Product Description

The LOGIQ P5 is an ergonomic, highly mobile and easy to use high performance multipurpose imaging system designed for Obstetrics, Gynecology, Cardiology, Musculoskeletal, Vascular, Urological, Small Parts, Superficial, Pediatric, Neonatal, Transcranial, and Abdominal applications.

System Architecture

**TruScan Architecture** – our exclusive, software-intensive ultrasound imaging platform that gives you unsurpassed computational power, image-manipulation capability, workflow flexibility and product upgrade-ability, via software or hardware.

**TruAccess** is the new, GE-exclusive, raw-data processing technology that will change the future of ultrasound imaging. By accessing raw data, TruScan achieves excellent image quality and ensures unsurpassed today’s image management tomorrow.

**SmartScan** utilizes new advances in operating algorithms and system operations to improve image acquisition and patient throughput while increasing diagnostic confidence and exam consistency.

**ComfortScan**, our most advanced ergonomic design ever, helps maximize productivity and simplify every exam you perform.

General Specification

**Dimensions and Weight**
- Height: 135/141 cm
- Width: 43 cm
- Depth: 64 cm
- Weight: approx. 75 kg (165 lb.)

**Electrical Power**
- Voltage: 100-120Vac or 220-240Vac
- Frequency: 50/60 Hz
- Power: Max. 750 VA with Built-in and On-Board Peripherals
- Maximum Thermal Output: 2200 BTU/hr.

**Console Design**
- 2 Active Probe Ports(Optional 3 Ports)
- Integrated HDD (Capacity : 80G)
- Integrated DVD-R/W Drive
- On-board Storage for Peripherals(Max 3 peripherals)
  - B/W-printer, color printer, DVD recorder
- Wheels
  - Wheel diameter: 12.5 cm
  - Integrated locking mechanism that provides rolling lock and optional caster swivel lock
- Probe Holders, Removable for Cleaning and Washing
- Gel Holder, Removable for Cleaning and Washing
- Air Filters, Easily Removable
- Front Handle
- Rear Handle (Optional)

**User Interface**

**Operator Keyboard**
- Keyboard Width: 43 cm
- Keyboard Height: 84/90 cm
- Alphanumeric Keyboard
- Ergonomic Hard Key Operations
- Indicator Lights Identify Activated Keys
- Integrated Recording Keys for Remote Control of Up to 2 Peripheral Devices and DICOM Devices
- 8 TGC Pods, with Re-mapping Functionality at Any Depth

**Monitor**
- 15 inch TFT LCD
- XGA Format:
  - Display size: 1024 x 768
  - Recording area: 800 x 600
- Adjustable Tilt/Swivel
- Digital Brightness/Contrast Adjustment

**System Overview**

**Applications**
- Abdominal
- Obstetrical
- Gynecological
- Cardiac
- Musculoskeletal
- Vascular
- Urological
- Small Parts and Superficial
- Pediatric and Neonatal
- Transcranial

**Scanning Methods**
- Electronic Sector
- Electronic Convex
- Electronic Linear

- Urology Probe Holder(Optional)
- Drawer(Optional)
- Probe Cable Hanger(Optional)
- Urology Probe Holder(Optional)
Transducer Types
• Sector Phased Array
• Convex Array
• Microconvex Array
• Linear Array
• Doppler Pencil

Operating Modes
• B-Mode
• M-Mode
• Optional AMM
• Color Flow Mode (CFM)
• Power Doppler Imaging (PDI) with Directional Map
• PW Doppler with High PRF
• Optional Crossbeam
• Optional SRI
• Optional B-Flow
• M-Color Flow Mode
• Optional Steerable CW Doppler
• Optional Dedicated CW Doppler

System Standard Features
• Hard Disk for image storage
  - Without compression:
    - Raw DICOM: > 14500 images
    - DICOM:
      - Image Only: > 16,000 images
    - 970 Frames (60 sec) CINE Memory (192MB)
  - Real-time Triplex Mode at any Depth and PRF
• Automatic Optimization
  - Auto Tissue Optimization: ATO
  - Auto Spectrum Optimization: ASO
  - Auto Color Optimization: ACO
  - ACE™
• Tissue Harmonics
• Virtual Convex
• Patient Information Database
• Image Archive on Hard Drive and DVD
• Easy Backup for Media
• Vascular Calcs
• Cardiac Calcs
• OB Calcs
• Fetal Trending
• Multi Gestational Calcs
• Hip Dysplasia Calcs
• Gynecological Calcs
• Urological Calcs
• Renal Calcs
• Real-time Auto Doppler Calculations
• TruAccess, Raw Data Processing
• On-board Reporting

- DICOM 3.0 Connectivity
- InSite™ Capability
- ECG
- Coded Contrast Imaging
- CW Doppler
- Anatomical M-Mode
- LOGIQView
- Crossbeam
- SRI
- B-Flow
- Easy 3D (Baby Face, Vascular)
- Advanced 3D, with 3D Landscape
- 4D
- 3-Pedal Foot Switch, with Programmable Functionality

Media & Peripheral Options
• Integrated Mounting Kits and Remote Controls Provided for
  - B/W Digital thermal printer
  - Color A6 Digital thermal printer
  - Color A5 Digital thermal printer
  - DVD Video Recorder

Display Modes
• Simultaneous Capability
  - B/PW
  - B/CFM or PDI
  - B/M
  - B/MCFM
  - Real-time Triplex Mode (B + CFM or PDI/PW)
  - Dual B (B/B)
  - Dual B + CFM or PDI
• Selectable Alternating Modes
  - B/M
  - B/PW
  - B + CFM (PDI)/M
  - B + CFM (PDI)/PW
  - 3D – Mode (option)
  - 3D – Color Mode (option)
• Multi Image Split Screen
  - Live and/or frozen
  - B + CFM or PDI
  - Independent Cine playback
  - Zoom: Write/Read/Pan
• Colorized Image
  - Colorized B
  - Colorized M
  - Colorized PW
  - Independent Dual B/PW Display

- Display Formats:
  - Top/Bottom or Side/ Side selectable
  - Format Size: (able to switch after freeze)
  - Vertical: 1/3, 1/2, 2/3
  - Horizontal: 1/4, 1/2
  - Full: Time line only
  - Update mode: timed based on sweep
• Virtual Convex
• Quad Screen Display

Display Annotation
• Institution/Hospital Name: 25 Characters
• Date: 3 types selectable
  - YY/MM/DD, MM/DD/YY, DD/MM/YY
• Time: 2 types selectable
  - 24 hours, 12 hours
• Operator Identification
• Patient Name: First, Last & Middle name each store 31 characters. Up to 31 total characters displayed
• Patient Identification: 31 Characters
• Gestational Age from LMP/EDC/GA/BBT
• Power Output Readout
  - MI: Mechanical Index
  - TIS: Thermal Index Soft Tissue
  - TIC: Thermal Index Cranial (Bone)
  - TIB: Thermal Index Bone
• System Status (real-time or frozen)
• Probe Orientation Marker: Coincides with a probe orientation marking on the probe.
• Image Preview
• Gray/Color Bar
• Cine Gauge
• Measurement Summary Window
• Measurement Results Window: presettable display location
• Probe Type
• Application Name
• Imaging Parameters by Mode (current mode highlighted)
  - B/M-Mode
    - Imaging Frequency
    - Gain
    - Edge Enhance
    - Frame Averaging
    - Gray Map
    - Image Depth
    - Dynamic Range
    - Line Density
    - % of Power Output

