

**Specification :**

**Standard Common Description of Item :**

Trans receiver, VHF, hand Held Walkie-talkie sets (tuned for rated power of 5Watts) Synthesized with 2200 mAh Ni-Mh Battery pack, Configuration VHF-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-  
VHF3 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- 017-33860  
on 22-512  
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  $\pm$  0.5 dB switchable/programmable
- 2 Frequency Deviation  $\pm$  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  $\pm$  1.5 KHz (for 12.5 KHz channel spacing) standard deviation.
- 4 Modulation Distortion Less than 5% at 1 KHz reference for  $\pm$  1.5 KHz (for 12.5 KHz channel spacing) standard deviation.
- 5 Modulation Fidelity  $\pm$  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  $\pm$  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  $\pm$  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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*[Handwritten Signature]*

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- e) Reverse polarity protection (DC input) should be provided
  - f) Reverse polarity protection (Battery Terminals) 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/VIII/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 and any for , Low pressure ,High temperature , Low temperature , Temperature Shock ,Solar radiation ,Rain Humidity ,Salt Fog,Dust, Vibration & shocks.

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