

# LOGIQ® *i*

## Ultrasound Unplugged.

### Product Description

The LOGIQ *i* is a high performance multipurpose color compact imaging system designed for abdominal, obstetrics, gynecology, vascular, musculoskeletal, small parts, pediatric, neonatal, cardiac and intraoperative applications.



### TruScan™ Architecture

GE's exclusive, software-intensive ultrasound imaging platform gives you unsurpassed computational power, image-manipulation capability, workflow flexibility and product upgradeability.

- **TruAccess-** is the new, GE-exclusive, raw-data processing technology that will change the future of ultrasound imaging. By accessing raw data, TruAccess applies live scanning techniques to stored image data. This maintains excellent image quality and ensures unsurpassed image management.
- **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. The LOGIQ*i* has increased flexibility and mobility for all scanning conditions.



## General Specification

### Dimensions and Weight

- Height: 61 mm (2.49 in) console only  
76.5 mm (3.12 in) with handle
- Width: 340 mm (13.88 in)
- Depth: 287 mm (11.71 in) console only  
327 mm (13.35 in) with handle
- Weight: approx. 4.6 kg (10.1 lb.)

### Electrical Power

- Voltage: 100- 240 V AC
- Frequency: 50/60 Hz
- Power: Max. 130 VA with Peripherals

### Console Design

- Laptop Style
- Integrated HDD (40GB)
- Lithium-Ion Battery Pack (standard)
- Wireless LAN Support
- USB ECG (AHA / IEC) (Optional) Support
- CWD (Optional) Support
- 1 probe port with micro-connector
- Rear handle

## User Interface

### Operator Keyboard

- Alphanumeric Keyboard
- Ergonomic Hard Key Operations
- Integrated Recording Keys for Remote Control of Peripheral Devices and DICOM Devices
- 6 TGC Pods, with Re-mapping functionality at any depth
- Backlight keys

### Display Screen

- 15 inch High-Resolution Color LCD
  - Display size: 1024x768
- Interactive Dynamic Software Menu
- Open Angle Adjustable
  - 0 to 160°
- Integrated Speakers
- Brightness Adjustment
- Audio Volume Adjustment

## System Overview

### Applications

- Abdominal
- Cardiology
- Obstetrical
- Gynecological
- Musculoskeletal
- Vascular
- Urological
- Small Parts
- Pediatric and Neonatal
- Intraoperative

### Scanning Methods

- Electronic Convex

- Electronic Linear with slant scanning

### Transducer Types

- Convex Array
- Microconvex Array
- Linear Array
- Phase Array

### Operating Modes

- B-Mode
- M-Mode
  - Anatomical M-mode
- Color Flow Mode (CFM)
- Power Doppler Imaging (PDI)
- Continuous Wave Doppler (CWD, optional)
- Pulse Wave Doppler (PWD)

### Standard Features

- High Resolution 15 inch Color LCD
- 325 Frames (15 sec) Standard CINE Memory (64MB)
- 40GB Hard Drive
- External DVD R/W storage
- Loops storage-from 'on the fly' scanning and from memory
- Automatic Optimization
  - Auto Tissue Optimization: ATO
  - Auto CFM Optimization: ACO
  - Auto Spectrum Optimization: ASO
- ACE™(Adaptive Color Enhancement)
- TruAccess, Raw Data Processing
- Patient Information Database
- Image Archive on Hard Drive
- Full M&A Calculation Package with Real Time Auto Doppler Calculations
- Vascular Calcs
- Cardiac Calcs
- OB Calcs and Tables
- Fetal Trending
- Multi Gestational Calcs
- Hip Dysplasia Calcs
- Gynecological Calcs
- Urological Calcs
- Renal Calcs

### Advanced Software Applications

- Easy 3D
- DICOM 3.0 Connectivity
- LOGIQ View
- SRI HD

### Hardware Options

- Battery Pack
- 3 pedal Foot Switch (IPX8)
- 1 pedal Foot Switch (IPX1)
- Isolation Cart
- CW Doppler
- USB ECG (AHA / IEC)(Optional)

