

# Nanjing Maxon Technology Co., Ltd

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

#### MF1200K-4

## **4W Backpack Individual Self-organizing Network Radio**









\*IP66 \*Rapid deployment \*Beidou positioning \*No center network







\*Customizable power \*Ready to use \*Changeable battery

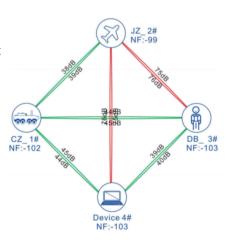


#### **Product Introduction**

The backpack-type individual self-organizing network radio is small in size, light in weight, and equipped with a high-capacity detachable battery, which is easy for a single soldier to carry and fully free his hands. 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. It can provide wireless broadband communication for emergency response, anti-terrorism and riot control, covert reconnaissance, special operations, disaster relief, daily patrol and other "peace and war" tasks at the first time. The transmission distance can reach more than 20km in an open environment on the ground, 500~3000m in a blocked environment (depending on the blocking environment), and more than 50km 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         -103dBm@5MHz           Support IP network video input, WIFI video access (HDMI video input needs to be customized)         support IP network video input, WIFI video access (HDMI video input needs to be customized)           Networking capability         ≥64 nodes           Networking hop count         >10 hops           Network topology         Network, star network, star network, chain network, mesh network, etc.           Encryption method         DES/AES128/AES256(optional)           Power supply         DC 25.2V changeable battery           Power consumption         \$42W           Device interface         SMA-K           WIFI interface         SMA-K           WIFI interface         Aviation plug connector, supports 100M Ethernet port           Voice Interface         Aviation plug connector, supports handphone or headphones           Physical indicators         \$275×198×52mm (battery include)           Device weight         \$3.4kg (battery incl				
Transmission system Modulation mode BPSK/QPSK/16QAM/64QAM (adaptive) Transmission capacity Peak rate 52Mbps@20MHz, optional version up to 100Mbps  Transmit power Receive sensitivity Video input  Networking capability Networking hop count Network topology Network topology Power supply Power consumption  Atteman interface Antenna interface Aviation plug connector, supports 100M Ethernet port Video Input  Santy Akg (battery include) Powice size Physical indicators  Device size Santy S2Dmm (battery include) Protection level  Protection level  BPSK/QPSK/16QAM/64QAM (adaptive) Peak rate 52Mbps@20MHz, optional version up to 100Mbps  Santy Sylvinal version up to 100Mbps Santy	Operating frequency	1300~1500MHz		
Modulation mode Transmission capacity Transmist power Receive sensitivity Video input  Networking Networking Power supply Power consumption  Powice interface Antenna interface Aviation plug connector, supports 100M Ethernet port Violeo Interface Aviation plug connector, supports 100M Ethernet port Vice linterface Aviation plug connector, supports handphone or headphones Physical indicators  Peak rate 52Mbps@20MHz, optional version up to 100Mbps  4W  Receive sensitivity -103dBm@5MHz Support IP network video input, WIFI video access (HDMI video input needs to be customized)  Networking capability ≥64 nodes Networking time 5s after system hot start No center network, star network, chain network, mesh network, etc.  No center network, etc. No center network, star network, chain network, mesh network, etc.  Power consumption  Aviation plug connector, supports 100M Ethernet port Voice Interface Voice Interface SY75×198×52mm (battery include) Protection level	Carrier bandwidth	5/10/20MHz, self-adaptable		
Transmission capacity Transmit power Receive sensitivity Video input  Networking Networking ime Encryption method Power supply Power consumption  Des/AES128/AES256 (optional)  Powice interface Antenna interface Antenna interface SMA-K Ethernet interface Voice Interface Voice Interface Aviation plug connector, supports handphone or headphones Physical indicators Device size S275×198×52mm (battery include) Protection level Protection level  Pose supply Protection level  Position in the size of the support supports on the support supports of the support s	Transmission system	COFDM		
Transmit power  Receive sensitivity -103dBm@5MHz  Support IP network video input, WIFI video access (HDMI video input needs to be customized)  Networking capability   264 nodes   Networking hop count   >10 hops   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 25.2V changeable battery   Power consumption   S42W   Device interface   TNC-K×2   Beidou interface   SMA-K   WIFI interface   SMA-K   Ethernet interface   Aviation plug connector, supports 100M Ethernet port   Voice Interface   Aviation plug connector, supports handphone or headphones   Physical indicators   Device weight   S3.4kg (battery include)   Protection level   IP66	Modulation mode	BPSK/QPSK/16QAM/64QAM(adaptive)		
