

Vetus 30 Series

Veterinary Diagnostic Ultrasound System

Specification



mindray
animal medical

1 System Overview

1.1 Application

- Abdomen
- Cardiology
- Reproduction
- Small Parts
- Musculoskeletal

1.2 Transducer types

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

1.3 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)

- iScape View
- Tissue Doppler Imaging
- Smart 3D
- iNeedle
- Abdomen/General Package
- Reproduction Package
- Cardiology Package
- Smart Trace
- DICOM Basic
- DICOM Worklist
- DICOM MPPS
- DICOM Query/Retrieve
- DICOM Reproduction SR
- DICOM Cardiac SR
- DICOM Abdomen SR
- DICOM Small Parts SR
- DICOM Vascular SR
- iWorks
- iScanHelper
- iCompare
- iClear⁺
- Smart HRI
- Smart Bladder
- DVR Module
- ClamAV
- Smart Calc
- Multilingual control panel overlay
- Saddle basket kit
- QWERTY keyboard
- Keyboard protective film
- Multi-function hardware module
- ECG
- Built-in wireless adapter
- Ultrasound gel warmer
- Microphone material kit

1.4 Language support

- Software: Chinese, English, Italian, Dutch, French, German, Portuguese, Russian, Spanish, Polish, Czech, Turkish, Norwegian, Swedish, Serbian, Greek, Lithuanian, Hungarian
- Keyboard input: Chinese, English, German, Spanish, French, Italian, Portuguese, Russian, Czech, Polish, Icelandic, Norwegian, Swedish, Finnish, Turkish, Danish, Hungarian, Serbian
- User manual: Chinese, English, German, Spanish, French, Italian, Portuguese, Russian, Turkish, Polish
- 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 a 21.5-inch monitor, a fixed support arm for monitor, and a lifting support arm for control panel:
 - Depth: 910±20mm
 - Width: 538±10mm
 - Height: 988±20mm
- Weight: ≤58kg (Standard configuration without optional accessories)

2.2 Audio speakers

- Stereo audio speakers

2.3 Support arm

- Fixed support arm

2.4 Wheels

- Diameter: 100mm
- 4 castors for total lock and break

2.5 Transducer port and holder

- Transducer port: 3
- Transducer holder: 6

2.6 Electrical power

- Voltage: 100-240VAC
- Frequency: 50/60 Hz
- Power consumption: 440 VA

2.7 Operating Environment

- Ambient temperature: 0 – 40°C
- Relative humidity: 20% – 85% (non-condensing)
- Atmospheric pressure: 700hPa – 1060hPa

2.8 Storage & Transportation Environment

- Ambient temperature: -20 – 55 °C
- Relative humidity: 20% – 95% (non-condensing)
- Atmospheric pressure: 700hPa – 1060hPa

3 User Interface

3.1 Control panel

- Brightness adjustable for the backlight of the control panel
- Backlit QWERTY keyboard
- 2 keys for user-defined functions
- Down/up: ≥200 mm

3.2 Monitor

- 21.5-inch bezel-less LED monitor with high resolution
- Resolution: 1920*1080

- Viewing angle: 176 degrees
- Digital on screen display of brightness and contrast controls
- Automatic adjustment of monitor light with the changing environment
- Tilt/Rotate independent adjustment
- Tilt angle range: 20±5 degrees (rear), 85±5 degrees (front)
- Rotate angle range: 90±5 degrees (left), 90±5 degrees (right)

3.3 Touch screen

- 13.3-inch high sensitivity anti-glare color touch screen
- Resolution: 1920*1080
- Digital brightness adjustment through preset
- Angle adjustable range: 20 degrees
- Viewing angle: 170 degrees
- Support touch screen gestures
- Support either hand writing or with gloves on
- Editable buttons: long press to add, delete or move buttons
- 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: <30 sec
- Boot-up from stand-by: <10 sec
- Shut-down: <15 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
- Up to 150 comments can be added

