



Bringing premium performance ultrasound to the whole picture

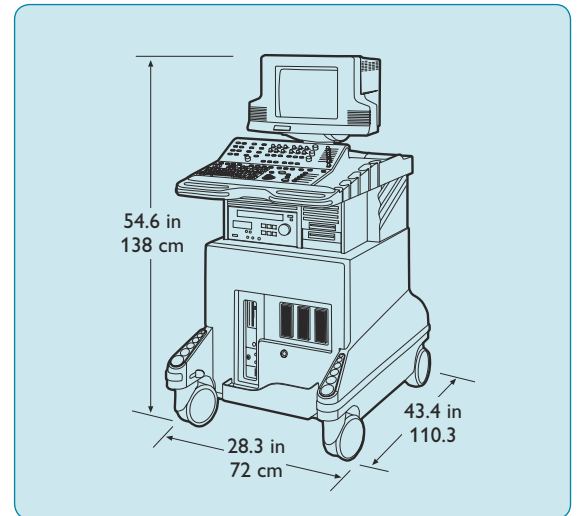
System Overview

Applications

- Abdominal
- Obstetrical
- Cerebrovascular
- Peripheral vascular
- Gynecological and fertility
- Advanced breast imaging
- Small parts and superficial
- Musculoskeletal
- Transcranial Doppler
- Pediatric general imaging
- Prostate
- Adult cardiology
- Pediatric cardiology
- Endoscopic ultrasound*

Imaging Modes

- MicroFine™ Grayscale Imaging
- SonoCT Real-time Compound Imaging
- XRES Visualization Technology
- Tissue Harmonic Imaging with pulse inversion technology
- Harmonic SonoCT Imaging
- Simultaneous M-mode
- Duplex and simultaneous pulsed Doppler
- Continuous wave Doppler
- Simultaneous 2D, continuous wave Doppler
- Broadband Flow® Imaging
- Simultaneous 2D, color Doppler, pulsed Doppler
- Dual composite image
- High Definition™ Zoom



Physical Dimensions

Width: 28.3 in/72 cm; Height: 62 in/157.5 cm with VCR, 54.6 in/138 cm without VCR; Depth: 43.4 in/110.3 cm; Weight: approximately 380-440 lbs/172-200 kg, depending on peripherals

- Reconstructed zoom with pan
- Chroma® Imaging
- Contrast Specific Imaging (2D Harmonic, Power Contrast Harmonic Imaging, Pulse Inversion Harmonic Imaging, Grayscale Pulse Inversion Contrast Imaging, Power Pulse Inversion Imaging, MicroVascular Imaging* and Agent Detection Imaging*)
- Color Power Angio® Imaging
- Panoramic SonoCT Imaging
- Power Motion Imaging
- Tissue Doppler Imaging

PHILIPS

- 3D SonoCT Imaging
- 3D Color Power Angio Imaging
- 3D Grayscale Imaging

Control Panel and User Interface

- Easy-to-learn graphical user interface
- Primary controls readily accessible and logically grouped
- Commonly used secondary controls located on “superkeys” for quick access
- Other secondary controls accessible through on-screen menus
- Slide pot control of TGC curve, overall gain control knobs for 2D, color and Doppler
- Smart TGC: pre-defined TGC curves optimized for consistently excellent imaging with minimal TGC adjustment

Gray Shades

- 256 (8 bits) in 2D, Doppler spectral analysis
- 64 (6 bits) in M-mode

Acquisition Frame Rate

- Greater than 500 frames/sec (dependent on field-of-view, depth and angle)

User-centered Design Focus

- High mobility cart
 - Designed for easy maneuverability and mobility
 - Four-wheel swivel cart
 - Lightweight aluminum monocoque frame
 - Single, digitally controlled, 15-inch non-interlaced high resolution color monitor with tilt and swivel
 - User adjustable control panel lighting
 - Universal peripheral bay provides easy access to hardcopy/documentation devices
 - Built-in A/C line conditioner provides isolation from voltage fluctuations and electrical noise interference
 - Four high-capacity fans with automatic speed adjustment to optimize cooling efficiency with minimal audible noise