Receive sensitivity Video input  Support IP network video input, WIFI video access (HDMI video input needs to be customized)  Networking capability   >64 nodes   >10 hops   >10	Transmission capacity	Peak rate 52Mbps@20MHz, optional version up to 100Mbps		
Video input       Support IP network video input, WIFI video access (HDMI video input needs to be customized)         Networking capability ≥64 nodes         Networking hop count       >10 hops         Networking time       5s after system hot start         No center network, star network, chain network, mesh network, etc.         Encryption method       DES/AES128/AES256(optional)         Power supply       DC 25.2V changeable battery         Power consumption       ≤42W         Device interface         Antenna interface       TNC-K×2         Beidou interface       SMA-K         WIFI interface       SMA-K         Ethernet interface       Aviation plug connector, supports 100M Ethernet port         Voice Interface       Aviation plug connector, supports handphone or headphones         Physical indicators       2275×198×52mm (battery include)         Device weight       ≤3.4kg (battery include)         Protection level       IP66	Transmit power	4W		
Networking capability   264 nodes   Networking hop count   >10 hops   Networking hop count   >10 hops   Networking time   Ss after system hot start   Network topology   Network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, etc.   No center network, star network, chain network, mesh network, mesh network, etc.   No center network, star network, chain network network, etc.   No center network, star network, chain network networ	Receive sensitivity	-103dBm@5MHz		
Networking hop count	Video input			
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Power consumption ≤42W  Device interface  Antenna interface TNC-K×2  Beidou interface SMA-K  WIFI interface SMA-K  Ethernet interface Aviation plug connector, supports 100M Ethernet port  Voice Interface Aviation plug connector, supports handphone or headphones  Physical indicators  Device size ≤275×198×52mm (battery include)  Device weight ≤3.4kg (battery include)  Protection level IP66	Encryption method	DES/AES128/AES256 (optional)		
Device interface  Antenna interface  Beidou interface  SMA-K  WIFI interface  SMA-K  Ethernet interface  Aviation plug connector, supports 100M Ethernet port  Voice Interface  Aviation plug connector, supports handphone or headphones  Physical indicators  Device size  \$\frac{275\times198\times52mm}{53.4kg} (battery include)  \$\frac{3.4kg}{50} (battery include)  Protection level    P66	Power supply	DC 25.2V changeable battery		
Antenna interface TNC-K×2  Beidou interface SMA-K  WIFI interface SMA-K  Ethernet interface Aviation plug connector, supports 100M Ethernet port  Voice Interface Aviation plug connector, supports handphone or headphones  Physical indicators  Device size ≤275×198×52mm (battery include)  Device weight ≤3.4kg (battery include)  Protection level IP66	Power consumption			
Beidou interface SMA-K  WIFI interface SMA-K  Ethernet interface Aviation plug connector, supports 100M Ethernet port  Voice Interface Aviation plug connector, supports handphone or headphones  Physical indicators  Device size ≤275×198×52mm (battery include)  Device weight ≤3.4kg (battery include)  Protection level IP66	Device interface			
WIFI interface SMA-K  Ethernet interface Aviation plug connector, supports 100M Ethernet port  Voice Interface Aviation plug connector, supports handphone or headphones  Physical indicators  Device size ≤275×198×52mm (battery include)  Device weight ≤3.4kg (battery include)  Protection level IP66	Antenna interface	TNC-K×2		
Ethernet interface Aviation plug connector, supports 100M Ethernet port  Voice Interface Aviation plug connector, supports handphone or headphones  Physical indicators  Device size ≤275×198×52mm (battery include)  Device weight ≤3.4kg (battery include)  Protection level IP66	Beidou interface	SMA-K		
Voice Interface       Aviation plug connector, supports handphone or headphones         Physical indicators       Device size       ≤275×198×52mm (battery include)         Device weight       ≤3.4kg (battery include)         Protection level       IP66	WIFI interface	SMA-K		
Physical indicators  Device size ≤275×198×52mm (battery include)  Device weight ≤3.4kg (battery include)  Protection level IP66	Ethernet interface	Aviation plug connector, supports 100M Ethernet port		
Device size       ≤275×198×52mm (battery include)         Device weight       ≤3.4kg (battery include)         Protection level       IP66	Voice Interface	Aviation plug connector, supports handphone or headphones		
Device weight ≤3.4kg (battery include)  Protection level IP66	Physical indicators			
Protection level IP66	Device size	≤275×198×52mm (battery include)		
	Device weight	≤3.4kg (battery include)		
Operating temperature -40°C ∼+65°C	Protection level	IP66		
	Operating temperature	-40℃~+65℃		

### **Accessories**