System Options
• Time line Display
- Color Flow Mode (Optional)
  - Doppler Frequency
  - Color Gain
  - Line Density
  - Frame Averaging
  - % of Power Output
  - PRF
  - Wall Filter
  - Spatial Filter
  - Packet Size

- PW-Mode
  - Doppler Frequency
  - Doppler Gain
  - % of Power Output
  - PRF
  - Wall Filter
  - Sample Volume Width
  - Dynamic Range
  - Sample Volume Depth
  - Angle Correction

  - Focal Zone Markers
  - TGC Curve: On/Off
  - Body Pattern: 106 types
  - B Scale Markers: 2 types
  - Depth/Width & Depth
  - M Scale Markers:
    - Time/Depth
    - Image Management Menu: Menu, Delete, and Image Manager
    - Image Palette
    - Caps Lock: On/Off
    - System Messages Display
    - Trackball Functionality Status: Scroll, M&A (Measurement and Analysis), Position, Size, Scan Area Width and Tilt
    - Biopsy Guide Line and Zone
    - Heart Rate

System Parameter

System Setup
- Diagnostic Categories: 8 types, pre-settable
  - Abd, Obst, Gyne, Card, Vasc, Urol, Smlpts, Peda
- User Programmable Preset Capability
- Factory Default Preset Data
- Languages: English, French, German, Spanish, Italian, Portuguese, Russian, Greek, Turkish, Swedish, Danish
- Operation Error Beep: Off, Low, Loud
- Body Surface Area: 2 types
  - Oriental, Occidental
- OB Report Format: 4 types
  - Tokyo Univ., Osaka Univ., USA, Europe
- EFBW: 8 types
  - Tokyo Univ., Osaka Univ., USA and Europe (Shephard, Merz, Hadlock/Shephard, Williams, Brenner)

- CUA/AUA for Hadlock
- Body Pattern Copy to Active Side: On/Off
- Colorized B/M/D: 6 types for each
- Programmable Annotation Library: 24 annotations
- Customized Common Home Position
- Color Printer Memory: 3 types
  - Single, Quad-Frm, Quad-Frmls
- Menu Selection at New Patient: 2 types
- Patient Entry, Schedule
- Sort Criteria for Schedule List: 2 types
  - Date&Time, Name
- Patient Name Format: 2 types
  - Full Name, Last&First
- Auto Deletion of Transferred Queue: Yes/No
- Pre-settable Doppler Audio Volume
- Measurement Clear Operation: 2 types
  - Meas.-only, with-Comment
- Display Unit Age: 5 types
  - Year, Month, Week, Day, No display
- System Boot Up: 180 sec
- Probe Change: 5-8 sec

Pre-Processing
- Acoustic Power Output
- Write Zoom up to 8x
- B/M-Mode
  - Gain
  - TGC
  - Image Reverse
  - Depth
  - Scan Area
  - Auto Optimize (ATO)
  - Dynamic Range
  - Focus Number
  - Focus Position
  - Line Density
  - Frequency
  - Image Rotation
  - Gray Map
  - Colorize
  - Frame Average
  - Edge Enhance
  - Rejection
  - Virtual Convex
  - Focus Width
  - Suppression
  - B Softener
  - M/D Cursor
  - Sweep Speed for M-Mode

- PW-Mode
  - Gain
  - Sample Volume Depth
  - PRF

- Wall Filter
- Baseline
- Angle Steer
- Angle Correct
- Quick Angle Correct
- Auto Angle Correct
- Doppler Frequency
- Doppler Invert
- Display Format
- Sweep Speed
- Full Timeline
- Rejection
- Time Resolution
- Gray Map
- Colorize
- Dynamic Range
- CFM/PWD Ratio
- Duplex
- Auto Calcs
- Trace Direction
- Modify Calcs
- Number of Average Cycles
- Trace Method
- Trace Sensitivity
- Auto Optimize (ASO)
- Audio Volume

- Color Flow Mode (Optional)
  - Gain
  - ROI Position, Size
  - PRF
  - Wall Filter
  - Baseline
  - Angle Steer
  - Color Line Density
  - Color Frequency
  - Packet Size
  - Color Invert
  - Color Map
  - Threshold
  - Focus Position
  - ACE
  - Spatial Filter
  - CFM/PWD Ratio
  - Duplex
  - Sweep Speed for Color M-Mode
  - Anatomical Color M-Mode

- 3D Acquisition
  - Scan Distance
  - ROI Style
  - Display Format
  - Scan Plane
    - Front to Back
    - Side to Side
**Acquisition Mode**
- Parallel
- Sweep

**TruAccess: the new, GE-exclusive, raw-data digital processing**
- Read Zoom up to 8x
- B/M-Mode
  - Gain
  - Image Reverse
  - Auto Optimize (ATO)
  - Compression (Dynamic Range)
  - Image Rotation
  - Gray Map
  - Colorize
  - Frame Average (in loop images)
  - Rejection
  - Sweep Speed for M-Mode
  - Anatomical M-Mode
- PW-Mode
  - Gain
  - Baseline
  - Angle Correct
  - Quick Angle Correct
  - Doppler Invert
  - Display Format
  - Sweep Speed
  - Full Timeline
  - Rejection
  - Gray Map
  - Colorize
  - Compression (Dynamic Range)
  - Auto Calcs
  - Trace Direction
  - Modify Calcs
  - Number of Average Cycles
  - Trace Method
  - Trace Sensitivity
  - Auto Optimize (ASO)
- Color Flow Mode
  - Baseline
  - Color Invert
  - Color Map
  - Threshold
  - Frame Average (in loop images)
  - Sweep Speed for Color M-Mode
  - Anatomical Color M-Mode
- Easy 3D (option)
  - Colorize
  - Threshold (Opacification)
  - Mix Type 1
  - Render
  - Texture
  - Gray Surface
  - Scalpel
  - Auto Movie
  - Undo
  - Reset

**Advanced 3D (option)**
- 3D Landscape
- Colorize
- Threshold (Opacification)
- Re-slice
- Type 1/2
- Group Planes
- Scalpel
- Define Axis
- Visible Data
- Tile
- Active Data
- Auto Movie
- Rotate
- Undo
- Reset
- 3D Movie
  - Colorize
  - Pause
  - Movie Speed
  - Axis
  - Define Start/End
  - Auto Movie
  - Movie 360°
  - Manual

**Imaging Processing and Presentation**

**TruScan: Software Intensive Ultrasound Imaging Platform**
- Digital Beamformer
- 2560 System Processing Channel Technology
- Displayed Imaging Depth: 2 – 30 cm probe dependent
- Minimum Depth of Field: 2 cm (Zoom and probe dependent)
- Maximum Depth of Field: 30 cm (probe dependent)
- Transmission Focus
  - 1 – 8 Focus Points Selectable (probe and application dependent)
  - Focal Zone Position, B-Mode 16 steps, CFM 64 steps
- Continuous Dynamic Receive Focus/Aperture
- Multi-Frequency/Wideband Technology
- 256 Shades of Gray
- Up to 173 dB Processing Dynamic Range
- Adjustable Field of View (FOV)
- Image Rotate: Right/Left
- Image Rotation: 2 steps Rotation: 0°, 180°