### Media & Peripherals

- External USB DVD-RW (standard)
- USB thermal B&W printer, Sony UPD-897 (option)
- USB thermal color printer, Sony UPD-23 MD (option)
- USB DeskJet color printer, HP460/HP Pro K550 (option)
- Wireless LAN using Linksys WUSB54G supporting the 802.11a/b/g formats, where available (option)
- NetGear USB Wireless Adapter (Option)
- Memory Stick (option)
- USB2.0 Hub (option)

### Display Modes

- Simultaneous Capability
  - B/PW
  - B/CFM or PDI
  - B/M
  - Dual B (B/B)
  - Dual B + CFM or PDI
  - Real-time Triplex Mode
- Selectable Alternating Modes
  - B/M
  - B/PW
  - B/CW
  - B + CFM (PDI)/M
  - B + CFM (PDI)/PW
  - B + CFM (PDI)/CW
  - 3D – Mode
- Multi Image Split Screen
  - Live and/or frozen
  - B + B/CFM or PDI
  - Independent Cine playback
- Zoom: Read/Pan and from archive
- Colorized Image
  - Colorized B
  - Colorized M
  - Colorized PW
  - Colorized CW
- Time line Display
  - Independent Dual B/PW/CW Display
  - Display Formats:
    - Top/ Bottom or Side/ Side selectable
    - Format Size: 1/2; 1/2; 1/3; 2/3;full
    - format, switchable after freeze
  - Update mode: timed based on sweep
- Quad Screen Display access from split Screen

### Display Annotation

- Institution/Hospital Name
- 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

- 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: pre-settable display location
- Probe Type
- Application Name
- Imaging Parameters by Mode (current mode)
  - B/M-Mode
    - Frequency
    - Gain
    - Edge Enhance/Frame Averaging
    - Gray Map
    - Image Depth
    - Dynamic Range
    - Frame Rate % of Power Output
  - Color Flow Mode
    - Color Flow Frequency
    - Color Gain
    - Spatial Filter/Packet Size
    - Line Density/Frame Average
    - PRF
    - Wall Filter
    - % of Power Output
  - PW-Mode
    - Doppler Frequency
    - Doppler Gain
    - PRF
    - Wall Filter
    - Sample Volume Width
    - Dynamic Range
    - Angle Correction
    - % of Power Output
  - CW-Mode
    - Doppler Frequency
    - Doppler Gain
    - PRF
    - Wall Filter
    - Dynamic Range
    - Angle Correction
- % of Power Output
- Focal Zone Markers
- Body Pattern: 84 types
- B Scale Markers: 3 types
  - Depth/Width, Depth, Combination
- M Scale Markers: 2 types
  - Time/Depth, Time
- 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
- Battery status
- Biopsy Guide Line and Zone
- Heart Rate
- Primary Parameter Menu (depend on current mode)
  - B Mode
    - Frequency
    - Gray Map
    - Dynamic Range
    - Focus Position
    - Edge Enhance
    - Focus Number
    - CrossXBeam
    - CrossXBeam #
    - SRI-HD
    - Biopsy Kit
    - Virtual Convex
  - Color Flow Mode
    - Frequency
    - Virtual Convex
    - Angle Steer
    - Packet Size
    - PRF
    - Threshold
    - Color Invert
    - Wall Filter
  - M Mode
    - Gray Map
    - Dynamic Range
    - Sweep Speed
    - Display Format
    - Colorize
    - Edge Enhance
    - Full Timeline
    - Power Output
    - Anatomical M
    - Rejection
  - PW Mode
    - Frequency
    - Baseline
    - Quick Angle
    - Angle Steer
    - Sweep Speed
    - PRF
    - SV Length
    - Angle Correct
    - Spectral Invert
    - Wall Filter
  - Cine Mode
    - Loop Speed
    - Cycle select
    - Start Frame
    - End Frame
    - Frame by Frame

