MyLabSix™

Evo6.50

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Index

Rev. A – Evo6.50

PRODUCT DESCRIPTION

MyLabSix ultrasound imaging system has been designed for the following applications:

- Abdominal
- Cephalic (Adult, Neonatal)
- Breast
- Cardiac (Adult, Pediatric)
- Gynecology
- Musculoskeletal
- Obstetric
- Pediatric
- Small Parts
- Thyroid
- Vascular
- General Imaging (Neonatal, Pediatric, Adult)
- Urology

System Configuration

- Ergonomic and very compact cart designed for easy maneuverability
- Height Adjustable control panel:
  - Vertical displacement: ±12 cm (92 – 104cm)
- Rotating Keyboard: +/- 60 degrees
- Complete and back-illuminated control panel
- Color LCD touchscreen with additional controls and mode-depending keys.
- 3 active probe connectors (small connector probes)
- Integrated cooling system with very silent fans
- Four multidirectional wheels with breaking mechanism
- On Board location for peripheral storage
- Movable transducer holders
- Movable Gel & ECG cable holders
- Movable Transducer cables supports

Control panel

- LEDs Brightness Digital adjustment
- Ergonomic Key Layout
- Ergonomic and adjustable back lighting control panel

- Primary controls easily accessible and logically grouped
- Programmable keys
- eTouch: Macro Recorder
- Trackball with two keys - PC mouse logic + jolly key
- Dedicated buttons to activate primary modalities:
  - B-Mode
  - M-Mode
  - 3D/4D
  - CFM
  - PWR D
  - PW
  - CW
- Direct multifunction knob to activate and control primary modalities:
  - Imaging Gain
  - Color Gain
  - Doppler Gain
- Dedicated key for
  - System ON/OFF
  - End exam
  - General Setup Menu
  - Archive
  - eTouch
  - Application Measure
  - Generic Measurement
  - Line/Update (in Split modes)
  - Dual Imaging
  - Image Storage
  - Clip Storage
  - Acquire (for advanced operations)
  - Peripherals remote controls (1 - 2)
  - AutoAdjust
  - 8 TGC slide controls
- Integrated Loudspeakers

Touch screen

- Resolution: 1024x600px
- Brightness Digital Adjustment
- Dimension: 19.5x11.8cm (7.7x4.6inch) – Wide Screen 15/9 – 8.9"
- Tools activation
- Physio (ECG signal)
- Exam Review
- Reverse
- Orientation

- Duplex/Triplex (in Split modes)
- XView
- MView
- Gray Map
- TPView
- Power
- TVM
- Color Map
- ADM: Automatic Doppler Measurements
- B-Ref (for Split modes)
- B-Ref/Trace representation format
- Special functions buttons
- 6 direct encoders for Software Keys (up to 2 layers)
- Multilanguage Alphanumeric keyboard (US International, Italian, Danish, Norwegian, French, Swedish, German, Russian, Spanish)
- Block of Keyboard and TouchScreen for cleanability

Monitor

- 17"or 19" Wide Screen 15/9 LCD monitor
- Screen Resolution: 17" 1280x768; 19" 1366x768
- Image Resolution: 860x600px
- Brightness Digital adjustment
- Optional articulated monitor arm
- Information on Monitor when applicable
  - Application
  - Selected Preset
  - Date & Hour
  - Type of probe
  - Probe Orientation
  - Operating Frequency Range
  - Selected Central Frequency Range
  - Acoustic Power Output
  - Gray Map
  - Dynamic Range
  - Compression
  - Persistence
  - Enhancement
  - XView
  - MView
  - Depth
  - Focus (position/number)
  - Doppler Angle
  - CFM & Spectral Doppler Filter
  - Sample Volume Size and depth

- Frame Rate
- PRF
- Gain 2D, CFM, PW/CW
- Patient Data
- Hospital Data
- Body Markers
- Remote Digital Printing and Storage Status
- Remote Dicom Storage Status
- TEE Probe Position Angle
- TEE Probe Temperature
- Heart Rate
- Timer
- Sweep time indication on trace
- Trackball action function
- Icons for XView, AutoAdjust, MView, Peripherals, Media Storage options and Networks

SYSTEM OVERVIEW

Operative Modes

- B-Mode (2D)
- Colorize 2D, M-Mode and PW/CW
- PW/CW Doppler
- Non Imaging CW
- CFM (Color Doppler)
- Power Doppler
- Directional Power Doppler (VeloPower)
- XFlow
- TEI (Tissue Enhancement Imaging)
- ECG
- CMM (Compass M – Mode)
- TVM (Tissue Velocity Mapping)
- TPView
- MView on linear and convex probes
- VPan (Panoramic View)
- 3D/4D Imaging

Image Display Modes

- 256 gray levels or B-color levels
- Orientation: Left / Right, Up / Down
- Real Time Triplex mode (2D+CFM+PW)