**CINE Memory/Image Memory**
- Typical 970 Frames (60 sec with Standard CINE Memory (192 MB) depend on FOV, Scanning Lines etc.
- CINE Gauge and CINE Image Number Display
- CINE Review: Frame-by-frame, Loop
- CINE Review Speed: 9 types 100%, 48%, 31%, 25%, 22%, 17%, 14%, 13%, 11%
- Selectable CINE Sequence for CINE Review
- Start and End Frame Selections for Loop Playback
- Frame Protection from Overwrite for Short Term Storage
- Separation Marker to Indicate Time Discontinuity
- Measurements, Calculations and Annotations on CINE Playback
- Scrolling Timeline Memory

**Image Archive/Connectivity**
- Clipboard: displays thumbnail images of the acquired data for the current exam
- Previewing Clipboard Images: An enlarged preview of the image
- Recalling Images from the Clipboard
- Image Browser: Archived images from past patient exams appear as well as images stored for the current exam
- Previewing an Image
- Analyzing Images
- Hard Drive Image Storage: 25 GB
- Ethernet Network Connection
- Configurable 2 Print (Recording) Keys (P1-P2) to Multiple Output Devices/Workflows
• Archiving Format:
  - DICOM with ultrasound raw data
  - Standard DICOM
  - Secondary Capture
• Capture Area: pre-settable for each print key
  - Video Area
  - Application Window
  - Whole Screen
• Archiving Image Frames: pre-settable for each print key
  - Single: stores single frame only
  - Multiple: stores cineloop
  - Secondary Capture: screen shot
• Image Compression/Picture Quality: pre-settable for each print key
  - Quality: 1 to 100%
• Dataflow: a set of pre-configured services
  - When you select a dataflow, the ultrasound system automatically works according to the services associated with the dataflow
• Configurable Examination List Window, Patient Information Window, and Search/Create Patient Window
  - Free text addresses, birth date, extended patient dialog in Pts Info window
  - Extended search dialog, auto search for patient in Search/Create Pts window
  - Pre-defined text directly in Exam List window
  - Examination list on Archive button
  - Automatic generation of patient ID
  - Request acknowledge of End Exam action
  - Go directly screen from search
  - Detect unfinished examination
• Tools
  - Verify DICOM directory on removable media
  - Format removable media (MO disk, rewritable CD)
• Views: shows you an overview of the ultrasound system's connectivity architecture
  - The currently selected dataflow
  - All configured dataflows
  - The network structure tree
  - The configured buttons dataflows
AVI and JPEG Export
DICOM Support (option)
  - Verify
  - Print

Physiological Input Panel (Option)
• Physiological Input
  - ECG, 1 channel
• Dual R-Trigger
• Pre-settable ECG R Delay Time
• Pre-settable ECG Position
• Adjustable ECG Gain Control

Scanning Parameters
B-Mode
• B/M Acoustic Output: 0 – 100%, 2% step
• Image Reverse: On/Off
• B Color: 8 types
• Thermal Index: TIC, TIS, TIB
• Softener: 4 steps
• Focus Number: 8 steps
• Compress: 0.5 – 1.5 dB, 0.1 dB step
• Line Density: 4 steps
• Noise Suppression: 6 steps
• Frame Average: 6 steps
• Edge Enhance: 6 steps
• Angle/Width (deg, mm): probe dependent, 10 – 133°, 1° step in case of E8C probe
• Gray Scale Map: 23 types
• Gain: 0 – 98 dB, 2 dB step
• Dynamic Range: 30 – 120 dB, 3 dB step
• Harmonic Start: On/Off default pre-settable
• Virtual Convex: On/Off default pre-settable

Color Flow Mode (Option)
• Base Line: 0 – 100%, 10% step
• Invert: On/Off
• Capture: 4 steps pre-settable
• CF/PDI Focus Depth: 10 – 100%, 5 % step default pre-settable
• CF/PDI ACE: On/Off
• CF/PDI Acoustic Output: 0 – 100%, 10% step
• PW/CF/PDI Angle Steer: +/- 10°, 20° (linear probe)
• Packet Size: 6, 8, 10, 12, 14
  OB-Fetal Echo, CARD-Adult, Pediatric
  5,6,7,8,10(application, probe dependent)
• Line Density: 5 steps
• Frame Average: 8 steps
• PRF: 300 Hz – 10400 Hz (probe dependent)
• Spatial Filter: 6 steps (application dependent)
• Gain: 0 – 40 dB, 0.5 dB step
• Wall Filter: 12 – 3000 Hz
• Virtual Convex: On/Off
• Angle/Width (deg, mm): probe dependent
• CFM Window Size (depends on probe)
• Convex 10° - 133°
• Sector 10° - 90°
• Line 10 – 46mm
• CF/PDI Frequency: 2 steps
• Color Map: 13 types (probe dependent)
• Velocity: 7 types
• Velocity/Variance: 3 types
• Additional: 3 types
• Color Threshold: 0 – 100%, 5% step
• 24 bits of color (greater than 256 shades)
• Auto Line Density: On/Off pre-settable
• CPM/PWD Ratio: 1, 2, 4
• Accumulation Mode: 8 steps
• Symmetrical Velocity Imaging for optimized 3D color images

PDI-Mode (Option)
• PDI Map: 13 types
• CF/PDI ACE: On/Off
• CF/PDI Focus Depth: 11 steps default pre-settable
• CF/PDI Acoustic Output: 0 – 100%, 10% step
• PW/CF/PDI Angle Steer: +/- 10°, 20° (linear probe)
• Packet Size: 6, 8, 10, 12, 14
  - OB-Fetal Echo, CAR-D Adult, Pediatric
  - 5, 6, 7, 8, 10 (application, probe dependent)
• Spatial Filter: 6 steps (probe dependent)
• Frame Average: 7 steps
• PRF: 300 Hz – 10400 Hz (probe dependent)
• Power Threshold: 0 – 100%, 5% step
• CFM Window Size (depends on probe)
  - Convex 10° - 133°
  - Sector 10° - 90°
  - Linear 10 – 46mm
• Gain: 0 – 40 dB, 0.5 dB step
• Wall Filter: 12 – 3000 Hz
• Rejection: 6 steps
• Dynamic Range: 30 – 120 dB, 3 dB step
• Edge Enhance: 6 steps
• Gray Scale Map: 23 types
• M-Mode
  - Sweep Speed: 8 steps
  - M Color: 8 types
  - B/M Acoustic Output: 0 – 100%, 2% step
  - Rejection: 6 steps
  - Dynamic Range: 30 – 120 dB, 3 dB step
  - Edge Enhance: 6 steps
  - Gray Scale Map: 23 types
  - M Gain: 0 – 98 dB, 2 dB step
• PW-Mode
  - Maximum and Minimum Velocity Scales
    - Max: 20 m/sec (angle/probe dependent)
    - Min: 10 cm/sec
  - Gray Scale Map: 4 types
  - Dynamic Range: 24 – 48, 4 dB step
  - Base Line: 0 – 100%, 10% step
  - SV Gate: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16 mm
  - Angle Correct: +/- 90°, 1° step
  - Spectral Color: 5 types
  - PW Sweep Speed: 8 steps
  - Invert: On/Off
  - Duplex: On/Off
  - PW Acoustic Output: 0 – 100%, 10% step
  - Spectral Averaging: 4 steps pre-settable
  - Time Resolution: 4 steps
  - CFM/PWD Ratio: 1, 2, 4
• Rejection: 15 steps
• Gain: 0 – 32 dB, 1 dB step
• Wall Filter: 19 – 3000 Hz, 21 steps
• PW/CF/PDI Angle Steer: +/- 10°, 20°
• PRF: 640 – 19600 Hz
• Sample Volume Depth: 29 steps default pre-settable