- Run/Stop
- Select All
- Cine Mode select
- First
- Last
- Secondary Parameters Menu
  - B Mode
    - Frame Average
    - Line Density
    - Focus Width
    - B Softener
    - Suppression
    - Rejection
    - Edge Enhance
    - Range Focus
    - Colorize
    - Image Rotate
    - Power Output
  - CF Mode
    - Baseline
    - Line Density
    - Transparency Map
    - Focus Position
    - Flash Suppression
    - Power Output
    - Spatial Filter
    - Frame Average
    - Map
  - PW Mode
    - Rejection
    - Dynamic Range
    - Display Format
    - Full Timeline
    - Trace Direction
    - Auto Calculations
    - Modify Calcs
    - PW/CF Ratio
    - Triplex on/off
    - Duplex
    - Colorize
    - Gray Map
    - Cycles, to Average
    - Trace Method
    - Trace Sensitivity
    - Time Resolution
    - Spectral Average
    - Power Output
  - CW-Mode
    - Display Format
    - Full Timeline
    - Trace Direction
    - Trace Method
    - Trace Sensitivity
    - Auto Calculations
    - Modify Calcs
    - Time Resolution
    - Colorize
    - Spectral Average

Power Output  
Cycles, to Change

## System Parameters

### System Setup

- Diagnostic Categories: 8 types, pre-settable  
Rad/Abd, OB, GYN, Cardiac, Vasc, Urology, Small parts, Pediatric
- User Programmable Preset Capability
- Factory Default Preset Data
- Languages setup:  
English, Norwegian, Chinese, French, German, Spanish, Italian, Portuguese, Russian, Greek, Finnish, Swedish, Dutch, Danish
- Languages for Manuals:  
Basic User Manual –  
English, French, German, Spanish, Italian, Portuguese, Japanese  
Chinese  
--User Guide – Swedish, Danish, Russian, Greek, Dutch, Finnish, Norwegian, Polish, Korean
- Operation Error Beep
- 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/PWD/CWD: 4 types for each
- Programmable Annotation Library: 24 annotations
- Customized Common Home Position
- 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: 147 sec
- Probe Change: 8-10 sec
- **Pre-Processing**
  - Acoustic Power Output
  - Read Zoom up to 18x
  - B/M-Mode

- Gain
- TGC
- Image Reverse
- Depth
- Scan Area
- Auto Optimize (AO)
- Dynamic Range
- Focus Number
- Focus Position
- Line Density
- Frequency
- Frame Average
- Edge Enhance
- Focus Width
- M/D Cursor
- Sweep Speed for M-Mode
- PW-Mode
  - Gain
  - Sample Volume Gate Position, Length
  - PRF
  - Doppler Frequency
  - Dynamic Range
  - Auto Optimize (ASO)
  - Audio Volume
- CW-Mode
  - Gain
  - Velocity
  - Doppler Frequency
  - Dynamic Range
  - Auto Optimize (ASO)
  - Audio Volume
- Color Flow Mode
  - Gain
  - ROI Position, Size
  - PRF
  - Color Line Density
  - Color Frequency
  - Packet Size
  - Threshold
  - Frame Average
  - Focus Position
- 3D Acquisition
  - Scan Distance
  - ROI Style
  - Display Format
  - Scan Plane
  - Acquisition Mode
- **Post-Processing**
  - TruAccess: GE-exclusive, raw-data digital processing
  - Read Zoom up to 8x
  - B/M-Mode
    - Gain
    - Image Reverse
    - Auto Optimize (ATO)
    - CrossXBeam (spatial compounding)
    - Range Focus

- Pulse Inversion Harmonics (PIH)
- Image Rotation
- Gray Map
- Colorize
- Rejection
- B Softener
- Sweep Speed for M-Mode
- PW-Mode
  - Gain
  - Baseline
  - Angle Correct
  - Quick Angle
  - Doppler Invert
  - Display Format
  - Sweep Speed
  - Full Timeline
  - Rejection
  - Colorize
  - Compression (Dynamic Range)
  - Auto Calcs
  - Trace Direction
  - Modify Calcs
  - Number of Average Cycles
  - Trace Method
  - Trace Sensitivity
  - Auto Optimize (ASO)
- CW-Mode
  - Gain
  - Baseline
  - Angle Correct
  - Quick Angle
  - Doppler Invert
  - Display Format
  - Sweep Speed
  - Full Timeline
  - Rejection
  - Colorize
  - Compression (Dynamic Range)
  - Auto Calcs
  - Trace Direction
  - Modify Calcs
  - Number of Average Cycles
  - Trace Method
  - Trace Sensitivity
  - Auto Optimize (ASO)
- Color Flow Mode
  - Gain
  - Baseline
  - Color Invert
  - Color Map
  - Threshold
  - Frame Average (in loop images)
- Easy 3D
  - Threshold (Opacification)
  - Mix Type 1
  - Render
  - Texture
  - Gray Surface

