Vetus 50 Series

Veterinary Diagnostic Ultrasound System

Specification

mindray animal care

1 System Overview

Equipped with Mindray Animal Medical's next-generation ultrasound platform ZST+ and 3T transducer technology with ComboWave, the Vetus 50 offers accurate performance for scanning of different animals. Meanwhile, comprehensive built-in learning tools will make veterinarians' learning more convenient and efficient.

1.1 Advantages of ZST+ platform

- Advanced Acoustic Acquisition
- Dynamic Pixel Focusing (DPF)
- Total Recall Imaging (TRI)
- Powerful Processing Architecture
- Enhanced Channel Data Processing
- ZONE Sonography Technology

1.2 Application

- Abdomen
- Cardiology
- Reproduction

1.3 Transducer types

- Curved array transducer
- Linear array transducer
- Phased array transducer

1.4 Features

- THI (Tissue Harmonic Imaging) and PSH (Phase Shift Harmonic Imaging)
- 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
- HD Scope
- Smart Track
- HR Flow (High Resolution Flow)
- B-Mode
- M-Mode/Color M-mode
- Color Doppler Imaging
- Power Doppler Imaging/Directional PDI
- Pulsed Wave Doppler
- Continuous Wave Doppler
- Free Xros M (Anatomical M-mode)
- Free Xros CM (Curved Anatomical M- mode)
- iScape View
- Tissue Doppler Imaging
- TDI QA
- Strain Elastography
- Smart 3D
- iNeedle
- Abdomen/General Package
- Reproduction Package
- Cardiology Package
- AutoEF
- Smart Trace
- DICOM Basic
- DICOM Worklist
- DICOM MPPS
- DICOM Query/Retrieve
- DICOM Reproduction SR
- DICOM Cardiac SR
- DICOM Abdomen SR
- iWorks
- DVR Module
- iVocal

- ClamAV
- Smart Calc
- Multilingual control panel overlay
- Saddle basket kit
- Probe dust-proof cover
- QWERTY keyboard
- Keyboard protective film
- Built-in batteries
- Multi-function hardware module
- ECG function
- Built-in wireless adapter
- Ultrasound gel warmer
- Microphone material kit

1.5 Language support

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

2 Physical Specification

2.1 Dimension and weight

- The control panel and the monitor are in the lowest position.

  Configured with lifting support arm and 21.5-inch monitor
  - Depth: 840±40mm
  - Width: 513±10mm
  - Height: 976±20mm
- The control panel and the monitor are in the highest position.

  Configured with lifting support arm and 21.5-inch monitor
  - Depth: 740±40mm
  - Width: 513±10mm
  - Height: 1620±20mm
- Weight: ≤65kg (net weight, standard configuration)

2.2 Audio speakers

- Stereo audio speakers

2.3 Support arm

- Lifting support arm

2.4 Wheels

- Diameter: 125mm
- 4 castors for total lock and break

2.5 Transducer port and holder

- Transducer ports with dust prevention: 4 active ports
- Support hot plug
- Transducer holder: 6 Transducer& ultrasound gel holders

2.6 Electrical power

- Voltage: 100-240VAC
- Frequency: 50/60 Hz
- Power consumption: 550 VA

2.7 Operating Environment

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

2.8 Storage & Transportation Environment

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

2.9 System Noise

- ≤26dB @25°C

3 User Interface

3.1 Control panel

- Brightness adjustable for the backlight of the control panel
- Backlit QWERTY keyboard
- 3 keys for user-defined functions
- Rotate angle range: 180 degrees
- Down/up: 300±20 mm
- Front/Rear: 110 mm

3.2 Monitor

- 21.5-inch bezel-less LED monitor with high resolution
- Resolution: 1920x1080
- Viewing angle: 178 degrees
- Digital on screen display of brightness and contrast controls
- Automatic adjustment of monitor light with the changing environment
- Automatic LED brightness
- Tilt/Rotate independent adjustment
- Tilt angle range: 20±5 degrees (rear), 85±5degrees (front)
- Rotate angle range: 180±5 degrees (left and right)
- Down/up: 150±20mm
- Front/Rear: 350±20mm

3.3 Touch screen

- 13.3-inch high sensitivity anti-glare color touch screen
- Resolution: 1920*1080
- Digital brightness and contrast adjustment through preset
- Angle adjustable range: 50 degrees
- Viewing angle: 178 degrees
- Support touch screen gestures
- Support either hand writing or with gloves on
- Editable buttons: long press to add, delete or move buttons
- Clinical scenario-based 3D user interface
- Digital TGC: 8 sliders
- Short-cut switch of latest used probe & exams

3.4 Touch gestures

- Swipe down/up: display/remove projected image on touch screen
- Swipe horizontally: page up/down or review images/cine loops one by one

- Swipe from left edge to right: display hidden menu on projected image.
- Image parameter adjustment.
- Measurement on projected image on touch screen
- Zoom in/out the projected image on touch screen
- Rotate or erase on projected 3D image on touch screen
- 8 user defined gestures using two fingers for more functions, such as freeze, print, activate specific imaging modes, measurements, and some other special functions.