3.7 Bodymark

- Up to 69 bodymarks for versatile applications
- User customizable

4 Imaging Parameters

4.1 B-mode

- Frame rate (max): 606 f/s
- A.Power: according to the POD

- TGC: 8 sliders; one-click reset
- Depth: 30 Levels, 1.5 – 40cm
- Gain: 0 – 100, 1/step
- FOV: On/Off
- FOV Size: according to the POD
- FOV Position: random adjustable
- Image Quality: according to the POD
- Persistence: 0 – 7, 1/step
- Dyn Ra.:
 - 6C2m, C5-2m:
 - 30 – 160, 5/step
 - 160 – 180, 10/step
 - 180 – 260, 40/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: according to the POD
- 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 – 5
- EdgeEnhance: 0 – 6, 1/step
- HR Flow: On/Off
- Single/Quad: On/Off
- B Steer: 5 Levels
- Trapezoid: On/Off, available on L12-3m only

4.2 THI and PSH

- Patent PSH technology, obtains purer harmonic, better contrast resolution, higher SNR, exceptional high frequency harmonic
- iClear available

4.3 M-mode

- Gain: 0 – 100, 1/step
- Speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Dyn Ra.:
 - 6C2m, C5-2m:
 - 30 – 160, 5/step
 - 160 – 180, 10/step
 - 180 – 260, 40/step
 - others:
 - 30 – 160, 5/step
 - 160 – 200, 10/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: according to the POD

4.4 Color Doppler Imaging

- Velocity: 1.0 – 235.9cm/s
- Max frame rate: 253f/s

- PRF: 0.3 – 13.9kHz
- A.Power: according to the POD
- Gain: 0 – 100, 2/step
- Baseline: -8 – 8, 1/step
- Scale: according to the POD
- Steer: according to the POD
- Quick Steer: according to the POD
- ROI: random adjustable
- Img Quality: 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: 8 Levels
- 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
- Glazing Flow: On/Off, L, M, H
- Quad: On/Off
- HR Flow: On/Off
- ExtImage: On/Off

4.5 Power Doppler Imaging

- A.Power: according to the POD
- Gain: 0 – 100, 2/step
- Scale: according to the POD
- Steer: according to the POD
- Quick Steer: according to the POD
- ROI: random adjustable
- Img Quality:
 - L12-3m, C5-2m: 5 levels

- Others: 3 levels
- HR Flow: 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
- Glazing Flow: On/Off, L, M, H
- Quad: On/Off
- HR Flow: On/Off
- Dyn Ra.: 10 – 70, 5/step
- ExtImage: On/Off

4.6 PW Mode

- A.Power: according to the POD
- PRF: 0.7 – 23.1kHz
- Velocity: 0.01 – 364.58 cm/s
- Gain: 0 – 100, 2/step
- Baseline: -4 – 4, 1/step
- Scale: according to the POD
- Steer: according to the POD
- Quick Steer: according to the POD
- Volume: 0% – 100%, 2%/step
- Angle: -89° – 89°, 1°/step
- Quick Angle: -60°, 0°, 60°
- SVD: random adjustable
- Img Quality:
 - L12-3m, C5-2m: 5 levels
 - Others: 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: 8 Levels
- 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: -3 – 3, 1/step
- Auto Calc Param
- Trace Smooth: -2, -1, off, 1, 2
- Trace Area: Above, Below, All
- Auto Calc Loop

4.7 CW Mode

- PRF: 0.3 – 100.0kHz
- Velocity: 0.01 – 1540.0 cm/s
- A.Power: according to the POD
- Gain: 0 – 100, 2/step
- Baseline: -4 – 4, 1/step
- Scale: according to the POD
- 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: according to the POD

- T/F Res: 0 – 6, 1/step
- SVD: random adjustable

4.8 Free Xros M

- 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
- Display: On/Off
- Show A: On/Off
- Show B: On/Off
- Show C: On/Off
- ZoneVue: according to the POD

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

- Available on phased array transducers
- Max frame rate: 800f/s
- PRF: 0.6 – 11.6kHz
- Velocity: 5.0 – 89.1cm/s
- A.Power: according to the POD
- Gain: 0 – 100, 2/step
- Baseline: -8 – 8, 1/step, only adjustable in TVI
- Scale: according to the POD
- ROI: random adjustable
- Img Quality: 2 Levels
- Persistence: 0 – 6, 1/step
- Smooth: 0 – 6, /step
- Dyn Ra.: 10 – 70, 5/step, available in TEI only
- 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, available in TVI only
- Packet Size: 0 – 3, 1/step