- Scalpel
- Auto Movie
- Undo
- Reset

## Imaging Processing and Presentation

### TruScan: software Intensive Ultrasound Imaging Platform

- Digital Beamformer
- Beamformer Operating Frequency Range: 1.5 – 18 MHz
- 1024 Digital Processing Channel Technology
- Displayed Imaging Depth: 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
- Continuous Dynamic Receive Focus/Aperture
- Multi-Frequency/Wideband Technology
- 256 Shades of Gray (VGA)
- 172 dB System Internal Dynamic Range
- Adjustable Field of View (FOV)
- Image Reverse: Right/Left
- Image Rotation: 2 steps  
Rotation: 0°, 180°

### CINE Memory/Image Memory

- Typical 325 Frames (15 sec) with Standard CINE Memory (64MB) depend on FOV, Scanning Lines etc.
- CINE Gauge and CINE Image Number Display
- CINE Review: Frame-by-frame, Loop
- CINE Review Speed: 9 types  
1/1, 1/2, 1/3, 1/4, 1/5, 1/6, 1/7, 1/8, 1/9
- Selectable CINE Sequence for CINE Review
- Start and End Frame Selections for Loop Playback
- Separation Maker 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
  - Grouping a Set of Images
  - Analyzing Images
- Image Management
  - Select All/Unselect All
  - Permanent Store
  - Discard all the Temporary Images
  - Delete Selected Image
  - Analyze
- Ethernet Network Connection
- Configurable 3 Print (Recording) Keys (P1-P3) to Multiple Output Devices/Workflows
- Archiving Format:
  - DICOM with ultrasound raw data
  - DICOM
- 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 to screen from search
- Detect unfinished examination
- Tools
  - Verify DICOM directory on removable media
  - Format removable media (rewritable DVD)
- Views: Displays an overview of the Ultrasound system's connectivity architecture
  - The currently selected dataflow
  - All configured data flows
  - The network structure tree
  - The configured buttons data flows
- AVI and JPEG Export
- DICOM Support
  - Verify
  - Print
  - Store
  - Modality Worklist
  - Multiframe
  - Storage Commitment
  - Modality Performed Procedure Step (MPPS)
  - Media Exchange
  - Off network/mobile storage queue

## Scanning Parameters

### B-Mode

- B/M Acoustic Output: 0 – 100%, 2% step
- Image Reverse: On/Off
- B Colorize: 8 types
- Thermal Index: TIC, TIS, TIB
- Softener: 4 steps
- Focus Number: 8 steps
- Line Density: 7 steps (Probe dependent)
- Frame Average: 6 steps
- Edge Enhance: 6 steps
- Angle (deg): probe dependent, 10 – 120°, 10 step
- Gray Scale Map: 24 types
- Gain: 0 – 98 dB, 2 dB step
- Dynamic Range: 30 – 120 dB, 3 dB step
- Harmonic start: on/off
- Virtual Convex: on/off
- Depth: 2 – 30 cm, 1 cm step
- Focus Depth: 21 steps default pre-settable
- Rejection: 6 steps
- Frequency: 3-4 steps, probe dependent