3.5 System boot-up

- Boot-up from shut-down: <60 sec
- Boot-up from stand-by: <15 sec
- Shut-down: <30 sec

3.6 Comments

- Supports text input and arrow
- Voice annotation: record voice as annotation for images and cine
- Support freehand marking on touch screen
- Adjustable text size and arrow size
- Supports home position
- Covers various application
- User customizable

3.7 Bodymark

- Supports bodymarks for versatile application
- User customizable

4 Imaging Parameters

4.1 B-mode

- Frame rate (max): 801 f/s
- A.Power
- TGC: 8 sliders
- Depth: 30 Levels, 1.5-40cm
- Gain: 0-100, 1/step
- FOV: On/Off
- FOV Size
- FOV Position: random adjustable
- Image Quality:
  - P4-2: three levels of fundamental frequency, five levels of harmonic frequency
  - Others: three levels of fundamental frequency, three levels of harmonic frequency
- Persistence: 0-7, 1/step
- Dyn Ra.:
  - C11-3, C5-1: 30-160，5/step; 160-180, 10/step; 180-260,4 0/step
  - Others: 30-160， 5/step; 160-200, 10/step
- Gray Map: 1-8, 1/step
- Tint Map: Off, 1-8, 1/step
- iClear: Off, 1-7, 1/step
- iBeam: Off, 1-3, 1/step
- Line Density: L, M, H, UH
- L/R: On/Off
- U/D: On/Off
- Rotation: 0, 90, 180, 270
- TSI: General, Muscle, Fat, Fluid
- iTouch+: On/Off
- LGC: 8 point
- Dual Live: On/Off
- Auto Merge: On/Off

- H Scale: On/Off
- Echo Boost: On/Off
- Smooth: 0-6, 1/step
- ExtImage: On/Off
- ZoneVue (Phased array transducer cannot be adjusted)
- Pan Zoom:
  - 0.8-1.2, 0.1/step
  - 1.2-2, 0.2/step
  - 2-4, 0.25/step
- HD Scope: off, 1-3, 1/step
- V1: 1: On/Off
- Dehaze: 0~30
- EdgeEnhance: 0~6, 1/step
- HR Flow: On/Off
- Single/Quad: On/Off
- B Steer: 5 Levels
- Trapezoid: On/Off

4.2 THI and PSH

- Patent PSH technology, obtains purer harmonic, better contrast resolution, higher SNR, exceptional high frequency harmonic
- iClear available
- Image quality: HPen/HGen/HRes or HPen/ HPen-FFR/HGen/HRes/HRes-FFR (depends on transducers)
- Echo Boost: On/Off

4.3 M-mode

- Gain: 0-100, 1/step
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Dyn Ra.:
  - Others: 30-180, 5/step
  - C5-1，C11-3: 30-160, 5/step; 160-180, 10/step; 180-260, 40/step
- 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
- EdgeEnhance: 0-3, 1/step
- Time Mark: On/Off
- ZoneVue (Phased array transducer cannot be adjusted)

4.4 Color Doppler Imaging

- Velocity: max. 97.8cm/s; min. 4.7 cm/s
- Max frame rate: 296f/s
- PRF: 0.3-9.9kHz
- Gain: 0-100, 2/step
- Baseline: -8-8, 1/step
- scale
- Steer
- Quick Steer
- ROI: random adjustable
- Img Quality:
  - L13-3，P4-2，C5-1: 5 levels
  - Other：3 levels
  - HRFlow：1 level（all probes）
- 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: 0-8, 7-2015 Hz
- Line Density: L, M, H, UH
- Dual Live: On/Off
- Invert: On/Off
- Auto Invert: On/Off
- B/C Align: On/Off
- velocity tag: On/Off
- Packet Size: 0-3, 1/step
- iTouch+: On/Off
- Smart Track: On/Off

- Quad: On/Off
- HR Flow: On/Off
- ExtImage: On/Off

4.5 Power Doppler Imaging

- Velocity: max. 97.8cm/s; min. 4.7cm/s
- PRF: 0.3-9.9kHz
- Gain: 0-100, 2/step
- scale
- Steer
- Quick Steer
- ROI: random adjustable
- Img Quality:
  - L13-3, C5-1, P4-2: 5 levels
  - Other: 3 levels
  - HRFlow: 1 level（all probes）
- Persistence: 0-6, 1/step
- Smooth: 0-6, 1/step
- Color Map: P0-P3, dP0-dP3
- 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
- B/C Align: On/Off
- Packet Size: 0-3, 1/step
- iTouch+: On/Off
- Smart Track: On/Off
- Quad: On/Off
- HR Flow: On/Off
- Dyn Ra.: 10-70, 5/step
- ExtImage: On/Off

