linear transducers)
- Steer (available on linear transducers)
- ROI size/position: adjustable
- ROI Center Depth: adjustable
- Img Quality: Color/3 levels; HRFlow/1 level
- Persistence: 0 - 6, 1/step
- Smooth: 0 - 6, 1/step
- Color Map: V0 - V10; VV0 - VV9
- Flow State: L, M, H
- Priority: 0% - 100%, 1%/step
- WF: 8 Levels
- Line Density: L, M, H, UH
- Dual Live: on/off
- Invert: on/off
- Auto Invert: on/off (available on linear transducers)
- B/C Align: on/off
- Velocity tag: on/off
- Packet Size: 0 - 3, 1/step
- iTouch: On/off
- Smart Track: On/off

## 4.8 Power Doppler Imaging

- PRF: 0.1 kHz - 14.3 kHz
- HR Flow™: High Resolution Flow provides better image quality and sensitivity
- A.power: same as B
- Gain: 0 - 100, 2/step
- Quick Steer (available on linear transducers)
- Steer (available on linear transducers)
- Scale: 30 steps
- ROI size/position: adjustable
- ROI Center Depth: adjustable
- Img Quality: Power/3 levels; HRFlow/1 level
- Persistence: 0 - 6, 1/step
- Smooth: 0 - 6, 1/step
- Dynamic Range: 10 - 70, 5/step
- Flow State: L, M, H
- Color Map: P0 - P3; dP0 - dP3
- Priority: 0% - 100%, 1/step
- WF: 8 levels
- Line Density: L, M, H, UH
- Dual Live: on/off
- Invert: on/off
- B/C Align: same as Color
- Packet Size: 0 - 3, 1/step
- iTouch: On/off
- Smart Track: On/off
- Auto Invert: On/off

## 4.9 PW/CW-Mode

- PW velocity: 11 cm/s - 770.0 cm/s
- CW velocity: 5 cm/s - 3850.0 cm/s
- PW PRF: 0.7 kHz - 20 kHz
- CW PRF: 0.3 kHz - 100 kHz
- A.Power: same as B
- Gain: 0 - 100, 2/step
- Baseline: 9 levels
- Quick Steer (available on linear transducers)
- Steer (available on linear transducers)
- Scale: 30 levels
- Audio: 0% - 100%, 2%/step
- Angle: -89 - 89, 1/step
- SVD: random adjustable

- Img Quality: 3 levels
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- SV: 0.5 - 30mm (PW only)
- SV position: random adjustable
- Dynamic range: 24 - 72, 2/step
- Gray map: 1 - 10, 1/step
- Tint Map: Off, 1 - 8, 1/step
- Display format: V2:3, V3:2, H2:3, V3:1, FULL
- Invert: On/off
- Auto Invert: on/off (available on linear transducers)
- WF (depend on probe)
- Quick Angle: -60°, 0°, 60°
- Duplex/Triplex: On/off
- HPRF: On/off
- iTouch: On/off
- T/F Res: 0 - 6, 1/step
- Auto Calculate: On/off
- Auto Calc Cycle: 1 - 5, 1/step
- Trace Sensitivity: 0 - 5, 1/step
- Auto Calc Parameter
- Trace Smooth: off, 1 - 4, 1/step
- Trace Area: Above, Below, All
- Auto Calc Loop

## 4.10 Tissue Velocity/Energy Imaging

- Available on phased array transducer
- Max frame rate: 937.0 f/s
- PRF: 0.4 kHz - 14.3 kHz
- Velocity: 5 cm/s - 144.7 cm/s
- A.Power: same as B
- Gain: 0 - 100, 2/step
- Baseline: -8 - 8, 1/step (TVI only)
- Scale: 30 levels
- Img Quality: 2 levels
- Persistence: 0 - 6, 1/step
- Smooth: 0 - 6, 1/step
- Dyn Ra.: 10 - 70, 5/step (TEI only)
- Tissue State: L, M, H
- Color Map:
  - TVI: TVV1 - TVV10
  - TEI: P0 - P3, dP0 - dP3
- Priority: 0 - 100, 1%/step

- WF: 8 levels
- Line Density: L, M, H, UH
- Dual live: On/off
- Invert: On/off
- B/C Align: On/off
- Velocity tag: on/off (TVI only)
- Packet size: 0 - 3, 1/step

#### 4.11 Tissue Velocity Doppler

- Available on phased array transducer
- Scale: 30 levels
- Velocity: 7.01 cm/s - 616.0 cm/s
- PRF: 0.7 kHz - 20 kHz
- A.power: same as B
- Gain: 0 - 100, 2/step
- Baseline: 9 levels
- Audio: 0 - 100%, 2%/step
- Angle: -89 - 89, 1/step
- SVD: random adjustable
- Img Quality: 2 levels
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- SV size: same as PW
- Dyn Ra.: 24 - 72, 2/step
- Gray Map: 1 - 10, 1/step
- Tint map: Off, 1 - 8, 1/step
- Display Format: V2:3, V3:2, H2:3, V3:1, FULL
- Invert: On/off
- WF: 10 levels
- Quick Angle: -60°, 0, 60°
- Duplex/triplex: same as PW
- T/F Res: 0 - 6, 1/step
- iTouch: On/off

#### 4.12 Tissue Velocity Motion

- A.power: same as B
- Smooth: 0 - 6, 1/step
- Velocity tag: on/off
- Persistence: 0 - 6, 1/step
- Img Quality: 2 levels
- Tissue State: L, M, H
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Display format: V2:3, V3:2, H2:3, V3:1, FULL
- Color Map: TVV1 - TVV10

- Packet Size: 0 - 3, 1/step
- Priority: 0% - 100%, 1%/step
- WF: 8 levels

#### 4.13 iScape™ View

- Panoramic imaging
- Available on all transducers
- Acquisition method: B mode, Power mode and Color mode
- Imaging length: 292.80 cm
- Tint map: off; 8 types
- Rotation: 0° - 355°

#### 4.14 Strain Elastography

- Available Probes:
  - L16-4Hs
  - L12-3RCs
  - L12-4s
  - L13-3Ns
  - L14-6Ns
  - L20-5s
  - V11-3s
  - L13-3s
- Support real time strain ratio measurement
- Unique shell analysis function
- Stress compensation technology reduces deeper tissue artifacts, obtains more uniform stress throughout whole field
- Stress indicator: supports frame by frame stress indication
- Opacity: 0 - 5, 1/step
- Map: E1 - E6
- Smooth: 0 - 5, 1/step
- ROI: random adjustable
- ROI Center Depth: random adjustable
- Invert: on/off
- Depth: linear: 1.5 - 5cm
- Display Format: V1:1, H1:1, FULL
- Strain Scale: 0 - 5, 1/step
- Map Position: 0% - 100%, 5%/step
- Dyn Ra.: 0 - 5, 1/step
- Strain Mode: 0 - 1, 1/step
- E Sensitivity: 0 - 5, 1/step
- Image Quality: three levels of fundamental frequency, three levels of harmonic frequency

## 4.15 UWN<sup>+</sup> Contrast Imaging™\*

- Ultra Wideband Non-linear Plus contrast imaging technology, which provides exceptional contrast agent detecting capability, not only extracts second harmonic, but also non-linear fundamental signals
- Micro Flow Enhancement (MFE) available
- Available Probe:
  - V11-3s
  - L12-3RCs
  - L12-4s
  - L14-6Ns
  - L20-5s
  - L13-3s
  - C5-2s
  - C5-1s
  - L13-3Ns
  - P4-2s
- A.Power: same as B
- TGC: same as B
- Depth: same as B
- Gain: 0 - 100, 1/step
- Persistence: 0 - 7, 1/step
- Dyn Ra.: same as B
- Gray Map: 1 - 8, 1/step
- Tint Map: Off, 1 - 8, 1/step
- FOV: on/off
- FOV Size: random adjustable
- FOV Position: random adjustable
- ExFov: off, 1 - 2, 1/step
- iClear: Off, 1 - 7, 1/step
- Line Density: L, M, H, UH
- L/R Flip: on/off
- U/D Flip: on/off
- Rotation Counter-Clockwise: same as B
- Dual Live: on/off
- iTouch: On/off
- iTouch: -8 - 8, 2db/levels
- Image Quality: 3 levels
- Mix:
  - Dual Live on: Contrast/C&T
  - Dual Live off: Contrast/C&T/Tissue
- Mix Map: 0 - 6, 1/step

- Timer1: on/off
- Timer2: on/off
- Destruct: on/off
- Destruct Time: 500 - 2000, 75/step
- Destruct Power: -30 - 0, 0.3/step
- MFE: on/off
- MFE Period: 0.1s, 0.2s, 0.4s, 0.6s, 0.8s, 1.0s, MAX
- Retro Capture: on/off
- Pro Capture: on/off
- Smooth: 0 - 6, 1/step
- CEUSPos: on/off
- Single: on/off

**\*The system is designed for compatibility with commercially available ultrasound contrast agents. Because the availability of these agents is subject to government regulation and approval, product features intended for use with these agents may not be commercially marketed nor made available before the contrast agent is cleared for use. Contrast related product features are enabled only on systems for delivery to an authorized country or region of use. Mindray medical systems makes no claims concerning the safety or effectiveness of contrast agents.**

## 4.16 Stress Echo

- Available on cardiac sector transducers
- 14 factory protocols
- User-defined protocols
- ECG triggered acquisition, display, selection, comparison, evaluation and archiving of multiple cardiac loops during various stages of a stress echo examination
- ASE16 (with score 4-7), ASE 17 (with score 4-7)
- Customized stages: up to 7 views per stage, and up to 12 stages per study
- View: standard views (PSLA, PSAX, A4C, A2C), and customized views
- Image acquisition
  - R-wave trigger
  - Acquire mode: Manual ROI or full screen
  - Ability to acquire frames or clips in B-mode, LVO
- Image selection

Attach the images with view annotation label (PSLA, PSAX, A4C, A2C, and customized views)

- Review

Automatically adjust to the number of images user defined

- Wall Motion Scoring
  - ASE 16 (with score 4-7), or ASE 17 (with score 4-7)
  - Graphical display of scoring (Normal, Hyperkinetic, Severely Hyperkinetic, Akinetic, Dyskinetic)
- LV volume measurement
  - Measurement of LV Volume in all phases of cardiac cycle
- Report
  - Reporting for both Wall Motion Scoring and LV volume measurement

#### 4.17 LVO

- Available Probe:
  - P4-2s
- Dedicated left ventricle contrast imaging tool

#### 4.18 iBeam™

- Spatial compound imaging
- 3 angles maximum
- Available on convex and linear transducers

#### 4.19 iTouch™

- Auto image optimization
- B-mode: gain, TGC
- Color: gain
- Power: gain
- PW: gain, scale, PRF, WF
- Contrast imaging: gain, TGC

#### 4.20 Echo Boost™

- Only for cardiac exams
- Improve the homogeneity of cardiac images through the whole field of view
- Better contrast resolution of myocardium tissue layers
- Better noise control in cardiac chambers and muscles

#### 4.21 B steer

Only for linear transducers

#### 4.22 ExFov

- Extended field of view
- Available for all convex and linear transducers

#### 4.23 Zoom

- Zoom: Spot zoom (write zoom) up to 10x, Pan zoom (read zoom) 0.8x - 10x
- iZoom: convertible 3 steps ;normal image, zoom standard area, zoom only image area in real-time

#### 4.24 QSave

- Quick save image parameter setting after image adjustment done
- Support Save, Create, Restore

#### 4.25 Tissue Tracking QA

- Available probes:
  - P4-2s
  - P8-2s
  - P10-4s
- Tissue tracking quantitative analysis
- Mandatory ECG connection before TT QA cine acquisition
- Six views for analysis: ALAX, A4C, A2C, PSAXB, PSAXM, PSAXAP
- Reload: reload cine again for new study
- Edit: modify trace points
- Start tracking
- Accept & compute: start tracking myocardium movement when user accept trace result
- Display effect: 0/1; at 0, tracking in velocity vector arrow; at 1, tracking in dots
- Trace method: 3 point or manual for ALAX, A4C, A2C; manual for PSAXB, PSAXM, PSAXAP
- Bull's Eye: trace result in bull's eye model
- Torsion: Torsion rate curve display
- LGC: available
- Valve's open and close time index: MVC, MVC', AVC, AVO, MVO
- Data export: export data in CSV file
- Cycle: ECG triggered cardiac cycle recognition for analysis
- Auto play: stop, X1/10, X1/5, X1/4, X1/3, X1/2, X1, X2, X3

- Thickness: 1 - 30mm, 1mm/step; adjust trace thickness
- Track point: 20 - 40, 1/step
- Parameter: Volume, Speed, Displace., L Strain, L Strain R, T Strain, T Strain R, Area, R Strain, R Strain R, C Strain, C Strain R, Rotation, Rot. R
- Smooth: 0 - 4, 1/step

#### 4.26 Smart 3D™

- Acquisition Method: Rocked, Linear
- VR/MPR: set parameters for volume rendered image or MPR plane
- Ref. Image: switch VR or A/B/C plane
- Display formats: Quad, Dual, Single, MPR only, A4:1
- VOI: on/off
- Reset: all, orientation, reset curve
- VR orientation: 0°, 90°, 180°, 270° for quick rotation
- Inversion: inversion, gray
- Accept VOI: on/off
- Flip: flip VR
- Sync: synchronize VR with selected plane
- Render modes: Surface, Min, Max, X-ray
- View direction: down/up, left/right, front/back
- Threshold: 0% - 100%, 1%/step (only on VR)
- Opacity: 0% - 100%, 5%/step (only on VR)
- Smooth: 0 - 10, 1/ step
- Tint: off; 8 types
- Brightness: 0% - 100%, 2%/step
- Contrast: 0% - 100%, 2%/step
- Tool: Auto rotation
  - Rotation control: play, single loop, loop
  - Direction: left/right, up/down
  - Position: Set Start/Set end
- Edit
  - Eraser: Soft eraser/ hard eraser, Polygon, Contour, Rect, line
  - Eraser Diameter: 8 - 80, 1/step
  - Undo: Undo, Undo all

#### 4.27 iNeedle™

- Needle visualization enhancement
- Best angle indicator

- Available on linear and curved transducers

#### 4.28 AutoEF

- Adjust Frame
- Diastole FR
- Systole FR
- Volume curve: on/off
- Adjustment for the border of endocardium

#### 4.29 Smart Track

- Continuously track the flow and detect the best color box position and angle in real time scanning.
- The Linear probes in carotid, Upper Ext A, Upper Ext V, Lower Ext A, Lower Ext V, EM Vascular exam modes support the Smart Track function.