- 2D+2D (w or w/o CFM or PWR_D)
- 2D+M-Mode (update or Real time Duplex)
- 2D+CFM+M-Mode (update)
- 2D+Doppler (update or Real time Duplex)
- 2D+ CFM+Doppler (update or Real time Triplex)
- 2D+PWR_D/VeloPower
- 2D+PWR_D/VeloPower+ Doppler (update or Real time Triplex)
- 2D+TVM
- 2D+TV
- 2D+TVM+(M-Mode or PW)
- 2D+TVM+TV
- Colorize on all combinations

Formats

- Imaging
    o Full / Split / Multiple
    o Left-Right / Up-Down
- Tracings
    o Split / Dual (scroll by line)
- CFM – Color On/Off in Freeze

Transducer Types

- Multifrequency Electronic Convex Array
- Multifrequency Electronic Linear Array
- Multifrequency Electronic Phased Array
- Pencil CW/PW
- Bi-Scan Convex Array

Operating Console

- Fully digital modular platform
- Factory presets (unlimited programmable) for every probe and application

Beam Former

- Ultrasound beam generation with:
    o Programmable number of cycles
    o Frequencies: up to 18 MHz
- Up to 8 focal zones dynamically controlled

- Up to 15 steering angle dynamically switchable (on frame basis for Linear/Convex Probe)
- CW generation capability
- Programmable ultrasound beam aperture
- TEI

Image Former

2D
- Field of view:
    o 19° ÷ 180° on Convex Array
    o 14° ÷ 89° on Phased Array
    o 16 ÷ 47 mm on Linear Array
    o 3° ÷ 60° on Linear Array with TP-View
- Probe depending formats:
    o Phased Array
    o Linear Array (with steering and TPView)
    o Convex Array
- Depth: 22÷360 mm depending on probe
- Digital scan converter with bilinear interpolation process (860x600x8bits)
- Frame rate: up to 1449 Hz
- Maps:
    o up to 10 (customizable) post processing gray maps
    o up to 20 Color Doppler color maps
    o up to 9 Power Doppler color maps
- Zoom:
    o High definition zoom (Real time)
    o Variable magnification from 1.45 up to 8 (Real time / Frozen image)
- XView processing:
    o 3 custom algorithms (4 parameters each)
    o Steering (linear probes): up to ±30° with up to 15 step
- Gain and TGC AutoAdjust
- Biopsy kits and display line
- Capability to change gain on freezed images

M-Mode
- Sweep time: 1.7 ÷ 12 sec
- Lines with CMM: up to 3

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- Capability to change gain on freezed images

CFM

- Frequencies: 1.7 ÷ 12.5 MHz
- Sampling PRF: 125 Hz ÷ 11.6 KHz
- Wall filters: 5 levels
- Data dynamic: 11 bit (+5 for intensity)
- Maps: up to 18
- Frame rate: up to 180 Hz
- Frame interpolation
- Interleave: up to 32 lines
- Samples: up to 512 lines
- Packet size: 4 ÷ 16
- Format: ROI w/wo wider b/w
- Steering (linear probes): up to ±30° with up to 15 step
- AutoAdjust
- HD CFM (up to 4 values of color spatial resolution)
- Velocity range CFM 5.35m/s (SP2730, 1.7MHz)

DOPPLER PW

- Frequencies: 1.7 ÷ 12.5 MHz
- PRF: 500 Hz ÷ 41.7 KHz
- Multigate HPRF
- Wall filters: 50 ÷ 1200 Hz (10 step)
- Stereophonic audio
- Sweep Time: 1.7 ÷ 12 sec
- Spectrum: FFT with 64, 128 or 256 frequencies, interpolated up to 512 points (analysis time: ≤1 ms)
- Sample Size: 0,5 ÷ 24 mm
- Angle correction : 90°
- Steering (linear probes): up to ±30° with up to 15 step
- Doppler gain, baseline and scale AutoAdjust
- Capability to change Baseline and gain on frozen images
- Velocity range PW 19.20m/s (SP2730, 1.7MHz)
- Smart Doppler with Linear Probes

DOPPLER CW

- Frequencies: 2.0 ÷ 8 MHz

- Wall filters: 40 ÷ 1800 Hz (8 step)
- Stereophonic audio
- Sweep Time 1.7 ÷ 12 sec
- Spectrum: FFT with 64, 128 or 256 frequencies
- Velocity range: up to +/- 6.42 m/s (@ 2.1 MHz)
- Capability to change Baseline and gain on frozen images
- Doppler gain, baseline and scale AutoAdjust

Archiving Capabilities

- Still image (Full resolution)
- Video clips (Full resolution)
- Patient data, Annotations, Bodymarks and Measurement from the graphic overlay
- Reports
- Offline capability
- Pause a study
- Visual comparison (saved images and clips can be compared both with each other and with archived images and clips).
- Visual comparison with real time images and clips
- Cine Memory: up to 1.000 frames
- PC: ≥ 2 GByte
- Local drives
  - Hard disk: ≥ 300 GB
  - DVD reader/writer
- Internal Patient Database
- User selectable filter for the database search
- Still images and loops storage in DICOM formats
- Real Time Archive capability for still frames and video clips
- Stored data thumbnails always displayed on two columns on the right side of the screen
- IHE Compliant
- Annotation/Bodymark/Measurements capability on previously stored images

