



**NIELIT CALICUT**  
(Autonomous Scientific Society of Ministry of Electronics & Information Technology, Govt. of India)  
**NIT Campus Post, CALICUT-673 601, KERALA**  
Email: [purchase@calicut.nielit.in](mailto:purchase@calicut.nielit.in) Web: <http://nielit.gov.in/calicut>  
Phone: 0495-2287266 Fax: 0495-2287168

**LIMITED TENDER ENQUIRY**

Ref. No.: 2(1135)/2019-20/CPS/EQPT

**By Speed Post**  
Date: **20.01.2020**

**DUE DATE: 04.02.2020**

1. Quotations are invited for the supply of the items as per Annexure.
2. The quotations duly **SIGNED, SEALED AND SUPERSCRIBED ON THE ENVELOPE WITH THE REFERENCE No. AND DUE DATE**, should be addressed to the undersigned so as to reach on or before the due date stipulated above. Quotations received after the due date will not be considered.
3. The quotations should be valid for acceptance for a period of **sixty days** from the due date
4. Quotations will not be accepted by Fax, Email or any such electronic data transfer form.
5. The quotations should be for goods exactly conforming to our requirements and specifications.
6. If the item is under DGS&D Rate contract, the number and the price applicable must be mentioned. It may also please be indicated whether the supply can be made direct to us at the DGS&D Rate Contract Price.
7. Relevant literature pertaining to the items quoted with full specifications and drawings, if any should be sent along with the quotations, wherever applicable. Samples, if called for, should be submitted free of charges and collected back at the supplier's expenses.
8. Copy of Manufacturing licence, Principal or Authorized Distributor/Dealer Certificate, and Proprietary Certificate, as applicable, should be enclosed.
9. Quotations should be for **free delivery** at our Centre and should clearly specify the **delivery period**. If delivery quoted is Ex-Godown/Consignor Station, delivery charges consisting of freight, packing & forwarding charges, insurance, etc. should be indicated separately. Goods should be supplied duly carriage paid and insured.
10. GST Registration Number of NIELIT Calicut is: **32AAATD0315M1Z6**. GST or any other taxes may be charged as per the rates applicable to Scientific/Educational institutions.
11. Security Deposit @ 5% of the Purchase Order/Invoice value shall be retained, in case order/contract value exceeds Rs.1 lakh, which will be released after the expiry of warranty period.
12. Goods shall not be supplied without an official purchase order.
13. Payment : Payment will be made after completion of supply, installation/assembly and commissioning of the items covered by the order along with necessary spares supplied to the entire satisfaction of NIELIT CALICUT. Payment against invoices shall normally be made within 30 days of receipt and acceptance of equipment/materials at our office. **No advance payment will be made under any circumstance.**
14. Incomplete quotations and quotations which do not comply with all the above instructions are liable to be summarily rejected.
15. NIELIT CALICUT does not bind itself to accept the lowest or any such quotation and has the right to accept or reject whole or any part of tenders or a portion of the supply of goods without assigning any reasons. No correspondence in case of rejected tenders will be entertained.
16. **Earnest Money Deposit (E.M.D.) for Rs.46,000/- be deposited by NEFT in the Bank Account No. 10401158037 (IFSC: SBIN0002207) at State Bank of India, NIT Calicut Branch, CREC Campus, Chathamangalam, Calicut – 673 601, in favour of Director, NIELIT CALICUT, failing which the quotation will be rejected. Proof of Deposit of EMD amount with Tenderer's Bank Account No. and IFSC No. should be submitted with the Quotation.**

Yours faithfully,

**Purchase In-Charge  
For Executive Director**

Encl: Annexure

## ANNEXURE TO ENQUIRY

Your Quotation No.

Date:

1	Name of item(s)	1) Data acquisition system with inbuilt DMM – 1 No. 2) 6GHz Real time spectrum Analyzer with Directional Antenna and EMC software – 1 No.
2	<b>Specifications &amp; Quantity</b> <b>As per Specifications attached.</b>	
3	Price per unit in Rs. (in figures & words)	Attach separate list, if required.
4	Total Price in Rupees (in figures & words)	
5	Delivery Period	
6	Terms of Delivery	
7	Taxes, Duties, Octroi & any other statutory levies or charges	
8	Transportation, Insurance, Packing & Forwarding etc.	
9	Discount/off etc., if any	
10	GST Registration No.	
11	Payment Terms	
12	Validity of Tender	
13	Warranty	
14	Any other remarks / EMD Amount and Payment details	
15	Signature of the Tenderer with Name and Date	
16	Address with Email ID & Mobile No.	
17	Central Public Procurement Portal ( <a href="http://www.eprocure.gov.in">www.eprocure.gov.in</a> ) Registration, Email login ID	

