ZKMANET3261 40dBm 40km Frequency Hopping Manpack HDMI Vidoe Transmit IP Mesh Radio With Battery

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen
- Brand Name: ZKMANET
- Certification: CE
- Model Number: ZKMANET3261
- Minimum Order Quantity: 1
- Price: USD 99~999
- Packaging Details: Carton
- Delivery Time: 15 working days
- Payment Terms: L/C, D/A, D/P, T/T, Western Union, MoneyGram
- Supply Ability: 1000 pieces per year

Product Specification

- Size: 320*200*76mm
- Weight: 4.75kg
- IP Rating: IP66
- Voltage: 12-24V
- Interfaces: LAN PTT HDMI
- FHSS: Optional
- Application: Long Range Video Transmission
- Highlight: **Communication Manpack IP Mesh Radio**, **43dBm Manpack IP Mesh Radio**, **40km Manpack IP Mesh Radio**

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Product Description

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Product Description

ZKManet3261 is a mesh self-organizing network product with FPGA solution, which can be applied to different usage scenarios by using various communication combination methods.
The device with data display, can real-time display of the device status and device connection status; can be used on the back of a single soldier, can also be used as a tripod as a relay, can also be installed at a fixed point, but also can be used on top of mobile vehicles, ships, robots, drones, unmanned boats, etc., at any time, anywhere, a key to boot to use, without the need to configure and change the parameters.

Features

* Data rate up to 56Mbps
* Supports two-way voice intercom
* Supports WIFI
* Supports GPS/BD
* Supports HDMI input
* Supports IP data transparent transmission
* Easy operation

Flexible Networking
No central distributed networking, flexible carrier bandwidth configuration, supports various network topologies such as point-to-point, chain, star, mesh, mixed dynamic, etc.

Powerful Adaptivity
Built-in H.265 encoder adjusts video bitrate, resolution, and frame rate adaptively based on channel bandwidth to ensure the continuity and smoothness of video transmission services.

Intelligent Routing
Devices can move quickly and network topology can be updated accordingly with dynamic route reconstruction in real-time without affecting overall system communication.

Anti-interference
Wideband carrier frequency hopping (optional) effectively enhances anti-interference capabilities. Additionally, it supports intelligent frequency selection (optional) mode where devices can intelligently choose interference-free frequencies for network transmission to avoid interference. It also utilizes ARQ error control transmission mechanism to reduce data loss rates and improve data transmission reliability.

Full IP Interconnection
With Fully IP-based design, it supports various data transmissions for seamless integration with heterogeneous communication systems.

Encryption
It has independently developed system with custom transmission protocols and 64-bit key for air interface transmission encryption. It can dynamically generate scrambling sequences for channel encryption. The system also supports DES56/AES128/AES256 source encryption to enhance security.

Easy Operation
Built-in Wi-Fi communication module allows mobile devices, laptops, or PADs to access and control without the need for wired connections, making user management and maintenance convenient.

GIS Services
With built-in BD/GPS, it supports real-time display of geographical location and latitude/longitude positioning information through. It can measure distances between individual radio stations and track the continuous position of selected radio station groups.

Specification

Model		ZKManet 3261
RF parameters	Default Frequencies	1300-1500MHz (70MHz-6GHz customizable)
	Bandwidth	2.5/5/10/20Mhz (40MHz optional)
	RF Channel	TDD-COFDM + 2T2R
	Modulation Type	BPSK/QPSK/16QAM/64QAM (adaptive)
	Receive Sensitivity	-100dBm@2.5MHz
	FHSS	Optional (>1000 hop/s)
	IFS	Optional
	Output Power	2*40dBm, 1dBm step adjustable
Network parameters	Network Size	Up to 10 nodes(Can be customized)
	Multi-hop Capability	15 hops (short messages); 10 hops (voice) ; 8 hops (video)
	Range	30-49 km (Ground-to-Ground LOS)
	Communication rate	Up to 28Mbps@10MHz & 56Mbps@20MHz
	Delay	7ms@2.5MHz/hop
	Movement Speed	>1000km/h
	Start Time	27s
	Positioning	GPS/BD
	Network Access Time	<1s
Physics/Environment	Dimensions	320*200*76mm
	Weight	4.75kg
	Working Temp	-40°C~70°C
	IP Rating	IP66
Electrical parameters	Working Voltage	12-24V
	Power Consumption	937dBm
	battery capacity	13Ah(6hours)
Interface	LAN interface	*1
	Voice Interface	PTT Mic (7-pin LEMO connector*1)
	Video Interface	HDMI (optional)

Panel description

1. Power push button
2. PTT (Mic)
3. MESH signal indicator

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

1. LAN interface, RJ45
2. Digital LCD indicator
3. Configuration buttons (optional) - set frequency, bandwidth and distance parameters.
4. Battery Indicator
5. Battery butterfly clasp
6. MESH antenna interface-2
7. WIFI antenna interface-2
8. 4G antenna interface
9. GPS/BD antenna interface
10. WIFI antenna interface-1
11. MESH antenna interface-1

1. Battery charging port
2. Main body power input port

1. Battery +/- contacts
2. SIM card slot

Dimensions

43dBm 30km Smart MIMO IP Mesh Transceiver Radio

Application

43dBm 30km Smart MIMO IP Mesh Transceiver Radio

MESH RADIO TESTING IN THE URBAN AERA

Company Profile

Zhongke Lianxun (Shenzhen) Technology Co., Ltd is a high-tech R&D enterprise. Our products mainly use Mesh 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., suitable for law enforcement forces and government departments such as public security, armed police, , forest fire prevention, civil air defense, and maritime. Especially the intelligent communication products of special robots have solved the long-distance communication and control problems of robots in complex environments.

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FAQ