To: Chhatrakot Rural Muncipality, choyega, Gulmi
Technical Specification of Colour Doppler Ultrasound Machine

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Manufacturer	**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Functions:**			
1.1	A fully digital high-end colour Doppler Ultrasound DICOM compatible system with digital broadband beam forming capable of performing imaging application in Abdominal, Obstetrics, Gynecology, fetal heart, Cardiac, Vascular, Musculoskeletal,Urology, Small parts etc.			
2	**System Configuration:**			
2.1	Digital colour Doppler ultrasound with high resolution Imaging complete system. Convex probe (2 MHz to 8 MHz) Linear probe (5 MHz to 12 MHz) Required accessories and consumables			
3.	**Technical Specification:**			
3.1	System should have automatic and user programmable software for 2D Imaging, 3D imaging			
3.2	The system should have the following modes:2D, M, Pulse Wave (PW), Spectral Doppler Mode, Color Doppler,Power Doppler Advance Modes Like: Tissue Harmonic Imaging, Trapezoidal Imaging, Panoramic Imaging,Quad Imaging, Dual Imaging, Upgradable: Strain-based ElastographyImaging, Colour Power Angio Imaging, and comprehensive Real time 3D/4D modes.			
3.3	System should have Advanced Image Processing algorithm to analyses between targets and artifacts to sharpen target anatomy, reduce the speckle & artifacts to improve image quality.			
3.4	Should have digitally controlled, High resolution min. 21-inch LED colour flat panel monitor with resolution 1220x1080 or better mountedon articulating arm with tilt and swivel function.			
3.5	System shall provide all-digital broadband beam forming capable of processing signal from range 2 MHZ to 16 MHz.			
3.6	The system should have min. 850,000 digitally processed channels per image frame.			
3.7	System must have an acquisition frame rate in 2D of min. 2000 frames/second.			
3.8	System must have min. 256 grey shades of Display.			
3.10	System must be capable of scanning max. display depth of at least 38 cm.			
3.11	System should provide min. 256 dB fulltime input dynamic range.			
3.12	System should have Physical TGC Control function mandatory.			
3.13	The system should have cine memory min. 40000 frames and loop memory min. 12000 lines.			
3.14	The system should have image storage capacity built in- SSD of min.350,000 images storage			

Er. Umesh Kumar Chaudhary
NEC No.: 168-Biomedical 'A'

3.15	Should have min. 3 active probe ports with capability of Connecting any of the probes in any port.			
3.16	Should have dedicated feature for clear visualization of Needle for biopsy and other procedures in future.			
3.17	System should have upgradable feature of panoramic extended field of view.			
3.18	System should have facility for real time or frozen, pan or point zoom.			
3.19	System should upgradable feature measurement of fetal biometry parameter.			
3.20	The system should upgradable feature measurement the size of follicles based on 2D application.			
3.21	The system should have integrated high quality stereo speaker.			
3.23	System should have on-board storage for peripherals and probe holder.			
3.24	System should have gel warmer within unit to maintain ultrasound gel at a comfortable temperature.			
3.25	The system should be DICOM compatible.			
3.26	System should have built in Image Management Software, for offline application when patient has gone after examination, such as Image Manipulation, Multi Planner reformatting, surface & volume rendering etc. It should have storage capacity of 500 GB or more SSD Drive.			
4.1	**Upgradation feature/options in the Same System**			
4.1	4D – Convex Volume Probe			
4.2	4D – Endo cavity Probe.			
4.3	4D-Automatic NT measurement feature			
4.4	4D- Automatic follicle measures feature			
4.5	Advanced Cardiac Measurement package: Cardiac strain Imaging			
4.7	Advanced Elastography Software Package			
4.8	Advanced imaging feature like TIRAD applications			
5	**Accessories, spares and consumables**			
5.1	**Accessories:** Convex probe (2 MHz to 8 MHz) for abdominal – 1pc Linear probe (5 MHz to 12 MHz) for Breast and MSK – 1 pc Ultrasound gel warmer – 1 pc Black & White thermal printer.- 1 pc			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separateExcel worksheet, the quantity and details of any items included in thisoffer which have not been specified in this Technical Specifications Form.			
6	**Operating Environment**			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug.			
7	**Standards & Safety Requirements**			
7.1	Must submit ISO 13485 or better for Medical devices.			
7.2	Must CE (93/42 EEC Directives) certified by authorized body.			
7.3	Must submit USFDA(510k) approved product certificate.			
7.4	Electrical safety conforms to standards for Electrical Safety IEC 60601-2-37 requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment.			
8	**User Training**			
8.1	The Supplier shall conduct on site user training for this equipment to			

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	enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	**Warranty**			
9.1	Comprehensive warranty for one year after acceptance.			
10	**Documentation**			
10.1	User (Operating) manual in English.			
10.2	Service (Technical / Maintenance) manual in English.			
10.3	Must Submit Manufacture Authorization/Authorization letter to Bidder provided by Authorized Importer of Nepal, Manufacturer Authorization to Authorized Importer must be Included in this case.			
10.4	The supplier must submit the original brochure or e-copy.			
10.5	Certificate of calibration and inspection from factory.			
Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted and also must submit original technical brochure. Failure in doing so may lead to rejection of bid from technical committee.				

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