**NB:** (1) The prices quoted and Taxes charged should be Academic/Educational Prices/rates, wherever applicable.

(2) Enquiry for the above items and specifications can also be downloaded from our website <http://nielit.gov.in/calicut> or [www.eprocure.gov.in](http://www.eprocure.gov.in)

(3) Please register at [www.eprocure.gov.in](http://www.eprocure.gov.in) and intimate login details without fail. Watch website for regular updates

**Data acquisition system with inbuilt DMM**

<b>Specify Make / Model:</b>			<b>Quantity: 1 No</b>
<b>PART A : DMM Mode</b>			
<b>Sl. No</b>	<b>Specification</b>	<b>Remark/value</b>	<b>Compliance Yes/No</b>
1.	DMM Resolution	6.5 Digits or better	
2.	DCV Accuracy	±0.0025% of reading @ 10V range and 1 Year	
3.	DC I accuracy	±0.020% of reading @ 10mA range and 1 Year	
4.	TRMS ACV Accuracy	± 0.04% of reading @ 100mV range and 1 Year and 10Hz to 20KHz frequency	
5.	TRNS AC I accuracy	± 0.10% of reading @ 1mA range and 1 Year and 3Hz to 5KHz frequency	
6.	Current measurement ports	should be available on front panel	
7.	Display	Inbuilt 5" Graphical touch screen display with graph and numeric display simultaneously	
8.	Selector Switch	Should be available to switch between DMM and scanner Cards	
9.	Digitizer	digitizer function should be available with 1MSa/S or better sampling rate to capture Transients in Voltage and Current	
10.	Secondary Measurement:	Should be available to measure two parameters through front panel	
11.	Measurement Range	100nV to 1000V DC/750A AC, 10pA to 3A DC/100pA to 3A AC, 10 μΩ to 120MΩ, 3Hz to 300KHz Frequency, 0.1pF to 120μF, Temperature(Thermocouples, Thermistor and RTD	
<b>PART B : DAQMode</b>			
12.	No.of slots for scanner cards	2 or more	
13.	Resolution of DMM	6.5Digit or better	
14.	Measurements	DCV, ACV, DCI, ACI, Ohms(2,4wire), frequency/period, Capacitance, continuity, Temperature(RTD, Thermistor, Thermocouple), Diode Test(With 4 test currents)	
15.	Max Scan rate (memory)	180/S	
16.	Inbuilt memory	7 Million readings with user configurable buffers Module 1 (should be compatible with DAQ mainframe)	
17.	No. of channels	20 Ch Solid-state Differential Multiplexer Module + 2 Current channels	
18.	Measurements	All 20 channels should support AC/DC voltage, 2/4W resistance, Capacitance, Frequency, Period, Temperature(Thermocouple -specify (B,E,J,K,N,R,S,T support) Thermistor- 2.2K, 5K, 10K RTDs-2/3/4wire), Diode, Digitizer	
19.	Configuration	20 nos differential, 10 nos x 4	
20.	Cold Junction Reference:	Should be available internal	
21.	Max. Voltage	300V	

22.	Max Current	1A	
23.	Bandwidth	50MHz	
24.	Relay life	>100 Million contacts at no load	
<b>General</b>			
25.	Warranty	3 year	
26.	Software	standalone software windows compatible	
27.	Connectivity	: USB(host and Device), LAN with LXI	
28.	Voltage	: 230V, 50Hz	
29.	Accessories to be supplied	Instrument, Front panel test lead (standard probes to be supplied ), Calibration certificate, Indian power cord, USB/LAN, probes, Cables	
30.	Documentation	All Manuals/Software and application notes in soft and hard copies	
31.	Training / Demo	Training should cover Technical usage & application aspects of the product at NIELIT calicut	

*A line by line compliance statement of each specification along with the reference point in page nos. of data sheet is mandatory with the tender. Vendor should submit the authorisation letter from the manufacturer*