Coded Harmonic Imaging
• Available on the following probes:
  - 3.5C
  - 3.5CS
  - 4C
  - 8C
  - E8C
  - BE9C
  - 8L
  - 9L
  - 10L
  - 12L
  - t739
• Softener: 4 steps
• Line Density: 4 steps
• Suppression: 6 steps
• Edge Enhance: 6 steps
• Gray Scale Map: 23 types
• Dynamic Range: 30 – 120 dB, 3 dB step
• Rejection: 6 steps
• Auto Line Density: On/Off pre -settable
• Frequency: Up to 4 steps, depend on probe

B-Flow (option)
• Available on the following probes:
  - 8L
  - 9L
  - 10L
  - t739
• Image Reverse: left/right
• Sensitivity/PRI: 10 steps
• Background: On/Off
• Displayed Dynamic Range: 30 – 120 dB, 3 dB step
• Line Density: 4 steps
• Frame Averaging: 8 steps
• Gray Scale Map: 23 selectable
• Edge Enhance: 6 steps

Coded Excitation
• Available on the following probes:
  - BE9C
  - E8C - 8C
  - 12L
  - ERB

Coded Contrast Imaging (option)
• Available on 3.5C, 3.5CS, 10L, t739 and t739 probes
• Contrast Clock Display
• Time Trigger Scan: 0.3, 0.5 – 10 sec, 0.5sec step
• Coded Harmonic Angio
  - Tissue Background Selection: 4step
• TrueAgent Detection
  - 2 frequencies on 3.5C, 3.5CS
• Coded Phase Inversion
• Phase Inversion
• Gray Scale Map: 23 types
• Maximum Enhance Mode

The LOGIQ P5 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. GE Medical Systems makes no claims concerning the safety or effectiveness of contrast agents.

LOGIQView
• Available on the following Probes:
  - 3.5C
  - 3.5CS
  - 4C
  - E8C
  - 8C
  - BE9C
  - 8L
  - 9L
  - 10L
  - 12L
  - i739
  - t739
  - 3S
  - 5S
  - 7S
  - 4D3C-L
RealTime 4D (option)
• Acquisition Modes:
  - Realtime 4D M mode
  - 3D Static B-Mode
• Visualization Modes:
  - 3D Rendering (diverse surface and intensity projection modes)
  - Sectional Planes (3 Section planes perpendicular to each other)
• 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
• 4D Volume Frames/sec: max: 30

Virtual Convex
• Available on the Following Probes
  - 8L
  - 9L
  - 10L
  - 12L
  - i739
  - t739

CrossBeam (optional)
• Provides Spatial Compounding
• Provides 3 or 5 angles of spatial compounding
• Live Side by Side Display
• Compatible with PHI and CHI Harmonic Imaging
• Available on the following probes:
  - 3.5C
  - 3.5CS
  - 4C
  - 8C
  - 8L
  - 9L
  - 10L
  - i739
  - t739
  - 4D3C-L

SRI (optional)
• Speckle Reduction Imaging
• Provides 5 levels of speckle reduction
• Live Side by Side Display
• Compatible with all Convex, Linear and Sector probes
• Compatible with all imaging modes

Measurements/Calculations

General Measurements/Calculations
Mode Measurement
• B-Mode
  - Distance
  - Circumference/Area (Ellipse/Trace)
• M-Mode
  - Tissue Depth (Distance)
  - Time Interval
  - Depth Difference with Time Interval and Slope
• Doppler Mode
  - Velocity
  - TAMAX, TAMIN, and TAMEAN (Manual/Auto Trace)
  - Two Velocities with Slope and Time Interval
  - Time Interval

Generic Measurement
• B-Mode
  - % Stenosis
  - Volume
  - Angle
  - A/B Ratio
  - Heart Rate
• M-Mode
  - % Stenosis
  - A/B Ratio
  - Heart Rate
• Doppler Mode
  - PI (Pulsatility Index)
  - RI (Resistive Index)
  - S/D Ratio
  - D/S Ratio
  - A/B Ratio
  - Max PG (Pressure Gradient)
  - Mean PG (Pressure Gradient)
  - SV (Stroke Volume)
  - CO (Cardiac Output)
  - FV (Flow Volume)
  - FVO (Flow Volume Output)
  - Heart Rate

Abdomen and Small Parts Measurements/Calculations
• Splenic Length, Width, and Height
• Aorta Diameter
• Renal Length
• Doppler Abdomen and Renal Artery Exam Calcs
  - Acceleration
  - Acceleration Time (AT)
  - Peak Systole (PS), End Diastole (ED), or Mid Diastole (MD)
  - Pulsatility Index (PI)
  - S/D or D/S Ratio
  - Resistive Index (RI)
  - TAMAX
• Thyroid Length, Width, and Height

Obstetrics Measurements/Calculations
• Abdominal Circumference (AC)
• Amniotic Fluid Index (AFI) (Moore)
• Antero-PosteroTrunk Diameter and Transverse Trunk Diameter (APTD-TTD)
• Antero-PosteroTrunk Diameter by Transverse Trunk Diameter (AXT)
• Biparietal Diameter (BPD)
• Crown Rump Length (CRL)
• Cardio-Thoracic Area Ratio (CTAR)
• Estimated Fetal Weight (EFW)
• Femur Length (FL)
• Fetal Trunk Area (FTA)
• Foot Length (FL)
• Gestational Sac (GS)
• Head Circumference (HC)
• Humerus Length (HL)
• Length of Vertebra (LV)
• Occipitofrontal Diameter (OFD)
• Thorax Transverse Diameter (TBD)
• Tibia Length (Tibia)
• Ulna Length (Ulna)
• Multi-Gestational Calculations
  - Up to 4 fetuses
  - Comparison of multiple fetus data on a graph and a worksheet

OB Worksheet
• Patient Information
  - Fetus Number
• CUA/AUA Selection
Fetus Position
Placenta

• Measurement Information
  AC
  HC
  OFD
  BPD
  FL

• Calculation Information
  EFW
  EFW GP (growth percentile)
  FL/BPD
  FL/AC
  HC/AC
  FL/HC
  CI (Cephalic Index)

OB Graphs
• Fetal Growth Curve Graphs
  - Normal growth curve, positive and negative standard deviations or applicable percentiles, and ultrasound age of the fetus
  - One measurement per graph
  - Single or Quad views

• Fetal Growth Bar Graph
  - Ultrasound age and gestational age
  - Plots all measurements on one graph

Gynecology
Measurements/Calculations
• Ovary Length, Width, and Height
• Uterus Length, Width, and Height
• Ovarian Follicle Measurements
  - 1 distance
  - 2 distances
  - 3 distances
• Endometrium thickness (Endo)