4.10 Tissue Velocity Doppler (included in TDI option)

- Available on phased array transducers
- PRF: 0.7–18.9kHz
- A.Power: according to the POD
- Velocity: 0.01 – 145.83cm/s
- Gain: 0 – 100, 2/step
- Baseline: -4 – 4, 1/step
- Scale: according to the POD
- 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
- SV Size: 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
- WF: 10 Levels
- Duplex/Triplex: On/Off
- iTouch+: On/Off
- T/F Res: 0 – 6, 1/step

4.11 Smart 3D

- Reset VOI

- Acquisition Methods: Rocked, Linear
- Acquiring Time: 1 – 20s, 1s/step
- Distance: 10 – 200mm, 10mm/step
- Quality: Min, L, M, H, Max
- Angle: 10° – 80°, 1°/step
- VR
- MPR
- VOI: On/Off/Fixed
- Display Format
- Ref. Image: VR, A, B, C
- Quick Rot.: 0°, 90°, 180°, 270°
- iClear: Off, 1 – 7, 1/step
- VR Refine: Off, 1 – 7, 1/step
- Flip: On/Off
- Sync
- Axial rotation: X, Y, Z
- Threshold: 0% – 100%, 1%/step
- Gray Map: 1 – 8, 1/step
- Render: Surface, Max, Min, X Ray
- Smooth: 0 – 10, 1/step
- Brightness: 0% – 100%, 2%/step
- Contrast: 0% – 100%, 2%/step
- Tint: Off, 1 – 8, 1/step
- Inversion: On/Off
- Accept VOI: On/Off
- Opacity: 0% – 100%, 5%/step
- MagiClean: Off, Low, Mid, Hight, Max
- Depth VR
- View Direction: Left/Right, Front/Back, Down/Up, Right/Left, Back/Front

4.12 Smart Track

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

4.13 iScape View

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

4.14 iNeedle

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

4.15 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

4.16 iBeam

- Spatial compound imaging
- Available on 6C2m, C5-2m, L12-3m probes
- Off, 1 – 3, 1/step

4.17 iClear

- Speckle suppression imaging
- Available in B and 3D modes

4.18 iTouch⁺

- B-mode: Gain, TGC, Dehaze
- Color: Gain

- Power: Gain
- PW: Scale, PRF

4.19 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

4.20 Zoom

- Zoom:
 - Spot Zoom
 - Res Zoom
 - Pan zoom: 0.8x – 4x
- iZoom: one click to achieve full-screen magnification, support ≥2 magnification modes

4.21 QSave

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

4.22 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.

4.23 DVR

- Digital video recorder, a useful tool for education and memory
- Max storage length each time: 30 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 290768 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
- Pan Zoom
- V1:1
- Dehaze
- Edge Enhance
- Single/Quad

5.2.2 M-mode

- Gain
- Speed
- Dyn Ra.
- Gray Map
- Tint Map
- Display format
- Edge Enhance
- Time Mark

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
- Dyn Ra.
- Gray map
- Tint Map
- Display format
- Invert

- WF
- T/F Res
- Auto Calculate
- Auto Calc Cycle
- Trace Sensitivity
- Auto Calc Param
- 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
- IMT
- 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
 - TSM
 - Color Pixel Percent(Ellipse)
 - Color Pixel Percent(Trace)
 - Color Pixel Percent(Rectangle)
 - Color Pixel Percent(Recall)
 - 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 Length
- BL Height

- BL Width
- 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
- B.Mass1 Strain
- Breast Mass1 Elas.
- B.Mass2 Strain
- Breast Mass2 Elas.
- B.Mass3 Strain
- Breast Mass3 Elas.
- B.Mass4 Strain
- Breast Mass4 Elas.
- B.Mass5 Strain
- Breast Mass5 Elas.
- B.Mass6 Strain
- Breast Mass6 Elas.
- B.Mass7 Strain
- Breast Mass7 Elas.
- B.Mass8 Strain
- Breast Mass8 Elas.
- B.Mass9 Strain
- Breast Mass9 Elas.
- B.Mass10 Strain
- Breast Mass10 Elas.
- Smart HRI
- CCA IMT
- Bulb IMT
- ICA IMT
- ECA IMT
- Prostate L
- Prostate H
- Prostate W

