

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 Aerial/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.

303110
(R.S.SHARMA)
Director(Prov)

Copy to:-DD(Procurement),MHA

o/c


QUALITATIVE REQUIREMENTS (CONS: VENDOR) FOR THE RECEIVER

Technical Specification	Qualitative Requirement																				
Receiver specification																					
Frequency Range	30 MHz - 3000 MHz																				
Frequency Steps / Frequency resolution	Minimum steps size 50 Hz or better.																				
Receive Modes	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>-</td> <td>0.85 μV or better</td> <td>1.5 μV or better</td> </tr> <tr> <td>470 - 1040</td> <td>-</td> <td>0.9 μV or better</td> <td>-</td> </tr> <tr> <td>1040 - 2040</td> <td>-</td> <td>0.9 μV or better</td> <td>-</td> </tr> <tr> <td>2040 - 3000</td> <td>-</td> <td>25 μV or better</td> <td>-</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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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.																				
AV Output	100 mW 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 tanks / 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																				
AF	APC (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 aerial and digital analysing system																				

Functional Requirement	Qualitative Description
Accessory Accessories	
Aerial / Antenna:	(t) Telescopic whip aerial to be directly fitted on the receiver. (f) Telescopic whip aerial mounted on magnetic base with meter of flexible coaxial cable. (g) Different aerial with 15 and 20 meter combined with telescopic mast of 10 feet with carrying case.
Main Control Panel	To interface with computer on RS 232 port or USB port
Tap 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
DIGITAL RECORDING AND ANALYSING SYSTEM SPECIFICATION	
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

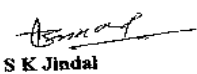
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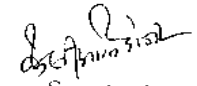
Technical Specifications	Qualitative Requirement
Environmental conditions	(a) Operating Temperature: - 5° C to + 50° C (b) Conform to Mil Std 810 F or higher.
Literatures	
User Hand Book	One per set
Technical manual for receiver	Should give out full technical description of operation of circuit layout, etc., to be supplied at the rate of 1000 per 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.

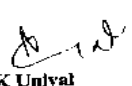

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