Cardiac Measurements/Calculations
B-Mode Measurements
• Aorta
  - Aortic Root Diameter (Ao Root Diam)
  - Aortic Arch Diameter (Ao Arch Diam)
  - Ascending Aortic Diameter (Ao Asc)
  - Descending Aortic Diameter (Ao Desc Diam)
  - Aorta Annulus Diameter (Ao Annulus Diam)
  - Aorta Isthmus (Ao Isthmus)
  - Aorta *** (Ao st junct)
• Aortic Valve
  - Aortic Valve Cusp Separation (AV Cusp)
  - Aortic Valve Area Planimetry (AVA Planimetry)
  - *** (TransAVA)
• Left Atrium
  - Left Atrium Diameter (LA Diam)
  - LA Length (LA Major)
  - LA Width (LA Minor)
  - Left Atrium Diameter to AoRoot Diameter Ratio (LA/Ao Ratio)
  - Left Atrium Area (LAA(d), LAA(s))
  - Left Atrium Volume, Single Plane, Method of Disk (LAEDV A2C, LAESV A2C) (LAEDV A4C, LAESV A4C)
• Left Ventricle
  - Left Ventricle Mass (LVPWd, LVPWs)
  - Left Ventricle Volume, Teichholz/Cubic (LVIDd, LVI Ds)
  - Left Ventricle Internal Diameter (LVIDd, LVI Ds)
  - Left Ventricle Length (LVLd, LVLs)
  - Left Ventricle Outflow Tract Diameter (LVOT Diam)
  - Left Ventricle Posterior Wall Thickness (LVPWd, LVPWs)
  - Left Ventricle Length (LV Major)
  - Left Ventricle Width (LV Minor)
  - Left Ventricle Outflow Tract Area (LVOT)
  - Left Ventricle Area, Two Chamber/Four Chamber/Short Axis (LVA (d), LVA (s))
  - Left Ventricle Endocardial Area, Width (LVA (d), LVA(s))
  - Left Ventricle Epicardial Area, Length (LVAepi (d), LVAepi (s))
  - Left Ventricle Mass Index (LVPWd, LVPWs)
  - Ejection Fraction, Teichholz/Cube (LVIDd, LVIDs)
  - Left Ventricle Posterior Wall Fractional Shortening (LVPWd, LVPWs)
  - Left Ventricle Stroke Index, Teichholz/Cube (LVIDd, LVIDs, and Body Surface Area)
  - Left Ventricle Fractional Shortening (LVIDd, LVIDs)
  - Left Ventricle Stroke Volume, Teichholz/Cubic (LVIDd, LVIDs)
  - Left Ventricle Stroke Index, Single Plane, Two Chamber, Method of Disk (LVI Dd, LVIDs, LVSd, LVSs)
  - Left Ventricle Stroke Index, Single Plane, Four Chamber, Method of Disk (LVI Dd, LVIDs, LVSd, LVSs)
  - Left Ventricle Stroke Index, Bi-Plane, Bullet, Method of Disk (LVA, LVA)
  - Interventricular Septum (IVS)
  - Left Ventricle Internal Diameter (LVID)
  - Left Ventricle Posterior Wall Thickness (LVPW)
• Mitral Valve
  - Mitral Valve Annulus Diameter (MV Ann Diam)
  - E-Point-to-Septum Separation (EPSS)
  - Mitral Valve Area by Pressure Half Time (MVA By PHT)
  - Mitral Valve Area Planimetry (MVA Planimetry)
• Pulmonic Valve
  - Pulmonic Valve Area (PV Planimetry)
  - Pulmonic Valve Annulus Diameter (PV Annulus Diam)
  - Pulmonic Diameter (Pulmonic Diam)
• Right Atrium
  - Right Atrium Diameter, Length (RAD Ma)
  - Right Atrium Diameter, Width (RAD Mi)
  - Right Atrium Area (RAA)
  - Right Atrium Volume, Single Plane, Method of Disk (RAAd)
  - Right Atrium Volume, Systolic, Single Plane, Method of Disk (RAAs)
• Right Ventricle
  - Right Ventricle Outflow Tract Area (RVOT Planimetry)
  - Right Pulmonary Artery Area (LPA Area)
  - Right Pulmonary Artery Area (RPA Area)
  - Right Ventricle Internal Diameter (RVId, RVIds)
  - Right Ventricle Diameter, Length (RVD Ma)
  - Right Ventricle Diameter, Width (RVD Mi)
  - Right Ventricle Wall Thickness (RVWd, RVWs)
  - Right Ventricle Outflow Tract Diameter (RVOT Diam)
  - Left Pulmonary Artery (LPA)
  - Main Pulmonary Artery (MPA)
  - Right Pulmonary Artery (RPA)
• System
  - Interventricular Septum Thickness
- Inferior Vena Cava
- Pulmonary Artery Diameter (MPA)
- Systemic Vein Diameter (Systemic Diam)
- Patent Ductus Arteriosis Diameter (PDA Diam)
- Pericard Effusion (PEs)
- Patent Foramen Ovale Diameter (PFO Diam)
- Ventricular Septal Defect Diameter (VSD Diam)
- Interventricular Septum (IVS)
- Fractional Shortening (IVSd, IVSs)
- Tricuspid Valve
  - Tricuspid Valve Area (TV Panimetry)
  - Tricuspid Valve Annulus Diameter (TV Annulus Diam)

### M-Mode Measurements
- Aorta
  - Aortic Root Diameter (Ao Root Diam)
- Aortic Valve
  - Aortic Valve Diameter (AV Diam)
  - Aortic Valve Cusp Separation (AV Cusp)
  - Aortic Valve Ejection Time (LVET)
- Left Atrium
  - Left Atrium Diameter to AoRoot Diameter Ratio (LA/Ao Ratio)
  - Left Atrium Diameter (LA Diam)
- Left Ventricle
  - Left Ventricle Volume, Teichholz/Cubic (LVIVd, LVI Ds)
  - Left Ventricle Internal Diameter (LVIVd, LVI Ds)
  - Left Ventricle Posterior Wall Thickness (LVPWd, LVPWs)
  - Left Ventricle Ejection Time (LVET)
  - Left Ventricle Pre-Ejection Period (LVPPE)
- Interventricular Septum (IVS)
  - Interventricular Septum Thickness (IVSd, IVSs)
  - Interventricular Septum (IVS)
  - Fractional Shortening (IVSd, IVSs)
- Tricuspid Valve
  - QRS complex to end of envelope (Q-to-PV close)

