

## Specification of fully digital whole Body Colour Doppler System Obs and Gynae Sonography Machine

### 1. Name of the instrument & description ( Salient Features ) :-

- a. Fully digital whole body colour doppler .
- b. Equipment is capable of operating in B, M , Doppler , Colour flow & Power Doppler modes .
- c. It contains full compliments of measurements & calculations packages .

### 2. System Design :-

- a. 15'' High resolution flat display .
- b. All digital beam former .
- c. Tissue Harmonics Imaging .
- d. Simultaneous 2D colour Doppler Pulsed Doppler .
- e. Dual composite images ( Dual dynamics Imaging B+C live )
- f. Zoom with Pan .
- g. Colour power Angio/Power Doppler imaging .
- h. Trapezoidal Imaging .
- i. Two universal transducer ports .
- j. Harmonic imaging facility available .
- k. The system can provide 4 display format on a single monitor .
- l. System have data processing technology .
- m. System has 25GB (over 30,000 images) HD storage.

### 3. B mode / M mode Imaging :-

- a. System has cine play back function for B/M mode with higher frames ( over 1300 ) .
- b. The system has 8 focal zones Markers in B mode for managing 4 gray scale resolution .
- c. The system has 256 gray scale levels on the display ,
- d. The system has multiple maps to colourize gray scales images in order to highlight specific gray scales .
- e. The system has user programmable preset for optimizing / tissue/specific functions that optimizes the B/M mode parameters for image display on the screen .

4. CF/Power Doppler:-

- a. The system provides power Doppler & directional power Doppler maps .

5. Doppler :-

- a. Automatic wave form trace to simplify Doppler measurements .
- b. Auto Doppler statics for real time display of spectra Doppler measurements & calculations including PS ,ED , MD , TAMx , TAM<sub>N</sub>, PL , RI , HR & S/D .
- c. System provides the user to change parameters like Gain , Dynamic range , sweep speed , base line change & invets of image .
- d. Angle correction with automatic adjustment of velocity (or frequency ) scale .
- e. Automatic real time tracing of insalubrious peal velocity .

6. Vascular :-

- a. Automatic real time display of volume flow time averaged pack velocity ( or frequency ) time average mean velocity (or frequency ) resistive index , pulsality index ,systolic /diastolic, reaction , acceleration , deceleration times .

7. Image Measurement:-

- a. The system have one board archive capability with easy & rapid storing retrieval .
- b. High onboard storage capability of images.
- c. System has ability to store still and sine images on to an onboard CD Rome directly from the machine .

8. Transducers :-

- a. Convex probe 2 to 5 Mhz wide band Probe with harmonics imaging .
- b. Endocavity Micro Convex 4 to 9Mhz/5 to 9 Mhz wide band Probe .

## SCOPE OF SUPPLY

1. Two sets of operational and maintenance manual with complete circuit diagram .
2. U P S – Un interrupted power supply ( American Power Company )
3. List of customers to whom machines were supplied and certificates of good performance and after sales service from the customers .
4. Equipment should be suitable on BHEL power supply of  $230\text{ V} \pm 15\%$ ,  $50\text{ Hz} \pm 3\%$  single phase AC supply and suitable Voltage stabilizer (UPS) .