4.6 PW Mode

- PRF: 0.7-23.1kHz
- Velocity: max. 729.2cm/s; min. 4.1cm/s
- Gain: 0-100, 2/step
- Baseline: -4-4, 1/step
- scale
- Steer
- Quick Steer
- Volume: 0%-100%, 2%/step
- Angle: -89-89, 1/step
- Quick Angle: -60, 0, 60
- SVD: random adjustable
- Img Quality:
  - C5-1, L13-3, P4-2: 5 levels
  - Other: 3 levels
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- SV: 0.5-30mm
- 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
- Auto Invert: On/Off
- WF: 0-8, 14-1000Hz
- 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 Param
- Trace Smooth: off, 1-4, 1/step
- Trace Area: Above, Below, All
- Auto Calc Loop

4.7 CW Mode

- PRF: 0.2-100.0kHz
- Velocity: max. 3850.0cm/s; min. 4.5cm/s
- Gain: 0-100, 2/step
- Baseline: -4-4, 1/step

- Scale
- Volume: 0%-100%, 2%/step
- Angle: -89-89, 1/step
- Quick Angle: -60, 0, 60
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- 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: 0-7, 5-1200Hz
- T/F Res: 0-6, 1/step
- SVD: random adjustable

4.8 Free Xros M/Free Xros CM

- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Gray Map: 1-8, 1/step
- Tint Map: off, 1-8, 1/step
- Display format: V2: 3, V3: 2, H2: 3, V3: 1
- Angle
- Delete (Free Xros CM)
- Undo (Free Xros CM)
- Edit (Free Xros CM)
- Display: On/Off (Free Xros M)
- show A: On/Off (Free Xros M)
- show B: On/Off (Free Xros M)
- show C: On/Off (Free Xros M)
- ZoneVue (Phased array transducer cannot be adjusted)

4.9 Tissue Velocity/Energy Imaging (included in TDI option)

- Available on phased array
- Max frame rate: 1510f/s
- PRF: 0.4-13.9kHz
- Velocity: max. 99.0cm/s; min. 4.7cm/s
- Gain: 0-100, 2/step
- Baseline: -8-8, 1/step
- scale
- ROI: random adjustable
- Img Quality: 2 Levels
- Persistence: 0-6, 1/step
- Smooth: 0-6, /step
- Dyn Ra.: 10-70, 5/step
- Color Map:
  - TVI: TVV1-TVV10
  - TEI: P0-P3, dP0-dP3
- Tissue 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
- B/C Align: On/Off
- velocity tag: On/Off
- Packet Size: 0-3, 1/step

4.10 Tissue Velocity Doppler (included in TDI option)

- PRF: 0.7-18.9kHz
- Velocity: max. 583.3cm/s; min. 4.1cm/s
- Gain: 0-100, 2/step
- Baseline: -4-4, 1/step
- scale
- Volume: 0%-100%, 2%/step
- Angle: -89-89, 1/step
- Quick Angle: -60, 0, 60
- SVD: random adjustable
- Img Quality: 2 levels
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- 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
- Duplex/Triplex: On/Off
- iTouch+: On/Off
- T/F Res: 0-6, 1/step

4.11 Tissue Velocity Motion (included in TDI option)

- Display formats: V2:3, V3:2, V 3:1, H2:3, Full (V: vertical, H: horizontal)
- Gain: 0-100
- M sweep speed: 6 steps
- Smooth: 0-6, 1/ step
- Color Map: 10 types
- Image quality: 2 levels
- Persistence: 0-6, 1/ step
- Packet size: 0-3, 1/ step
- Priority: 0%-100%, 1%/step
- Velocity tag: On/Off
- Tissue state: L/M/H

4.12 TDI QA

- Dedicated quantification tool for TDI velocity, strain, strain rate analysis
- Ellipse ROI, Standard ROI
- Up to 8 of ROI
- Delete all
- Delete current
- ROI tracking: tracking ROI along with cardiac movement
- Smooth: 1-7, 1/step
- X scale: 1-5,1/step
- Std.Height: 1.5-50 mm
- Std.Width: 1.5-50 mm
- Std.Angle: -89-90 degrees
- Export: export current data as CSV format file

4.13 Smart 3D

- Acquisition preparation
  - Acquiring Methods: Rocked, Linear
  - Reset VOI
  - Flip VOI
  - Angle: 10°-80°
  - Distance: 10-200mm
  - Acquiring Time: 1s-20s
- VR
  - Reset: All, Ori, Curve
  - VOI: On, Off, Fixed
  - Active Quadrant: A, B, C, VR
  - VR orientation: 0°, 90°, 180°, 270°
  - Filp
  - Sync
  - 3D Ref
  - Orientation Assist
  - Threshold: 0%-100%
  - Opacity: 0%-100%
  - Brightness^{VR}: 0%-100%
  - Contrast$^{VR:}$ 0%-100%
  - Smooth: 0-10
  - Depth VR: Off, Black, Cyan, Blue, Rose
  - Tint^{VR}: Off, 1-8
- MPR
  - Active Quadran: A, B, C
  - Gray Map: 1-8
  - BrightnessMPR: 0%-100%
  - ContrastMPR: 0%-100%
  - iClear: Off, 1-7
  - Zoom: x0.2-x4.0
  - Tint$^{MPR:}$ Off, 1-8
  - Thickness: 0mm-30mm
- Adv.

