

INVITATION FOR QUOTATION

TEQIP-III/2017/iit/Shopping/11/3866

14-Nov-2017

To,

Sub: Invitation for Quotations for supply of Goods

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Brief Description	Quantity	Delivery Period(In days)	Place of Delivery	Installation Requirement (if any)
1	80 MHz arbitrary waveform generator	1	45	IIIT Guwahati, G.N.B. Road, Ambari, Guwahati,-781001	No
2	Mixed Signal Oscilloscope, 500 Mhz	1	45	IIIT Guwahati, G.N.B. Road, Ambari, Guwahati-781001	No
3	Spectrum Analyzer 3GHz BW	1	45	IIIT Guwahati, G.N.B. Road, Ambari, Guwahati-781001	No

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
 - 3.1 The contract shall be for the full quantity as described above.
 - 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
 - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
 - 3.4 Applicable taxes shall be quoted separately for all items.
 - 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 - 3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **30** days after the last date of quotation submission.
6. Evaluation of Quotations,

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

 - 6.1 are properly signed ; and
 - 6.2 confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. Award of contract:

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

 - 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.

9. Payment shall be made in Indian Rupees as follows:

Delivery and Installation - 90% of total cost

Satisfactory Acceptance - 10% of total cost

10. All supplied items are under warranty of **NA** months from the date of successful acceptance of items.

11. You are requested to provide your offer latest by **14:30** hours on **29-Nov-2017** .

12. Detailed specifications of the items are at Annexure I.

13. Training Clause (if any) **No**

14. Testing/Installation Clause (if any) **No**

15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.

16. Sealed quotation to be submitted/ delivered at the address mentioned below,

The Director

Indian Institute of Information Technology Guwahati

GNB Road, Ambari, Guwahati, Pin-781001

17. We look forward to receiving your quotation and thank you for your interest in this project.

Sd/-

(Gautam Barua)

Director

IIIT Guwahati

Annexure I

Sr. No	Item Name	Specifications																																						
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		<p>Timebase Accuracy ms/div) ±10 ppm measured over > 1ms interval</p> <p>Trigger System:</p> <p>Modes Auto, Normal, Single, Stop</p> <p>Sources Any input channel, External, Ext/5, or line; slope and level unique to each source</p> <p>Coupling DC, AC, HFREJ, LFREJ</p> <p>Pre-trigger Delay 0-100% of full scale</p> <p>Post-trigger Delay 0-10,000 Divisions</p> <p>Hold-off 10ns up to 20s or 1 to 100,000,000 events</p> <p>Internal Trigger Level Range ±4.1 Divisions</p> <p>External Trigger Level Range Ext: ±610mV, Ext/5: ±3.05V</p> <p>Trigger Types Edge, Width, Logic, TV, NTSC, PAL, SECAM, HDTV - 720p, 1080i, 1080p, Runt, Slew Rate, Interval, Dropout, Qualified State or Edge; External and Ext/5 support edge trigger only.</p> <p>Measure, Zoom and Math Tools</p> <p>Measurement Parameters calculated Up to 6 of the following parameters can be calculated</p> <p>at one time on any waveform: Amplitude, Area, Base, Delay Duty Cycle, Fall Time (90%#10%), Fall Time (80%#20%), Frequency, Maximum, Mean, Minimum, Overshoot+, Overshoot-, Peak-Peak, Period, Phase, Rise Time (10%#90%), Rise Time (20%#80%), RMS, Skew, Standard Deviation, Top, Width+, Width-. Statistics and histograms for individual measurements and gated measurement will be possible.</p> <p>Zooming Use front panel Quick Zoom button, or use touch screen or mouse to draw a box around the zoom area.</p> <p>Math Functions Up to 2 of the following functions can be calculated at one time: Sum, Difference, Product, Ratio, Absolute Value, Average, Derivative, Envelope, Floor, Integral, Invert, Reciprocal, Rescale, Roof, SinX/x, Square, Square Root, Trend, Zoom and FFT (up to 1 Mpts with power spectrum output and rectangular, VonHann, and FlatTop windows).</p> <p>Display System:</p> <p>Display Size 10.1" Wide TFT-LCD Touch-Screen or better</p> <p>Connectivity: 10 Ethernet Port 10/100Base-T Ethernet interface Removable Storage 1 MicroSD Port - 8 GB microSD card standard</p> <p>USB Host Ports 4 USB Ports</p> <p>USB Device Port 1 USBTMC</p> <p>GPIB Port (Optional) Supports IEEE # 488.2</p> <p>External Monitor Port Standard DB-15 connector support resolution of 1024x600</p> <p>Network Communication GPIB IEEE-488.2</p> <p>Standard:</p> <p>Advanced Anomaly Detection History Mode, WaveScan Capture, Debug, Analyze Sequence Mode, Advanced Active Probe Interface, Math and Measure</p>
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		<p>Optional Capabilities for future upgrade in</p> <p>Multi-Instrument Protocol Analysis - Serial Trigger and Decode, Waveform Generation - Built-in</p> <p>Function Generator, Logic Analysis - 16 Channel MSO</p> <p>Future Proof Upgradeable Bandwidth up to 750MHz, Field Upgradable Software and Hardware Options</p> <p>Accessories 500 MHz 10:1 Passive Probe# - 4Nos</p> <p>Micro SD card 8 GB# # 1 No.</p> <p>Micro SD card adapter # 1 No.</p> <p>Protective Front Cover # 1 No.#####</p> <p>Power Cable # 1 No.</p> <p>Scope Of Work vendor has to supply the unit as per the specifications enclosed. Demonstration of working of the system should be carried out for all the features. The calibration certificate with minimum 1 yr. validity from the OEM should be supplied along with the item. OEM Authorization OEM Authorisation Certificate to be provided. Warranty 3 Year</p>
3	Spectrum Analyzer 3GHz BW	<ol style="list-style-type: none"> 1. Frequency Range 9KHz to 3GHz 2. Real Time Capture / Information Bandwidth 40 MHz, upgradeable feature optional 3. Display Built-in colour graded display with Touch Screen sub menus, 10 inch or equivalent 4. Display Update Rate >48,000 spectrums per second for any span from 100 Hz to 100 MHz 5. Display capabilities Uncover signals masked by broadband nature of pulsed signals. Capture and display live transients Ability to view signals below signals that is signals hidden within noise 6. Spectrum Processing Should have DPX Spectrum Possessing intuitive understanding of time-varying RF signals with colour-graded displays based on frequency of occurrence 7. A/D Converter 300MS/s or better. 8. A/D Converter Resolution >12 bits. 9. Acquisition Memory Size Minimum 1GB 10. Time Correlated Multi-domain analysis should provide seamless capture and analysis of each frame and correlate it in the Time, Frequency, Spectrogram and Modulation domain. User should be able to select the desired display 11. Modulation Analysis BPSK,QPSK,DQPSK, 8PSK,16QAM, 64QAM, 256QAM 12. Trigger Modes Free Run, External, IF level, Frequency Mask (Triggered by event, continuous or single) 13. Frequency Mask Trigger Should have option available of easy event-based capture of transient RF signals by triggering on any change in the frequency domain And Mask shape must be user definable 14. Frequency Hopping signals & Transient Signal (Single Shot Events such as Interference & Intermittent signal) capture and analysis. Trigger must be capable of capturing Frequency Hopping signals & Transient Signal (Single Shot Events such as Interference & Intermittent signal) and provide measurements of the captured signal 15. Span Accuracy + 0.3% 16. RBW Range 1Hz to 5MHz (1,2,3,5 sequence) auto-coupled, or user-selected