System Architecture

- All-digital broadband beamformer
- MicroFine 2D Imaging
- Digital Broadband Flow Imaging

- Supercomputing Image Processing Unit (IPU)
- Dynamic Focal Tuning
- 170 dB full time input dynamic range
- 1,024 digitally processed channels
- Up to nine frames compounded in real time with SonoCT imaging
- Advanced Extended Signal Processing (ESP) with parallel digital signal 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
- Intelligent Tissue Specific™ Imaging software provides total system optimization by exam type of more than 5,000 parameters
- Patient Optimization key for rapid system optimization in 2D and color Doppler
- iSCAN Intelligent Optimization*
 - In 2D mode, one-button automatic adjustment of:
 - TGC and receiver gain to achieve optimal uniformity and brightness of tissues
 - Compression curve based on range of detectable tissue signals
 - In Doppler mode, one-button automatic adjustment of:
 - Doppler gain and PRF based on signal strength and detected velocity
 - Doppler baseline based on detected flow direction

Display Annotation

- On-screen annotation of all pertinent imaging parameters for complete documentation, including transducer type and frequency, 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
- Annotation data can be turned off for generating images used in publication and presentation
- Sector Steering icon for endocavitary transducers
- Real-time display of Mechanical Index (MI)
- Real-time display of Thermal Index (TIb, TIc, TI_s)

- Multiple trackball-driven annotation arrows
- Quick Text keys that will memorize up to 30 phrases or names per key
- Predefined body markers (application specific anatomic annotation)

Image Presentation

- Up/down
- Left/right
- Multiple duplex image formats (1/3-2/3, 1/2-1/2, 2/3-1/3)
- Depth to 24 cm

Transducers

Transducer Selection

- Electronic switching of transducers using three universal connectors
- Dedicated (Pedoff) continuous wave Doppler connector
- Automatic optimization of each transducer for exam type by Tissue Specific imaging

Transducers

- Multiple user-selectable transmit focal zones on all transducers
- Continuous dynamic receive focusing on all transducers
- **L12-5 38 mm Broadband Linear Array**
 - Fine pitch, 192 element, high resolution linear array
 - 5 to 12 MHz extended operating frequency range
 - Steerable pulsed Doppler, color Doppler and Color Power Angio, SonoCT and XRES imaging
 - High resolution superficial applications including vascular, small parts and musculoskeletal imaging
- **L12-5 50 mm Broadband Linear Array**
 - Fine pitch, 256 element, high resolution linear array
 - 5 to 12 MHz extended operating frequency range
 - Steerable pulsed Doppler, color Doppler and Color Power Angio, SonoCT and XRES imaging
 - High resolution superficial applications including small parts, breast and musculoskeletal imaging

- **L7-4 Broadband Linear Array**

- 4 to 7 MHz extended operating frequency range
- Steerable pulsed Doppler, color Doppler and Color Power Angio, SonoCT, XRES, harmonic and MicroVascular imaging*
- General imaging and superficial imaging applications

- **C7-4 Broadband Curved Array**

- 4 to 7 MHz extended operating frequency range
- Steerable pulsed Doppler, color Doppler and Color Power Angio, SonoCT, XRES and harmonic imaging
- High resolution abdominal, pediatric, obstetrical and gynecological applications

- **C8-5 Broadband Curved Array**

- 5 to 8 MHz extended operating frequency range
- Steerable pulsed Doppler, color Doppler and Color Power Angio, SonoCT and XRES imaging
- Pediatric abdominal and cephalic imaging, neurosurgery applications

- **C5-2 Broadband Curved Array**

- 2 to 5 MHz extended operating frequency range
- Steerable pulsed Doppler, high PRF Doppler, color Doppler and Color Power Angio, SonoCT, XRES and harmonic imaging
- General purpose abdominal, obstetrical and gynecological applications

- **P12-5 Broadband Phased Array**

- 5 to 12 MHz extended operating frequency range
- Steerable pulsed and continuous wave Doppler, color Doppler, and Color Power Angio and XRES imaging
- Pediatric cardiology, neonatal cephalic and neonatal abdominal applications

