



NIELIT CALICUT
(Autonomous Scientific Society of Ministry of Electronics & Information Technology, Govt. of India)

NIT Campus Post, CALICUT-673 601, KERALA
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Phone: 0495-2287266 Fax: 0495-2287168

LIMITED TENDER ENQUIRY

Ref. No.: 2(1152)/2019-20 /ASIC/SPECTRUM ANALYSER

By Speed Post
Date: **31.01.2020**

To

DUE DATE: 20.02.2020

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. 12,500/- 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)	Spectrum Analyser with 1 Port Network Analyser - 1 No
2	Specifications & Quantity As per Specifications attached.	
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 (www.eprocure.gov.in) 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
- (3) Please register at www.eprocure.gov.in and intimate login details without fail. Watch website for regular updates.

Spectrum Analyser with 1 Port Network Analyser – Qty. - 1 No.		
Parameters	Specification	Compliance (Y/N)
Mention Make and Model		
Spectrum Analyser Frequency range	5 kHz to 3 GHz	
Frequency resolution	1 Hz	
Marker resolution	0.1 Hz	
Number of sweep (trace) points	1182	
Marker tuning frequency step size	2538	
Frequency span	0 Hz, 10 Hz to 3 GHz	
Displayed average noise level	1 MHz to 10 MHz < -127 dBm, -135 dBm (typ.) 2 GHz to 3 GHz < -138 dBm, -147 dBm (typ.)	
Display Level		
Number of traces	2	
Trace detectors	max. peak, min. peak, auto peak, sample, RMS	
Trace functions	clear/write, max. hold, min. hold, average, view	
Setting range of reference level	-130 dBm to +30 dBm	
Uncertainty	span = 0 Hz 1 % (nom.), span ≥ 10 Hz 3 % (nom.)	
Resolution bandwidths range	-3 dB bandwidth 1 Hz to 3 MHz in 1/3 sequence 1 Hz ≤ RBW ≤ 300 kHz < 5 % (nom.), 300 kHz < RBW ≤ 1 MHz < 10 % (nom.)	
Bandwidth accuracy		
Selectivity 60 dB:3 dB	< 5 (nom.) (Gaussian type filters)	
Display range	displayed noise floor to +30 dBm	
Maximum rated input level DC Volt	50 V	
CW RF power	RF input 33 dBm (= 2 W), RF output 23 dBm (= 0.2 W)	
Peak RF power	RF input, duration < 3 s 36 dBm (= 4 W), RF output, duration < 3 s 26 dBm (= 0.4 W)	
Max. pulse voltage	150 V	
Max. pulse energy	pulse width 10 μs 10 mWs	
1 Port Vector Network Analysis Function		
VNA Measurements	reflection (S11), transmission (S21), 1-port cable loss distance-to-fault	
Port output power	-10 dBm (nom.)	
Data points(selectable)	101 to 2501	
Measurement bandwidth	100 Hz to 100 kHz in 1/3 sequence	
Trace modes	clear/write, average	
Transmission measurement S21	Mag.Range 1/2/5/10/20/50/100/120/150 dB, linear 100 % @ Resolution 0.1 dB ,Dynamic range 80 dB (nom.)	
Reflection measurement S11	Result formats :magnitude, VSWR, distance-to-fault, Smith chart, phase	
	Mag.Range 1/2/5/10/20/50/100/120/150 dB, linear 100 %,Resolution 0.1 dB	
Selectable VSWR Range	1 to 1.5, 2, 6, 11, 21 or 71	
1 Port Cable Loss Measurement	Result format magnitude,1/2/5/10/20/50/100/120/150 dB, Resolution 0.1 dB	
Distance-to-fault analysis	return loss, VSWR with average and maximum indication	
Return Loss Range	1/2/5/10/20/50/100/120/150 dB, linear 100 %	
Fault resolution in meters	(1.5 × 10 ⁸ × velocity factor/span)	

Maximum cable length(nom.)	1500 m	
Maximum permissible spurious signal	dbM(+17)	
Tracking Generator Functions		
Frequency range	5 kHz to 3 GHz	
Measurements Modes	Tracking Generator Mode& Independent Source Mode	
Output power(nom.)	2 MHz to 3 GHz 0 dBm to –30 dBm	
Frequency response(nom.)	2 MHz to 3 GHz ±3 dB	
RF input, output		
Impedance(nom.)	50 Ω	
Connector	N female	
VSWR(nom.)	5 kHz ≤ f ≤ 1 GHz < 1.5	
Input attenuator	0 dB to 40 dB in 5 dB steps	
General Requirements		
AC supply	100 V to 240 V AC, 50 Hz to 60 Hz, 0.6 A to 0.4 A	
Power consumption	14 W (nom.)	
Display Size, Resolution	10.1" or Higher, 1350x 750 pixel or better	
memory	size ≤ 4 Gbyte, USB version 1.1 or 2.0	
internal	> 256 instrument settings and traces	
Modulation Analysis		
Analog Modulation Analysis	AM:carrier power, carrier frequency offset, AM modulation depth, modulation frequency, THD, SINAD.;FM:carrier power, carrier frequency offset, FM deviation, modulation frequency, THD, SINAD	
Center frequency	10 MHz to 3 GHz	
Digital Modulation Analysis	FSK,ASK	
Receiver Mode Measurements	fixed frequency ,channel scan ,channel scan – user defined channel list ,EMI precompliance – CISPR bandwidths – CISPR detectors	
Frequency Range	5 kHz to 3 GHz	
Measurement modes	fixed frequency, frequency scan, channel scan	
Other measurements	Pre amplifier	
Accessories	Power Cable,USB Cable for Connection with PC	
Others	3 Years warranty, OEM/Authorized distributor should quote with necessary proof/ Tender Specific Authorization required. The party should have Service & Calibration facility in India.	

Sign of Authorized Signatory with Name & Seal