Connectivity

- I/Os connectors
  - LAN RJ45

- o 5 USB: 2 on keyboard, 2 on lateral panel, 1 for printer
- Dedicated connectors
  - o Audio input/output (stereo): dedicated port for headset with microphone
  - o ECG input
- Wi-Fi (optional)

Data export

- Image formats:
  - o Standard output file formats (BMP, PNG, JPEG)
  - o Native and DICOM formats
- Clips formats:
  - o AVI Codec: Microsoft® MPEG4-V2 and Microsoft® -Video1
  - o Still frames: compressed (lossy, not lossy) and not compressed
  - o Native and DICOM formats
- Patient data, Annotations, Bodymarks and Measurements from the graphic overlays
- Reports in PDF and XML

Video I/O

- HDMI output (auxiliary monitor)

Printing Capability

- Ink jet color or Laser B/W & Color USB Printer (1,2,4 and 6 images printed out on A4 format
- Thermal Digital B/W and Color Printers

IHE Compliance

Integrating the Healthcare Enterprise (IHE) is an initiative by the healthcare industry and professionals to improve the way computer systems in healthcare share information.

IHE promotes the coordinated use of established standards such as DICOM and HL7 to address specific clinical needs in support of optimal patient care. System developed in accordance with IHE communicate with one another better, are easier to implement and enable care providers to use information more effectively.

MyLabSix complies with the following IHE profiles:

- Scheduled Workflow,
- Echocardiography Workflow integrates ordering, scheduling, imaging acquisition, storage and viewing for digital echocardiography
- Cardiology Evidence Documents adds cardiology specific options to the Radiology ED profiles (specifies how data objects such as digital measurements are created, exchanged, and used)
- Portable Data for Imaging

- Patient Information Reconciliation

For more details, please refer to the updated version of the IHE Integration Statement present on the Esaote website (www.esaote.com).

Software

- Operating system: Windows® XP Embedded
- Multilanguage Operation Menus (English, French, German, Italian, Spanish, Portuguese, Russian)
- Reports, calculations and measurements (application dependent)

Security

- Two different accounts: administrator and users
- Multiple users
- Login by user

DICOM Connectivity

MyLabSix system supports the following DICOM service classes:

- Verification service class as the SCU and SCP
- Modality Worklist management service class in the role of SCU
- Modality Performed Procedure Step (MPPS) class in the role of SCU
- Storage service class as a SCU

- Storage Commitment service class as SCU
- DICOM Print SCU
- DICOM Query Retrive (US Only)

Verification Service Class

As the SCU for the Verification SOP class, the system allows the user to test the availability of remote DICOM nodes from the DICOM configuration pages

As the SCP for the Verification SOP class, the system answers to verification requests coming in from remote DICOM nodes (when Storage Commitment is active)

Modality Worklist Management Service Class

As the SCU for the Modality Worklist management SOP class, the system allows for querying the Information System obtaining information about scheduled exams and patient demographics

Modality Performed Procedure Step (MPPS)

As the SCU for the Modality Performed Procedure Step SOP class, the system automatically updates systems involved in the echocardiography workflow (CIS, PACS) about the status of the study

Storage Service Class

As the SCU for the Storage service class, the system supports transferring objects of the following SOP classes to remote DICOM nodes (PACSs):

- DICOM Ultrasound Image storage SOP class for transfer of 2D single frame images either uncompressed or using lossless or lossy image compression
- DICOM Ultrasound Multi-Frame Image Storage SOP class for the transfer of 2D clips using lossy image compression
- DICOM Secondary Capture Image Storage SOP class for the for measurement information in a human readable format
- DICOM Comprehensive Structured Report Storage SOP class using the Adult Echocardiography Procedure Report template (TID 5200) or the Vascular Ultrasound Procedure Report template (TID 5100) for the transfer of measurement information about Cardiac and Vascular exams
- The system allows for the following storage modes:

  - "End of exam", the system automatically stores all image and measurement data in the background once the study has been closed
  - "Manual", the system transfer multiple exams as selected by the user in the background

Storage Commitment Service Class

As the SCU of the Storage Commitment service class, the system automatically requests the archive to take responsibility for the safekeeping of data that were stored using the above mentioned storage classes

For more details on all the provided DICOM services, please refer to the updated version of the DICOM Conformance Statement present in the Esaote website.

Dimensions

- Approximately 490 (w) x 1000-1120(h) x 650(d) mm (on site)
- Approximately 610(w) x 1000-1120(h) x 650(d) mm (on site, with gel holder on one side and a probe holder on the other side)
- Approximately 610(w) x 1390÷1510 (h) x 650 (d) mm (at top of monitor)

Weight

- Approximately 55 kg without monitor

Operating requirements

- Temperature: 15÷35°C
- Humidity:
  - 15÷85 % (not condensing)
- Pressure: 700÷1060 hPa

Storage requirements

- Temperature: -20 ÷ +60°C
- Humidity: 5÷85 % (not condensing)
- Pressure: 700÷1060 hPa

Standard Compliance

MyLabSix system meets the requirements of the Medical Device Directive and carries the CE mark.

