

No. IV-21011/10/2010-Prov-I  
Government of India  
Ministry of Home Affairs

26, Man Singh Road, Jaisalmer House,  
New Delhi, 16.8.2010

To, 8/09 P.B.N. 16/09 3/09 9/06 16/09  
The DGs: Assam Rifles/BSF/CISF/CRPF/ITBP/NSG/SSB/BPR&D

Subject:- Specifications of various Medical/Hospital Equipments -regarding

Sir,

The Specifications for the following Medical/Hospital Equipments have been accepted and approved by the Competent Authority in MHA and the same are enclosed for information and Record:-

1. Phaco Emulsification Machine-Annex-I
2. USG Colour Doppler-Annex-II
3. Eye Operating Microscope--Annex-III

2. Henceforth, all the CPMFs should procure the above items required by them strictly as per the laid down Specifications.

o/c Yours faithfully,

(S.B.Nanda)

Under Secretary to the Govt. of India

Encls: as above

Copy to:-DD(Procurement),MHA


Copy for information to:-PS to JS(PM),MHA

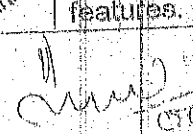
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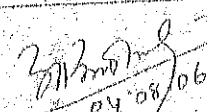
**TECHNICAL SPECIFICATIONS FOR MULTI-PURPOSE DIGITAL COLOUR  
ULTRA SOUND SYSTEM (COLOUR DOPPLER)**

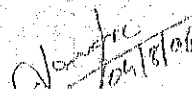
Advanced versatile colour Ultra sound System suitable for performing all general multipurpose studies including abdominal, vascular, Ob/Gyn, small parts and intracavity applications.

A	General
1.	Fully digital, wide band and multi frequency technology
2.	High resolution 2D and M-Mode Duplex and simultaneous Pulse wave Doppler, Triplex display modes, colour flow imaging, flow mapping and power angio.
3.	Multi-frequency with hyper broad band with transducers preferably with digital beam former technology.
4.	Extensive calculation packages
5.	Inbuilt digital image archiving
6.	The unit should work on 220-240V, 50Hz power supply.
7.	System should have inbuilt trolley as part of the system.
B	<b>Key Board</b>
	Complete alphanumeric key board with tactile feed back keys, Track ball, Backlight keys and controls.
C	<b>Video Display</b>
	15" High resolution non interlaced flicker free colour monitor with tilt and swivel facilities.
D	<b>Software</b>
1.	256 Grey shades or more
2.	2 D Mode frame rate up to 200fps, 25 fps in CFM
3.	TGC slide pots control enabling multi step transmit focusing
4.	Magnification in real time and frozen mode
5.	Scrolling facility
6.	Trackball with multiple calipers for measurements
7.	Heart rate calculation/2D circumference by ellipse/trace
8.	Gain 2D: 0-40dB; CFM: 0-20 dB and Doppler: 0-30 dB
9.	Microprocessor based, Advanced parallel digital signal processor.
10.	Transmission upto 4 focal zones
11.	Digitally controlled dedicated transmission frequency and reception band with
12.	Dynamic focusing and automatic dynamic adjustment of receiver band width for each depth
13.	Dynamic range control to enhance contrast and reduce weak echoes
14.	Signal and dual screen formats
15.	Steerable PW and high PRF
16.	Multi-frequency Doppler modes, spectral colorization
17.	Velocity variance and Power mode
18.	Automatic 2D/CFM image update when adjusting Doppler cursor position.
	Tissue Harmonic imaging for hard to image patients as standard features.


