



Philips HD7

Detailed ultrasound system specifications and transducer guide

The Philips HD7 provides you with a rich combination of advanced performance, efficient workflow and elegant data management, all at a very achievable price point.

It features design architecture unprecedented in the evolution of ultrasound. From the ground up and inside out, the HD7 system is built to make your work easier, more efficient and more productive. Its flexible platform also enables you to configure a HD7 to meet your exact requirements for price, performance and clinical application.

Applications

- Abdominal
- Small parts and superficial
- Pediatric
- Musculoskeletal
- Neonatal
- Urology
- Obstetrical
- Gynecological and fertility
- Prostate
- Vascular
 - Cerebrovascular
 - Peripheral vascular
 - Intraoperative vascular
- Transcranial Doppler
- Cardiac
 - Adult
 - Pediatric
 - Stress

Imaging modes

- Philips Microfine 2D focusing
- Philips Color Power Angio (CPA)
- Directional Color Power Angio
- M-mode
- Anatomical M-mode

- Color M-mode
- Pulsed Wave Doppler
- Continuous Wave Doppler
- 3D
- Color compare mode
- Dual mode
- Duplex for simultaneous 2D and Doppler
- Triplex mode for simultaneous 2D, Doppler, and color or CPA
- 2D Optimization Signal Processing
- Tissue Harmonic Imaging (THI)
- Intelligent Doppler
- Reconstructed zoom with pan (read zoom)
- Philips high-definition zoom (write zoom)
- Panoramic
- Trapezoidal
- Pulse Inversion Harmonic
- Contrast
- Adaptive Doppler
- Adaptive Color Doppler
- Color Tissue Doppler
- Pulsed Wave Tissue Doppler

PHILIPS

System Specifications

Control panel and user interface

- Easy-to-learn graphical user interface
- Primary controls readily accessible and logically grouped
- Commonly used secondary controls located on soft keys for quick access; soft key functions change dynamically based on the currently active mode, preset or system function
- Other secondary controls accessible through on-screen menus
- Alphanumeric keyboard: QWERTY keyboard with globalization key for conversion to local language (English, French, German, Italian and Spanish)
- User selectable keyboard input language (Roman, Japanese, Simplified Chinese, Russian and Portuguese)
- Trackball with Select and Enter keys for easy system navigation
- Integrated stereo speakers
- Imaging mode keys: 2D, Color Power Angio imaging, M-mode, Color Doppler, Continuous Wave Doppler (CW), Pulsed Wave Doppler (PW)
- 2D image controls: Depth, Dual Left, Dual Right, Freeze, THI, and Zoom Focus
- Image enhancement controls: Dynamic Range, Focus, Gain, Persistence, Post-processing Map, and Smooth
- Patient specific optimization keys: 2D Opt, Transducer (transducer select), and THI
- Quantitative controls: Caliper, Calc, Erase, Trackball
- Doppler or color controls: Angle and Steer, Spectral, Scale, Baseline, Gain, Power, Volume, Duplex, and Triplex
- Image Acquisition keys: Review, Report, VCR, Acquire, and two print keys supporting external print and video options
- Annotation controls: Text, Erase, Arrow, and Bodymarker
- Function keys: Microphone, Patient, Preset, and Setup
- Four option keys activated with additionally purchased features such as 3D, stress echo, panoramic, and Tissue Doppler imaging
- Online Help key
- Lateral Gain Compensation (LGC) slide pot controls
- Time Gain Compensation (TGC) slide pot controls
- Review and Report keys

Gray shades

- 256 (8 bits) in 2D, M-mode and Doppler spectral analysis

Acquisition frame rate

- Greater than 230 frames per second in High Frame Rate mode (dependent on transducer, field of view, depth and angle)

