



DATA SHEET



Model: ESE-35

Ultrasound System



Mobile, solid and affordable ESE-35 provides excellent value across the full range of general imaging and women healthcare applications. It is also perfect for regional nerve block, musculoskeletal, rheumatology applications by:

- Exceptional image quality including high end 3D/4D capability
- Versatile features and functions
- Amazing superficial imaging for breast and other small parts.
- Up to 22MHz capability provides excellent visualization tools in regional nerve block, musculoskeletal, rheumatology clinical applications
- Easy to use workflow with touch panel and 18.5" monitor

System Overview

Architecture

- The revolutionary RF platform, The First In The World, allows for more accurate information. This platform transfers all RF data for computing without any information loss. It has a much better advantage in detail imaging than current advanced platforms
- Thanks to the RF platform, it allows the development of many RF-based processing algorithms, which have ultra-premium contrast and resolution imaging
- This unique platform is capable of processing multiple data streams simultaneously
- Up to 25MHz next generation digital broadband and high resolution acoustic beamforming

- The new 12 bit, low noise, digital circuitry, with up to 280db dynamic range has improved 2D performance and increased Doppler sensitivity
- Next generation adaptive image processing for noise and artifact reduction that improves tissue presentation and edge definition
- Fully independent, triplex multiple mode operation for easy in Doppler procedures
- Multi-processors allow simultaneous mode changes and support for advanced system functionality



Applications

- Abdomen
- Obstetric
- Gynecology
- Cardiology
- Urology
- Vascular
- TCD
- Small Parts
- Pediatrics
- Intra-operative

Imaging features

- 2D grayscale imaging
- Harmonic imaging both in tissue harmonic and pulse inversion harmonic technologies
- VFusion, directional-enhanced information compounding
- VSpeckle, specialized and adaptive imaging processing to remove speckle noise artifacts and enhance tissue edge for clarity and accuracy
- VTissue, the advanced adaptive image processing to compensate for sound and speed variation in different tissue
- Auto imaging optimization
- Easy Comparative Function to compare previous exam
- M-mode
- Color Doppler imaging
- Power Doppler imaging
- Pulse wave Doppler imaging
- Simultaneous 2D and M mode
- Duplex 2D/PW Doppler
- Triplex 2D/Color/PW Doppler
- High PRF pulsed wave Doppler
- Continuous wave Doppler
- Zoom

- FULL screen imaging to enlarge imaging size
- Dual real time imaging without compromising imaging size
- PView for panoramic imaging (Optional)
- TView for trapezoidal imaging
- Tomographic display (MCUT)
- Auto NT* (Optional)
- Free 3D * (optional)
- 3D/4D imaging
- HQ(Optional)
- Inversion mode(Optional)
- Magic Cut (Optional)
- Smart Touch 3D/4D Operation(Optional)
- Smart 3D Volume Calculation (Optional) *
- Multiline-Free View (Optional)
- VCI(Optional)
- Niche view(Optional)
- Color M-mode(optional)
- Multi Angle M-mode with 360 degree rotation (Optional)
- Tissue Doppler (TD) mode*
- Tissue Velocity Imaging (TVI) mode* (optional)
- Tissue Velocity M (TVM) mode (optional)*
- Auto IMT function* (optional)

Standard features

- Up to 25Mhz high frequency in system platform. Up to 22MHz's probes are supported
- RF platform and RF data processing
- Up to 1500 seconds standard cine storage
- 1T HDD
- Integrated DVDRW
- Integrated black/white thermal video printer slot
- Patient information database
- Image archive on hard drive