#### 4.30 RIMT (RF-Data based IMT)

- Available in single/dual B carotid exam mode, in real time
- Side: left/right
- Calculation of 6 RIMT values, RIMT average value, SD and ROI W
- Report operation:
  - Data deleting
  - RIMT trend graphic viewing
  - Preview

#### 4.31 Smart FHR OB1

- Automatically calculate Fetal heart rate
- OI size/position adjustable

#### 4.32 Smart Bladder

- Available on curved probes
- Automatically detect and calculate bladder volume

#### 4.33 Auto DFR

- Automatic diastolic function assessment tool, automatically detect diastolic parameters of PW and TDI PW, to calculate a series diastolic function index E, A, E/A, e', E/e' automatically.
- MV E/A
- MV E/E' Septal
- MV E/E' Lateral

## 5 Cine Review and Post Processing

### 5.1 Cine review

- Available in all modes
- Frame by frame manual cineloop review or auto playback with variable speed
- Independent cine review in 2D Dual and Quad mode one by one
- Maximum cine memory is up to 25492 frames or 263.3 s (depend on the mode)
- Retrospective storage (online setting available, 1 - 120 s, or 1 - 120 cycles, pre-settable) and prospective storage (1 - 480 s, or 1 - 390 cycles, pre-settable)
- Frame compare: compare different frames for one cine in dual format
- Cine compare: compare two or more than two cines in dual or quad format
- Jump to first and jump to last: one keystroke review the first or last frame
- Start point and end point: selectable

### 5.2 Raw data processing

- B-mode:
  - TGC
  - Gain
  - Dynamic range
  - Gray map
  - Tint map
  - iClear
  - L/R Flip
  - U/D Flip
  - Rotation
  - LGC
  - Dual Live
  - Auto Merge
  - H Scale
  - Echo Boost
  - Smooth
  - Zoom Value
  - V1:1
  - B/iNeedle
- M-mode:
  - Gain
  - Speed

- Dynamic Range
- Gray Map
- Tint Map
- Display format
- Edge Enhance
- Color:
  - Gain
  - Baseline
  - Smooth
  - Color map
  - Dual Live
  - Invert
  - Priority
  - Velocity tag
- PW:
  - Gain
  - Baseline
  - Audio
  - Angle
  - Speed
  - Dynamic range
  - Gray map
  - Tint Map
  - Display format
  - Invert
  - WF
  - Quick Angle

## 6 Measurement/Analysis and Report\*

**NOTICE: Support manual, semi-automat, automat and real-time measurements**

### 6.1 Generic measurements

#### B-Mode

- Distance
- Ellipse
- Trace
- Spline
- Cross
- Angle (2 Lines)
- Angle (3 Points)
- Double Dist
- Trace Len
- Trace Len(Spline)

- Parallel
- Distance P-L
- IMT
- B-Profile
- B-Hist(Ellipse)
- B-Hist(Trace)
- B-Hist(Spline)
- B-Hist(Rectangle)
- Depth
- Color Vel
- Strain Hist
- Elas. Hist
- Color Vel Profile
- Elas.
- Strain
- Color Pixel Percent(Ellipse)
- Color Pixel Percent(Trace)
- Color Pixel Percent(Rectangle)
- Color Pixel Percent(Recall)
- Smart Trace
- -----
- Volume
- Volume(Ellipse)
- Volume(E+Dist.)
- Ratio(D)
- -----
- Volume
- Volume
- Volume(Ellipse)
- Volume(E+Dist.)
- Ratio(A)
- Area1
- Area2
- Directional Ratio
- D1
- D2
- RAC
- Sag
- XS
- Volume Flow
- Vas Area
- TAMEAN
- TAMAX

- Elas. Ratio
- A
- B
- Strain Ratio
- A
- B

### **M-Mode**

- HR
- HR(R-R)
- Slope
- Distance
- Time
- Velocity

### **D-Mode**

- PS/ED
- Vel
- HR
- HR(R-R)
- Time
- Acceleration
- DTrace
- -----
- Ratio(Vel)
- Ratio(VTI)
- -----
- Volume Flow
- Vas Area
- TAMEAN
- TAMAX

## **6.2 AutoCalc**

- 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

## 6.3 Clinical option measurement package

### 6.3.1 Abdominal B-Mode

- Aorta Bif
- Aorta Aneurysm Status
- Shunt Diam
- Portal V Diam
- M Portal V Diam
- Splenic V Diam
- PS Conflnc Diam
- Renal V Diam
- SMV Diam
- IMV Diam
- CHD
- GB L
- GB H
- GB W
- GB wall th
- Cystic Duct
- CBD
- Panc duct
- Panc head
- Panc neck
- Panc body
- Panc tail
- Appendix
- Appendix Wall
- Pylorus
- Pylorus Wall
- Renal L
- Renal H
- Renal W
- Cortex
- Adrenal L
- Adrenal H
- Adrenal W
- Ureter
- Cortex(Renal Transplant1)
- Renal V Diam(Renal Transplant1)
- Ureter Diam(Renal Transplant1)
- Cortex(Renal Transplant2)
- Renal V Diam(Renal Transplant2)
- Ureter Diam(Renal Transplant2)
- Smart Bladder Dual
- Pre-BL L
- Pre-BL H
- Pre-BL W
- Post-BL L
- Post-BL H
- Post-BL W
- Spleen L
- Spleen H
- Spleen W
- Spleen Area
- Skin-L.Capsule Dist.
- Hepatic Lesion1 Elas.
- Hepatic Lesion2 Elas.
- Hepatic Lesion3 Elas.
- LSM
- Free Fluid
- -----
- Renal Vol
- Pre-BL Vol
- Post-BL Vol
- Mictur.Vol
- -----
- Aorta
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Celiac Axis
  - Anterior-Posterior
  - Transverse
- SMA
  - Anterior-Posterior
  - Transverse

- C Hepatic A
  - Anterior-Posterior
  - Transverse
- Proper Hepatic A
  - Anterior-Posterior
  - Transverse
- Hepatic A
  - Anterior-Posterior
  - Transverse
- Splenic A
  - Anterior-Posterior
  - Transverse
- GDA
  - Anterior-Posterior
  - Transverse
- IMA
  - Anterior-Posterior
  - Transverse
- Aorta Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Celiac A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- SMA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- C Hepatic A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Proper Hepatic A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Hepatic A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Splenic A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- GDA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- IMA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- EVAR Residual Aneurysm Sac(2D)
  - Anterior-Posterior
  - Transverse
- EVAR Inflow(2D)
  - Anterior-Posterior
  - Transverse
- EVAR Graft Body(2D)
  - Anterior-Posterior
  - Transverse
- EVAR Limb(2D)
  - Anterior-Posterior
  - Transverse
- EVAR Outflow(2D)
  - Anterior-Posterior
  - Transverse
- Aortic Bypass Graft Anast(2D)
  - Anterior-Posterior
  - Transverse
- Aortic Bypass Graft Graft(2D)
  - Anterior-Posterior
  - Transverse
- ABD Stenosis 1(2D)
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- ABD Stenosis 2(2D)
  - Anterior-Posterior
  - Transverse
  - Outer Diameter

- Inner Diameter
- Outer Area
- Inner Area
- ABD Stenosis 3(2D)
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- ABD Stenosis 4(2D)
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- IVC
- Anterior-Posterior
- Transverse
- Checklist
- Hepatic V(2D)
- Anterior-Posterior
- Transverse
- Lt Hepatic V(2D)
- Anterior-Posterior
- Transverse
- M Hepatic V(2D)
- Anterior-Posterior
- Transverse
- Rt Hepatic V(2D)
- Anterior-Posterior
- Transverse
- Liver
- L
- H
- W
- R Liver Lobe
- L
- H
- W
- L Liver Lobe
- L
- H
- W
- Hepatic Lesion 1
- d1
- d2
- d3
- Hepatic Lesion 2
- d1
- d2
- d3
- Hepatic Lesion 3
- d1
- d2
- d3
- Hepatic Cyst 1
- d1
- d2
- d3
- Hepatic Cyst 2
- d1
- d2
- d3
- Hepatic Cyst 3
- d1
- d2
- d3
- GB
- GB L
- GB H
- GB W
- GB wall th
- GB Finding 1
- d1
- d2
- d3
- GB Finding 2
- d1
- d2
- d3
- GB Finding 3
- d1
- d2
- d3

- GB Finding 4
  - d1
  - d2
  - d3
- GB Finding 5
  - d1
  - d2
  - d3
- Panc Finding 1
  - d1
  - d2
  - d3
- Panc Finding 2
  - d1
  - d2
  - d3
- Panc Finding 3
  - d1
  - d2
  - d3
- Panc Finding 4
  - d1
  - d2
  - d3
- Panc Finding 5
  - d1
  - d2
  - d3
- Kidney
  - Renal L
  - Renal H
  - Renal W
  - Cortex
- Adrenal
  - Adrenal L
  - Adrenal H
  - Adrenal W
- Renal Lesion 1
  - d1
  - d2
  - d3
- Renal Lesion 2
  - d1
- d2
- d3
- Renal Lesion 3
  - d1
  - d2
  - d3
- Renal Cyst 1
  - d1
  - d2
  - d3
- Renal Cyst 2
  - d1
  - d2
  - d3
- Renal Cyst 3
  - d1
  - d2
  - d3
- Kidney(Superior)
  - H
  - W
- Kidney(Mid)
  - H
  - W
- Kidney(Inferior)
  - H
  - W
- Renal A
  - Long
  - Anterior-Posterior
  - Transverse
- Renal A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Kidney(Renal Transplant1)
  - L
  - H
  - W
- Adrenal(Renal Transplant1)
  - L
  - H
  - W

- Finding 1(Renal Transplant1)
  - L
  - H
  - W
- Finding 2(Renal Transplant1)
  - L
  - H
  - W
- Finding 3(Renal Transplant1)
  - L
  - H
  - W
- Finding 4(Renal Transplant1)
  - L
  - H
  - W
- Finding 5(Renal Transplant1)
  - L
  - H
  - W
- Finding 6(Renal Transplant1)
  - L
  - H
  - W
- Renal Transplant 1(2D)
  - Cortex(Renal Transplant1)
  - Renal V Diam(Renal Transplant1)
  - Ureter Diam(Renal Transplant1)
  - Kidney(Renal Transplant1)
    - L
    - H
    - W
  - Adrenal(Renal Transplant1)
    - L
    - H
    - W
  - Finding 1(Renal Transplant1)
    - L
    - H
    - W
  - Finding 2(Renal Transplant1)
    - L
    - H
- W
  - Finding 3(Renal Transplant1)
    - L
    - H
    - W
  - Finding 4(Renal Transplant1)
    - L
    - H
    - W
  - Finding 5(Renal Transplant1)
    - L
    - H
    - W
  - Finding 6(Renal Transplant1)
    - L
    - H
    - W
  - Kidney(Renal Transplant2)
    - L
    - H
    - W
  - Adrenal(Renal Transplant2)
    - L
    - H
    - W
  - Finding 1(Renal Transplant2)
    - L
    - H
    - W
  - Finding 2(Renal Transplant2)
    - L
    - H
    - W
  - Finding 3(Renal Transplant2)
    - L
    - H
    - W
  - Finding 4(Renal Transplant2)
    - L
    - H
    - W
  - Finding 5(Renal Transplant2)
    - L

- H
- W
- Finding 6(Renal Transplant2)
- L
- H
- W
- Renal Transplant 2(2D)
- Cortex(Renal Transplant2)
- Renal V Diam(Renal Transplant2)
- Ureter Diam(Renal Transplant2)
- Kidney(Renal Transplant2)
- L
- H
- W
- Adrenal(Renal Transplant2)
- L
- H
- W
- Finding 1(Renal Transplant2)
- L
- H
- W
- Finding 2(Renal Transplant2)
- L
- H
- W
- Finding 3(Renal Transplant2)
- L
- H
- W
- Finding 4(Renal Transplant2)
- L
- H
- W
- Finding 5(Renal Transplant2)
- L
- H
- W
- Finding 6(Renal Transplant2)
- L
- H
- W
- Bladder

- Pre-BL L
- Pre-BL H
- Pre-BL W
- Post-BL L
- Post-BL H
- Post-BL W
- Smart Bladder
- XS Bladder
- Sag Bladder
- Spleen
- Spleen L
- Spleen H
- Spleen W
- Spleen Area
- Hepatic Lesion1 ElasRatio
- A
- B
- Hepatic Lesion2 ElasRatio
- A
- B
- Hepatic Lesion3 ElasRatio
- A
- B

### D-Mode

- Aorta
- Celiac Axis
- SMA
- C Hepatic A
- Proper Hepatic A
- Hepatic A
- Splenic A
- GDA
- IMA
- Aorta(Post)
- Celiac Axis(Post)
- SMA(Post)
- C Hepatic A(Post)
- Proper Hepatic A(Post)
- Hepatic A(Post)
- Splenic Artery(Post)
- GDA(Post)
- IMA(Post)
- EVAR Residual Aneurysm Sac