### Doppler Mode Measurements
- Aortic Valve
  - Aortic Insufficiency Mean Pressure Gradient (AR Trace)
  - Aortic Insufficiency Peak Pressure Gradient (AR Vmax)
  - Aortic Insufficiency End Diastole Pressure Gradient (AR Trace)
  - Aortic Insufficiency Mean Velocity (AR Trace)
  - Aortic Insufficiency Mean Square Root Velocity (AR Trace)
  - Aortic Valve Mean Velocity (AV Trace)
  - Aortic Valve Mean Square Root Velocity (AV Trace)
  - Aortic Valve Velocity Time Integral (AV Trace)
  - Aortic Valve Mean Pressure Gradient (AV Trace)
  - Aortic Valve Peak Pressure Gradient (AR Vmax)
  - Aortic Insufficiency Peak Velocity (AR Vmax)
  - Aortic Insufficiency End-Diastolic Velocity (AR Trace)
  - Aortic Valve Peak Velocity (AV Vmax)
- Aortic Valve Peak Velocity at Point E (AV Vmax)
- Aorta Proximal Coarctation (Coarc Pre-Duct)
- Aorta Distal Coarctation (Coarc Post-Duct)
- Aortic Valve Insufficiency Pressure Half Time (AR PHT)
- Aortic Valve Flow Acceleration (AV Trace)
- Aortic Valve Pressure Half Time (AV Trace)
- Aortic Valve Acceleration Time (AV Acc Time, AVET)
- Aortic Valve Deceleration Time (AV Trace)
- Aortic Valve Acceleration to Ejection Time Ratio (AV Acc Time, AVET)
- Aortic Valve Area according to PHT
- Left Ventricle
  - Left Ventricle Outflow Tract Peak Pressure Gradient (VLOT Vmax)
  - Left Ventricle Outflow Tract Peak Velocity (LVOT Vmax)
  - Left Ventricle Outflow Tract Mean Pressure Gradient (LVOT Trace)
  - Left Ventricle Outflow Tract Mean Velocity (LVOT Trace)
  - Left Ventricle Outflow Tract Mean Square Root Velocity (LVOT Trace)
  - Left Ventricle Outflow Tract Velocity Time Integral (LVOT Trace)
  - Left Ventricle Ejection Time (LVET)
  - Cardiac Output by Aortic Flow (AVA Planimetry, AV Trace)
  - Stroke Volume Index by Aortic Flow (AVA Planimetry, AV Trace)
- Mitral Valve
  - Mitral Valve Regurgitant Flow Acceleration (MR Trace)
  - Mitral Valve Regurgitant Mean Velocity (MR Trace)
  - Mitral Regurgitant Mean Square Root Velocity (MR Trace)
  - Mitral Regurgitant Mean Pressure Gradient (MR Trace)
  - Mitral Regurgitant Mean Pressure Half Time (MR Trace)
  - Mitral Valve Mean Velocity (MV Trace)
  - Mitral Valve Mean Square Root Velocity (MR Trace)
- Mitral Valve Velocity Time Integral (MR Trace)
- Mitral Valve Mean Pressure Gradient (MR Trace)
- Mitral Regurgitant Peak Pressure Gradient (MR Vmax)
- Mitral Valve Peak Pressure Gradient (MR Vmax)
- Mitral Regurgitant Peak Velocity (MR Vmax)
- Mitral Valve Peak Velocity (MR Vmax)
- Mitral Valve Velocity Peak A (MV A Velocity)
- Mitral Valve Velocity Peak E (MV E Velocity)
- Mitral Valve Area according to PHT (MV PHT)
- Mitral Valve Flow Deceleration (MV Trace)
- Mitral Valve Pressure Half Time (PV PHT)
- Mitral Valve Flow Acceleration (MV Trace)
- Mitral Valve E-Peak to A-Peak Ratio (A-C and D-E) (MV E/ARatio)
- Mitral Valve Acceleration Time (MV Acc Time)
- Mitral Valve Deceleration Time (MV Dec Time)
- Mitral Valve Ejection Time (MV Trace)
- Mitral Valve A-Wave Duration (MV A Dur)
- Mitral Valve Time to Peak (MV Trace)
- Mitral Valve Acceleration Time/Deceleration Time Ratio (MVAcc/Dec Time)
- Stroke Volume Index by Mitral Flow (MVA Planimetry, MVTrace)
- Mitral Valve Area from Continuity Equation (MVAPlanimetry, LVOT Vmax, MV Vmax)
- Pulmonic Valve
  - Pulmonic Insufficiency Peak Pressure Gradient (IPR Vmax)
  - Pulmonic Insufficiency End-Diastolic Pressure Gradient (IPRTrace)
  - Pulmonic Valve Peak Pressure Gradient (PV Vmax)
  - Pulmonic End-Diastolic Pressure Gradient (PR Trace)
  - Pulmonic Insufficiency Peak Velocity (PR Vmax)
  - Pulmonic Insufficiency End-Diastolic Velocity (Prend Vmax)
  - Pulmonic Valve Peak Velocity (PV Vmax)
- Pulmonic End-Diastolic Velocity (PV Trace)
- Pulmonary Artery Diastolic Pressure (PV Trace)
- Pulmonic Insufficiency Mean Pressure Gradient (IPR Trace)
- Pulmonic Valve Mean Pressure Gradient (PV Trace)
- Pulmonic Insufficiency Mean Velocity (PR Trace)
- Pulmonic Insufficiency Mean Square Root Velocity (PR Trace)
- Pulmonic Insufficiency Velocity Time Integral (IRVOTTrace)
- Pulmonic Valve Mean Velocity (PV Trace)
- Pulmonic Valve Mean Square Root Velocity (PV Trace)
- Pulmonic Valve Velocity Time Integral (PV Trace)
- Pulmonic Valve Mean Pressure (PV Trace)
- Pulmonic Valve Velocity Peak A (PV Trace)
- Pulmonic Valve Velocity Peak E (PV Trace)
- Pulmonic Valve Acceleration Time (PV Acc Time)
- Pulmonic Valve Acceleration to Ejection Time Ratio (PVPEP, PVET)
- QRS complex to end of envelope [Q-to-PV close]
- Pulmonic Valve Acceleration to Ejection Time Ratio (PV Acc Time, PVET)
- Pulmonic Valve Pre-Ejection to Ejection Time Ratio (PVPEP, PVET)
- Right Ventricle
  - Right Ventricle Outflow Tract Peak Pressure Gradient (RVOT Vmax)
  - Right Ventricle Systolic Pressure (RVOT Vmax)
  - Right Ventricle Outflow Tract Peak Velocity (RVOT Vmax)
  - Right Ventricle Diastolic Pressure (RVOT Trace)
  - Right Ventricle Outflow Tract Velocity Time Integral (IRVOTTrace)
  - Right Ventricle Ejection Time (RV Trace)
  - Stroke Volume by Pulmonic Flow (RVOT Planimetry, RVOTTrace)
  - Right Ventricle Stroke Volume Index by Pulmonic Flow (RVOT Planimetry, RVOT Trace)
- System
  - Pulmonary Artery Peak Velocity (PV Vmax)
  - Pulmonary Vein Velocity Peak A (reverse) (P Vein A)
  - Pulmonary Vein Peak Velocity (P Vein D, P Vein S)
  - Systemic Vein Peak Velocity (PDA Diastolic, PDA Systolic)
  - Ventricular Septal Defect Peak Velocity (VSD Vmax)
  - Atrial Septal Defect (ASD Diastolic, ASD Systolic)
  - Pulmonary Artery Velocity Time Integral (PV Trace)
  - Systemic Vein Velocity Time Integral (PDA Trace)
  - Pulmonary Vein A-Wave Duration (P Vein A Dur)
  - IsoVolumetric Relaxation Time (IVRT)
  - IsoVolumetric Contraction Time (IVCT)
  - Pulmonary Vein S/D Ratio (P Vein D, P Vein S)
  - Ventricular Septal Defect Peak Pressure Gradient (VSD Vmax)
  - Pulmonic-to-Systemic Flow Ratio (Qp/Qs)
- Tricuspid Valve
  - Tricuspid Regurgitant Peak Pressure Gradient (TR Vmax)
  - Tricuspid Valve Peak Pressure Gradient (TV Vmax)
  - Tricuspid Regurgitant Peak Velocity (TR Vmax)
  - Tricuspid Valve Peak Velocity (TV Vmax)
  - Tricuspid Valve Peak Velocity A (TV A Velocity)
  - Tricuspid Valve Peak Velocity E (TV E Velocity)
  - Tricuspid Regurgitant Mean Pressure Gradient (TR Trace)
  - Tricuspid Valve Mean Pressure Gradient (TV Trace)
  - Tricuspid Regurgitant Mean Velocity (TR Trace)
  - Tricuspid Regurgitant Mean Square Root Velocity (TR Trace)
  - Tricuspid Regurgitant Velocity Time
Integral (TR Trace)
- Tricuspid Valve Mean Velocity (TV Trace)
- Tricuspid Valve Mean Square Root Velocity (TV Trace)
- Tricuspid Valve Velocity Time Integral (TV Trace)
- Tricuspid Valve Time to Peak (TV Acc/Dec Time)
- Tricuspid Valve Ejection Time (TV Acc/Dec Time)
- Tricuspid Valve A-Wave Duration (TV A Dur)
- QRS complex to end of envelope (Q-to-TV close)
- Tricuspid Valve Pressure Half Time (TV PHT)
- Stroke Volume by Tricuspid Flow (TV Planimetry, TV Trace)
- Tricuspid Valve E-Peak to A-Peak Ratio (TV E/A Velocity)

