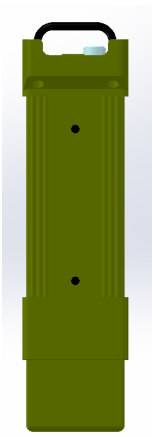
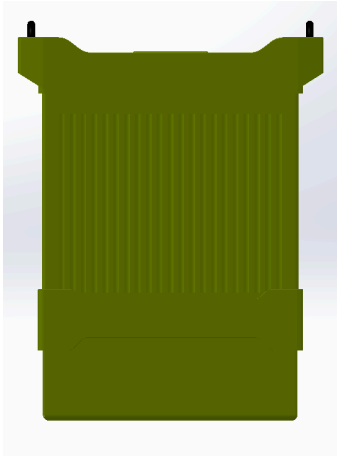
TBR-119

Backpack Tactical Multi-Function Radio Station

TBR-119 is a multi-purpose vehicle/backpack tactical multi-function radio station with all the functions of traditional tactical backpack radio station. Mode support: SSB, CW, AM, FM, DMR. The radio station is equipped with fully automatic Antenna tuner and can use various tactical and static antennas. The protection capability reaches IP67 and military aviation plug is adopted. The system includes a backpack station, a vehicle-mounted dock and a base station dock. When working in a vehicle-mounted or base station mode, the output RF power is short wave 20W or 100W (100W power amplifier is optional) PEP and UV20W. It can also be used as a relay.

Based on the new generation SDR software radio technology platform, it can meet the needs of most users and provide digital upgrade options for military and security users: digital voice, digital encryption, frequency hopping and other high-end functions. Meanwhile, Bluetooth module, GPS positioning module, electronic compass module and barometer (altitude meter) module are built in. Can be optional satellite communication modules: iridium module, maritime satellite module.





Technical characteristics

1.Excellent receiving and transmitting performance

Large reception dynamic range and extremely high reception sensitivity can distinguish weaker signals in strong noise. When the power supply is under the condition of 16.8 V, its HF transmission power reaches 20W or 100W (100W power amplifier module is selected) and UV15W, which can significantly enhance the uplink signal of the platform and berth. This means longer communication distance, better signal-to-noise ratio and communication quality.

2. Battery compartment design

The battery pack is separated from the main machine, and the snap-in design can quickly replace the battery.

3. Signal Relay Function

The radio station can be used as a relay to realize signal relay forwarding.

4. The signal is clean and pleasant

The latest DSP denoising technology can better filter out noise, suppress interference, expand sound range and make analog voice cleaner and pleasing to the ear.

5. Remote control

The radio station provides a terminal interface, and the console can be installed locally.

6. Satellite synchronous frequency hopping

Frequency hopping is used to resist active jamming and eavesdropping. The frequency hopping function uses (GPS) synchronous mode, with a hopping speed of 1 to 10 hops optional, and can adapt to different antennas by changing the frequency hopping bandwidth.

7. Digital Voice and Digital Encryption

Optional digital voice, vocoder processing speed can be 700/1200/2400 bps, which can complete digital processing of audio signal under the condition of poor signal-to-noise ratio, with short delay, complete noise-free, and encryption based on digital signal.

8. Data transmission modem

A variety of built-in or external modem can be selected, and the data throughput exceeds 4800bps.

Main technical indexes

Transmitter parameter	
Transmitting mode	FM,DMR,SSB，CW，AM,FSK,RTTY
Transmitting frequency range*1 / MHz	1.5～520MHz
Output Power*2	HF:20W/100W（Optional module） UV:15W
Number of channels	100
Receiver parameter	
Receiving mode	FM,DMR,SSB，CW，AM,FSK,RTTY
Receiving frequency range	100kHz～2GHz
Sensitivity*2	SSB/CW:（BW: 2.4kHz @ 10dB S/N）； 0.18μV（1.8～54）MHz； 0.25μV（144～146）MHz； 0.25μV（430～440）MHz； AM:（ BW: 6kHz @ 10dB S/N）； 15μV（0.3～1.8）MHz； 2μV（1.8～54）MHz； 2μV（144～146）MHz； 2μV（430～440）MHz； FM:（BW: 15kHz @12dB S/N）； 0.5μV（28.0～29.7）MHz； 0.25μV（50～54）MHz； 0.3μV（144～500）MHz；
Audio output power	2W（10% distortion rate, 8Ω load, 3kHz）
Antenna tuner parameter	
Tuning frequency range	1.5MHz～54MHz
Tuning accuracy	VSWR:≤1:1.5
Tuning time	2s～5s（Full Band 10s）
Tuning ways	automatic/manual
Batter	
Batter	10A˙H
Structural parameter	
Weight	＜5kg
Size	320*240*80mm
Working voltage parameter	
voltage range	9V～18VDC,Full power：13.8V～16V.

Note:

*1: The frequency is set according to local laws.

*2: To be calibrated, the final interpretation right belongs to the manufacturer.