

Specification :

Standard Common Description of Item :

Trans receiver, VHF, hand Held Walkie-talkie sets (TX/5W (tuned for rated power of 5Watts) Synthesized with 2200 mAH Ni-Mh Battery pack, Configuration VH-3 Band 136-173 MHz full band along with one spare Battery pack of Capacity 2200mAH capacity and Rapid charger as per specification enclosed. The VHF walkie-Talkie shall be MIL standard compliance for 810C, D,E & F duly verified by RDSO

General.

Recommended make & Model Motorola GP-328/ Kenwood TK 2107/ 1 Com IC-F-14 or equivalent shall be MIL standard complied & Certified by RDSO for MIL- STD - 810C ,D ,E & F

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) Any one of DTMF/digital signaling
- (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 and channel 2 for the mid frequency of the quoted frequency spared. Remaining channels should also be programmed to cover the quoted frequency spread. |
| 3. | Channel Spacing | : | 12.5 KHz. |
| 4. | Frequency spared | : | 5 MHz or more without degradation in Tx/Rx specification. |
| 5. | Frequency Stability | : | 5PPM or better. |
| 6. | Type of Emission | : | 11 KOF3 |
| 7. | Type of Operation | : | Simplex, press to talk with built in condenser mic and 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 And external speaker point. |
| 10. | Output Impedance/Termination: | : | 50 Ohms and the aerial terminal should have BNC female socket or appropriate adapter Should be provided with the sets for DCPW for testing/evaluation. |

FAX- 017- 33840
on 22-5-12
at 11-15 hrs

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11. Protection (i) Reverse polarity protection should be provided.
(ii) The final transistor should be protected against high VSWR
12. Weight : 600 g Max with battery.
13. Power Source : 2200 mAh 7.2V/7.4V, Ni-Mh
14. Voltage : Test voltage to be indicated by the tenderers.

Transmitter:

1. RF Power Output : 1W/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 channel spacing) standard deviation.
5. Modulation Fidelity : +1,-3 dB of 6dB/Octave pre-emphasis Characteristics from 350 Hz to 2700 Hz With 1 KHz as reference.
6. Spurious & Harmonics 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 : 250mW/500mW with less than 5% distortion at 1KHz 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 : 230V +/- 10%, 50Hz
- 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 up to 1800 mAh) or 2 to 4 hrs (for charging batteries from 2000 to 3000 Mah) respectively.

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- 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/III/209/VoLV 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 and are for , Low pressure ,High temperature , Low temperature , Temperature Shock ,Solar radiation ,Rain Humidity ,Salt Fog,Dust, Vibration & shocks.

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