Ergonomic, user-centered design

- High mobility cart
 - Designed for easy maneuverability
 - Front handles for portability
 - Four-wheel swivel ability
 - Two-wheel swivel lock and brake
 - Lightweight aluminum frame
- Control panel can be raised, lowered and rotated more than 300°
 - Supports comfortable operation from standing and sitting positions
 - Improves accessibility of controls and reduces extended reaching
- 15-inch (333 x 263 mm) high-resolution color monitor
 - Raises, lowers and rotates with control panel
 - Independent tilt (+15/-10 degrees) and swivel (+/- 120 degrees)
 - XGA resolution (1024 x 768) 60 Hz, non-interlaced RGB
 - The system output is SVGA (800 x 600) 60Hz non-interlaced RGB
 - 0.297 mm dot pitch
 - Brightness control, Automatic Backlight Stability (BLS) control (BLS ensures quick warm-up and consistent light output over operational life.)
 - Super In-Plane Switching(SI-PS) panel for superior viewing angle and grayscale reproduction
- iSCAN Intelligent Optimization helps reduce repetitive key strokes during exams
- Palm rest
- Back deck provides easy access to hardcopy and documentation devices
- Built-in A/C line conditioner provides isolation from voltage fluctuation and electrical noise interference
- Internal high-capacity impeller fans with automatic speed adjustment to optimize cooling efficiency with minimal audible noise

System architecture

- All-digital broadband beamformer
- Microfine 2D focusing with Dynamic Focal Tuning
- 232 dB full time input dynamic range
- 1,024 digitally-processed channels
- Continuously variable steering in 2D, color and Doppler modes
- 2D Opt signal processing with 2X multi-line parallel processing and frequency compounding:
 - Improves tissue contrast resolution and textural perception
 - Sharpens lateral beam profile for finer dot size
 - Reduces speckle artifacts for increased image clarity
- 2D Opt key with up to five settings for patient-specific optimization in 2D and color Doppler
- iSCAN one-touch Intelligent Optimization
 - In 2D vascular, Ob/Gyn, and general imaging, one-button automatic adjustment of:
 - TGC and Receiver Gain to achieve optimal uniformity and brightness of tissues in most exams
 - Compression curve based on range of detectable tissues
- iSCAN Doppler
 - One-touch optimization of spectral tracing to improve productivity

Display annotation

- On-screen display of all pertinent imaging parameters for complete documentation, including: transducer type and frequency range, active clinical options and optimized presets, display depth, TGC curve, grayscale, color map, frame rate, dynamic range, compression and contrast enhancement, color gain, color image mode, and hospital and patient demographic data
- Displayed data can be turned off for generating images used in publication and presentation
- Sector width and steering markers
- 2D Opt setting and iSCAN icons
- Real-time display of Mechanical Index (MI)
- Real-time display of Thermal Index (TIb, TIc, TIs)
- Quick text—allows easy annotation at any time during an exam
- Text—places, moves, erases, modifies or appends predefined text labels, typed text and arrows

- Body markers—displays body-part icons appropriate for the active preset and indicates relative transducer position
 - Icons selectable via trackball scroll and soft keys
- Dual orientation marker to indicate the active buffer for two-buffer dual display
- VCR indicator—allows user to know when VCR is recording
- Annotation erased with start of new study

Image presentation

- Up or down
- Left or right
- Multiple duplex image formats (1/3-2/3, 1/2-1/2, 2/3-1/3)
- Depth to 30 cm (exam and transducer specific)

Transducers

Transducer selection

- Electronic switching of up to four imaging transducers
- Dedicated (Pedoff) connector available for non-imaging CW and PW transducers
- System supports up to 11 transducers to meet a wide range of clinical needs
- Multiple user-selectable transmit focal zones; up to eight focal zones on selected transducers
- Continuous dynamic receive focusing on all transducers