- -----
- 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 Length
- BL Height
- BL Width
- Smart Bladder
- XS Bladder
- Sag Bladder
- 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
- B.Mass1 StrRatio

- A
- B
- Breast Mass1 Elas. Ratio
- A
- B
- B.Mass2 StrRatio
- A
- B
- Breast Mass2 Elas. Ratio
- A
- B
- B.Mass3 StrRatio
- A
- B
- Breast Mass3 Elas. Ratio
- A
- B
- B.Mass4 StrRatio
- A
- B
- Breast Mass4 Elas. Ratio
- A
- B
- B.Mass5 StrRatio
- A
- B
- Breast Mass5 Elas. Ratio
- A
- B
- B.Mass6 StrRatio
- A
- B
- Breast Mass6 Elas. Ratio
- A
- B
- B.Mass7 StrRatio
- A
- B
- Breast Mass7 Elas. Ratio
- A

- B
- B.Mass8 StrRatio
- A
- B
- Breast Mass8 Elas. Ratio
- A
- B
- B.Mass9 StrRatio
- A
- B
- Breast Mass9 Elas. Ratio
- A
- B
- B.Mass10 StrRatio
- A
- B
- Breast Mass10 Elas. Ratio
- A
- B
- Parathyroid 1
- L
- H
- W
- Parathyroid 2
- L
- H
- W
- IMT
- CCA IMT
- Bulb IMT
- ICA IMT
- ECA IMT
- Prostate
- Prostate L
- Prostate H
- Prostate 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 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
- MVT
- -----
- 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)
- Vp
- -----
- 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

- 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 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)
- MV E'(lateral)
- MV 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 DecT
- PV VTI
- PV HR
- PV Vmax
- RAP
- RPA Vmax
- RVET(Doppler)
- RVOT Vmax
- RVOT VTI
- RVPEP(Doppler)
- MV S'(lateral)
- MV 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 E Dur
- TV VTI
- TV HR
- TV Vmax
- VSD Vmax
- Hepatic V S Vel
- Hepatic V D Vel
- TV a'(lateral)
- TV a'(medial)
- TV e'(lateral)
- TV e'(medial)
- TV s'(lateral)
- TV s'(medial)
- E'(basal)
- A'(basal)
- S'(basal)
- E'(apical)
- A'(apical)
- S'(apical)
- E'(annular)
- A'(annular)
- S'(annular)
- E'(endo)
- A'(endo)
- S'(endo)
- E'(epi)
- A'(epi)
- S'(epi)
- -----
- MV E/A
- MVA(PHT)
- TV E/A
- TVA(PHT)
- -----
- MV TDI
- MV A'(lateral)
- MV A'(medial)
- MV E'(lateral)
- MV E'(medial)
- MV S'(lateral)
- MV 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
- TV a'(lateral)
- TV a'(medial)
- TV e'(lateral)
- TV e'(medial)
- TV s'(lateral)
- TV s'(medial)
- Longitudinal Motion
- E'(basal)
- A'(basal)
- S'(basal)
- E'(apical)
- A'(apical)
- S'(apical)
- E'(annular)
- A'(annular)
- S'(annular)
- IVCT
- IVRT
- Radial Motion
- E'(endo)
- A'(endo)
- S'(endo)
- E'(epi)
- A'(epi)
- S'(epi)
- IVCT

- IVRT

6.2.3 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

6.2.4 Small Parts

B-Mode

- 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
- Adrenal L
- Adrenal H
- Adrenal W
- 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
- B.Mass1 Strain
- Breast Mass1 Elas.
- B.Mass2 Strain
- Breast Mass2 Elas.
- B.Mass3 Strain
- Breast Mass3 Elas.
- B.Mass4 Strain
- Breast Mass4 Elas.
- B.Mass5 Strain
- Breast Mass5 Elas.
- B.Mass6 Strain
- Breast Mass6 Elas.
- B.Mass7 Strain
- Breast Mass7 Elas.
- B.Mass8 Strain
- Breast Mass8 Elas.
- B.Mass9 Strain
- Breast Mass9 Elas.
- B.Mass10 Strain
- Breast Mass10 Elas.
- Testis L
- Testis H
- Testis W
- Epididymis L
- Epididymis H
- Epididymis W
- Scrotal Wall
- Testis V(2D)
- AdrenalTip T
- AdrenalTail T

