15km Drone Data Link FHSS IP Video Transmitter and Receiver with AES and 30Mbps

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen, China
- Brand Name: ZKMANET
- Certification: CE,ISO9001
- Model Number: ZKManet2421UM
- Minimum Order Quantity: 1
- Price: USD 3999~4999
- Packaging Details: Brown Carton
- Delivery Time: 5-8 working days
- Payment Terms: T/T, Western Union
- Supply Ability: 10000 pieces per year
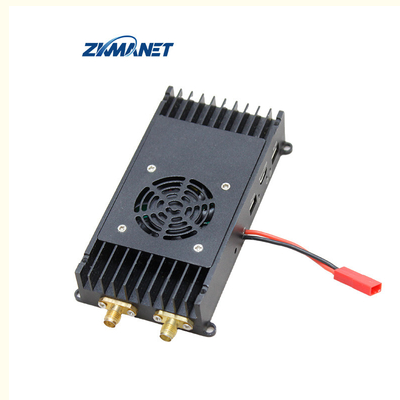
Product Specification

- Frequency: 800MHz/1.4GHz /2.4GHz
- Bandwidth: 1.4MHz/3MHz/5MHz/10MHz/20MHz
- RF Channel: 1T2R
- Output Power: 25dBm
- Data Rate: 30Mbps
- Encryption: AES
- Range: 5-15km (LOS)
- Dimensions: 102*52*21.5mm
- FHSS: Support

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More Images

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Product Description

ZKManet2421UM is a compact and portable airborne device with HD and stable image quality. It adopts the current leading OFDM modulation technology, allowing for capturing high-quality images in high-speed motion and real-time transmission over non-line-of-sight (NLOS) conditions. During transmission, encryption is applied to the images and data, supporting frequency hopping at 800MHz, 1.4GHz, and 2.4GHz, with a transmission rate of 30Mbps and a range of 5-15KM for air-to-ground transmission. It is well-suited for long-term and high-data-flow wireless transmission applications.

Features

* Supports 800M/Hz1.4GHz/2.4GHz; supports FHSS
* Long Range up to 5~15km(LOS)
* Low latency and low power consumption
* IP transparent data transmission
* Tough aluminum metal case
* Supports FHSS

Compact Size
The transmitter is compact and lightweight, with a total weight of 124g, effectively reducing the drone's payload and enhancing its wind resistance in the air.

High Reliability
The system employs advanced Orthogonal Frequency Division Multiplexing (OFDM) modulation technology, which has strong anti-interference capabilities. It also uses AES encryption technology to effectively prevent interference and eavesdropping.

Strong Usability
Quick deployment without configuration is possible, and the system operates stably and reliably with simple maintenance.

Long Transmission Distance
Utilizing the drone's flight altitude and servo antenna tracking directional antenna technology, the transmission distance can be guaranteed at 15, 30, or longer kilometers, while the system also possesses strong diffraction and penetration capabilities.

Clear Image Transmission
The system uses H.264/MPEG-2/4 compression methods, allowing transmitted video to achieve 1080P quality, clearly presenting images captured by the drone to the user.

Specifications

Model		ZKManet2421UM
RF parameters	Frequency	800MHz/1.4GHz /2.4GHz
	Bandwidth	1.4MHz/3MHz/5MHz/10MHz/20MHz
	RF Channel	1T2R
	Output Power	25dBm
Network parameters	Network model	One-to-one and one-to-many
	Data Rate	30Mbps
	Encryption	ZUC/SNOW3G/AES as Optional
	Conflict Handling	frequency adjustment or bandwidth reduction
	Range	5-15km (LOS)
Physics/Environment	Dimensions	102*52*21.5mm
	Weight	124g
	Working Temp	-‐40ºC +65ºC
	IP Rating	IP67
Electrical parameters	Power supply	DC12V
	Power Consumption	<37dBm
Other	Data Interface	RJ45*2,TTL*1

Panel Description

300MW Portable Long Range 15km Uav Drone Data Link Transmitter

1. Power Cables - power supply input line, red is VDD, black GND
2. Data UART Port (GND, Rx, Tx) - 3.3V TTL
3. Link Status Indicator - When the device works as an access node, if the connection with the central node is normal, the indicator will be always on. When the device works as central node, this indicator is off.
4. Micro USB Port - For device software maintenance.
5. Indicator (Red) for Power - Always on during normal operation
6. Indicator for Ethernet Port 2 - Flashes according to the data flow when works normally.
7. Ethernet Port 2 (RN, RP, TN, TP) - Ethernet port 1 and 2 are internally bridged.
8. Indicator for Ethernet Port 1 - Flashes according to the data flow when works normally.
9. Ethernet Port 1 (RP, RN, TP, TN) - Ethernet port 1 and 2 are internally bridged.

1. Product Label
2. Air Inlet - for the cooling fan
3. ANT2 Port - Auxiliary antenna, works as auxiliary receiving, NO transmitting.
4. ANT1 Port - Main antenna, work mode is TDD transmitting/receiving.

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Application

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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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