

No.IV-17017/13/06-Prov.I  
Ministry of Home Affairs

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New Delhi , Dated 03.04. 2006

To

The DGs: Assam Rifles/BSF/CISF/CRPF/ITBP/NSG/SSB/BPR&D.

Subject: Finalization of QRs/Specifications for Weaponry/Security Equipments

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The Sub-Group constituted by MHA vide Office Memorandum No. IV.17017/18/2001-Prov.I dated 5-7-2002 for laying down QRs/specifications of various items/equipments has since submitted QRs in respect of the following items:-

- (a) SYNTHESIZED SIGNAL GENERATORS
- (b) SPECTRUM ANALYSER
- (c) MODULATION METER
- (d) INSULATION TESTER
- (e) BROAD BAND WIRELESS SOLUTION

2. These recommendations have been accepted by MHA. The QRs finalized by the Sub-Group and accepted by MHA in respect of the above equipments are enclosed herewith.

3. Henceforth, all the CPMFs should procure the above items required by them to meet their operational needs strictly as per the laid down QRs/specifications.

Yours faithfully,

*Awn*

(Alok Mukhopadhyay )  
Under Secretary(Prov.I)

Copy to : DD(Procurement), MHA

*1. M/F  
2. copy to sig Bns.*

Copy for information to:

- 1. PS to JS(PM), MHA
- 2. Dir(Prov), MHA

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QRs / SPECIFICATIONS FOR SPECTRUM ANALYZER

<u>Frequency</u>	
Freq. Range	9 KHz – 3 GHz
Resolution	1 Hz
Accuracy	1 PPM or better
Freq. Span	1 KHz to 3 GHz, 0 Hz
<u>Spectral Purity</u>	
Sweep Time	
Span $\geq$ 1 KHz	100mS to 1000Sec
<u>Band Width</u>	
Resolution BW (-3dB)	200Hz to 1 MHz
Video BW	10 Hz to 1 MHz
<u>Amplitude Section</u>	
Reference Level	- 110 dBm to + 36 dBm
Accuracy	$\pm$ 2 dB
Average Noise	$\leq$ -110 dBm, typical -120 dBm, RBW – 300 Hz, VBW 10 Hz, Input Attenuation 0 dB
Spurious Response	$\leq$ - 60 dBc
Display Units	dBm, dB $\mu$ V, dBmV
RF Input Attenuation Range	0 dB to 70 dB
<u>Interface</u>	
RF Input connector	N Female
Input Impedance	50 ohm
VSWR	$<$ 1.5 (10 MHz to 3 GHz), Input Attenuation $\geq$ 20 dB
Max. Input Level	+ 33 dBm with 30 dB input attenuation
<u>GENERAL</u>	
Display	5.4" active TFT colour display.
Display Resolution	320 x240 pixels
Line Voltage	100 V – 240 V AC, 50-60 Hz, Auto ranging
Power Consumption	$<$ 35 VA

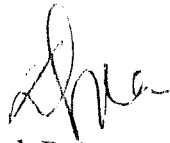
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Operating Temperature +5 °C to +45°C  
Storage Temperature -20°C to +70°C  
Relative Humidity 95% at + 10°C  
Dimensions 219 x 147 x 350mm  
Weight < 7.4 kg

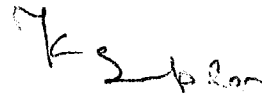
Other Requirement :-

Required accessories including Power Cord, Measuring Probes, Operating & Service Manual and spare parts for 5 years trouble free operation.

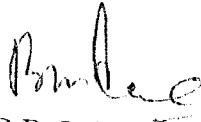
2 Years Warranty from the date of receipt of goods in good condition.



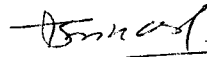
(Kamallesh Deka)  
Director General(Conn), BSF



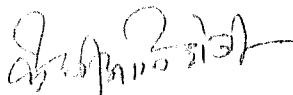
(Brig. M. K. Gupta)  
Dy. Inspector General(Conn), NSG



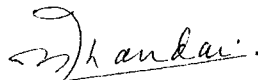
(B.B. Lal)  
Deputy Director(Tech), I.B.



(S.K. Jindal)  
Scientist 'F' D.R.D.O.



(K.C. Agnihotri)  
Deputy Director(Eqpt), DCPW



(J.S. Bhandari)  
Assistant Commandant(Tele), SSB