# HTT-700

## Tactical VHF Radio

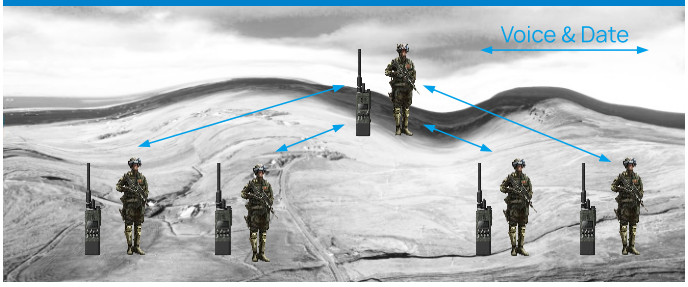
- Advanced SDR architecture.
- Multi-waveforms, multi-function, strong anti-interference, ad-hoc network.
- Up to 48kbps for data, short message and image transmission.
- Compact and lightweight industrial design , easy to use and operation.

Handheld Radio


Vehicular/Fixed Radio

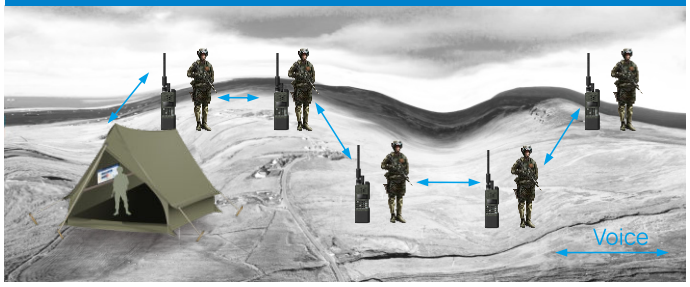
# Advanced Waveforms

## Combat Net Radio (CNR)



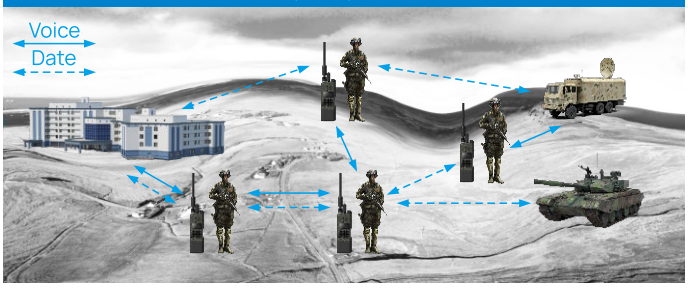

CNR network provides voice and data service. It is a point-to-point and point-to-multipoint communication networks.CNR includes 4 modes: FM (Frequency Modulation), FF (Fixed Frequency), FH (Frequency Hopping)and FCS (Free Channel Search).

## Voice Relay Network (VRN)



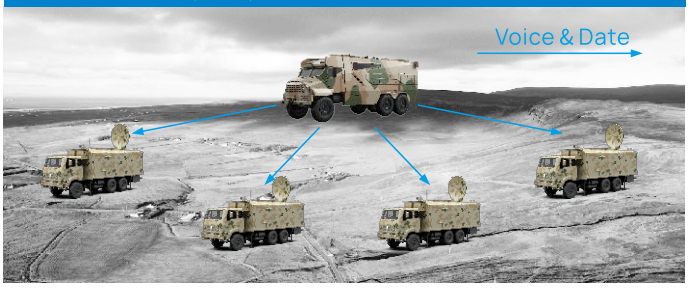

With 6-hop relay, the VRN network can extend communication distance by 3–5 times, enhancing communication capability in indoor, jungle, and other complicate environments. It can work in the fixed frequency relay and frequency hopping relay modes.

## Packet Radio Network (PRN)




The PRN network realizes centerless, ad hoc network, and self-recovery data transmission through Ad-hoc network technology based on pointto-multipoint voice communication (1-hop relay). It realize 32-node and 6-hop network to ensure real-time sharing of balefield information .It supports data and voice transmission simultaneously.