- -----
- 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
- Parathyroid 1
 - L
 - H
 - W
- Parathyroid 2
 - 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
 - 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.
- B.Mass1 StrRatio
- A
- B
- Breast Mass1 Elas. Ratio
- A
- B
- B.Mass2 StrRatio
- A
- B
- Breast Mass2 Elas. Ratio
- A
- B
- B.Mass3 StrRatio
- A
- B
- Breast Mass3 Elas. Ratio
- A
- B
- B.Mass4 StrRatio
- A
- B
- Breast Mass4 Elas. Ratio
- A
- B
- B.Mass5 StrRatio
- A
- B
- Breast Mass5 Elas. Ratio
- A
- B
- B.Mass6 StrRatio

- A
- B
- Breast Mass6 Elas. Ratio
- A
- B
- B.Mass7 StrRatio
- A
- B
- Breast Mass7 Elas. Ratio
- A
- B
- B.Mass8 StrRatio
- A
- B
- Breast Mass8 Elas. Ratio
- A
- B
- B.Mass9 StrRatio
- A
- B
- Breast Mass9 Elas. Ratio
- A
- B
- B.Mass10 StrRatio
- A
- B
- Breast Mass10 Elas. Ratio
- A
- B
- Testis
- Testis L
- Testis H
- Testis 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

D-Mode

- Parathyroid 1
- Parathyroid 2
- Testis A
- Testis V
- Epididymis A
- Epididymis V
- STA
- ITA

6.2.5 Vascular

B-Mode

- CCA IMT
- Bulb IMT
- ICA IMT
- ECA IMT
- Aorta Diam
- Iliac Diam
- -----
- Stenosis D
- Stenosis A
- Aorta Sten D
- Aorta Sten A
- -----
- IMT
- CCA IMT
- Bulb IMT
- ICA IMT
- ECA IMT

D-Mode

- CCA
- ICA

- ECA
- Bulb
- Carotid Bifurcation
- C.Iliac A
- Ex.Iliac A
- IIA
- CFA
- DFA
- Arcuate A
- Segment A
- Interlobar A
- Renal A
- Renal V
- Aorta
- CrMA
- CaMA
- Splenic A
- CaVC
- Portal V
- Lt Hepatic V
- Rt Hepatic V
- M Hepatic V
- Splenic V
- CrMV
- CaMV
- -----
- C.Iliac V
- PV
- Reflux
- Checklist
- Ex.Iliac V
- PV
- Reflux
- Checklist
- IIV
- PV
- Reflux
- Checklist
- CFV
- PV

- Reflux
- Checklist
- DFV
- PV
- Reflux
- Checklist

6.3 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

6.4 Smart Trace

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

6.5 Smart Calc

- Automatic trace, measurement and calculation tool

6.6 Smart HRI

- Available on 6C2m and C5-2m probes
- Auto measurement method for Hepatorenal Index (HRI)

6.7 Smart Bladder

- Available on 6C2m and C5-2m probes
- Auto measure three diameters and calculate the bladder volume

6.8 Report

- Specific report template by application
- Editable value in report
- Images selectable
- Load/save comment
- Viewing history reports
- Preview and printing reports
- Able to Export as PDF/DOCX file

6.9 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

6.10 iMeasure

- Provides reference ranges for measurement results
- Able to show reference information tips
- Applicable to feline and canine

7 Exam Storage and Management

7.1 Exam storage

- 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/WMV format
- Support backup/send to USB devices