- EN 60601-1
- EN 60601-1-2
- EN 60601-1-4
- EN 60601-1-6
- EN 60601-2-37
- ENISO 10993-1
- EN 61157
- AIUM / NEMA UD-2 / UD-3 – FDA 510(k) Track 3

Power supply

- Voltage operative range: 100÷120V / 200÷240V
- Voltage limit range: 90÷132V /180÷264V
- Working frequency range: 47÷63 Hz
- Power consumption: ≤220 VA
- Available power on peripherals: up to 380VA
- Available power on peripherals: up to 600 VA @ 200 ÷ 240V / 400 VA @ 100 ÷ 120V

Power Cables

- Power cable Europe
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: CEE 7/7
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm2
  - Length: 3 m
- Power cable Italy
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: CEI 23-16/ VII
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm2
  - Length: 2,5 m

- Power cable United Kingdom
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: BS1363
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm2
  - Length: 2,5 m
- Power cable Australia
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: WS-015 (AS 3112)
  - Connector type: WS-002 (IEC320 C13)
  - Conductors: 3
  - Size: 1 mm2
  - Length: 2,5 m
- Power cable China
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: GB2099-1
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm2
  - Length: 2,5 m
- Power cable US
  - Current rating: 10 A
  - Voltage rating: 125 VAC
  - Plug type: NEMA 5-15P
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm2
  - Length: 3 m

Calculation & Reports

- Standard Calculation Packages for:
  - Abdomen
  - Breast
  - Cardiology
  - Gynecology
  - Obstetric with programmable tables
  - Pediatric
  - Small Parts
  - Thyroid
  - Transcranial
  - Vascular

- Standard biometry reports & user programmable reports
- All the reports are automatically stored in the patient file
- Automatic Doppler Measurements (ADM) and profiles (Real Time profiles extraction with Aliasing managing capability; Measurement on automatically detected hearth cycle or on selectable time slot for venous flow; Averaged values on selectable number of measurement; Selection of Full, Negative or Positive range; Add to report capability, Automatic point to point Doppler measurement)
- Refer to Operation Manual

Generic Measurements

The tables below list the measurements available in each/application mode.

B-Mode

Parameter	Measurement	Displayed results
Distance	Distance	Distance
Distance ratio	Distance1, Distance2	Distance1, Distance2, Distance1/Distance2
% Distance reduction	Distance1, Distance2	Distance 1, Distance 2, (Distance1 - Distance2)/Distance1
Length (Vertex)	More distances	Global distance
Length (Trace)	Profile	Global distance
Area (Ellipse axes)	Area, Distance	Area, Perimeter

Parameter	Measurement	Displayed results
Area (Vertex)	More distances	Area, Perimeter
Area (Trace)	Profile	Area, Perimeter
Area ratio	Area1, Area2	Area1, Area2, Area1/Area2
% Area reduction	Area1, Area2	Area1, Area 2, (Area 1 - Area 2)/Area1
Volume (Ellipse)	Distance, Area	Area, Volume
Volume (Trace)	Profile, Distance	Area, Distance, Volume
Biplane volume	Distance1, Distance2, Distance3	Distance1, Distance2, Distance3, Volume
Ellipse ratio	Two areas (ellipse based)	Two areas, Area1/Area2
Hip angle	Distance1, Distance2, Distance3	α and β angles

M-Mode

Parameter	Measurement	Displayed results
Distance	Distance	Distance
Distance ratio	Distance1, Distance2	Distance1, Distance2, Distance1/Distance2
Time	Time	Time
Time ratio	Time1, Time2	Time1, Time 2, Time 1/Time 2
Heart Rate	Time	R-R interval, Heart rate
Velocity	Velocity	Distance, Time, Velocity
Velocity ratio	Velocity1, Velocity2	Velocity1, Velocity2, Velocity1/Velocity2

Doppler

Parameter	Measurement	Displayed results
Time	Time	Time
Time ratio	Time1, Time2	Time1, Time2, Time1/Time2
Velocity	Velocity	Instantaneous velocity

Parameter	Measurement	Displayed results
Cardiac Velocity	Velocity	Instantaneous velocity, Instantaneous gradient
Velocity ratio	Velocity1, Velocity2	Velocity1, Velocity2, Velocity1/Velocity2
Heart Rate	Time	R-R interval, Heart rate
Systolic velocity /Diastolic velocity	Systolic velocity, Diastolic velocity	Systolic velocity, Diastolic velocity, Systolic velocity/Diastolic velocity
Cardiac FVI	Spectral envelope	FVI, Peak velocity, Reverse velocity, Peak and mean gradient
Vascular FVI	Spectral envelope	FVI, Pulsatility index, Resistive index, Reverse velocity, Diastolic velocity, Peak and mean velocity, Peak and mean gradient, Acceleration, Acceleration time, Systolic velocity/Diastolic velocity
Pulsatility index	Spectral envelope	FVI, Pulsatility index, Resistive index, Reverse velocity, Peak and mean velocity, Diastolic velocity
Resistive index	Systolic velocity, Diastolic velocity	Peak systolic velocity, Diastolic velocity, Resistive index