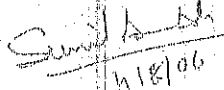
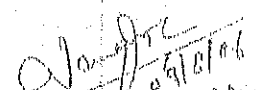
  
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 Anil D. G. (Medical)  
 123 Camp, Tigr, N. Delhi-62

  
 Smith  
 4/11/06

  
 Anand  
 04/08/06

  
 Anand  
 10/11/06

	20.	Post processing capabilities should be possible on all operating modes.
	21.	System should have optional (upgradable) 3 D rendering facility
E		<b>Image Memory</b> Image storage facility of 1000 or more 2 D and colour images on transferable Media (Floppy/MOD etc)
F		<b>Settings</b> Application based presets for fast and easy imaging.
G		<b>Image Control</b> Freezer/Unfreeze Left/Right Up/Down Video Invert
H		<b>Documentation</b> Output ports for Thermal Printer, Multi-Format cameras and Color Printer.
I		<b>Upgradable to Digital Archiving Option</b> Option of field upgradeable inbuilt hard disc (more than 20 GB memory) with flexibility to -- Review the stored images in single frames and cine loops Integrated CD read/write drive to store and review image on CD With option of storing images in different formats including AVI Discorn 3 compatible Transfer to personal computer via PCMCIA Report format
J		<b>Measurements</b> Calipers: 2D distance, area, ellipse, angle, volume M-Mode distance, time, slope, HR PWV, velocity, speed gradient, frequency, P1&R1 RI, V, strain/V.max, heart rate, blood flow CFM distance area, ellipse, angle, velocity, profile, frequency.  <b>Annotations</b> User defined annotation list Text, arrows, body marks  <b>Patient report</b> Automatic selection of relevant measurements from patient report Comprehensive report for each clinical application.
K		<b>Input/Output connectors</b> S-VHS Video in & out VHS video in & out Audio in & out PAL compatible Composite video out for B&W and colour video printer RGB & composite sync. Video out. Serial port for peripheral devices Parallel port for inkjet printer USB port for data transfer to PC
L		<b>Transducers</b> System should have minimum 3 active probe connectors as standard System should be capable for supporting Convex Electronic




  
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 Dr. S. Suresh  
 Dr. R. Mohan  
 Dr. P. C. Varughese  
 Member

	Phased Array and Electronic Intra-cavity probes with working capability on multi frequencies.
	System to be quoted with following transducers:
	<ol style="list-style-type: none"> <li>1. Electronic Curved array transducer from 3 to 5 MHz with multi frequency selection, High density probe with minimum 128 channels.</li> <li>2. Electronic 4-9 MHz Endovaginal / Endovaginal probe with multi frequency selection with FOV angle of 115 or more</li> <li>3. Electronic multi frequency Linear Array probe 5-7 MHz</li> </ol>
	<b>System should be provided with the following essential accessories</b>
	<ol style="list-style-type: none"> <li>1. System should have facility to be upgraded and all software upgraded should be supplied free of charge for next 5 years.</li> <li>2. UPS of appropriate rating should be provided with the system</li> <li>3. Compatible high resolution colour inkjet printer with PC for printing colour Doppler images.</li> <li>4. Minimum 2 years guarantee on the whole equipment.</li> <li>5. AMC charges are to be quoted for subsequent 3 years after the warranty.</li> </ol>
MR	<b>Conformity</b>
	Firm must certify the conformity/deviation of specification on each point with advantages if any. Data sheet is to be provided and each point is to be noted in the data sheet.
	Firm must have local office, sufficient trained personnel and provide list of installations in Delhi and other parts of India highlighting the Govt. institutions.
	Models quoted should meet all specifications Firms should quote latest models only along with month/year of product launching
	<b>Optional</b>
	Cardiac Imaging package with cardiac probe to be quoted.

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Presiding Officer

Member - I

Member - II

Member - III

*(Signature)*  
 (Dr. A.K. Kaur)  
 Commandt (Medical)  
 FHO SSB

*(Signature)*  
 (Dr. Sunil Sumblil)  
 2 I/O (Medical)  
 25<sup>th</sup> Bn. Ghilmari

*(Signature)*  
 (Dr. R. Mohanty)  
 Dy. Commandt (Med)  
 MTC Shimla

*(Signature)*  
 (P.C. Varughese)  
 Lab. Technician  
 FHO SSB

Presiding Officer

Member - I

Member - II

Member - III

Distal Imaging should be included as a part of the system is not an option

(2) System must have a comprehensive guarantee for 5 yrs alongwith 5 years comprehensive AMC for all parts from vehicle to will be placed. This shall also include all electronic parts & transducers.

(3) An understanding from the principal manufacturer is to be provided to effect that spares will be available for at least 10 years