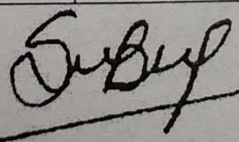


Technical Specification of USG Colour Doppler with 3 Probes (Linear, convex and 4D probe)

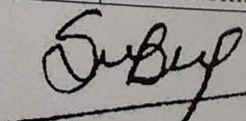
S. N.	Purchaser's Specifications	Bidder's Offer
	USG Colour Doppler with 3 Probes (Linear, convex and 4D probe)	
	Manufacturer	
	Brand	
	Type/Model	
	Country of Origin	
1	Description of Functions	
1.1	A cart-based colour Doppler ultrasound imaging system with 4D probe.	
2	Operational Requirements	
2.1	It shall operate on AC power supply.	
3	Main Unit	
3.1	Fully Digital Colour Doppler Ultrasound DICOM compatible with advance application for General Ultrasound including Abdomen, Obstetrics, Gynecology, Cardiology, Small parts, Urology, Vascular, Pediatrics, Emergency Medicine, MSK, Nerve using Broadband Digital Beam former Technology.	
4	Technical Specifications	
4.1	Imaging Modes: B-Mode, M-Mode, Color M-Mode, Color Doppler Imaging, Power Doppler Imaging & Directional PDI, Pulse Wave Doppler, Tissue Harmonic Imaging.	
4.2	Systems Should have 3 Universal active Ports as standard configuration with electronic switching facility from keyboard without Probe adopter.	
4.3	The System should support broadband and multi frequency probes spanning a frequency of 2-16 MHz	
4.4	The Systems Shall have following Features:	
	Tissue Harmonic Imaging	
	Trapezoid for B image mode	
	Steer scanning for Linear probes (B, Color/Power, PW independent)	
	Spatial Compounding Imaging, available on convex & Linear Probe	
	Frequency Compounding Imaging	
	Extended Field of View Imaging	
	Speckle suppression imaging	
	Power Doppler Imaging, Directional Power Doppler Imaging	
	One key Image Optimization for B, Color, Power , PW Images	
	Zoom function with picture in picture indication on both frozen and live images	
	Zoom for one key image enlarged to full screen	
4.5	System should be capable of scanning depth up to 38 cm or more.	
4.6	System should have minimum 25,000 Digital Processing Channels for high resolution image with high acquisition frame rate	
4.7	System should have a dynamic range of minimum 30-240 dB.	

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4.8	System should have Control Panel with Height adjustments. It should have a Full-sized Alphanumeric Keyboard with Track ball and Backlit Keys.	
4.9	System should be Compact enough to transport within the hospital along with wheel locking mechanism.	
4.10	System should have specific annotation and body markers.	
4.11	System Should have 2D Frame rate of at least 1000 frames/second. Higher is preferred. Acquisition frame rate should be clearly mentioned in the technical quote and supply with the documents.	
4.12	System should have Inbuilt Hard Disk with capacity of at least 1 TB.	
4.13	A complete range of measurement and calculation packages for general and specific application, including Abdomen, Obstetrics, Gynecology, Cardiology, Small parts, Vascular, Urology, and Pediatrics etc. must be available. Support user defined measurement item and obstetric formula.	
4.14	Obstetric Analysis: BPD, HC, AC, FL, GS, CRL, NT, OB table/formula, GA formula	
4.15	Automatic OB Measurement and Calculation must be available	
4.16	System should support Electronic Convex, Electronic Linear & Electronic Sector Transducers.	
4.17	Maximum Cine Memory: 12000 Frames or more.	
4.18	Monitor size should be Minimum 18 inch color LED High Resolution Medical Graded Flat Panel Display with maximum viewing angle & Provision to adjust swivel left/right of -178 to 178 degrees. Resolution: 1366*768 pixel.	
4.19	System must be offered with user-friendly High resolution Multi-touch LED Touch Screen Control Panel which is minimum 10 inch with Resolution:1280*800. Also Support thin latex gloves on touch screen and Touch Gestures.	
4.20	System should have S-Video, HDMI, VGA, USB and Audio output with provision for storage of Images and Transfer to External Devices.	
4.21	System should have feature of Transfer images and reports to PC directly though wired network	
4.22	System should come with DVDRW, USB ports, Ethernet port and should direct connectivity to Laser/Thermal Printer for Printing Images and Reports.	
4.23	System should have following upgradable features. 1. Cardiac 2. Elastography	
4.24	Following Transducer should be available with the Unit:	
4.25	Curved Array Transducer with 3-6 MHz for general Abdominal, OB/GYN, Vascular, Urology Applications.	
4.26	Linear Array Transducer with 6-16 MHz for Small Organ, Vascular, Orthopedics, Musculo-skeletal, Nerve, Pediatric Applications.	
4.27	Real Time 4D Volume Convex Array Transducer with 2-6 MHz for OB/Gyn, Abdomen Applications	
4.28	System should be provided with 1 unit of Black and White Thermal Printer.	


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4.29	The Unit and Transducer should be covered with comprehensive onsite warranty for Two Year commencing from the date of issue of Installation certificate	
4.30	Manufacturer shall commit the availability of spare parts and consumables and accessories for at least 7 years	
5	Accessories, Spare Parts and Consumables	
5.1	All standard accessories/consumables/parts (including 2 bottles of ultrasound gel, 2 rolls of paper) required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.	
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.	
5.3	Online UPS for the main unit should be provided.	
6	Operating Environment	
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.	
7	Standards & Safety Requirements	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND	
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.	
7.3	Electrical safety conforms to standards for Electrical Safety IEC 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment.	
8	User Training	
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users. Training regarding use of 4D probe should be given by manufacturer Company application Engineer.	
9	Warranty	
9.1	Comprehensive warranty for 2 years after installation of the machine.	
10	Maintenance Service During Warranty Period	
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.	
11	Installation and Commissioning	
11.1	Supplier must accomplish proper installation & commissioning of equipment onsite.	
12	Documentation	
12.1	User (Operating) manual in English.	
12.5	Must submit manufacturer's authorization letter	


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