Parameter	Measurement	Displayed results
Flow (Trace)	Envelope, Contour	Time average velocity, Area, Volume,
Flow (Ellipse)	Envelope, Ellipse	Time average velocity, Area, Volume,
Flow (Diameter)	Envelope, Distance	Time average velocity, Diameter, Area, Volume
Slope	Velocity	Acceleration, PHT

Advanced Measurements

Refer to the Advanced Operations Manual for further information

Custom Measurements

Refer to the Advanced Operations Manual for further information

System Options

TEI

TEI (Tissue Enhancement Imaging) increases the signal-to-noise ratio and further enhances contrast resolution allowing the visualization of a high level of detail, even in difficult-to-scan patients.
The superb contrast and detailed resolution of TEI technology is based on the information always present in returning echoes.
- Touch Screen access and quick response time
- Available in combination with CFM, M-Mode, Power/VeloPower Doppler, TVM and CnTI

TVM

TVM (Tissue Velocity Mapping) provides a complete Wall Motion Analysis for both systolic and diastolic myocardial function evaluation.
- TVM displays color coded information on moving tissue in velocity mode. The Velocity mode displays velocity distribution of moving myocardial tissue
- TVM can operate in
  - 2D imaging/TVM
  - M–Mode/MTVM
  - PW/Doppler/TV
- Factory and user programmable presets for TVM • Requires the cardio module • Available on the SP2730 and Transesophageal transducer ST2612

CMM

CMM (Compass M-Mode) allows to improve the M-Mode visibility during cardiac exams and acquire all information even in hard-to-scan situations with particular or difficult heart positioning.
- Up to three independent lines in real time

VPan

VPan (Panoramic Imaging) merges multiple B-Mode images in one complete panoramic image extending the field of view to entire organs.
- Auto fit of composite image
- Image Zoom
- Merging Level – realigning
- Frame marker
- Colorize
- Distance measurement
- Images can be saved to the patient's file
- CFM capability
- Rotation/Pan/Zoom

TPView

TPView enlarge the field of view without losing resolution and extending structures in breast, vascular and musculoskeletal applications.

- 60°
- Specially studied for breast, thyroid and vascular applications
- Available with all linear transducers

QIMT

The QIMT (Quality Intima Media Thickness) calculation automatically measure the thickness between the intima

and the media on the image in real time using the radio frequency signal. The calculated value is displayed on a graph including the normal values curve.

- Direct analysis of the radiofrequency signal
- Add to report capability
- Report of QIMT with table reference

3D/4D

- Bi-Scan probes management
- Volume data acquisition
- Volume rendering reconstruction
- Real time modality (4D)
- Volume Rate: 40 volumes/second
- Depth Color Algorithm to improve 3D depth effect
- Multiplan sections with rotating planes
- Multiple tomographic slices
- Grey map on volume and slices for contrast improvement
- Measurement on bi-dimensional slices

XStrain (MyLabDesk3)

XStrain allows physician to estimate and quantify endocardial velocities of contraction and relaxation, and estimate and quantify local deformation of the heart.

- Extensive potential applications.
- Innovation and non-invasiveness
- Angle-independent technology
- User-friendly interface
- Intuitive workflow
- Comprehensive measurement possibilities

XStrain 4D (MyLabDesk3)

XStrain4D creates a volumetric model of the left heart ventricle (LV).

- LV surface rendering and reconstruction
- Global and regional volume curves, including EDV, ESV, SV and EF
- Regional parameter distributions, including strain and strain rate

Stress-Echo

Stress-Echo provides a dedicated report template for a complete wall motion score and ejection fraction reporting, which allow the evaluation of any cardiac segment.

- Real Time 2D loops digitally synchronized with the ECG trace
- User-programmable protocols
- Multi-format reviewing capabilities for accurate monitoring of cardiovascular pathologies.
- Loop comparison
- Continuous capture

MView

MView consists in an ultrasound technique which applies beam-line steering and acquire several coplanar scans of an object from different view angles.

- Improved images quality by reducing the presence of artefacts, shadowing and speckle
- Available with all linear and convex/microconvex transducers.
- Up to 15 lines

XView

XView elaborates the pattern of every single frame at the pixel level, eliminating speckle and noise artifacts, dynamically enhancing tissue margins, improving tissue conspicuity and increasing diagnostic confidence through real-time adaptive algorithm.

