LOGIQ P9 R4 Product Spec Sheet (Global version)

DOC2589390 Rev1

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General Specifications

Dimensions and Weight

Height	• Articulating monitor arm (standard) – Maximum: 1345 mm (53.0 inch) – Minimum: 1595 mm (62.8 inch)
Width	• Keyboard: 430 mm (16.9 inch) • Foot cover: 495 mm (19.5 inch) • Monitor: 545 mm (21.5 inch; 23.8 Bezel-less LCD)
Depth	• Foot cover: 685 mm (27.0 in) • Rear handle: 740 mm (29.1 in)
Weight (max. load)	• 83 kg/183 lbs
Weight (min. load)	• 67 kg/148 lbs

Electrical Power

Voltage: 100 – 240 Vac

Frequency: 50/60 Hz

Power consumption maximum of 500 VA with peripherals

Maximum thermal output: 700 BTU/hr

Console Design

4 active probe ports (3 x RS and 1 x DLP)

1 CW pencil probe port

Probe light

Integrated Solid State Drive (capacity: 500 GB)

Integrated DVD ± R/W multi drive (option)

On-board storage for B/W-printer

Integrated speakers

Wheels:	• Wheel diameter: 125 mm • Locking mechanism that provides rolling lock and caster swivel lock

Probe holders, removable for cleaning and washing

Gel holder with integrated gel warmer (option), removable for cleaning and washing

Integrated cable management

Easily removable air filters

Front and rear handles (option)

User Interface

Operator Keyboard

Operating keyboard adjustable in two dimensions:	• Height: 810-910 mm • Rotation: ±30°

Digital TGC and digital A/N keyboard

Backlit alphanumeric keyboard (option), 16 mm spacing

Ergonomic hard key layout

Multigestational Touch control	
Interactive back-lighting	
Integrated recording keys for remote control of up to 8 peripheral devices or DICOM® devices	
Touch Screen	
10.4'' wide LCD, high resolution, color touch screen	
Interactive dynamic software menu	
Brightness adjustment	
User-configurable layout	
Monitor	
23.8inch Bezel-less LCD LED backlight monitor	
Tilt/rotate/translate	• Tilt angle +15°/-90° • Rotate angle ±90° • Translate horizontal 660 mm • Translate vertical 150 mm
Fold-down and lock mechanism for transportation	
Brightness and contrast adjustment	
Horizontal/vertical viewing angle of ±178°	
Articulating monitor arm	

System Overview

Applications	
Abdominal	
Obstetrical	
Gynecological	
Breast	
Small Parts	
Musculoskeletal and Superficial	
Vascular	
Urological	
Endocavitary	• Transvaginal • Transrectal
Pediatric and Neonatal	
Transcranial	
Transesophageal	
Cardiac	
Intraoperative	
Scanning Methods	
Electronic sector	
Electronic convex	
Electronic micro convex	
Electronic linear	
Real-time 4D volume sweep	
Transducer Types	
Sector phased array	
Convex array	
Microconvex array	
Linear array	
Matrix array	
Single CW (pencil) probes	
Volume probes (4D)	

Operating Modes	
B-Mode	
Coded Harmonic Imaging	
M-Mode	
Color Flow Mode (CFM)	
Power Doppler Imaging (PDI) with directional map	
PW Doppler with high PRF	
M-Color Flow Mode	
Anatomical M-Mode	
Anatomical M-Color Mode	
B-Flow™/B-Flow Color Mode (option)	
Extended Field of View (LOGIQView, option)	
B Steer+ (option)	
Coded Contrast Imaging (option)	
CW Doppler Mode (option)	
Tissue Velocity Imaging (TVI) Mode (option)	
Strain Elastography (option)	
SW DVR (option)	
Shear Wave Elastography (option)	
HD*live* ™ (option)	
UGAP (option)	
3D/4D Volume Modes:	• 3D static (option) • 4D real-time (option)

System Standard Features	
SSD disk partition of 345 GB for image storage without compression	
Storage formats	• DICOM: compressed/ uncompressed, single/multi-frame, with/without raw data • Export JPEG, WMV (MPEG 4), and AVI formats
Advanced user interface with high resolution 10.4'' wide LCD touch panel	
Automatic optimization	• Auto tissue optimization • Auto spectral optimization • Auto TGC
CrossXBeam™ compounding	
Speckle Reduction Imaging (SRI-HD)	
Fine angle steer	
Coded Harmonic Imaging	
Virtual convex	
Easy 3D	
Anatomical M-Mode	
Patient information database	
Image archive on integrated CD/DVD (option) and SSD	
Easy backup to media for data security	
TruAccess, raw data processing and analysis	
Real-time automatic doppler calcs	
OB calcs	

Fetal trending
Multi gestational calcs
Hip dysplasia calcs
Gynecological calcs
Vascular calcs
Cardiac calcs
Urological calcs
Renal calcs
InSite™ ExC capability, remote service
iLinq capability, remote service
On-board electronic documentation (PDF format)
MPEGVue
Key macro
Network storage
Quick save
Quick patient entry
TIC motion tracking
My Page
My Trainer+
Email to MMS
Reset
Tricefy™
Privacy and Security
Multigestational Touch control
IOTA (International Ovarian Tumor Analysis) LR2 worksheet *Note) IOTA is not available in USA, Japan and China.*
Vnav Import
Doppler Assistant
MyPreset
SonoRenderLive
System Options
Auto IMT
AutoEF
Strain Elastography
Elastography Quantification
Advanced 3D with 3D landscape
DICOM 3.0 connectivity
LOGIQView
B-Flow/B-Flow Color
CF/PDI Quantification
Measure assist breast
Measure assist OB
Breast productivity package
Thyroid productivity package
B Steer+
Stress Echo
Tissue Velocity Imaging (TVI) with Q-Analysis
Scan assistant
Compare assistant
Cardiac Strain

Report writer	
ECG	
ECG AHA cable	
ECG IEC cable	
CW Doppler	
Q-Path	
SW DVR Basic	
SW DVR	• Storage: CD/DVD media • Storage: USB memory stick
Real-time 4D	
4D TUI	
Static 3D color	
Volume review	
VOCAL	
VCI static	
STIC	
OmniView	
Offline scanning	
Shear Wave Elastography	
HD*live*	
HRES CEUS	
LOGIQ P Apps (Software key only)	
AFI	
Coded Contrast (CEUS)	
Koios Breast Lesion Decision Support4	
UGAP	
Hepatic Assistant	
SonoAVC Renal	
SonoNT/SonoIT	
Start Assistant	
Digital Expert	
High cabinet	
Low cabinet	
Drawer	
Side tray	
Small probe adaptor	
Vertical endocavitary probe holder	
Probe cable hanger	
Cable hook rear	
Card reader mounting kit	
Paper tray	
OPIO tray	
Gel warmer	
Multipurpose holder	
Physical A/N keyboard	
Peripheral Options	
Integrated mounting kits and remote controls provided for B/W digital thermal printer	
Digital color A6 thermal printer	
Digital color A5 thermal printer	
Barcode reader (for reading needle information)	
External USB printer connection	

