



**MGM INSTITUTE OF HEALTH SCIENCES**  
**CENTRAL PURCHASE DEPARTMENT (CPD)**

Plot 1 & 2, Sector -1 Kamothe, Navi Mumbai - 410209

**eTender of Color Doppler Ultrasound System for Radiology**

Tenders invited from reputed Manufactures of Color Doppler Ultrasound System for Radiology to supply at MGM Medical College Hospital, Chh. Sambhaji Nagar in the format given below:

Name of Vendor: \_\_\_\_\_

Sr. No.	Specifications of Item	Qty.	Make (Offered)	Model (Offered)	Rate per Unit (Excluding GST)	GST %
1	Fully digital high end latest colour Doppler ultrasound system, capable of performing imaging applications in abdominal liver & biliary system	01 No				
2	OB/gynae, musculoskeletal, cardiovascular, small parts, urology, cardiology, Real time 3D, Tissue elastography, contrast etc.					
3	Should have broad band beam former capable of processing signals from 1-20MHZ					
4	Should incorporate facility for high resolution 2D, M mode, PW, Colour Flow Imaging, Colour power Angio imaging, Directional Colour Power Angio imaging modes, live real time 3D/4D					
5	Should have 80,00,000 channel and above					
6	Compatible for full spectrum imaging, Speckle Reduction Filter, Spatial Compound Imaging, Phase inversion Harmonic Imaging, Trapezoidal Imaging & Contrast Enhanced Imaging (Low-MI) Capability of analysing 3D data set					
7	Real time triplex mode facility in 2D, color and Doppler modes.					
8	Dynamic modes of 250db or higher					
	High PRF (mention rate-highest will be preferred)					

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9	Scan depth of 1 to 40cm or more. Please specify through data sheet					
10	Minimum 256 shades of Gray display					
11	Minimum 2000 frames per second or more					
12	Facility for real time and frozen, pan or point zoom.					
13	Cine loop review minimum 8 minutes.					
14	Panoramic extended field of view, should have skin line scaling markers, curved distance measurement tool and zoom, pan, rotate and trim facility to trim panoramic images from start or end of the panoramic capture					
15	Able to adjust the velocity of each waves transmitting through each organs for the workflow of doctor.					
16	Ability to automatically detect and analyze different tissue characteristics & determine optimal signal speed needed for improved image quality.					
17	Realtime/RF data based Automatic IMT detection					
18	Realtime/RF data based Automatic stiffness calculation on vessel diameter over cardiac Cycles					
19	Have infinite focus imaging for the resolution to be maintained.					
20	Independent steering of B mode and colour on linear probe					
21	High resolution enhanced tissue characterisation facility in one touch button					
22	Able to move the control panel up/down, sideways and left/right.					
23	Advanced real time 4D capabilities					

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24	Real time shear wave elastography, both in m/s &Kpa (with faster and more accurate for obese patients) to evaluate relative tissue stiffness of whole body (include MSK) using transducers like convex, linear, endocavity with quality control parameters for accuracy to be maintained.					
25	Upgradable to Fatty Liver Imaging analysis. It should provide the capability to measure, grade and visualize the attenuation coefficient of the tissue for fatty liver evaluation. Quality Reference Display should be available for Accuracy of Reading.					
26	System should be capable to do Contrast Enhanced Ultrasonography.					
27	Automated BIRADS based breast analysis (multi lesion & multi planes)					
28	Automated TIRADS based thyroid analysis					
29	Able to expand the range of visible blood flow to include low velocities and blood perfusions. Should allow to pick up extremely low velocity flows for improving diagnosis.					
30	Should have Micro Vascular Flow imaging with levels selection to visualize hemodynamics in micro vessels without the use of Contrast. It should be possible on 2D & volume imaging with a facility to quantify a given area of interest.					
31	System should have advanced imaging parameters to reduce artifacts and to sharpen image.					
32	Extensive software and automatic and user programmable calculation package for gray scale, color Doppler, Upgradable to 3D and 4D applications.					
33	Should have Automatic pelvic floor application in 3D					

