

MF1000N-4

Unmanned System Self-organizing Network Radio



*Rapid deployment *Beidou positioning *No center network



*Customizable power *Ready to use *Anti-destruction capability

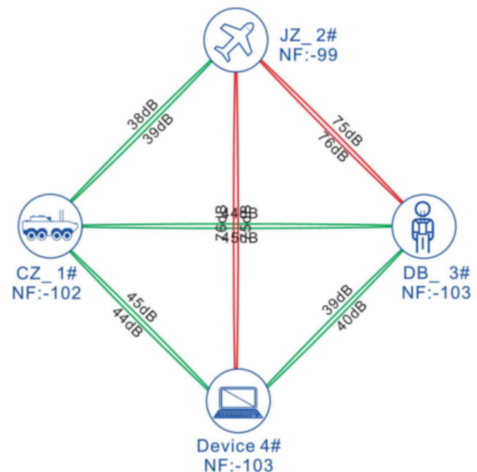


Product Introduction

The unmanned system self-organizing radio is small in size, light in weight, and easy to install. It is particularly suitable for application scenarios with lightweight networking requirements such as drones, unmanned vehicles, unmanned boats, robots, etc. With fast network access and automatic multi-hop relay, it can quickly form an interconnected three-dimensional network with handheld individual systems, vehicle-mounted systems, and surrounding base station networking equipment to achieve efficient collaboration. It has both Beidou positioning function and supports wifi coverage, and can be used with smart terminals with wifi functions for various communications. The system adopts the same frequency networking and multi-hop relay, and supports any network topology, such as point-to-point, point-to-multipoint, chain relay, mesh network, and hybrid network topology. It can provide wireless broadband communication for emergency response, anti-terrorism and riot control, covert reconnaissance, special operations, disaster relief, daily patrols and other "peace and war" tasks at the first time. The transmission distance can reach more than 10km in an open environment on the ground, 300~1000m in a blocked environment (depending on the blocking environment), and more than 30km from the air to the ground.

Main features








- * Non-central networking: nodes are equal in status and can be used as terminal nodes, relay nodes or central nodes
- * Arbitrary structure networking: nodes automatically identify and select the optimal route for bandwidth data
- * Security and confidentiality: through layer-by-layer encryption such as working frequency, carrier bandwidth, scrambling code, support DES encryption
- * Anti-interference and anti-destruction: using COFDM, MIMO, ARQ and other technologies to improve data bandwidth and anti-interference performance
- * Flexible multi-node networking: according to channel quality, rate, error code and other indicators, link routing is automatically calculated and flexible networking is achieved
- * Full IP networking and intercommunication: support data transparent transmission, interconnection of multiple systems, and real-time interaction of multimedia services



System parameters

Operating frequency	1300~1500MHz	
Carrier bandwidth	5/10/20MHz, self-adaptable	
Transmission system	COFDM	
Modulation mode	BPSK/QPSK/16QAM/64QAM (adaptive)	
Transmission capacity	Peak rate 52Mbps@20MHz, optional version up to 100Mbps	
Transmit power	4W	
Receive sensitivity	-100dBm@5MHz	
Video input	Support IP network video input and WIFI video access (HDMI/AV needs to be customized)	
Networking	Networking capability	≥64 nodes
	Networking hop count	> 10 hops
	Network topology	No center network, star network, chain network, mesh network, etc.
Encryption method	DES/AES128/AES256 (optional)	
Power supply	DC 24-33V power supply	
Power consumption	≤42W	
Device interface		
Antenna interface	N-K×2	
WIFI interface	SMA-K	
Ethernet interface	Aviation plug connector	
Serial port	Aviation plug connector	
Power interface	Aviation plug connector	
Physical indicators		
Device size	≤192×172×86mm (interface included)	
Device weight	≤2kg	
Protection level	IP65	
Operating temperature	-40℃ ~ +65℃	

Accessories

						
RF antenna	Wifi antenna	Aviation plug cable network port	Aviation plug cable serial port	Aviation plug cable power supply	Adapter	Packaging aviation box