Wireless LAN card for wireless data transfer
LOGIQ P apps (Bluetooth)
HDMI output available for compatible devices
Foot switch, with programmable functionality, 3-pedal
Universal video converter
Power assistant (battery or extended battery option) for offline scanning
Isolation transformer
S-video
Composite output
EMI filter
Display Modes
Live and stored display format: full size and split screen – both with thumbnails. For still and CINE
Review image format: 4x4, and “thumbnails.” For still and CINE

Simultaneous capability	• B/PW • B/CFM or PDI • B/M • B + CFM/M • Real-time Triplex Mode (B + CFM or PDI/PW or CW) • B-Flow + PW • Dual B (B/B)
Selectable alternating modes	• B/M • B/PW • B + CFM/M • B + CFM (PDI)/PW (CW) • B-Flow + PW • 3D – Mode • 3D – Mode Color • B/CW • B + CFM (PDI)/CW
Multi-image split screen (quad screen)	• Live and/or frozen • B + B/CFM or PDI • PW/M

Independent CINE playback
Zoom: write/read/pan

Colorized image	• Colorized B • Colorized M • Colorized PW • Colorized CW • Colorized B-Flow

Time line display
Independent dual B/PW display
CW

Display formats:	• Top/bottom selectable format (size: 1/2:1/2; 1/3:2/3; 2/3:1/3) • Side/side selectable format (size: 1/2:1/2; 1/3:2/3; 0:1) switchable after freeze

Timeline only	
Virtual convex	
CrossXBeam	
Tissue Velocity Imaging (TVI) Mode	
Elastography and simultaneous B/Elasto	
UGAP/SWE simultaneous	
Display Annotation	
Patient name: first, last and middle name each store 27 characters. Up to 64 total characters displayed	
Patient ID: 31 characters. Up to 27 characters displayed	
2nd patient ID	
Age, sex and date of birth	
Hospital name: 23 characters	
Date format: 3 types selectable	• MM/DD/YY • DD/MM/YY • YY/MM/DD
Time format: 2 types selectable	• 24 hours • 12 hours
Gestational age from LMP/EDD/GA/BBT	
Probe name	
Map names	
Probe orientation	
Depth scale marker	
Lateral scale marker	
Focal zone markers	
Image depth	
Zoom depth	
B-Mode	• Gain • Dynamic range • Imaging frequency • Edge enhance • Frame averaging • Gray map • ATO on/off • SRI-HD • CrossXBeam
M-Mode	• Gain • Dynamic range • Time scale
Doppler Mode	• Gain • Angle • Sample volume depth and width • Wall filter • Velocity and/or frequency scale • Spectrum inversion • Time scale • PRF • Doppler frequency

Color Flow Mode	• Line density • Frame averaging • Packet size • Color scale: 3 types – Power – Directional PDI – Symmetrical velocity imaging • Color velocity range and baseline • Color threshold marker • Color gain • PDI • Color scale inversion • Color doppler frequency
TGC curve	
Acoustic frame rate	
CINE gage, image number/frame number	
DVR counter and status	
Body pattern: multiple human and animal types	
Application name	
Measurement results	
Operator message	
Displayed acoustic output	• TIS: Thermal Index Soft Tissue • TIC: Thermal Index Cranial (Bone) • TIB: Thermal Index Bone • MI: Mechanical Index
% of power output	
Biopsy guide line and/or zone	
Heart rate	

General System Parameters

System Setup

8 pre-programmable categories
User programmable preset capability
Factory default preset data
Languages: English, French, German, Spanish, Italian,
Portuguese, Russian, Greek, Swedish, Danish, Dutch,
Finnish, Norwegian, Japanese (message only), Chinese (message only)
OB report format: 5 types, Tokyo Univ., Osaka Univ., USA, Europe, and ASUM
EFBW: 10 types, Japan, USA and Europe (Tokyo Uni., Osaka Univ., Tokyo Shinozuka, JSUM, German, Shepard, Merz, Hadlock/Shepard, Williams, Brenner)
Pre-defined annotations and user programmable
User defined libraries/annotations
Body patterns
Customized comment home position

Complete User Manual Available On Board Through Help (F1)

User manual and service manual are included in eDoc USB stick with each system. A printed manual is available upon request.

CINE Memory/Image Memory

CINE memory: 776 MB	
Selectable CINE sequence for CINE review	
Prospective CINE mark	
Measurements/calculations and annotations on CINE playback	
Scrolling timeline memory	
CINE capture function	
Digital continuous CINE capture	
Dual image CINE display	
Quad image CINE display	
CINE gauge and CINE image number display	
CINE review loop	
CINE review speed: 10 steps (11, 13, 14, 17, 22, 25, 31, 100, 200, 400%)	
Image Storage	
On-board database of patient information from past exams	
Storage formats:	• DICOM: compressed/ uncompressed, single/multi-frame, with/without Raw Data
Storage formats: (cont.)	• Export JPEG, JPEG2000, WMV (MPEG 4), and AVI formats
DICOM still image storage size: ~2.1 MB	
Gray image: ~1.3 to ~3.5 MB	
Color image: ~1.8 to ~5.0 MB	
Display format: full size, 4x4 and “thumbnails”	
Storage devices:	• Internal Solid-State Drive partition of 345 GB for image storage • External USB 2.0 hard drive support for import, export, DICOM read, SaveAs and MPEGVue • USB memory stick support for SaveAs and MPEGVue (64 MB to 4 GB) • CD-R storage: 700 MB • DVD storage: -R (4.7 GB)
Conversion to formats: JPEG, AVI, WMV	
Live image and stored image side-by-side display	
Compare old images with current exam	
Reload of archived date sets	
Network storage support for import, export, DICOM read, SaveAs, MPEGVue	
Connectivity & DICOM	
Privacy and Security	• Password Policies • Provides the ability to specify password policies for user accounts • Session Management • Lock screen after minutes (configurable) • Hard Disk Encryption • Encrypts patient data archive partition • Provides whitelisting type malware protection • TPM Support for security