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34	Dedicated package for advanced obstetric study including CNS, Face, spine, long bones, fetal heart delineation through AI based 100% automation under single acquisition process, measurement during labour to assess labour progression. Also, AI based colour and doppler automation protocol is required					
35	Minimum 23'high resolution LED screen monitor with full space dual floating arm (squat scanning, over the bed and stretcher on the floor), with resolution of up to 1920 x 1080 pixel. It should have tilt angle and rotate angle. (specify angle). There should be automatic digital brightness & contrast adjustment.					
36	On board storage facility for atleast 1TB. The hard drive should be inbuilt. System should store atleast 10,000 images.					
37	Able for angle independent vascular hemodynamic analysis up to 1000f/s					
38	DICOM enabled so that it can be connected to existing PACS and HIS of the hospital without additional cost.					
39	Auto face detection, Volume noise reduction, Advanced 3D/4D features like: Multiple volume slicing, Selective volume slicing and simultaneous orthogonal 3D plane view					
40	4D feat echo 2D+ color flow+ power Doppler mode+ spatial temporal image correlation+ multislice mode with cine movement inorder to provide 6 views of the heart					
41	Optimization tool for 3D imaging that removes unwanted noises and occlusions resulting in a clearer image and more natural view for obstetrics analysis.					
42	Features AI based volume imaging to automatically measure the volume of multiple ovaries with color differentiated display and reporting, endometrium.					
43	Features to smartly remove unwanted volume data for visualizing inner organs/Fetal face and realistic views.					

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44	Feature to volume shade imaging for skin tones and shading to improve visualization of 3D/4D with variable light source time.					
45	Fallopian tube patency assessment should support					
46	Fully automatic multi follicle study for 3D ovarian volume imaging					
47	Easy, fast visualisation of blood flow using the amplitude of the color Doppler signal to enhance the robustness and create a 3D like appearance, Effortless visualization of even the tiniest of vessels with a new standard of colour Doppler-Easily visualize small septal defects.					
48	Automated Intra cranial volume evaluation					
49	Full automated single operation based fetal CNS study					
50	Automated tool for pelvic floor imaging					
51	Automated fetal hip diagnosing tool should be available					
52	Upgradable in future to conduct an easy and comprehensive evaluation of the size, shape and contractility of the fetal heart from the 4-chamber view using measurements based on 2D imaging and speckle tracking with an in-depth report page including z-scores and for each of the cardiac measurements.					
53	Touch screen control 13" wide or more with tiltable adjustment for better visualisation					
54	It should be provided with following transducers. a. Convex abdominal 1.5-6MHZ approximately (single crystal) b. Linear probe 3-9MHz (1MHz tolerance on lower and upper limit) c. Endo cavity (TVS+TVS) 3-11 MHz Approx					
55	Minimum 5 active probes					

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56	Possibility to modify/edit patient data during and after exam has been completed.					
57	Should have built in management software, for offline application when patient has gone after examination, such as image manipulation, Multi Planner reformatting, surface & volume rendering etc. It should have hard disk memory of 1 TB					
<b>Terms &amp; Conditions:</b>						
Warranty: Rates should be separate with standard warranty and 5 years warranty (to be quoted separately)						
Post Warranty AMC Rate (in %) with Escalation:						
Post Warranty CMC Rate (in %) with Escalation:						
Kindly email your lowest quotations for above item with detailed specifications and your terms and conditions as well as applicable Brochure / Catlog, Client list with installation Year and their Contact numbers to <a href="mailto:etenders@mgmuhs.com">etenders@mgmuhs.com</a> only.						
<b>Date:</b>			<b>Signature of Tenderer:</b>			
<b>Seal</b>			<b>Name:</b>			
			<b>Designation:</b>			
			<b>Email ID:</b>			
			<b>Mobile No.:</b>			
			<b>Full Address:</b>			