## SPECIFICATIONS OF SONOGRAPHY COLOR DOPPLER SYSTEM

The system should be state art with full Digital Technology & should be capable of whole body sonography & other application for adult & paedtrics (Infants & neonates) which including Abdominal, Obs / Gyn, Endovascular, Peripheral vascular, Transcrainal, transvaginal, transrectal & small parts.

- 1. The system should incorporate facility for high resolution 2D, 3D, M Mode, PW color flow imaging, Power Doppler Angio Imaging Modes.
- 2. The equipment should have more than 20000 Digital Channels & on the site to higher numbers of channels, Higher number of channels is Preferred.
- 3. The system should have 256 Grey shed or more.
- 4. All Transducer have Broad Bandwidth for extreme High resolution 2D imaging. Frequency range of transducer should be 2 to 12 MHz or more.
- 5. System should have advance image processing algorithms to analyze between targets & artifacts so as to sharpen target anatomy, reduce the sparkle & artifacts for improve image quality.
- 6. The system should have a high Dynamic range of 170 DB or more. Higher dynamic range will be preferred. Scanning depth 30 cm or more.
- 7. The system should have a very high frame rate of 700 frames per second or more. Please specify frame rate in triplex mode.
- 8. The system should have Harmonic imaging for tissue for hard to image patients. The system shall support Tissue Harmonic imaging capability on phased, linear, 3D and curved array transducers.
- 9. The system shall offer Harmonic imaging in Power Doppler imaging mode for improved sensitivity & specificity in differentiating blood/Agent from Tissue.
- 10. The system should have a full alphanumeric key Board with illuminated keys & status Display.
- 11. The System should be able to support at least three Transducers with universal ports allowing any transducers to be connected to any Port.
- 12. The system should have high Regulation fully articulating non interlaced full flat TFT/LCD Display of 17 inch or more, with Tilt & swivel facility.
- 13. The system should have facility for Zoom (Real-Time & Frozen image) & manipulation of image through pre processing & post processing with cine loop viewing image of all modes.
- 14. System should have disc of at least 150 GB or more.
- 15. The system should have facility of digital storage & retrieval of B/W & color image data (Both frozen & cine loops) on built in as well as ramble media (CD,DVD) USB Port.
- 16. The system should have automatic real time quantification of Doppler parameter like velocity, frequency, time heart rate slop, flow volume, plasticity index, resistivity index, peak velocity, average value, point value, area & diameter flow volume etc.
- 17. The system should have capability of triplex display in real time with all probes.
- 18. The system should have extensive calculation software packages for general measurement, Obs/Gyn, Vascular, Paediatric
- 19. Machine should be supplied with following transducers:-
  - I. Board band convex array Transducer with multi frequency range of 2 to 5 MHz or wider range -1 No.
  - II. Broad band transvaginal/ transractal Probe with multi frequency range between 5 to 8 MHz or wider range 1No.
  - III. Linear probe Transducer 5 to 12 Mhz or more. 1 No.
- 20. The System should have the following documentation devices
  - a) Laser color printer for color image printing
  - b) B/W Thermal printer of latest model
  - c) Glazed thermal paper Rolls 50 no. & 5 rim of Glossy paper sheet.
- 21. All information in the tender document must be supported with product date sheet. Companies should quote the latest model.
- 22. UPS of appropriate rating for 30 minutes should be provided with the system
- 23. One split A/C of 1.5 tone of reputed make.
- 24. Comprehensive guarantee of complete unit including probes & A/C for 3 years
- 25. Comprehensive CMC of complete unit including probes for 7 years
- 26. The unit should be approved by US FDA /European CE to other international accreditation.
- 27. The company should have a local service center.
- 28. The company should have proven track record in Govt. sector list of previous installation to be submitted.

Executive Director (EPM)

Rajasthan Medical Services Corporation Ltd.,

Jaipur