DICOM 3.0 (option)	• Verify • Print • Store • Modality worklist • Storage commitment • Modality Performed Procedure Step (MPPS) • Media exchange • Off network/mobile storage queue • Query/retrieve • Structured reporting • Public SR template • Structured reporting – compatible with vascular and OB standard • Direct export DICOM SR and XML • Media store of SR • InSite ExC capability
Ethernet network connection	
Wireless LAN (option)	
LOGIQ P Apps	
Physiological Input Panel	
Physiological input	
ECG, 2 lead	
Dual R trigger	
Pre-settable ECG R delay time	
Re-settable ECG position	
Adjustable ECG gain control	
Automatic heart rate display	
Scanning Parameters	
Digital P-Agile beamformer architecture	
386,469 system processing channels	
Max. frame rate up to 3229 F/s	
Displayed imaging depth: 0 – 48 cm	
Minimum Depth of Field: 0 – 1 cm (zoom, probe dependent)	
Maximum Depth of Field: 0 – 48 cm (probe dependent)	
Transmission focus: 1 – 8 focal points selectable (probe and application dependent)	
Quad beamforming	
Continuous dynamic receive focus/aperture	
Multi-frequency/wideband technology	
Frequency range: 2 – 22 MHz	
256 shades of gray	
Dynamic range > 400dB in system level (composite dynamic level)	
Adjustable dynamic range	
Adjustable Field Of View (FOV): Up to 168 degree (depending on probe)	
Image Reverse: right/left	
Image rotation: 4 steps of 0°, 90°, 180°, 270°	
Digital B-Mode	
Acoustic power output: 0 – 100%, 25 steps	
Gain: from 0 – 90 dB, 1 dB step	
Dynamic range: 36 – 96 dB, 3 dB or 6 dB steps	

Frame averaging: 8 steps
Gray scale map: 7 types
Tint map: 9 types
Frequency: up to 5 selectable (depending on probe)
Speed of sound (probe, application dependent)
Line density: 5 steps
Line density zoom: 5 steps
Thermal index: TIC, TIS, TIB
Image reverse: on/off
Focus number: 8 steps
Focus width: 3 types
Suppression: 6 steps
Edge enhance: 7 steps
Rejection: 6 steps
Steered linear: ±12°
Scanning size (FOV or angle – depending on the probe)
SRI-HD: up to 6 levels selectable
CrossXBeam: up to 9 angles selectable
Depth: 1 – 48 cm, 1 cm step, probe dependent
Digital M-Mode
Gain: -20 – 20 dB, 1 dB step
Compression: 0.5 – 2.4, 13 steps
Sweep speed: 0 – 7, 8 steps
Frame averaging
Gray scale map: 7 types
M colorization: 9 types
Frequency
Line density
Scanning size (FOV or angle – depending on probe, see probe specifications)
Rejection: 6 steps
M/PW display format: V-1/3B, V-1/2B, V-2/3B, H-1/2B, H-1/4B, timeline only
Anatomical M-Mode
M-Mode cursor adjustable at any plane
Can be activated from a CINE loop, from a live or stored image
M & A capability
Available with Color Flow Mode
Curved Anatomical M-Mode
Digital Spectral Doppler Mode

Adjustable:	• Acoustic power: 0 – 100, 25 steps • Gain: 0 – 85, 86 steps • Gray scale map: 8 types • Transmit frequency: up to 5 steps, depends on probe • Wall filter: 5.5 – 5000 Hz, 27 steps • PW colorization: 6 types • Velocity scale range: 8 steps • Sweep speed: 8 steps • Sample volume length: 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16 mm • Angle correction: ±90°, 1° step • Steered linear: 7 steps • Spectrum inversion: on/off • Trace method: 3 steps • Baseline shift: 5 to 95%, 11 steps • Doppler auto trace: 3 steps • Compression: 12 steps • Trace direction: 3 steps • Trace sensitivity: 21 steps

Digital Color Flow Mode
Baseline: 0 – 100%, 11 steps
Invert: on/off
CF/PDI focus depth: default pre-settable for 10 – 100% of ROI in depth, 6 steps
CF/PDI flash suppression: 5 steps
CF/PDI angle steer: 0, ±20°
Packet size: 8 – 24, dependent on probe and application
Line density: 5 steps
Line density zoom: 5 steps
Frame average: 7 steps
PRF: 0.1 – 23.5 kHz/20 steps
Spatial filter: 6 steps
Gain: 0 – 40 dB, 0.5 dB steps
Composite dynamic range: 174 – 270 dB, 3 dB or 6 dB steps
Wall filter: 4 steps, dependent on probe and application
Scanning size (FOV or angle): probe dependent
CF/PDI vertical size (mm) of ROI: default pre-settable
CF/PDI center depth (mm) of ROI: default pre-settable
CF/PDI frequency: up to 5, depending on probe
Color maps, including velocity-variance maps: 20 types depending on application
Transparent: 5 steps
Color threshold: 0 – 100%, 11 steps
Arbitration threshold: 15 steps pre-settable
Auto line density: on/off pre-settable
PW/CF ratio: 1, 2, 4
Accumulation: 8 steps
Quantification
Digital Power Doppler Imaging
PDI map: 16 types
CF/PDI focus depth: default pre-settable for 10 – 100% of ROI in depth, 6 steps
CF/PDI acoustic output: 0 – 100%, 10% steps

CF/PDI angle steer: 0, ±20°	
Packet size: 8 – 24, dependent on probe and application	
Spatial filter: 6 steps	
Frame average: 7 steps	
PRF: 0.1 – 23.5 kHz/20 steps	
Power threshold: 0 – 100%, 11 steps	
Arbitration threshold: 15 steps pre-settable	
Gain: 0 – 40 dB, 0.5 dB steps	
Wall filter: 4 steps depending on probe and application	
CF/PDI frequency: up to 5 steps, depending on probe	
Auto line density: on/off pre-settable	
Transparent: 5 steps	
Invert: on/off	
Accumulation: 8 steps	
Flash suppression	
PW/CW Wave Doppler	
Velocity scale:	• Max. 10.34 m/s • Min. 0.06 m/s
Gray scale map: 8 types	
Baseline: 5 – 95%, 11 steps	
SV gate: 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16 mm	
Angel correct: ± 90°, 1° step	
Spectral color: 6 types	
PW sweep speed: 8 steps	
Invert: on/off	
M/PW display format: V-1/3B, V-1/2B, V-2/3B, H-1/2B, H-1/4B, timeline only	
Duplex: on/off (PW only)	
PW/CF ratio: 1, 2, 4	
Gain: 0 – 85 dB, 1 dB steps	
Wall filter: 5.5 – 5000 Hz, 27 steps, dependent on probe and application	
PW angle steer: 0, ±10, 15, 20°	
PRF: 0.5 – 26.7 kHz with PW, 0.4 – 49.0 kHz with CW	
Sample volume depth: 30 steps default pre-settable	
CW-Mode is available on the following probes:	• 3Sc-RS • 6S-RS • 12S-RS • P2D • P8D • P6D
Steerable CW Mode includes	
Transmit frequency	
CW colorization	
Velocity scale range	
Spectrum inversion	
Trace method	
Doppler auto trace	
Trace direction	
Trace sensitivity	
Automatic Optimization	