- Quick store to USB memory stick
- Quick store to hard drive
- Quick print to B/W and color thermal video printer
- Network storage and printing
- Full measurement and analysis package
- Real time auto wave Doppler track and calculations
- Vascular calculations
- Cardiac calculations
- OB calculations and tables
- Gynecological calculations
- Urological calculations
- Renal calculations
- Volume calculations
- Barcode reader for patient information input(optional)
- Wireless networking for easy data sharing, storage and printing (optional)
- Bluetooth for image data transfer(optional)
- Image data transfer directly by E-Mail with network access(optional)
- Up-to-date connectivity and data management solutions, wireless , LAN, Bluetooth, E-Mail, integrated database
- DICOM compatibility*
- Three active probe ports, plus one dummy probe port
- 5 USB ports
- 8 TGC slides
- Average 4 multiple adjustable frequency in every probe and mode
- Up to 512 line density
- 1 DVI-D interface
- 1 Audio in interface; 1 Audio out interface
- 1 Speaker interface
- 1 RJ45 interface

Ergonomics

- Unique human oriented design for comfort and convenience

- Fully articulating 18.5-inch high resolution flat panel display
 - lifted operation panel 140 mm
 - Easy access DVD media drive
 - 3+1 easy access transducer ports
 - 4 transducer holders (removable for easy cleaning)
 - Integrated touchable alphabetic keyboard
 - Simple, easy and effective cable management structure
- Keyboard**
- Highly sensitive 10 inch capacity touch panel
 - Intuitive, configurable and touchable interactive operation interface
 - Ergonomic hard keys for general ultrasound operations
 - 8 TGC slides, functionality at any depth
 - Backlight keys

Image display screen

- 18.5 inch high resolution LED technology
 - Brightness, contrast and color temperature adjustment
 - Adjustable Gamma curve optimization for dedicated applications
 - Big angel swivel and tilting capability
- Peripherals**
- B&W thermal video printer: Sony UPD897MD (optional)
 - Color thermal video printer: Sony UPD25MD (optional)
 - Memory stick (optional)



Dimensions and Weight

- Height: 1260mm
- Width: 605mm
- Depth: 875mm
- Net Weight: 60kg

Electrical Power

- Voltage: 100-240V AC
- Frequency: 50/60Hz
- Power: < 470VA for console only

Transducer Technology

- Xcen technology for wideband frequency
- Pure wave technology for high resolution imaging
- Unique and high technical Xcen probe connector to adapt all different type of product models

Transducer types

- Convex array
- Linear array
- Phase array
- 4D probe
- Endocavity probe
- Micro-convex array

Transducer selection

- Electronic switching of transducers
- User customizable imaging presets for each transducer and application
- Automatic dynamic receiving focus in all transducers
- Multiple adjustable transmit focal zone, up to 8 focal zone

G2-5C Broadband Curved Array

- Field of view: 66 degree

- Convex radius: 50mm
- Application: abdomen, OB/Gyn, urology, pediatric
- Frequency range: 1.46 -6.0MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes
- Reusable biopsy guide available

F2-5C Broadband Curved Array

- Field of view: 59 degree
- Convex radius: 60mm
- Application: abdomen, OB/Gyn, urology, pediatric
- Frequency range: 1.6-5.3MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes
- Reusable biopsy guide available (not available now, but will be supported in the future)

D3-6C broadband curved array volume probe

- Field of view: 75 degree
- Convex radius: 40mm
- Application: abdomen, OB/Gyn, urology
- Frequency range: 1.8 – 7.2MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic, 3D/4D grayscale
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes



G4-9M broadband micro convex array

- Field of view: 136 degree
- Convex radius: 12mm
- Application: pediatric, abdomen, cardiac
- Frequency range: 3.2 – 12.2MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

X4-9E broadband micro convex endocavity array

- Field of view: 180 degree
- Convex radius: 8.8 mm
- Application: ob/gyn, urology
- Frequency range: 3.4-12.5 MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes
- Reusable biopsy guide available

D4-9E broadband micro convex 4D endocavity array

- Field of view: 141 degree
- Convex radius: 10mm
- Application: Ob/Gyn, urology
- Frequency range: 3.1 - 12MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic, 3D/4D grayscale,
- Multi-imaging frequency setting in 2D, 3D/4D, Harmonic, color Doppler and Wave Doppler modes

