



# LOGIQ V2

Ultrasound System



# LOGIQ V2 Ultrasound System

The LOGIQ™ V2 is a compact designed ultrasound imaging system designed for Abdominal, Obstetrical, Gynecological, Small Parts, Vascular/Peripheral Vascular, Urological, Transcranial and Cardiac applications

## General specifications

Dimensions and Weight	
Height	• 83mm (3.27in)
Length	• 396mm (15.59in)
Width	• 368mm (14.49in)
Weight	6kg (13.23lb) with battery

Electrical Power	
Voltage:	100-240 VAC
Frequency:	50/60 Hz
Power consumption:	Maximum of 200 VA with peripherals

Console Design	
1 inbuilt active probe ports	
2 <sup>nd</sup> probe port with optional adapter	
Integrated SSD (120GB)	
Integrated speakers	

## User interface

Operator Keyboard	
Ergonomic full size keyboard	
8 TGC Slider segments (pods)	

Monitor	
15" (381mm) high-resolution LCD (1024X768 pixels)	
Brightness adjustment	

## System overview

Applications	
Abdomen	
Obstetrics	
Gynecological	
Cardiac	
Vascular	
Transcranial	
Musculoskeletal	
Urological	
Small Parts	
Pediatric & Neonatal	

Scanning Methods	
Electronic Convex	
Electronic Linear	
Electronic Sector	

Transducer Types	
Convex Array	
Linear Array	
Sector Phased Array	

Operating Modes	
B-Mode	
Coded Phase Inversion Harmonic Imaging (CHI)	
M-Mode	
Color M Mode	
Color Flow Mode (CFM)	
Power Doppler Imaging (PDI)	
Directional PDI	
PW Doppler with High PRF	
Anatomical M-Mode (Option)	
CW Doppler Mode (Option)	
LOGIQ View (Option)	
TVI Mode (Option)	
Easy 3D (Free hand 3D) (Option)	

# General specifications (continued)

## System Standard Features

AO (Automatic Optimization)
CrossXBeam™
SRI-HD (High Definition Speckle Reduction Imaging)
Coded Phase Inversion Harmonic Imaging
Virtual Convex
Patient information Database
Image Archive on integrated HDD
Raw Data Analysis (TruScan)
Real-time automatic Doppler calculations
OB Calculations
Fetal Trending
Multi-gestational Calculations
Hip Dysplasia Calculations
Gynecological Calculations
Vascular Calculations
Urological Calculations
Renal Calculations
Cardiac Calculations
Remote capability: InSite ExC
MPEGVue
Network Storage
B-Steer

## System Options

Auto-IMT
CW Doppler
Tissue Velocity Imaging (TVI) with Q-Analysis
DICOM® 3.0 Connectivity
Needle Recognition
Scan Assistant
Scan Coach
SonoBiometry
Easy 3D (Free hand 3D)
On-board reporting package
LOGIQ View
Anatomical M-Mode

## Peripheral Options Supported

Digital UP-D25MD Color thermal printer
Digital UP-D898MD BW thermal printer
HP office jet 100 Mobile Printer
HP office jet Pro 8100 Printer (supported)
Footswitch MKF 2-MED USB GP26
USB Stick 8G
1TB mobile USB HDD
DVD RW Kit
Wireless USB adapter
LOGIQ V1 / LOGIQ V2 Spare Battery

## 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	<ul style="list-style-type: none"> <li>• B/PW</li> <li>• B/CFM or PDI</li> <li>• B/M</li> <li>• B/CrossXBeam</li> <li>• B + CFM/M</li> <li>• Real Time Triplex Mode (B + CFM or PDI/PW or CW)</li> <li>• Dual B (B/B)</li> </ul>
Selectable alternating Modes	<ul style="list-style-type: none"> <li>• B/M</li> <li>• B/PW</li> <li>• B + CFM/M</li> <li>• B + CFM (PDI)/PW (CW)</li> <li>• 3D-Mode</li> <li>• B/CW (Option)</li> <li>• B + CFM (PDI)/CW</li> <li>• Multi-image split screen (quad screen)</li> <li>• Live and/or frozen</li> <li>• B + B/CFM or PDI</li> <li>• PW/M</li> <li>• Independent CINE playback</li> </ul>
Zoom	Write/Read
Colorized Image	<ul style="list-style-type: none"> <li>• Colorized B</li> <li>• Colorized M</li> <li>• Colorized PW</li> <li>• Colorized CW</li> </ul>

