BF-TR925R

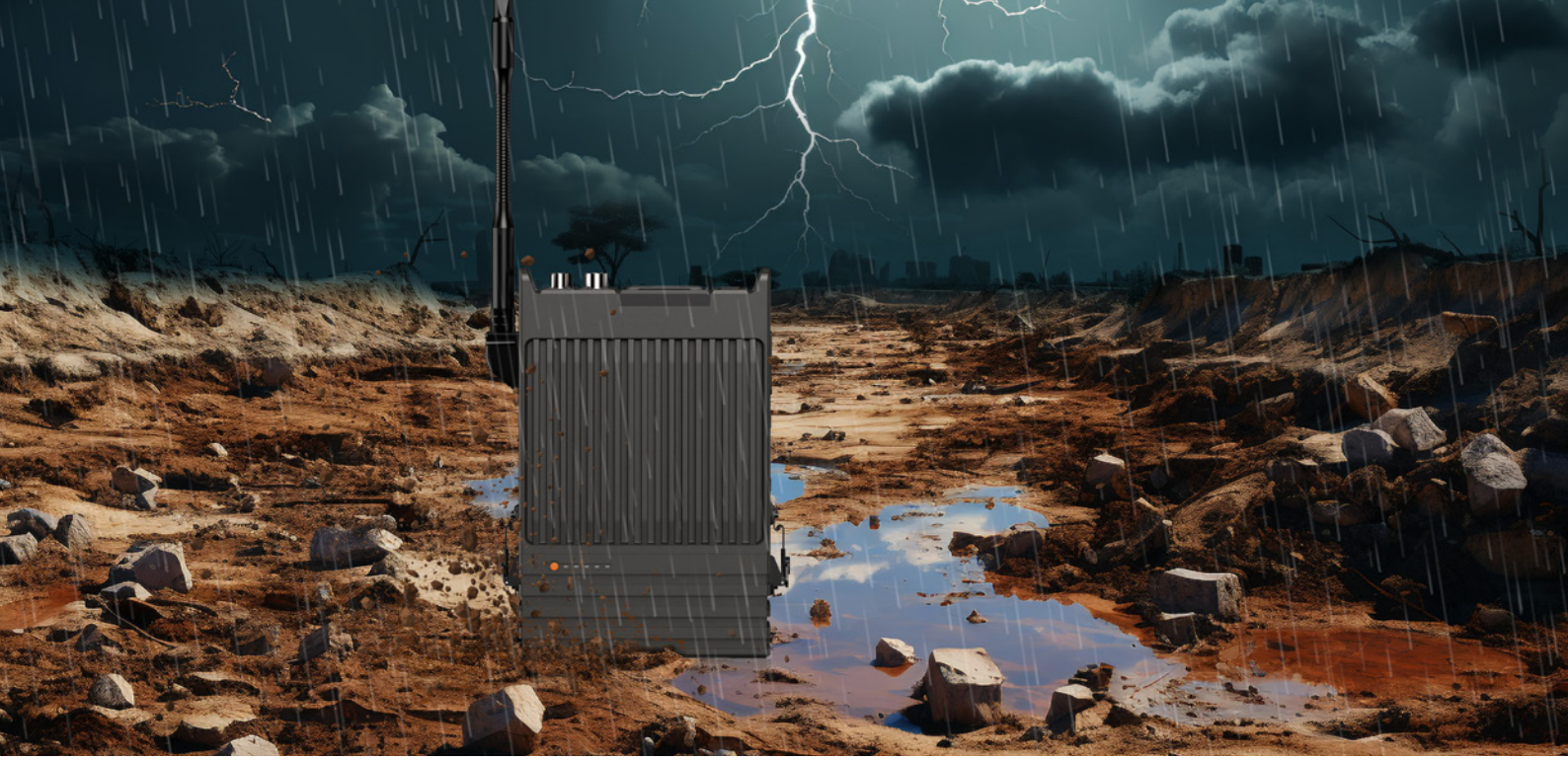
Digital Narrowband Ad-hoc Repeater Radio

BF-TR925R Ad-hoc base station featured enhanced stability, wide coverage, and quick networking. It is equipped with the capacity to establish a wireless communication network independently and rapidly without relying on external networks (IP network/satellite network/mobile network), and seamlessly integrate with the existing private wireless network, providing reliable communication guarantees for emergencies or major events.

