



## WN500

### DMR Ad-hoc Portable Repeater

WN500 is a highly integrated backpack DMR ad-hoc repeater, which uses wireless interconnection technology to quickly build a multi-node narrowband network through cascading. It is mainly used in various fast deployment scenarios such as natural disasters, tunnel communications, public safety, and forestry management etc..

- Fast Deployment
- 32-Repeater Networking
- Wireless Programming
- Rich Interfaces
- Long-lasting Battery
- IP68 Protection Level



## Key Features



### Fast Deployment

The WN500 supports one-button startup. It is capable of creating and joining networks to deploy the communication system as soon as it is powered on.



### Highly Compatible

The WN500 is fully compatible or third-party DMR Tirell radios.



### Automatic Multi-hop Networking

The WN500 supports up to 32 nodes to form chain, mesh or hybrid networks, which can effectively extend the communication coverage.



### Built-in 4G Module

The WN500 has a built-in 4G module to ensure that when there is 4G network signal coverage, it can form a stable network with other repeaters or control centers without geographical restrictions.



### Easy to Operate

The WN500 is equipped with PTT button, microphone, speaker and hand microphone interface, which can realize instant communication between repeaters.



### Long-lasting Battery

The WN500 is equipped with a 210WH battery, has an intelligent remaining power display, supports quick replacement and separate charging, and has an optional Type-C charging interface that supports 60W smart fast charging, fully ensuring battery life.



### Unified Dispatch

The WN500 supports dispatch management and can realize application functions such as voice, SMS, positioning, recording, monitoring, and alarm.



### Positioning Module

Equipped with GPS positioning module, the WN500 screen can display the current repeater location information in real time.



### 2.4-inch High-definition Screen

The WN500 is equipped with 2.4-inch high-definition display screen on the top of the repeater. The display can display channel information, transmission power, device status and other information.



### Wireless Programming

The WN500 can be programmed by a network management system via Wi-Fi network, which eliminates the hassle of programming via cables and minimizes downtime on site.



### Flash Warning

The WN500 is equipped with a loud speaker and flash light. In an emergency situation, the exposure light and sound prompts can be remotely controlled to attract attention so that rescue actions can be taken in time.



### Display Locations of Nearby Repeaters

The WN500's screen can display the location of nearby repeaters real time.

# Specifications

General	
Frequency Range	350-400 MHz, 400-470 MHz
Channel Capacity	1024
Protocol	DMR TierII
Latency	≤ 90 ms
Channel Spacing	12.5 kHz
Networking Capacity	32 nodes
Vocoder Type	AMBE++
Operating Voltage	DC 10 - 17 V
Adapter Input Voltage	100V-240V AC 50Hz
Battery Capacity	210WH
Operating Temperature	-30°C to +60°C
Storage Temperature	-40°C to +85°C
Dimensions (LxWxH )	225 x 82.5 x 331mm
Weight (with battery)	4.5 kg
Display	2.4 inch
Antenna Impedance	50Ω
Dust & Water Intrusion	IP68

Receiver	
Sensitivity	≤-120dBm, BER@5%

Transmitter	
RF Output Power	10W/25W/45W(Adjustable)

