

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
(Email:- comncell@crpf.gov.in Tele/Fax:011-26109038)

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

Dated, the 19 March'2025

To

1. The DsG: AR, BSF, CISF, ITBP, NSG, SSB and BPR&D
2. Director, DCPW

Subject: Regarding QRs/TDs of "Hand- Held Spectrum Analyzer".

I am directed to refer on the subject mentioned above and to say that the QRs/TDs of "**Hand- Held Spectrum Analyzer**" has been approved by the DG CRPF after deliberation and recommended by CAPF's sub-group and experts from DCPW.

2. QRs/Technical Specifications of The Spectrum Analyzer has forwarded earlier vide letter No. IV-17011/13/06-Prov-I dated 03/04/2006 is rescinded.

Encl:-As above


{Amit Taneja}

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

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

Dated, the March'2025

Copy to:-

1. Mrs. Sugandhi, Technical Director, North block, MHA with request to upload the QRs/TDs of "**Hand- Held Spectrum Analyzer**" on MHA website (e-mail ID: mpsugandhi@nic.in) and QRs/Technical Specifications of The Spectrum Analyzer has forwarded earlier vide letter No. IV-17011/13/06-Prov-I dated 03/04/2006 is rescinded.

Encl:-As above


{Amit Taneja}

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

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, 12V to 24V 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
	g) Marker Type	Normal, Delta, Marker Table	B.O.O will check practically
	h) Number of markers.	Minimum 4 or more	B.O.O will check practically
	i) No. of traces.	Minimum 2 or more	B.O.O will check practically
	j) Trace detectors.	Max peak, Min peak, RMS/Avg, auto peak, sample	B.O.O will check practically
	k) Trace Function.	Clear/Write, max hold, min hold, average, view	B.O.O will check practically
2	Frequency :-		
	a) Frequency Range	9 KHz to 6 GHz or better (As per User Requirement)	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 + Aging 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	1Hz or better	B.O.O will check practically
3	Aging Rate	1×10^{-6} /Year or better	Firm will submit OEM certificate.

S.N.	Parameters	Specification	Trial Directives
4	Spectral Purity		
	(a) SSB Phase Noise @ 10 KHz offset, at 1 GHz, CF Or SSB Phase noise @30 KHz offset, @ 500 MHz CF	<-80 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
	(c) Third order intercept (TOI)	+6dBm or better for the entire frequency range	Firm will submit certificate of Govt Lab or NABL/ILAC accredited laboratory.
5	Sweep Time		
	a) Span >/=10Hz	100 ms to 600s or better	B.O.O will check practically
	b) Span =0Hz	100 micro sec to 600 sec or better	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) Measurement 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 40 dB, in 5 dB steps	B.O.O will check practically
	d) Displayed average noise level, (1 KHz RBW, 10 Hz VBW) with Pre-Amplifier On/OFF	Pre-amp off -135 dBm at 1 GHz or better -125 dBm at 6 GHz or better Pre-amp On -155 dBm at 1 GHz or better -150 dBm at 6 GHz or better	B.O.O will check practically
	e) Pre-Amplifier	Should be available	Firm will submit OEM Certificate.

S.N.	Parameters	Specification	Trial Directives
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, dBμV, dBmV, V, W	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	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
16	Modulation analysis AM, FM. (Optional)	Required/Not required (As per user requirement)	B.O.O will check practically and firm will submit OEM Certificate
17	Bidder / OEM should have after sales service in India and calibration facility from NABL accredited LAB	Required	Firm will Submit OEM Certificate
18	Accessories	Required accessories. Operating and service Manual.(As per user requirement.)	B.O.O will Check practically.

S.N.	Parameters	Specification	Trial Directives
19	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



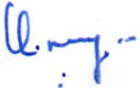
(Sub. J.P. Gaur)
Assam Rifles



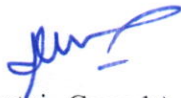
(Insp/Com Ranveer Singh)
CISF



(Ujjwal Kumar Singh
AC(QR), CRPF




(Vinay Barthwal Deputy
Director), DCPW



(S.K. Sastri, Comdt)
BSF



(Rajesh Ranjan, Comdt)
NSG



(P.K. Raturi, Comdt)
SSB



(Rajesh Pandey, Comdt)
ITBP



(Amit Taneja)
DIG(Eqpt), CRPF



(P.C. Jha)
DIG(Comn), CRPF



(S. M. Hasnain)
IG (Comn & IT), CRPF



(Vitul Kumar, IPS)
SDG (OPS), CRPF

✓
Approved/Not Approved



(Gyanendra Pratap Singh)
DG, CRPF