- 4G PSTN
- Dual Channel*
- IP68 Protection
- Rapid Deployment
- Intelligent Dispatch*
- Flexible Networking
- Dual Mode Positioning
- Multiple Power Supply Modes

BelFone
Communications for Efficiency and Safety

Note: *Represents optional functions



FEATURES

Rapid Deployment

BF-TR925R flexible supports manpack, vehicle-mounted, and fixed installation, making it the ideal choice for quick set-up in various scenarios. It enables power-on automatic networking, swiftly providing extensive wireless network coverage and delivering enhanced emergency response capabilities.

Dual-Channel Communication

The BF-TR925R features dual-channel communication, allowing a single device to provide two channels of ad-hoc networking. This ensures separate frontline and rear command communication and enables two-channel network data to be transmitted in parallel.

Intelligent Dispatching

Any nodes within the BF-TR925R allows to access the three-screen dispatch console and enables visualized dispatch and management of network terminals, including voice dispatch, GIS-based geographic dispatch, and data service management. Note: Dispatch console is sold separately.

Dual Mode Positioning

The BF-TR925R incorporates GPS+BDS positioning module. This helps the dispatch center to get up to its subordinate terminals' real-time movement and trajectory, enabling real-time data transmission and storage.

Military Grade

The BF-TR925 is built with a fully cast aluminum body, features excellent heat dissipation, and enhanced crash resistance. Remains stable and long-time communication when operating in extreme disaster environments such as earthquakes, floods, and typhoons. When used outdoors, it can be carried for manpack, with enhanced flexibility to adapt to different scenarios.

PSTN

The BF-TR925R features an inbuilt 4G public-network module that allows it to work as a mobile terminal and make phone calls, effectively solving the issue that the remote site is unable to communicate with the command center through the private network, providing a reliable communication guarantee for temporary command stations.

Multiple Power Supply

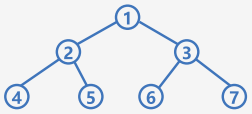
The BF-TR925R supports battery power, external AC power, and external DC power. When deployed as a manpack, the optional high-capacity battery can be used for easy and firm installation. For use as a fixed or mobile station, it can be connected to a power supply through specialized vehicle accessories, meeting diverse power needs in various emergency scenarios.

Flexible Networking

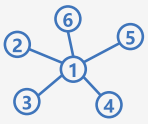
The BF-TR925R supports dynamic topology networking with up to 32 nodes, allowing chain, star, mesh, tree, and hybrid topology, allowing it to automatically establish the optimal communication network and flexibly adapt to different environments. Additionally, the BF-TR925R also supports long-distance back-to-back networking of base stations, serving as a backup solution for wireless air interfaces, effectively ensuring communication reliability.