- EVAR Inflow
- EVAR Graft Body
- EVAR Limb
- EVAR Outflow
- Aortic Bypass Graft Anast
- Aortic Bypass Graft Graft
- IVC Reflux
- IVC
- Hepatic V
- Lt Hepatic V
- M Hepatic V
- Rt Hepatic V
- Portal V
- M Portal V
- Splenic V
- Renal V
- SMV
- IMV
- Hepatic A Anast(Liver Transplant)
- Hepatic V Anast(Liver Transplant)
- Portal V Anast(Liver Transplant)
- IVC(Liver Transplant)
- Hep V Confl(Liver Transplant)
- Donor IVC(Liver Transplant)
- Renal A
- Ren A Org
- M Renal A
- Renal A1
- Renal A2
- Hilum
- Interlobar A
- Arcuate A
- Segment A
- Artery Anast(Renal Transplant1)
- Artery Anast 2(Renal Transplant1)
- Vein Anast(Renal Transplant1)
- Vein Anast 2(Renal Transplant1)
- Renal A(Renal Transplant1)
- Renal A1(Renal Transplant1)
- Renal A2(Renal Transplant1)
- Hilum(Renal Transplant1)
- Interlobar A(Renal Transplant1)
- Arcuate A(Renal Transplant1)
- Segmental A(Renal Transplant1)
- Renal Vein 1(Renal Transplant1)
- Renal Vein 2(Renal Transplant1)
- Artery Anast(Renal Transplant2)
- Artery Anast 2(Renal Transplant2)
- Vein Anast(Renal Transplant2)
- Vein Anast 2(Renal Transplant2)
- Renal A(Renal Transplant2)
- Renal A1(Renal Transplant2)
- Renal A2(Renal Transplant2)
- Hilum(Renal Transplant2)
- Interlobar A(Renal Transplant2)
- Arcuate A(Renal Transplant2)
- Segmental A(Renal Transplant2)
- Renal Vein 1(Renal Transplant2)
- Renal Vein 2(Renal Transplant2)
- TIPS
- -----
- SMA/Ao
- CA/Ao
- -----
- ABD Stenosis 1
- Pre Sten
- Sten
- Post Sten
- ABD Stenosis 2
- Pre Sten
- Sten
- Post Sten
- ABD Stenosis 3
- Pre Sten
- Sten
- Post Sten
- ABD Stenosis 4
- Pre Sten
- Sten
- Post Sten
- Renal Transplant 1(Doppler)
- Artery Anast(Renal Transplant1)
- Artery Anast 2(Renal Transplant1)
- Vein Anast(Renal Transplant1)
- Vein Anast 2(Renal Transplant1)
- Renal A(Renal Transplant1)

- Renal A1(Renal Transplant1)
- Renal A2(Renal Transplant1)
- Hilum(Renal Transplant1)
- Interlobar A(Renal Transplant1)
- Arcuate A(Renal Transplant1)
- Segmental A(Renal Transplant1)
- Renal Vein 1(Renal Transplant1)
- Renal Vein 2(Renal Transplant1)
- Renal Transplant 2(Doppler)
- Artery Anast(Renal Transplant2)
- Artery Anast 2(Renal Transplant2)
- Vein Anast(Renal Transplant2)
- Vein Anast 2(Renal Transplant2)
- Renal A(Renal Transplant2)
- Renal A1(Renal Transplant2)
- Renal A2(Renal Transplant2)
- Hilum(Renal Transplant2)
- Interlobar A(Renal Transplant2)
- Arcuate A(Renal Transplant2)
- Segmental A(Renal Transplant2)
- Renal Vein 1(Renal Transplant2)
- Renal Vein 2(Renal Transplant2)

- Follicle4 L
- Follicle4 W
- Follicle4 H
- Follicle5 L
- Follicle5 W
- Follicle5 H
- Follicle6 L
- Follicle6 W
- Follicle6 H
- Follicle7 L
- Follicle7 W
- Follicle7 H
- Follicle8 L
- Follicle8 W
- Follicle8 H
- Follicle9 L
- Follicle9 W
- Follicle9 H
- Follicle10 L
- Follicle10 W
- Follicle10 H
- Follicle11 L
- Follicle11 W
- Follicle11 H
- Follicle12 L
- Follicle12 W
- Follicle12 H
- Follicle13 L
- Follicle13 W
- Follicle13 H
- Follicle14 L
- Follicle14 W
- Follicle14 H
- Follicle15 L
- Follicle15 W
- Follicle15 H
- Follicle16 L
- Follicle16 W
- Follicle16 H
- DWT
- BSD(R)
- BSD(Va)
- RVA(R)

### 6.3.2 Gynecology

#### B-Mode

- UT L
- UT H
- UT W
- Endo
- Cervix L
- Cervix H
- Cervix W
- Ovary L
- Ovary H
- Ovary W
- Follicle1 L
- Follicle1 W
- Follicle1 H
- Follicle2 L
- Follicle2 W
- Follicle2 H
- Follicle3 L
- Follicle3 W
- Follicle3 H

- RVA(Va)
- UTA(R)
- UTA(Va)
- URA
- PVA(R)
- PVA(Va)
- PUA(R)
- PUA(Va)
- BPW-SP Dist. (R)
- BPW-SP Dist. (Va)
- Cx-SP Dist. (R)
- Cx-SP Dist. (Va)
- RA-SP Dist. (R)
- RA-SP Dist. (Va)
- Shuttle(R)
- Shuttle(Va)
- Rectocele Depth
- Intus. Depth
- ARA(R)
- ARA(Va)
- ARA(C)
- LH AP Diam(R)
- LH AP Diam(Va)
- LH AP Diam(C)
- LH Lateral Diam(R)
- LH Lateral Diam(Va)
- LH Lateral Diam(C)
- LH Area(R)
- LH Area(Va)
- LH Area(C)
- LA Angle(R)
- LA Angle(Va)
- LA Angle(C)
- LA Thickness(R)
- LA Thickness(Va)
- LA Thickness(C)
- LUG(R)
- LUG(Va)
- LUG(C)
- GYN Lesion1 Strain
- GYN Lesion2 Strain
- GYN Lesion3 Strain
- Lesion1 Elas.
- Lesion2 Elas.
- Lesion3 Elas.
- Fibroid1 Strain
- Fibroid2 Strain
- Fibroid3 Strain
- Fibroid1 Elas.
- Fibroid2 Elas.
- Fibroid3 Elas.
- -----
- UT Vol
- UT SUM
- UT-L/CX-L
- Ovary Vol
- Follicle1
- Follicle2
- Follicle3
- Follicle4
- Follicle5
- Follicle6
- Follicle7
- Follicle8
- Follicle9
- Follicle10
- Follicle11
- Follicle12
- Follicle13
- Follicle14
- Follicle15
- Follicle16
- Mean DWT
- BND
- IAS Damage
- EAS Damage
- -----
- Uterus
- UT L
- UT H
- UT W
- Endo
- Uterine Cervix
- Cervix L
- Cervix H
- Cervix W

- Fibroid 1
  - d1
  - d2
  - d3
- Fibroid 2
  - d1
  - d2
  - d3
- Fibroid 3
  - d1
  - d2
  - d3
- Uterine Finding 1
  - d1
  - d2
  - d3
- Uterine Finding 2
  - d1
  - d2
  - d3
- Uterine Finding 3
  - d1
  - d2
  - d3
- Uterine Finding 4
  - d1
  - d2
  - d3
- Uterine Finding 5
  - d1
  - d2
  - d3
- Uterine Finding 6
  - d1
  - d2
  - d3
- Ovary
  - Ovary L
  - Ovary H
  - Ovary W
- Ovarian Cyst 1
  - d1
  - d2
  - d3
- Ovarian Cyst 2
  - d1
  - d2
  - d3
- Ovarian Cyst 3
  - d1
  - d2
  - d3
- Ovarian Finding 1
  - d1
  - d2
  - d3
- Ovarian Finding 2
  - d1
  - d2
  - d3
- Ovarian Finding 3
  - d1
  - d2
  - d3
- Ovarian Finding 4
  - d1
  - d2
  - d3
- Ovarian Finding 5
  - d1
  - d2
  - d3
- Ovarian Finding 6
  - d1
  - d2
  - d3
- 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
- GYN Lesion 1
- d1
- d2
- d3
- GYN Lesion 2
- d1
- d2
- d3
- GYN Lesion 3
- d1
- d2
- d3
- Residual Urine
- BL Height
- BL Depth
- GYN Lesion1 Strain Ratio
- A
- B
- GYN Lesion2 Strain Ratio
- A
- B
- GYN Lesion3 Strain Ratio
- A
- B
- Lesion1 Elas. Ratio
- A
- B
- Lesion2 Elas. Ratio
- A
- B
- Lesion3 Elas. Ratio
- A

- B
- Fibroid1 Strain Ratio
- A
- B
- Fibroid2 Strain Ratio
- A
- B
- Fibroid3 Strain Ratio
- A
- B
- Fibroid1 Elas. Ratio
- A
- B
- Fibroid2 Elas. Ratio
- A
- B
- Fibroid3 Elas. Ratio
- A
- B

### 6.3.3 Obstetrics

#### B-Mode

- GS
- YSL
- CRL
- NT
- BPD
- OFD
- HC
- AC
- FL
- TAD
- APAD
- TCD
- CM
- IT
- LVW
- HW
- OOD
- IOD
- HUM
- Ulna
- RAD
- Tibia
- FIB
- CLAV
- Vertebrae
- MP
- Foot
- NBL
- Ear
- APTD
- TTD
- FTA
- THD
- HrtC
- TC
- Umb VD
- F-kidney L
- Mat Kidney
- Cervix L
- AF
- NF
- Orbit
- PL Thickness
- Sac Diam1
- Sac Diam2
- Sac Diam3
- AF1
- AF2
- AF3
- AF4
- LVIDd
- LVIDs
- LV Diam
- LA Diam
- RVIDd
- RVIDs
- RV Diam
- RA Diam
- IVSd
- IVSs
- IVS
- LV Area
- LA Area
- RV Area
- RA Area

- Ao Diam
- MPA Diam
- LVOT Diam
- LVOT Area
- RVOT Diam
- Facial Angle
- HrtA
- MV Diam(Z-Score)
- PV Diam(Z-Score)
- Ao Asc Diam(Z-Score)
- Ao Desc Diam(Z-Score)
- Duct Art Diam(Z-Score)
- TV Diam(Z-Score)
- LPA Diam(Z-Score)
- RPA Diam(Z-Score)
- IVC Diam(Z-Score)
- AV Diam(Z-Score)
- MPA Diam(Z-Score)
- RV Diam(Z-Score)
- LV Diam(Z-Score)
- RV Area(Z-Score)
- LV Area(Z-Score)
- RVIDd(Z-Score)
- LVIDd(Z-Score)
- UT L
- UT H
- UT W
- Endo
- AH
- PH
- 3th Ventricle
- NT Above Cord
- NT Below Cord
- Mandible
- Prenasal th
- Heart AP
- Heart T
- LV Width
- LV Length
- RV Width
- RV Length
- LA Width
- RA Width
- LVWd
- LVWs
- RVWd
- RVWs
- AV Diam
- AV Area
- PV Area
- F-kidney H
- F-kidney W
- Lung
- Stomach
- YS H
- YS W
- Amniotic Sac L
- Amniotic Sac H
- Amniotic Sac W
- Ovary Cyst L
- Ovary Cyst H
- Ovary Cyst W
- UT AW
- UT PW
- CSP
- FMF
- MMF
- Lung CCAM L
- Lung CCAM H
- Lung CCAM W
- AD
- Lliac Wing Angle
- FAGL
- FAG
- Intestinum Crassum
- Liver Length
- Rib Length
- Shoulder Blade
- -----
- MAD
- Mean Sac Diam
- AFI
- EFW
- EFW2
- HC/AC(Campbell)
- FL/AC

- FL/BPD
- AXT
- CI
- FL/HC(Hadlock)
- AC(c)
- HC(c)
- HrtC/TC
- TCD/AC
- LVW/HW
- LVD/RVD
- LAD/RAD
- AoD/MPAD
- LAD/AoD
- UT Vol
- UT SUM
- UT-L/CX-L
- -----
- AFI
- AF1
- AF2
- AF3
- AF4
- Uterus
- UT L
- UT H
- UT W
- Endo

### **M-Mode**

- FHR (M)
- LVIDd
- LVIDs
- RVIDd
- RVIDs
- IVSd
- IVSs
- RVIDd(Z-Score)
- LVIDd(Z-Score)
- MVE
- TVE
- AVE
- MAPSE
- TAPSE
- LV ICT

- LV IRT
- LV ET
- RV ICT
- RV IRT
- RV ET

### **D-Mode**

- Umb A
- Duct Veno
- Placenta A
- MCA
- Fetal Ao
- Desc Aorta
- Ut A
- Ovarian A
- FHR (Doppler)
- Asc Aorta
- RVOT
- LVOT
- MV E
- MV A
- TV E
- TV A
- MV E'
- MV A'
- MV S'
- TV E'
- TV A'
- TV S'
- AV PV
- AV VTI
- PV PV
- PV VTI
- Duct Art PV
- Duct Art VTI
- AV TPV
- PV TPV
- Duct Art TPV
- Thoracic Aorta
- Hepatic Vein
- IVC
- Umb V
- Ovary
- Endometrium

- Cervical Cancer
- Fibroid
- Duct Art
- ICA
- Celiac A
- -----
- MV E/A
- TV E/A
- MV E/E'
- TV E/E'