# General specifications (continued)

## Display modes

Time line display	<ul style="list-style-type: none"> <li>• Independent Dual B/PW or CW Display</li> <li>• Display Formats               <ul style="list-style-type: none"> <li>- Top/Bottom selectable format (Size: 1/2:1/2; 1/3:2/3; 2/3:1/3)</li> <li>- Side/Side selectable format (Size: 1/2:1/2; 1/4:3/4; TL only)</li> </ul> </li> </ul>
Switchable after Freeze	<ul style="list-style-type: none"> <li>• Timeline only</li> <li>• Virtual Convex</li> <li>• CrossXBeam</li> <li>• Tissue Velocity Imaging (TVI) Mode (Option)</li> </ul>

## Display annotation

Patient Name: First, Last (Max 63 total characters in each field)

Patient ID (Max 63 characters)

Other ID (Max 63 characters)

Age, Sex and Date of Birth

Hospital Name

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
- GA
- EDD
- BBT

Displayed Acoustic Output

- TIS: Thermal Index Soft Tissue
- TIC: Thermal Index Cranial (Bone)
- TIB: Thermal Index Bone
- MI: Mechanical Index

% of Maximum Power output

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 Average

Frame Rate

Gray Map

ATO On/Off

SRI-HD

CrossXBeam

## M-Mode

Gain

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 Average

Packet Size

Color Scale: 2 types
 

- Power
- Directional PDI

Color Velocity Range and Baseline

Color Threshold Marker

Color Gain

PDI

Inversion

Doppler Frequency

TGC Curve

Cine Gage, Image Number/Frame Number

Body Pattern: Multiple human

Application Name

Measurement Results

Operator Message

Biopsy Guide Line and Zone

Heart Rate

# General system parameters

## System Setup

8 Pre-programmable Categories

User Programmable Preset Capability 248 presets (8 (application groups) x 4 (user defined) + 30 (applications) ) x 7 Probes

Factory Default Preset Data 120 presets (30 (applications)) x 7 Probes

Languages: English, Latin American Spanish, French, German, Italian, Brazilian Portuguese, Chinese (Simplified), Swedish, Russian, Norwegian, Danish, Dutch, Finnish, Japanese

OB Report Formats including Tokyo University, Osaka University, USA, Europe, and ASUM

User Defined Annotations

Body Patterns

Customized Comment Home Position

System Boot-up Time: 120 seconds

System Shut-down Time: 40 seconds

BTU (Heat dissipation): Typical Input power during scanning with full configuration: 511 BTU (th) / hr. (1BTU=0.293071W)

## CINE Memory/Image Memory

System RAM: 2GB

Processor: Intel Celeron 1047 (1.4G x2 core) 128 MB of Cine Memory

Max number of Cine loops: 24048 frames (Preset Dependent)

Selectable Cine Sequence for Cine Review

Prospective Cine Mark

Measurements/Calculations and Annotations on Cine Playback

Scrolling timeline memory

Dual Image Cine Display

Quad Image Cine Display

Cine Gauge and Cine Image Number Display

Cine Review Loop

Cine Review Speed: 11 steps (11, 13, 14, 17, 22, 25, 31, 48, 100, 200, 400%)

## Image Storage

On-board database of patient information

Storage Formats: DICOM – compressed/uncompressed, single/multi-frame, with/without Raw Data

Display Format: Full Size, 4x4 and "thumbnails"

Storage Devices

- Internal Hard Drive Partition of 55 GB for Image Storage. At 22KB/ image, it can store 2,621,440 still images.
- External SD card, USB HDD and USB Memory Stick Support for Import, Export, DICOM Read, SaveAs, and MPEGVue
- CD-RW 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 stored images with current exam

Storematrix:

- 800 x600 x24 Bit (Image Only)
- 1024 x 768 x24 Bit (Normal Display)

Reload of archived data sets

Network Storage support for Import, Export, DICOM Read, SaveAs, MPEGVue

## Connectivity & DICOM

Ethernet network connection

DICOM 3.0 (Optional)

Verify

Print

Store

Modality Worklist

Storage Commitment

Modality Performed Procedure Step (MPPS)