## Color Flow Mode

- Base Line
- Invert: On/Off
- Capture: 4 steps pre-settable
- CF/PDI Focus Depth: 21 steps default pre-settable
- CF/PDI ACE: On/Off
- CF/PDI Acoustic Output: 0 – 100%, 10% step
- Packet Size: 6, 8, 10, 12, 14 (Convex) 8,10,12,14, 16 (Linear)
- Line Density: 7 steps (probe dependent)
- Frame Average: 7 steps
- PRF: 0.3K-9.3K Hz (Probe dependent)
- Spatial Filter: 6 steps
- Gain: 0 – 40 dB, 0.5 dB step
- Wall Filter: 7 steps
- Angle/Width (deg, mm): probe dependent
- CF/PDI Vertical Size (mm): default pre-settable
- CF/PDI Center Depth (mm): default pre-settable
- CF/PDI Frequency: 2 steps (Convex) 3 steps (Linear)
- CF/PDI Focal Number: 1
- Color Map: 13 types
- Color Threshold: 10 – 100 %, 5 % step

## PDI-Mode

- PDI Map: 13 types
- CF/PDI ACE: On/Off
- CF/PDI Focus Depth: 21 steps default pre-settable
- CF/PDI Acoustic Output: 0 – 100%, 10% step
- Packet Size: 6, 8, 10, 12, 14(Convex) 8, 10, 12,14, 16(Linear)
- Spatial Filter: 6 steps
- Frame Average: 7 steps (Probe dependent)
- PRF: 0.3K-9.3K Hz (Depth dependent)
- Power Threshold: 10 – 100 %, 5 % step
- CF/PDI Vertical Size: default pre-settable
- CF/PDI Center Depth: default pre-settable
- CF/PDI Focal Number: 1
- Gain: 0 – 40 dB, 0.5 dB step
- Wall Filter: 7 steps
- CF/PDI Frequency: 2 steps (Convex) 3 steps (Linear)

## M-Mode

- Sweep Speed: 8 steps
- M Color: 4 types
- M/PW Display Format: V-1/3B, V-1/2B, V-2/3B, H-1/2B, H-1/4B, TL Only
- 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: 40 types
- M Gain: 0 – 98 dB, 2 dB step

## PW/CW -Mode

- Maximum and Minimum Velocity Scales
  - Max: 10 m/sec
  - Min: 5 cm/sec
- Gray Scale Map: 7 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: 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, TL Only
- PW Acoustic Output: 0 - 100 %, 10 % step
- Spectral Averaging: 3 steps pre-settable
- Time Resolution: 4 steps
- PW/CF Ratio: 1, 2, 4
- Rejection: 15 steps
- Gain: 0 - 32 dB, 1 dB step
- Wall Filter: 5 - 1500 Hz, 22 steps, depend on probe/application
- PW Angle Steer: 0, +/- 10, 15, 20°
- PRF: 640 - 30000 Hz with PW
- Sample Volume Depth: 28 steps default pre-settable
- Audio Volume
- PW Frequency: 3 steps (Convex) 3 steps (Linear) 3 steps (Sector)

## LOGIQView

- Available on the following probes
  - 12L
  - 8L
  - 8C
  - 4C
  - i12L
  - E8C
  - 3S

## Virtual Convex

- Available on the following probes
  - 12L
  - 8L
  - i12L

## SRI-HD

- Available on all probes
- 4 Levels: 0-3

## CrossXBeam

- Provides multiple angles of spatial compounding
- Live Simultaneous DualView Display
- Compatible with:
    - SRI-HD
    - Coded Harmonic Imaging
    - Virtual Convex
- Available on the following probes:

- 8L
- 12L
- i12L
- 4C
- 8C
- E8C

## 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
- 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)

- FV (Flow Volume)
- CO (cardiac 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)
- Foot Length (Ft)
- Gestational Sac (GS)
- Head Circumference (HC)
- Humerus Length (HL)
- Length of Vertebra (LV)
- Occipitofrontal Diameter (OFD)
- Transverse Abdominal Diameter (TAD)
- Transverse Cerebellar Diameter (TCD)
- Thorax Transverse Diameter (ThD)
- 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
  - AFI
  - AC
  - HC