### 6.3.4 Cardiology

#### B-Mode

- RVAWd(2D)
- RVAWs(2D)
- RVDd(2D)
- RVDs(2D)
- IVSd(2D)
- IVSs(2D)
- LVIDd(2D)
- LVIDs(2D)
- LVPWd(2D)
- LVPWs(2D)
- Diastole(2D)
- Systole(2D)
- LVLd apical
- LVLs apical
- LVAd apical
- LVAs apical
- LVAd sax MV
- LVAs sax MV
- LVAd sax Endo
- LVAd sax Epi
- LV Major
- LV Minor
- LV Area(d)
- LV Area(s)
- HR(2D)
- RA Major
- RA Minor
- RA Area
- RA Vol(A4C)
- RAP
- RV Area(d)
- RV Area(s)
- RV Major
- RV Minor
- LA Diam(2D)
- LA Major
- LA Minor
- LA Area
- LVOT Diam
- Ao Diam(2D)
- ACS(2D)
- AV Diam
- Ao Isthmus(2D)
- Ao Sinus Diam(2D)
- Ao st junct(2D)
- AVA
- Ao Arch Diam(2D)
- Ao Asc Diam(2D)
- Ao Desc Diam(2D)
- Duct Art Diam
- Post Ductal
- Pre Ductal
- MCS(2D)
- MV Diam
- MV EPSS(2D)
- MVA
- TV Diam
- TVA
- PV Diam
- RVOT Diam
- MPA Diam(2D)
- RPA Diam(2D)
- LPA Diam(2D)
- IVC Diam(Expir)
- IVC Diam(Insp)
- SVC Diam(Expir)
- SVC Diam(Insp)
- LCA Diam
- RCA Diam
- PEd(2D)
- PEs(2D)
- VSD Diam
- ASD Diam
- PDA Diam

- PFO Diam
- AutoEF
- -----
- LA/Ao(2D)
- -----
- LV(2D)
- Diastole(2D)
- Systole(2D)
- IVSd(2D)
- LVIDd(2D)
- LVPWd(2D)
- IVSs(2D)
- LVIDs(2D)
- LVPWs(2D)
- HR(2D)
- Simpson
- A4Cd
- A4Cs
- A2Cd
- A2Cs
- HR(2D)
- Mod.Simpson
- LVLd apical
- LVLs apical
- LVAd sax MV
- LVAs sax MV
- LVAd sax PM
- LVAs sax PM
- HR(2D)
- S-P Ellipse
- LVLd apical
- LVAd apical
- LVLs apical
- LVAs apical
- HR(2D)
- B-P Ellipse
- LVIDd(2D)
- LVAd sax MV
- LVIDs(2D)
- LVAs sax MV
- LVAd apical
- LVAs apical
- HR(2D)
- Bullet
- LVLd apical
- LVLs apical
- LVAd sax MV
- LVAs sax MV
- HR(2D)
- LV Mass(Cube-2D)
- IVSd(2D)
- LVIDd(2D)
- LVPWd(2D)
- LV Mass(A-L)
- LVLd apical
- LVAd sax Epi
- LVAd sax Endo
- LV Mass(T-E)
- LVAd sax Epi
- LVAd sax Endo
- a
- d
- LA Vol(Simp)
- LA Vol(A2C)
- LA Vol(A4C)
- LA Vol(A-L)
- LA apical
- LAA(A2C)
- LAA(A4C)
- MVA(VTI)
- LVOT Diam
- LVOT VTI
- MV VTI
- AVA(VTI)
- LVOT Diam
- LVOT VTI
- AV VTI
- CO(LVOT)
- LVOT Diam
- LVOT VTI
- AV HR
- CO(RVOT)
- RVOT Diam
- RVOT VTI
- PV HR
- CO(MV)

- MV Diam
- MV VTI
- MV HR
- CO(TV)
- TV Diam
- TV VTI
- TV HR
- PISA MR
- MR Rad
- MR Als Vel
- MR VTI
- PISA AR
- AR Rad
- AR Als Vel
- AR VTI
- PISA TR
- TR Rad
- TR Als Vel
- TR VTI
- PISA PR
- PR Rad
- PR Als Vel
- PR VTI
- Qp/Qs
- LVOT Diam
- LVOT VTI
- RVOT Diam
- RVOT VTI
- Z-Scores ( 3Y) (2D)
- AV Diam
- Ao Sinus Diam
- Ao st junct
- PV Diam
- Ao Arch IA-LCA
- Ao Arch LCA-LSA
- Ao Arch after LSA
- Ao Isthmus
- Thoracic Ao Diam
- IVC Diam
- MV Diam
- TV Diam
- MPA Diam
- RPA Diam
- LPA Diam
- Z-Scores (<18Y) (2D)
- LV Area(d) A4C
- LV Area(s) A4C
- LVIDd A4C(2D)
- LVIDs A4C(2D)
- LA AP Diam A4C
- LA LL Diam A4C
- LA Area A4C
- RA AP Diam A4C
- RA LL Diam A4C
- RA Area A4C
- RV Area(d) A4C
- RV Area(s) A4C
- RVd Major A4C
- RVs Major A4C
- RVd Minor (basal) A4C
- RVd Minor (midcavity) A4C
- LV Area(d) A2C
- LV Area(s) A2C
- LVIDd A2C(2D)
- LVIDs A2C(2D)

### **M-Mode**

- RVAWd(M)
- RVAWs(M)
- RVDd(M)
- RVDs(M)
- Ao Arch Diam(M)
- Ao Asc Diam(M)
- Ao Desc Diam(M)
- Ao Diam(M)
- Ao Isthmus(M)
- Ao Sinus Diam(M)
- Ao st junct(M)
- ACS(M)
- HR(M)
- IVSd(M)
- IVSs(M)
- LA Diam(M)
- LPA Diam(M)
- Diastole(M)
- Systole(M)
- LVET(M)

- LVIDd(M)
- LVIDs(M)
- LVOT Diam
- LVPEP(M)
- LVPWd(M)
- LVPWs(M)
- MCS(M)
- MPA Diam(M)
- MV A Amp
- MV E Amp
- MV D-E Slope
- MV D-E Amp
- MV E-F Slope
- MV EPSS(M)
- PEd(M)
- PEs(M)
- RPA Diam(M)
- RVET(M)
- RVOT Diam
- RVPEP(M)
- MAPSE
- TAPSE
- MV ALL
- IVC Diam(Insp)(M)
- IVC Diam(Expir)(M)
- SVC Diam(Insp)(M)
- SVC Diam(Expir)(M)
- -----
- LA/Ao(M)
- -----
- LV(M)
  - Diastole(M)
  - Systole(M)
  - IVSd(M)
  - LVIDd(M)
  - LVPWd(M)
  - IVSs(M)
  - LVIDs(M)
  - LVPWs(M)
  - HR(M)
  - LV Mass(Cube-M)
  - IVSd(M)
  - LVIDd(M)

- LVPWd(M)
- LV Tei Index(M)
- MV C-O dur(M)
- LVET(M)
- Z-Scores ( 3Y) (M)
- IVSd(M)
- LVPWd(M)
- Z-Scores (<18Y) (M)
- LVIDd(M)
- LVIDs(M)

### D-Mode

- MV A'(lateral)
- MV A'(medial)
- AAO Vmax
- AV VTI
- AV HR
- AV Vmax
- AR DecT
- AR Time
- AR PHT
- AR Ved
- AR Vmax
- AR VTI
- MV AR'(lateral)
- MV AR'(medial)
- ASD Vmax
- AV AccT
- AV DecT
- Coarc Post-Duct
- Coarc Pre-Duct
- DAo Vmax
- MV DR'(lateral)
- MV DR'(medial)
- MV E' Lateral Vel
- MV E' Septal Vel
- IVC Vel(Expir)
- IVC Vel(Insp)
- IVCT
- LPA Vmax
- LVET(Doppler)
- LVOT AccT
- LVOT VTI
- LVOT Vmax

- LVPEP(Doppler)
- MPA Vmax
- dP/dt
- Tau(BAI)
- MR VTI
- MR Vmax
- MS Vmax
- MV A Dur
- MV A Vel
- MV A VTI
- MV AccT
- MV DecT
- MV E Dur
- MV E Vel
- MV E VTI
- IVRT
- MV VTI
- MV HR
- MV Vmax
- PVein A Dur
- PVein A Vel
- PVein D Vel
- PVein D VTI
- PVein DecT
- PVein S Vel
- PVein S VTI
- PDA Vel(d)
- PDA Vel(s)
- PR PHT
- PR VTI
- PR Ved
- PR Vmax
- PR DecT
- PV AccT
- PV VTI
- PV HR
- PV Vmax
- RAP
- RPA Vmax
- RVET(Doppler)
- RVOT Vmax
- RVOT VTI
- RVPEP(Doppler)
- MV S'(lateral)
- MV S'(medial)
- SVC Vel(Expir)
- SVC Vel(Insp)
- TR VTI
- TR Vmax
- TV A Dur
- TV A Vel
- TV AccT
- TV DecT
- TV E Vel
- TV VTI
- TV HR
- TV Vmax
- VSD Vmax
- Hepatic V S Vel
- Hepatic V D Vel
- -----
- MV E/A
- MVA(PHT)
- TV E/A
- TVA(PHT)
- -----
- LV Tei Index(Doppler)
- MV C-O dur(Doppler)
- LVET(Doppler)
- RVSP
- TR Vmax
- RAP
- PAEDP
- PR Ved
- RAP
- MVA(VTI)
- LVOT Diam
- LVOT VTI
- MV VTI
- AVA(VTI)
- LVOT Diam
- LVOT VTI
- AV VTI
- CO(LVOT)
- LVOT Diam
- LVOT VTI

- AV HR
- CO(RVOT)
- RVOT Diam
- RVOT VTI
- PV HR
- CO(MV)
- MV Diam
- MV VTI
- MV HR
- CO(TV)
- TV Diam
- TV VTI
- TV HR
- RV Tei Index
- TV C-O dur
- RVET(Doppler)
- PISA MR
- MR Rad
- MR Als Vel
- MR VTI
- PISA AR
- AR Rad
- AR Als Vel
- AR VTI
- PISA TR
- TR Rad
- TR Als Vel
- TR VTI
- PISA PR
- PR Rad
- PR Als Vel
- PR VTI
- Qp/Qs
- LVOT Diam
- LVOT VTI
- RVOT Diam
- RVOT VTI
- Adrenal L
- Adrenal H
- Adrenal W
- Ureter
- Cortex(Renal Transplant1)
- Renal V Diam(Renal Transplant1)
- Ureter Diam(Renal Transplant1)
- Cortex(Renal Transplant2)
- Renal V Diam(Renal Transplant2)
- Ureter Diam(Renal Transplant2)
- Prostate L
- Prostate H
- Prostate W
- Seminal L
- Seminal H
- Seminal W
- Urethra
- Pre-BL L
- Pre-BL H
- Pre-BL W
- Post-BL L
- Post-BL H
- Post-BL W
- Smart Bladder Dual
- Testicular L
- Testicular H
- Testicular W
- Epididymis L
- Epididymis H
- Epididymis W
- Scrotal Wall
- Testis V(2D)
- Testis V(Valsalva 2D)
- Prostate Mass1 Strain
- Prostate Mass2 Strain
- Prostate Mass3 Strain
- Prostate Mass1 Elas.
- Prostate Mass2 Elas.
- Prostate Mass3 Elas.
- -----
- Renal Vol
- Prostate Vol
- Pre-BL Vol

### 6.3.5 Urology

#### B-Mode

- Renal L
- Renal H
- Renal W
- Cortex

- Post-BL Vol
- Mictur.Vol
- Testicular Vol
- -----
- Kidney
  - Renal L
  - Renal H
  - Renal W
  - Cortex
- Adrenal
  - Adrenal L
  - Adrenal H
  - Adrenal W
- Renal Lesion 1
  - d1
  - d2
  - d3
- Renal Lesion 2
  - d1
  - d2
  - d3
- Renal Lesion 3
  - d1
  - d2
  - d3
- Renal Cyst 1
  - d1
  - d2
  - d3
- Renal Cyst 2
  - d1
  - d2
  - d3
- Renal Cyst 3
  - d1
  - d2
  - d3
- Kidney(Superior)
  - H
  - W
- Kidney(Mid)
  - H
  - W
- Kidney(Inferior)
  - H
  - W
- Renal A
  - Long
  - Anterior-Posterior
  - Transverse
- Renal A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Kidney(Renal Transplant1)
  - L
  - H
  - W
- Adrenal(Renal Transplant1)
  - L
  - H
  - W
- Finding 1(Renal Transplant1)
  - L
  - H
  - W
- Finding 2(Renal Transplant1)
  - L
  - H
  - W
- Finding 3(Renal Transplant1)
  - L
  - H
  - W
- Finding 4(Renal Transplant1)
  - L
  - H
  - W
- Finding 5(Renal Transplant1)
  - L
  - H
  - W
- Finding 6(Renal Transplant1)
  - L
  - H
  - W

- Renal Transplant 1(2D)
  - Cortex(Renal Transplant1)
  - Renal V Diam(Renal Transplant1)
  - Ureter Diam(Renal Transplant1)
  - Kidney(Renal Transplant1)
    - L
    - H
    - W
  - Adrenal(Renal Transplant1)
    - L
    - H
    - W
  - Finding 1(Renal Transplant1)
    - L
    - H
    - W
  - Finding 2(Renal Transplant1)
    - L
    - H
    - W
  - Finding 3(Renal Transplant1)
    - L
    - H
    - W
  - Finding 4(Renal Transplant1)
    - L
    - H
    - W
  - Finding 5(Renal Transplant1)
    - L
    - H
    - W
  - Finding 6(Renal Transplant1)
    - L
    - H
    - W
  - Kidney(Renal Transplant2)
    - L
    - H
    - W
  - Adrenal(Renal Transplant2)
    - L
    - H
- W
  - Finding 1(Renal Transplant2)
    - L
    - H
    - W
  - Finding 2(Renal Transplant2)
    - L
    - H
    - W
  - Finding 3(Renal Transplant2)
    - L
    - H
    - W
  - Finding 4(Renal Transplant2)
    - L
    - H
    - W
  - Finding 5(Renal Transplant2)
    - L
    - H
    - W
  - Finding 6(Renal Transplant2)
    - L
    - H
    - W
  - Renal Transplant 2(2D)
    - Cortex(Renal Transplant2)
    - Renal V Diam(Renal Transplant2)
    - Ureter Diam(Renal Transplant2)
    - Kidney(Renal Transplant2)
      - L
      - H
      - W
    - Adrenal(Renal Transplant2)
      - L
      - H
      - W
    - Finding 1(Renal Transplant2)
      - L
      - H
      - W
    - Finding 2(Renal Transplant2)
      - L