- Direction: Up/Down, Left/Right, Font/Back, Down/Up, Right/Left, Back/Front
- VR Refine: Off, 1-7
- Surf.ENH: 0-7
- MgaiClean: Off, Low, Mid, Hight, Max
- Shading: 0-10
- Grad View
- Inversion
- A3:1
- Move Light
- Distance: 10-200mm (±20mm)
- Render: Surface, Max, Min, X Ray,

4.14 Smart Track

- Available on linear probes
- Enable the function under Color/Power mode, the angle and the position of the ROI are adjusted automatically.

4.15 iScape View

- Actual size
- Fit size
- Ruler: On/Off
- Tint map: Off; 8 types
- Rotation: 0~355 degrees, 5/step

4.16 iNeedle

- B/iNeedle: On/Off
- Needle Dir.: Auto/Left/Right
- LineDensity: L, M, H, UH

4.17 Strain Elastography

- Available on L13-3 probe
- Opacity: 0-5, 1/step
- Map: E1-E6
- Smooth: 0-5, 1/step
- ROI: random adjustable
- Invert: On/Off
- Depth
- 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

4.18 AutoEF

- Output EDV/ESV/EF/SV/CO by Simpson method
- Activated with or without ECG
- Adjustment for the border of endocardium by single point or multi points
- Adjust Frame
- Layout: Dual/ Single
- Diastole FR
- Systole FR
- Volume curve: On/Off

4.19 iScanHelper

- Tutorial function as a guidance to show basic scanning skill with graphic of probe position, schematic of anatomy and example clinical image
- Broadcast the scanning skill in multi languages
- Adjust the broadcast volume or mute
- Synchronize the standard ultrasound image to the main screen and zoom in
- Synchronize iScanHelper information to the left side of the main screen

4.20 iBeam

- Spatial compound imaging
- Off, 1-3, 1/step

4.21 iClear

- Speckle suppression imaging
- Available on B, 3D mode

4.22 iTouch+

- B-mode: Gain, TGC, LGC, Dehaze
- Color: Gain
- Power: Gain
- PW: Scale, PRF

4.23 Echo Boost

- Available in cardiac exam mode when using a phased array probe
- Improve the homogeneity through the whole field of view
- Better noise control in cardiac chambers and muscles

4.24 Zoom

- Zoom:
  - Spot Zoom
  - Res Zoom
  - Pan zoom: 0.8x-4x
- iZoom: convertible 3 steps; normal image, zoom standard area, zoom onl

4.25 QSave

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

4.26 iCompare

- Allow to compare real-time ultrasound imaging to the past DICOM CT/MRI/ Mammography/X-Ray/Ultrasound images without external workstation
- Helpful to easily evaluate and follow up the progression of disease, treatment effect monitoring.

4.27 DVR

- Digital video recorder, a useful tool for education and memory
- Max storage length each time: 60 min

5 Cine Review and Raw Data Processing

5.1 Cine review

- Available in all modes
- Frame by frame manual cine loop review or auto playback with variable speed
- Maximum cine memory up to 32577 frames (B storage server) or 163.84s (M storage server) (depends on the mode)
- Retrospective storage (1-120s pre- settable) and prospective storage (1- 480s pre-settable)
- Frame compare: displays one cine in dual format and allows frame by frame compare side by side
- Cine compare: compare cines which are saved in same imaging mode
- Jump to first and jump to last: one keystroke go to first or last frame in the cine

5.2 Raw data processing

5.2.1 B-mode

- TGC
- Gain
- Dyn Ra.
- Gray Map
- Tint Map
- iClear
- L/R
- U/D
- Rotation
- LGC
- Dual Live
- Auto Merge
- H Scale
- Echo Boost
- Smooth
- ExtImage
- Zoom
- V1:1
- Dehaze
- Edge Enhance
- Single/Quad

5.2.2 M-mode

- Gain
- Speed
- Dynamic Range
- Gray Map
- Tint Map
- Display format
- Edge Enhance
- Time Flag

5.2.3 Color

- Gain
- Baseline
- Smooth
- Color Map
- Priority
- Dual Live
- Invert
- velocity tag
- Quad
- ExtImage

5.2.4 PW

- Gain
- Baseline
- Volume
- Angle
- Quick Angle
- Dynamic range
- Gray map
- Tint Map
- Display format
- Invert
- WF
- T/F Res
- Auto Calculate
- Auto Calc Cycle
- Trace Sensitivity
- Auto Calc Parameter
- Trace Smooth
- Trace Area
- Auto Calc Loop

6 Measurement/Analysis and Report

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

6.1 General measurements

6.1.1 B-Mode

- Distance
- Ellipse
- Trace
- Spline
- Cross
- Angle (2 Lines)