Query/Retrieve

Structured Reporting Template – which can be compared to vascular and OB standard

Remote capability InSite ExC

# General system parameters (continued)

## Scanning Parameters

Digital Agile Beamformer Architecture

193,536 System Processing Channels

Max. Frame Rate: 1100 F/s

Displayed Imaging Depth: 0 – 33 cm

Minimum Depth of Field: 0 – 2 cm (Zoom) (probe dependent)

Maximum Depth of Field: 0 – 33 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: 1.7 to 13 MHz

Max Frequency Bandwidth: 13MHz

256 Shades of Gray

261 dB Composite Dynamic Range

Adjustable Dynamic Range (36 - 96dB)

Adjustable Field of View (FOV): up to 128 degree (Probe dependent)

Image Reverse: Right/Left

Image Rotation of 0°, 180°

## B-Mode

Acoustic Power Output: 0 – 100%, 2, 5, and 10 steps

Gain: from 0 – 90 dB, 1 dB steps

Adjustable Dynamic Range: 36 – 96 dB, 3 or 6 dB steps

Frame Average: 8 steps, preset dependent

Gray Scale Map: MAX 8 types (Preset Dependent)

Colorize Map / Tint Map: 9 types

Frequency: Up to 11 selectable (Probe dependent)

Line Density: 5 to 6 Steps

Line Density Zoom: 5 steps

Thermal Index: TIC, TIS, TIB

Image Reverse: On/Off

Maximum Focus Number: 8 steps on any probe/application

Focus Width: 3 types

Suppression: 6 steps

Edge Enhance: 7 steps

Rejection: 6 steps

Steered Linear:  $\pm 12^\circ$  /  $15^\circ$  (Probe dependent)

Scanning Size (FOV or Angle – probe and application dependent)

SRI-HD: Up to 6 Levels selectable

CrossXBeam: Up to 7 Angles selectable

Depth: 2 – 33 cm, 0.5 / 1 / 2 cm per step (Probe dependent)

## M-Mode

Gain: -20 to +20 dB, 1 dB step

Gray Scale Map: MAX 8 types (Preset Dependent)

B Colorization: 9 types

Scanning Size (FOV or Angle – (Probe dependent), 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 and A capability

Available with Color Flow Mode

## Pulse Wave Doppler Mode

Acoustic Power: 0 – 100%, 2, 5, and 10 steps

Gain: 0 -85 dB, 1 dB step

Gray Scale Map: Up to 8 types

PRF: 0.3 – 27.9 KHz

Transmit Frequency: 1.7~6.3MHz, Probe dependent

Wall Filter: 5.5 – 5000Hz, 27 steps, probe dependent

PW Colorization: Up to 6 types

Velocity Scale Range: 0.4 ~ 4084 cm/s

Sweep Speed: 0~7, 8 steps

Sample Volume Depth: 0.2~30 cm, probe dependent

SV Gate: 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16 mm

Angle Correction: -90 to +90degree, 1 degree steps

M/PW Display Format: V-1/3B, V-1/2B, V-2/3B, H-1/2B, H-1/4B, Timeline only

Spectrum Inversion

Duplex: Simultaneous: On/Off (PW only)

PW Angle Steer: (0°, ±10°, ±15°, ±20°)

Sample Volume Depth: 75 steps default pre-settable, probe dependent

Trace Method: Off, Max, Mean

Baseline Shift: 11 steps

Doppler Auto Trace

Compression: 0.5~2.4 9steps (0.5,0.7,0.9,1,1.1,1.4,1.6,2,2.4)

Trace Direction: Above, Below, Both

Trace Sensitivity: 0~40, 2 steps

## General system parameters (continued)

### Color Flow Mode

Baseline Shift 0-100% / 11 steps

Invert: On/Off

CF/PDI Focus Depth: default pre-settable for 10 – 100% of ROI in depth, (15% or 20%)

CF/PDI Flash Suppression: 5 steps

CF/PDI Angle Steer: 0,  $\pm 10^\circ$ ,  $\pm 15^\circ$ ,  $\pm 20^\circ$

Packet Size: 8 – 24, probe and application dependent

Line Density: 5 steps

Line Density Zoom: 5 steps

Frame Average: 7 steps

PRF: 0.1 – 18.5 KHz/19 steps

Min PRF: 0.1 KHz; Max PRF: 18.5KHz

Velocity Range 2 - 300 cm/s

Spatial Filter: 6 steps

Gain: 0 – 40 dB, 0.5 dB per step (totally 81 steps)