- H
- W
- Finding 3(Renal Transplant2)
- L
- H
- W
- Finding 4(Renal Transplant2)
- L
- H
- W
- Finding 5(Renal Transplant2)
- L
- H
- W
- Finding 6(Renal Transplant2)
- L
- H
- W
- Prostate
- Prostate L
- Prostate H
- Prostate W
- Prostate2
- Long
- Anterior-Posterior
- Coronal
- Seminal Vesicle
- Seminal L
- Seminal H
- Seminal W
- Prostate Mass 1
- d1
- d2
- d3
- Prostate Mass 2
- d1
- d2
- d3
- Prostate Mass 3
- d1
- d2
- d3
- Bladder
- Pre-BL L
- Pre-BL H
- Pre-BL W
- Post-BL L
- Post-BL H
- Post-BL W
- Smart Bladder
- XS Bladder
- Sag Bladder
- Testis
- Testicular L
- Testicular H
- Testicular W
- Testis Mass 1
- d1
- d2
- d3
- Testis Mass 2
- d1
- d2
- d3
- Testis Mass 3
- d1
- d2
- d3
- Epididymis
- Epididymis L
- Epididymis H
- Epididymis W
- Testicle(Superior)
- H
- W
- Testicle(Mid)
- H
- W
- Testicle(Inferior)
- H
- W
- Epididymal Head
- L
- H
- W
- Epididymal Body

- L
- H
- W
- Epididymal Tail
- L
- H
- W
- Prostate Mass1 Strain Ratio
- A
- B
- Prostate Mass2 Strain Ratio
- A
- B
- Prostate Mass3 Strain Ratio
- A
- B
- Prostate Mass1 Elas. Ratio
- A
- B
- Prostate Mass2 Elas. Ratio
- A
- B
- Prostate Mass3 Elas. Ratio
- A
- B
- Interlobar A(Renal Transplant1)
- Arcuate A(Renal Transplant1)
- Segmental A(Renal Transplant1)
- Renal Vein 1(Renal Transplant1)
- Renal Vein 2(Renal Transplant1)
- Artery Anast(Renal Transplant2)
- Artery Anast 2(Renal Transplant2)
- Vein Anast(Renal Transplant2)
- Vein Anast 2(Renal Transplant2)
- Renal A(Renal Transplant2)
- Renal A1(Renal Transplant2)
- Renal A2(Renal Transplant2)
- Hilum(Renal Transplant2)
- Interlobar A(Renal Transplant2)
- Arcuate A(Renal Transplant2)
- Segmental A(Renal Transplant2)
- Renal Vein 1(Renal Transplant2)
- Renal Vein 2(Renal Transplant2)
- Testis A
- Testis V
- Testis V(Valsalva)
- Epididymis A
- Epididymis V
- -----
- Renal Transplant 1(Doppler)
- Artery Anast(Renal Transplant1)
- Artery Anast 2(Renal Transplant1)
- Vein Anast(Renal Transplant1)
- Vein Anast 2(Renal Transplant1)
- Renal A(Renal Transplant1)
- Renal A1(Renal Transplant1)
- Renal A2(Renal Transplant1)
- Hilum(Renal Transplant1)
- Interlobar A(Renal Transplant1)
- Arcuate A(Renal Transplant1)
- Segmental A(Renal Transplant1)
- Renal Vein 1(Renal Transplant1)
- Renal Vein 2(Renal Transplant1)
- Renal Transplant 2(Doppler)
- Artery Anast(Renal Transplant2)
- Artery Anast 2(Renal Transplant2)
- Vein Anast(Renal Transplant2)
- Vein Anast 2(Renal Transplant2)

## D-Mode

- Renal A
- Ren A Org
- M Renal A
- Renal A1
- Renal A2
- Hilum
- Interlobar A
- Arcuate A
- Segment A
- Artery Anast(Renal Transplant1)
- Artery Anast 2(Renal Transplant1)
- Vein Anast(Renal Transplant1)
- Vein Anast 2(Renal Transplant1)
- Renal A(Renal Transplant1)
- Renal A1(Renal Transplant1)
- Renal A2(Renal Transplant1)
- Hilum(Renal Transplant1)
- Interlobar A(Renal Transplant1)
- Arcuate A(Renal Transplant1)
- Segmental A(Renal Transplant1)
- Renal Vein 1(Renal Transplant1)
- Renal Vein 2(Renal Transplant1)
- Renal Transplant 2(Doppler)
- Artery Anast(Renal Transplant2)
- Artery Anast 2(Renal Transplant2)
- Vein Anast(Renal Transplant2)
- Vein Anast 2(Renal Transplant2)

- Renal A(Renal Transplant2)
- Renal A1(Renal Transplant2)
- Renal A2(Renal Transplant2)
- Hilum(Renal Transplant2)
- Interlobar A(Renal Transplant2)
- Arcuate A(Renal Transplant2)
- Segmental A(Renal Transplant2)
- Renal Vein 1(Renal Transplant2)
- Renal Vein 2(Renal Transplant2)

### 6.3.6 Vascular B-Mode

- CCA IMT
- Bulb IMT
- ICA IMT
- ECA IMT
- -----
- IMT
  - CCA IMT
  - Bulb IMT
  - ICA IMT
  - ECA IMT
- CCA
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Bulb
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Carotid Bifurcation
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- ICA
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- ECA
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Vert A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Subclav A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Innom A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Mammary A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- CCA Aneurysm
  - Long

- Anterior-Posterior
- Transverse
- Bulb Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Bifurcation Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- ICA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- ECA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Vert A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Subclav A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Innom A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Mammary A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Graft 1 Anast
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Graft 1 Graft
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Graft 2 Anast
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Graft 2 Graft
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Graft 3 Anast
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Graft 3 Graft
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Stent 1
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Stent 2
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Stent 3
  - Long
  - Anterior-Posterior
  - Transverse
- Carotid Stenosis 1
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Carotid Stenosis 2
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Carotid Stenosis 3
  - Anterior-Posterior

- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- Carotid Stenosis 4
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- Axill A
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- Brachial A
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- Radial A
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- Ulnar A
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- Axill A Aneurysm
- Long
- Anterior-Posterior

- Transverse
- Brachial A Aneurysm
- Long
- Anterior-Posterior
- Transverse
- Radial A Aneurysm
- Long
- Anterior-Posterior
- Transverse
- Ulnar A Aneurysm
- Long
- Anterior-Posterior
- Transverse
- UE A Graft 1 Native Inflow
- Anterior-Posterior
- Transverse
- UE A Graft 1 Anast
- Anterior-Posterior
- Transverse
- UE A Graft 1 Graft
- Anterior-Posterior
- Transverse
- UE A Graft 1 Native Outflow
- Anterior-Posterior
- Transverse
- UE A Graft 2 Native Inflow
- Anterior-Posterior
- Transverse
- UE A Graft 2 Anast
- Anterior-Posterior
- Transverse
- UE A Graft 2 Graft
- Anterior-Posterior
- Transverse
- UE A Graft 2 Native Outflow
- Anterior-Posterior
- Transverse
- UE A Graft 3 Native Inflow
- Anterior-Posterior
- Transverse
- UE A Graft 3 Anast
- Anterior-Posterior
- Transverse

- UE A Graft 3 Graft
  - Anterior-Posterior
  - Transverse
- UE A Graft 3 Native Outflow
  - Anterior-Posterior
  - Transverse
- UE A Stent 1
  - Long
  - Anterior-Posterior
  - Transverse
- UE A Stent 2
  - Long
  - Anterior-Posterior
  - Transverse
- UE A Stent 3
  - Long
  - Anterior-Posterior
  - Transverse
- UE A Stenosis 1(2D)
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- UE A Stenosis 2(2D)
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- UE A Stenosis 3(2D)
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- UE A Stenosis 4(2D)
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- C.Iliac A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Ex.Iliac A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- IIA
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- CFA
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- DFA
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- SFA
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter

- Outer Area
- Inner Area
- Pop A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- TP Trunk A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- A.Tib A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Peroneal A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- P.Tib A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
  - Inner Area
- Dors.Ped. A
  - Anterior-Posterior
  - Transverse
  - Outer Diameter
  - Inner Diameter
  - Outer Area
- Inner Area
- C.Iliac A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Ex.Iliac A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- IIA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- CFA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- DFA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- SFA Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Pop A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- TP Trunk A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- A.Tib A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- Peroneal A Aneurysm
  - Long
  - Anterior-Posterior
  - Transverse
- P.Tib A Aneurysm
  - Long

- Anterior-Posterior
- Transverse
- Dors.Ped. A Aneurysm
- Long
- Anterior-Posterior
- Transverse
- LE A Graft 1 Native Inflow
- Anterior-Posterior
- Transverse
- LE A Graft 1 Anast
- Anterior-Posterior
- Transverse
- LE A Graft 1 Graft
- Anterior-Posterior
- Transverse
- LE A Graft 1 Native Outflow
- Anterior-Posterior
- Transverse
- LE A Graft 2 Native Inflow
- Anterior-Posterior
- Transverse
- LE A Graft 2 Anast
- Anterior-Posterior
- Transverse
- LE A Graft 2 Graft
- Anterior-Posterior
- Transverse
- LE A Graft 2 Native Outflow
- Anterior-Posterior
- Transverse
- LE A Graft 3 Native Inflow
- Anterior-Posterior
- Transverse
- LE A Graft 3 Anast
- Anterior-Posterior
- Transverse
- LE A Graft 3 Graft
- Anterior-Posterior
- Transverse
- LE A Graft 3 Native Outflow
- Anterior-Posterior
- Transverse
- LE A Stent 1
- Long
- Anterior-Posterior
- Transverse
- LE A Stent 2
- Long
- Anterior-Posterior
- Transverse
- LE A Stent 3
- Long
- Anterior-Posterior
- Transverse
- LE A Stenosis 1(2D)
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- LE A Stenosis 2(2D)
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- LE A Stenosis 3(2D)
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- LE A Stenosis 4(2D)
- Anterior-Posterior
- Transverse
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- LE A Finding 1
- Long
- Anterior-Posterior
- Transverse

- LE A Finding 2
  - Long
  - Anterior-Posterior
  - Transverse
- LE A Finding 3
  - Long
  - Anterior-Posterior
  - Transverse
- LE A Finding 4
  - Long
  - Anterior-Posterior
  - Transverse
- LE A Finding 5
  - Long
  - Anterior-Posterior
  - Transverse
- LE A Finding 6
  - Long
  - Anterior-Posterior
  - Transverse
- Int Jug V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Innom V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Subclav V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Ax V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Brachial V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Radial V
  - Anterior-Posterior
  - Transverse
- Checklist
- Ulnar V
  - Anterior-Posterior
  - Transverse
- Checklist
- Volar V
  - Anterior-Posterior
  - Transverse
- Checklist
- Cephalic V
  - Anterior-Posterior
  - Transverse
- Checklist
- Basilic V
  - Anterior-Posterior
  - Transverse
- Checklist
- CA Junction
  - Anterior-Posterior
  - Transverse
- Checklist
- Upper Arm Cephalic V
  - Anterior-Posterior
  - Transverse
- Checklist
- Cephalic-Antecubital V
  - Anterior-Posterior
  - Transverse
- Checklist
- Forearm Cephalic V
  - Anterior-Posterior
  - Transverse
- Checklist
- BA Junction
  - Anterior-Posterior
  - Transverse
- Checklist
- Upper Arm Basilic V
  - Anterior-Posterior
  - Transverse
- Checklist
- Basilic-Antecubital V
  - Anterior-Posterior

- Transverse
- Checklist
- Forearm Basilic V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Digital V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Median Cubital V
  - Anterior-Posterior
  - Transverse
  - Checklist
- AVF-Inflow Artery
  - Anterior-Posterior
  - Transverse
- AVF-Anast
  - Anterior-Posterior
  - Transverse
- AVF-Outflow Vein Level 1
  - Anterior-Posterior
  - Transverse
- AVF-Outflow Vein Level 2
  - Anterior-Posterior
  - Transverse
- AVF-Outflow Vein Level 3
  - Anterior-Posterior
  - Transverse
- AVF-Outflow Vein Level 4
  - Anterior-Posterior
  - Transverse
- AVF-Outflow Vein Level 5
  - Anterior-Posterior
  - Transverse
- AVF-Outflow Vein Level 6
  - Anterior-Posterior
  - Transverse
- AVF-Stenosis 1
  - Anterior-Posterior
  - Transverse
- AVF-Stenosis 2
  - Anterior-Posterior
- Transverse
- AVF-Stenosis 3
  - Anterior-Posterior
  - Transverse
- AVF-Aneurysm 1
  - Anterior-Posterior
  - Transverse
- AVF-Aneurysm 2
  - Anterior-Posterior
  - Transverse
- AVF-Aneurysm 3
  - Anterior-Posterior
  - Transverse
- AV Graft-Inflow Artery
  - Anterior-Posterior
  - Transverse
- AV Graft-Arterial Anast
  - Anterior-Posterior
  - Transverse
- AV Graft-Graft
  - Anterior-Posterior
  - Transverse
- AV Graft-Venous Anast
  - Anterior-Posterior
  - Transverse
- AV Graft-Outflow Vein Level 1
  - Anterior-Posterior
  - Transverse
- AV Graft-Outflow Vein Level 2
  - Anterior-Posterior
  - Transverse
- AV Graft-Outflow Vein Level 3
  - Anterior-Posterior
  - Transverse
- AV Graft-Outflow Vein Level 4
  - Anterior-Posterior
  - Transverse
- AV Graft-Outflow Vein Level 5
  - Anterior-Posterior
  - Transverse
- AV Graft-Outflow Vein Level 6
  - Anterior-Posterior
  - Transverse