- Angle (3 Points)
- Double Dist
- Trace Len
- Trace Len(Spline)
- Parallel
- Distance P-L
- B-Profile
- B-Hist(Ellipse)
- B-Hist(Trace)
- B-Hist(Spline)
- B-Hist(Rectangle)
- Depth
- Color Vel
- Strain Hist
- Elas. Hist
- Elas.
- Strain
- Smart Trace
- Smart Calc
- ----------
- Volume
- Volume(Ellipse)
- Volume(E+Dist.)
- Ratio(D)
- B Ratio
- ----------
- Volume
- Volume
- Volume(Ellipse)
- Volume(E+Dist.)
- Ratio(A)
- Area1
- Area2
- Directional R
- D1
- D2
- RAC
- Sag
- XS
- Volume Flow
- Vas Area
- TAMEAN
- TAMAX
- Elas. Ratio
- A
- B
- Strain Ratio
- A
- B

6.1.2 M-Mode

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

6.1.3 D-Mode

- PS
- ED
- PS/ED
- Vel
- HR
- HR(R-R)
- Time
- Auto Trace
- Manual Trace
- Spline Trace
- Acceleration
- ----------
- Ratio(Vel)
- Ratio(VTI)
- ----------
- Volume Flow
- Vas Area
- TAMEAN
- TAMAX

6.2 Clinical option measurement package

6.2.1 Abdomen

B-Mode

- Portal V Diam
- Splenic A Diam
- Splenic V Diam
- CrMV Diam
- CaMV Diam
- GB L
- GB H
- GB W
- GB wall th
- CBD
- Panc duct
- Panc body
- Pylorus
- Pylorus Wall
- Renal L
- Renal H
- Renal W
- Cortex
- Adrenal L
- Adrenal H
- Adrenal W
- Ureter
- Spleen H
- Hepatic Lesion1 Elas.
- Hepatic Lesion2 Elas.
- Hepatic Lesion3 Elas.
- Hep. Lesion1 Strain
- Hep. Lesion2 Strain
- Hep. Lesion3 Strain
- Splenic Lesion1 Elas
- Splenic Lesion2 Elas
- Splenic Lesion3 Elas
- Spleen Lesion1 Strain
- Spleen Lesion2 Strain
- Spleen Lesion3 Strain
- Renal Lesion1 Elas
- Renal Lesion2 Elas
- Renal Lesion3 Elas
- Renal Lesion1 Strain
- Renal Lesion2 Strain
- Renal Lesion3 Strain
- Panc Lesion1 Elas
- Panc Lesion2 Elas
- Panc Lesion3 Elas
- Panc Lesion1 Strain
- Panc Lesion2 Strain
- Panc Lesion3 Strain
- LSM
- BL Height
- BL Depth
- BL TD
- Free Fluid
- Bladder T1
- Bladder T2
- Bladder T3
- RenalPelvis W
- LtPancreas T
- RtPancreas T
- GastricWall T
- Pylorus T
- IntestineWall T
- DuodenalWall T
- JejunalWall T
- IleumWall T
- ColonWall T
- Aorta Diam
- AdrenalTip T
- AdrenalTail T
- Iliac Diam
- CaVC Diam(Expir)
- CaVC Diam(Insp)
- LymphNode1 L
- LymphNode1 T
- LymphNode2 L
- LymphNode2 T
- LymphNode3 L

- LymphNode3 T
- Jejunal1 L
- Jejunal1 T
- Jejunal2 L
- Jejunal2 T
- Medial Iliac1 L
- Medial Iliac1 T
- Medial Iliac2 L
- Medial Iliac2 T
- HepaticLymphNode L
- HepaticLymphNode T
- Thyroid L
- Thyroid H
- Thyroid W
- 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.
- ----------
- Renal Vol
- BL Vol
- PV/Ao
- Aorta Sten D
- Aorta Sten A
- ----------
- Aorta
- Outer Diameter
- Inner Diameter
- Outer Area
- Inner Area
- Celiac Axis
- Anterior-Posterior
- Transverse
- CrMA
- Anterior-Posterior
- Transverse
- Hepatic A
- Anterior-Posterior
- Transverse
- Splenic A
- Anterior-Posterior
- Transverse
- GDA
- Anterior-Posterior
- Transverse
- CaMA
- Anterior-Posterior
- Transverse
- Liver
- 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
- Renal A
- Long
- Anterior-Posterior
- Transverse
- Hepatic Lesion1 ElasRatio
- A
- B
- Hepatic Lesion2 ElasRatio
- A
- B
- Hepatic Lesion3 ElasRatio
- A
- B
- Hep. Lesion1 StrRatio
- A
- B
- Hep. Lesion2 StrRatio
- A
- B
- Hep. Lesion3 StrRatio
- A
- B
- Splenic Lesion1 Elas Ratio
- A
- B
- Splenic Lesion2 Elas Ratio
- A
- B
- Splenic Lesion3 Elas Ratio
- A
- B
- Spleen Lesion1 StrRatio
- A
- B
- Spleen Lesion2 StrRatio
- A
- B
- Spleen Lesion3 StrRatio
- A
- B
- Renal Lesion1 Elas Ratio
- A
- B
- Renal Lesion2 Elas Ratio
- A
- B
- Renal Lesion3 Elas Ratio
- A
- B
- Renal Lesion1 StrRatio
- A
- B
- Renal Lesion2 StrRatio
- A
- B
- Renal Lesion3 StrRatio
- A
- B

