

No. IV-17017/13/2006-Prov-I
Government of India
Ministry of Home Affairs

26, Man Singh Road, Jaisalmer House,
New Delhi, 30.3.2010

To

14/07

16/07

13/07 7/08

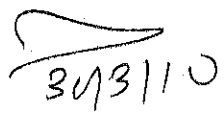
The DGs: Assam Rifles/BSF/CISF/CRPF/ITBP/NSG/SSB/BPR&D - 16/07

Subject:-Amendment in the existing QRs/specifications for the VHF/UHF portable monitoring receiver.

In partial modification of this Ministry's letter of even number dated 9.6.2006, the following amendment/revision is made with the approval of the Competent Authority:-

Particulars	Qualitative requirement
Under heading "Receiver Accessories" After Arial/Antennas Voice Inverter analogue (in steps)(Optional)	Shall make receiver capable of monitoring inverted speech (in amplitude), in steps.

2. The remaining required specifications for the VHF/UHF portable monitoring receiver will remain un-changed.


(R.S.SHARMA)
Director(Prov)

Copy to:-DD(Procurement),MHA

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

-0-

New Delhi the 9th June, 2006

To

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

**Subject: Finalization of QRs/Specifications for
Weaponary/security Equipments**

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

- (i) Digital HF Transceiver
- (ii) Networking(NSG)
- ✓ (iii) VHF/UHF Portable monitoring receiver
- (iv) Broad band satellite terminal

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)
Tele. No.23381278

Copy to : DD(Procurement), MHA

Copy for information to:

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

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Qualitative Requirements (QRS): Vehicle Monitoring Receiver

Technical Specification	Qualitative Requirement																				
Receiver specifications																					
Frequency Range	30 MHz - 3000 MHz																				
Tuning steps / Frequency resolution	Minimum steps size 50 Hz or better.																				
Receive Mode	WFM, FM, AM, USB, LSB, CW																				
Sensitivity	<table border="1"> <thead> <tr> <th>Freq (MHz)</th> <th>AM (10dB S/N)</th> <th>FM (12dB S/N)</th> <th>WFM (12dB S/N)</th> </tr> </thead> <tbody> <tr> <td>30 - 470</td> <td align="center">-</td> <td>0.85 μV or better</td> <td>1.5 μV or better</td> </tr> <tr> <td>470 - 1040</td> <td align="center">-</td> <td>0.9 μV or better</td> <td align="center">-</td> </tr> <tr> <td>1040 - 2040</td> <td align="center">-</td> <td>0.9 μV or better</td> <td align="center">-</td> </tr> <tr> <td>2040 - 3000</td> <td align="center">-</td> <td>25 μV or better</td> <td align="center">-</td> </tr> </tbody> </table>	Freq (MHz)	AM (10dB S/N)	FM (12dB S/N)	WFM (12dB S/N)	30 - 470	-	0.85 μ V or better	1.5 μ V or better	470 - 1040	-	0.9 μ V or better	-	1040 - 2040	-	0.9 μ V or better	-	2040 - 3000	-	25 μ V or better	-
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	30 - 470	-	0.85 μ V or better	1.5 μ V or better																	
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	1040 - 2040	-	0.9 μ V or better	-																	
2040 - 3000	-	25 μ V or better	-																		
Selectivity	SSB - 1.8 KHz or 3KHz / - 6 dB AM / FM - 9 KHz or 12 KHz / - 6 dB. WFM - 150 KHz / -3 dB or 6 dB.																				
VFO	Two.																				
Power Consumption / Current drain	(i) Nominal - 190 mA or less (ii) Standby - 145 mA or less (iii) Power Save - 35 mA or less																				
Power Supply.																					
Battery Pack	Li - Ion 1650 mAH (or higher) or Ni - MH 1500 mAH (or higher) rechargeable battery.																				
Battery charger	Charger provided for charging of rechargeable batteries.																				
AF Output	100 mv at 10% distortion on 8 Ohms load																				
Antenna impedance	50 Ohms (BNC).																				
Channels / Scan Features.																					
Memory channels	1000 or more																				
Scan Channels	25 or more																				
Scan rate	Minimum 25 channel per second.																				
Search banks / edges	25 or more																				
Receiver Features.																					
Display	Alphanumeric LCD display.																				
Power saving	Battery save function with low battery indicator.																				
Filter	Noise blanker and noise limiter																				
AFC	AFC (Automatic Frequency Control) function for spot on tuning.																				
Computer Control	Programming																				
Audio recording	(a) Internal digital recording storage capacity if any to be specified (b) Facility to record with external lead on to external audio tape recorder and a digital analysing system.																				
Weight	Less than 400 grams without serial and digital analysing system.																				