S4-2 Broadband Sector

- 4 to 2 MHz extended operating frequency range
- High-resolution imaging for abdominal, cardiac, and Ob/Gyn applications
- Supports 2D, color, PW and CW Doppler, Tissue Harmonic Imaging, Color Power Angio imaging, and contrast
- Biopsy kit available

s8 Broadband Sector

- 8 to 3 MHz extended operating frequency range
- High-resolution imaging for pediatric, cardiac, abdominal and Ob/Gyn applications
- Supports 2D, color, PW and CW Doppler, and Color Power Angio imaging

System Specifications

Transducers *continued*

C5-2 Broadband Curved

- 5 to 2 MHz extended operating frequency range
- High-resolution imaging for abdominal and Ob/Gyn applications
- Supports 2D, color, PW Doppler, Tissue Harmonic Imaging, Color Power Angio imaging, and contrast
- Multi-angle biopsy kit available

C6-3 Broadband Curved

- 6 to 3 MHz extended operating frequency range
- Provides high-resolution imaging for abdominal and Ob/Gyn applications
- Narrow footprint for improved intercostal access
- Supports 2D, color, PW Doppler, Tissue Harmonic Imaging and Color Power Angio imaging
- Multi-angle biopsy kit available

C8-5 Broadband Curved

- 8 to 5 MHz extended operating frequency range
- High-resolution imaging for abdominal, abdominal-vascular and Ob/Gyn applications
- 90° field of view
- Supports 2D, color, PW Doppler, and Color Power Angio imaging
- Biopsy kit available

C8-4v Broadband Curved Array

- 8 to 4 MHz extended operating frequency range
- End-fire sector, 11 mm radius of curvature, 135° field of view
- Supports 2D, color, PW Doppler, and Color Power Angio imaging
- Endovaginal applications
- Biopsy kit available

E6509 Broadband Curved

- 7.5 to 5 MHz extended operating frequency range
- High-resolution endocavitary imaging for Ob/Gyn and prostate applications
- Supports 2D, color, PW Doppler, and Color Power Angio imaging
- Biopsy kit available

L12-3 Broadband Linear

- 12 to 3 MHz extended operating frequency range
- 15° of trapezoidal imaging
- High-resolution imaging for superficial applications including vascular, small parts, and musculoskeletal
- Supports 2D, color, Tissue Harmonic Imaging, PW Doppler, and Color Power Angio imaging

L12-5 50 mm Broadband Linear

- Fine pitch, 256 element, high-resolution linear array
- 12 to 5 MHz extended operating frequency range
- Supports 2D, color, PW Doppler, and Color Power Angio imaging
- Trapezoidal imaging
- High-resolution superficial applications including small parts, breast, and musculoskeletal imaging
- Biopsy kit available

15-6L Broadband Compact Linear

- 15 to 6 MHz extended operating frequency range
- 8° of trapezoidal imaging
- High-resolution imaging for intraoperative vascular applications
- Supports 2D, color, PW Doppler, and Color Power Angio imaging

D5009V Cardiac and Vascular Non-imaging

- 5.0 MHz, 9 mm diameter pencil transducer
- Non-imaging PW and CW Doppler for cardiac and vascular applications

Imaging modes

2D Mode

- Microfine 2D Focusing
- Frame rate selection
- Eight-level digital reconstructed zoom with pan
- Variable level high-definition zoom
- Image orientation marker
- Cineloop image review (up to 1,000 B/W frames)
- Persistence, adjustable in real time and Cineloop review
- Selectable compression curves
- Sector size and steering control
- Selectable line density
- Up to eight transmit focal zones plus separation control
- Dual imaging (single and two buffer)
- Philips Chroma imaging with multiple color maps

M-mode

- Available with all imaging transducers
- Selectable sweeping rates
- Time markers: 0.1 and 0.2 seconds
- Chroma colorization with multiple color maps
- M-mode review for retrospective analysis of M-mode data
- Full-screen M-mode display facilitates diagnoses by enabling easier, more accurate caliper placement
- Color M-mode on all sector transducers and C5-2, C8-4v, transducers