Networking mode

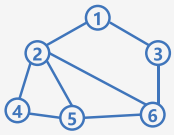
Chain Networking



Tree Networking



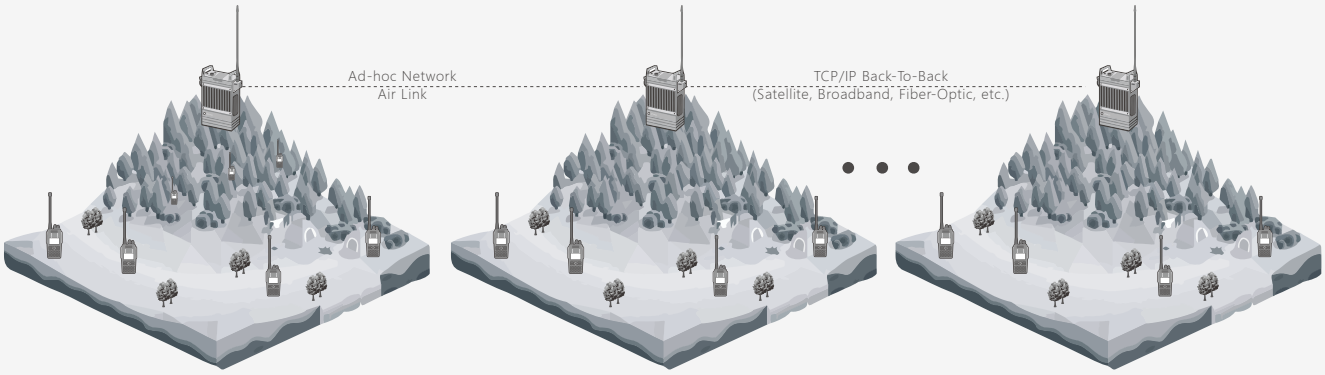
Star Networking



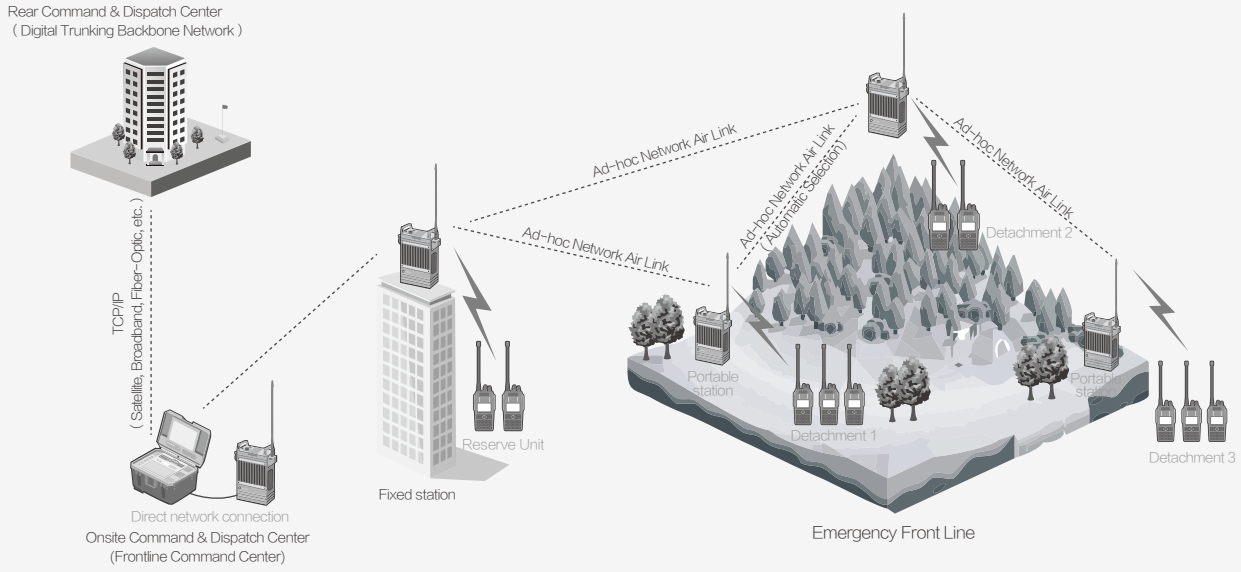
Mesh Networking

TYPICAL APPLICATION

Ad-hoc Networking Diagram



Frontline & Rear Command Linkage



APPLICATIONS

Emergency Rescue

Forest Fire Protection

Earthquake Relief

Flood Relief

OTHER FEATURES

Note：○Represents optional functions

- 2.0-inch Display
- Separated Operation Panel
- ○ High Frequency Flashing Light
- Aviation Connector
- ○ Optical Network Interface
- Intelligent Power Display
- Air-Interface ID Authentication
- Advanced Voice Encryption
- ○ Dual Channel Back-to-Back
- Multiple System Available(Ad Hoc Networking, BelFone SDC System, SFR)

SPECIFICATION

General	
Frequency Range (Optional)	136-174MHz \350-400MHz \400-480MHz 806-821MHz，851-866MHz (Customizable)
Channel	3776
Channel Spacing	12.5KHz /25KHz
Antenna Impedance	50Ω
Working Voltage	Car-mounted: DC13.8V(± 15%) , Negative ground Manpack: 10.8-12.6V
Current Consumption	< 6A
Operating Environment	-30℃ ~ +70℃
Storage Environment	-40℃ ~ +85℃
Dimensions	302mm(L)*218mm(W)*76mm(H) (antenna and antenna base not included)
Weight	≤5kg (include battery)

General	
Power Output	Car-mounted: 5-25W (continuous emission) Manpack: 3-15W (continuous emission)
Frequency Stability	≤0.5ppm
4FSKdigital modulation	12.5KHz Only data: 7K60FXD 12.5KHz Data and voice: 7K60FXW
Adjacent Channel Power	≤60dB
Spurious Radiation	-36dBm<1GHz -30dBm>1GHz
Digital Vocoder	AMBE

Receiving	
Sensitivity	3%BER≤0.35uV
Frequency Stability	≤0.5ppm
Adjacent Channel Selection	≥60dB
Intermodulation Immunity	≥65dB
Spurious Response	≥70dB
Blocking	≥90dB

Environmental	
Working Temperature	-30℃~+70℃
Storage Temperature	-40℃~+85℃
Shock & Vibration	MIL-STD-810G
Moisture Proof	MIL-STD-810G
Waterproof & Dustproof	IP68

Note: The above specification is tested by the trial standard. Due to the continuous development of technology, the data provided are for reference only.

ACCESSORIES

Folding High Gain Antenna

Rechargeable Battery (16AH/185WH)

Programming Cable

Battery Fast Charger

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BelFone
Communications for Efficiency and Safety

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