- **P7-4 Broadband Phased Array**

- 4 to 7 MHz extended operating frequency range
- Steerable pulsed and continuous wave Doppler, color Doppler, and Color Power Angio and XRES imaging
- Pediatric cardiology, neonatal cephalic and neonatal abdominal applications

- **P6-3 Broadband Phased Array**
 - 3 to 6 MHz extended operating frequency range
 - Steerable pulsed Doppler, color Doppler, and Color Power Angio, XRES and harmonic imaging
 - Abdominal (includes pediatrics and small adults 30-140 lbs/14-64 kg) and obstetrical applications
- **P5-3 Broadband Phased Array**
 - 3 to 5 MHz extended operating frequency range
 - Steerable pulsed and continuous wave Doppler, and Color Power Angio and XRES imaging
 - Abdominal and cardiology (includes pediatrics and small adults 30-140 lbs/14-64 kg) and obstetrical applications
- **P4-2 Broadband Phased Array**
 - 2 to 4 MHz extended operating frequency range
 - Steerable pulsed and continuous wave Doppler, color Doppler, and Color Power Angio and harmonic imaging
 - Abdominal, cardiac and transcranial applications
- **P4-1 Broadband Phased Array**
 - 1 to 4 MHz extended operating frequency range
 - Steerable pulsed wave Doppler, color Doppler, and Color Power Angio and XRES imaging
 - Deep abdominal, obstetrical and gynecological applications
- **C9-5 ICT Broadband Curved Array**
 - 5 to 9 MHz extended operating frequency range
 - End-fire sector, 8 mm radius of curvature, 150° field-of-view
 - Steerable pulsed Doppler, color Doppler, and Color Power Angio, SonoCT and XRES imaging
 - Endovaginal and endorectal applications
- **C8-4v Broadband Curved Array**
 - 4 to 8 MHz extended operating frequency range
 - End-fire sector, 11 mm radius of curvature, 135° field-of-view
 - Steerable pulsed Doppler, color Doppler, and Color Power Angio, SonoCT, XRES and harmonic imaging
 - Endovaginal applications
- **CL15-7 Broadband Compact Linear Array**
 - 7 to 15 MHz extended operating frequency range
 - Uniquely designed for intraoperative use in vascular and cardiac surgery
 - Steerable pulsed Doppler, color Doppler, and Color Power Angio, SonoCT, XRES and harmonic imaging
 - Superficial imaging and intraoperative applications
- **CL10-5 Broadband Compact Linear Array**
 - 5 to 10 MHz extended operating frequency range
 - Uniquely designed for intraoperative use in vascular and cardiac surgery
 - Steerable pulsed Doppler, color Doppler and Color Power Angio imaging
 - Superficial imaging and intraoperative applications
- **LI9-5 Broadband Intraoperative**
 - 5 to 9 MHz extended operating frequency range
 - Uniquely designed for intraoperative use in abdominal surgery
 - Pulsed Doppler, color Doppler and Color Power Angio imaging
 - Abdominal surgery applications
- **CT8-4 Broadband Intraoperative**
 - 4 to 8 MHz extended operating frequency range
 - Uniquely designed for intraoperative use in deep abdominal surgery
 - Steerable pulsed Doppler, color Doppler and Color Power Angio imaging
 - Deep abdominal surgery applications
- **MPT7-4 Broadband Phased Array Multiplane TEE**
 - 4 to 7 MHz extended operating frequency range
 - Rotation through 180°, stepwise or continuous (dual speed control)
 - On-screen position indicator
 - Steerable pulsed and continuous wave Doppler, color Doppler, and Power Motion and harmonic imaging
 - Cardiac transesophageal applications
- **BPT9-5 Broadband Phased Array Biplane TEE**
 - 5 to 9 MHz extended operating frequency range
 - 90° field-of-view
 - 10 mm tip diameter
 - Steerable pulsed and continuous wave Doppler, color Doppler and Color Power Angio imaging
 - Pediatric cardiac transesophageal applications