- C.Iliac V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Ex.Iliac V
  - Anterior-Posterior
  - Transverse
  - Checklist
- IIV
  - Anterior-Posterior
  - Transverse
  - Checklist
- CFV
  - Anterior-Posterior
  - Transverse
  - Checklist
- Femoral V
  - Anterior-Posterior
  - Transverse
  - Checklist
- DFV
  - Anterior-Posterior
  - Transverse
  - Checklist
- Pop V
  - Anterior-Posterior
  - Transverse
  - Checklist
- P.Tib V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Peroneal V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Sural V
  - Anterior-Posterior
  - Transverse
  - Checklist
- Soleal V
  - Anterior-Posterior
  - Transverse
- Checklist
  - A.Tib V
    - Anterior-Posterior
    - Transverse
    - Checklist
  - TP Trunk V
    - Anterior-Posterior
    - Transverse
    - Checklist
  - Saph V
    - Anterior-Posterior
    - Transverse
    - Checklist
  - SSV
    - Anterior-Posterior
    - Transverse
    - Checklist
  - SF Junction
    - Anterior-Posterior
    - Transverse
    - Checklist
  - GSV Thigh
    - Anterior-Posterior
    - Transverse
    - Checklist
  - GSV Knee
    - Anterior-Posterior
    - Transverse
    - Checklist
  - GSV Calf
    - Anterior-Posterior
    - Transverse
    - Checklist
  - SP Junction
    - Anterior-Posterior
    - Transverse
    - Checklist
  - SSV Thigh Extension
    - Anterior-Posterior
    - Transverse
    - Checklist
  - AASV
    - Anterior-Posterior

- Transverse
- Checklist
- PASV
- Anterior-Posterior
- Transverse
- Checklist
- Thigh Perf
- Anterior-Posterior
- Transverse
- Checklist
- Prox Calf Perf
- Anterior-Posterior
- Transverse
- Checklist
- Mid Calf Perf
- Anterior-Posterior
- Transverse
- Checklist
- Dist Calf Perf
- Anterior-Posterior
- Transverse
- Checklist
- Pseudoaneurysm
- Long
- Anterior-Posterior
- Transverse
- Neck
- Ba V
- CCA
- ICA
- ECA
- Bulb
- Carotid Bifurcation
- Vert A
- Subclav A
- Innom A
- Mammary A
- Subclav V
- CCA Aneurysm
- ICA Aneurysm
- ECA Aneurysm
- Bulb Aneurysm
- Carotid Bifurcation Aneurysm
- Vert A Aneurysm
- Subclav A Aneurysm
- Innom A Aneurysm
- Mammary A Aneurysm
- Carotid Graft 1 Native Inflow
- Carotid Graft 1 Anast Pre
- Carotid Graft 1 Anast Max
- Carotid Graft 1 Anast Post
- Carotid Graft 1 Graft
- Carotid Graft 1 Native Outflow
- Carotid Graft 2 Native Inflow
- Carotid Graft 2 Anast Pre
- Carotid Graft 2 Anast Max
- Carotid Graft 2 Anast Post
- Carotid Graft 2 Graft
- Carotid Graft 2 Native Outflow
- Carotid Graft 3 Native Inflow
- Carotid Graft 3 Anast Pre
- Carotid Graft 3 Anast Max
- Carotid Graft 3 Anast Post
- Carotid Graft 3 Graft
- Carotid Graft 3 Native Outflow
- Carotid Stent 1
- Carotid Stent 2
- Carotid Stent 3
- Axill A
- Brachial A

## D-Mode

- ACA
- A1 ACA
- MCA
- M1 MCA
- M2 MCA
- AComA
- Terminal ICA
- PComA
- PCA
- P1 PCA
- P2 PCA
- Ophthalmic A
- ICA Siphon
- Terminal Vert A
- BA

- Ulnar A
- Radial A
- UE A Graft 1 Native Inflow
- UE A Graft 1 Anast
- UE A Graft 1 Graft
- UE A Graft 1 Native Outflow
- UE A Graft 2 Native Inflow
- UE A Graft 2 Anast
- UE A Graft 2 Graft
- UE A Graft 2 Native Outflow
- UE A Graft 3 Native Inflow
- UE A Graft 3 Anast
- UE A Graft 3 Graft
- UE A Graft 3 Native Outflow
- UE A Stent 1
- UE A Stent 2
- UE A Stent 3
- C.Iliac A
- Ex.Iliac A
- IIA
- CFA
- DFA
- SFA
- Pop A
- TP Trunk A
- A.Tib A
- Peroneal A
- P.Tib A
- Dors.Ped. A
- LE A Graft 1 Native Inflow
- LE A Graft 1 Anast Pre
- LE A Graft 1 Anast Max
- LE A Graft 1 Anast Post
- LE A Graft 1 Graft
- LE A Graft 1 Native Outflow
- LE A Graft 2 Native Inflow
- LE A Graft 2 Anast Pre
- LE A Graft 2 Anast Max
- LE A Graft 2 Anast Post
- LE A Graft 2 Graft
- LE A Graft 2 Native Outflow
- LE A Graft 3 Native Inflow
- LE A Graft 3 Anast Pre
- LE A Graft 3 Anast Max
- LE A Graft 3 Anast Post
- LE A Graft 3 Graft
- LE A Graft 3 Native Outflow
- LE A Stent 1
- LE A Stent 2
- LE A Stent 3
- Axill V
- Brachial V
- Radial V
- Ulnar V
- Cephalic V
- Basilic V
- AVF-Inflow Artery
- AVF-Anast
- AVF-Outflow Vein Level 1
- AVF-Outflow Vein Level 2
- AVF-Outflow Vein Level 3
- AVF-Outflow Vein Level 4
- AVF-Outflow Vein Level 5
- AVF-Outflow Vein Level 6
- AVF-Stenosis 1
- AVF-Stenosis 2
- AVF-Stenosis 3
- AV Graft-Inflow Artery
- AV Graft-Arterial Anast
- AV Graft-Graft
- AV Graft-Venous Anast
- AV Graft-Outflow Vein Level 1
- AV Graft-Outflow Vein Level 2
- AV Graft-Outflow Vein Level 3
- AV Graft-Outflow Vein Level 4
- AV Graft-Outflow Vein Level 5
- AV Graft-Outflow Vein Level 6
- ASP
- BSP
- -----
- CCA(Sten)
- Pre Sten
- Sten
- Post Sten
- ICA(Sten)
- Pre Sten

- Sten
- Post Sten
- ECA(Sten)
- Pre Sten
- Sten
- Post Sten
- Bulb(Sten)
- Pre Sten
- Sten
- Post Sten
- Carotid Bifurcation(Sten)
- Pre Sten
- Sten
- Post Sten
- Vert A(Sten)
- Pre Sten
- Sten
- Post Sten
- Subclav A(Sten)
- Pre Sten
- Sten
- Post Sten
- Innom A(Sten)
- Pre Sten
- Sten
- Post Sten
- Mammary A(Sten)
- Pre Sten
- Sten
- Post Sten
- Carotid Stenosis 1
- Pre Sten
- Sten
- Post Sten
- Carotid Stenosis 2
- Pre Sten
- Sten
- Post Sten
- Carotid Stenosis 3
- Pre Sten
- Sten
- Post Sten
- Carotid Stenosis 4
- Pre Sten
- Sten
- Post Sten
- Axill A(Sten)
- Pre Sten
- Sten
- Post Sten
- Brachial A(Sten)
- Pre Sten
- Sten
- Post Sten
- Ulnar A(Sten)
- Pre Sten
- Sten
- Post Sten
- Radial A(Sten)
- Pre Sten
- Sten
- Post Sten
- UE A Stenosis 1
- Pre Sten
- Sten
- Post Sten
- UE A Stenosis 2
- Pre Sten
- Sten
- Post Sten
- UE A Stenosis 3
- Pre Sten
- Sten
- Post Sten
- UE A Stenosis 4
- Pre Sten
- Sten
- Post Sten
- C.Iliac A(Sten)
- Pre Sten
- Sten
- Post Sten
- Ex.Iliac A(Sten)
- Pre Sten
- Sten
- Post Sten

- IIA(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- CFA(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- DFA(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- SFA(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- Pop A(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- TP Trunk A(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- A.Tib A(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- Peroneal A(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- P.Tib A(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- Dors.Ped. A(Sten)
  - Pre Sten
  - Sten
  - Post Sten
- LE A Stenosis 1
  - Pre Sten
  - Sten
- Post Sten
- LE A Stenosis 2
  - Pre Sten
  - Sten
  - Post Sten
- LE A Stenosis 3
  - Pre Sten
  - Sten
  - Post Sten
- LE A Stenosis 4
  - Pre Sten
  - Sten
  - Post Sten
- C.Iliac V
  - PV
  - Reflux
  - Checklist
- Ex.Iliac V
  - PV
  - Reflux
  - Checklist
- IIV
  - PV
  - Reflux
  - Checklist
- CFV
  - PV
  - Reflux
  - Checklist
- Femoral V
  - PV
  - Reflux
  - Checklist
- DFV
  - PV
  - Reflux
  - Checklist
- Pop V
  - PV
  - Reflux
  - Checklist
- P.Tib V
  - PV

- Reflux
- Checklist
- Peroneal V
  - PV
  - Reflux
  - Checklist
- Sural V
  - PV
  - Reflux
  - Checklist
- Soleal V
  - PV
  - Reflux
  - Checklist
- A.Tib V
  - PV
  - Reflux
  - Checklist
- TP Trunk V
  - PV
  - Reflux
  - Checklist
- Saph V
  - PV
  - Reflux
  - Checklist
- SSV
  - PV
  - Reflux
  - Checklist
- SF Junction
  - PV
  - Reflux
  - Checklist
- GSV Thigh
  - PV
  - Reflux
  - Checklist
- GSV Knee
  - PV
  - Reflux
  - Checklist
- GSV Calf
  - PV
  - Reflux
  - Checklist
- SP Junction
  - PV
  - Reflux
  - Checklist
- SSV Thigh Extension
  - PV
  - Reflux
  - Checklist
- AASV
  - PV
  - Reflux
  - Checklist
- PASV
  - PV
  - Reflux
  - Checklist
- Thigh Perf
  - PV
  - Reflux
  - Checklist
- Prox Calf Perf
  - PV
  - Reflux
  - Checklist
- Mid Calf Perf
  - PV
  - Reflux
  - Checklist
- Dist Calf Perf
  - PV
  - Reflux
  - Checklist
- ABI
  - ASP
  - BSP

### 6.3.7 Small Parts B-Mode

- Thyroid L
- Thyroid H
- Thyroid W

- Isthmus H
- THY Mass1 Strain
- THY Mass2 Strain
- THY Mass3 Strain
- THY Mass1 Elas.
- THY Mass2 Elas.
- THY Mass3 Elas.
- THY Nodule1 Strain
- THY Nodule2 Strain
- THY Nodule3 Strain
- THY Nodule1 Elas.
- THY Nodule2 Elas.
- THY Nodule3 Elas.
- Breast Mass1 Strain
- Breast Mass1 Elas.
- Breast Mass2 Strain
- Breast Mass2 Elas.
- Breast Mass3 Strain
- Breast Mass3 Elas.
- Breast Mass4 Strain
- Breast Mass4 Elas.
- Breast Mass5 Strain
- Breast Mass5 Elas.
- Breast Mass6 Strain
- Breast Mass6 Elas.
- Breast Mass7 Strain
- Breast Mass7 Elas.
- Breast Mass8 Strain
- Breast Mass8 Elas.
- Breast Mass9 Strain
- Breast Mass9 Elas.
- Breast Mass10 Strain
- Breast Mass10 Elas.
- Testicular L
- Testicular H
- Testicular W
- Epididymis L
- Epididymis H
- Epididymis W
- Scrotal Wall
- Testis V(2D)
- Testis V(Valsalva 2D)
- -----
- Thyroid Vol
- Testicular Vol
- -----
- Thyroid(Superior)
- H
- W
- Thyroid(Mid)
- H
- W
- Thyroid(Inferior)
- H
- W
- Parathyroid 1
- L
- H
- W
- Parathyroid 2
- L
- H
- W
- Parotid
- L
- H
- W
- Lymph Node 1
- L
- H
- W
- Lymph Node 2
- L
- H
- W
- Lymph Node 3
- L
- H
- W
- Lymph Node 4
- L
- H
- W
- Lymph Node 5
- L
- H

- W
- Lymph Node 6
- L
- H
- W
- Thyroid
- Thyroid L
- Thyroid H
- Thyroid W
- Thyroid Mass 1
- d1
- d2
- d3
- Thyroid Mass 2
- d1
- d2
- d3
- Thyroid Mass 3
- d1
- d2
- d3
- Thyroid Nodule 1
- d1
- d2
- d3
- Thyroid Nodule 2
- d1
- d2
- d3
- Thyroid Nodule 3
- d1
- d2
- d3
- Thyroid Cyst 1
- d1
- d2
- d3
- Thyroid Cyst 2
- d1
- d2
- d3
- Thyroid Cyst 3
- d1
- d2
- d3
- Isthmus Finding 1
- d1
- d2
- d3
- Isthmus Finding 2
- d1
- d2
- d3
- Isthmus Finding 3
- d1
- d2
- d3
- THY Mass1 Strain Ratio
- A
- B
- THY Mass2 Strain Ratio
- A
- B
- THY Mass3 Strain Ratio
- A
- B
- THY Mass1 Elas. Ratio
- A
- B
- THY Mass2 Elas. Ratio
- A
- B
- THY Mass3 Elas. Ratio
- A
- B
- THY Nodule1 Strain Ratio
- A
- B
- THY Nodule2 Strain Ratio
- A
- B
- THY Nodule3 Strain Ratio
- A
- B
- THY Nodule1 Elas. Ratio
- A

