Nanjing Maxon Technology Co., Ltd

6F, Bldg A3, Zidong International Creative Park, Zidong Rd, Qixia District, Nanjing, China.

MF6100P-4
On-drone Self-organizing Network Radio

*Rapid deployment   *No center network

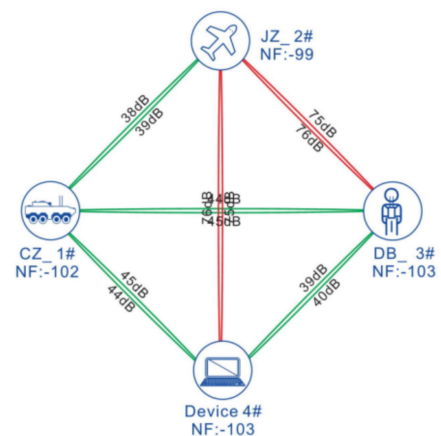*Customizable power *Ready to use *Strong anti-destruction

Product Introduction

The airborne ad hoc network 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. With fast network access and automatic multi-hop relay, it can quickly establish an interconnected three-dimensional network with handheld individual systems, vehicle-mounted systems, and surrounding base station networking equipment to achieve efficient collaboration. 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 in 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

* Networking without a center: nodes are equal in status and can be used as terminal nodes, relay nodes or central nodes
* Networking with any structure: 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 networking of multiple nodes: according to channel quality, rate, error code and other indicators, link routing is automatically calculated and networked flexibly
* Full IP networking and intercommunication: support data transparent transmission, interconnection of multiple systems, and real-time interaction of multimedia services

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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	
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 12V	
Power consumption	≤35W	

Device interface

Antenna interface	SMA-K×2
Ethernet port	J30J connector
TTL serial connector	J30J connector
Power supply	J30J connector

Physical indicators

Device size	≤113×88×40mm
Device weight	≤480g
Operating temperature	-30℃～+65℃

Accessories

RF antenna	Power supply + network port + serial port J30J interface	Packing box

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