Wall Filter: 0-3 / 4 steps, probe and application dependent

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 4, probe dependent

Color Maps, including velocity-variance maps: 14 types Application dependent

Transparent: 5 steps

Echo/Color Priority: 0 - 100% / 11 steps (Color Threshold)

Accumulation: 8 steps

Max. Frame Rate 324 fps (3Sc probe)

Max FR in Triplex 307 fps

### Power Doppler Imaging

PDI Map: 14 types

CF/PDI Focus Depth: default pre-settable for 10 – 100% of ROI in Depth, 10% or 15% step

CF/PDI Acoustic Output: 0 – 100%, 2%, 5% or 10% step

CF/PDI Angle Steer: 0,  $\pm 10^\circ$ ,  $\pm 15^\circ$ ,  $\pm 20^\circ$

Packet Size: 8 – 24, probe and application dependent

Spatial Filter: 6 steps

Frame Average: 7 steps

PRF: 0.1 – 18.5 KHz/19 steps

Power Threshold: 0 – 100%, 10% steps

Gain: 0 – 40 dB, 0.5 dB steps

Wall Filter: 4 steps (Probe and application dependent)

CF/PDI Frequency: Up to 4 steps, probe dependent

Transparent: 5 steps

Invert: On/Off

Accumulation: 8 steps

Flash Suppression

### Continuous Wave Doppler\*

Gray Scale Map: 8 types

Baseline: 11 steps

Angle Correct:  $\pm 90^\circ$ ,  $1^\circ$  step

Spectral Color: 6 types

Invert: On/Off

Gain: 0 – 85 dB, 1 dB steps

Wall Filter: 5.5 – 5000Hz, 27 steps, probe and application dependent

CW-Mode includes:

- Transmit Frequency
- CW Colorization
- Velocity Scale Range: 6 ~ 6004cm/s
- Spectrum Inversion
- Trace Method
- Doppler Auto Trace
- Trace Direction
- Trace Sensitivity

### Spectral Doppler Mode

PRFs: 0.3 – 27.9 KHz

Velocity Range (PW)

- Min: 1 cm/s
- Max: 4711 cm/s with  $80^\circ$  Angle Correction
- Max: 1636 cm/s with  $60^\circ$  Angle Correction
- Max: 818 cm/s with 0 Angle Correction

Velocity Range (CW)

- Min: 6cm/s
- Max: 6004cm/s with 80 Angle Correction
- Max: 2120cm/s with 60 Angle Correction
- Max: 1060cm/s with 0 Angle Correction

### Auto Optimization

Optimize B-Mode image to improve contrast resolution

Selectable amount of contrast resolution improvement (low, medium, high)

Auto-Spectral Optimize adjusts

- Baseline
- Invert
- PRF (on live image)
- Angle correction

## General system parameters (continued)

### Coded Harmonic Imaging

Coded Phase Inversion Harmonic Imaging

Available on all 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 to 96dB, 36~48/78~96 6dB step

Rejection: 6 step

Frequency: Up to 4 steps, probe dependent

### LOGIQ View\*

Extended Field of View Imaging

For use in B-Mode

CrossXBeam is available on linear probes

Auto detection of scan direction

Post-process zoom

Rotation

Auto fit on monitor

Measurements in B-Mode

Up to 60cm scan length

### Easy 3D\*

Allows unlimited rotation and planar translations

3D reconstruction from Cine sweep

### Scan Assistant \*

Factory Programs

User defined programs

Steps include image annotations, mode transitions, basic imaging controls and measurement initiation

### Scan Coach \*

Modules showing basic scanning techniques with graphic of beam formation, indicative probe position, schematic of anatomy and example clinical reference image. Covers Obstetrics, Gynecology & Abdomen applications.

### SonoBiometry\*

SonoBiometry is a workflow tool available on the LOGIQ Vision series that automatically places calipers for fetal biometry measurements, thus helping the user to perform these fetal measurements quickly. This tool can help enhance clinical workflow by reducing keystrokes to perform biometry measurements. Additionally, the user has the option to either accept or edit the measurement suggested by this tool.