- Panc Lesion1 Elas Ratio
- A
- B
- Panc Lesion2 Elas Ratio
- A
- B
- Panc Lesion3 Elas Ratio
- A
- B
- Panc Lesion1 StrRatio
- A
- B
- Panc Lesion2 StrRatio
- A
- B
- Panc Lesion3 StrRatio
- A
- B
- Bladder
- BL Height
- BL Depth
- BL TD
- LymphNode1
- LymphNode1 L
- LymphNode1 T
- LymphNode2
- LymphNode2 L
- LymphNode2 T
- LymphNode3
- LymphNode3 L
- LymphNode3 T
- Jejunal1
- Jejunal1 L
- Jejunal1 T
- Jejunal2
- Jejunal2 L
- Jejunal2 T
- Medial Iliac1
- Medial Iliac1 L
- Medial Iliac1 T
- Medial Iliac2
- Medial Iliac2 L
- Medial Iliac2 T
- HepaticLymphNode
- HepaticLymphNode L
- HepaticLymphNode T
- 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
- 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
- Breast Mass 2
- L
- H
- W
- Breast Mass 3
- L
- H
- W
- Breast Mass 4
- L
- H
- W
- Breast Mass 5
- L
- H
- W
- Breast Mass 6
- L
- H
- W
- Breast Mass 7
- L
- H
- W
- Breast Mass 8
- L
- H
- W
- Breast Mass 9
- L
- H
- W
- Breast Mass 10
- L

- H
- W
- 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
- Parathyroid 1
- L
- H
- W
- Parathyroid 2
- L
- H
- W

M-Mode

- CaVC Diam(Insp)(M)
- CaVC Diam(Expir)(M)

D-Mode

- Aorta
- CrMA
- Hepatic A
- Splenic A
- CaMA
- CaVC

- Hepatic V
- Lt Hepatic V
- M Hepatic V
- Rt Hepatic V
- Portal V
- M Portal V
- Splenic V
- Renal A
- Renal V
- CrMV
- CaMV
- Interlobar A
- Arcuate A
- Segment A
- Parathyroid 1
- Parathyroid 2
- Hilum
- STA
- ITA
- ----------
- SMA/Ao

6.2.2 Reproduction

B-Mode

- Dog CRL
- Dog GS
- Dog HD
- Dog BD
- Feline BD
- Feline HD
- Equine GS-H
- Equine GS-V
- Fetal VL(Pony)
- Bovine CRL
- Bovine TD
- Bovine HD
- Ovine CRL
- Ovine BPD
- Uterus D
- Endo
- Ovary L
- Ovary H
- Prostate L
- Prostate H
- Prostate W
- Testicle L
- Testicle H
- Testicle W
- Follicle1 L
- Follicle2 L
- Follicle3 L
- Follicle4 L
- Follicle5 L
- Follicle6 L
- Follicle7 L
- Follicle8 L
- Follicle9 L
- Follicle10 L
- Follicle11 L
- Follicle12 L
- Follicle13 L
- Follicle14 L
- Follicle15 L
- Follicle16 L
- Ovarian Cyst1 d1
- Ovarian Cyst1 d2
- Ovarian Cyst1 d3
- Ovarian Cyst2 d1
- Ovarian Cyst2 d2
- Ovarian Cyst2 d3
- Ovarian Cyst3 d1
- Ovarian Cyst3 d2
- Ovarian Cyst3 d3
- Testicular Mass1 d1
- Testicular Mass1 d2
- Testicular Mass1 d3
- Testicular Mass2 d1
- Testicular Mass2 d2
- Testicular Mass2 d3
- Testicular Mass3 d1
- Testicular Mass3 d2

- Testicular Mass3 d3
- Epididymis L
- Epididymis H
- Epididymis W
- Scrotal Wall
- ----------
- Prostate
- Prostate L
- Prostate H
- Prostate W
- Testis
- Testicle L
- Testicle H
- Testicle W
- Ovarian Cyst1
- Ovarian Cyst1 d1
- Ovarian Cyst1 d2
- Ovarian Cyst1 d3
- Ovarian Cyst2
- Ovarian Cyst2 d1
- Ovarian Cyst2 d2
- Ovarian Cyst2 d3
- Ovarian Cyst3
- Ovarian Cyst3 d1
- Ovarian Cyst3 d2
- Ovarian Cyst3 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
- Testicular Mass1
- Testicular Mass1 d1
- Testicular Mass1 d2
- Testicular Mass1 d3
- Testicular Mass2
- Testicular Mass2 d1
- Testicular Mass2 d2
- Testicular Mass2 d3
- Testicular Mass3
- Testicular Mass3 d1
- Testicular Mass3 d2
- Testicular Mass3 d3
- Epididymis
- Epididymis L
- Epididymis H
- Epididymis W
- Breast Mass 1
- L
- H
- W
- Breast Mass 2
- L
- H
- W
- Breast Mass 3
- L
- H
- W
- Breast Mass 4
- L

