

GOVERNMENT OF INDIA
(Ministry of Home Affairs)
Communication & IT Directorate
CENTRAL RESERVE POLICE FORCE
EAST BLOCK-7, SEC-1, R.K. PURAM, NEW DELHI-110066
(Tele/Fax No-011-26107493, Email-Id: comncell@crpf.gov.in)

No. B.V-7-C/2024-25-C(S.A)-Q

Dated, the Dec'2024

Subject:- REQUEST FOR COMMENTS OF STAKEHOLDERS /OEM/FIRMS on Draft QRs & TDs of "Spectrum Analyzer".

1. The Draft QRs/TDs of "Spectrum Analyzer" is attached as **Appendix 'A'**. The OEMs/Vendors are requested to forward information of the product, which they can offer and also forward correct specifications of their system against each parameter. Only complied or not complied remarks will not be accepted. The firms are also requested to furnish the following details:-
 - Whether you are OEM/Vendor?
 - If vendor details of OEM.
 - Authorization certificate from OEM.
2. The required information/details may please be forwarded at the following addresses by 30 Jan'2025.

Communication Directorate, CRPF
East Block-7, Sec-1, R.K. Puram, New Delhi-110066
Email: comncell@crpf.gov.in

3. An early response is requested.


30/12/24

DIG (Equipment)
Communication & IT Branch
Directorate General, C R P F

Draft QRs/TDs of Hand Held Spectrum Analyzer

S.N.	Parameters	Specification	Trial Directives
1.	General Characteristics		
	a) Inbuilt Display	6.4 Inch, Colour display, touch screen or better	B.O.O Will Check size diagonally by standard scale.
	b) Weight	4.0 kg (Including battery) or less	B.O.O will check practically.
	c) Interface	USB 2.0 and above & LAN	B.O.O will check practically.
	d) Battery Operating Time	2.5 Hour with internal battery or better	B.O.O will check practically and OEM will submit certificate.
	e) Power requirement	230 V AC \pm 10 %, 50Hz to 60 Hz, 11.00 V to 15.50V DC external Battery	B.O.O will check practically.
	f) Data storage	Internal > 150 instrument setting and traces. on USB flash drive or micro SD card, \geq 1Gbyte > 10000 instrument setting and traces	B.O.O will check practically and OEM will submit certificate
2	Frequency :-		
	a) Frequency Range	9 KHz to 6 GHz or better	B.O.O will check the specified frequency range practically
	b) Frequency Resolution	1 Hz or better	B.O.O will check practically.
	c) Frequency Accuracy	0.5 ppm or better	B.O.O will check practically. And also refers the brochure of the instruments.
	d) Frequency Span	0 Hz, 10hz (10 hz) to 6 GHz	B.O.O will check practically.
	e) Frequency Counter Resolution	0.1 Hz or better	B.O.O will check practically
3	Aging Rate	1×10^{-6} /Year or better	Firm will submit OEM certificate.
4	Spectral Purity		
	(a) SSB Phase Noise @ 30 KHz offset, at 500 MHz CF	<-88 dBc/Hz or better	B.O.O will check practically
	(b) Harmonics @-40 dBm level	-60 dBc or better	B.O.O will check practically

5	Sweep Time		
	a) Span ≥ 10 Hz	100 ms to 1000 s	B.O.O will check practically
	b) Span = 0Hz	100 micro sec to 1000 sec	B.O.O will check practically
6	Bandwidth		
	a) Resolution Bandwidth (-3dB)	10 Hz to 3 MHz or better	B.O.O will check practically
	b) Video Bandwidth	1 Hz to 3 MHz or better	B.O.O will check practically
7	Amplitude		
	a) Reference level	Average noise level + 20 dBm or better	B.O.O will check practically
	b) Level Measurement uncertainty (amplitude accuracy)	± 2 dB or better	B.O.O will check practically
	c) Input attenuator Range	0 dB to 70 dB, in 5 dB steps	B.O.O will check practically
	d) Displayed average noise level, (1 KHz RBW, 10 Hz VBW)	-135 dBm at 1 GHz or better -125 dBm at 6 GHz or better	B.O.O will check practically
	e) Pre-Amplifier	Should be available	Firm will submit OEM Certificate.
8	Supported Measurement	Channel power, Occupied Bandwidth, Spectrum Emission Mask, adjacent channel leakage ratio, Harmonics Distortion, Spectrogram	B.O.O will check practically
9	Trigger	free run, video, external	B.O.O will check practically
10	Input impedance	50 ohm	B.O.O will check practically
11	Display units	dBm, dB μ V, dBmV	B.O.O will check practically

12	Environment and safety standard		
	a) Operating Temperature	-10 °C to +55 °C or better	Firm will submit certificate of Govt. Lab or NABL/ILAC accredited Laboratory
	b) Storage	-20 °C to +55 °C or better	Firm will submit certificate of Govt. Lab or NABL/ILAC accredited Laboratory
	c) Relative Humidity	+ 95 % relative humidity at 30°C, non-conditioning	Firm will submit certificate of Govt. Lab or NABL/ILAC accredited Laboratory
13	GPS Facility should be available	Required	B.O.O will check practically and firm will submit OEM Certificate.
14	Interference analysis (optional)	Required/Not required (As per user requirement)	B.O.O will check practically and firm will submit OEM Certificate
15	Provision for making through line power measurement- should be available up to 30 milli-watt to 150 watt (Optional)	Required/Not required (As per user requirement)	B.O.O will check practically and firm will submit OEM Certificate.
16	Coverage mapping- RSSI or channel power should be available. (Optional)	Required/Not required (As per user requirement)	B.O.O will check practically and firm will submit OEM Certificate
17	Modulation analysis AM, FM, FSK. (Optional)	Required/Not required (As per user requirement)	B.O.O will check practically and firm will submit OEM Certificate
18	Bidder / OEM should have after sales service in India and calibration facility from NABL accredited LAB	Required	Firm will Submit OEM Certificate
19	Accessories	Required accessories. Operating and service Manual.(As per user requirement.)	B.O.O will Check practically.
20	Warranty	Minimum 5 years guarantee/ warranty period. Supplier and manufacturer should give undertaking for supplying spares parts and service for 5 years after completion of warranty period	Firm will Submit OEM Certificate