Optimize B-Mode, B-Flow image to improve contrast resolution. Selectable amount of contrast resolution improvement (low, medium, high)

Auto TGC	
CTO	
Auto-spectral optimize adj	• Baseline • Invert • PRF (on live image) • Angle correction

Coded Harmonic Imaging

Available on all imaging probes

Line density: 5 steps

Line density zoom 5 steps

Suppression: 6 steps

Edge enhance: 7 steps

Gray scale map: 7 types

Tint map: 9 types

Gain: 0 – 90 dB, 1 dB step

Dynamic range: 36 – 96 dB, 3 dB or 6 dB steps

Rejection: 6 steps

Frequency: up to 4 steps, probe depended

B-Flow/B-Flow color (option)

Available on C1-6-D, C2-7-D, 10C-D, 9L-RS, 12L-RS, ML6-15-RS, L8-18i-RS, C1-5-RS, 8C-RS, L6-12-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, E8CS-RS, BE9CS-RS, L3-12-RS, IC9-RS probes

Hybrid B-Flow: Available on C1-5-RS, 12L-RS, 9L-RS, ML6-15-RS, L4-12t-RS, L3-12-RS, C1-6-D, C2-7-D and 10C-D

B & B-Flow simultaneous dual display

B & B-Flow overlay display

B-Flow High Definition Color (HD Color): Available on C1-5-RS, 12L-RS, ML6-15-RS, L4-12t-RS, L3-12-RS and C1-6-D probes

Background: on/off

Sensitivity/PRI: 17 steps

Line density: 5 steps

Edge dnhance: 7 steps

Frame average: 8 steps

Gray scale map: 8 types

Tint map: 9 types

Dynamic range: 36 – 96 dB, 3 dB or 6 dB steps

Rejection: 6 steps

Gain: 0 – 90 dB, 1 dB step

Dual Beam: on/off pre-settable

B-Flow Color: 8 color maps and 6 directional maps

Accumulation: 8 steps

Coded Contrast Imaging (option.)

AM mode : Available on C1-6-D, C2-7-D, C1-5-RS, 9L-RS, 3Sc-RS, BE9CS-RS, IC9-RS

HRes mode : Available on C1-6-D, C2-7-D, C1-5-RS, 9L-RS, 3Sc-RS

AM mode frequency : General, Resolution and Penetration

HRes mode frequency : General

Tissue background selection: 4 steps

Display tissue image and contrast enhanced image simultaneously in split screen

2 separate contrast timers

Timed updates: 0.05 – 10 seconds

Accumulation mode: 6 steps

Max Enhancement Mode: on/off
Gray scale map: 21 types
Colorization: on/off
Time trigger scan: 0.3 & 0.5 – 10 sec, 0.5 sec step
Flash/Burst Mode
Time Intensity Curve (TIC) analysis
Auto MI control

The LOGIQ P9 is designed for compatibility with commercially available ultrasound contrast agents. Because the availability of these agents is subject to government regulation and approval, product features intended for use with these agents may not be commercially marketed nor made available before the contrast agent is cleared for use. Contrast related product features are enabled only on systems for delivery to an authorized country or region of use.

LOGIQView (option)
Extended Field of View imaging
Available on all imaging probes
For use in B-Mode
CrossXBeam is available on linear probes
Auto detection of scan direction
Pre or post-process zoom up to 10x
Rotation
Auto best fit on monitor
Measurements in B-Mode
Up to 60 cm scan length
Easy 3D (available on all imaging probes)
Colorize image
Threshold (opacity)
Render
Texture
Gray surface
Scalpel
Auto movie
Undo
Reset
Allows unlimited rotation and planar translation
3D reconstruction from CINE sweep
Advanced 3D (Available On All Imaging Probes) (option)
Acquisition of color data
Automatic rendering
3D landscape technology
3D movie
Main Mode
Real-time 4D (option)

Acquisition modes:	• Real-time 4D mode • Static 3D mode

Visualization modes:	• 3D rendering (diverse surface and intensity projection modes) • Sectional planes (3 section planes perpendicular to each other) • Volume contrast imaging-static • Tomographic ultrasound imaging
Render mode:	• Surface texture, surface smooth, max-, min- and X-ray (average intensity projection), mix mode of two render modes
Curved 3 point Render start	
3D Movie	
Scalpel: 3D Cut tool	
Display format:	• Quad: A-/B-/C-Plane/3D • -Dual: A-Plane/3D • Single: 3D or A- or B- or C-Plane
Automated Volume Calculation - VOCAL II (option)	• Betaview • Auto sweep
STIC (option)	
HDlive™ (option)	
VCI Static (option)	
Omniview (option)	VCI OmniView
Scan Assistant (option)	
Workflow enhancement tool for standardized and repetitive exams	
Include factory programs	
User-defined programs and import functionality	
Steps include image annotations, mode transitions, basic imaging controls and measurement initiation	
Compare Assistant (Option)	
Side-by-side comparison of previous ultrasound and other modality exams during live scanning	
Report Writer (option)	
On-board reporting package automates report writing	
Formats various exam results into a report suitable for printing or reviewing on a standard PC	
Exam results include patient info, exam info, measurements, calculations, images, comments and diagnosis	
Standard templates provided	
Customizable templates	
Thyroid reporting template	
Strain Elastography (option)	
Available on C1-6-D, C1-5-RS, ML6-15-RS, 9L-RS, 12L-RS, L6-12-RS, L4-12t-RS, E8CS-RS, BE9CS-RS, L3-12-RS, IC9-RS probes	
E index: 8 maximum	
E ratio: 7 maximum	
B Steer+ (option)	

Available on C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L4-12t-RS, L3-12-RS, RAB2-6-RS, C1-6-D, C2-7-D and 10C-D probes

