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No. F-8(171)RMSC/EPM/M-3/2016-17/NIB-182/ 4897

Dated: 18/11/16

CLARIFICATION/CORRIGENDUM/ADDENDUM

Subject: Revised Technical Specification of item Echocardiography System under NIB No. F-8(171)RMSC/EPM/M-3/2016-17/NIB-182/4351 Dated: 17.10.2016.

In Reference to subject cited above and NIB-182, the various representations received from the firms and issues raised by the Bidders are examined by the competent Authorities and technical committee. The following Corrigendum/Addendum is issued for inclusion in bid document & Technical Specification of items (Section-V, Schedule of Supply, Point no. 3) as below:-

REVISED TECHNICAL SPECIFICATION OF ECHOCARDIOGRAPHY SYSTEM

1. The system should be a Color Doppler Echocardiography all digital beam former system with super computed signal processing and clinically proven imaging technologies.
2. System must be offered with 2D, M - mode, Anatomical M mode, Color M - mode, Color Flow, PW Doppler, CW Doppler and Directional Color Power Doppler.
3. The system shall be capable of providing the following imaging and operating modes.
4. B, M, LPRF, HPRF, CW, Colorangio, Tissue doppler, Fully Steerable Pulsed Doppler.
5. Fully Steerable Continuous Wave Doppler with real time 2D images / Triplex Mode.
6. Digital Cine Replay of all imaging and Doppler modalities.
7. On-Screen Image Clipboard Storage & Image Recall.
8. Digital Image Storage and Patient Archive with true scanner frame rates. When recall the images should able to reanalyze the Images with Full Measurement and Analysis capabilities.
9. Should be capable of doing M Mode in real time / stored images and also should have a post processing M mode with 360 degrees Rotatable cursor. System should also be capable of curved M mode to track LV function
10. System must be offered with at least following applications. : Adult Cardiology, Pediatric Cardiology, Neonatal cardiology, Fetal Echo & Vascular. TEE
11. System must be offered with Speckle Reduction imaging algorithm: image processing technique to remove speckles and clutter artifacts.
12. Frequency processing facility for the transducers should be 2 - 15 MHz ± 2 , this must be available without the need for frequency switching & support to Convex, Linear, Phased array, TEE etc.
13. System must be offered with a minimum of 45000 or more digital processed channels per image frame. Technical data sheet should be enclosed in technical bid to support the number of channels.
14. System should be provided with ECG facility.
15. System must be offered with dynamic range of at least 100dB or more to pick up subtle echoes. Dynamic range in dB must be clearly mentioned in the technical quote.
16. System must be offered with minimum 17 inch or more medical grade flat panel display monitor with ergonomically adjustable positions with swivel facility.
17. System should have 256 gray shades or more.
18. Independently selectable gain Control in Lateral plane or better technology.
19. Triplex Imaging should be standard on the system.
20. Dedicated cardiac & vascular calculation package with various parameters is essential.

2M

21. System must be offered with Cine loop review facility; Should be able to acquire and display up to minimum 900 frames or more of 2D and color images for retrospective review and image selection.
22. Digital Cine Replay, allowing to store and replay ultrasound images including 2D, Color, Color Angio, Doppler, and The Cine Replay should allow the user to change gain, contrast, measurements etc image parameters.
23. System must be offered with a single button control for automatic optimization and adjustment of TGC and Receiver Gain to achieve optimal uniformity of image quality and faster scans. This should be demonstrated to the users in vascular exams during technical demonstration.
24. Should have an advanced Stress Echo package capable of acquiring and display of images at true scanner frame rates.
25. 10. Should have a Digital Stress Echo package capable of acquiring and display of images at true scanner frame rates.
26. System must have at least three Active Imaging Transducer Ports with electronic switching.
27. Storage – Should have greater than 100000 image storage facility in the system hard disk drive. System should have extensive image management capability including thumb nail review; Cine loop editing etc., System must have at least 160GB hard drive space.
28. IMS(additional console) should be provided with image viewing & storage facility system should be of at least following configuration Processor i5, Ram 2GB, 500GB HDD, Laser printer.
29. Archive – Should have facility to transfer images to an integrated CD writer, without any interfacing. Specify if integrated CD writer is available in your technical quote.
30. Data transfer facility should be available as standard; to transfer images easily onto another system /computer etc. System should support all the DICOM 3.0 or latest functionality & online transfer of data, storage print & also ready to connect to PACS.
31. Should have direct connectivity to laser & thermal printer for printing images & report.
32. System should be supply with following transducer probe:
 - a. 2–4 MHz Broadband Adult Echo Transducer
 - b. 3–8 MHz Broadband Pediatric Echo Transducer
 - c. 3-12MHz broadband linear array transducer for vascular imaging
33. Note: All transducer probe frequency ± 2 MHz will be considered
34. The System should be fixed on premium quality trolley with castors.
35. Online UPS of suitable rating with at least 30 minutes backup should be provided.
36. One split AC at least of 1.5 ton of reputed make should be supplied with system in compliance to following technical specification.

1.	Star rating: EER 3.50 or above
2.	Cooling Capacity (Watts): 5000 or more
3.	Compressor Type: High EER Rotary
4.	Air circulation (CFM): above 850
5.	Moisture Removal (L/hr):above 1.5
6.	IDU Noise level (dB): ≤ 50
7.	Control: Microprocessor controlled codeless remote
8.	Power Source (V/Hz/ ϕ): 230/50/1
9.	Display: LED/LCD/Digital Display
	Voltage Stabilizer
1.	Voltage Stabilizer Wall mount type with No time delay, High & Low voltage & Thermal overload protection
2.	Capacity: 4KVA
3.	Guarantee: 2 years
4.	Input Voltage: 130-300 V

5.	Output Voltage: 200-240 V
6.	High Voltage Cut Off: 240 V
7.	Efficiency: >95%
8.	Frequency: 50 Hz
	Maximum Permissible time for breakdown call services is 48 hours and call may be logged through phone, Fax, e-mail, or letter.

37. Should be supply with glazed thermal paper roll 50 nos., Glossy paper 5 rim, 1 spare ECG lead, 5 numbers jelly bottle. System should be supplied with User/Operational Manual & service manual & other required literature in 2 copies at least for each.
38. Three years comprehensive guarantee on complete unit including transducer & additional supplied parts like A.C,UPS etc., With 5 years quoted CMC including probe shall be awarded @5% of basic cost of equipment+ service tax (as applicable) with yearly escalation of 5% on last year's CMC price.
39. Unit should be US FDA, European CE & ISO 13485 certified.
40. Supplier should have Rajasthan based service engineer for post installation services.

Please note that all clarification/amendment/corrigendum in technical specifications/bid conditions is the integral part of the bid document. This corrigendum/ addendum should be signed and annexed with bid document.

All other terms & conditions remains the same.

This bears the approval of M.D., RMSCL, Jaipur.

Executive Director (EPM)

RMSC, Jaipur