- **BPTRT9-5 Broadband Dual Array**
 - 5 to 9 MHz extended operating frequency range
 - 150° field-of-view (curved), 55 mm field-of-view (linear)
 - 19 mm tip diameter
 - Steerable pulsed continuous wave Doppler, color Doppler, and Color Power Angio (curved), SonoCT and XRES imaging
 - X,Y, Z volume measurements
 - Prostate transrectal applications

Imaging Modes

MicroFine Grayscale Imaging

- Frame rate selection
- 8-level digital reconstructed zoom with pan
- High Definition zoom concentrates all image processing power into a user-defined area of interest
- Image orientation marker
- Cineloop® Image Review (up to 800 B/W frames)
- Persistence, adjustable in real time and Cineloop Review
- Selectable compression curves
- Sector size and steering control
- Selectable line density
- Up to five transmit focal zones plus separation control
- Dual imaging
- Chroma imaging with multiple color maps

SonoCT Real-time Compound Imaging

- Available on the L12-5 38 mm and L12-5 50 mm, L7-4, C9-5, C8-5*, C8-4v*, C5-2, C7-4, CL15-7 and BPTRT9-5 transducers
- Two modes of operation: Survey and Target
- Operates in conjunction with Tissue Harmonic imaging, 3D mode and panoramic imaging
- Operates in conjunction with XRES imaging on the L12-5 38 mm, L12-5 50 mm, L7-4, CL15-7, C9-5, C8-5*, C8-4v*, C7-4, C5-2, and BPTRT9-5 transducers

XRES Visualization Technology

- Available on the L12-5 38 mm, L12-5 50 mm, L7-4, CL15-7*, CL10-5*, C9-5, C8-5*, C5-2, C7-4, C8-4v, P12-5*, P6-3*, P4-2, P4-1 and BPTRT9-5* transducers

- Operates in conjunction with SonoCT real-time compound imaging on the L12-5 38 mm, L12-5 50 mm, L7-4, C7-4, C5-2, BPTRT9-5*, C8-4v* and C8-5* transducers

M-mode

- Available with all imaging transducers
- Selectable sweeping rates
- Time markers: 0.1 and 0.2 seconds
- Acquisition zoom
- Chroma colorization with multiple color maps
- M-mode review for retrospective analysis of M-mode data
- Color M-mode on all phased array transducers, and C5-2 and C7-4 curved array transducers

Doppler

- Display annotations including Doppler mode, scale (cm/sec or kHz), Nyquist limit, pulse repetition frequency, wall filter setting, gain, acoustic output status, sample volume size, normal/inverted, angle correction, grayscale curve
- Angle correction with automatic velocity scale adjustment
- Adjustable frequency/velocity display ranges
- 8-position zero baseline shift
- Normal/invert display around horizontal zero line
- Selectable sweep speeds
- 1 millisecond spectral FFT rate
- Selectable low-frequency signal filtering with adjustable wall filter settings
- Selectable grayscale curve for optimal display
- Selectable display format (1/3-2/3, 1/2-1/2, 2/3-1/3)
- Doppler Review for retrospective analysis of Doppler data

Pulsed Wave (PW) Doppler

- Available on all imaging transducers
- Adjustable sample volume size: 1.0-25 mm
- Simultaneous or duplex mode of operation
- Simultaneous 2D, color Doppler, pulsed Doppler
- High PRF capability

Continuous Wave (CW) Doppler

- Cardiac phased array transducers only
- Steerable through 90°
- Maximum velocity range: 19 m/sec

Broadband Flow Imaging

- Available on all imaging transducers
- Cineloop review
- Dynamic Motion Differentiation with intelligent proprietary algorithms; adapts to various application types to selectively eliminate virtually all color motion artifact
- Chroma colorization with multiple color maps
- 256 color bins
- Color steering on L12-5 linear array transducers: 0° and ±20°
- 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 exam type or is user selectable
- Velocity and variance displays
- Color invert
- Color capture
- Color/2D line density control
- Selection of color bar display units
- Color tag capability