TVI (option)
Myocardial Doppler Imaging with color overlay on tissue image
Available on all sector probes
Tissue color overlay can be removed to show just the 2D image, still retaining the tissue velocity information
Curved Anatomical M-Mode: free (curved) drawing of M-Mode generated from the cursor independent from the axial plane
Q-Analysis: Multiple time-motion trace display from selected points in the myocardium
Stress Echo (option)
Advanced and flexible stress-echo examination capabilities
Provides exercise and pharmacological protocol templates
8 default templates
Template editor for user configuration of existing templates or creating new templates
Reference scan display during acquisition for stress level comparison (dual screen)
Baseline level/previous level selectable
Raw data continuous capture (over 180 sec available)
Wall motion scoring (bulls-eye and segmental)
Smart stress: automatically set up various scanning parameters (e.g. geometry, frequency, gain, etc.) according to same projection on previous level
Shear Wave Elastography (Option)
Available on C1-5-RS, L3-12-RS, IC9-RS, ML6-15-RS, C1-6-D and 12L-RS probes
User programmable measurement display in kPa and meters per sec.
Measurement range in m/s (Min. – Max.) : 0-10 m/s
Measurement range in kPa (Min. – Max.) : 0-300 kPa
Single and dual view display
Auto EF (Option)
Allows semi-automatic measurement of the global EF (Ejection Fraction)
User editable
Virtual Convex
Provides a convex Field of View
Compatible with CrossXBeam
Available on all linear and sector transducers
SRI-HD
High definition speckle reduction imaging
Provides multiple (6) levels of speckle reduction
Compatible with side-by-side DualView display
Compatible with all linear, convex and sector transducers
Compatible with B-Mode, color, contrast agent and 3D/4D imaging
Pre and post processing
CrossXBeam
Provides 3, 5, 7 or 9 angles of spatial compounding
Live side-by-side DualView display

Compatible with	• Color Mode • PW • SRI-HD • Coded Harmonic Imaging • Virtual convex on linear probes

Available on C1-5-RS, 8C-RS, E8C-RS, 9L-RS, 12L-RS, ML6-15-RS, L8-18i-RS, RAB2-6-RS, L6-12-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, E8CS-RS, BE9CS-RS, RIC5-9A-RS, L3-12-RS, IC9-RS probes

Controls Available While "Live"	
Write zoom	
B/M/CrossXBeam-Mode	• Gain • TGC • Dynamic range • Acoustic output • Transmission focus position • Transmission focus number • Line density control • Sweep speed for M-Mode • Number of angles for CrossXBeam
PW-Mode	• Gain • Dynamic range • Acoustic output • Transmission frequency • PRF • Wall filter • Spectral averaging • Sample volume gate – Length – Depth • Velocity scale
Color Flow-Mode	• CFM gain • CFM velocity range • Acoustic output • Wall echo filter • Packet size • Frame rate control • CFM spatial filter • CFM frame averaging • CFM line resolution • Frequency/velocity baseline shift

Controls Available on "Freeze" or Recall
Automatic optimization
SRI-HD
CrossXBeam – display non-compounded and compounded image simultaneously in split screen
3D reconstruction from a stored CINE loop

B/M/CrossXBeam-Mode	• Gray map optimization • TGC • Colorized B and M • Frame average (loops only) • Dynamic range
Anatomical M-Mode	
Max. read zoom to 8x	
Baseline shift	
Sweep speed	
PW-Mode	• Gray map • Post gain • Baseline shift • Sweep speed • Invert spectral wave form • Compression • Rejection • Colorized spectrum • Display format • Doppler audio • Angle correct • Quick angle correct • Auto angle correct
Color Flow-Mode	• Overall gain (loops and stills) • Color map • Transparency map • Frame averaging (loops only) • Flash suppression • CFM display threshold • Spectral invert for Color/Doppler
Anatomical M-Mode on CINE loop	
4D	• Gray map, colorize • Post gain • Change display – single, dual, quad sectional or rendered

Measurements/Calculations

General B-Mode
Depth & distance
Circumference (ellipse/trace)
Area (ellipse/trace)
Volume (ellipsoid)
% Stenosis (area or diameter)
Angle between two lines
General M-Mode
M-Depth
Distance
Time
Slope

Heart rate
General Doppler Measurements/Calculations
Velocity
Time
A/B ratio (Velocities/Frequency ratio)
PS (Peak Systole)
ED (End Diastole)
PS/ED ratio
ED/PS ratio
AT (Acceleration Time)
ACC (Acceleration)
TAMAX (Time Averaged Maximum velocity)
Volume flow (TAMEAN and vessel area)
Heart rate
PI (Pulsatility Index)
RI (Resistivity Index)
Real-time Doppler Auto Measurements/Calculations
PS (Peak Systole)
ED (End Diastole)
MD (Minimum Diastole)
PI (Pulsatility Index)
RI (Resistivity Index)
AT (Acceleration Time)
ACC (Acceleration)
PS/ED ratio
ED/PS ratio
HR (Heart Rate)
TAMAX (Time Averaged Maximum velocity)
PVAL (Peak Velocity value)
Volume flow (TAMEAN and vessel area)

OB Measurements/Calculations	
Gestational age by:	• GS (Gestational Sac) • CRL (Crown Rump Length) • FL (Femur Length) • BPD (Biparietal Diameter) • AC (Abdominal Circumference) • HC (Head Circumference) • APTD x TTD (Anterior/ Posterior Trunk Diameter by Transverse Trunk Diameter) • LV (Length of Vertebra) • FTA (Fetal Trunk Cross-sectional Area) • HL (Humerus Length) • BD (Binocular Distance) • FT (Foot Length) • OFD (Occipital Frontal Diameter) • TAD (Transverse Abdominal Diameter) • TCD (Transverse Cerebellum Diameter) • THD (Thorax Transverse Diameter) • TIB (Tibia Length) • ULNA (Ulna Length)

Estimated Fetal Weight (EFW) by:	• AC, BPD • AC, BPD, FL • AC, BPD, FL, HC • AC, FL • AC, FL, HC • AC, HC • BPD, APTD, TTD, FL • BPD, APTD, TTD, SL
Calculations and ratios	• FL/BPD • FL/AC • FL/HC • HC/AC • CI (Cephalic Index) • AFI (Amniotic Fluid Index) • CTAR (Cardio-Thoracic Area Ratio)