X4-12L broadband linear array

- Fine pitch, high resolution

- Applications: vascular, small parts
- Frequency range: 3.3 -12.6MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

X6-16L broadband linear array

- Fine pitch, high resolution
- Applications: vascular, small parts
- Frequency range: 5.05-15.50MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

U5-15LE broadband linear array

- Fine pitch, high resolution
- Applications: small parts, specially for breast, vascular
- Footprint: 51.2mm
- Frequency range: 3.2-12.0 Mhz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

G1-4P phased array

- Applications: cardiac, abdomen, Ob/Gyn, Urology
- Field of view 90 degree
- Frequency range: 1.09-4.18Mhz
- Pulsed wave Doppler, continuous wave Doppler, color Doppler, power Doppler, harmonic



F4-9E broadband micro convex endocavity array

- Field of view: 150 degree
- Convex radius: 10mm
- Application: Ob/Gyn, urology
- Frequency range: 3.3 - 11MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes
- Reusable biopsy guide available

F4-12L broadband linear array

- Fine pitch, high resolution
- Applications: vascular, small parts
- Frequency range: 4.0 -12.1MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

G3-10PX phased array

- Application: pediatric cardiology, abdomen,
- Field of view: 90 degree
- Frequency range: 2.0-8.0 Mhz
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

X9-22L broadband linear array

- Fine pitch, high resolution
- Applications: msk,nerve,small parts
- Frequency range: 5.0-22MHz
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

S2-9C Broadband Curved Array

- Field of view: 60 degree
- Convex radius: 60mm
- Application: abdomen, ob/gyn, urology, pediatric
- Frequency range: 1.2-5.2MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

B2-6C broadband convex array

- Field of view:72.7 degree
- Convex radius: 20mm
- Application: abdomen, ob/gyn, urology, interventional guide
- Frequency range: 2.0-7.0 MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

X3-10L broadband linear array

- Aperture size: 6mm
- Application: abdomen, pediatric
- Frequency range:2.7-9.3 MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

G3-9M broadband micro convex array

- Field of view: 91.7 degree
- Convex radius: 14mm
- Application: abdomen, pediatric
- Frequency range: 3.5-10MHz
- Pulsed wave Doppler, color Doppler, power Doppler, harmonic
- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes



Advanced Imaging controls

- Multi-imaging frequency setting in 2D, Harmonic, color Doppler and Wave Doppler modes

VFusion

- Available on all transducers and for 2D, 3D/4D (except phase array)
- Up to 5 levels of directional imaging fusion to enrich information
- Operate in conjunction with VSpeckle, harmonic imaging

VSpeckle

- Available on all transducers and for 2D, 3D/4D
- Virtually eliminate speckle noise artifact and dynamically enhances tissue margins
- Selectable multiple levels of speckle noise reduction and smoothing
- Operates in conjunction with VFusion and harmonic imaging

VTissue *

- Advanced imaging processing to adapt to the speed of the ultrasound variation in different tissue
- Improved detail resolution and conspicuity of lesions
- Presentable sound and speed in different applications
- One touch operation to ease diagnosis

Tissue Doppler (TD)

- Present wall motion spectrum by using Doppler principle
- Provide wall motion direction and velocity information

Tissue Velocity Imaging (TVI) (Optional)

- Color codes the velocities in tissue
- Present tissue color imaging by using Doppler principle
- This color image is overlaid onto the 2D image
- Captures low flow but high amplitude signals associated with wall motion

Auto NT (Nuchal Translucency) measurement (Optional)

- Automatically detect Nuchal Translucency in interest box
- Automatically report thickness result of NT

Auto IMT (Intima-Media Thickness) measurement (Optional)

- Automatically detect intima media thickness in interest box
- Automatically report the result of IMT
- Available in linear probe

Smart 3D Volume Measurement(Optional)*

- Trace the margin of the irregular circle in different slices of volume data in irregular shape
- Automatically report the volume of the irregular object

Auto Follicle(2D/3D)(Optional) *

- Just click on the area of follicle in B mode, the area of this follicle will be reported automatically
- Report the area of different follicle in the volume data automatically