Algorithms: Auto measurement of Bi-Parietal Diameter, Head Circumference, Abdominal Circumference & Femur Length

### Tissue Velocity Imaging or TVI\*

Myocardial Doppler Imaging with color overlay on tissue image

Available on the sector probes

Tissue color overlay can be removed to show just the 2D image, still retaining the tissue velocity information

Q-Analysis: Multiple Time Motion trace display from up to 8 selected points in the myocardium

### Virtual Convex

Provides a convex field of view

Compatible with CrossXBeam

Available on linear and Sector transducers

### SRI-HD

High Definition Speckle Reduction Imaging. Provides multiple levels of speckle reduction

Compatible with Side by Side DualView Display

Compatible with all linear, convex and sector transducers

Compatible with B-Mode, 3D

### CrossXBeam

Provides 3, 5, 7 of spatial compounding

Live Side by Side DualView Display

Compatible with:

- Color Mode
- PW
- SRI-HD
- Coded Harmonic Imaging
- Virtual Convex

Available on 4C-RS, L6-12-RS, E8C-RS 12L-RS\*\*, 8C-RS\*\*, and LK760-RS\*\*.

### 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



## General system parameters (continued)

### Controls Available While "Live" (continued)

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 Average

Frequency/Velocity Base Line 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

Sweep Speed

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

### Controls Available on "Freeze" or Recall (continued)

Auto Angle Correct

Overall Gain (loops and stills)

Color Map

Transparency Map

Frame Average (loops only)

Flash Suppression

CFM Display Threshold

Spectral Invert for Color/Doppler

Anatomical M-Mode on Cine loop

## Measurements/Calculations

### General B-Mode

Depth and 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 (PS/ED Ratio)

ED/PS (ED/PS Ratio)

AT (Acceleration Time)

ACCEL (Acceleration)

TAMAX (Time Averaged Maximum Velocity)

Volume Flow (TAMEAN and Vessel Area)

Heart Rate

PI (Pulsatility Index)

RI (Resistivity Index)

# Measurements/Calculations

(continued)

## 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 (PS/ED Ratio)

ED/PS (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)
- 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, HC
- AC, FL, HC
- BPD, APTD, TTD, FL

## OB Measurements/Calculations (continued)

Calculations and Ratios

- FL/BPD
- FL/HC
- CI (Cephalic Index)
- CTAR (Cardio-Thoracic Area Ratio)

Measurements/Calculations by:

ASUM, ASUM 2001, Berkowitz, Brenner, Campbell, CFEF, Eik-Nes, Goldstein, Hadlock, Hansmann, Hellman, Hill, Hohler, Jeanty, JSUM, Kurtz, Mayden, Mercer, Merz, Moore, Nelson, Osaka University, Paris, Rempen, Robinson, Shepard, Shepard/Warsoff, Tokyo University, Tokyo/Shinozuka, 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 Calculations

Expanded Worksheets

## 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

Summary Reports

# Measurements/Calculations

(continued)

## 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)
Automatic IMT
Summary Reports

## Urological Calculations

Bladder Volume
Prostate Volume
Lt/Rt 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

# Probes

## 4C-RS

Convex Probe
Frequency Range: 2.0-5.0MHz
Applications: Abdomen, OB/Gyn, Vascular, Urology, MSK
Number of Element: 128
Convex Radius: 60 mmR
FOV: 55°
Footprint: 18.3 x 66.2 mm
B-Mode Imaging Frequency: 2.0, 3.0, 4.0, 5.0 MHz
Harmonic Imaging Frequency: 3.0, 4.0, 5.0 MHz
CFM/PDI/PWD Frequency: 2.0, 2.8, 3.6 MHz
Biopsy Guide: Multi Angle, Reusable Bracket