Contrast Specific Imaging (CSI)

- System optimized for detecting harmonic agent signatures—optimized for all available agents
- Available on P4-2, P4-1, C5-2, L7-4, L12-5 38 mm and L12-5 50 mm transducers
- MicroVascular Imaging* for detection of contrast agents in superficial scanning of areas with very low flow velocity and signal strength; available on the L7-4 transducer
- Agent Detection Imaging* for quick verification of presence or absence of contrast agents
- Cardiac applications in 2D Harmonic, Power Contrast Harmonic imaging, Pulse Inversion Harmonic imaging, Grayscale Pulse Inversion Contrast imaging and Power Pulse Inversion imaging

- Available on the P4-2 and P5-3 transducers for cardiology applications and on the C5-2, L7-4, L12-5 and P4-2 transducers for general imaging applications
- Pulse Inversion Harmonic imaging on P4-2, C5-2, L12-5 38mm, L12-5 50mm and L7-4 transducers
- Power Pulse Inversion Harmonic imaging on P4-2 and C5-2 transducers
- Grayscale low MI image blended with fundamental in general imaging applications on the C5-2 and P4-2 transducers
- Surgical contrast options available on the CT8-4 transducer*

Tissue Harmonic Imaging (THI)

- Patented pulse inversion phase cancellation technology
- System processing of second harmonic frequencies (nonlinear energy) in tissue
- Extends high performance imaging capabilities to all patient body types
- Available on the P4-2, P5-3, C5-2, C7-4, C8-4v, P6-3 and L7-4 transducers
- Image display virtually free of artifacts
- Supports SonoCT Real-time Compound imaging (Harmonic SonoCT imaging)

Color Power Angio Imaging (CPA)

- Highly sensitive mode for small vessel visualization
- Available on all transducers
- Fully user-configurable
- Cineloop review
- User-definable presets
- Multiple maps
- Individual controls for gain, filters, sensitivity, echo write priority and color invert
- Dynamic Motion Differentiation
- Adjustable CPA region of interest: size and position
- Background on/off
- User-selectable persistence
- Topographic and high-resolution displays
- User-selectable blend levels
- TGC control

Tissue Doppler Imaging (TDI)

- Velocity mapping of cardiac tissue and vessel wall motion
- Available on the P4-2, L12-5, P5-3, MPT7-4 and BPT9-5 transducers
- TGC control
- Supports harmonic TDI in conjunction with grayscale THI

3D SonoCT Imaging

- Qualitative freehand acquisition supported on all imaging transducers
- 2D grayscale and CPA imaging
- Volume display with surface rendering
- Multiplanar view display
- Full trim tools on both volume and multiplanar views
- Supports SonoCT Real-time Compound imaging (3D SonoCT imaging)

3D Color Power Angio Imaging (3D CPA)

- Provides comprehensive visualization of vascular anatomy
- Volume rendering of CPA images
- Available on all imaging transducers
- Individual controls for manipulating the on-screen 3D rendering and display options

3D Grayscale Imaging

- Provides a qualitative volume display of 2D data set
- Available on all imaging transducers
- Specialized algorithms and maps maximize three-dimensional display
- Individual controls for manipulating the on-screen 3D rendering and display options

Panoramic SonoCT Imaging

- Real-time extended field-of-view composite imaging, acquired in SonoCT mode
- Ability to back up and realign the image during acquisition
- Full zoom, pan, Cineloop review and image rotation capabilities
- Auto fit of composite image
- User can measure distance, curved-linear distance and area in review mode with distance marker displayed via skin-line ruler

- User can display or remove skin-line ruler
- Scaling information will be included for connectivity prints allowing for measurements on a workstation
- Available on linear and curved array transducers

Power Motion Imaging (PMI)

- Highly sensitive mode for visualization of cardiac endocardium and wall motion
- Available on all phased array transducers in cardiac applications only
- Multiple maps
- Individual controls for gain, filters, sensitivity, echo write priority and color invert
- Adjustable PMI region of interest: size and position
- User-selectable persistence
- TGC control