Measurements/calculations by: ASUM, ASUM 2001, Bahlmann, Baschat, Berkowitz, Bertagnoli, Brenner, Campbell, CFEF, Chitty, Ebbing, Eik-Nes, Ericksen, Goldstein, Hadlock, Hansmann, Hellman, Hill, Hohler, Jeanty, JSUM, Kurmanavicius, Kurtz, Mari, Mayden, Mercer, Merz, Moore, Nelson, Osaka Univ., Paris, Rempen, Robinson, Shepard, Shepard/Warsoff, Tokyo Univ., Tokyo/Shinozuka, WHO, Yarkoni

Fetal graphical trending
Growth percentiles
Multi-gestational calculations (4)
Fetal qualitative description (anatomical survey)
Fetal environmental description (biophysical profile)
Programmable OB tables
Over 20 selectable OB calcs
Expanded worksheets
Growth percentiles: Hadlock, Brenner, Williams, Kramer (f), Kramer (m)
Measure Assistant Breast (Option)
Allows automatic contour and measurement of breast lesions in a user selected ROI
Feature assessment
BI-RADS® assessment
User editable
Measure Assistant OB (Option)
Allows automatic measurement of BPD, HC, FL and AC
User editable
GYN Measurements/Calculations
Right ovary length, width, height
Left ovary length, width, height
Uterus length, width, height
Cervix length, trace
Ovarian volume
ENDO (Endometrial thickness)
Ovarian RI
Uterine RI
Follicular measurements

IOTA (International Ovarian Tumor Analysis) LR2 worksheet

Note) IOTA is not available in USA, Japan and China.

Summary reports
Vascular Measurements/Calculations
SYS DCCA (Systolic Distal Common Carotid Artery)
DIAS DCCA (Diastolic Distal Common Carotid Artery)
SYS MCCA (Systolic Mid Common Carotid Artery)
DIAS MCCA (Diastolic Mid Common Carotid Artery)
SYS PCCA (Systolic Proximal Common Carotid Artery)
DIAS PCCA (Diastolic Proximal Common Carotid Artery)
SYS DICA (Systolic Distal Internal Carotid Artery)
DIAS DICA (Systolic Distal Internal Carotid Artery)
SYS MICA (Systolic Mid Internal Carotid Artery)
DIAS MICA (Diastolic Mid Internal Carotid Artery)
SYS PICA (Systolic Proximal Internal Carotid Artery)
DIAS PICA (Diastolic Proximal Internal Carotid Artery)
SYS DECA (Systolic Distal External Carotid Artery)
DIAS DECA (Diastolic Distal External Carotid Artery)
SYS PECA (Systolic Proximal External Carotid Artery)
DIAS PECA (Diastolic Proximal External Carotid Artery)
VERT (Systolic Vertebral Velocity)
SUBCLAV (Systolic Subclavian Velocity)
Auto IMT
Summary reports
Urological Measurements/Calculations
Bladder volume
Prostate volume
Left/right renal volume
Generic volume
Post-void bladder volume
Cardiac Measurements/Calculations
Cardiac calculation package including extensive measurements and display of multiple repeated measurements

Parameter annotation follow ASE standard
My Trainer+
An electric manual for first time user for the system
Available self-setup system
System setup
Maintenance
Ergonomics
Basic operation (button/layout/touch panel layout/monitor layout/basic workflow)

My Page
Collection of user's favorite parameters from measurement/comments/body patterns
Programmable buttons
Measurement for B/M/Doppler
User defined annotation for selected exam category
Body pattern for the selected exam category
Function Available Arrow; Create Macro, Eject, Grab Last, Help, Home, My Trainer, Set Home. Spooler, Text Overlay, Word Delete

Offline Scanning
Normal scanning with battery
Indication/message
Battery capacity
Battery operation
Power assistant in low battery

Probes

Probes
C1-6-D, C2-7-D, 10C-D, C1-5-RS, 8C-RS, E8C-RS, E8CS-RS, BE9CS-RS, 9L-RS, 12L-RS, L8-18i-RS, L6-12-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, ML6-15-RS, 3Sc-RS, 6S-RS, 12S-RS, RAB2-6-RS, RIC5-9A-RS, P6D, P8D, L3-12-RS, IC9-RS, 6Tc-RS, P2D

C1-5-RS Convex Probe
Applications: Abdomen, Vascular, OB/GYN, Urology
Probe band width: 1 - 6 MHz
Number of element: 192
Convex radius: 55 mmR
FoV (max): 70°
Physical foot print: 67 x 11.5 mm
B-Mode frequency: 2, 3, 4 MHz
Harmonic frequency: 3, 4, 5 MHz
Doppler frequency: 1.9, 2.1, 2.5, 3.6 MHz
Biopsy guide: multi-angle, disposable with a reusable bracket (40432LE)

C1-6-D Convex Probe
Applications: Abdomen, OB, Gynecology, Vascular, Urology
Probe band width: 1 - 6 MHz
Number of element: 192
Convex radius: 55 mmR
FoV (max): 70°
Physical foot print: 67.2 x 11.5 mm
B-Mode frequency: 2, 3, 4, 5, 6 MHz
Harmonic frequency: 1.5, 2.5, 2.8, 3, 4, 5, 6 MHz
Doppler frequency: 1.7, 1.9, 2.1, 2.5, 3.1, 3.6 MHz
Biopsy guide: multi-angle, disposable with a reusable bracket (H4913BB)

C2-7-D Convex Probe
Applications: Abdomen
Probe band width: 1 - 6 MHz
Number of element: 144
Convex radius: 19.74 mmR
FoV (max): 110°
Physical foot print: 29.7 x 10.5 mm
B-Mode frequency: 2.5, 4, 5, 6 MHz
Harmonic frequency: 3, 4, 5, 6 MHz
Doppler frequency: 2.1, 2.5, 3.6, 4.2 MHz
Biopsy guide: multi-angle, disposable with a reusable bracket (H40482LK)or a reusable stainless bracket (H40482LK)

10C-D Convex Probe
Applications: Neonatal, Pediatrics, Vascular

Probe band width: 4 – 12 MHz
Number of element: 128
Convex radius: 10 mmR
FoV (max): 102°
Physical foot print: 17.9 x 4.8 mm
B-Mode frequency: 4, 6, 8, 10 MHz
Harmonic frequency: 7, 8, 9, 10 MHz
Doppler frequency: 4.2, 5.0, 6.3, 7.4, 8.3 MHz
Biopsy guide: none