- Adaptive - During acquisition, XView uses different techniques in order to produce as little speckle as possible.
- Optimized - XView removes speckle, while the information necessary for the diagnostic image is preserved and enhanced

MyLab Desk[3]

- Dedicated software (not for diagnostic use) for review, post-process and printing of exams performed with a MyLab ultrasound system on a PC Workstation working with Windows XP, Vista and Seven Operative Systems.
- User interface similar to the MyLabSix user interface for convenience
- To import native Esaote file format
- To perform generic measurements
- For reviewing, modifying and printing the examinations (images)
- To export the data by using the standard features of the PC (burn on a CD/DVD, archiving on the local

HDD or store on an USB key in standard PC formats, transfer to e-mail, etc.)

TRANSDUCERS
Probes Technical Specifications

Convex Array Probes

AC2541
- Operating Bandwidth: 1 – 8MHz
- Max Depth: 350mm
- Field of view: 19° - 63°
- B-M Modes Frequencies: RES – H; GEN – M; GEN – L; PEN - H
- TEI Frequencies: RES – H; GEN – M; GEN – L; PEN – H for CrystaLine model: CPI –P, CPI- G, CPI - R
- CFM–PW Frequencies: 1.6 – 2.2. – 2.8 – 3.3 MHz
- Weight: 95 g
- Dimensions: 101.4 x 66.7 x 34.8 mm
- Biopsy angles: 15°/25°/35°

SI2C41
- Array Radius of curvature: 50 mm
- Bandwidth: 8-1 MHz
- Depth: 50 ÷ 343 mm
- Field of view: 22°
- Operative modes: B, TEI, CnTI, M, CMM, CFM
- B-mode Frequencies: 5 (RES-H, RES-L, GEN-M, PEN-
- TEI Frequencies: : 6 (RES-H, RES-L, GEN-L CPI-L,
- Color Doppler Frequencies: 5 (3.3, , 2.5, 2.1, MHz)
- PW Doppler Frequencies: 5 (3.3, 2.5, 2.1 MHz)
- Priority of Use: Abdominal biopsy

SC3421
- Operating Bandwidth: 1 – 8MHz
- R 40

- Max Depth: 47 - 357mm
- Field of view: 20° - 86°
- B-M Modes Frequencies: RES–H; GEN–M; GEN–L; PEN-H
- TEI Frequencies: RES – H; GEN – M; GEN – L; PEN – H for CrystaLine model: CPI –P, CPI- G, CPI - R
- CFM–PW Frequencies: 1.8 -2.0 – 2.5 – 3.3 MHz

SC3123
- Technology: Wideband Electronic Micro-convex array
- Bandwidth: 4 - 9 MHz
- Ray of curvature: 14mm
- Max Depth: 186 mm
- Field of view: 42° - 91°
- B-Mode Frequencies: PEN-M, PEN-L, RIS-L, RIS-M
- TEI Frequencies: PEN-M, PEN-H, PEN-L, GEN-M, RIS-H
- CFM Frequencies: 4.2 – 4.5 – 5.0 – 6.3 MHz
- PW Frequencies: 4.2 – 4.5 – 5.0 – 6.3 MHz
- Weight: 70 g
- Dimensions: 87 x 27 x 30 mm

Linear Array Probes

SL2325
- Bandwidth: 6 – 18 MHz
- Max Depth: 103 mm
- Field of view: 18 – 38 mm
- B-Mode Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- TEI Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- CFM Frequencies: 6.3 – 8.3 – 10.0 – 12.5 MHz
- PW Frequencies: 6.3 – 8.3 – 10.0 – 12.5 MHz

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- Steering angles: 7 steps
- Weight: 100 g
- Dimensions: 105 x 56.4 x 25.8 mm
- Biopsy angles: 45°/50°/60°/70°

SL1543
- Operating Bandwidth: 3 – 13MHz
- Max Depth: 103mm
- Field of view: 17 – 47 mm
- B-M Modes Frequencies: RES – H, GEN – M, GEN – L, PEN - H
- TEI Frequencies: RES – H, GEN – M, GEN – L, PEN - H
- CFM–PW Frequencies: 4.2 – 5.0 – 6.3 – 7.1 MHz
- Steering angles: 8 angles
- Weight: 100 g
- Dimensions: 88.4 x 58.1 x 27 mm
- Biopsy angles: 40°/60°

SL3235
- Bandwidth: 6 – 18 MHz
- Max Depth: 103 mm
- Field of view: 28 mm
- B-Mode Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- TEI Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- CFM Frequencies: 6.3 – 8.3 – 10.0 – 12.5 MHz
- PW Frequencies: 6.3 – 8.3 – 10.0 – 12.5 MHz
- Steering angles: 7 steps
- Weight: 100 g
- Footprint: 28 x 6.5 mm

SL3323
- Bandwidth: 3 – 13 MHz
- Depth: 22- 103 mm
- Field of view: 33 mm

- B-Mode Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- TEI Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- CFM Frequencies: 4.2 - 5.6 - 6.3 - 7.1 MHz
- PW Frequencies: 4.2 - 5.6 - 6.3 - 7.1 MHz
- Steering angles: 7 steps
- Weight: 100 g

