

**Functional Requirements for Cardiology Ultrasound  
For Minneapolis VA Healthcare System (Station 618)  
Requisition Number 618-B69052**

TRADE IN

*This Cardiology ultrasound will be used for the following clinical applications: General purpose, Echocardiograms, TEE procedures, and vascular.*

Technical Requirements:

- 1) Capable of processing multiple data streams simultaneously
- 2) All imaging modes available on a single transducer
  - a) 2D
  - b) 3D
  - c) M-Mode
  - d) Harmonic Imaging
- 3) Doppler Displays
  - a) Pulsed Wave
  - b) Velocity
  - c) Power - Microvascular/directional
  - d) Duplex
  - e) Triplex
- 4) Minimum monitor – minimum 21 inches
- 5) Touchscreen
- 6) keyboard on touchscreen
- 7) Image storage – minimum 3 days
- 8) One button image optimization
- 9) One button optimization of Doppler
- 10) Programmable protocols
- 11) Four (4) active transducer ports
- 12) Operating system – Windows 7 or above
- 13) Receive ECG information via leads connected to patients
- 14) DICOM 3.0 print, store, commit, and modality worklist
- 15) Beam Steering
- 16) Printer
- 17) Ease of maneuverability
  - a) Screen rotation
  - b) Unit moves up and down both monitor and the control panel
  - c) Size of equipment
  - d) Weight of unit
  - e) Rotation of desktop/control panel
- 18) Encrypted hard drive
- 19) Live 3D quantification tool that calculates the volumes of the LV and LA simultaneously, as well as an LV EF and Stroke Volume in less than 30 seconds
- 20) Ability to image the microbubbles found within the myocardium when using contrast agents to assess LV microvasculature
- 21) Compatible with Philips X7-2t compact Transesophageal transducer (*if the vendor solution is not compatible, please quote a TEE transducer*)
- 22) Ability to enter a standby mode or sleep mode
- 23) Compatible with Syngo Dynamics PACS and the ability to acquire secondary capture for 2D/3D images

Transducer/Probes Requested

- 1) Cardiac 5-1 MHz
- 2) PW/CW Doppler 2 MHz

*Each vendor is to respond with transducers that meet the criteria listed above in the “Transducer/Probes Requested” section. Please include all other transducers offered by your company in the optional section on the quotes.*

Analysis Packages:

- 1) Procedural
- 2) Cardiovascular Clinical
- 3) Automatic Cardiac Motion Quantification
- 4) Cardiac 3D Quantification
- 5) Vascular – measurement and analysis of vessels
- 6) Contrast Card Perfusion

*Each vendor is to respond with analysis packages that meet the criteria listed above. Please include all other analysis packages offered by your company in the optional section on the quotes.*

Support and other Documentation to Provide:

- 1) Please provide the weight of the unit.
- 2) Please provide the physical size (Height, Width, and Depth).
- 3) Provide DICOM conformance statement.
- 4) Provide completed pre-procurement assessment form (6550).
- 5) Provide information about your companies support structure during the warranty period (i.e. a listing of field service engineer locations and availability, support phone number(s), remote support, etc.). Warranty period shall be a minimum of 1 year – part and labor. Contractor shall provide a hard copy of the warranty with the product.
- 6) Please provide version/platform long-range plan.
- 7) Provide 2 copies product service manuals (1 hard copy and 1 digital copy).

Training

- 1) On-site
  - a) Clinical applications **during go-live** - minimum of 2 days (8 hours each day).
  - b) Training should be for both technologists and physicians
- 2) Follow-up
  - a) Applications training to be provided after technologists have hands-on experience with the system - between **3-4 months** following go-live for a minimum of 2 days (8 hours each day).
- 3) Off-site
  - a) Technologists – off-site training – for 2 technologists or physicians
  - b) Tuition and travel (including, but not limited to travel to and from airport, airfare or fuel, lodging, per diem, rental vehicle and incidentals) is preferred.
  - c) This training should be scheduled and completed after the system has been installed.
- 4) Biomedical Technical Training for 1 technician – to include tuition and travel (lodging, rental car, airfare/mileage and per diem). Include training for all courses including any prerequisites.

Trade-in:

EE Number: 88654  
Manufacturer: Philips  
Model: IE33  
SN: B0437R  
Acquisition Date: July 2011