Measurements and Analysis

Measurement Tools and General Description

- 2D distance
- 2D circumference/area by ellipse, continuous trace, trace by points
- 2D curved-linear distance
- M-mode distance (depth, time, slope)
- Manual Doppler distance
- Manual Doppler trace
- Time/slope measurements in Doppler and M-mode
- High Q[®] Automatic Doppler Analysis
- Doppler values including PI, RI, S/D indices
- 2D volume
- Heart rate
- Trackball-controlled electronic measurement calipers: 6 sets
- User-defined protocols, measurements and equations
- On-the-fly measurement labels
- Fully editable results data sheet
- Integrated patient exam report
- ABD (Assisted Border Detection)
 - Available in Acquisition and Review
 - Provides simultaneous left ventricle (LV) endocardial traces for end diastole (ED) and end systole (ES) frames

- Calculates LV volumes and ejection fraction (EF) using Simpson's Rule
- Available for apical 4- and 2-chamber views
- Supports biplane and single plane results
- Tools available for quick trace adjustment, manual trace or reselection of ED or ES frame
- Requires DVS™ technology

Clinical Option Analysis Packages

- Cardiac analysis
 - Volume by area/length method
 - Ejection fraction (via Teichholz or cubed method)
 - Simpson's biplane and single plane
 - LV mass
 - M-mode analysis
 - Doppler
 - Peak and mean gradients
 - Pressure half time
 - E/A ratio
 - Continuity equation
 - Diastolic function
 - Cardiac output
 - Qp: Qs ratio
 - Proximal Isovelocity Surface Area (PISA)
- Vascular analysis
 - Right and left carotid artery protocols
 - ICA/CCA ratio
 - Right and left vertebral flow direction descriptive list
 - Transcranial vasculature protocols (Doppler angle and SV-depth reported)
 - Right and left lower extremity protocols
 - Optional tools: percent diameter area reduction
 - User comments
- OB analysis
 - Fetal biometry
 - Biophysical profile
 - Amniotic fluid index
 - Early gestation
 - Fetal long bones
 - Fetal cranium
 - Other OB measurements
 - 2D echo
 - Fetal heart M-mode
 - Fetal Doppler
 - Echo Doppler

- Gynecology/Fertility
 - Uterus
 - Right and left ovary
 - Right and left follicles
- General imaging
 - General
- Advanced breast imaging
 - Breast
- Prostate
 - Prostate gland
- Pediatric
 - General

High Q Automatic Doppler Analysis

- Automatic real-time and retrospective tracing of:
 - Instantaneous peak velocity (or frequency)
 - Instantaneous intensity weighted mean velocity (or frequency)
- Vascular
 - Automatic real-time display of:
 - Volume flow
 - Time-averaged peak velocity (or frequency)
 - Time-averaged mean velocity (or frequency)
 - Resistive index
 - Pulsatility index
 - Systolic/diastolic ratio
 - Acceleration/deceleration times
- Cardiology
 - Automatic real-time display of:
 - Peak velocity
 - Peak gradient
 - Display of:
 - Cardiac output
 - VTI
 - Mean velocity
 - Mean gradient

Cineloop Review

- Acquisition, storage in memory, and display in real-time and duplex modes of up to 800 frames of 2D and color images or up to 100 seconds of Doppler data and M-mode for retrospective review and image selection
- Extended loop capability up to 1000-frame loops with variable capture rates; allows continuous capture for extended periods in Contrast Specific Imaging*
- Trackball control of image selection

- Variable playback speed
- Choice of loop or sweep playback
- Trim capability
- Functions in:
 - 2D and Tissue Harmonic imaging
 - M-mode
 - PW Doppler
 - CW Doppler
 - Color Doppler
 - Color Power Angio imaging
 - Power Motion imaging
 - Contrast Harmonic Imaging

ECG/Physio

- One 3-lead ECG input
- One external ECG input
- Two physio input channels (1V p-p)
- External pulse-phono module (option)
- External respiration module (option)
- Selectable ECG triggered skipping between 1 and 20

Miscellaneous System Data

Footswitch

- Three pedal
- Allows Freeze, start/stop Doppler scroll
- User definable between Print and VCR Record