8C-RS Micro Convex Probe

Applications: Neonatal, Pediatrics
Probe band width: 3 - 11 MHz
Number of element: 128
Convex radius: 10.7 mmR
FoV (max): 132°
Physical foot print: 24.7 x 5 mm
B-Mode imaging frequency: 6.0, 7.0, 8.0 MHz
Harmonic frequency: 8.0, 9.0, 10.0 MHz
Doppler frequency: 3.6, 4.2, 5.0, 6.3 MHz
Biopsy guide: none

E8C-RS Endo Micro Convex Probe

Applications: OB/GYN, Urology, Transvaginal, Transrectal
Probe band width: 3 - 11 MHz
Number of element: 128
Convex radius: 10.7 mmR
FoV (max): 132°
Physical foot print: 24.7 x 5 mm
B-Mode frequency: 6, 7, 8 MHz
Harmonic frequency: 8, 9, 10 MHz
Doppler frequency: 3.6, 4.2, 5.0, 6.3 MHz
Biopsy guide: single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), single-angle, reusable bracket (H40412LN)

E8CS-RS Endo Micro Convex Probe

Applications: OB/GYN (Transvaginal), Urology (Transrectal)
Probe band width: 3 - 11 MHz
Number of element: 128
Convex radius: 8.7 mmR
FoV (max): 168°
Active area: 25.6 x 4.3 mm
B-Mode frequency: 6, 7, 8 MHz
Harmonic frequency: 7, 8, 9, 10 MHz
Doppler frequency: 3.6, 4.2, 5.0, 6.3 MHz
Biopsy guide: single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), single-angle, reusable bracket (H40412LN)

IC9-RS Endo Micro Convex Probe

Applications : OB/GYN, Urology, (Transvaginal, Transrectal)

Probe band width: 2 - 11 MHz
Number of element: 192
Convex radius: 9.24 mmR
FoV (max): 168°
Physical foot print: 24.2 x 6 mm
B-Mode frequency: 6, 7, 8 MHz
Harmonic frequency: 7, 8, 9 MHz
Doppler frequency: 3.6, 4.2, 5.0, 6.3 MHz
Biopsy guide: single-angle, disposable with a disposable bracket (H48691YW), single-angle, reusable bracket (H48701MN)

BE9CS-RS Biplane Micro Convex Probe

Applications: Urology, Transrectal
Probe band width: 3 - 12 MHz
Number of element: 96 x 2
Convex radius: 9 mmR
FoV (max): 127°
Active area: 20.8 x 5 mm
B-Mode frequency: 6, 8, 10 MHz
Harmonic frequency: 8, 9, 10 MHz
Doppler frequency: 4.2, 5.0, 6.3 MHz
Biopsy guide: single-angle, reuseable (E8387MA), disposable (E8387M), disposable starter kit (H42742LH), disposable starter kit (H42742LJ)

RAB2-6-RS Convex Volume Probe

Applications: Abdomen, OB/GYN, Urology
Probe band width: 1 - 5 MHz
Number of element: 128
Convex radius: 47 mmR
FoV (max): 66°, volume angle: 85°
Physical foot print: 53.8 x 13 mm
B-Mode frequency: 3, 4, 5 MHz
Harmonic frequency: 4, 5, 6 MHz
Doppler frequency: 1.9, 2.5, 3.1, 3.6 MHz
Biopsy guide: multi-angle, disposal with reusable bracket (H48681ML)

RIC5-9A-RS Convex Volume Probe

Applications: OB/GYN, Urology, Endocavity
Probe band width: 3 - 10 MHz
Number of element: 192
Convex radius: 10.1 mmR
FoV (max): 146°, volume angle: 120°
Active area: 26.5 x 6 mm
B-Mode frequency: 5, 7, 9 MHz
Harmonic frequency: 7, 8, 9 MHz
Doppler frequency: 3.6, 4.2, 5.0, 6.3 MHz
Biopsy guide: single-angle, reusable bracket (H46721R), single-angle, disposable (H48681GF)

ML6-15-RS Matrix Array Linear Probe

Applications: Small Parts, Vascular, Pediatric, Neonatal, Musculoskeletal

Probe band width: 4 - 15 MHz
Number of element: >1000
FoV (max): 50.4 mm
Physical foot print: 50.4 x 6 mm
B-Mode frequency: 9, 11, 13, 15 MHz
Harmonic frequency: 8, 10, 12, 15 MHz
Doppler frequency: 5, 6.3, 8.3 MHz
Biopsy guide: multi-angle, disposable with a reusable bracket (H40432LJ)

12L-RS Linear Probe
Applications: Small Parts, Vascular, Pediatric, Neonatal, Musculoskeletal
Probe band width: 3 - 12 MHz
Number of element: 192
FoV (max): 38.4 mm
Physical foot print: 38.4 x 4 mm
B-Mode frequency: 7, 9, 11 MHz
Harmonic frequency: 9, 11, 12 MHz
Doppler frequency: 4.2, 5, 6.3, 8.3 MHz
Biopsy guide: Multi-angle, disposable with a reusable bracket (H40432LC)

9L-RS Linear Probe
Applications: Vascular, Small Parts, Pediatric, Abdomen
Probe band width: 2 - 8 MHz
Number of element: 192
FoV (max): 44.2 mm
Physical foot print: 44.2 x 6 mm
B-Mode frequency: 5, 7, 9 MHz
Harmonic frequency: 8, 9, 10 MHz
Doppler frequency: 3.1, 3.6, 4.2, 5 MHz
Biopsy guide: multi-angle, disposable with a reusable bracket (H4906BK)

L6-12-RS Linear Probe
Applications: Small Parts, Vascular, Pediatric, Neonatal, Abdomen
Probe band width: 5 - 11 MHz
Number of element: 128
FoV (max): 38.4 mm
Physical foot print: 38.4 x 4 mm
B-Mode frequency: 7, 9, 11 MHz
Harmonic frequency: 9, 11, 12 MHz
Doppler frequency: 4.2, 5, 6.3, 8.3 MHz
Biopsy guide: multi-angle, disposable with a reusable bracket (H40432LC)

L8-18i-RS Linear Probe
Applications: Small Parts, Vascular, Pediatric, Neonatal, Intraoperative(Not for China), Musculoskeletal
Probe band width: 4 - 15 MHz
Number of element: 168
FoV (max): 25.2 mm
Physical foot print: 25.2 x 4 mm

B-Mode frequency: 8, 9, 12, 15, 18 MHz
Harmonic frequency: 9, 15, 18 MHz
Doppler frequency: 5, 6.3, 8.3 MHz
Biopsy guide: none