## Link Network (LINK)




LINK mainly serves as voice and real-time data transmission, supports data broadcasting, data and voice transmission at the same time. It has two working modes: fixed frequency and frequency hopping. LINK is mainly used in data application between weapon platforms. Any radio in this network can broadcast data to other radios, and multiple radios can broadcast data at the same time.

# Highlights

## Electronic Counter-Counter Measures(ECCM)

- **Frequency Hopping (FH)**
  The radio contains a frequency hopping rate of 1,000 hops per second which ensures the communication can be succeeded with up to 60 % of working band interfered.
- **Free Channel Search (FCS)**
  FCS mode is intended for operations that requires frequency agility in an high-noise or wideband radiojamming environment. With channel detection capability, it can find the best communication channel and increase communication distance by 30%.

## Communication Security (COMSEC)

- **Encryption**
  The radio provides AES 256 bit software encryption for both voice and data communication, as well as supports customized encryption board.
- **Key Fill Gun**
  Key fill gun offers 6 functions: confidential information storage, networking configurations injection, encryption parameters backup, identity authentication, key erasing execution and also reserves key storage ability even if in the event of power loss.
- **Key Erasing**
  The radio supports to erase the key manually or automatically, i.e., manually erasing the key by holding the combined buttons ; automatically erasing the key when the radio was disassembled.

## Reliability

- **Optimized Battery Performances**
  Continuously working for at least 10 hours (1:1:8,3800mAh) for the handheld radio through the unique adaptive energy saving technique. The operation temperature can be expanded to -40~+65℃ by adopting the low temperature battery.
- **Ruggedized**
  The radios are certified MIL-STD-810G

## Usability

- GPS build-in module enables team leaders at the tactical level to track individual soldier position location information (PLI), enabling situational awareness.
- OLED screen provides high brightness, wider viewing range, and readable capability under direct sunlight.
- Power and volume buttons are separated along both sides of PTT button to prevent mistakenly touch.
- Versatile applications such as data transmission software,PC programming kit

# Specification

| General | |
|---|---|
| Frequency Range | 30-88MHz |
| Channels | 2320 at 25kHz spacing |
| Net Preset | 100 total/15 selectable from switch |
| RF Output Impedence | 50Ω |
| FM Deviation | 5.6kHz±1kHz |
| Waveforms | CNR/VRN/PRN/LINK |
| Transmission Modes | FM/GMSK/CPM |
| COMSEC | AES 256/Customized |
| Data Rate | ⩽48kbps |
| Weight | Handheld: ⩽0.58 kg(with battery)<br>Vehicular/Fixed: ⩽8.1 kg |
| Dimension<br>(W×H×D, mm, ±5mm) | Handheld: 72.5×220×36.5<br>(with battery)<br>Vehicular/Fixed: 278×320×150 |
| **Transmitter** | |
| Output Power | Handheld: 0.5/2/4W<br>Vehicular/Fixed: 5/20/50W |

| Receiver | |
|---|---|
| Sensitivity | Handheld ⩽ -118dBm (SINAD=12dB)<br>Vehicular/Fixed: ⩽ -116dBm (SINAD=12dB) |
| Audio Power | 2W (16Ω) |
| Audio Distortion | ⩽3% |
| **Electronic Protection Measure (EPM)** | |
| ECCM | FH/FCS |
| Max. Hopping Rate | 1,000hops/s |
| **Environmental** | |
| Storage Temperature | Handheld: -45°C~70°C;<br>Vehicular/Fixed: -50°C~85°C |
| Operating Temperature | Handheld: -40°C to +65°C<br>(Low temp. Battery)<br>Vehicular/Fixed: -40°C to +65°C |
| Environmental Conditions | MIL-STD-810G |

# Power Amplifier


HTT-700-V01

Vehicluar/Fixed: 5/20/50W Power Amplifier offers jerk & run' features, so that the radio can be dismounted from the amplifier set without shut down.

The vehicluar/fixed radios not only remain all operation modes but also improve link reliability and expand coverage areas.

# Accessories

1.3m Handheld
Radio Antenna

Power Supply

3800mAh Handheld
Radio Battery

Key Fill Gun

3m Vehicle Antenna

3m Fixed Antenna

Palm Microphone
with Display

Tactical Headset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