Next generation RF-based image processing

- Available on all imaging transducers in 2D grayscale modes
- Virtually eliminates speckle noise artifact and dynamically enhance tissue edge
- Operates with other real-time processing algorithms

Inversion mode(Optional)

- This render mode is used to display anechoic structures such as vessels
- It invert the gray values of the rendered image, such as black image information become white and vice versa

Magic cut(Optional)

- Ability to edit images, make possible to cut away structure obstructing the view in the ROI
- Several cutting methods available

Smart Touch 3D/4D Operation(Optional)

- Fully utilize touch panel possibility for easy operation, such as rotation 3D rendering image, move ROI, create line by finger

Free View(Optional)

- Provide any plane view to visualize the internal tissue information
- Improve the contrast resolution to facilitate the detection of diffuse lesions in organs



Imaging modes

2D Imaging

- Pre-defined ATGC (adaptive temporal gain compensation) curves optimized for consistently excellent imaging
- B/M acoustic output: 0-100%
- Depth: able to adjust from 1 to 36cm
- Select between 1 to 8 transmit focal zones
- Reverse function: on/off
- VFusion function
- VSpeckle function
- Harmonic imaging both tissue harmonic and phase inversion
- Cineloop image review
- Selectable 2D line density
- Dual imaging with independent cineloop
- 256(8 bit) gray level
- Multiple color maps with chroma imaging
- FULL screen imaging to larger image size
- Multi frequency: probe dependent
- Gray filter: 6 steps
- Persistence: 8steps
- Selectable image angles, probe dependent
- Gain: 0-100%
- Dynamic range: 30-280 db
- VSharpen to enhance edge contrast
- Smooth to improve spatial resolution
- EdgeEnhance to improve detail information and contrast
- VNear to enhance SNR of near field

Harmonic Imaging

- Supports both tissue harmonic and phase inversion imaging (transducer and frequency dependence)
- Second harmonic processing to reduce artifacts and improve image clarity

- Maximize detail resolution and enhance contrast
- Available on all imaging transducers
- Extends high performance imaging capabilities to all patient body types

M mode

- Selectable sweeping rates
- Time marks: 0.025 – 0.5 second
- Selectable display format prospective or retrospective (1/3-2/3, 1/2-1/2, 2/3-1/3, side by side 1/2-1/2, side by side 1/3-2/3, full screen)
- Chroma colorization with multiple color maps
- Cineloop review for retrospective analysis of M-mode data
- 256 gray levels

Color Doppler mode

- Available on all imaging transducers
- Automatically adapts transmit and receive bandwidth processing based on the color box position
- Cineloop review with full playback control
- Steering on linear array transducers
- Color flow M mode display for tissue motion and flow velocity(optional)
- Selectable in baseline, line density, flash reduction, persistence, maps, frequency, PRF, wall filter, packet size, color level, sensitivity, focus position, acoustic power, and smooth
- Color gain
- Region of interest
- Baseline invert
- Simultaneous mode during PW mode
- Smoothing
- Wall filter
- Zoom



Power Doppler mode

- High sensitive mode for small vessel visualization
- Available on all transducers
- Cineloop review
- Multiple color maps
- Individual controls for gain
- Selectable baseline, line density, flash reduction, persistence, maps, frequency, PRF, wall filter, packet size, color level, sensitivity, focus position, acoustic power, and smooth
- Adjustable region of interest

Pulsed Wave (PW) Doppler

- Ultra high resolution spectral FFT rate
- Angle correction with automatic velocity scale adjustment
- Normal, invert display around horizontal zero line
- Selectable gray filter, dynamic range, frequency, PRF, wall filter, baseline, angle correct, sample volume
- Selectable sweep speeds: 8 steps
- Maximum velocity range: 12m/s
- PW acoustic output: 0-100%
- Selectable low frequency signal filtering with adjustable wall filter settings
- Selectable grayscale curve for optimal display
- Selectable chroma colorized maps
- Selectable display format prospective or retrospective (1/3-2/3, 1/2-1/2, 2/3-1/3, side by side 1/2-1/2, side by side 1/3-2/3, full screen)
- Auto function to optimize spectral Doppler display.

