



# HTT-800

## Tactical HF Software Defined Radio

- Fast and intelligent frequency selection
- High speed data rate
- Voice message service
- Rugged and modular design
- AES-256 and customized encryption



Vehicular/Base Radio

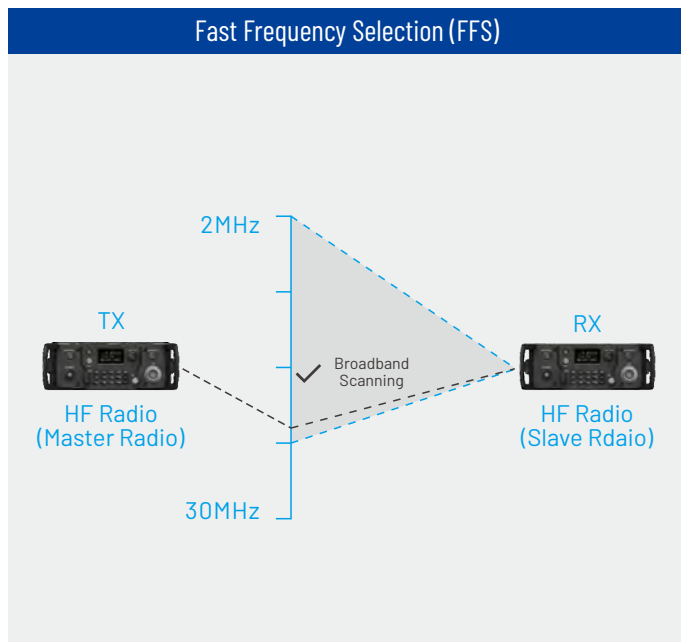


Manpack Radio

## Overview

The tactical HF SDR provide reliable and secure long range voice and data services under harsh environment conditions. The radio adopts Direct RF Sampling in broadband spectrum technologies to automatically and quickly select the best communication frequency. The built-in AES256 encryption and customized encryption enable the radio to provide secure communication with advanced voice CODEC and DEC technology. Moreover, the radio can offer clear voice under noisy environment.

## Advanced Waveforms



### Intelligent Probe

Built-in efficient detection and search algorithms, which quickly complete channel quality detection through flexible detection strategies during the idle period of the radio, providing reliable channel quality data for intelligent frequency selection.