AL2442
- Operating Bandwidth: 3 – 11MHz
- Max Depth: 177mm
- Field of view: 10 – 40 mm
- B-M Modes Frequencies: RES – H, GEN – M, PEN – L, PEN - H
- TEI Frequencies: RES – H, GEN – M, PEN – L, PEN - H
- CFM–PW Frequencies: 2.5 – 3.3. – 4.2 – 5.0 MHz
- Steered angles: 8 angles
- Weight: 120 g
- Dimensions: 93.2 x 53.4 x 27.6 mm
- Biopsy angles: 25°/35°/50°

L 3-11
- Operating Bandwidth: 3 – 11MHz
- Max Depth: 177mm
- Field of view: 10 – 40 mm
- B-M Modes Frequencies: RES – H, GEN – M, PEN – L, PEN - H
- TEI Frequencies: RES – H, GEN – M, PEN – L, PEN - H
- CFM–PW Frequencies: 2.5 – 3.3. – 4.2 – 5.0 MHz
- Steered angles: 8 angles
- Weight: 120 g
- Dimensions: 93.2 x 53.4 x 27.6 mm
- Biopsy angles: 25°/35°/50°

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SL3332

- Operating Bandwidth: 3 – 11MHz
- Depth: 22-- 177mm
- Field of view: 33 mm
- B-M Modes Frequencies: RES – H, GEN – M, PEN – L, PEN - H
- TEI Frequencies: RES – H, GEN – M, PEN – L, PEN - H
- CFM–PW Frequencies: 2.5 – 3.3. – 4.2 – 5.0 MHz
- Steered angles: 7 angles

SL3116 22MHz

- Operating Bandwidth: 10 – 22 MHz
- Depth: Linear 15 mm- 44 mm
- Field of view: Linear 13 mm
- Steering angles (Linear array): 7 steps
- B-M Modes Frequencies: PEN-H, PEN-L, GEN-M, RES-H
- TEI Frequencies: PEN-H, PEN-L, GEN-M, RIS-H
- CFM Frequencies: 10–12,5 -16,7 MHz
- PW Frequencies: 10–12,5 -16,7 MHz
- Footprint: 28 x 6,5 mm

<u>Phase Array Probes</u>

SP2730

- Operating Bandwidth: 1 – 4MHz
- Max Depth: 355mm
- Field of view: 16° - 87°
- B-M Modes Frequencies: RES – H, RES – L, GEN – M, PEN - H
- TEI Frequencies: RES – H, RES – L, PEN – L, PEN - M
- CFM–PW Frequencies: 2.0 – 2.5 MHz
- CW Frequencies: 2.0 - 2.5 MHz

- Weight: 40 g
- Dimensions: 80.5 x 34.2 x 27.7 mm

P2 3-11

- Operating Bandwidth: 3–11MHz
- Depth: 44-296mm
- Field of view: 18° - 89°

B-M Modes Frequencies: PEN-H, PEN-L, GEN-M, RES-L, RES-H

TEI Frequencies: PEN-H, PEN-L, GEN-M, RES-L, RES-H

- CFM–PW Frequencies: 2.8 – 3.6 - 4.2 MHz
- CW Frequencies: 3.6 - 5.0MHz
- Footprint: 17x13 mm
- Weight: 96 gr probe head excluding

<u>Special Probes</u>

SB2C41

- Technology: Volumetric Wideband Electronic Convex
- Bandwidth: 1 – 8 MHz
- Ray of curvature: 40 mm
- Max Depth: 343 mm
- Field of view: 10° - 85°
- B-Mode Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- TEI Frequencies: PEN–H, GEN-L, GEN-M, RES-L, RES-H
- CFM Frequencies: 2.4 – 2.8 – 3.3 – 3.8 MHz
- PW Frequencies: 2.4 – 2.8 – 3.3 – 3.8 MHz
- Weight: 190 g
- Dimensions: 129.6 x 72.9 x 48.2 mm

SB3123

- Technology: Volumetric Wideband Electronic Convex (Endo)
- Bandwidth: 3 – 9 MHz
- Max Depth: 156 mm

- Field of view: 49° - 197°
- B-M Modes Frequencies: RES – H, GEN – M, GEN – L; PEN - L
- TEI Frequencies: RES – M, GEN – M, PEN – L, PEN - M
- CFM–PW Frequencies: 3.8 – 4.2 – 5.0 – 5.6 MHz

SE3123

- Technology: Wideband Electronic end fire Microconvex
- Operating Bandwidth: 3 - 9MHz
- Max Depth: 156 mm
- Field of view: 49° - 197°
- B-M Modes Frequencies: RES – H, GEN – M, GEN – L; PEN - L
- TEI Frequencies: RES – M, GEN – M, PEN – L, PEN - M
- CFM–PW Frequencies: 3.8 – 4.2 – 5.0 – 5.6 MHz
- Ray of curvature: 10 mm
- Weight: 195 g
- Dimensions: 48 x 304.8 x 31.8 mm
- Biopsy angles: 0°/3.8°