- Digitally enhanced stereo output
- 256 gray levels
- Post-processing in frozen mode includes map, baseline, invert and chroma
- Simultaneous or duplex mode of operation
- Simultaneous 2D, color Doppler, pulsed Doppler
- High PRF capability in all modes including duplex and triplex

Continuous Wave Doppler (CWD)

- Cardiac sector array transducer only
- Maximum velocity range: 18.5m/s

3D/4D

- 3D/4D rotation
- Grayscale imaging controls
- Selectable rendering approaches
- Unique high quality rendering algorithm
- Selectable gray maps
- Multi slide cutting (MCUT)
- Cineloop 3D
- Review volume

PView

- Real time extended field of view composite imaging
- Ability to back up and realign the image during acquisition
- Full zoom, cineloop review and image rotation capabilities
- User can measure distance and area
- Measurement can be made on individual frames during cineloop review
- Available on linear transducers



TView

- Expand view of scanning
- Available on linear transducers

Auto

- Intelligent one button automatic optimization in 2D and Doppler modes
- Automatically adjust PRF and baseline in Doppler

Tissue Doppler Imaging (TD) *

- Present wall motion spectrum by using Doppler principle
- Provide wall motion direction and velocity information
- Available on all sector transducer for cardiac imaging
- Gain

Tissue Velocity Imaging (TVI) Optional*

- Color codes the velocities in tissue
- Present tissue color imaging by using Doppler principle
- This color image is overlaid onto the 2D image
- Captures low flow but high amplitude signals associated with wall motion
- Available on all sector transducer for cardiac imaging
- Tissue velocity M mode display for wall motion(optional)
- Gain

Touch Panel Interface

2D mode

- New patient
- BodyPattern
- Archive
- Comments
- End exam
- Sys setting
- Probe&App
- PView
- Fullscreen
- L/R
- U/D
- Center line
- VSpeckle
- VFusion
- Gray Filter
- Persistence
- Display Format
- Image reference
- Maps
- Frequency
- Focus position
- Focus #
- Dynamic Range
- Line density
- VSharpen
- Biopsy
- Image angle
- Focus width
- Smooth
- Acoustic power
- EdgeEnhance
- Vnear
- NeedleEnhance
- SGC



M Mode

- New patient
- BodyPattern
- Archive
- Comments
- End exam
- Sys setting
- Probe&App
- L/R format
- U/D format
- Maps
- Dynamic range
- Acoustic power
- Sweep speed
- Gray filter
- VSharpen

CF mode

- New patient
- BodyPattern
- Archive
- Comments
- End exam
- Sys setting
- Probe&App
- Invert
- Full Screen
- L/R
- U/D
- Baseline
- Flash Reduction
- Line density
- Persistence
- Display format
- Sync display
- Transparency
- Image reference
- Maps

- Frequency
- PRF
- Wall filter
- Packet size
- Colorlevel
- Sensitivity
- Focus position
- Acoustic power
- Smooth

PW/CW mode

- New patient
- BodyPattern
- Archive
- Comments
- End exam
- Sys setting
- Probe&App
- Invert
- Triplex
- Display format
- Sweep speed
- Gray filter
- Dynamic range
- Trace sensitive
- Auto trace
- Mode/direction
- Maps
- Frequency
- PRF
- Wall filter
- Baseline
- Steer
- Sample volume
- Volume
- Spectrum optimize
- Acoustic power



3D mode

- Comments
- BodyPattern
- Back to 2D
- Start3D
- Render
- Display format
- Image reference
- View
- Gray map
- VSpeckle
- Quality
- Threshold
- Transparency
- Volume angle
- Auto rotate (after data acquisition)
- Movement step (after data acquisition)
- Slice position(after data acquisition)
- Speed(after data acquisition)
- Rotation angle (after data acquisition)
- Rotation direction (after data acquisition)
- 3DMcut(after data acquisition)
- Magic Cut (after data acquisition)
- Free View(after data acquisition)
- Smart Touch 3D/4D operation(after data acquisition)

