

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

18

19

New Delhi , Dated 31.03.2006

To

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

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

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) Radio Communication Test Set
- (b) Distortion Meter
- (c) HF Man pack Transceiver

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,

Alok

(Alok Mukhopadhyay)
Under Secretary(Prov.I)

Copy to : DD(Procurement), MHA

Copy for information to:

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

1254/2002-26
21/4

DMF
MHA
21/4
SSO/E

390 mhd
21/4/06

QRs for Manpack HF Transreceivers

General

1. Frequency Range : 2 MHz to 29.999 MHz
2. Mode of Operation : SSB (LSB or USB) CW/AM
3. Frequency Steps : 100 Hz
4. Frequency Control : Synthesizer
5. Frequency Stability : ± 1 ppm or better

Transmitter

1. RF Output power : Should support both 5W , 15 W
2. Harmonic Suppression : 40 db or better
3. Unwanted side band suppression : 40db or better
4. Audio response : Within 6dB from 300Hz to 3 KHz

Receiver

1. Sensitivity
CW & SSB : 0.5uV for 10dB (S+N) / N or better
2. Image rejection : > 50 db
3. Selectivity
 - a) CW : 300 Hz at - 6 db
3.5 KHz at - 60 db
 - c) SSB : 2.7 KHz at - 6 db
4.5 KHz at - 60 db
- 3.. AF output : > 1W across loudspeaker/
> 2.5mW across 150 ohm headphonc.

Power Supply


- Input Voltage : 12 - 24 VDC , Battery pack rating from 4 AH to 7 AH ,
SMF / Ni⁺ / Mh / Li - Ion

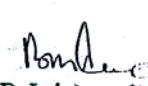
Environment

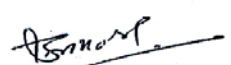
- Operating temp. : - 20°C to +55°C

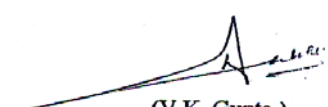
OTHER REQUIREMENTS

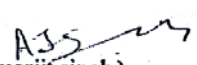
- Comm range : HF man pack set will enable reliable communication up to distance of 50KM - 70 KM(CFD)..
- Warranty : 2 Years from date of receipt of store in good condition.
- Spares ; Supplier will have the responsibility to supply required spares for a span of 8 years from the date of supply of the equipment.
- Manuals : User and technical manuals giving circuit and schematic details be supplied along with the equipment.
- Training : Supplier will have to arrange training for a duration of 2 weeks on maintenance of equipment.
- Weight : Weight of the man pack role set is of prime consideration. It should not exceed 10 kg including bty and its accessories.(However Preference will be given to sets with less weight.)
- Bty capacity : Bty must provide on an average around 10 hrs of operation at the ratio of 1:10 (Tx/Rx)
- Accessories : All essential accessories such as Antenna, ATU, Battery charger, RF cable etc., are to be quoted separately
- Harness : System should be supplied complete with man pack harness
- Protection : (i) Reverse polarity protection should be provided .
(ii) The final RF stage be protected against high VSWR

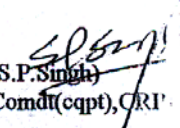

(Kamalesh deka)
IG(Conn),BSF


(B.B. Lal)
DD(Tech),IB


(S.K. Jindal)
Scientist 'F', DRDO


(V.K. Gupta)
DD(QA), DGS & I


(Amarjit Singh)
DD(Eqpt), DCPW


(S.P. Singh)
Comdt(cqpt), CRP

