Test Procedure for Field Trials of 15 W to 100 Watt Manpack/Static HF Radio Set

Specification:
15 W to 100 Watt HF Manpack/Static Radio Set (user organization may specify)
Name of OEM/Vendor/Organization: .....
Serial Number of Equipment: .....
Make/Model of Equipment: .....

SNO	Parameters	Test Purpose	Trial/Test Procedure	Complied/ Not complied	Remarks
1.1	Communication from radio set to another radio set (Range Check)	To verify whether communication is being established between two Radio sets at distance of 400-600 km or more in case for HF static radio sets or 100-250 km in case of HF Man pack radio sets.	1. Place two HF radio sets at a distance of 100-250 km ± 5% in case of HF Man pack radio set or at a distance of 400-600 km ± 5% in case of HF static radio set. 2. Switch ON the both radio sets respectively. 3. Select the same Channel/Frequency in both radio sets. 4. Check for the communication is happening between each other or not.		
1.2	Selective Calling : Digital FSK coding (4/6 digit select call)	To ensure that equipment is transmitting or receiving selective call in digital select call mode.	Firm will provide NABL/OEM Certificate		
1.3	Scanning : 5 channels per second or better	To ensure that HF radio set can Scan 5 channels per second or better.	Firm will provide NABL/OEM Certificate		
1.4	ALE (2G/3G): Complying MIL-STD-188-141-B	To ensure that HF radio set having advance communication facility of automatic link establishment in 2G and 3G and following military standards.	Firm will provide NABL/OEM Certificate		

1.5	ALE , Link Quality data resolution: 24 hours, up to 100 stations and 100 Channels or better.	To ensure that HF radio set having ALE facility can transmit data up 24 hours and 100 channel or more	Firm will provide NABL/OEM Certificate		
1.6	ALE Link quality data resolution: Local :5 bits SINAD, 5 bits BER Remote: 5bits SINAD, 5 bits BER		Firm will provide NABL/OEM Certificate		
1.7	Flash Messages: Predefined messages/ Minimum 60 characters	To ensure that HF radio set has predefined massage facility	To be checked practically by sending predefined flash massages.		
1.8	VOCODER : MELP/ACLP/CELP (1200/2400 bps) or Better	To ensure that HF radio set is capable of using advance data compression and encryption system	Firm will provide NABL/OEM Certificate		
1.9	Frequency Hopping : Hop Rate: 6 / 12 / 25 hops per second (User programmable) as per regulation. Hop set table: 100 frequencies or better.	To ensure that HF radio set has provision of programming Hopping frequency in range of 6/12/25 hops per second.	Firm will provide NABL/OEM Certificate		
1.10	GPS Interface: In-built GPS with Polling Facilities	To ensure that set has inbuilt GPS facility.	To be checked practically whether HF radio set has inbuilt GPS facility and it is functionality is accurate.		
1.11	RS-232 Control: The Radio set should have capability to operate on 4800 bps or more.	To ensure that HF radio set has RS-232 port and capable to transmit data on 4800bps or more	To be checked practically		
1.12	Tunable receiver: Continuous tunable	To ensure that set able to be tuned manually	Start tuning the radio set from smallest frequency		

			which can be tuned in HF radio set and reach to maximum frequency of the set following channel spacing. Ensure set is working in each frequency.		
1.13	Remote Radio Kill/ Stun/Revive facility	To verify whether Radio set is responding to Kill/Stun/Revive commands	1. Check practically by sending kill command to particular radio set. 2. Radio set received kill command will get killed. 3. Radio set should revive if we send revive command to the killed radio.		
1.14	Audio Input Sockets :Mic and external socket		To be checked Physically/Practically		
1.15	Squelch: Coded /Voice/Digital squelch	To ensure that HF radio set has squelch feature functional	To be checked Practically in all modes		
1.16	Push to talk: Suitable Microphone to be provided.	To ensure that HF radio set is equipped with suitable microphone with PTT	To be checked Practically		
1.17	Audio Socket : Suitable Head Gear should be provided	To ensure that Audio Socket is provided for head gear assembly	To be checked Physically/Practically		
1.18	Inbuilt data modem: MIL-STD-110A/B/C Single tone ≥ 4800 bps	To ensure that radio system has inbuilt data modem that can transfer data at the rate of 4800 bps or better	Firm will provide NABL/OEM Certificate		

1.19	Communication Security: VOCODER Based 128/256 bit digital encryption or SAG approved Encryption	To ensure that radio set has advance Vocoder based encryption system	Firm will provide NABL/OEM Certificate		
1.20	Data Communication: Provision for data communication	To Ensure that radio set has provision for data transmission	To be checked Practically that the Radio set should have capability of data transmission on 4800 bps or more.		
1.21	Remote Operation: Capable to operate from Remote Location	To ensure that radio set is able to be operated from remote location.	To be checked practically that radio set is able to be operated remotely.		
1.23	Tele Call: The Radio Set should have capability to dial and operate data		Firm will provide NABL/OEM Certificate		
1.24	Data Terminal: Should also be compatible with existing HF Radio				

Processor	Intel Core i5 or better
Speed	2.5 GHz or better
RAM	2 GB DDR 3 or better
Memory Speed	1333 MHz or better
HDD	1 TB or better
Display Size	Minimum 15.6 inch
Interface	USB Port
Keyboard	Multimedia
Mouse	Optical Mouse
Operating System	Window 7/8 or Latest Version OS
Data Communication Software	Compatible with Window 7/8 or Latest Version OS

These parameters/specifications to be checked Physically/Practically