Anatomical M-mode

- Uses 2D image as a basis for M-mode analysis at a defined line, independent of transducer orientation
- Makes it easier to keep the M-mode line perpendicular to the anatomy, even in abnormally shaped or positioned hearts
- Provides data on direction, position and timing of any single echo received from any point of the tissue for M-mode analysis in any direction, for examining cardiac chamber diameters, LV regional wall motion and location of accessory pathways
- Anatomical M-mode trace can be generated or modified post Freeze
- Anatomical M-mode on all sector transducers, including S4-2, s8

Doppler

- Display annotation including Doppler mode, scale (cm/sec or kHz), pulse repetition frequency, wall filter setting, gain, acoustic output status, sample volume size, normal or inverted, angle correction, grayscale curve
- Adaptive Doppler to boost weak signals to improve spectrum visibility and enhances pulsed-wave audio signals for precise flow assessment*
- Intelligent Doppler imaging—automatically maintains optimal angle-to-flow to assist in delivering accurate and consistent Doppler velocity measurements (available with vascular and general imaging application packages on linear transducers only)

- Adjustable frequency and velocity display ranges
- Eight-position zero baseline shift
- Normal and invert display around horizontal zero line
- Selectable sweep speeds
- Selectable grayscale curve for optimal display
- Selectable display format (1/3-2/3, 1/2-1/2, 2/3-1/3)
- Full-screen Doppler display which improves diagnoses by enabling easier, more accurate caliper placement
- Doppler review for retrospective analysis of Doppler data

Pulsed Wave (PW) Doppler

- Available on all imaging transducers
- Adjustable sample volume size: .05-2.63 cm
- Displays tissue movement and blood flow in 2D and PW Doppler simultaneously
- Triplex mode—displays tissue movement and blood flow in 2D, color or CPA and PW Doppler simultaneously

Continuous Wave (CW) Doppler

- Available on cardiac sector transducers only
- Steerable through 90°
- Maximum velocity range: 19 m/sec

Color Doppler

- Adaptive Color automatically optimizes color or Color Power Angio frequencies, ensuring excellent sensitivity and color penetration*
- Color compare—simultaneously displays real-time Color Power Angio, color Doppler and grayscale images side-by-side
- Automatic color invert—automatically inverts color maps to maintain selected color coding when the linear steering angle passes through vertical
- Available on all imaging transducers
- Cineloop review
- Chroma 2D colorization with multiple color maps
- 256 color bins
- Continuously variable color steering
- Trackball-controlled color region of interest: size and position
- Maps, filters, color sensitivity, line density, smoothing, echo write priority, color persistence, gain and baseline optimized automatically by preset or is user selectable
- Velocity and variance displays
- Color and 2D line density control
- Selection of color bar display units

System Specifications

Contrast Imaging

- System optimized for detecting harmonic agent signatures
- Variable low Mechanical Index (MI) and flash modes
- Pulse Inversion Harmonic imaging on the S4-2 transducer for cardiac and abdominal applications and the C5-2 transducer for general abdominal applications
- Start and Stop timer

Tissue Harmonic Imaging (THI)

- System processing of second harmonic frequencies (nonlinear energy) in tissue
- Extends high performance imaging capabilities to all patient body types
- Available on the S4-2, C5-2, and L12-3 transducers
- Image display virtually free of artifacts
- Pulse inversion mode

Color Power Angio Imaging (CPA)

- Highly sensitive mode for small vessel visualization
- Available on all imaging transducers
- Fully user-configurable
- Cineloop review
- User-definable presets
- Multiple maps including directional CPA
- Directional CPA
- Individual controls for gain, filters, sensitivity, echo write priority and color invert
- Adjustable CPA region of interest: size and position
- User-selectable persistence
- User-selectable blend levels
- TGC control
- Write priority

Tissue Doppler Imaging (TDI)

- Color TDI—uses color to display direction and timing of myocardial function
- Pulsed wave Tissue Doppler Imaging (TDI) for velocity mapping of cardiac tissue and vessel wall motion
- Available on all sector transducers
- Simultaneous or duplex mode of operation in conjunction with 2D, color Doppler and color TDI

