

ZKManet3261 43dBm 45km Manpack IP Mesh Radio with Smart Frequency Hopping

Our Product Introduction

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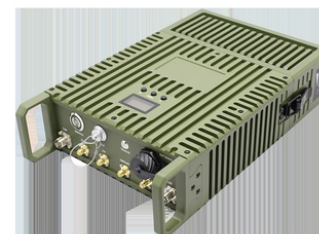
Basic Information

- 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: Communicate
- Highlight: **45km Manpack IP Mesh Radio, ZKManet3261 Manpack IP Mesh Radio, 43dBm Manpack IP Mesh Radio**



More Images



Product Description

ZKManet3261 43dBm 45km Manpack IP Mesh Radio with Smart Frequency Hopping

Key Attributes

Size	320×200×76mm
Weight	4.75kg
IP Rating	IP66
Voltage	12-24V
Interfaces	LAN PTT HDMI
FHSS	Optional
Application	Communications

Product Overview

The **ZKManet3261** is a high-performance mesh self-organizing network device built on a robust FPGA platform. Designed for versatility, it supports multiple communication configurations to adapt seamlessly across diverse mission environments. Equipped with a built-in data display, the device offers real-time monitoring of system status and network connectivity. Its modular design allows for flexible deployment in various configurations including individual soldier wear, tripod-mounted relays, stationary positions, or mobile platform integration.

With true plug-and-play simplicity, ZKManet3261 powers on instantly at the push of a button—no configuration or parameter adjustments required—ensuring rapid, reliable communications anytime, anywhere.

Core Features

- Data rate up to 56Mbps
- Supports two-way voice intercom
- Integrated WiFi connectivity
- GPS/BD positioning support
- HDMI input capability
- IP data transparent transmission
- Intuitive operation interface

Flexible Networking

No central distributed networking required, with flexible carrier bandwidth configuration supporting various network topologies including point-to-point, chain, star, mesh, and mixed dynamic configurations.

Powerful Adaptivity

Built-in H.265 encoder automatically adjusts video bitrate, resolution, and frame rate based on channel bandwidth to ensure continuous, smooth video transmission.

Intelligent Routing

Dynamic route reconstruction in real-time allows devices to move quickly while maintaining communication, with network topology updating automatically.

Advanced Anti-Interference

Optional wideband carrier frequency hopping enhances anti-interference capabilities. Intelligent frequency selection mode automatically chooses interference-free frequencies, while ARQ error control reduces data loss.

Full IP Interconnection

Fully IP-based design supports various data transmissions for seamless integration with heterogeneous communication systems.

Robust Encryption

Custom transmission protocols with 64-bit key air interface encryption. Supports dynamic scrambling sequences and DES56/AES128/AES256 source encryption for enhanced security.

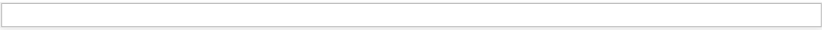
GIS Services

Built-in BD/GPS supports real-time display of geographical location and positioning information, with distance measurement between stations and group tracking capabilities.

Technical Specifications

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)
Output Power	2×40dBm, 1dBm step adjustable
Network Parameters	
Network Size	Up to 10 nodes (customizable)
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
Movement Speed	>1000km/h
Physical/Environmental	
Dimensions	320×200×76mm
Weight	4.75kg
Working Temperature	-40°C to 70°C
IP Rating	IP66
Electrical Parameters	
Working Voltage	12-24V
Battery Capacity	13Ah (6 hours operation)

Interface & Panel Description



Front panel features: 1. Power button 2. PTT (Mic) 3. MESH signal indicator



Side panel interfaces: LAN, LCD display, configuration buttons, battery indicators, and multiple antenna connections



Battery compartment with contacts and SIM card slot



Detailed dimensional specifications

Signal Quality Indicators

SNR	Link Quality	Topology Color
$SNR \geq 17$	Excellent	Deep Green
$12 \leq SNR < 17$	Good	Light Green
$7 \leq SNR < 12$	Fine	Yellow
$2 \leq SNR < 7$	Medium	Orange
$-10 < SNR < 2$	Bad	Red
$SNR = -10$	Disconnected	N/A

Application Scenarios



Field deployment in various operational environments

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