Notice Inviting e-Tender

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Supply and Commissioning of 2 (Two) units of 3D Echocardiography Machines in Dept of CTVS & CTVA at IPGME & R and SSKM Hospital

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-474/2025	**Dated-05.06.2025**

AMENDMENT-I

REVISED Technical Specification of

Echocardiography Machine (Standalone unit)

Specification	Specification name	Bid Requirement (Allowed values)
Standard	The system must be latest generation, technologically advanced, digital, color Doppler, 2D Echo Cardiology system for adult and Paediatric and fetal application	Mandatory
	The system must be latest version or model till the date of application for technical bidding.	Mandatory
Types of Probes and Features	Cardiac and Vascular Probes Configuration	ALL
	Adult TEE probe 3D and Pediatric TEE probe 3D or 2D compatible with the Echo machine to be supplied. Fetal Echo probe not required	Adult and Paediatric probe for fetal echo
	2D TEE + TTE both Paediatric probe frequency , in MHz	3-8 MHz(±1)
	Vascular Probe	4-12 MHz(±1)

Specification	Specification name	Bid Requirement (Allowed values)
	2D Adult Single Crystal Cardiac probe (TTE) frequency in MHz	2-5 MHz(±1)
	System Should have at least 120 degree field of view in cardiac probes	Yes
	System should have Single crystal Matrix probe technology for adult Cardiac transducer, linear phased Array and Curved Phased array Transducers	Yes
	System Should have framer rates in excess of 2500 fps and minimum Dynamic range of 250 DB	Yes
	Should have at least five frequencies in Tissue harmonic imaging in all imaging models like B, M, PW, CW and CFM	Yes
	Should be capable of doing Mode in real time/stored images and should have a post processing M mode.	Yes
	System should have B Flow and compound imaging for better resolution	Yes
	System should support Speckle reduction imaging for the uniform image quality across all the probes.	Yes
	Should have an advance Stress Echo package capable of acquiring and display of images at true scanner frame rates	Yes
	Should have a digital Stress Echo package capable of acquiring and display of images at true scanner frames rates with: • Both pharmacological and Exercise Stress exam Capabilities • Possibilities to modify and create protocol templates • Image acquisition, reviewing, wall segment scoring and reporting • Possibilities of extensive post-processing of images under review • Zoom capabilities in Stress Echo Review • Should able to use the TVI and Qualification while during the stress.	Yes
	Number of transducer / probe ports	4
	System should have pre-assessments packages Z-score's in pediatrics	Yes
	Digital Cine Replay, Allowing to store and replay ultrasound images including 2D, Color, Color Anglo, Doppler and the Cine Replay should allow the user to change gain, contrast, sweep speed, base line etc image parameters	Yes

Specification	Specification name	Bid Requirement (Allowed values)
	An offline workstation with similar capabilities as in- on – board, analysis and quantification data sets should be available for later use on PC.	Yes
	Offline workstation must have automated Function imaging (RV, LV, LA) Cardiac Auto Doppler, bull's eye report, LVO Contrast, tissue Synchronization image Mode, Wall Motion Scoring	Yes
	Should have capable of calculating Ejecting fraction in automatic mode.	Yes
	System must have more than 70 Lac digital processing mode.	Yes
	Diacom three point zero compliant	Yes
	Should have high end touch panel of at least 12 inches for easy user interface.	Yes
	Monitor display size, cm(in)	21 inch(±1), High resolution, Flat panel
	Should have a display of single, dual or quad images side by side	Yes
	Speckle-tracking strain and strain rate	Yes
	Analysis and Calculation package	2-D wall motion tracking, Cardiac, Mitral valve analysis, user programmable calculations
	Should have built-in CD/DVD Writer for directly writing images on CD/DVD	Yes
	Type of printer provided with the echo cardiac machine	Thermal Printer
	ECG Cable	1
	Should have an integrated hard drive of at least 500GB	Yes
	System should support USB port for storing the images on Pen Drive	Yes
	Software-driven system with raw data storage and advanced post-processing capabilities.	Yes
	System Should have digital image Storage and Patient Archive with true scanner frame rates. When recall the images should able to reanalyze the images with Full Measurement and Analysis capabilities	Yes
Power Requirement	There should be a System integrated keyboard for easy patient data, annotation and report entries.	Yes
	Resettable over current breaker shall be fitted for protection	Preferable
	Power back up	UPS

Specification	Specification name	Bid Requirement (Allowed values)
Miscellaneous Parameters	Warranty	2 years
	Number of installation of the cardiogram machines in Central/State/PSU govt. Hospitals (Note: Seller should supply to the buyer if demanded after placement of order)	At least 3 numbers of the same quoted model.
Additional Parameters	**Cardiac calculations packages (offline workstation and on the system):** • Strain and Strain rate imaging • 2D speckle tracking • Semi-Automated Border Detection Cardiac analysis : Left atrium, Right atrium, right ventricle , Left ventricle, TAVI (Transcatheter aortic valve implantation), Valve stenosis Prosthetic aortic valve, mitral valve TAPSE (tricuspid annular plane systolic excursion), PCWP (pulmonary capillary wedge pressure or pulmonary artery occlusion pressure), Volume by area/length method, M-mode ejective fraction Simpson's biplane and single plane volume and ejection fraction. Cardiac Quantification Tool: • Left ventricle and left atria global volume analysis from 2D and biplane images • Automated border detection for cardiac chambers vessels cavities • Computation of area, LV volume and advances parameters for LV systolic and diastolic function including fractional area change (FAC), ejection fraction (EF), peak ejection rate (PER), peak rapid filling rate (PRFR) and atrial filling fraction(AFF) • Computation of LA area, volumes and advanced parameter including area change (FAC) and ejection fraction(EF) • Automated 2D longitudinal strain quantification Objective assessment of left ventricle global function and regional wall motion deformation and timing using 2D speckle tracking technology. • One-button-push global longitudinal strain • Automated view recognition and lebeling with manual correction • Peak longitudinal strain for each apical view and global average. 18 segments peak-systolic longitudinal strain bull's-eye display 18 segments end-systolic longitudinal strain bull's eye display. 18 segments time-to-peak longitudinal strain bull's eye display 18 segments waveform display for three	Mandatory

Specification	Specification name	Bid Requirement (Allowed values)
	apical view.	
	System should have option for Audit and Pediatric 2D TEE application separately.	Mandatory
	System should be upgradable to AI enabled features in single click 2D strain, single click Auto EF, 2D & Doppler Tracking & measurements	Mandatory
	During Warranty and CMC period free software update if available.	Mandatory
Certification	The bidder/OEM should have valid CDSCO Certificate / Registration / License for both the manufacturer(s) and importer(s) as applicable	