

28

372 CT

46

W.C.R.

Standard Specification and description of Trans-receiver VHF, Handheld Walkie-Talkie set 5W.

Trans receiver, VHF, Handheld Walkie-talkie set 5W (tuned for rated power of 5 Watts) with 2200 mAh or higher Ni-Mh Battery pack, Configuration VH-3 Band 136-174 MHz full band along with one spare Battery pack of Capacity 2200.mAh or higher capacity & Rapid chargers as per specifications enclosed. The VHF walkie-talkie shall be MIL standard compliance for 810C, D, E & F duly verified by RDSO.

**Feature Wise Configuration-
VH3 option**

- (i) Simple Press to talk
- (ii) CTCSS or DCS
- (iii) Low Battery alert
- (iv) VOX for Hand free Operations
- (v) PTT ID Encode
- (vi) Protection against high VSWR
- (vii) Busy Channel lock out
- (viii) Channel Scanning with call quieting facility
- (ix) Anyone of DTMF/Digital Signalling
- (x) Capable of being killed with SOS/Siren

Technical Specification :

- 1. Frequency range : 136-174 MHz (Full band only)
- 2. No. of channels : 16 channels or more.
Channels 1&3 should be programmed to cover end frequencies & channel 2 for the mid frequencies of the quoted frequency spread. Remaining channels should also be programmed to cover the quoted frequency spread.
- 3. Channel spacing : 12.5 KHz
- 4. Frequency spaced : 5 MHz or more without degradation in Tx/Rx Specification
- 5. Frequency stability : 5 PPM or better
- 6. Type of Emission : 11 KOF3
- 7. Type of operation : Simplex, press to talk with built in condenser mic & speaker.
- 8. Type of antenna : Helical antennas suitable for the frequency Spot specified in supply order.
- 9. Speaker Impedance : To be specified by the firms both at internal & External speaker point.
- 10. Output Impedance/
Termination: 50 Ohms & the aerial terminal should have BNC female socket or appropriate adapter with the sets for DCPW for testing /evaluation.
- 11. Protection
(i) Reverse polarity protection should be provided.
(ii) The final transistor should be protected against high VSWR
- 12. Weight : 600 gm with Battery
- 13. Power Source : 2200 mAh 7.2 V/7.4 V, Ni-Mh
- 14. Voltage : Test Voltage to be indicated by the tenderers.

Transmitter:-

- 1. RF Power output : 5W +/- 0.5 dB switchable/ programmable
- 2. Frequency Deviation : +/- 2.5 KHz Max (For 100 % at 1 KHz) for 12.5 KHz channel spacing.
- 3. Modulation Sensitivity : 1 to 10 mV at 1 KHz at mic. Input for +/- 1.5 KHz (for 12.5 KHz channel Spacing) standard deviation.
- 4. Modulation Distortion : Less than 5% at 1 KHz reference for +/- 1.5 KHz (for 12.5 KHz

W/C

Abhishek
10/08/17
ADSTETT/JESB

med

Aharas
10/08/17
A-ESTE/Tele/HB

उप मुख्य सामग्री प्रबन्धक/जी.एण्ड सी.
Dy. Chief Materials Manager/G&C
पश्चिम मध्य रेल, जबलपुर
West Central Railway, Jabalpur

- Channel spacing) standard deviation.
5. Modulation Fidelity : +1, -3 dB of 6 dB/Octave pre emphasis Characteristics from 350 Hz to 2700 Hz with 1 KHz as reference.
 6. Spurious & Harmonic suppression : Better than 60 dB.
 7. VSWR : Better than 1.5

Receiver :-

1. Sensitivity : 0.30 micro V for 12 dB SINAD.
2. Squelch Sensitivity : 0.25 micro V or better at threshold.
3. Selectivity : Better than 60 dB
4. Image rejection : Better than 65 dB.
5. Audio output : 250 mW/500 mW with less than 5% distortion at 1 KHz reference measured at specified AF output.
6. Audio response : +1, -3 dB of 6 dB/Octave de-emphasis characteristics from 350 Hz to 2700 Hz with 1 KHz as reference.

Rapid Battery charger :

- a) Input Voltage : 230 V +/- 10% 50 HZ
- b) Output Voltage : As per the set battery pack for which charger is submitted.
- c) Charging capability : Capable of charging 1 battery set at a time.
- d) Battery charging rate : The charging current shall be within 1 Amp. The charging time shall be 1 to 3 hrs (for charging batteries upto 1800 mAh) or 2 to 4 hrs (for charging batteries from 2000 to 3000 mAh) respectively.
- e) Reverse polarity protection (DC input) should be provided.
- f) Reverse polarity protection (Battery Terminal) should be provided.
- g) Short Circuit protection should be provided.
- h) Visual indication for all modes of charging status.
- i) DC input cable with battery eyelet to be provided with DC operated charger.

Special condition : As per RDSO Ltr. No. STT/WL/VHF/209/Vol. V Dt. 05-02-2010 only MIL standard compliance for 810C, D, E & F duly verified by RDSO will be considered for procurement. MIL-STD test pertains to climatic/Environments/Vibration parameter & arc for, Low pressure, High temperature, Low temperature, Temperature shock, solar radiation, Rain Humidity, Salt Fog, Dust, and Vibration & Shocks.

M. B. B. A.
10/08/17
ADS TEL T de JSB

Ashwani
10/8/17
AESTE TEL / HO

(Signature)

उप मुख्या सामग्री प्रबन्धक/जी.एण्ड.सी.
Dy. Chief Materials Manager/G&C
पश्चिम मध्य रेल, जबलपुर
West Central Railway Jabalpur