3D Grayscale Imaging

- Available with Ob/Gyn application
- Provides a qualitative volume display of 2D data set
- Available on all imaging transducers
- Individual controls for manipulating the on-screen 3D rendering and display options

Expanded Field of View

- Panoramic imaging
 - Ability to perform point-to-point distance measurement
 - Extended field of view composite imaging
 - Full zoom, pan, Cineloop review and image rotation capabilities
- Trapezoidal imaging
 - Expands field of view on linear array transducers up to 15° on each side in vascular and general imaging applications

Stress Echo

- Fully-integrated stress echo module
- Three fixed protocols
- User-defined protocols
- Stop and resume a protocol
- Re-label, add or remove stages or views during a protocol
- Up to eight-stage capture-and-study protocols
- Single, quad and multi-cycle acquisition
- Gain Save
- LVO with stress
- Wall motion scoring and reporting

Measurements and analysis

Measurement tools and general description

- 2D distance
- 2D circumference or area by ellipse, continuous trace, trace by points
- 2D curved-linear distance
- M-mode distance (depth, time, slope)
- Manual Doppler distance
- Manual Doppler trace
- Automatic Doppler trace—races frozen spectral display to calculate and display user-selected measurements in most presets
- Philips High Q Automatic Doppler Analysis

- Time and slope measurements in Doppler and M-mode
 - Ao dec time
 - MV dec time
 - PA dec time
 - PA acc time
- Doppler values containing PI, RI, S/D indices
- 2D volume
- Heart rate
- Trackball-controlled electronic measurement calipers: eight sets
- User-defined protocols, measurements and equations
- On-the-fly measurement labels
- Fully-editable results data sheet
- Integrated patient exam report
- Moveable results box can be moved to any corner of the screen
- User-defined measurements
- User-defined calculations
- User-defined fetal growth tables

Clinical Option Analysis packages

- Comprehensive measurements, calculations and application-specific reports with imbedded images, including expanded cardiac, vascular, Ob/Gyn and general imaging capabilities for thorough exam documentation
- Cardiac analysis
 - Volume by area or length method
 - M-mode analysis
 - Peak and mean gradients
 - Pressure half time
 - Continuity equation
 - Diastolic function
 - Cardiac output
 - Qp:Qs ratio
 - Pulmonary vein analysis
 - Valvular analysis
 - Proximal Isovelocity Surface Area (PISA)
 - E/A ratio
 - Ventricle analysis
 - Ejection fraction (via Teichholz or cubed method)
 - Simpson's biplane and single plane
 - LV mass
 - IVRT

- Vascular analysis
 - Abdominal vascular
 - Cerebrovascular
 - Transcranial vasculature protocols
 - Right and left, lower and upper extremity protocols
 - Optional tools: percent diameter area reduction
 - Automated finding codes and user comments
- Ob/Gyn and fertility analysis
 - Fetal biometry
 - Biophysical profile
 - Amniotic fluid index
 - Early gestation
 - Fetal long bones
 - Fetal cranium
 - Nuchal thickness
 - Other OB measurements:
 - 2D echo
 - Fetal heart M-mode
 - Fetal Doppler
 - Echo Doppler
 - User-defined fetal growth tables
 - OB calculations and tables are user-definable
 - OB trending data for up to ten studies per patient
 - Gynecology and Fertility
 - Uterus
 - Right and left ovary
 - Right and left follicles
- General Imaging analysis
 - General abdominal
 - Small parts
 - Pediatric general
 - Musculoskeletal

High Q Automatic Doppler analysis

- Automatic real-time and retrospective tracing of:
 - Instantaneous peak velocity (or frequency)
 - Instantaneous intensity weighted mean velocity (or frequency)
 - User configurable display of values
 - Adjustable goal posts to within a single heart cycle, allowing quantification of any portion of the cycle (e.g., systole only)

