

(12)

**TECHNICAL SPECIFICATION OF HIGH END COLOR DOPPLER  
ULTRASOUND SYSTEM**

REVISED 19/4/14

**MAJOR PARAMETER**

S.No.	TECHNICAL SPECIFICATIONS
❖	It should be robust state of art, fully digital high end latest Color Doppler Ultrasound System capable of performing imaging applications in abdominal, obs/gynae, musculoskeletal, cardiovascular, small parts, Urology, Cardiology, TCD etc.
❖	System should have broad band beam former capable of processing signals from 1-16 MHZ.
❖	System should in corporate facility for high resolution 2D, M-mode, PW, CW, Color Flow Imaging, Color Power Angio imaging, Directional Color Power angio imaging modes, 3D/4D.
❖	System should have Full Spectrum Imaging, Speckle Reduction Filter, Spatial Compound Imaging, Pulse Inversion Harmonic Imaging , Trapezoidal Imaging & Contrast Enhanced Imaging (Low-MI),
❖	System should have Oblique View, Multi Slice View, OVIX (Oblique View Extended Imaging), Multi OVIX, Volume Contrast Enhancement (VCE), Volume CT.
❖	System should have to provide Quad Imaging with B, B+C, B+PW, B+M etc.
❖	System should have real time triplex mode facility in 2D, color and Doppler modes.
❖	System should have dynamic range of 200 db or more.
❖	System should have high PRF (mention rate-highest will be preferred).
❖	System should have scan depth of 2 to 30 cm or more. Please specify through data sheet.
❖	System should have 256 shades of gray display.
❖	System should have minimum 900 frames per second or more. Please specify through data sheet.
❖	System should have facility for real time or frozen, pan or point zoom.

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❖	System should have cine loop review minimum 5400 frames.
❖	System should have minimum 125000 or more receiving channels. Please specify through data sheet.
❖	System should have panoramic extended field of view for convex & linear probe.
❖	System should have Independent steering of B mode and color on linear probe.
❖	System should have Advanced 4D capabilities.
❖	It should have cardiac package for adult and fetal echocardiography.
❖	It should have extensive software and automatic and user programmable calculation package for gray scale, color Doppler, 3D and 4D applications.
❖	It should have minimum 19" high resolution medical grade LED/LCD screen monitor with articulated arm.
❖	System should have Touch Screen Control 9" wide or more.
❖	System should have cardiac quantification like stress and strain. (upgradable)
❖	System should have one click color optimization for getting 3D Clinical data (face etc.)
❖	System should have capability of splitting the screen horizontally while doing dual imaging.
❖	System should be capable of sending structured reporting by DICOM 3.0.
❖	<b>System should be provided with following transducers: 192 Element probes.</b>
❖	Convex Abdominal 2-6 MHZ Approximately.
❖	Endocavity 4-9 MHZ approx. with 140 degree Radius.
❖	Linear high frequency 5-13 MHZ approx.
❖	Phased Array Sector 2-4 Mhz. approx. (for Cardiac)
❖	Convex 4D probe 2-6 Mhz approx.
❖	Endocavity with 4D capabilities 5-9 Mhz. approx.
❖	The system shall have four universal transducer ports with electronic switching capability allowing any transducer to be connected to any port.
❖	System should have built in Image Management Software, for off line application when patient has gone after examination, such as Image Manipulation, Multi Planner reformatting, surface & volume rendering etc. It should have hard disk memory of 500 GB

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	or more with built in CD/DVD read write.
❖	System should have Elastography Imaging to evaluate tissue stiffness of breast, prostate and small parts applications on Linear and Endocavity Transducer with elastic quantification (upgradable)
❖	System should have automated 3D calculation of NT/IT (upgradable)
❖	System should be upgradable to HDVI/TEE Probe capabilities.
❖	System should be have MXI (Volume Slice View, Mirror View) (upgradable)
❖	Please respond to each specification in the same format and order and support it with product data sheet.

#### Accessories (Essential)

- 1) Reputed make B/W Thermal printer with 10 Rolls.
- 2) Reputed make online UPS of 2.5 KVA.

#### Optional

- 1) Liner H/F probe 5-13 mHZ for MSK.
- 2) TEE Probe 3-7 mHZ.

Minor Parameter - NIL

#### SPECIAL CONDITIONS

- 1) Offered system must be USA FDA & European CE approved.
- 2) Firm should have a high reputation in national/International market for more than 10 years.
- 3) Firm should given the name and address of Institution where similar unit is supplied in last 03 years.
- 4) Firm should give the copy of purchase order of similar unit supplied for verification of rates.
- 5) Warranty required is 03 years.
- 6) CMC/AMC rates should be given for five year after expiry of warranty period.
- 7) Name of local or nearest service centre should be given for after sales service.
- 8) Inspection of similar unit supplied may be required before purchase.

*MJP*  
19/11/14

**Annexure-II**

To be submitted by the firm along with offer-

Tender specification	Specification quoted by the firm	Deviation if any with clarification