Color Flow Mode Measurements
- **Aortic Valve**
  - Proximal Isovelocity Surface Area: Regurgitant Orifice Area (AR Radius)
  - Proximal Isovelocity Surface Area: Radius of Aliased Point (AR Radius)
  - Proximal Isovelocity Surface Area: Regurgitant Flow (AR Trace)
  - Proximal Isovelocity Surface Area: Regurgitant Volume Flow (AR Trace)
  - Proximal Isovelocity Surface Area: Aliased Velocity (AR Vmax)
- **Mitral Valve**
  - Proximal Isovelocity Surface Area: Regurgitant Orifice Area (MR Radius)
  - Proximal Isovelocity Surface Area: Radius of Aliased Point (MR Radius)
  - Proximal Isovelocity Surface Area: Regurgitant Flow (MR Trace)
  - Proximal Isovelocity Surface Area: Regurgitant Volume Flow (MR Trace)
  - Proximal Isovelocity Surface Area: Aliased Velocity (MR Vmax)

Combination Mode Measurements
- **Aortic Valve**
  - Aortic Valve Area (Ao Root Diam, LVOT Vmax, AV Vmax)
  - Aortic Valve Area by Continuity Equation by Peak Velocity (Ao Root Diam, LVOT Vmax, AV Vmax)
  - Stroke Volume by Aortic Flow (AVA Planimetry, AV Trace)
- **Mitral Valve**
  - Stroke Volume by Mitral Flow (MVA Planimetry, MV Trace)
  - Cardiac Output by Mitral Flow (MVA Planimetry, MV Trace, HR)

Cardiac Worksheet

Vascular Measurements/Calculations
- **Exam Categories**
  - **Generic**
  - **Carotid Artery**
  - **Lower Extremity Artery**
  - **Lower Extremity Vein**
  - **Abdomen**
  - **Renal Artery**
  - **TCD (Trans Cranial Doppler)**
  - **Upper Extremity Artery**
  - **Upper Extremity Vein**

B-Mode Measurements
- % Stenosis
  - Diameter
  - Area
- Volume
  - One distance
  - Two distances
  - Three distances
  - One ellipse
  - One distance and one ellipse
- A/B Ratio
  - Diameter
  - Area

M-Mode Measurements
- % Stenosis
  - Diameter
  - A/B Ratio
  - Diameter
  - Time
  - Velocity

Doppler Mode Measurements
- Auto Vascular Calculation
• ED/PS or PS/ED Ratio
• Heart Rate
• Pulsatility Index (PI)
• Resistive Index (RI)
• TAMAX
• Edit Trace

Vascular Worksheet
• Vessel Worksheet
• Vessel Summary
• Examiner’s Comments
• Generic Worksheet
• Intravessel Ratio

Pediatrics
Measurements/Calculations
• Hip Dysplasia
• Alpha HIP
• d:D Ratio

Probes
• 3.5CS Thin Wide Band Convex Probe
  - Applications: Abdomen, OB Gyn, Urology, Vascular
  - Probe Band Width: 2.0 – 5.0 MHz
  - Number of Element: 128
  - Convex Radius: 38 mmR
  - FOV: 68°
  - Physical Foot Print: 48 x 11 mm
  - B-mode Imaging Frequency: 2.0, 3.0, 4.0, 5.0 MHz
  - Harmonic Frequency: 4, 5, 5.2, 5.5 MHz
  - Doppler Frequency: 2.5, 3.3 MHz
  - Biopsy Guide Available: Single Angle, Reusable

• 3.5C Thin Wide Band Convex Probe
  - Applications: Abdomen, OB Gyn, Urology, Vascular
  - Probe Band Width: 2.0 – 5.0 MHz
  - Number of Element: 128
  - Convex Radius: 38 mmR
  - FOV (Max): 68°
  - Physical Foot Print: 48 x 11 mm
  - B-mode Imaging Frequency: 2.0, 3.0, 4.0, 5.0 MHz
  - Harmonic Frequency: 4, 5, 5.2, 5.5 MHz
  - Doppler Frequency: 2.5, 3.3 MHz
  - Biopsy Guide Available: Single Angle, Reusable

• 4C Wide band Convex Probe
  - Applications: Abdomen, OB Gyn, Urology, and Vascular
  - Maximum Band Width (-20dB): 1.4 – 4.8 MHz
  - Number of Elements: 128
  - Convex Radius: 60 mm
  - FOV: 55°
  - Foot Print: 60mm x 18 mm
  - Fundamental Frequency: 2,3,4,5 MHz
  - Harmonic Frequency: 4,5,5.2,5.5 MHz
  - Doppler Frequency: 2.5, 3.3 MHz
  - Biopsy Guide Available: Single Angle, Reusable

• E8C Wide Band Microconvex Probe
  - Applications: OB, Gyn, Urology, Endocavity
  - Probe Band Width: 4.0 – 11.0 MHz
  - Number of Element: 128
  - Convex Radius: 11 mmR
  - FOV (Max): 133°
  - Physical Foot Print: 26 x 5 mm
  - B-mode Imaging Frequency: 6.0, 8.0, 10.0 MHz
  - Doppler Frequency: 4.0, 5.0 MHz
  - Biopsy Guide Available: Single Angle, Disposable, Reusable

• 8C Wide Band Microconvex Probe
  - Applications: Pediatric, Neonatal
  - Probe Band Width: 4.0 – 11.0 MHz
  - Number of Element: 128
  - Convex Radius: 11 mmR
  - FOV (Max): 133°
  - Physical Foot Print: 26 x 5 mm
  - B-mode Imaging Frequency: 6.0, 8.0, 10.0 MHz
  - Doppler Frequency: 4.0, 5.0 MHz
  - Biopsy Guide Available: Single Angle

• BE9C Micro convex Bi-plan Probe
  - Applications: Urology
  - Probe Band Width: 4.0 – 11.0 MHz
  - Number of Element: 96
  - Convex Radius: 9 mmR
  - FOV (Max): 127°
  - Physical Foot Print: 20 x 5 mm
  - B-mode Imaging Frequency: 6.0, 8.0, 10.0 MHz
  - Harmonic Frequency: 8, 10MHz
  - Doppler Frequency: 4.0, 5.0 MHz
  - Biopsy Guide Available: Single Angle, Reusable

