# FHSS Long Range Transmission Distance 82Mbps IP Mesh Drone Data Link Airborne Vehicles Wireless Video Transceiver

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

- Working Frequency: 1400-1460MHz(300MHz-3.8GHz Customizable)
- Working Bandwidth: 5/10/20/40MHz,20MHz(typical)
- RF Channel: 2T2R
- Transmit Power: 4W
- Throughout Rate: 82Mbps
- Nodes: 8 Nodes Customizable
- Encryption: AES
- Coverage Distance: Long Range Customizable

## More Images

## Product Description

**FHSS Long Range Transmission Distance 82Mbps IP Mesh Drone Data Link Airborne Vehicles Wireless Video Transceiver**

Product Description

Our Pro

The ZKManet3451 is an airborne Mesh radio that utilizes an FPGA solution. It supports adaptive frequency hopping and 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
* Supports GPS/BD
* Supports 8 nodes customizable
* With TTL and LAN interface

**Quick Deployment**
Mesh self-organizing network technology enables rapid mobile deployment, allowing for the establishment of a reliable wireless communication network in a short period of time to meet the timeliness requirements of emergency communications.

**Strong Stability**
Mesh self-organizing network technology features self-healing capabilities, ensuring that even if some devices fail, the entire network can continue to operate stably, preventing communication interruptions.

**High Security**
Advanced encryption algorithms and security authentication mechanisms are employed to effectively safeguard the security and confidentiality of communication data, preventing information leakage and malicious attacks. With FHSS of over 1000hops/s, it has strong capabilities for anti-search, anti-interception, and anti-jamming.

## 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 |

## Dimensions

## 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

| 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/Bc

## Company Profile

Zhongke Lianxun (Shenzhen) Technology Co., Ltd is a high-tech R&D enterprise. Our products mainly use Mesh,COFDM and LTE as core technologies and auxiliary decision-making software to form underground building emergency communication systems, and police investigation communication systems, and police noncombat training communication systems, urban emergency communication systems, emergency communication vehicle communication systems, etc. The products are widely used in law enforcement agencies and government departments such as public security, armed police, , forest fire prevention, civil air defense, and maritime affairs.

Guided by the principles of "unity and commitment, technological advancement, and service innovation," we cater to users both at home and abroad. We prioritize the motto of "quality first, reputation foremost" in delivering high-quality, efficient, and tailored services to our global clientele. The company is dedicated to fostering an innovative culture centered on "exploration and progress."

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

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

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

## FAQ

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