## Typical Application Scenarios



Forestry Management



Oil and Gas

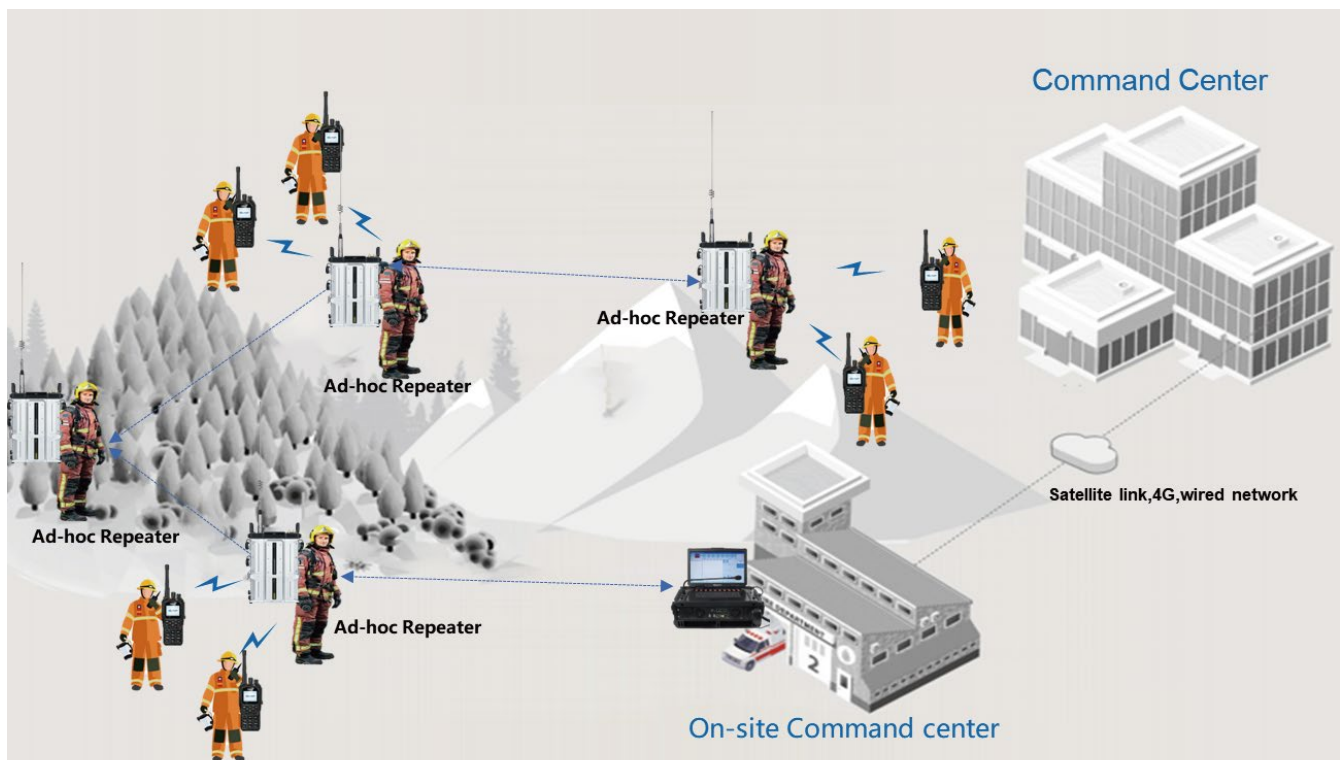


Tunnels

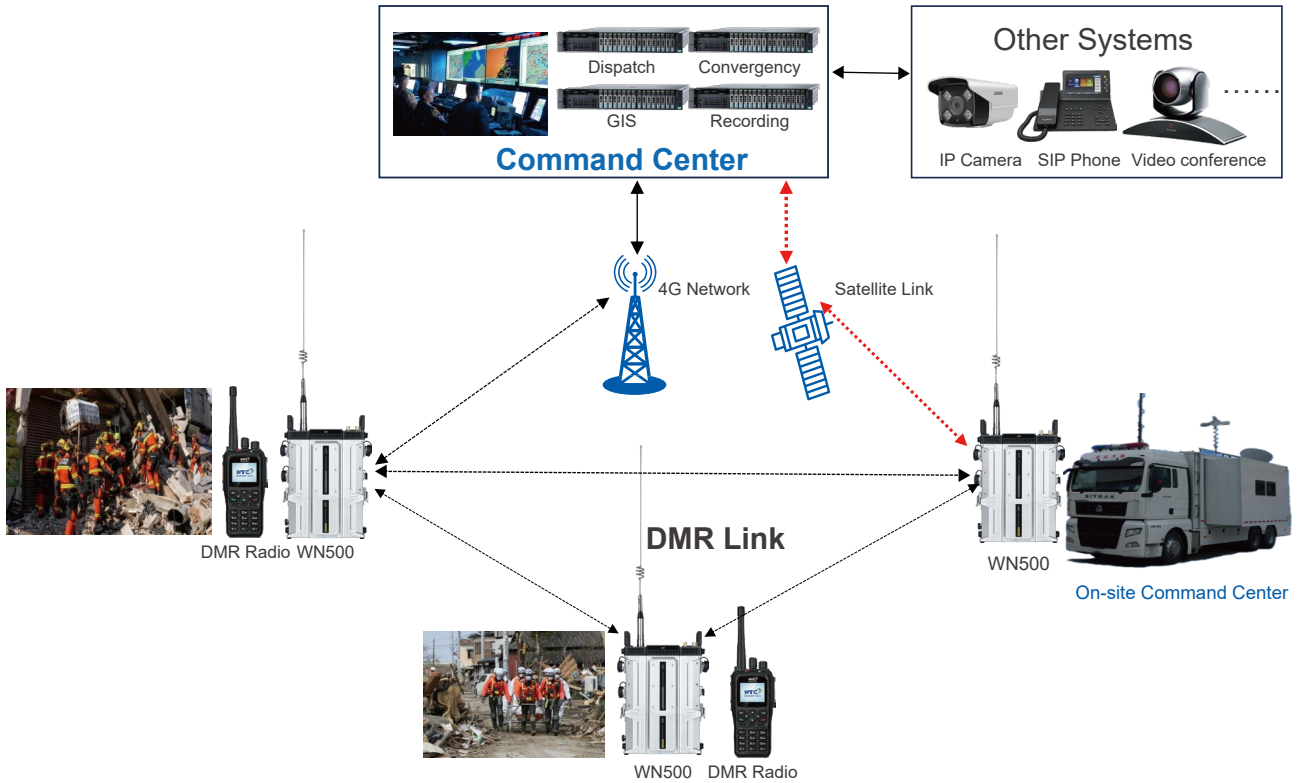


Disaster Rescue

## Forest Fire Response Communication



## Natural Disaster Response Communication



## Tunnels Extended Communication Range