L4-12t-RS Linear Probe
Applications: Small Parts, Vascular, Pediatric, Neonatal, Musculoskeletal
Probe band width: 3 - 12 MHz
Number of element: 192
FoV (max): 38.4 mm
Active area: 38.4 x 4 mm
B-Mode frequency: 7, 9, 11 MHz
Harmonic frequency: 9, 11, 12 MHz
Doppler frequency: 4.2, 5, 6.3, 8.3 MHz
Biopsy guide: multi-angle, disposable with a reusable bracket (H40432LC), multi-angle, disposable with a reusable bracket (H48392LL), multi-angle, disposable with a reusable bracket (H48392LT)

L10-22-RS Linear Probe
Applications: Small Parts, Neonatal, Musculoskeletal
Probe band width: 7 - 20 MHz
Number of element: 128
FoV (max): 12.8 mm
Active area: 12.8 x 1.5 mm
B-Mode frequency: 10, 12, 16, 20 MHz
Harmonic frequency: 16, 19, 22 MHz
Doppler frequency: 11.1, 12.5, 14.3 MHz
Biopsy guide: none

L3-9i-RS Linear Probe
Applications: Small Parts, Vascular, Neonatal, Musculoskeletal, Intraoperative (Not for China)
Probe band width: 2 - 9 MHz
Number of element: 192
FoV (max): 38.4 mm
Active area: 38.4 x 4 mm
B-Mode frequency: 5, 7, 9 MHz
Harmonic frequency: 7, 8, 9, 10 MHz
Doppler frequency: 3.6, 4.2, 5 MHz
Biopsy guide: none

L3-12-RS Linear Probe
Applications: Vascular, Small Parts, Neonatal,Pediatrics, Abdomen
Probe band width: 2 - 11 MHz
Number of element: 256
FoV (Max): 51.2 mm
Physical foot print: 51.2 x 5 mm
B-Mode frequency: 5.0, 7.0, 9.0, 11.0 MHz
Harmonic frequency: 8, 10, 12 MHz
Doppler frequency: 3.6, 4.2, 5, 6.3, 8.3 MHz

Biopsy guide: multi-angle, disposable with a reusable bracket (H48302AA)

3Sc-RS Phased Array Sector Probe
Applications: Cardiac, Transcranial, Abdomen
Probe band width: 1 - 5 MHz
Number of element: 64
FoV (max): 120°
Physical foot print: 15 x 14 mm
B-Mode frequency: 2, 3, 4 MHz
Harmonic frequency: 3, 3.5, 4.0, 5.0 MHz
Doppler frequency: 1.7, 2.1, 2.5, 3.1, 3.6 MHz
Biopsy guide: multi-angle, reusable bracket (H46222LC)

6S-RS Phased Array Sector Probe
Applications: Cardiac Neonatal, Pediatric
Probe band width: 2 - 8 MHz
Number of element: 64
FoV (max): 90°
Physical foot print: 10.2 x 5.5 mm
B-Mode frequency: 4, 5, 6.5, 8 MHz
Harmonic frequency: 4.8, 5.4, 6.2 MHz
Doppler frequency: 2.8, 3.1, 3.6, 4.2, 5.0 MHz
Biopsy guide: none

12S-RS Phased Array Sector Probe
Applications: Pediatric, Neonatal
Probe band width: 4 - 12 MHz
Number of element: 96
FoV (max): 90°
Active area: 9.3 x 5.5 mm
B-Mode frequency: 7, 8, 9 MHz
Harmonic frequency: 7, 8, 9 MHz
Doppler frequency: 5.0, 6.3 MHz
Biopsy guide: none

P8D CW Split Crystal Probe
Applications: Cardiac, Vascular
P6D CW Split Crystal Probe
Applications: Cardiac, Vascular
P2D CW Split Crystal Probe
Applications: Cardiac, Vascular
6Tc-RS TEE Sector (Trans-esophageal) Probe
Applications : Cardiac (Transesophageal)
Probe band width: 2 - 8 MHz
Number of element: 64
FoV (Max): 90°
Physical foot print: 14 x 12 mm
B-Mode frequency: 6.0, 7.0, 8.0 MHz

Harmonic frequency: 6 MHz
Doppler frequency: 2.8, 3.1, 3.6, 4.2, 5 MHz
Biopsy guide: none

Inputs and Outputs	
HDMI out	
Ethernet network (RJ45)	
External audio out	
USB ports	• OPIO Ext USB3.0 x 2 pcs • Monitor USB2.0 x 2 pcs • Rear USB2.0 x 3 pcs
AC power input	
Probe connectors	

Regulatory and Standard

Safety Conformance

The LOGIQ P9 is:

• Classified to ANSIAAMI ES60601-1 2005 R1 2012 Medical Electrical Equipment, Part 1: General Requirements for Safety by a Nationally Recognized Test Lab
• Certified to CSA CAN/CSA-C22.2 NO. 60601-1 :14 General requirements for safety
• CE Marked to Council Directive 93/42/EEC on Medical Devices Conforms to the following standards for safety:
• IEC/EN 60601-1 3.1 Edition. Medical electrical equipment – Part 1: General requirements for basic safety and essential performance
• IEC/EN 60601-1-2 Medial electrical equipment – Part 1-2: General requirements for safety Collateral Standard: Electromagnetic compatibility – requirements and tests
• IEC/EN 60601-1-6 Medical electrical equipment Part 1 -6: General requirements for basic safety and essential performance – Collateral Standard: Usability
• IEC/EN 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment
• IEC 61157 (Standard means for the reporting of the acoustic output of medical diagnostic ultrasonic equipment)
• IEC/EN 62366 Application of usability engineering to medical devices
• IEC/EN 62304 Software Life Cycle Processes
• IEC/EN 62359 Ultrasonic - Field characterization - Test methods for the determination of thermal and mechanical indices related to medical diagnostic ultrasonic fields

• EN ISO 15223-1: Symbols to be used with medical device labels, labelling and information to be supplied

- ISO 10993-1 Biological evaluation of medical devices – Part 1 Evaluation and testing
- ISO14971:2012(Medical devices - Application of risk management to medical devices)
- EMC Emissions Group 1, class A, Class B device requirements as per Sub clause 4.2 of CISPR 11
- WEEE (Waste Electrical and Electronic Equipment)
- ROHS according to 2011/65/EU Including national deviations
- Wireless equipment shall be certified to FCC, RED and Japan Radio Law
- Medical Device Good Manufacturing Practice Manual issued by the FDA (Food and Drug Administration, Department of Health, USA).