- H
- W
- Breast Mass 5
- L
- H
- W
- Breast Mass 6
- L
- H
- W
- Breast Mass 7
- L
- H
- W
- Breast Mass 8
- L
- H
- W
- Breast Mass 9
- L
- H
- W
- Breast Mass 10
- L
- H
- W

M-Mode

- FHR (M)

D-Mode

- FHR (D)
- Testis A
- Testis V
- Epididymis A
- Epididymis V

6.2.3 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)
- CaVC Diam(Expir)
- CaVC Diam(Insp)
- CrVC Diam(Expir)
- CrVC Diam(Insp)
- LCA Diam
- RCA Diam
- PEd(2D)
- PEs(2D)
- VSD Diam
- ASD Diam
- PDA Diam
- PFO Diam
- AutoEF
- RPADd
- RPADs
- MV THK
- ----------
- LA/Ao(2D)
- MPA/Ao(2D)
- LV SI(2D)
- ----------
- LV(easy)(2D)
- LVIDd(2D)
- LVIDs(2D)
- HR(2D)
- LV(2D)
- Diastole(2D)
- Systole(2D)
- IVSd(2D)
- LVIDd(2D)
- LVPWd(2D)
- IVSs(2D)
- LVIDs(2D)
- LVPWs(2D)
- HR(2D)
- LA Simpson
- LA A4Cd
- LA A4Cs
- LA A2Cd
- LA A2Cs
- HR(2D)
- LV Simpson
- LV A4Cd
- LV A4Cs
- LV A2Cd
- LV 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
-

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
- CaVC Diam(Insp)(M)
- CaVC Diam(Expir)(M)
- CrVC Diam(Insp)(M)
- CrVC Diam(Expir)(M)
- ----------
- LA/Ao(M)
- MPA/Ao(M)
- ----------
- LV(easy)(M)
- LVIDd(M)
- LVIDs(M)
- HR(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)

D-Mode

- A'(lateral)
- A'(medial)
- AAo Vmax
- AV VTI
- AV HR
- AV Vmax

- AR DecT
- AR Time
- AR PHT
- AR Ved
- AR Vmax
- AR VTI
- MV ARa(lateral)
- MV ARa(medial)
- ASD Vmax
- AV AccT
- AV DecT
- Coarc Post-Duct
- Coarc Pre-Duct
- DAo Vmax
- MV DRa(lateral)
- MV DRa(medial)
- E'(lateral)
- E'(medial)
- CaVC Vel(Expir)
- CaVC 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)
- S'(lateral)
- S'(medial)
- CrVC Vel(Expir)
- CrVC 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
- a'(lateral)
- a'(medial)
- e'(lateral)
- e'(medial)
- s'(lateral)
- s'(medial)
- ----------
- MV E/A
- MVA(PHT)
- TV E/A
- TVA(PHT)
- ----------
- MV TDI
- A'(lateral)
- A'(medial)
- E'(lateral)
- E'(medial)
- S'(lateral)
- S'(medial)
- 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
- TV TDI
- a'(lateral)
- a'(medial)
- e'(lateral)
- e'(medial)
- s'(lateral)
- s'(medial)

6.2.4 AutoCalc

- PS
- ED
- MD
- PPG
- TAMAX
- Vol Flow(TAMAX)
- TAMEAN
- Vol Flow(TAMEAN)
- Vas Diam
- Vas Area
- DT
- MPG
- MMPG
- VTI
- AT
- S/D
- D/S
- PI
- RI
- PV
- HR

6.3 Smart Trace

- Measures the lengths of major axis and minor axis, area and circumference of a closed region on the image semi-automatically

6.4 Smart Calc

- Automatic trace, measurement and calculation tool

6.5 Report

- Specific report template by application
- Editable value in report
- Images selectable
- Editing though iReport
  - 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/DOCX file
- Mini report
  - Quickly displaying Mini report in the thumbnail area of the main screen
  - Including both general measurement and application measurement results
  - Support deleting measurement results

6.6 iWorks

- Auto workflow protocol
- Templates are user configurable
- Functions: pause, stop, replace, repeat, skip, insert single step, return and continue, steps in thumbnail, iNSert another template

- iWorks setup mode: B; B/B (Dual Live); Dual B/B; Color; B/Color (Dual Live); Power; B/Power (Dual Live); B + PW; Color + PW; Power + PW; B + CW; Color+ CW; B+M; B+TVI; TVI+TVD; iScape View.
- iWorks setup annotation: support up to 2 annotations, location and font size are configurable.
- iWorks setup bodymark: select existing library, and transducer indicator is pre- settable
- iWorks setup measurement: select existing measurement library
- Template import and export are available
- Support create user-defined iWorks protocol

7 Exam Storage and Management

7.1 Exam storage

- 1TB HHD (Hard Disk Drive): Capable to store up to approximate 2297011 single frames
- Direct digital storage of single frame and cine 2D, color and Doppler

7.2 Exam management

- iStation workstation dedicated for animal exam management
- Animal exam query/retrieve
- Support review of current and past exam
- New exam, Activate exam, Continue exam functions, End exam are available
- Support measurements and calculations on archived exam and images
- Export images in BMP/JPG/TIFF/DCM/ AVI/MP4 format
- Support backup/send to USB devices, DVD-RW, CD-R, DVD+R, DVD-R,
- DVD+RW media