System Specifications

High Q Automatic Doppler analysis *continued*

- Vascular
 - Automatic real-time display of:
 - Time-averaged mean velocity (or frequency)
 - Resistive index
 - Pulsatility index
 - Systolic/diastolic ratio and diastolic/systolic ratio
 - Acceleration/deceleration times
- Cardiology
 - Automatic real-time display of:
 - Peak velocity
 - Peak gradient
 - Display of:
 - Cardiac output
 - VTI
 - Mean velocity
 - Mean gradient

QLAB analysis

- Optional off-line software facilitating advanced quantification for ultrasound
- Region of Interest (ROI) quantification
 - Image data content analysis
 - Contrast intensity analysis
 - Grayscale, Power/Angio
 - Color Doppler velocity analysis
 - Draw up to 10 ROIs
 - Calculate Mean, Median, and Standard Deviation of intensity per frame
 - Graphical display of time vs. Intensity data
 - Curve-fit graphical data
 - Compare images and ROIs
- Automated measurement of Intima Media Thickness (IMT)
 - Automatic assessment of the IMT or user selected frame
 - Intended for carotid and other superficial arteries

Cineloop review

- Acquisition, storage in memory, and display in real-time and duplex modes of up to 1,000 frames (four minutes in Quick Review) of 2D and color images for retrospective review and image selection
- Single frames of Doppler data and M-mode images can be archived to print or electronic media

- Supports two-buffer Dual Imaging mode of up to 500 frames per buffer
- Trackball control of frame-by-frame image selection
- Variable playback speed
- Trim capability
- Functions in 2D and Tissue Harmonic Imaging, M-mode, PW Doppler, CW Doppler, Color Doppler, Color Power Angio imaging, Tissue Doppler Imaging, and Contrast Imaging modes

ECG and Physio

- One three-lead ECG input
- One external ECG input
- Two physio input channels (1V, p-p)
- Selectable ECG triggered skipping between 1 and 20

Miscellaneous system data

Footswitch

- Three pedals
- Allows Freeze, Acquire and Enter in stress
- Includes two user-definable record functions

Connectivity

- 2 USB ports
- 80 GB hard drive space
- Standard CD-R/RW
- Direct digital storage of system configuration backup, including user-defined presets and OB trending data, to USB or CD
- Direct digital storage of single frame color and B/W images to internal hard disk, USB flash and compact disk
- Direct digital storage of B/W and color loops to internal hard disk, USB flash and compact disk
- Stores a minimum of 150,000 B/W still frame images to internal hard drive
- Integrated multi-session CD allows storage of multiple individual studies to a single CD at different times rather than requiring single batch mode storage=
- 700 MB compact disk stores a minimum of 528 B/W still frame images (RGB uncompressed format), or 1,570 B/W still frame images (palette color uncompressed format) or 8,440 B/W still frame images (YBR JPEG compressed format at typical 16:1 compression ratio)
- Ability to export AVI clips and BMP images to USB flash for PC viewing

- Fully-integrated interface
- Extensive image management capability, including thumbnail image review, Cineloop editing, and user-configurable patient reporting
- Study manager allows user to digitally acquire, review and edit complete patient studies
- Exam directory
- Delete and replace recalled image capability
- Multiple study archive formats (palette color, RGB, YBR)
- DICOM 3.0 print and store service class user
- Multiple DICOM servers
- Multiple DICOM presets
- DICOM structured reporting for cardiac and Ob/Gyn
- Configurable print
- User may select images to print from all acquired images
- 10BaseT or 100BaseT Ethernet output
- Site configurable IP address, port and AE title
- Modality Performed Procedure Step (MPPS)
- Modality Worklist
 - Works in conjunction with radiology and cardiology information systems
 - Automatic entry of patient demographics
- Study reports available as DICOM images
- System can use lossy JPG image format with user configurable compression ratio