		<ul style="list-style-type: none"> 17. RBW accuracy + 1% 18. Record Length at 40MHz span Up to 5 seconds or more 19. Amplitude : Measurement range - 140 to +30 dBm 20. Input Attenuator Range 0 to 75dB, 5dB steps. 21. Frequency Response 10 MHz to 3 GHz ± 0.5dB 22. Displayed Average Noise Level - 140 dBm/Hz or better 23. Wireless Standards Analysis Package Zigbee, Wireless LAN, WiMax, RFID packages should be quoted separately 24. Automatic Measurements-Modulation domain Errors vs. Time (Peak, rms): EVM, Magnitude error, Phase error. Error : Waveform Quality (rho), Frequency error, Origin Offset Views: Constellation diagram, Symbol Table, IQ vs. Time, EVM vs. Time 25. Automatic Measurements -Time Domain and Frequency Domain IQ vs Time, Power vs Time, Frequency vs Time, CCDF, Peak-to-Average Ratio, Channel Power, Carrier Frequency 26. External Reference Input Frequency 1 to 25 MHz (1 MHz steps) 27. Reference Output 10 MHz 28. Interface GPIB, LAN, USB,VGA 29. Data Storage Internal HDD(80GB)+ Read/Write CD Drive. 30. Power supply 230Vac, 50Hz Operation 31. Warranty One year. Optionally should offer 3 years <p>Optional Software for <i>Advanced</i></p> <p><i>Pulse Measurements Suite</i></p> <ul style="list-style-type: none"> 32. Measurements Average On Power, Peak Power, Average Transmitted Power, Pulse Width, Rise Time, Fall Time, Repetition Interval (seconds), Repetition Interval (Hz), Duty Factor (%), Duty Factor (ratio), Ripple (dB), Ripple (%), Overshoot (dB), Overshoot (%), Droop (dB), Droop (%), Pulse-Pulse Frequency Difference, Pulse-Pulse Phase Difference, RMS Frequency Error, Max Frequency Error, RMS Phase Error, Max Phase Error, Frequency Deviation, Phase Deviation, Impulse Response (dB), Impulse Response (time), Time Stamp 33. Advanced Measurements Suite Pulse Results Table Pulse Trace (selectable by pulse number) Pulse Statistics (Trend of Pulse Results, FFT of Trend, and Histogram) 34. Minimum Pulse Width for Detection 150 ns (standard), Optional up to 50 ns 35. Number of Pulses 1 to 10,000 36. System Rise Time (Typical) <25 ns (standard), optional up to <10 ns 37. Pulse Measurement Accuracy Signal Conditions: Unless otherwise stated, Pulse Width >450 ns S/N Ratio ≥30 dB, Duty Cycle 0.5 to 0.001 38. Impulse Response Measurement Range: 15 to 40 dB across the width of the chirp Measurement Accuracy (typical): ±2 dB for a signal 40 dB in amplitude and delayed 1% to 40% of the pulse chirp width*15 39. Impulse Response Weighting Taylor Window
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FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To:

Sl. No.	Description of goods (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (Amount in figures) (Rupees _____ amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of ————— months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____

Address: _____

Contact No: _____