8 Connectivity

8.1 Ethernet Network Connection

- Cable connection
- Wireless connection: built-in wireless adapter
- DICOM 3.0
  - DICOM basic
  - Verify (SCU, SCP)
  - Task management
  - DICOM storage
  - DICOM print
  - DICOM storage commitment
  - DICOM media storage (including DICOM DIR)
- DICOM Worklist
- DICOM Query/Retrieve
- DICOM Modality Performed Procedure Step - MPPS
- DICOM Reproduction SR
- DICOM Cardiac SR
- DICOM Abdomen SR

8.2 iStorage (included in UltraAssist)

- Direct network storage tool between ultrasound system and personal computer

8.3 MedSight

- An interactive app that lets you transfer clinical images straight from the 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 Wi-Fi
- 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

8.4 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, review of animal information, 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

8.5 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).

9 Transducers

9.1 Curved array

9.1.1 C11-3

- Application: Abdomen (Canine, Feline), Cardiology (Canine, Feline), Reproduction (Canine, Feline)
- Bandwidth: 2.6~12.8 MHz
- Depth: 1.5~35.0cm
- Biopsy Guide: NGB-018, multiangle, reusable

9.1.2 C5-1

- Application: Abdomen (Canine, Bovine, Ovine), Reproduction (Canine)
- Bandwidth: 1.2~6.0 MHz
- Depth: 4.0~40.0 cm
- Biopsy Guide: NGB-022, multiangle, reusable

9.2 Linear array transducer

9.2.1 L13-3

- Application: Abdomen (Canine, Feline)
- Bandwidth: 3.0~13.0 MHz
- Depth: 1.5~35.0 cm
- Biopsy Guide: NGB-007, multiangle, reusable

9.3 Phased array transducer

9.3.1 P8-2

- Application: Cardiology (Canine, Feline), Abdomen (Canine, Feline)
- Bandwidth: 2.3~8.0 MHz
- Depth: 2.0~38.0 cm
- Biopsy Guide: not available

9.3.2 P4-2

- Application: Cardiology (Canine, Equine, Bovine, Ovine)

- Bandwidth: 1.5~4.5 MHz
- Depth: 2.0~38.0 cm
- Biopsy Guide: NGB-011, multiangle, reusable

9.3.3 P10-4

- Application: Cardiology (Canine, Feline), Abdomen (Canine, Feline)
- Bandwidth: 3.0-11.4MHz
- Depth: 2-38.0cm
- Biopsy Guide: not available

10 Peripheral Devices and Accessories

10.1 Black/white video printer (digital)

- MITSUBISHI P95DW-N
- SONY UP-D898MD

10.2 Black/white video printer (Digital & Analog)

- SONY UP-X898MD

10.3 Color digital video printer

- SONY UP-D25MD

10.4 Graph/text printer

- CANON TS708

10.5 Gel warmer

- Easily be disassembled off system for cleaning
- Temperature with 4 levels: off/34°C/ 37°C/40°C, with deviation of ±1°C
- Light indicator for temperature protecting
- Dimension: 82(D)*78(W)*119(H) mm
- Weight: approx. 240g (net)
- Continuous operation time: >12h

10.6 Footswitch

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

10.7 ECG

- 12-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: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Invert: On/Off

10.8 Barcode reader

- SYMBOL LS2208 (1D)
- SYMBOL DS4608 (2D)
- JADAK HS-1M
- JADAK HS-1R

10.9 Built-in Wi-Fi 5 Wireless adapter

- Encryption: WPA, WPA2
- Protocols: IEEE 802.11 ac/a/b/g/n
- Frequency: 2.4G/5G

10.10 iVocal Microphone

- SAMSON XPD2

10.11 Built-in Battery

- Replaceable and rechargeable lithium battery

- Full battery lasts for more than 24h in standby mode
- Battery fully-recharged time: less than 4h (Under power off or standby status)
- Continuous scanning time: more than 1h

11 System Inputs and Outputs

11.1 Video output

- S-Video out: 1 port, PAL/NTSC
- HDMI: 1 Port
- VGA out: 1 port

11.2 Physio input

- Support ECG signal
- ECG module: 1 port

11.3 Other input/output

- USB: 6 ports (2 USB 3.0 and 4 USB 2.0)
- Ethernet: 1 port, 10M/100M/1000M adaption
- Remote port: 1 port

12 Safety and Conformance

12.1 Quality standards

- ISO 9001

12.2 Design standards

- EN 60601-1 and IEC 60601-1
- EN 60601-1-2 and IEC 60601-1-2
- ETSI EN 301 489-1
- ETSI EN 301 489-17
- ETSI EN 300 328
- EN 62311

12.3 CE declaration

- The device is fully in conformance with the radio equipment directive 2014/53/EU.

NOTICE:

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

Mindray Animal Medical reserves the right to make changes in specifications and features shown herein, or discontinue the product at any time without notice or obligation. Contact your Representative for the most current information.