Physical dimensions

Depth: 40.3 in/102.4 cm

Height (adjustable): 51.8 - 58.4 in/131.5 – 148.3 cm

Control panel height (adjustable): 32.3 - 38.8 in/82 - 98.6 cm

Width: 21.6 in/55 cm

Weight: 165 lbs /75kg (no peripherals)



System Specifications

Exam documentation

- Peripherals
 - Mitsubishi HS-MD7000 Super-VHS video cassette recorder
 - Resolution: >400 lines
 - Video format: NTSC or PAL
 - Built-in digital time base corrector(TBC) eliminates jitter, skew, and color blurring during playback
 - Digital noise reduction
 - Super-fast drive for quick fast forward and rewind (approx. 120 seconds with T-120 tape)
 - Dimensions (h/w/d): 4.9 x 10.6 x 14.4 in/125 x 270 x 366 mm
 - Weight: 14.3 lbs/6.5 kg
 - Sony UP D897MD digital B/W thermal printer (USB input)
 - Sony UPD23-MD digital color printer (USB input)
 - Support of a range of plain paper printers
 - Support of up to three peripherals with shelf attachment
- Input and output ports
 - Six available ports
 - USB ports (2)
 - Standard USB interface for support of qualified plain paper printers
 - Composite video: output to external monitor; VCR or printer (optional)
 - Black and white composite video output (optional)
 - External print trigger
 - LAN connector—used with DICOM networking
 - VGA output
 - S-video output for VCR (optional)
 - Footswitch port (optional)—for connecting the optional footswitch
 - RS-232 port to support data transfer
 - User accessible and cleanable air filter

Localization options

- Software: English, French, German, Italian, Spanish, Simplified Chinese, Japanese, Russian and Portuguese
- Training and user documentation: English, French, German, Italian, Spanish, Japanese, Simplified Chinese, Polish, Portuguese and Russian
- Online help: English, French, German, Italian, Spanish, Portuguese, Russian, Polish, Simplified Chinese and Japanese

Power requirements

- Power: 1150VA
- Power consumed: 600VA
- Frequency: 50 to 60 Hz
- Voltage: 100 to 240 VAC

Power cords

- Available for electrical standards worldwide

Electrical safety standards

- CSA C22.2 No. 601.1
- IEC 60601-1
- UL 60601-1
- EN60601-1

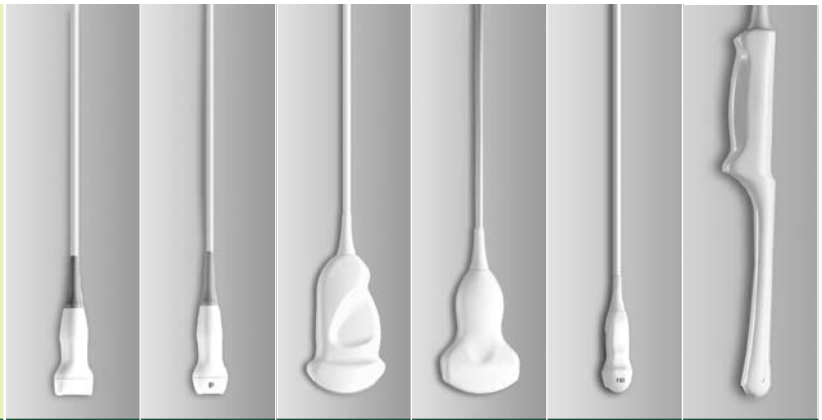
Environmental

- Temperature
 - System: 0-40° C at 20-80% relative humidity
 - VCR and printers: 0-40° C at 80% relative humidity (non-condensing)
- Heat dissipation : <2500 BTUs/hour (fully loaded)