- 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
- Endometrial 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)
  - \*\*\* (Trans AVA)
- 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 (LVAAd, LVAAs)
  - Interventricular Septum (IVS)
  - Left Ventricle Internal Diameter (LVI D)
  - 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)
  - Left Pulmonary Artery Area (LPA Area)
  - Right Pulmonary Artery Area (RPA Area)
  - Right Ventricle Internal Diameter (RVIDd, RVIDs)
  - Right Ventricle Diameter, Length (RVD Ma)
  - Right Ventricle Diameter, Width (RVD Mi)
  - Right Ventricle Wall Thickness (RVAWd, RVAWs)
  - Right Ventricle Outflow Tract Diameter (RVOT Diam)
  - Left Pulmonary Artery (LPA)
  - Main Pulmonary Artery (MPA)
  - Right Pulmonary Artery (RPA)
- System
  - Interventricular Septum Thickness (IVSd, IVSs)
  - Inferior Vena Cava
  - Pulmonary Artery Diameter (MPA)
  - Systemic Vein Diameter (Systemic Diam)
  - Patent Ductus Arteriosus 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 (LVIDd, LVI Ds)
  - Left Ventricle Internal Diameter (LVIDd, LVI Ds)
  - Left Ventricle Posterior Wall Thickness (LVPWd, LVPWs)
  - Left Ventricle Ejection Time (LVET)
  - Left Ventricle Pre-Ejection Period (LVPEP)
  - Interventricular Septum (IVS)
  - Left Ventricle Internal Diameter (LVI D)
  - Left Ventricle Posterior Wall Thickness (LVPW)
- Mitral Valve
  - E-Point-to-Septum Separation (EPSS)
  - Mitral Valve Leaflet Separation (D-E Excursion)
  - Mitral Valve Anterior Leaflet Excursion (D-E Excursion)
  - Mitral Valve D-E Slope (D-E Slope)
  - Mitral Valve E-F Slope (E-F Slope)
- Pulmonic Valve
  - QRS complex to end of envelope (Q-to-PV close)
- Right Ventricle
  - Right Ventricle Internal Diameter (RVIDd, RVIDs)
  - Right Ventricle Wall Thickness (RVAWd, RVAWs)
  - Right Ventricle Outflow Tract Diameter (RVOT Diam)
  - Right Ventricle Ejection Time (RVET)
  - Right Ventricle Pre-Ejection Period (RVPEP)
  - Velocity Circumferential Fiber Shortening (Vcf)
- System
  - Interventricular Septum Thickness (IVSd, IVSs)
  - Pericard Effusion (PE(d))
  - Interventricular Septum (IVS) Fractional Shortening (IVSd, IVSs)
- Tricuspid Valve
  - QRS complex to end of envelope (Q-to-TV 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 Insufficiency Velocity Time Integral (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)
  - Aortic Valve Deceleration Time (AV Trace)
  - Aortic Valve Ejection Time (AVET)
  - 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 (LVOT 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 Velocity Time Integral (MR Trace)
  - Mitral Valve Mean Velocity (MR 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 (PR Vmax)
  - Pulmonic Insufficiency End-Diastolic Pressure Gradient (PRTrace)
  - 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 (PR 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 (PR Trace)
  - Pulmonic Valve Mean Velocity (PV Trace)
  - Pulmonic Valve Mean Square Root Velocity (PV Trace)
  - Pulmonic Valve Velocity Time Integral (PV Trace)
  - Pulmonic Insufficiency Pressure Half Time (PR PHT)
- Pulmonic Valve Flow Acceleration (PV Acc Time)
- Pulmonic Valve Acceleration Time (PV Acc Time)
- Pulmonic Valve Ejection Time (PVET)
- Pulmonic Valve Pre-Ejection Period (PVPEP)
- 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 (RVOTTrace)
  - 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 Velocity Peak A (TV A Velocity)
  - Tricuspid Valve Velocity Peak 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)
  - Cardiac Output by Aortic Flow (AVA Planimetry, AV Trace, HR)
  - Aortic Valve Area by Continuity Equation VTI (Ao Root Diam, LVOT Vmax, AV Trace)
- Left Ventricle
  - Cardiac Output, Teichholz/Cubic (LVIDd, LVI Ds, HR)
  - Cardiac Output Two Chamber, Single Plane, Area-Length/ Method of Disk (Simpson) (LVAd, LVAs, HR)
  - Cardiac Output Four Chamber, Single Plane, Area-Length/ Method of Disk (Simpson) (LVAd, LVAs, HR)
  - Ejection Fraction Two Chamber, Single Plane, Area-Length/ Method of Disk (Simpson) (LVAd, LVAs)
  - Ejection Fraction Four Chamber, Single Plane, Area-Length/ Method of Disk (Simpson) (LVAd, LVAs)
  - Left Ventricle Stroke Volume, Single Plane, Two Chamber/Four Chamber, Area-Length (LVAd, LVAs)
  - Left Ventricle Stroke Volume, Single Plane, Two Chamber/Four Chamber, Method of Disk (Simpson) (LVIDd, LVIDs, LVAd, LVAs)
  - Left Ventricle Volume, Two Chamber/Four Chamber, Area-Length (LVAd, LVAs)
  - Ejection Fraction, Bi-Plane, Method of Disk (LVAd, LVAs, 2CH, 4CH)
  - Left Ventricle Stroke Volume, Bi-Plane, Method of Disk (LVAd, LVAs, 2CH, 4CH)

