


Technical Specificaitons of Portable USG

S.N.	Technical Specification	Bidder's Proposed Specifications	Page no. in catalog	Deviation (if any)
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	Description of Function			
1.1	Ultrasound is used to create an image of internal body structures such as tendons, Description of Requirement The system shall be designed for multipurpose applications including Abdominal , Obstetrics , Gynecological , Urological , Small Parts , Orthopedics , Pediatrics/Neonatal and Cardiovascular Procedures .			
2	Operational requirement			
2.1	It shall operate on mains as well as battery and must be portable not more than 8kg			
2.2	Shall support Convex, Micro-Convex and Linear, Endovaginal Array Transducers , Multi-frequencies			
4	Technical Specification			
4.1	Ergonomic Operator interface.			
4.2	The system should be equipped with backlit keyboard; For easy and quick access.			
4.3	Shall have built-in lithium rechargeable battery, continuous working for at least 1.5hours			
4.4	Minimum 12" high resolution color LED backlight display with high contrast and wide			
4.5	It shall have minimum 2 active probe ports with capability of connecting any of the			
4.6	Number of processing channels should be 50,000 and above.			
4.7	Frame rate shall be 30 Frames/sec or more.			
4.8	It shall have TGC with 8 sliders and conveniently located in the console.			
4.9	Gain shall be upto 125 dB or more.			
4.1	Grayscale:256 levels (approx.)			
4.11	Cine-Memory: at least 256-frame, bi-directional, can be replayed auto and manual, replay speed can be adjustable, Cine-loop can be saved both in CIN and AVI format			
4.12	The system shall have inbuilt HDD to store about 5000 frames images without loss when			
4.13	Operating and Display Modes : B, B+B, 4B, B+M, M, B+PW, B+Color, B+Color+PW, B+PDI and B+PDI+ PW			
4.14	It shall have scanning depth upto 2 to 32cm, adjustable in 1cm step depending upon the probes.			
4.15	Image Orientation: Left / right inversion , Up / down inversion Image pseudo color display: at least 7 kinds			
4.16	Image Processing: Multi Beam Forming. Phase Inversion Harmonic Imaging, Spatial Compounding Imaging, Speckle Resistance Imaging.			
4.17	It shall have one key store fuction for storage of image.			
4.18	It shall be equipped with puncture guide function with 2 correctable puncture guiding			
4.19	The system should have receive gain adjustable, from 0 dB to 130 dB, 2dB step and Adjustable Dynamic Range from 30 dB to 150 dB			
4.20	Peripheral ports: i) Support USB ports, both for USB disk and report printer ii)Support S-Video and Video output, compatible with PAL and NTSC iii)Support VGA output iv)DICOM output is optional for network			
4.21	The system must include atleast General ,OB/GYN, URO, Cardiac, Vascular, Small parts			

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4.23	<p>Calculation and Measurements :</p> <p>i) Professional software package for different application, including Abdomen, OB, GYN, Small Parts, Urology, Cardiology, Vascular and Pediatrics.</p> <p>ii) General Measurement Items: Distances, Circumferences, Areas, Angles, area, volume, ratio, % stenosis, histogram (B-Mode) Distance, Time, slope, and heart rate (M-Mode)</p> <p>iii) OB measurement: Measurement Items, no less than 15 items, including BPD, HC, AC, FL, GS, CRL, AFI and EFW. Users could switch between different OB tables; Fetal Growth Curves: System can display fetal growth in a graph chart according to some measurement items and their OB table</p>			
4.22	The system should have Probe Frequency ranging from 3.5 MHz - 7.5 MHz supporting all			
5	Accessories, spares and consumables			
5.1	<p>Convex Array Probe, Applications : Abdomen , Gynecology , Obstetrics , Urology , Dominate Frequency: 3.5 MHz , range: 2.0MHz~6.0MHz, With Biopsy Guide</p> <p>Linear Array Probe, Applications : Small parts , Breast , Vascular , Orthopaedics , Dominate Frequency: 7.5 MHz , range: 5.0MH~10.0MHz, With Biopsy Guide</p>			
5.2	USG Paper			
5.3	Thermal Printer for printing reports on Standard Paper			
6	Operating Environment			
6.1	The product offered shall be designed to be stored and to operate normally under the			
6.2	It Should be operated by 220V -230V AC,50/60Hz with line regulation of $\pm 10\%$ fitted with			
7	Standards and Safety Requirements			
7.1	Must submit ISO 9001:2008 & ISO 13485:2003 for Medical Devices			
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			
8	User Training			
8.1	Must provide user training (including how to use and maintain the equipment) at the			
9	Warranty			
9.1	Comprehensive warranty for 2 year after acceptance.			
10	Maintenance Service during Warranty Period			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
11	Installation and Commissioning			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified			
12	Documentation			
11.1	User (Operating) manual in English.			
11.2	Service (Technical / Maintenance) manual in English.			
11.3	List of important spare parts and accessories with their part number and costing.			
11.4	Bidder should be provide certificate of calibration and inspection from the manufacturer			


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