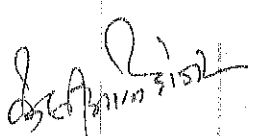
Technical Specification	Qualitative Requirement
Receiver Accessories	
Aerial / Antennae	(a) Telescopic whip aerial to be directly fitted on the receiver. (b) Telescopic whip aerial mounted on magnetic base with master of flexible coaxial cable. (c) Discome aerial with 15 and 25 meter omnidirectional cables and telescopic mast of 10 feet with carrying case.
Data Cable Link	To interface with computer on RS 232 port or USB port
Tape recording lead	For recording radio interception directly on to tape recorder in real time
Digital Tape Recorder and cassettes	To record radio intercept on digital recorder with digital recorder with digital cassettes
Earphone / Headphones	For hands free operation during monitoring of radio intercept, which provides clear audio even in noisy environment.
External speakers	External speaker of 8 ohms with connector
Belt Clip	Swivel belt clip or alligator type.
Carrying case	Long lasting carrying case to help protect receiver from scratches
<u>DIGITAL RECORDING AND ANALYSING SYSTEM SPECIFICATION</u>	
Processor	Intel Pentium 4 or higher processor
RAM	1 to 2 GB
Hard disk	40 to 80 GB
Display	10 to 12 inch TFT touch screen
Combo Drive (Internal or External)	CD/DVD write/read
Interface	(a) Inbuilt LAN Card with option for Wireless LAN, GSM/CDMA and GPS. (b) External audio input (c) Blue tooth enabled,
Accessories	(a) External 100 Watt Speaker (b) Internal Battery life - 8 hours (c) Connecting lid from monitoring receiver audio out to audio in (d) Audio head gear with noise filter inbuilt to be connected with digital recording and analysing system audio output (e) AC Power supply cable (f) Carrying case (Ruggedised magnesium alloy) with hinge. (g) External 650VA digital UPS with 30 minutes backup
Software original (OEM)	(a) Windows XP or higher operating system (b) MS Office compact pack (c) Cool edit (Audio editing) (d) Other audio editing software can be quoted

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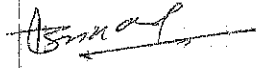
Technical Specification	Qualitative Requirement
Environmental conditions	(a) Operating Temperature: - 5° C to + 50° C (b) Confirm to Mil Std 810 F or higher.
<u>Literatures.</u>	
User Hand Book	One per set
Technical manual for receiver	Should give out full technical description of equipment, circuit layout, etc., to be supplied at the scale of 100% of equipment being purchased or minimum quantity two
Warranty	Comprehensive three years with option for five year AMC after warranty.
Spares / Tools.	For user level maintenance:-
Supply of spares	Be able to supply the spares of radio receiver for six years after warranty
Spares List	(i) MRLS (Manufacture Recommended List of Spares) should be provided. (ii) ISPL (Illustrated Spares Part List) should be provided.
Test Equipment	List of Test Equipment should be provided.
Field Trial.	One receiver and one digital recording and analysing system for field trials at no cost and no commitment basis to ascertain the user satisfaction before the proposal is accepted.
Training.	Firm should train a team of four operator and mechanic in handling, operating and repairing of radio receiver free of cost after procurement.
After Sales Service.	Firm should mention the system of repair, AMC, after sales service and customer care facilities in India for carrying out repairs after warranty.
Govt of India License.	Firm should enclose Government of India license for selling the radio receiver in India.
DOT / WPC License.	Firm should enclose DOT / WPC license for using surveillance equipment in India.


Kamallesh Deka
IG(Comm), BSF


B B Lal
DD(Tech), IB


K C Agnihotri
DD(Eqpt), DCPW


Brig M K Gupta
DIG(Comm), NSG


S K Jindal
Scientist 'F', DRDO


Lt Col A K Uniyal
Sqn Cdr, Comm Gp, NSG