8 Connectivity

8.1 Ethernet Network Connection

- Cable connection
- Wireless connection: built-in wireless adapter

8.2 DICOM 3.0

- DICOM basic
 - Verify (SCU, SCP)
 - DICOM storage
 - DICOM print
 - DICOM storage commitment
 - DICOM media storage
- DICOM Worklist
- DICOM Query/Retrieve
- DICOM Modality Performed Procedure Step - MPPS
- DICOM Vascular SR
- DICOM Reproduction SR
- DICOM Cardiac SR
- DICOM Abdomen SR
- DICOM Small Parts SR

8.3 iStorage (included in UltraAssist)

- Direct network storage tool between ultrasound system and personal computer

8.4 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 is 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, 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

8.6 u-Link (applicable for CE region only)

- 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 E-Mail

- Allows you to send images from the ultrasound system to a mobile device via email

8.8 GalleryDrop

- Supports sending images or cine from the ultrasound system to mobile devices via QR code

9 Transducers

9.1 Curved array

9.1.1 6C2m

- Application: Abdomen (Canine, Feline), Cardiology (Canine, Feline), Reproduction (Canine, Feline), Small Parts (Canine, Feline)
- Advanced Function: iScape, Smart 3D, Free Xros M, Color M
- Bandwidth: 2.6 – 12.8MHz
- Biopsy Guide: NGB-005, multiangle, reusable

9.1.2 C5-2m

- Application: Abdomen (Canine, Equine, Bovine, Ovine), Reproduction (Canine, Equine, Bovine, Ovine), MSK(Canine, Equine, Bovine, Ovine)
- Advanced Function: iScape, Smart 3D, Free Xros M, Color M, iNeedle
- Bandwidth: 1.2 – 6.0MHz
- Biopsy Guide: NGB-055, multiangle, reusable

9.2 Linear array

9.2.1 L12-3m

- Application: Abdomen (Canine, Feline), Small Parts (Canine, Feline), MSK(Canine, Feline, Equine)
- Advanced Function: iScape, Smart 3D, Free Xros M, iNeedle
- Bandwidth: 3.0 – 13.0MHz
- Biopsy Guide: NGB-007, multiangle, reusable

9.3 Phased array

9.3.1 P8-2m

- Application: Cardiology (Canine, Feline), Abdomen (Canine, Feline)
- Advanced Function: CW, iScape, Smart 3D, Free Xros M, Color M, TDI
- Bandwidth: 2.3 – 8.0MHz
- Biopsy Guide: not available

9.3.2 P10-4m

- Application: Cardiology (Canine, Feline), Abdomen (Canine, Feline)
- Advanced Function: CW, iScape, Smart 3D, Free Xros M, Color M, TDI
- Bandwidth: 3.0 – 11.4MHz
- 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
- Epson L130

10.5 Gel warmer

- Temperature with 4 levels: off/34°C/ 37°C/40°C, with deviation of $\pm 2^{\circ}\text{C}$
- Light indicator for temperature protecting
- Dimensions: 82(D)*78(W)*119(H) mm
- Weight: approx. 240g (net)
- Continuous operation time: >12h

10.6 Footswitch

- USB port: 971-SWNOM (wired, two keys); 971-SWNOM (wired, three keys, model: SP-997-350)
- Support user-definable functions

10.7 ECG

- 6-pin, AHA/IEC, for 3-lead wires
- ECG wave display: On/Off
- Position: 0 – 100%, 5%/step
- Gain: 0 – 30, 1/step
- Sweep speed: 25mm/s, 35mm/s, 50mm/s, 65mm/s, 100mm/s, 200mm/s
- Invert: On/Off
- RESP: On/Off
- RESP gain: 0 – 6, 1/step

10.8 Barcode reader

- SYMBOL LS2208 (1D)
- SYMBOL DS4608 (2D)
- JADAK HS-1M
- JADAK HS-1R
- Honeywell HH1800

10.9 Built-in Wi-Fi 5 Wireless adapter

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

10.10 Microphone

- SAMSON XPD2

11 System Inputs and Outputs

11.1 Video output

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

11.2 Physio input

- Support ECG signal
- Connected via USB port

11.3 Other input/output

- USB: 6 USB 3.0 Type-A ports and 1 USB 3.0 Type-C port
- Ethernet: 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
- EN 60601-2-37 and IEC 60601-2-37

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.

