

## 43dBm Long Distance Outdoor BD GPS Positioning IP Mesh Radio with 2T2R Channel ZKMANET3561

Our Product Introduction

for more products please visit us on [zkmanet.com](http://zkmanet.com)

### Basic Information

- Place of Origin: Shenzhen
- Brand Name: ZKMANET
- Certification: CE,FCC
- Model Number: ZKMANET3561
- 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

- Weight: 6.5kg
- Size: 300\*238\*133mm
- IP Rating: IP67
- Interface: LAN RS232 PTT HDMI
- Power: 43dBm
- Channel: 2T2R
- Application: Outdoor Telecommunicate
- Highlight: **GPS Positioning IP Mesh Radio, Outdoor BD IP Mesh Radio, IP Mesh Radio with 2T2R Channel**




### More Images






## Product Description

### ZKMANET3561 43dBm Long Distance Outdoor BD GPS Positioning IP Mesh Radio

#### Product Description

ZKManet3561 is a high-power MESH self-organizing outdoor base station product utilizing an FPGA solution. The device can be fixedly installed using pole mounts, wall mounts, or brackets, primarily deployed at outdoor fixed points. The IP rating is IP67. With high transmission power and long coverage distance, it integrates data transmission, dynamic routing, and relay forwarding into one unit. It quickly self-organizes with other node devices to form a wireless multi-hop broadband network, providing users with wireless transmission services for voice, data, and video multimedia services. It is particularly suitable for applications such as long-distance communication coverage, information aggregation and feedback, regional coverage support, elevated point coverage enhancement, and relay transmission nodes.

#### 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.

#### Secure 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.

#### Specifications

RF Parameters	
Default Frequencies	70MHz-6GHz customizable
Channel Bandwidth	2.5M/5M/10M/20MHz (40MHz optional)
RF Waveform	TDD-COFDM + 2T2R
Output Power	2x40dBm
Receive Sensitivity	-100dBm@2.5MHz
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	50-70km (Air-to-Ground LOS) 30-50 km (Ground-to-Ground LOS)
Data rate	Up to 28Mbps@10MHz & 56Mbps@20MHz
Delay	7ms
Movement Speed	>1000km/h
Start Time	27s
Positioning	GPS/BD
Network Access Time	<1s
Network Extension	WIFI AP
Electrical Parameters	
Working Voltage	AC220V
Power Consumption	≤937dBm
Physical/Environment	
Weight	6.5kg
Dimensions	300*238*133mm
IP Rating	IP67
Working Temp.	-40°C~70°C
Interface	
LAN Interface	*1
RS232	*1
Voice Interface	PTT Mic (7-pin LEMO connector*1)
Video Interface	HDMI*1

Dimensions



Panel Description

2\*40dBm 2T2R 56Mbps 50~70km Fpga Fhss IP67 Outdoor Base Station Radio Transmitter

1. MESH antenna interface-1, N-F  
2. GPS/BD antenna interface, SMA-F  
3. HDMI input interface type A (Optional)  
4. WIFI antenna interface-1, SMA-F  
5. MESH antenna interface-2, N-F  
6. LAN interface, RJ45  
7. MESH signal indicator

SNR	Link Quality	Topology Color
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

8. Power input port, 3-pin  
9. Power push button

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 non combat 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

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