## L6-12-RS

Linear Probe	<ul style="list-style-type: none"> <li>• Frequency Range: 4.0 – 13.0 MHz</li> <li>• Applications Vascular, Small Parts, Pediatrics, MSK</li> <li>• Number of Element: 128</li> <li>• Footprint: 38.4 x 6.0 mm</li> <li>• B-Mode Imaging Frequency: 6.0, 8.0, 10.0, 11.0 MHz</li> <li>• Harmonic Imaging Frequency: 8.0, 10.0, 12.0, 13.0 MHz</li> <li>• Highest Linear Harmonics: 13MHz</li> <li>• CFM/PDI/PWD Frequency: 4.0, 5.0, 6.0 MHz</li> <li>• Steered Angle : -20° /+ 20°, -15° /+ 15°, -10° /+ 10° □ preset dependent</li> <li>• Steering steps: <ul style="list-style-type: none"> <li>- 23 steps, in Fine Angle Steer (-20 ° to +20 °, in 1 or 2 degree steps)</li> <li>- Max Steering Angle: +- 20 degrees in Fine Angle Steer</li> </ul> </li> <li>• Biopsy Guide: Multi Angle, Reusable Bracket</li> </ul>
--------------	---

# Probes (continued)

E8C-RS	
Endo Micro Convex Probe	<ul style="list-style-type: none"> <li>• Frequency Range: 4.2 – 10.0MHz</li> <li>• Applications: OB/Gyn, Urology, Transvaginal</li> </ul>
Transrectal	<ul style="list-style-type: none"> <li>• Number of Element: 128</li> <li>• Convex Radius: 10.73 mmR</li> <li>• FOV: 128°</li> <li>• Footprint: 16.9 x 21.2 mm</li> <li>• B-Mode Imaging Frequency: 6.0, 8.0, 10.0 MHz</li> <li>• Harmonic Imaging Frequency: 7.0, 8.0, 10.0 MHz</li> <li>• CFM/PDI/PWD Frequency: 4.2, 5.0, 6.3 MHz</li> <li>• Biopsy Guide: Fixed Angle,</li> <li>• Disposable, or Reusable Bracket</li> </ul>

3Sc-RS	
Phased Array Sector Probe	<ul style="list-style-type: none"> <li>• Frequency Range: 1.7 – 4.0 MHz</li> <li>• Applications: Cardiac, Transcranial, Abdomen, Vascular</li> <li>• Number of Element: 64</li> <li>• FOV: 120°</li> <li>• Footprint: 27.6 x 19.3 mm</li> <li>• B-Mode Imaging Frequency: 2.0, 3.0, 4.0 MHz</li> <li>• Harmonic Imaging Frequency: 3.0, 3.2, 3.5, 4.0 MHz</li> <li>• CFM/PDI/PWD Frequency: 1.7, 2.0, 2.5, 3.3 MHz</li> <li>• CWD Frequency: 1.9 MHz</li> <li>• Biopsy Guide: Multi Angle, Reusable Bracket</li> </ul>

8C-RS**	
Convex Probe	<ul style="list-style-type: none"> <li>• Frequency Range: 4.2 – 10.0 MHz</li> <li>• Applications: Pediatric cardiac, MSK</li> <li>• Number of Element: 128</li> <li>• Convex Radius: 10.73 mmR</li> <li>• FOV: 128°</li> <li>• Footprint: 12.0 x 22.0 mm</li> <li>• B-Mode Imaging Frequency: 6.0 8.0 10.0 MHz</li> <li>• Harmonic Imaging Frequency: 7.0 8.0 10.0 MHz</li> <li>• CFM/PDI/PWD Frequency: 4.2 5.0 6.3 MHz</li> </ul>

12L-RS**	
Linear Probe	<ul style="list-style-type: none"> <li>• Frequency Range: 4.2– 13.0 MHz</li> <li>• Applications: Vascular, Small Parts, Pediatrics, MSK</li> <li>• Number of Element: 192</li> <li>• Footprint: 12.7 x 47.1mm</li> <li>• B-Mode Imaging Frequency: 6.0, 8.0, 10.0, 12.0 MHz</li> <li>• Harmonic Imaging Frequency: 8.0, 10.0, 12.0, 13.0 MHz</li> <li>• Highest Linear Harmonics: 13MHz</li> <li>• CFM/PDI/PWD Frequency: 4.2 6.3 7.7 MHz</li> <li>• Steered Angle : -20° /+ 20°, -15° /+ 15°, -10° /+ 10° □preset dependent</li> <li>• Steering steps: <ul style="list-style-type: none"> <li>• 23 steps, in Fine Angle Steer (-20 ° to +20 °, in 1 or 2 degree steps)</li> <li>• Max Steering Angle: +- 20 degrees in Fine Angle Steer</li> </ul> </li> <li>• Biopsy Guide: Multi Angle, Reusable Bracket</li> </ul>