- B
- THY Nodule2 Elas. Ratio
- A
- B
- THY Nodule3 Elas. Ratio
- A
- B
- Breast Mass 1
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 2
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 3
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 4
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 5
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 6
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 7
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 8
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 9
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass 10
- L
- H
- W
- Nip. Dist.
- Skin Dist.
- Breast Mass1 Strain Ratio
- A
- B
- Breast Mass1 Elas. Ratio
- A
- B
- Breast Mass2 Strain Ratio
- A
- B
- Breast Mass2 Elas. Ratio
- A
- B
- Breast Mass3 Strain Ratio
- A
- B
- Breast Mass3 Elas. Ratio
- A
- B
- Breast Mass4 Strain Ratio

- A
- B
- Breast Mass4 Elas. Ratio
- A
- B
- Breast Mass5 Strain Ratio
- A
- B
- Breast Mass5 Elas. Ratio
- A
- B
- Breast Mass6 Strain Ratio
- A
- B
- Breast Mass6 Elas. Ratio
- A
- B
- Breast Mass7 Strain Ratio
- A
- B
- Breast Mass7 Elas. Ratio
- A
- B
- Breast Mass8 Strain Ratio
- A
- B
- Breast Mass8 Elas. Ratio
- A
- B
- Breast Mass9 Strain Ratio
- A
- B
- Breast Mass9 Elas. Ratio
- A
- B
- Breast Mass10 Strain Ratio
- A
- B
- Breast Mass10 Elas. Ratio
- A
- B
- Testis
- Testicular L
- Testicular H
- Testicular W
- Testis Mass 1
- d1
- d2
- d3
- Testis Mass 2
- d1
- d2
- d3
- Testis Mass 3
- d1
- d2
- d3
- Epididymis
- Epididymis L
- Epididymis H
- Epididymis W
- Testicle(Superior)
- H
- W
- Testicle(Mid)
- H
- W
- Testicle(Inferior)
- H
- W
- Epididymal Head
- L
- H
- W
- Epididymal Body
- L
- H
- W
- Epididymal Tail
- L
- H
- W

**D-Mode**

- STA
- ITA
- Isthmus

- Parathyroid 1
- Parathyroid 2
- Testis A
- Testis V
- Testis V(Valsalva)
- Epididymis A
- Epididymis V

### 6.3.8 Orthopedics

#### B-Mode

- HIP
- HIP-Graft
- HIP( $\alpha$ )
- HIP( $\beta$ )
- d/D

### 6.3.9 Emergency&Critical

#### B-Mode

- Renal L
- Renal H
- Renal W
- CBD
- Portal V Diam
- CHD
- GB wall th
- Aorta Bif
- Ureter
- Pre-BL L
- Pre-BL H
- Pre-BL W
- Post-BL L
- Post-BL H
- Post-BL W
- GS
- YS L
- 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 H
- Ovary W
- Kidney
- Renal L
- Renal H
- Renal W
- Cortex
- Bladder
- Pre-BL L
- Pre-BL H
- Pre-BL W
- Post-BL L
- Post-BL H
- Post-BL W

#### M-Mode

- FHR (M)

#### D-Mode

- FHR (Doppler)

## 6.4 Report

- Specific report template by application
- Editable value in report
- Images selectable
- Anatomy information
- User-defined report template
- Selecting report modules
- Adding/removing measurement items from the report
- Changing report layout

- Load/save comment
- Viewing history reports
- Preview and printing reports
- Able to Export as PDF file
- Set the calculation method for the final value in batch

## 6.5 Smart OB™

- Auto measurement for OB, a special tool for easy OB scan, and greatly reduce time and increase productivity
- Support BPD, HC, OFD, FL, AC
- Measurement result can be modified by user

## 6.6 Smart NT

- NT auto measurement
- Auto detection of NT inside ROI

## 6.7 CPP

Measures the pixel proportion of blood flow signal in the region of interest

## 6.8 Auto GA

Automatic gastric antrum area calculation, automatically identify the boundary of gastric antrum and calculate its area, helping to reduce the risk of pulmonary aspiration in surgery

**\* Not all measurements are listed in this part; For more detailed information please refer to User Manual**

# 7 Exam Storage and Management

## 7.1 Exam storage

- SSD:
  - 256 GB/512GB, more than 157GB /400GB internal harddrive reserved for patient data storage
  - Capable of storage up to approximately 173242/440380 single frames (FRM format)
- HDD:
  - 1 TB, more than 866 GB internal hard drive reserved for patient data storage
  - Capable of storage up to approximately 3290097 single frames (FRM format)
- Storage area:
  - Pre-settable: image area, standard area, full-screen
  - Image area: 1430×810

- Standard area: 1920×920
- Full-screen: 1920×1080

## 7.2 Exam management

- iStation™ workstation dedicated for patient exam management
- Patient exam query/retrieve
- Support review of current and past exam
- New exam, Active exam, Continue exam functions, End exam are available
- Support measurements and calculations on archived exam and images
- Export image as BMP/JPG/TIFF/DCM/FRM format (FRM: system format)
- Export cine as DCM/AVI/CIN/MP4 format (CIN: system format)
- Support backup/send to USB devices, DVD-RW media

## 7.3 iWorks™

- Auto workflow protocol
- Templates are user configurable
- Functions: pause, stop, replace, repeat, skip, insert single step, return and continue, steps in thumbnail
- iWorks setup mode: B/Dual/B+Color/B+PW/B+Color+PW/B+CW/B+Color+CW/B+M
- iWorks setup annotation: support up to 2 annotations, location and font size are configurable
- iWorks setup bodymark: select existing library, and probe indicator is pre-settable
- iWorks setup measurement: select existing measurement library
- Template import and export are available

# 8 Connectivity

## 8.1 Ethernet Network Connection

- Cable connection
- Wireless connection: Internal Wi-Fi (including EAP Network)

## 8.2 DICOM 3.0

- DICOM Basic
  - Verify (SCU, SCP)
  - Print
  - Store
  - Storage Commitment

- Media Exchange
- DICOM Worklist
- DICOM Query/Retrieve
- DICOM Modality Performed Procedure Step - MPPS
- DICOM OB/GYN structure report
- DICOM Cardiac structure report
- DICOM Vascular structure report
- DICOM Breast structure report
- DICOM Abdomen SR

### 8.3 iStorage

Direct network storage tool between ultrasound system and personal computer

### 8.4 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 both iOS (7.0 and above) and Android (4.0 and above) system
  - For iOS powered smart device: DICOM is mandatory
  - For Android powered smart device: DICOM not necessary

### 8.5 MedTouch

- Connect Ultrasound machine to smart devices based on Android and iOS system, such as tablet PC or mobile phone. Remote control of Ultrasound machine and tutorial software iScanHelper study on smart devices
- Support Android and iOS powered smart devices
  - Android 4.0 and above
  - iOS 7.0 and above
  - DICOM not necessary

### 8.6 u-Link

The u-Link can be used to connect to software that supports the u-Link protocol (such as the MiCO+ Remote Imaging System).

### 8.7 Net Storage

Support sending images or exams to the shared directory of your PC server.

### 8.8 iStorage

Data transfer

### 8.9 Security

- Anti-Virus: McAfee and Windows Defender
- VPN

## 9 Probes

### 9.1 Curved array

#### 9.1.1 C5-1s

- Application: Abdomen, Gynecology, Obstetrics, Vascular, Nerve, Musculoskeletal, Urology, Thoracic/Pleural, Small Parts
- Bandwidth: 1.2 - 6.0 MHz
- Depth: 4.0 - 40.0 cm
- Number of Elements: 128
- FOV (max): 61°
- Extended FOV: 72°
- Convex Radius: 60 mm
- Physical Footprint: 76.5×28 mm
- Footprint: 64.9×16.2 mm
- B-mode Frequencies: 1.2 - 3.8, 1.7 - 5.2, 2.0 - 6.0 MHz
- Harmonic Frequencies: 4.0, 5.0, 6.0 MHz
- Color Frequencies: 2.0, 2.5, 3.0, 3.5 (HR Flow) MHz
- PW Frequencies: 2.0, 2.5, 3.0 MHz
- Biopsy Guide: NGB-022, available, multi angle, reusable
- ; LPUBKG60, disposable

#### 9.1.2 C5-2s

- Application: Abdomen, Gynecology, Obstetrics, Vascular, Nerve, Musculoskeletal, Pediatrics, Thoracic/Pleural, Urology, Small Parts
- Bandwidth: 1.2 - 6.0 MHz
- Depth: 4.0 - 40.0 cm
- Number of Elements: 128
- FOV (max): 75°
- Extended FOV: 88°
- Convex Radius: 50 mm
- Physical Footprint: 76.3×25.6 mm
- Footprint: 64×16.2 mm
- B-mode Frequencies: 1.2 - 3.8, 1.7 - 5.2, 2.0 - 6.0 MHz

- Harmonic Frequencies: 4.0, 5.0, 6.0 MHz
- Color Frequencies: 2.0, 2.5, 3.0, 3.5 (HR Flow) MHz
- PW Frequencies: 2.0, 2.5, 3.0 MHz
- Biopsy Guide: NGB-015, available, multi angle, reusable

### 9.1.3 C11-3s

- Application: Abdomen, Cardiac, Vascular, Pediatric
- Bandwidth: 2.6-12.8 MHz
- Depth: 1.5-35.0 cm
- Number of Elements: 128
- FOV (max): 102°
- Extended FOV: 113°
- Convex Radius: 15 mm
- Physical Footprint: 32.8×25 mm
- Footprint: 27.4×8.4 mm
- B-mode Frequencies: 2.6-6.5, 3.2-7.9, 4.7-12.8 MHz
- Harmonic Frequencies: 6.0, 7.0, 8.0 MHz
- Color Frequencies: 4.4, 5.0, 5.7, 5.0 (HR Flow) MHz
- PW Frequencies: 4.4, 5.0, 5.7 MHz
- Biopsy Guide: NGB-018, available, multi angle, reusable

### 9.1.4 V11-3s

- Application: Gynecology, Obstetrics, Urology
- Bandwidth: 3.0 - 11.0 MHz
- Depth: 1.5 - 28.0 cm
- Number of Elements: 128
- FOV (max): 140°
- Extended FOV: 179°
- Convex Radius: 11 mm
- Physical Footprint: 24.85×21.8 mm
- Footprint: 24×9 mm
- B-mode Frequencies: 3.0 - 7.0, 4.0 - 9.0, 5.0 - 11.0 MHz
- Harmonic Frequencies: 8.0, 9.0, 10.0 MHz
- Color Frequencies: 4.4, 5.0, 5.0, 5.5 (HR Flow) MHz
- PW Frequencies: 4.4, 5.0, 5.7 MHz
- Biopsy Guide: NGB-004, available, single angle, reusable; NGB-045, available, single angle, reusable

## 9.2 Linear array

### 9.2.1 L12-3RCs

- Application: Abdomen, Pediatric, Small Parts, Musculo-skeletal, Vascular, Thoracic/Pleural
- Bandwidth: 3.0 - 12.8 MHz
- Depth: 1.5 - 35.0 cm
- Number of Elements: 192
- Field of View (max): 3.80 cm
- Steered Angle: ±12°, ±6°, 0 (B steer); -30° - 30° (Color/PW steer)
- Physical Footprint: 55.6×22 mm
- Footprint: 43.5×8.2 mm
- B-mode Frequencies: 3.0 - 8.3, 4.4 - 10.2, 5.6 - 12.8 MHz
- Harmonic Frequencies: 8.0, 10.0, 12.0 MHz
- Color Frequencies: 4.4, 5.0, 7.2, 7.2 (HR Flow) MHz
- Doppler Frequencies: 4.2, 5.0, 7.2 MHz
- Biopsy Guide: NGB-043 available, multi-angle, reusable; NGB-044 available, multi-depth, reusable

### 9.2.2 L13-3Ns

- Application: Abdomen, Pediatric, Small Parts, Musculo-skeletal, Vascular, Nerve, Ophthalmic, Thoracic/Pleural
- Bandwidth: 3.0 - 13.0 MHz
- Depth: 1.5 - 35.0 cm
- Number of Elements: 192
- Field of View (max): 3.82 cm
- Steered Angle: ±12°, ±6°, 0 (B steer); -30° - 30° (Color/PW steer)
- Physical Footprint: 56.8×21.2 mm
- Footprint: 43.5×8.2 mm
- B-mode Frequencies: 3.0 - 9.3, 5.4 - 11.2, 6.6 - 13.0 MHz
- Harmonic Frequencies: 9.0, 10.0, 11.0 MHz
- Color Frequencies: 4.2, 5.0, 6.2, 7.3 (HR Flow) MHz
- PW Frequencies: 4.2, 5.0, 6.2 MHz
- Biopsy Guide: NGB-053, available, multi-angle, reusable

### 9.2.3 L14-6Ns

- Application: Abdomen, Pediatric, Small Parts, Musculo-skeletal, Vascular, Nerve, Ophthalmic, Thoracic/Pleural
- Bandwidth: 3.0 - 16.0 MHz

- Depth: 1.5 - 35.0 cm
- Number of Elements: 192
- Field of View (max): 3.80 cm
- Steered Angle:  $\pm 12^\circ$ ,  $\pm 6^\circ$ , 0 (B steer);  $-30^\circ$  -  $30^\circ$  (Color/PW steer)
- Physical Footprint: 45.7×10.9 mm
- Footprint: 44.2×8.5 mm
- B-mode Frequencies: 3.5 - 9.3, 5.4 - 11.2, 6.6 - 16.0 MHz
- Harmonic Frequencies: 10.0, 11.0, 12.0 MHz
- Color Frequencies: 5.0, 6.2, 7.3, 8.0 (HR Flow) MHz
- PW Frequencies: 5.0, 6.2, 7.3 MHz
- Biopsy Guide: NGB-007, available, multi-angle, reusable