4D mode

- Comments
- Body Pattern
- Back to 2D
- Start 4D
- Auto Cine
- Movement step
- Rotation direction
- Render
- Display format
- Image reference
- View
- Gray map
- Vspeckle
- Quality
- Threshold
- Transparency
- Volume angle
- Slice position(after data acquisition)
- 3DMcut(after data acquisition)
- Smart Touch 3D/4D operation(after data acquisition)



System Feature

Display modes

- Simultaneous capability
- 2D/PW/CW
- 2D/CF or PDI
- 2D/M
- Dual, 2D/2D
- Dual, 2D/2D+CF or PDI
- Dual, duplex and triplax
- Duplex and Triplex mode
- Quad display in 3D/4D application
- 9 slice images display in 3D/4D application
- Time line display
- Independent dual 2D/PW or CW
- Timed based sweep update mode

Display annotation

- Institution/hospital name
- Date: 2 types selectable, YY/MM/DD, MM/DD/YY
- Time: 2 types selectable, 24hours and 12 hours
- Operator identification
- Patient name, first, last
- Patient identification: 30 characters
- Gestational age from LMP/EDC/GA/BBT
- image symbol: Ginkgo leaf
- Power output index
- MI: mechanical index
- TIS: thermal index soft tissue
- TIC: thermal index cranial (Bone)
- TIB: thermal index bone
- Probe orientation marker: coincide with a probe orientation marking on the probe
- Gray/color bar

- Measurement result window
- Probe type
- Application name
- Image depth
- Imaging parameters by mode
- 2D/M mode: acoustic power output, gain, frequency, frame rate, dynamic range
- Color mode: color acoustic power output, color gain, color flow frequency, PRF, wall filter
- PW/CW mode: Doppler acoustic power output, Doppler gain, Doppler frequency, PRF, wall filter, sample depth
- Scanline Gain Compensation(SGC) with 6 slides adjustment
- Focus zone marker
- Body pattern
- PW and CW scale markers: time/speed
- M scale markers: time/depth, time
- System measurement display
- System message display
- Biopsy guide line
- Heart rate

Simple User Operation Interface

- Simple user interface and easy workflow, allows one step on probe & application switch, and intuitive user parameter control

Cineloop

- Acquisition, storage in memory and display of up to 15000 frames, 1500 seconds long of 2D, color and PW/CW images for review
- Acquisition, storage and replay of Doppler audio



Compare

- Flexibly compare live imaging with stored imaging by one key

Quick save feature

- The system provides quick save function through USB stick, internal/external HDD, DVD during or after exam
- Configurable saving file format, VRD, DICOM, BMP, PNG, JPG and AVI

Archive

- Patient data input which include patient ID, name, nationality, birth date, sex, exam physician, quality check, exam operator
- Physical data such as weight, height
- Patient exam management
- Patient exam images storage and management
- Import VRD format data into the system from outside media, such as USB stick, external HDD, DVD
- Export patient data into outside medias

Report

- Automatically pull patient data into the report
- Automatically load measurement worksheet into the report
- Pull related exams' images into the report
- Write comments in the report
- Print report through network or local printer

Connectivity

- Standard connectivity features
- Local print to on-board or off-board video printers through USB port
- Page report print
- Image export to removable media (DVD, external HDD, USB stick)
- Network linkage
- Image export to network storage servers*
- DICOM export and retrieve *
- Mobile data transfer solution by
- Blue tooth*(Optional)
- email*(Optional)
- Hot point connection
- VCloud * (Optional)
- Integrated DVDRW
- Support standard DVD media
- Data storage formats include VRD, DICOM, PNG, JPG, BMP, AVI
- VRD and DICOM images stored in disc can be recalled on the system
- PNG, JPG, BMP and AVI images can be played on normal computers
- On-board patient exam storage
- Direct digital storage of static image or cine loop images to internal hard disk drives
- Fully integrated user interface

Probes/application

- Selectable multiple applications
- Edit exist application preset
- Edit user defined preset
- Rename preset
- Return to factory preset
- Quick save user defined parameters in related application



Safety Conformance

• Regulatory Notice:

This device is tested to meet all applicable requirements in relevant. According to 93/42 EEC, it is class IIa medical device.

