TECHNICAL SPECIFICATIONS FOR ULTRASOUND COLOUR DOPPLER SYSTEM

This ultrasound machine should be a state of the art Colour Doppler System with full digital technology for the applications of cardiac and peripheral vascular applications.

1. Description of Function

COLOUR DOPPLER SYSTEM WITH ADVANCED 2D FACILITY.

2. Operational Requirements:

2.1 Latest generation Electronic Phased array Doppler system with Minimum 1000 Electronic independent channels. System should be DICOM ready .

2.2 . All new software should be upgraded free of cost for at least 3 years on site.

3. Technical Specifications

3.1 Latest generation Electronic Phased array Colour Doppler system with Minimum 1000 Electronic independent channels.

3.2 256 gray shades for sharp contrast resolutions

3.3 Adult Trans thoracic Cardiac Probe to be supplied which should be latest generation broad band transducers.

3.4 Harmonic Imaging- System should have Harmonics on all the probes .

3.5 Trapezoidal Image on B / Colour.

3.6 Automated Gain control for additional level of flexibility to image quality control.

3.7 Real time high frequency 2D for higher resolution.

3.8 High-definition acoustic zoom for enlarging sections of 2D and Colour flow images with more acoustic information for greater clarity and detail while maintaining an optimal frame rate.

3.9 Modes –2D, M-Mode, Anatomical M mode,colour M mode Steerable PW/CW Doppler, Colour Doppler, and Colour power angio imaging and Directional colour power angio. Dual mode. Duplex mode of 2D & Doppler.

3.10 Monitor should be 15" or more, high-resolution Colour Monitor.

Tilt and Swivel monitor should be able to view in all angles and all light conditions.

3.11 Tissue Colourization (B-Colour) for improved contrast resolution

3.12 Software for Adult Cardiac application, advanced cardiac calculation, Measurement and Cardiac analysis, Carotid & other Peripheral Vascular presets. (All application package should be built into the system)

3.13 Cine loop memory.

a. High Frame rate review for better clarity of playback images study in slow motion.

3.14 ECG facility.

3.15 User defined system and application presets for multi-user department.

3.16 Minimum 250 GB hard drive for image storage and retrieval.

3.17 Two or more transducer port.

3.18 USB port for recording.

4. System Configuration Accessories, spares and consumable

4.1 Transducers

A. 2 - 4 MHz broadband phased Array transducer

B. 3 – 12 MHz broadband linear Array transducer

4.2 B/W thermal printer of latest model
4.3 DVD/CD Recorder with DICOM media transfer

5. Environmental factors

5.1 The unit shall be capable of operating continuously in ambient temperature of 30 deg C and relative humidity of 80%.
5.2 Pre Requisites should be clearly spelt out in terms of room requirements.

6. Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2 Resettable overcurrent breaker shall be fitted for protection
6.3 Suitable Servo controlled Stabilizer/CVT
6.4 Online UPS of suitable rating with voltage regulation and spike protection for 30 minutes back up.

7. Standards, Safety and Training

7.1 Should be FDA or CE approved product
7.2 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
7.3 The product shall comply to IEC 60601-2-37 ed1: Medical Electrical Equipment - Part 2-37: Particular Requirements for the Safety of Ultrasonic Medical Diagnostic and Monitoring Equipment
7.4 Type of protection against electric shocks -- Class I Degree of protection against electric shocks for ultrasound probes Type "BF" For ECG electrodes Type 'CF"
7.5 Manufacturer/Supplier should have ISO certification for quality standards.

8. Documentation

8.1 User manual in English.
8.2 Service manual in English.
8.3 List of important spare parts and accessories with their part number and costing available in stock with the supplier.

9. Maintenance and Serviceability

9.1 Minimum 2 year onsite comprehensive guarantee.
9.2 Optional Service agreement after Guarantee period
9.3 Online phone Support
9.4 Clinical application support

10- - Vendor has to support the specifications with manufacturer's brochure failing which offer will be rejected. Vendor has to demonstrate the equipment within specified time limit, if asked for; failing which offer will be rejected.