MF6200C-20
Vehicle-mounted Self-organizing Network Radio

*Rapid deployment *Beidou positioning *No center network

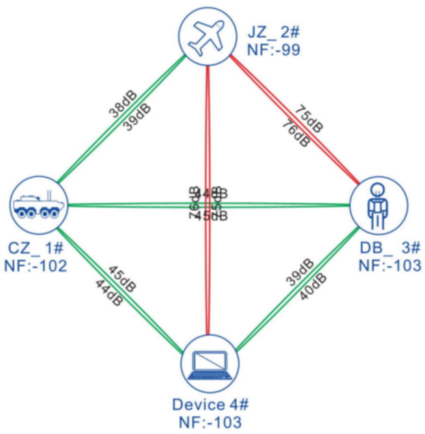
*Customizable power *Ready to use *Ultra Long-distance

Product Introduction

The vehicle-mounted ad hoc network radio is designed for the standard 2U rack structure of the vehicle-mounted system. It is mainly used for modified special communication command vehicles and rack-mounted installation in large mobile command vehicles. The equipment has the function of ad hoc network communication. It can communicate with its own fleet, and can also interconnect with individual equipment, handheld devices, air carriers (helicopters or drones) and surrounding base stations to quickly establish a link communication. All nodes are in line-of-sight or non-line-of-sight environments, without the need for a central gateway. All nodes are equal in status, that is, they can be used as terminal nodes, relay nodes or central nodes, and can quickly establish a wireless communication network without relying on wired communication lines. It is particularly suitable for the application of central communication command vehicles and mobile vehicle marshaling, and can play a powerful role in emergency response, anti-terrorism and riot prevention, disaster relief, large-scale event support, temporary deployment and relay transmission. The transmission distance can reach more than 20km in an open ground environment, 1-5km in a blocked environment (depending on the blocking environment), and more than 100km from air to 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

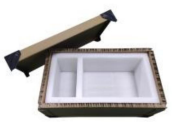


* Full IP networking and intercommunication: support data transparent transmission, interconnection of multiple systems, and real-time interaction of multimedia services

System parameters

Operating frequency	180~2300MHz, adjustable in 1MHz	
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	20W	
Receive sensitivity	-103dBm@5MHz	
Video input	Support IP network video input (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	AC220V	
Power consumption	≤180W	
Device interface		
Antenna interface	N-K×2	
Beidou interface	Multiplexing serial port	
WIFI interface	SMA-K	
Ethernet interface	Aviation plug connector	
Audio interface	Aviation plug connector (Front panel supports microphones, back panel supports headphones or mixers)	
Serial port interface	Aviation plug connector	
Power interface	Aviation plug connector	
Physical indicators		
Device size	≤485×387×90mm	
Device weight	≤8.5kg	
Operating temperature	-40℃～+65℃	

Accessories

							
RF antenna	Wifi antenna	Hand phone	Network port	Power supply	Serial port	Base	Packing box