

## 4W Long Range Manet Mesh Drone Data Link UAV 56Mbps with FHSS and AES256 Encryption

Our Product Introduction

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### Basic Information

- Place of Origin: Guangdong, China
- Brand Name: ZKMANET
- Certification: CE, ISO9001
- Model Number: ZKManet3451
- Minimum Order Quantity: 1 piece
- Price: USD 1999 2399 per piece
- Packaging Details: carton
- Delivery Time: 3-7 work days
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 10000 pieces per year



### Product Specification

- Frequency: 1300-1500MHz (70MHz-6GHz Customizable)
- Working Bandwidth: 2.5M/5M/10M/20MHz
- RF Channel: 2T2R
- Transmit Power: 4W
- Throughput Rate: 56Mbps
- Nodes: 8 Nodes Customizable
- Encryption: AES256
- Coverage Distance: Long Range Customizable
- Highlight: 40-Long Distance Wireless Video Transceiver, 40-Long Distance Drone Data Link, 82Mbps Drone Data Link



### More Images




### Product Description

#### 4W Long Range Manet Mesh Drone Data Link UAV 56Mbps with FHSS and AES256 Encryption

##### Product Description

The ZKManet3451 is an airborne Mesh radio that utilizes an FPGA solution. It supports adaptive frequency hopping and

Our Product

selection, automatically choosing the optimal frequency in the presence of electromagnetic interference. This enables broadband network self-organization and transmission in complex scenarios. It can be used in various communication combinations for different usage scenarios, such as on moving UAVs or USVs, allowing for easy plug-and-play operation without the need for configuration or parameter changes. It is primarily used for multimedia interconnection between drones and base stations, as well as serving as a Mesh relay node.

#### Features

- \* Data rate up to 56Mbps
- \* Full transparent IP data transmission
- \* With HDMI input
- \* Long range customizable
- \* Supports GPS/BD
- \* Supports up to 8 nodes customizable
- \* With TTL and LAN interface

#### Specifications

RF Parameters	
Default Frequencies	1300-1500MHz (70MHz-6GHz customizable)
Channel Bandwidth	2.5M/5M/10M/20MHz (40MHz optional)
RF Waveform	TDD-COFDM (2T2R)
Output Power	2x2W, 1dBm step adjustable
Receive Sensitivity	-100dBm@2.5MHz
Modulation Type	BPSK/QPSK/16QAM/64QAM (adaptive)
FHSS	Optional (>1000 hop/s)
IFS	Optional
Network Parameters	
Network Size	8 nodes customizable
Multi-hop Capability	15 hops (short message); 10 hops (voice); 8 hops (video)
Range	Long range customizable
Data rate	Up to 28Mbps@10MHz & 56Mbps@20MHz
Delay	7ms@2.5MHz/hop
Movement Speed	>1000km/h
Start Time	27s
Positioning	GPS/BD/GLONASS (GNSS)
Network Access Time	<1s
Network Extension	WIFI AP
Electrical Parameters	
Working Voltage	12-36V DC
Power Consumption	≤237dBm
Physical/Environment	
Weight	475g
Dimensions	120*90*40mm
Working Temp.	-40°C~70°C
Interface	
LAN Interface	*1
Serial Interface	RS232*1 (Or TTL)
Video Interface	Mini HDMI*1

#### Panel Description

1. MESH antenna interface-2, SMA F
2. WIFI/LoRa antenna interface, SMA F
3. HDMI input interface, Mini HDMI
4. GPS antenna interface, SMA F
5. MESH antenna interface-1, SMA F
6. Mounting hole x4
7. LAN/TTL interface
8. Power input interface (XT60)
9. Signal Indicator

4W Long Distance Long Range Transmission 56Mbps GPS/Bd Positioning Drone Video Data Radio

SNR	Link Quality	Topology Color
SNR ≥ 17	Excellent	Deep Green
12 ≤ SNR < 17	Good	Light Green
7 ≤ SNR < 12	Fine	Yellow
2 ≤ SNR < 7	Medium	Orange
-10 < SNR < 2	Bad	Red
SNR = -10	Disconnected	N/A

#### Application

4W Long Distance Long Range Transmission 56Mbps GPS/Bd Positioning Drone Video Data Radio 4W Long Distance Long Range Transmission 56Mbps GPS/Bd

## Company Profile

Zhongke Lianxun (Shenzhen) Technology Co., Ltd. was founded in 2005 and specializes in the research and development of products related to drone defense and control, wireless video transmission, and network security encryption and decryption. With a commitment to high quality and cutting-edge technology, we deliver comprehensive network communication solutions to our clients. Our team of chief scientists, led by professors from the Network Security Institute at Wuhan University, has made significant advancements in developing man-in-the-middle platforms for enhancing network security.

Currently, our offerings include platforms such as a drone denial system, long-range wireless video transmission for drones, a network encrypted data analysis platform, an IPSEC man-in-the-middle platform, and an SSH man-in-the-middle analysis platform. We also provide design and development services for big data collection and analysis products tailored for large enterprises and institutions with confidentiality requirements. In addition, we sell network security equipment and offer technical services in information security. Our products are extensively utilized by law enforcement agencies and government bodies, including public security, armed police forces, units, forest fire prevention teams, civil air defense organizations, and maritime authorities.

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## FAQ

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