• Conformity to Standards:

- IEC 60601-1 : 2012 Medical electrical equipment - Part 1: General requirements for basic safety and essential performance
- IEC 60601-1-2:2007 Electromagnetic compatibility - Requirements and tests
- IEC 60601-1-6:2010 Usability
- IEC 60601-2-37:2007 Medical electrical equipment - Particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment
- IEC 61157:2007 Declaration of acoustic output parameters
- ISO 10993-1:2009 Biological evaluation of medical devices
- IEC 62304:2006 Medical device software –Software life cycle processes
- IEC 62366:2007 Medical devices - Application of usability engineering to medical devices
- Council Directive 93/42/EEC on Medical Device
- WEEE according to 2012/19/EU
- RoHS according to 2011/65/EU

Measurement and Analysis

Generic Measurement in 2D mode

- Depth
- Distance
- Perimeter
- Length and width method
- Ellipse method
- Polygon method
- Spline method
- Tracing method
- Area
- Length and width method
- Ellipse method
- Polygon method
- Spline method
- Tracing method
- Volume
- Single line method
- Dual line method
- Triple line method
- Single ellipse method
- Single ellipse and single line method
- Angle
- Stenosis
- Diameter method
- Square meter method
- A and B ratio
- Diameter ratio
- Square meter ratio

Generic Measurement in CFM mode

- CFV
- point
- profile

Generic Measurement in M mode

- Depth
- Distance
- Time
- Speed
- Heart rate
- Stenosis
- A and B ratio
- Diameter ratio
- Time ratio
- Speed ratio

Generic Measurement in PW mode

- Speed (include PV (Peak Velocity))
- Time (include AT (Accelerate Time))
- Acceleration
- PS (Peak Speed in systole period)
- ED (The speed in the end of diastole period)
- MD (Minimum speed in diastole period)
- TAMAX (maximum speed in time average)
- TAMEAN (mean speed in time average)
- TAMIN (minmum speed in time average)
- PI (Pulsatility Index)
- RI (Resistance Index)
- PS and ED ratio
- ED and PS ratio
- A and B ratio (A/B ratio)
- Speed ratio
- Time ratio
- Acceleration ratio
- FLOWVOL (Flow Volume)
- MaxPG (maximum pressure gradient)
- MeanPG (Mean pressure gradient)
- SV (Stroke Volume)
- Each volume diameter cardiac
- Time mean speed in each stroke volume
- Cardiac output
- Heart rate

Abdominal Measurement

- General abdomen
- Difficult abdomen
- Kidney
- Renal vessel
- Abdominal trauma

Small Part Measurement

- Thyroid
- Breast
- Testis
- Musculoskeletal
- Upper and lower extremity joint

- Nerve block

Vessel Measurement

- Carotid artery
- Upper artery
- Upper vein
- Lower artery
- Lower vein
- Vessel puncture
- Transcranial Doppler

Gynecology Measurement

- Uterus and Plevis
- Follicle

Urology Measurement

- Bladder
- Prostate
- Renal
- Kidney and ureter
- Pelvic Floor dysfunction

Pediatric Measurement

- Neonatal Head
- Neonatal Abdomen
- Pediatric Abdomen
- Pediatric Hip
- FAST

Obstetrics Measurement

- OB Early
- OB Mid
- OB Late
- Fetal Heart

Cardiac Measurement

- General
- LV
- MV
- Ao
- AV
- LA
- RV
- TV
- PV
- RA
- System