# ZHANNET Zhongke Lianxun (Shenzhen) Technology Co., Ltd zkmanet.com

## Frequency Hopping FPGA MANET Transceiver with Multi-hop Capability for UAV Drone Video Data Link

#### **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-256Power Consumption: <9w</li>Output Power: 2x0.5w

Delay: 7ms@2.5MHZ/hop



#### More Images





#### **Product Description**

#### Introduction

The ZKmanet3460 is a rugged MANET (MESH Network) transceiver special designed for UAV video data transmission. Based on FPGA solution, it supports FHSS (Frequency Hopping) and IFS (Intelligent Frequency Selection). Offering 1 watt power output. It is ideal for a variety of tactical mesh deployments such as Public Security, Armed Police, Fire Control and Military. Its multi-hop ability can largely increase the transmission distance, each hop can cover 10-30km air-to-air (LOS).

#### **Features**

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

#### Specifications

Specifications	
Default Frequencies	1300-1500MHz (accept customize)
Channel Bandwidth	2.5M/5M/10M/20MHz
RF Waveform	TDD-COFDM (2T2R)
Output Power	2x0.5W, 1dBm step adjustable
Receive Sensitivity	<u>-100dBm@5MHz</u>
Modulation Type	BPSK/QPSK/16QAM/64QAM (adaptive)
FHSS	Optional (>1000 hop/s)
IFS	Optional
Network Parameters	
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
Delay	7ms@2.5MHz/hop
Movement Speed	>1000km/h
Start Time	27s
Positioning	GPS/BD/GLONASS (GNSS)
Network Access Time	<1s
Electrical Parameters	
Working Voltage	7-15V DC
Power Consumption	≤9W
Physical/Environment	
Weight	123g
Dimensions	84*95*18mm
Working Temp.	-40°C~70°C
Interface	
LAN Interface	*1
Serial Interface	RS232*2









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