- Left Ventricle Volume, Bi-Plane, Method of Disk (LVAd, LVAs, 2CH, 4CH)
- Left Ventricle Stroke Index, Single Plane, Two Chamber/Four Chamber, Area-Length (LVSD, LVSS, and BSA)
- Left Ventricle Volume, Single Plane, Two Chamber/Four Chamber, Method of Disk (LVAd, LVAs)
- Left Ventricle Volume, Apical View, Long Axis, Method of Disk (LVAd, LVAs)
- 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)
- Pulmonic Valve
  - Stroke Volume by Pulmonic Flow (PV Planimetry, PV Trace)
  - Cardiac Output by Pulmonic Flow (PV Planimetry, PV Trace, HR)
- Tricuspid Valve
  - Cardiac Output by Tricuspid Flow (TV Planimetry, TV Trace, HR)

### Cardiac Worksheet Vascular

#### Measurements/Calculations Exam Categories

- Generic
- Carotid Artery
- Lower Extremity Artery
- Lower Extremity Vein
- Abdomen
- Renal Artery
- 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 Calculations

- Acceleration
- Acceleration Time (AT)
- End Diastole (ED), Mid Diastole (MD) or Peak Systole (PS)
- 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

### Pediatric

### Measurements/Calculations

- Hip Dysplasia
- Alpha HIP
- d: D Ratio

## Probes

- 4C-RS Wide Band Convex Probe
  - Applications: Abdomen, OB Gyn, Urology
  - Frequency Range: 2.0~5.5MHz
  - Number of Elements: 128
  - Convex Radius: 60 mmR
  - FOV : 58°
  - Physical Foot Print: 65 x 16 mm
  - Bmode Imaging Frequency : 2.0, 3.0, 4.0, 5.0 MHz
  - Harmonic Imaging Frequency: 4.0, , 5.2, 5.5 Mhz
  - CFM Imaging Frequency : 2.5, 3.3 MHz
  - Doppler Frequency : 2.5, 3.3 MHz
  - Biopsy Guide Available : Reusable Bracket, Disposable Sleeve
- 3S-RS Wide Band Phase Probe
  - Applications: Cardiac, Abdomen, OB, Gyn
  - Frequency Range : 1.5- 4 MHz
  - Number of Elements: 64
  - FOV : 90°
  - Physical Foot Print : 21 x 15 mm

- Bmode Imaging Frequency : 2.0, 2.5, 3.0MHz
- Harmonic Imaging Frequency: 2.8, 3.0, 3.2, 3.6, 3.8, 4.0 MHz
- CFM Imaging Frequency: 1.7, 2.0, 2.2, 2.6 MHz
- Doppler Frequency : 1.7, 2.0, 2.2, 2.6MHz
- Biopsy Guide Available : Multi Angle