Connectivity

- DiskLink
 - Direct digital storage of single frame color and B/W images to internal hard disk and magneto-optical disk
 - Direct digital storage of B/W and color loops to internal hard disk
 - Stores a maximum of 4,500 NTSC/3,500 PAL images to internal hard drive
 - 540 MB magneto-optical disk stores a minimum of 1,680 NTSC/1180 PAL B/W images
 - Password protected access to images stored on the hard drive
 - Fully-integrated interface
 - Supports DEFF compatible printing via optical disk
 - On-screen recall, measurement and text editing
 - Exam directory
 - Delete and replace recalled image capability

- NetLink
 - DICOM 3.0 print and store service class user
 - Fully integrated user interface
 - 10-100 BaseT Ethernet output
 - Transceiver included with NetLink
 - Site configurable IP address
 - Requires 50% available network capacity and RJ45 connectors
 - Performed Procedure Step
 - Storage Commitment
 - Modality Worklist
 - Works in conjunction with RIS systems
 - Automatic entry of patient demographics
 - Provides support for HIPAA requirements to safeguard patient information*
- WebLink™ Server
 - HTTP protocol, HTML format provides World Wide Web compatibility
 - Stores a maximum of 4,500 NTSC/3,500 PAL images
 - Provides access to saved images from a computer using Web browser, e.g. Netscape® 3.0 or higher or Microsoft® Internet Explorer 3.0 or higher
 - Uses lossy JPEG image compression, ratio = 10:1 - 20:1 (typically 16:1)
 - Site configurable IP address
 - Integrated server capability for remote internet/intranet image access
 - Password security

Exam Documentation

- Super VHS VCR
- Color or B/W page printer

DVS Digital Video Streaming and

Digital Stress Echocardiography

- Free-form capture of Full Screen, Dual or Quad image clips
- Optional fully-configurable protocol engine with four standard stress echo protocols and one routine digital echo protocol
- Qualitative Wall Motion Scoring standard with Protocol Acquisition
- User can modify existing protocols or create entirely new protocols
- User can store up to 44 custom protocols; each protocol can have up to 10 stages with 75 views each

- User-configurable capture parameters, including: Capture Format, Capture Length and Compression
- Image capture triggered to the ECG or over time up to one minute
- Capture available in all modes including sweeping Doppler and M-mode
- Protocol suspend at any time to add additional image clips
- Trim, Mix and Match, and Label tools
- Three playback options in Review
- DICOM 3.0 Store and DICOM Scaling
- DICOM Modality Worklist capability
- Standard 3.5" or available 5.25" magneto-optical drive for image transfer and storage
- Three selectable levels of JPEG lossy compression; typical image rotation less than 30:1
- Optional hand controller (standard with stress echo) allows remote access to major system controls, including: Capture, Freeze and Capture Region of Interest (ROI) box position
- NTSC and PAL formats

Electrical Power/Video Parameters

- 100V-120V/50 Hz and 60 Hz – NTSC
- 220V-240V/50 Hz and 60 Hz – NTSC and PAL
- Integrated A/C line conditioner
- Power consumption: 775 to 1,250 watts, depending on peripherals

Safety Requirements

- Electromechanical standards met:
 - C22.2 No. 601.1, Canadian Standards Association, Standard for Medical Electrical Equipment
 - JIS 60601-1, Japanese Standard for Medical Electrical Equipment
 - EN 60601-1, European Norm, Safety of Medical Electrical Equipment
 - EN 60601-1-2 European Norm, Collateral Standard: Electromagnetic compatibility
 - UL 2601-1 Underwriters Laboratories Standard for Medical Electrical Equipment
- Agency approvals:
 - Canadian Standards Association (CSA)
 - CE Mark in accordance with the European Medical Device Directive issued by British Standards Institute (BSI)
 - Japanese Ministry of Health, Labor and Welfare

* All Performance 2003 Upgrade package features/capabilities are available soon.

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Printed in USA 8-02
G59981

CE 0086

ISO 9001