SE3133

- Technology: Wideband Electronic end fire Microconvex
- Operating Bandwidth: 3 - 9MHz
- Max Depth: 156 mm
- Field of view: 49° - 197°
- B-M Modes Frequencies: RES – H, GEN – M, GEN – L; PEN - L
- TEI Frequencies: RES – M, GEN – M, PEN – L, PEN - M
- CFM–PW Frequencies: 3.8 – 4.2 – 5.0 – 5.6 MHz
- Ray of curvature: 10 mm

- Weight: 195 g
- Dimensions: 48 x 304.8 x 31.8 mm
- Biopsy angles: 0°/3.8°

TLC 3-13

- Technology: Biplane Wideband Electronic Linear-Convex Array
- Operating Bandwidth: 3 – 13 MHz
- Depth: Convex 104 mm; Linear 118 mm
- Field of view: Convex 48° - 199°; Linear 16 – 59 mm
- Steering angles (Linear array): 7 steps
- B-M Modes Frequencies: PEN-H, GEN-L, GEN-M, RIS-H
- TEI Frequencies: PEN-H, GEN-L, GEN-M, RIS-H
- CFM Frequencies: Convex 3.8 - 5.0 - 6.3 - 7.1 MHz; Linear 4.2 - 5.6 - 6.3 - 7.1 MHz
- PW Frequencies: Convex 3.8 - 5.0 - 6.3 - 7.1 MHz; Linear 4.2 - 5.6 - 6.3 - 7.1 MHz
- Weight: 540 g
- Tip diameter: 20.2 mm
- Dimensions: 353.35 x 42.4 x 32.64 mm
- Biopsy angles: 90°

LP 4-13

- Application: Laparoscopic
- Technology: Wideband Electronic Linear Array
- Depth: 0 – 90 mm
- Operating Bandwidth: 4-13 MHz
  B-M Modes Frequencies: Pen H, Pen L, Gen M, Res H
  TEI Frequencies: Pen H, Pen L, Gen M, Res H
- CFM–PW Frequencies: (5-6.6 MHz)
- Articulation ± up/down 90°
- Articulation ± right/left 90°
- Biopsy: Not Available

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IL 4-13

• Application: Intraoperative
• Technology: Wideband Electronic Linear Array
• Depth: 0 – 90 mm
• Footprint: 30mm
• Operating Bandwidth: 4-13 MHz
• B-M Modes Frequencies: Pen H, Pen L, Gen M, Res H
  TEI Frequencies: Pen H, Pen L, Gen M, Res H
• CFM–PW Frequencies: 2 (5-6.6 MHz)
• Biopsy: Multi angle reusable autoclave sterilised adaptor

IH 6-18

- Footprint: 32 x 5. Mm
- Operating Bandwidth: 6 - 18 MHz
- Depth: 15 – 103 mm
- Field of view: 14 - 29 mm (4°-40° TPView)
- B-M Modes Frequencies: PEN-H - PEN-L - GEN-M - RES-H
- TEI Frequencies: PEN-H - PEN-L - GEN-M - RES-H
- CFM–PW Frequencies: - 8.3 MHz - 10 MHz - 12.5 MHz - 16.7 MHz
- CW: Not available
- Weight: 100 g transducer, 450 g complete probe
- Biopsy: Not available

ST2612

- Application: Transesophageal Adult
- Bandwidth: 3 – 7 MHz
- Max Depth: 177 mm
- Field of view: 18° - 89°
- B-Mode Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- TEI Frequencies: PEN–H, GEN-L, GEN-M, RES-H
- CFM Frequencies: 3.3 – 3.6 – 3.8 MHz
- PW Frequencies: 3.3 – 3.6 – 3.8 MHz

- CW Frequencies: 3.6 – 5.0 MHz
- Weight: 500 g
- Dimensions: 45 x 14 x 1100 (Endoscope) mm
- Weight: 1.5 Kg (Handle: 0.5 Kg; Handle + Cable + Endoscope: 0.8 Kg; Complete probe: 0.9 Kg)
- Dimensions: 45 x 14 x 1100 (Endoscope) mm Dimensions: 1.0 x 0.8 x 80 cm (Tip: 3.5 x 1.0 x 0.8 cm; Endoscope: 80 x 0.7 cm; Handle: 30.0 x 4.6 x 3.3 cm; Cable: 200 – 220 x 0.9 cm; Connector: 16.5 x 5.0 x 12.0 cm; Wheels: 6.0 x 2.2 cm)

Non – Imaging Pencil Probes

S2MCW - Doppler

- Number of elements: 2
- Doppler Frequencies: 2 MHz
- Footprint: 18mm diameter
- Weight: 55 g complete probe
- Dimensions: 126 x 78 x 18 mm

S5MCW - Doppler

- Number of elements: 2
- Doppler Frequencies: 5 MHz
- Footprint: 10mm diameter
- Weight: 55 g complete probe
- Dimensions: 90 x 10 mm

SHFCW - Doppler

- Number of elements: 2
- Doppler Frequencies: 8 MHz
- Footprint: 8mm diameter
- Weight: 55 g complete probe
- Dimensions: 90 x 8 mm