- 8L-RS Wide Band Linear Probe
  - Applications: Vascular, Small Parts, Neonatal, Pediatrics
  - Frequency Range : 4-12 MHz
  - Number of Elements: 128
  - FOV(max) : 39 mm
  - Physical Foot Print : 42 x 8 mm
  - Bmode Imaging Frequency : 6.0, 7.0, 8.0, 10.0 MHz
  - Harmonic Imaging Frequency : 8.0, 11.0, MHz
  - CFM Imaging Frequency : 4.0, 4.4, 5.0 MHz
  - Doppler Frequency : 4.0, 4.4, 5.0 MHz
  - Steered Angle: +/-20°
  - Biopsy Guide Available : Multi Angle

- 12L-RS Wide Band Linear Probe
  - Applications: Vascular, Small Parts, Neonatal, Pediatrics
  - Frequency Range : 5-13 MHz
  - Number of Elements: 192
  - FOV(max) : 39mm
  - Physical Foot Print : 42 x 7 mm
  - Bmode Imaging Frequency : 8.0, 10.0, 12.0 MHz
  - Harmonic Imaging Frequency : 8.0, 10.0, 12.0, MHz
  - CFM Imaging Frequency : 5.0, 6.7 MHz
  - Doppler Frequency : 5.0, 6.7 MHz
  - Steered Angle : +/-20°
  - Biopsy Guide Available

- E8C-RS Wide Band Microconvex Probe
  - Applications: OB, Gyn, Urology, Endocavity
  - Frequency Range : 4.0 – 10.0 MHz
  - Number of Elements: 128
  - Convex Radius : 11 mmR
  - FOV : 133°
  - Physical Foot Print : 26 x 10 mm
  - Bmode Imaging Frequency : 6.0, 8.0, 10.0 MHz
  - Harmonic Imaging Frequency : 8.0,

- 10.0 MHz
- CFM Imaging Frequency : 4.0, 5.0 MHz
- Doppler Frequency : 4.0, 5.0 MHz
- Biopsy Guide Available : Fixed Angle, Disposable, or Reusable.

- 8C-RS Wide Band Microconvex Probe
  - Applications: Pediatrics
  - Frequency Range : 4.0 – 10.0 MHz
  - Number of Elements: 128
  - Convex Radius : 11 mmR
  - FOV : 133°
  - Physical Foot Print : 26 x 10 mm
  - Bmode Imaging Frequency : 6.0, 8.0, 10.0 MHz
  - Harmonic Imaging Frequency : 8.0, 9.0, 10.0 MHz
  - CFM Imaging Frequency : 4.0, 5.0 MHz
  - Doppler Frequency : 4.0, 5.0 MHz
  - Biopsy Guide Not Available :

- i12L-RS Wide Band Linear Probe
  - Applications: Vascular, Small Parts, Intra-operative
  - Frequency Range: 4 -10 MHz
  - Number of Elements: 96
  - FOV(max) : 25mm
  - Physical Foot Print : 29 x 10 mm
  - Bmode Imaging Frequency : 6.0, 8.0, 10.0 MHz
  - Harmonic Imaging Frequency : 8.0, 10.0 MHz
  - CFM Imaging Frequency : 4.0, 5.0 MHz
  - Doppler Frequency : 4.0, 5.0 MHz
  - Steered Angle : +/-20°

## Inputs and Outputs

- Outputs
  - SVGA
  - Earphone Port
- Connectors
  - USB (Footswitch, DVD-RW, video printer)
  - DC Power input
  - Ethernet port
  - Docking Connector

# Safety Conformance

## LOGIQ *i* is:

- Listed to UL 60601-1 by a Nationally Recognized Test Lab
- Certified to CAN/CSA-C 22.2 No.601.1 by an SCC accredited Test Lab
- CE Marked to Council Directive 93/42/EEC on Medical Devices
- Conforms to the following standards for safety:
  - IEC 60601-1 Electrical medical equipment
  - IEC 60601-1-1 Electrical medical equipment
  - IEC 60601-1-2 Electromagnetic compatibility
  - IEC 60601-1-4 Programmable medical systems
  - IEC 601157 Declaration of Acoustic output
  - IEC60601-2-37: Particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment
  - 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 available in all probes and/or modes.

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