## Probes (continued)

### LK760-RS\*\*

#### Linear Probe

- Frequency Range: 5.0-10.0 MHz
- Applications: Small Parts
- Number of Element: 128
- Footprint: 38.4 x 6.0 mm
- B-Mode Imaging Frequency: 5.0 7.0 9.0 MHz
- Harmonic Imaging Frequency: 6.0 8.0 10.0 MHz
- Highest Linear Harmonics: 10.0 MHz

### Inputs and Outputs

HDMI output

VGA output with optional adapter

TV output (S-video and composite video)

100BASE-TX Ethernet (RJ45)

2 USB ports

## LOGIQ V1/V2 Cart (Optional)

The ergonomic trolley cart for LOGIQ V1/V2 features 4 easy on-off lockable 120mm (4.72 in) diameter wheels, system mounting, power cord hooks and clips for neat arrangement of power cords, probe holders with cord management holder, and gel holder.

### Cart Dimension

L 538 x D 496 x H 874 mm (L 21.18 x D 19.53 x H 34.41 in)

Weight: 21Kg (46.30 lbs)

### LOGIQ V1/V2 Printer Shelf (Optional)

Dimensions: L 293 x D 217 x H 122 mm (L 11.54 x D 8.54 x H 4.80 in)

### LOGIQ V1/V2 Cart Tray (Optional)

The cart tray offers easy storage up to a 1 Kg load. Dimensions: L 305mm X D 222mm X H 77mm (L 12.01 x D 8.74 x H 3.03 in)

### LOGIQ V1/V2 Cart Holder (Optional)

Cart attachment where 2 probe port adapter is docked onto system. This attachment features 2 probe holders with cord management hooks and 1 gel holder.

### LOGIQ V1/V2 Cart Dimensions with Additional Options

Dimensions: L 608 x D 496x H 874mm  
(L 23.94 x D 19.53 x H 34.41 in)

Weight : 23Kg (50.71 lbs)

## LOGIQ V1/V2 Trolley Case (Optional)

Trolley case for LOGIQ V1/V2 for easy transportation featuring soft-cover packaging and 2 wheel trolley design. The case features 3 protective compartments for the LOGIQ V1/V2 probes, and 2 probe port adapter, 3 additional compartments for power adapters, cord, and manuals.

Dimensions: L 495 x D 275 x H 460 mm  
(L 19.49 x D 10.83 x H 18.11 in)

Weight: 4Kg (8.82 lbs)

## Safety Conformance

### The LOGIQ V2 is:

CE Marked to Council Directive 93/42/EEC on Medical Devices  
Conforms to the following standards for safety:

- IEC 60601-1 Medical electrical equipment—Part 1: General requirements for safety
- IEC 60601-1-2 Medical electrical equipment—Part 1-2 General requirements for safety—Collateral Standard:
  - Electromagnetic compatibility—requirements and tests EMC Emissions Grp-1
  - Class A device requirements as per CISPR 11
- IEC 60601-2-37 Medical electrical equipment—Part 2-37: Particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment
- ISO 10993-1 Biological evaluation of medical devices—Part 1 Evaluation and testing
- EN 62366 Medical devices—Application of usability engineering to medical devices



## About GE Healthcare

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE (NYSE: GE) works on things that matter - great people and technologies taking on tough challenges. From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

GE Healthcare  
9900 Innovation Drive  
Wauwatosa, WI 53226  
U.S.A.

[www.gehealthcare.com](http://www.gehealthcare.com)

## Imagination at work

Data subject to change

© 2016 General Electric Company. April 2016/DOC1836597

GE, the GE Monogram, imagination at work, LOGIQ, and CrossXBean are trademarks of General Electric Company.

GE Medical Systems Ultrasound & Primary Care Diagnostics, LLC, a General Electric Company, doing business as GE Healthcare.

\*These features may be optional in some countries, as product configurations may differ from region to region. Please contact your GE sales representative for more details.

\*\*These probes not available in all markets. Please contact your GE sales representative for more details.

<sup>†</sup>DICOM is the registered trademark of the National Electrical Manufacturers Association for its standard publications relating to digital communications of medical information.

Reproduction in any form is forbidden without prior written permission from GE. Nothing in this material should be used to diagnose or treat any disease or condition. Readers must consult a healthcare professional.