

**Indian Institute of Technology Delhi
Electrical Engineering Department**

Ref. IITD/SD/RP2610/2012-13

March 7, 2013

NOTICE INVITING QUOTATIONS

(extended; original tender posted on February 18, 2013)

NIQ for 26.5 GHz Handheld Vector Network Analyzer

A two-port 26.5 GHz Handheld Vector Network analyzer is required, with the following specifications :

1	Frequency range	30 kHz to 26.5 GHz , 2 Ports
2	RF Connector	3.5mm (male)
3	Aging rate	± 1 ppm/yr
4	Dynamic range:	100 dB to 9 GHz, 90 dB to 18 GHz
5	S-parameter measurement	S11, S21, S12, S22 (both Magnitude and Phase)
6	IF bandwidth	10 Hz to 100 kHz
7	Data points or resolution	101, 201, 401, 601, 801, 1001, 1601, 4001, 10,001 , Arbitrary number of points settable through SCPI
8	Cable Antenna test, Distance-to-fault, return loss, cable loss Calibrations: CalReady, OSL, and response cal	
9	Test port output power (nominal)	3dBm : > 625 MHz to 3 GHz 0dBm : >3 to 9 GHz -11dBm : > 9 GHz to 26.5 GHz
10	Minimum Output Power Level	≤ -45 dBm, nominal Power settable in 1 dB steps across power range
11	Trace Noise (-10 to 55 °C) at 300 Hz IF bandwidth	
12	Magnitude	± 0.002 dB (rms) : 10 GHz ± 0.010 dB (rms) : 26.5 GHz
13	Phase	± 0.014 degrees :10GHz ± 0.066 degrees:26.5 GHz
14	Receiver compression at 26.5 GHz	10 dBm
15	Immunity to interfering signals	+16 dBm (nominal)
16	Inbuilt Spectrum Analyzer	5KHz to 26.5GHz (tunable to DC)

17	AM/FM tune and listen , field strength measurements,Independent source , group delay measurements ,Channel power, occupied bandwidth, adjacent channel power , tracking capabilities to the independent source, QUICK CAL facility , Instrument should be supplied with compatible phase-stable	
18	Warranty	3 years , NABL accredited Calibration facility and up to 30 parameters (as per NABL)
19	Future Upgradeable facility:	
	1. Time Domain Option	
	2.Preamplifier	
	3.Interference Analyzer & GPS receiver	

General Terms and conditions:

1. Vendors are requested to send their quotes (technical specs and prices in separate sealed envelopes, both placed in a sealed envelope) to the office of Prof. Swades De, Department of Electrical Engineering Indian Institute of Technology (IIT) Delhi, Hauz Khas, New Delhi 110016, before 5 pm, March 14, 2013.
2. Please ensure that the technical bid includes terms of payment (but NOT prices). Payment will be made only after on-site delivery and after successful demonstration of operation of the equipment.
3. Give FOB as well as CIF (F.O.R. destination, IIT Delhi) prices in Indian Rupees.
4. Agents (including Indian branches of foreign manufacturer) have to include currently valid 'authorized agent' certificate from original manufacturer.
5. Quote should be valid for at least 90 days.
6. IIT Delhi reserves the right to accept or reject any/all of the quotations.
7. If the item quoted is proprietary in nature, please enclose proprietary certificate from the principals stating, "Certified that is a proprietary item of M/s----- and no other manufacturer makes this item."

**Dr. Swades De, Associate Professor
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