

4W 1.4GHz Long Distance FHSS FPGA Mesh Long Range Data Link Device

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 3999~4999
- 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)
- RF Bandwidth: 2.5M/5M/10M/20MHz (40MHz Optional)
- RF Channel: TDD-COFDM (2T2R)
- Transmission Power: 4W
- Coverage Distance: Long Range Customizable
- Max Throughput: 56Mbps(Max)
- Encryption: AES256
- Positioning: GPS/BD



More Images



Product Description

4W 1.4GHz Long Distance FHSS FPGA Mesh Long Range Data Link Device

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

70km Frequency Hopping Uav Drone Accessory Video Data Link 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

70km Frequency Hopping Uav Drone Accessory Video Data Link Radio 70km Frequency Hopping Uav Drone Accessory Video Data Li

Company Profile

Zhongke Lianxun (Shenzhen) Co., Ltd was established in 2005. The company focuses on the research and development of products for drone defense/control, wireless video transmission, and network security encryption/decryption. It leverages the technical expertise of renowned university network security institutes. The company specializes in providing data encryption and decryption solutions as well as drone defense solutions for industries such as wind power, national power, oil and gas, firefighting, public security, road and bridge construction, and emergency management agencies.

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FAQ

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