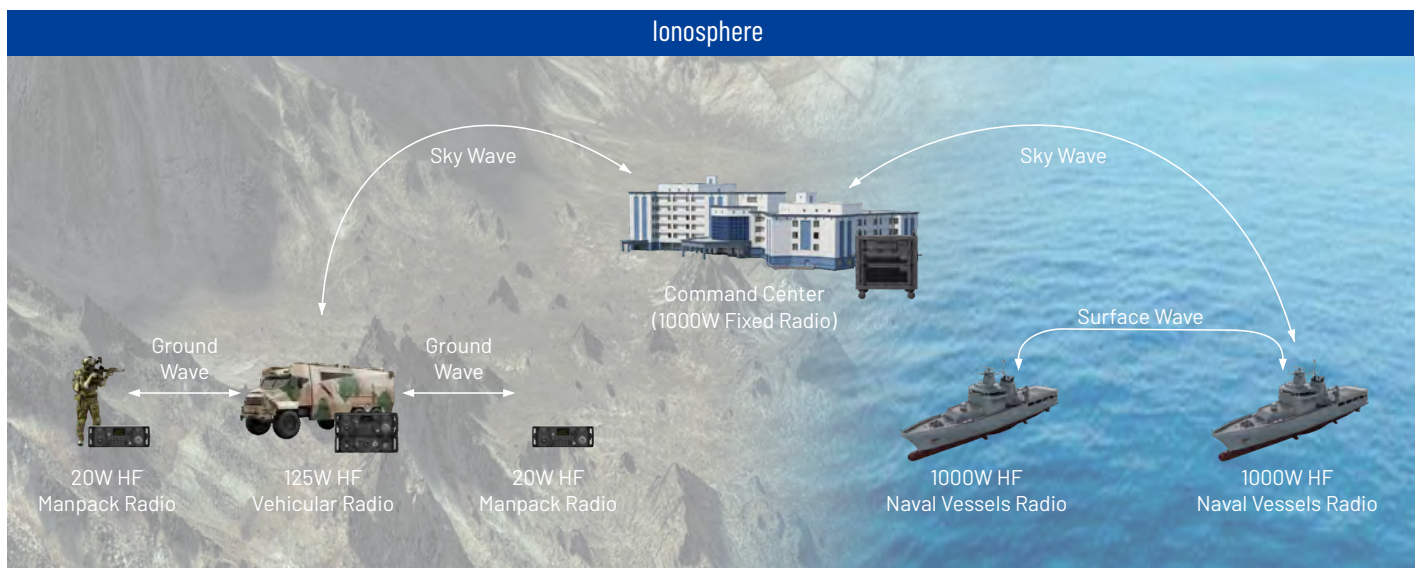
### Intelligent Frequency Selection

The radio adopts a high-performance hardware platform, SDR architecture, spectrum awareness and multi-channel parallel reception technology. By creating a historical database of available frequency points and combining it with efficient frequency search algorithms, it helps users to quickly and intelligently select the optimal frequency points.

### Intelligent Link Maintenance

Dynamic monitoring, automatic maintenance and restoration can ensure round-the-clock availability of communication link.

## Application



In HF communication, the communication within more than ten kilometers is achieved through the ground wave, within 200 kilometers through the surface wave, and within thousands of kilometers through reflection by ionosphere. The combination of fixed and mobile networks makes interference more difficult, which enables HF communications to be more reliable and efficient.

# Highlights

## Communication Ability



**Data Transmission**  
The radio has a built-in modem for data transmission.



**Voice Message**  
The radio supports voice message sending and receiving function.

## Reliability



**Ruggedized**  
Robust compact design, meets MIL-STD-810G in vibration, drop, rapid decompression, humidity, sand and dust, salt fog and etc.



**Immersion**  
Manpack radio supports 4 hours of immersion under 2 meters of water.

## Usability



**Remote Control**  
Remote control function can make users be able to control the radios remotely through Ethernet or field-cable. Radio remote control, with sites and call separation, flexible deployment and higher security.



**Modular Design**  
Modular design has simple structure and reasonable layout, which is conducive to product upgrade. Rectangular interface blind plug-in mode, convenient for module assembling and replacement.

## Communication Security (COMSEC)



**Encryption**  
The radio provides AES256 bits software encryption for both voice and data communication, as well as supports customized encryption board.



**Key Erasing**  
The radio affords diverse methods to prevent the secure information disclosure through erasing the key manually or automatically.

# Specification

General	
Frequency Range	1.6MHz~30MHz
Channels Spacing /Bandwidth	10Hz /3KHz
Channels	1000
GPS	External GPS Supported
Data Interface	RS232/Ethernet/USB
Power	Vehicular/Base: 19.2~32.4V,24V (Nominal)DC/AC 220V
Weight	Manpack: ≤6 kg (with battery) Vehicular/Base: ≤11 kg
Dimension (HXWXD, ±5mm)	Manpack: 75×190×367 (with battery) Vehicular/Base: 135×190×367
Waveforms and COMSEC	
Service type	Analog, Digital, Message, Low-speed packet, Key-telegraph, Data transfer
Modulation	USB/LSB/CW/AM
COMSEC	AES-256/Customized
ECCM	FH
Hopping Rate	5hops/s, 10hops/s, 20hops/s
AF Output	2W with Palm Microphone 10mW with Handset

Transmitter	
Output Power	Manpack: 5/20W Vehicular/Base: 20/50/125W
Receiver	
Sensitivity	Vehicular/Base: ≤-116dBm (SINAD=10dB)
RF Input Impedance	50Ω
Environmental	
Storage Temperature	Manpack: -50°C~70°C Vehicular/Base: -45°C~70°C
Operating Temperature	Manpack: -40°C~65°C (Dedicated Battery) Vehicular/Base: -40°C~65°C
Immersion	Manpack: 2m, 4h
Shock & Vibration	MIL-STD-810G
Electromagnetic	MIL-STD-461F





125W Power Amplifier

## Power Amplifier

125W power amplifier can be equipped with manpack radio and used as a base station or Vehicular radio, which is convenient for installation. With vehicle antenna or three-wire broadband antenna, it can effectively increased the communication distance.



## Automatic Antenna Tuner

The automatic antenna tuner can adapt to the power amplifier. When used with the power amplifier, it can ensure the amplifier be connected to different types of antennas, increasing the communication distance of HF system and improving the communication reliability.

## Accessories



15m Sloping Antenna



3m Whip Antenna



Broadband Antenna



Dipole Antenna



NVIS Antenna



12Ah Battery



Palm Microphone with Display



Hearing Defender Tactical Headset



Handset



Moss Key



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