#### 9.2.4 L20-5s

- Application: Abdomen, Small Parts, Musculo-skeletal, Vascular, Nerve, Ophthalmic
- Bandwidth: 6.0 - 23.0 MHz
- Depth: 1.5 - 35.0 cm
- Number of Elements: 192
- Field of View (max): 2.86 cm
- Steered Angle:  $\pm 12^\circ$ ,  $\pm 6^\circ$ , 0 (B steer);  $-20^\circ$  -  $20^\circ$  (Color/PW steer)
- Physical Footprint: 42.23× 22.10 mm
- Footprint: 31.5×4.5 mm
- B-mode Frequencies: 6.0 - 13.0, 9.0 - 16.6, 12.5 - 23.0 MHz
- Harmonic Frequencies: 14.0, 16.0, 18.0 MHz
- Color Frequencies: 8.9, 11.4, 13.3, 13.0 (HR Flow) MHz
- PW Frequencies: 8.9, 10.0, 13.3 MHz
- Biopsy Guide: not available

#### 9.2.5 L12-4s

- Application: Abdomen, Pediatric, Small Parts, Musculo-skeletal, Vascular, Nerve, Thoracic/Pleural
- Bandwidth: 4.0 - 12.8 MHz
- Depth: 1.5 - 35.0 cm
- Number of Elements: 192
- Field of View (max): 3.79 cm
- Steered Angle:  $\pm 12^\circ$ ,  $\pm 6^\circ$ , 0 (B steer);  $-30^\circ$  -  $30^\circ$  (Color/PW steer)
- Physical Footprint: 45.7×10.9 mm

- Footprint: 44.2×8.5 mm
- B-mode Frequencies: 4.0 - 9.3, 5.4 - 11.2, 6.6 - 12.8 MHz
- Harmonic Frequencies: 9.0, 10.0, 11.0 MHz
- Color Frequencies: 4.2, 5.0, 6.2, 7.3 (HR Flow) MHz
- PW Frequencies: 4.2, 5.0, 6.2 MHz
- Biopsy Guide: NGB-007, available, multi-angle, reusable

#### 9.2.6 L9-3s

- Application: Abdomen, Obstetrics, Pediatric, Small Parts, Musculo-skeletal, Vascular, Nerve
- Bandwidth: 2.5-9.0 MHz
- Depth: 1.5-35.0 cm
- Number of Elements: 192
- Field of View (max): 4.38 cm
- Steered Angle:  $\pm 12^\circ$ ,  $\pm 6^\circ$ , 0 (B steer);  $-10^\circ$  -  $10^\circ$  (Color/PW steer)
- Physical Footprint: 62×22 mm
- Footprint: 48×11 mm
- B-mode Frequencies: 2.5-7.0, 3.4-8.2, 3.6-9.0 MHz
- Harmonic Frequencies: 5.0, 6.0, 7.0 MHz
- Color Frequencies: 3.0, 3.6, 5.0, 7.3 (HR Flow) MHz
- PW Frequencies: 3.0, 3.6, 5.0 MHz
- Biopsy Guide: NGB-034, available, multi-angle, reusable

#### 9.2.7 L16-4Hs

- Application: Musculo-skeletal, Nerve, Small Parts, Vascular, Pediatric, Intra-operative
- Bandwidth: 4.0-12.8 MHz
- Depth: 1.5-35.0 cm
- Number of Elements: 128
- Field of View (max): 2.53 cm
- Steered Angle:  $\pm 12^\circ$ ,  $\pm 6^\circ$ , 0 (B steer);  $-30^\circ$  -  $30^\circ$  (Color/PW steer)
- Physical Footprint: 11.5×38 mm (slant width)/34.8mm (straight width)
- Footprint: 28.7×5.5 mm
- B-mode Frequencies: 4.0-9.3, 5.4-11.2, 6.6-12.8 MHz
- Harmonic Frequencies: 10.0, 11.0, 12.0 MHz

- Color Frequencies: 5.0, 6.2, 7.3, 8.0 (HR Flow) MHz
- PW Frequencies: 5.0, 6.2, 7.3 MHz
- Biopsy Guide: not available

### 9.2.8 L13-3s

- Application: Abdomen, Pediatric, Small Parts, Musculo-skeletal, Vascular, Nerve, Ophthalmic, Thoracic/Pleural
- Bandwidth: 3.2 - 12.3 MHz
- Depth: 1.5 - 35.0 cm
- Number of Elements: 128
- Field of View (max): 3.79 cm
- Steered Angle:  $\pm 12^\circ$ ,  $\pm 6^\circ$ , 0 (B steer);  $-30^\circ$  -  $30^\circ$  (Color/PW steer)
- Physical Footprint: 61×24.4 mm
- Footprint: 44.2×8.5 mm
- B-mode Frequencies: 3.2 - 9.6, 5.4 - 11.0, 6.6 - 12.3 MHz
- Harmonic Frequencies: 8.0, 9.4, 10.6 MHz
- Color Frequencies: 4.0, 5.0, 6.2, 6.2 (HR Flow) MHz
- Pw Frequencies: 4.0, 5.0, 6.2 MHz
- Biopsy Guide: NGB-007, available, multi-angle, reusable

## 9.3 Phased array

### 9.3.1 P4-2s

- Application: Abdomen, Gynecology, Obstetrics, Cardiac, Pediatric, Vascular, Thoracic/Pleural, Cephalic
- Bandwidth: 1.0 - 5.0 MHz
- Depth: 2.0 - 38.0 cm
- Number of Elements: 64
- Field of View (max):  $90^\circ$
- Physical Footprint: 25.2×20.6 mm
- Footprint: 23.4×15.2 mm
- B-mode Frequencies: 1.5 - 2.5, 2.5 - 3.5, 3.5 - 4.5 MHz
- Harmonic Frequencies: 3.4, 3.8, 3.8, 4.2, 4.2 MHz
- Color Frequencies: 2.0, 2.3, 2.5, 2.5 (HR Flow) MHz; TDI: 3.0, 3.8 MHz
- PW Frequencies: 2.0, 2.3, 2.5 MHz; TDI: 2.5, 4.0 MHz
- CW Frequency: 2.0 MHz
- Biopsy Guide: NGB-011, available, multi angle, reusable

### 9.3.2 P8-2s

- Application: Abdomen, Pediatric, Cardiac, Cephalic
- Bandwidth: 2.3 - 8.0 MHz
- Depth: 2.0 - 38.0 cm
- Number of Elements: 96
- Field of View (max):  $90^\circ$
- Physical Footprint: 30.5×23.2 mm
- Footprint: 19.5×11 mm
- B-mode Frequencies: 2.3 - 5.4, 2.8 - 7.4, 4.2 - 8.0 MHz
- Harmonic Frequencies: 5.0, 6.0, 7.0 MHz
- Color Frequencies: 2.7, 3.3, 4.0, 2.5 (HR Flow) MHz; TDI: 3.0, 3.8 MHz
- PW Frequencies: 2.7, 3.3, 4.0 MHz; TDI: 5.0, 6.0 MHz
- CW Frequency: 2.5 MHz
- Biopsy Guide: not available

### 9.3.3 P10-4s

- Application: Abdomen, Pediatric, Cardiac, Nerve, Cephalic
- Bandwidth: 3.0-11.4 MHz
- Depth: 2.0-38.0 cm
- Number of Elements: 128
- Field of View (max):  $90^\circ$
- Physical Footprint: 15.1×10.2 mm
- Footprint: 15×9.1 mm
- B-mode Frequencies: 3.0-6.8, 3.8-10.2, 4.6-11.4 MHz
- Harmonic Frequencies: 7.5, 8.0, 9.0 MHz
- Color Frequencies: 4.0, 5.0, 5.7, 2.5 (HR Flow) MHz; TDI: 3.0, 3.8 MHz
- PW Frequencies: 4.0, 5.0 5.7 MHz; TDI: 5.0, 5.7 MHz
- CW Frequency: 5.0 MHz
- Biopsy Guide: not available

### 9.3.4 P7-3Ts

- Application: Cardiac
- Bandwidth: 2.3-7.2 MHz
- Depth: 2.0-38.0 cm
- Number of Elements: 64
- Field of View (max):  $90^\circ$
- Physical Footprint: 14×12 mm
- Footprint: 12.2×12.2 mm

- B-mode Frequencies: 2.3-5.4, 2.8-6.4, 3.3-7.2 MHz
- Harmonic Frequencies: 6.0, 6.5, 7.0 MHz
- Color Frequencies: 2.7, 3.3, 4.0, 2.5 (HR Flow) MHz; TDI: 3.0, 3.8 MHz
- PW Frequencies: 2.7, 3.3, 4.0, 2.5 (HR Flow) MHz; TDI: 4.0 MHz
- CW Frequency: 2.5 MHz
- Biopsy Guide: not available

### 9.3.5 P8-3Ts

- Application: Cardiac, Pediatric, Neonate
- Bandwidth: 2.3-7.2 MHz
- Depth: 2.0-38.0 cm
- Number of Elements: 48
- Field of View (max): 90°
- Physical Footprint: 10.7×7.9 mm
- B-mode Frequencies: 2.3-5.4, 2.8-6.4, 3.3-7.2 MHz
- Harmonic Frequencies: 6.0, 6.5, 7.0 MHz
- Color Frequencies: 3.3, 3.8, 4.4, 2.5 (HR Flow) MHz; TDI: 3.0, 3.8 MHz
- PW Frequencies: 3.3, 3.8, 4.4, 2.5 (HR Flow) MHz; TDI: 4.0 MHz
- CW Frequency: 3.3 MHz
- Biopsy Guide: not available

## 9.4 Pencil

### 9.4.1 CW2s

- Application: Cardiac, Cephalic, Pediatric
- Number of Elements: 2
- Physical Footprint: 18.4×17.8 mm
- Footprint: 18.4×17.8 mm
- CW Frequency: 2.0 MHz
- Biopsy Guide: not available

## 10 Peripheral Devices and Accessories

### 10.1 Black/white digital video printer

MITSUBISHI P95DW-N

### 10.2 Black/white analog video printer

SONY UP-X898MD

### 10.3 Color digital video printer

SONY UP-D25MD

## 10.4 Footswitch

- USB port: 971-SWNOM (2-pedal/3-pedal)
- USB port: FS-81-SP (1-pedal)
- Support User-definable functions (Freeze, Save, Print)

## 10.5 Built-in DVR

- Built-in digital video recorder, save space and is a useful tool for education and memory
- Max storage length each time: 60 min

## 10.6 Built-in Battery for Main Unit

- Replaceable and rechargeable lithium battery
- Empty battery recharged to full in 4h
- Continuous work time: about 1.5 hour in B mode

## 10.7 Mobile Trolley

### 10.7.1 MT3

- Power supply module
- Dimensions (W×D): about 519 mm × 578mm
- Platform height: 887 - 1207 mm; adjustable
- 4 swivel wheels with locking system
- Weight:
  - Without retractable cable and probe extend module: about 28.8 kg
  - With retractable cable and without probe extend module: about 32.5 kg
  - Without retractable cable and with probe extend module: about 30.9 kg
  - With retractable cable and probe extend module: about 34.6 kg
- Probe holders
- Optional DVD-RW
- Auxiliary output cable
- Probe extend module PEM-3 (3 port)
- Cover grounding cable
- Printer bracket

### 10.7.2 MT2

- Dimensions (W×D): about 515 mm × 505 mm
- Platform height: 885 mm, 973 mm; 2 levels
- Weight:
  - Without printer bracket and probe extend module: about 15 kg

- With printer bracket and probe extend module: about 18.8 kg
- Probe holders
- Optional DVD-RW
- Probe extend module PEM-3 (3 port)
- Printer bracket

## 10.8 Barcode reader

- 1-D barcode reader: SYMBOL LS2208
- 2-D barcode reader: SYMBOL DS4308
- JADAK HS-1M
- JADAK HS-1R (supporting RFID)

## 10.9 U-Bank

- U-Bank with 2 batteries  
Up to 4 hours. Weight: 1.95 kg
- U-Bank with 4 batteries  
Up to 8 hours. Weight: 2.87 kg

## 10.10 Footswitch

- USB port: FS-81-SP-2(single pedal), 971-SWNOM (2/3-pedal)
- Support User-definable functions (Freeze, Save, Print)

## 10.11 ECG

- 6-pin, AHA/IEC, for 3-lead wires
- ECG wave display: on/off
- ECG source: Lead/External
- Position: 0 - 100%, 5%/step
- Trig mode: off/single/dual/timer
- Gain: 0 - 30, 1/step
- Sweep speed: 6 steps
- Invert: on/off

## 10.12 Built-in Wireless adapter

- Encryption: WPA, WPA2
- Max transfer speed: 300 Mbps
- Protocols: IEEE 802.11 ac/a/b/g/n
- Frequency: 2.4G/5G

# 11 System Inputs and Outputs

## 11.1 I/O Port

- USB 3.0: 4 ports
- Ethernet: 1 port
- HDMI: 1 port
- S-Video: 1 port

## 11.2 ECG module

ECG port: 1

## 11.3 Probe Extend module

Probe port: 2

# 12 Safety and Conformance

## 12.1 Quality standards

- ISO 9001
- ISO 13485

## 12.2 Design standards

- EN 60601-1 and IEC 60601-1
- EN 60601-1-2 and IEC 60601-1-2
- EN 60601-1-6 and IEC 60601-1-6
- EN 60601-2-37 and IEC60601-2-37
- EN 62304 and IEC 62304
- EN 62366 and IEC 62366
- EN ISO 17664 and ISO 17664

## 12.3 CE declaration

The 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 Annex II of the Directive.

### NOTICE:

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

**Mindray reserves the right to make changes in specifications and features shown herein, or discontinue the product at any time without notice or obligation. Contact Mindray**

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