Maintenance and Serviceability

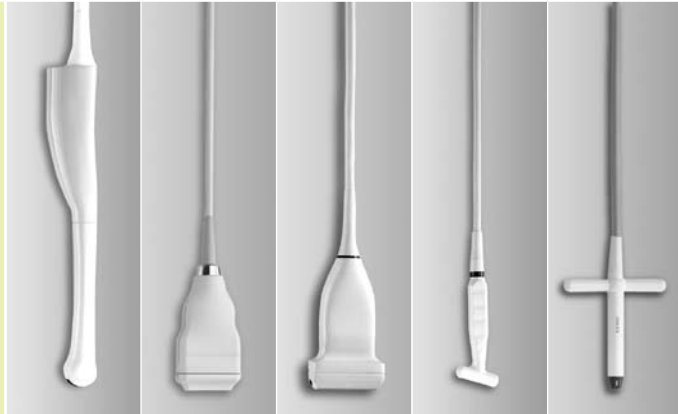
- Philips Remote Service Network connectivity
- Optional service agreements
- Online and phone support
- Clinical applications support

Transducers



Transducer	S4-2	s8	C5-2	C6-3	C8-5	C8-4v
Type of Array	Sector	Sector	Curved	Curved	Curved	Curved
Application						
Abdominal 0-4 cm			●	●		
Abdominal 5-10 cm	●		●	●		
Abdominal > 11 cm	●		●	●		
Gyn Vaginal 8-10 cm (max. depth)						●
Gyn Transabdominal < 10 cm			●	●		
Gyn Transabdominal > 11 cm			●	●		
OB Vaginal 6-8 cm (max. depth)						●
OB 1st Trimester 10-12 cm (max.)	●		●	●	●	
OB 2nd Trimester 12-18 cm (max.)	●	●	●	●	●	
OB 3rd Trimester 15-20 cm (max.)	●	●	●	●	●	
Pediatrics/Neonatal Abdominal Small		●	●	●	●	
Pediatrics Abdominal Large	●	●	●	●	●	
Pediatrics Cephalic		●			●	
Neonatal Cephalic		●			●	
Vascular 0-3 cm					●	
Vascular 3-8 cm					●	
Cardiac < 30 lbs/13.6 kg	●	●				
Cardiac 20-140 lbs/13.6-63.6 kg	●	●				
Cardiac > 140 lbs/63.6 kg	●					
Breast						
Transcranial Doppler	●					
Small Parts < 3 cm						
Small Parts > 3 cm						
Musculoskeletal						
Prostate						
Intraoperative Vascular						
Intraoperative Cardiac						
Biopsy Guides	Reusable		Reusable	Reusable	Reusable	Reusable

Transducers



Transducer	E6509	L12-3	L12-5	15-6L	D5009V
Type of Array	Curved	Linear	Linear	Linear	Non-Imaging
Application					
Abdominal 0-4 cm		●	●		
Abdominal 5-10 cm		●			
Abdominal > 11 cm					
Gyn Vaginal 8-10 cm (max. depth)	●				
Gyn Transabdominal < 10 cm					
Gyn Transabdominal > 11 cm					
OB Vaginal 6-8 cm (max. depth)	●				
OB 1st Trimester 10-12 cm (max.)					
OB 2nd Trimester 12-18 cm (max.)					
OB 3rd Trimester 15-20 cm (max.)					
Pediatrics/Neonatal Abdominal Small					
Pediatrics Abdominal Large					
Pediatrics Cephalic					
Neonatal Cephalic					
Vascular 0-3 cm		●	●	●	●
Vascular 3-8 cm		●			●
Cardiac < 30 lbs/13.6 kg					●
Cardiac 20-140 lbs/13.6-63.6 kg					●
Cardiac > 140 lbs/63.6 kg					
Breast		●	●		
Transcranial Doppler					
Small Parts < 3 cm		●	●		
Small Parts > 3 cm		●	●		
Musculoskeletal		●	●		
Prostate	●				
Intraoperative Vascular				●	
Intraoperative Cardiac				●	
Biopsy Guides	Reusable	Reusable	Reusable		

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