

Frequency Hopping FPGA MANET Transceiver with Multi-hop Capability

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: ZKmanet
- Certification: CE,FCC,ROHS
- Model Number: ZKmanet3460
- Minimum Order Quantity: 2pieces
- Packaging Details: carton
- Delivery Time: 1-4weeks
- Supply Ability: 3000pieces/month



Product Specification

- Compatibility: DJI Drones
- Nodes: 8 Nodes Customizable
- Network Nodes: 64
- Transmission Rate: Up To 48Mbps
- Transmission Range: 10-30km (LOS)
- Digital Sensitivity: 96dBm@5MHz BPSK
- Ip Rating: IP54
- Receiver Sensitivity: -106dBm
- Data Rate: Up To 40 Mbps
- Network Capability: 8 Nodes (Customizable)
- Encryption: AES-256
- Power Consumption: <9w
- Output Power: 2x0.5w
- Delay: 7ms@2.5MHZ/hop



More Images



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Product Overview

The ZKmanet3460 is a rugged MANET (MESH Network) transceiver specially designed for UAV video data transmission. Based on FPGA solution, it supports FHSS (Frequency Hopping) and IFS (Intelligent Frequency Selection) with 1 watt power output. Ideal for tactical mesh deployments including Public Security, Armed Police, Fire Control and Military applications.

Multi-hop capability extends transmission distance, with each hop covering 10-30km air-to-air (Line of Sight).

Key Features

- ◆ Supports MESH Network (MANET)
- ◆ Frequency 1300-1500MHz (customizable)
- ◆ Supports FHSS and IFS
- ◆ AES256 encryption
- ◆ 2x0.5W power output
- ◆ Data rate up to 48Mbps
- ◆ Supports up to 32 nodes
- ◆ Supports GPS/BD/GLONASS (GNSS)
- ◆ Full transparent IP data transmission
- ◆ Web and PC software management

Technical Specifications

Default Frequencies	1300-1500MHz (customizable)
Channel Bandwidth	2.5M/5M/10M/20MHz
RF Waveform	TDD-COFDM (2T2R)
Output Power	2x0.5W, 1dBm step adjustable
Receive Sensitivity	-100dBm@5MHz
Modulation Type	BPSK/QPSK/16QAM/64QAM (adaptive)
Network Size	Up to 32 nodes
Multi-hop Capability	15 hops (short message); 10 hops (voice); 8 hops (video)
Range	10-30km (Air-to-Ground LOS)
Data Rate	Up to 25Mbps@10MHz & 48Mbps@20MHz

Working Voltage	7-15V DC
Weight	123g
Dimensions	84*95*18mm
Working Temperature	-40°C~70°C

Product Images







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