




SPECIFICATIONS OF PORTABLE COLOUR DOPPLER SYSTEM

1. The equipment should be capable of operating in B Mode, M Mode, Color M Mode, Color Doppler, Color Power Doppler, PW modes, one-touch 2D image optimization,
 - a) The system should have an integrated trolley with height adjustable.
2. Triplex imaging should be standard on the system.
3. System should be offered with a 2D frame rate of 700 frame /sec or better.
4. No. of effective processing channels should be 5,00,000 or more.
5. The system must display at a maximum depth of 30 cm and shall process a dynamic range that is at least 150db.
6. System must be offered with the following application: Cardiac, Vascular, Small Parts, MSK, abdomen, Continuous wave Doppler imaging.
7. It must support transducers with linear, transesophageal echocardiography (TEE), Cardiac and curved array probes.
8. The system shall have a broadband architecture with an operating frequency of at least 1 -15 MHz
9. The system shall have the ability to enhance tissue margins and improve contrast resolution by reducing artifacts. Image processing technology to reduce clutter and speckle artifacts.
10. System must be offered with enhanced tissue harmonic imaging in standard configuration.
11. System must be offered with frequency compounding facility or equivalent technology.
12. Equipment should offer auto measurement, 2D, Simpson tool to calculate LV (left ventricle) area and volume, 2D, area-length tool used to calculate LA (left atrium) area and volume, Stress echocardiography.
13. System should have zoom capability.
14. The system shall provide the user with minimum of 8 generic digital calipers.
15. The system must have dedicated calculation packages for all applications.
16. System should have Cardiac Quantification Advanced, 3D Quantification, Cardiac 2D Quantification (a2DQ), Automated Cardiac Motion Quantification, Strain Quantification, Intima-Media Thickness (IMT) measurements, and Microvascular Imaging.
17. The system should offer Laptop style alphanumeric QWERTY keyboard.
18. The boot uptime of the machine should be less than 45 seconds.



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19. The system should have an LCD screen size of 15" inches or better.
20. Equipment should have the facility of 3 lead ECG input.
21. System should have a multiport adapter that allows simultaneous connection of up to three transducers.
22. The system shall have the ability to function by AC power supply or battery power with the same degree of functionality, fully charged new battery yields approximate 45-minute battery life under continuous use without AC.
23. The system shall support the DICOM function with the ability for storage, print, and work list, also ready to connect PACS.
24. The system shall have a Digital Video Interface (DVI), S-Video, VGA, USB, and audio output with provision for a 500 GB HDD.
25. Transducers to be supplied as standard ± 1 Mhz
26. 1-5 Mhz broadband single crystal transducer for adult cardiology application.
27. 3-8 MHz broadband transducer for pediatric cardiac imaging.

Conditions for tender:

1. All accessories should be from the same Original Equipment Manufacturer for the main unit.
2. Instruments must be ISO certified and a copy should be enclosed. (The ISO Certificate must be issued by any organization accredited by the Bureau of Indian Standard or accredited by the international accrediting forum "IAF" (Certificate to be attached).
3. Should be USA FDA and European CE be approved by 4 digits notified body.
4. Other necessary certifications if any required will be provided by the bidder for the smooth functioning of the machine.
5. Installation process should be performed by O.E.M trained service engineers/ service representatives on OEM letterhead or Service Report within 15 days of supply, with the mandatory provision of providing preventive services visit of OEM trained Service Engineer/ Service Representative quarterly per year till the completion of warranty period (i.e., 20 visits for the first 05 years) & further quarterly visits (04 visits/year) year till the completion of CMC period.
6. The supplied equipment to be covered under a 5 years comprehensive warranty and post-completion 5 years paid CAMC, in which all accidental





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damages/ breakage, leakage/ punctures, manufacturing defects and wear and tear of all sorts will be covered.

7. The equipment should have a Brand name/ Model Number embossed/etched on the equipment.
8. All the technical specifications in the compliance statement must be supported by Original Literature from the firm/ O.E.M with highlighting Numbering & flagging of all technical certificates.
9. Offered Equipment should have a strong Government Installation base.
10. Offered Equipment should have a Regional Sales Service Centre of the Original Equipment Manufacturer in the region for a 95 % uptime guarantee.
11. For the offered main unit, the essential, optional required consumables'/accessories' shelf life should be declared on the Original Equipment Manufacturer's letterhead.
12. In case of technical snag/failure/breakdown the response time for the inspection should be within 24 hours and repair within 05 days otherwise provide a service machine/ alternate arrangement to be made till the period of recovery of the breakdown of the unit, failing which attracts penal action as per the decision of institute/ hospital.
13. For offered equipment the Training of technical staff and users should be performed by Original Equipment Manufacturer trained Service Engineers at the proper designated place- at bidders' cost.
14. Company should quote their latest model and need to provide an affidavit for the same.
15. As a tendering process the Demonstration of the offered Equipment is Mandatory at hospital/institute premises or other designated places at the bidder's cost.
16. The bidder must comply with the General Financial Rules and their modifications if any issued by the Government of India- 2017.
17. Any bidder from a country that shares a land border with India will be eligible to bid in the tender only if the bidder is registered with the Competent Authority (i.e., Registration certificate issued by the Ministry of Commerce and Industry (Department for Promotion of Industry and Internal Trade- DPIIT after October 2020). If any such bidder is not registered with DPIIT they will be liable for technical disqualification.
18. Principal (OEM) must authorize only one agent to be quoted in the bid otherwise multiple quotes through different agents in the same bid will be canceled.



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19. The Bidder and its OEM both have to submit a notarized affidavit on the Indian Non-Judicial Stamp Paper of Rs.100/- that the bidder has not quoted the price higher than the current financial year and last financial year supplied to any government Institute/ Organization/ reputed Private Organization. OEM also has to submit that the price quoted by the bidder in the bid is on its behalf and the lowest in the current and last financial year in the country. Therefore, if at any stage it has been found that the supplier and its OEM have quoted lower rates than those quoted in this bid; the Institute (the purchaser) would be given the benefit of lower rates by the Supplier and any excess payment if any, will become immediately payable to the Institute (the purchaser). If such an affidavit is not submitted, the bid will be outrightly rejected. (Part of technical bid).
20. Guarantee / Warranty Period: Separate offers of Comprehensive Maintenance Contract (CMC on main equipment) and Annual Maintenance Contract (AMC on main equipment) for further 5 years after expiry of 5 years of warranty (i.e., 6th, 7th, 8th, 9th and 10th years) in rupees only (and on basis of percentage of price) should be included in a financial bid in the absence of which the offer is liable to be rejected. Payment for CMC/AMC shall be made only after the expiry of the warranty of 5 years, in case the Institute (the purchaser) decides for availing of CMC/AMC services. Contract for CMC/AMC shall be decided on expiry of warranty but rates (not more than 5% inclusive of all taxes for 6th to 10th year) will be frozen at the price of an issued purchase order before the release of payment by the Institute (the purchaser). However, the Institute (the purchaser) may decide not to enter into any CMC/AMC contract without assigning any reason for the same, which shall be binding upon the bid.

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