

15km 1T2R Drone Data Link IP Video Transmitter with FHSS AES Encryption and 30Mbps Data Rate

Our Product Introduction

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Basic Information

- Place of Origin: Guangdong, China
- Brand Name: ZKManet
- Certification: CE, ISO9001
- Model Number: ZKManet-2421UM
- Minimum Order Quantity: 1 unit
- Price: USD 1999~4999
- Packaging Details: Brown Carton
- Delivery Time: 4 working weeks
- Payment Terms: T/T, Western Union
- Supply Ability: 10000 pieces per year



Product Specification

- Frequency: 806~826MHz 1428~1448MHz 2401~2481MH
- RF Bandwidth: 1.4MHz/3MHz/5MHz/10MHz/20MHz
- RF Channel: 1T2R
- Output Power: 25dBm±2
- Data Rate: 30Mbps
- Modulation: BPSK, 16QAM And 64QAM (TDD-OFDM)
- Networking Mode: One-to-one And One-to-many (one To Sixteen Max)
- Serial Port: 1x UART Port (TTL232)
- Highlight: **drone communication data link 15km, drone communication data link 25dBm, data link transmitter**



More Images



Product Description

15km 1T2R Drone Data Link IP Video Transmitter with FHSS AES Encryption and 30Mbps Data Rate

Product Description

ZKManet2421UM is a compact and portable airborne device with HD and stable image quality. It adopts the current leading

Our Product

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 data 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

- * Range up to 5~15km(LOS)
- * Supports 3 bands (800MHz/1.4GHz/2.4GHz)
- * Supports FHSS
- * IP transparent data transmission
- * Compact size and light weight
- * Rugged aluminum alloy housing
- * Low power consumption

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	Brand	ZKMANET
RF Parameters	Frequency	800MHz/1.4GHz /2.4GHz	
	Bandwidth	1.4MHz/3MHz/5MHz/10MHz/20MHz	
	RF Channel	1T2R	
	Output Power	25dBm	
	Range	5-15km (LOS)	
Network Parameters	Network Mode	One-to-one and one-to-many	
	Data Rate	30Mbps(Max)	
	Encryption	ZUC/SNOW3G/AES Optional	
	Conflict Handling	frequency adjustment or bandwidth reduction	
Physical/Environment	Dimensions	102*52*21.5mm	
	Weight	124g	
	Working Temp	-40°C~+65°C	
Electronic Parameters	Power Supply	DC12V	
	Power Consumption	<37dBm	
Other	Data Interface	RJ45*2,TTL*1	

Panel Description

Long Range 15km Light Weight Uav IP Radio Video Data Link Transmitter

1. Power Cables - power supply input line, red is VDD, black is GND
2. Data UART Port (GND, Rx, Tx) - 3.3V TTL
3. Link Status Indicator - When the device works as an access node, the indicator will be on. When the device works as a 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 transmission status.
7. Ethernet Port 2 (RN, RP, TN, TP) - Ethernet port 1 and 2 are bridged.
8. Indicator for Ethernet Port 1 - Flashes according to the data transmission status.
9. Ethernet Port 1 (RP, RN, TP, TN) - Ethernet port 1 and 2 are 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.

Application

Long Range 15km Light Weight Uav IP Radio Video Data Link Transmitter Long Range 15km Light Weight Uav IP Radio Video Data Link

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."

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FAQ

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ZKMANET Zhongke Lianxun (Shenzhen) Technology Co., Ltd

+86 13266718951 Info@chinamanet.com zkmanet.com

203-B161, Block B, Garden City Digital Building, No.1079 Nanhai Avenue, Yanshan Community, Merchants Street, Nanshan District, Shenzhen, China