Sign of Authorized Signatory with Name & Seal

<b>Minimum Required Specification of 6GHz Real time spectrum Analyzer with Directional Antenna and EMC software</b>			<b>Quantity 1 No.</b>
<b>PART A: 6GHz Real time spectrum Analyzer Make and Model Number(Specify)</b>			
<b>Sl. No</b>	<b>Specification</b>	<b>Remark / value</b>	<b>Compliance Yes/ No</b>
1.	Frequency Range	9KHz-6 GHz	
2.	Real time Wide Analysis Bandwidth for monitoring	40 MHz or better	
3.	Probability of Interception to capture complex signals across 40MHz	100uS or better	
4.	Measurement Range	-140dBm to +20dBm	
5.	Trigger Type	IF Power	
6.	RBW range	10Hz-10MHz	
7.	Amplitude Accuracy @all frequencies	±2.0 dB	
8.	Spurious response	<-85dBm or better	
9.	Additional capabilities	Spectrogram Display	
10.	Trace Functions	Normal, Average (VRMS), Max Hold, Min Hold	
11.	Basic Vector analysis functions	Amplitude, frequency, phase vs. time, RF I and Q vs. time	
12.	Displayed Average Noise Level (Typical) a) 10MHz-2GHz b) 2GHz—6.0 GHz	a) -158 dBm/Hz b) -150 dBm/Hz	
13.	Marker functions	power, relative power, integrated power, power density and dBc/Hz	
14.	RF measurements	Spectrum emission mask, Occupied BW, MCPDR and CCDF.	
15.	Spurious Measurement/EMI-EMC pre –Compliance SW	User-defined limit lines provide automatic spectrum violation testing across the entire range of the instrument.	
16.	Demodulation of Std should be supported for future upgrade	WLAN 802.11 a/b/g/j/p/n/ac	
17.	Spectrum analysis Software	SW should be available to connect & control Spectrum analyzer using laptop/PC. Windows compatible	
18.	Safety	UL61010-1, CAN/CSA-22.2 No.61010-1, EN61010-1, IEC61010-1	
19.	Regional certifications	Europe: EN61326 Australia/New Zealand: AS/NZS 2064	
20.	EMC emissions	EN61000-3-2, EN61000-3-3, EN61326-2-1	

21.	EMC immunity	EN61326-1/2, IEC61000-4-2/3/4/5/6/	
22.	USB Connectivity	USB 3.0	
23.	RF input	Type N, female	
24.	External frequency reference input	SMA, female	
25.	Trigger/sync input	SMA, female	
26.	USB device port	USB 3.0 - Micro-B,	
27.	Warranty	3 year	

Part B: Antenna : Directional Antenna, 20-8500 MHz, with electronic compass and preamp

	Antenna type	Combined loop / log-periodic dipole array	
	Frequency range	9 kHz - 20 MHz, 20 - 500 MHz, 500 - 8500 MHz	
	Nominal input impedance	50 $\Omega$	
	Antenna gain	Variable with frequency (< 600 MHz) 6 dBi (> 600 MHz)	
	Amplifier	Low noise, 8-18 dB gain, switched in/out	
	Angle detection	Digital compass, integrated with antenna	
	Warranty	1 Year for Directional Antenna	
	Connectors	Compatible with the 6GHz Real time spectrum Analyzer with specification listed in Part A	

PART C: EMC Software:

1.	Supported Standards :	EN55011, EN55012, EN55013, EN55014, EN55015, EN55025, EN55032, EN60601, DEF STAN, FCC Part 15, FCC Part18, MILSTD 461G	
2.	License	Perpetual	
3.	Supported Features	EMC-EMI display, Wizard to setup accessories and limit lines, Inspect, Harmonic Markers, Level Target, Compare Traces, Measure Ambient, Report generation, Re-measure Spot	
4.	Detectors	+Peak, Avg, Avg (of logs), Avg (VRMS), CISPR QuasiPeak, CISPR Peak, CISPR Average, CISPR Average of Logs, MIL +Peak, DEF STAN Avg, DEF STAN Peak	

5.	Limit lines	Up to 3 Limit Lines with corresponding margins	
6.	Resolution BW	Set per standard or user definable	
7.	Dwell time	Set per standard or user definable	
8.	Report format	PDF, HTML, MHT,RTF, XLSX, Image File format	
<b>Accessories supplied along with PARTA,B &amp; C items</b>			
1.	Software and drivers	Windows compatible	
2.	Probe set/ cables	Near field probe set , all necessary probes and connectors for measurements , USB key With Directional Antenna , armrest extension brace, USB locking cable	
3.	Documentation	All manuals and application notes in soft and hard copies	
4.	Training / Demo	Training should cover Technical usage & application aspects of the product at NIELIT Calicut	

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