• ERB Biplane Probe
  - Applications: Urology
  - Probe Band Width: ERB Linear: 4.7 – 9.5 MHz
  - ERB Convex: 4.5 – 8.8 MHz
  - Number of Element: ERB Linear: 128 Elements
  - ERB Convex: 128 Elements
  - Probe Radius:
    - ERB Convex Radius: 8 mmR
    - ERB Linear Radius: 0 mmR
  - FOV (Max):
    - ERB Convex FOV (Max): 122°
    - ERB Linear FOV (Max): 51.2mm
  - Physical Foot Print:
    - ERB Convex: 17 x 5.5 mm
    - ERB Linear: 51 x 5 mm
  - B-mode Imaging Frequency: 6.0, 8.0, 10.0 MHz
  - Harmonic Frequency: 8.0, 10.0 MHz
  - Doppler Frequency: 5.0, 6.7 MHz
  - Biopsy Guide Available: Brachy Grid, Bridge Biopsy Guide

• 3S Wide Band Phased Array Sector Probe
  - Applications: Cardiac, Transcranial, Abdomen
  - Probe Band Width: 1.5 – 3.5 MHz
  - Number of Element: 64
  - FOV (Max): 90°
  - Physical Foot Print: 18.5 x 18.5 mm
  - B-mode Imaging Frequency: 2.0, 2.5, 3.0 MHz
  - Harmonic Frequency: 3.2, 3.6 MHz
  - Doppler Frequency: 1.7, 2.0 MHz
  - St-CWD Frequency: 2.0 MHz
  - Biopsy Guide Available: Multi Angle, Reusable

• 5S Wide Band Phased Array Sector Probe
  - Applications: Cardiac, Transcranial, Abdomen
  - Probe Band Width: 2.2 – 5.3 MHz
  - Number of Element: 96
  - FOV (Max): 90°
  - Physical Foot Print: 14.4 x 11 mm
  - B-mode Imaging Frequency: 3.0, 4.0, 5.0 MHz
  - Harmonic Frequency: 4.0, 5.0 MHz
  - Doppler Frequency: 2.5, 3.3 MHz
- St-CWD Frequency: 2.5 MHz
- Biopsy Guide Available: Multi Angle, Reusable

**7S Wide Band Phased Array Sector Probe**
- Applications: Neonatal, Abdomen, Pediatrics
- Probe Band Width: 3.0 – 8.0 MHz
- Number of Element: 64
- FOV (Max): 90°
- Physical Foot Print: 9.3 x 7.0 mm
- B-mode Imaging Frequency: 5.0, 6.0, 7.0 MHz
- Doppler Frequency: 3.3, 4.0 MHz
- St-CWD Frequency: 4.0 MHz
- Biopsy Guide Available: None

**9L Wide Band Linear Probe**
- Applications: Vascular, Small Parts, Neonatal, Pediatrics
- Probe Band Width: 3.5 – 9.5 MHz
- Number of Element: 192
- FOV (Max): 39 x 160 mm
- Physical Foot Print: 9.3 x 7.0 mm
- B-mode Imaging Frequency: 6.0, 8.0, 10.0 MHz
- Doppler Frequency: 4.0, 5 MHz
- Steered Angle: +/- 10°, 20°
- Biopsy Guide Available: Multi Angle, Reusable

**10L Wide Band Linear Probe**
- Applications: Vascular, Small Parts, Neonatal, Pediatrics
- Probe Band Width: 5.0 – 12.0 MHz
- Number of Element: 192
- FOV (Max): 39 mm
- Physical Foot Print: 39 x 5 mm
- B-mode Imaging Frequency: 6.0, 8.0, 10.0 MHz
- Doppler Frequency: 5.0, 6.7 MHz
- Steered Angle: +/- 10°, 20°
- Biopsy Guide Available: Multi Angle, Reusable

**12L Wide Band Linear Probe**
- Applications: Small Parts, Vascular, Neonatal, Pediatrics
- Probe Band Width: 5.0 – 12.0 MHz
- Number of Element: 192
- FOV (Max): 39 mm
- Physical Foot Print: 45 x 10 mm
- B-mode Imaging Frequency: 7.0, 10.0, 12.0 MHz
- Harmonic Frequency: 10.0, 12.0 MHz
- Doppler Frequency: 5.0, 6.7 MHz
- Steered Angle: +/- 10°, 20°
- Biopsy Guide Available: Multi Angle, Reusable

**8L Wide Band Linear Probe**
- Applications: Vascular, Small Parts, Neonatal, and Pediatrics
- Probe Band Width (>L-20dB): 3.5 – 10.5 MHz
- Number of Element: 128
- FOV (Max): 39 x 160 mm
- B-mode Imaging Frequency: 6.0, 8.0, 10.0 MHz
- Harmonic Frequency: 8.0, 10.0 MHz
- Doppler Frequency: 5.0, 6.7 MHz
- Steered Angle: +/- 10°, 20°
- Biopsy Guide Available: None

**4D3C-L Convex Volume Probe**
- Applications: Abdomen, OB
- Band Width (L-20dB): 2 – 5 MHz
- Number of Elements: 192
- Convex Radius: 40.5 mm
- Volume Sweep Radius: 20,15mm
- FOV: 80° (B), 85° x 80° (Volume scan)
- Foot Print: 53,2 x 40,6
- Fundamental Freq: 3, 4, 5 MHz
- Harmonic Frequencies: 4, 4.5, 4.8, 5.0 MHz
- Color Frequencies: 2.5,3.3 MHz
- Doppler Frequencies: 2.5, 3.3 MHz
- Biopsy Guide Available: Single Angle, Reusable

**T739 Intraoperative Wide Band Linear Probe**
- Applications: Intraoperative
- Probe Band Width: 3.5 – 9.5 MHz
- Number of Element: 192
- FOV (Max): 39 x 160 mm
- Physical Foot Print: 44 x 6 mm
- B-mode Imaging Frequency: 6.0, 7.0, 9.0 MHz
- Doppler Frequency: 4.0, 5 MHz
- Steered Angle: +/- 10°, 20°
- Biopsy Guide Available: Multi Angle, Reusable

**P2D Non-imaging Single CW Doppler Pencil Probe**
- Applications: Cardiac
- Frequency: 2.0 MHz

**P6D Non-imaging Single CW Doppler Pencil Probe**
- Applications: Cardiac, Vascular, Pediatric
- Frequency: 5.0 MHz

**Inputs and Outputs**
- Video In
- S-Video
- Video Out
- S-Video
- Audio Stereo In
- Connectors
- Footswitch
- USB (6)
- Ethernet
- Power for Peripherals

**Safety Conformance**
The **LOGIQ P5** is:
- Listed to UL 2601-1 by a Nationally Recognized Test Lab
- Certified to CSA 22.2, 60601.1 by an SCC accredited Test Lab
- Conforms to the following standards for safety:
  - EN 60601-1 Electrical medical equipment
  - EN 60601-1-1 Electrical medical equipment
  - EN 60601-1-2 Electromagnetic compatibility
- EN 60601-1-4 Programmable medical systems
- EN 60601-2-37 Particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment
- IEC 61157 Declaration of acoustic output
- ISO 10993 Biological evaluation of medical devices
- NEMA UD3 Acoustic output display (MI, TIS, TIB, TIC)

Not all features or specifications described in this document may be available in all probes and/or modes.

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