MF6160H
Handheld Self-organizing Network Radio

*IP65 *Beidou positioning *No center network

*Customizable power *Ready to use *Changeable battery

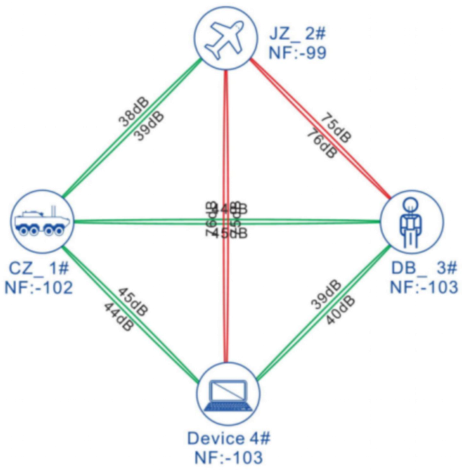
Product Introduction

The handheld ad hoc radio is small in size, light in weight, and equipped with a removable lithium battery. It can be held in hand or carried on the shoulder or back of a single soldier. With fast network access and automatic multi-hop relay, it can provide voice group calls, video return, relay transmission and other multimedia communication services for single soldiers, tactical teams, and tactical police dogs to achieve efficient collaboration. It has both Beidou positioning function and supports wifi coverage, and can be used with smart terminals with wifi function 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.

The self-organizing network algorithm with strong robustness is embedded, and no central gateway is required. Any one can realize the self-organizing network function. In actual applications, mesh network design can be used without worrying about network disconnection. It can provide wireless broadband communication for "peace and emergency" tasks such as emergency response, anti-terrorism and riot prevention, covert reconnaissance, special operations, disaster relief, daily patrols, etc. The transmission distance can reach more than 5km in an open environment on the ground, 300~500m in an obstructed environment (depending on the obstruction environment), and more than 20km from the air to the ground.

Main features

* Non-center networking: nodes are equal in status and can be used as terminal nodes, relay nodes or center 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, etc., 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 (200MHz-1.5GHz can be customized)	
Carrier bandwidth	5/10MHz, self-adaptable	
Transmission system	COFDM	
Modulation mode	BPSK/QPSK/16QAM/64QAM (adaptive)	
Transmission capacity	Peak rate 26Mbps@10MHz	
Transmit power	1W	
Receive sensitivity	-100dBm@5MHz	
Video input	Support IP network video input and WIFI video access	
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 12.6V changeable battery	
Power consumption	≤20W	
Device interface		
Antenna interface	TNC-K×2	
WIFI interface	SMA-K	
Network interface	Aviation plug connector (optional Beidou positioning function)	
Voice Interface	Aviation plug connector	
Physical indicators		
Device size	≤230×74×39mm (battery include)	
Device weight	≤1200g (battery include)	
Protection level	IP65	
Operating temperature	-40℃～+65℃	

Accessories

						
RF antenna	Wifi antenna	Hand phone	Aviation plug cable network port	Charge Base	Back Pack	Packaging aviation box