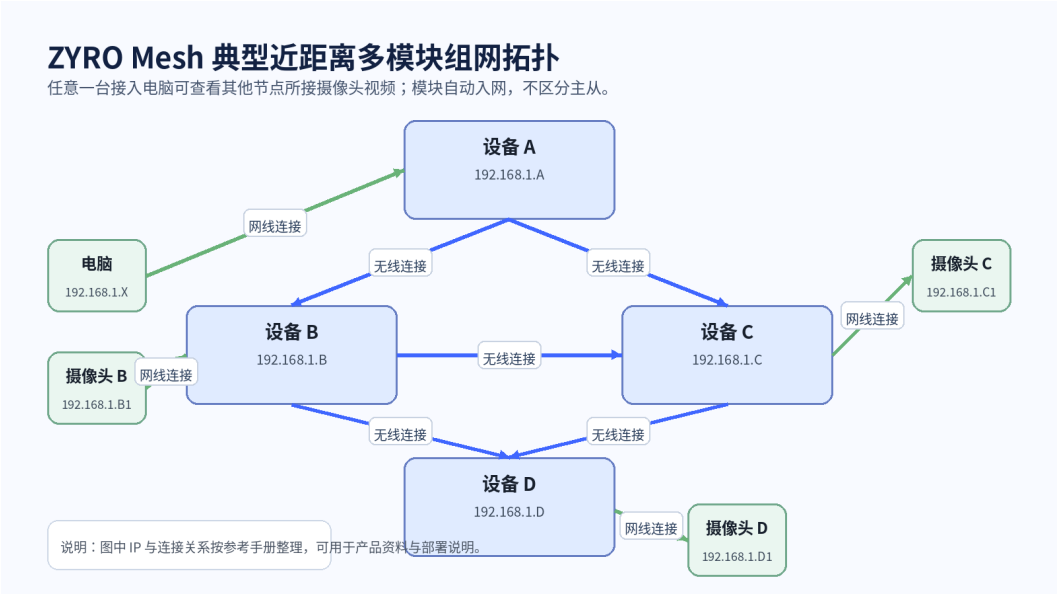
ZYRO

ZYRO Mesh



Mesh Wireless Video Transmission System / Product Brief



Long-distance multi-node topology

Beyond Distance, In Real Time

01 Product Overview

ZYRO Mesh is a bidirectional wireless video transmission product for unmanned vehicles, drones, emergency robots, and complex ground environments. It is positioned for multi-node networking, low-latency real-time transmission, and stable operation under challenging interference conditions. In Mesh mode, nodes join the network automatically without master-slave distinction, and any online node can be used to access video streams from cameras connected elsewhere in the network.

02 Key Features

Self-organizing Mesh networking

Nodes join automatically without a master/slave relationship, simplifying deployment in dynamic field conditions.

Real-time bidirectional links

Supports real-time video and data transmission for moving platforms and coordination tasks.

Optimized for complex environments

Designed for stable transmission, interference resistance, and better coverage in challenging ground scenarios.

Multi-node collaborative access

Any connected online node can be used to view networked video streams.

Visual web configuration

Supports parameter setup, topology view, and spectrum scan through a web interface.

Multi-hop capability

Based on the reference manual, the current multi-hop capability supports up to 2 hops.

03 Technical Specifications

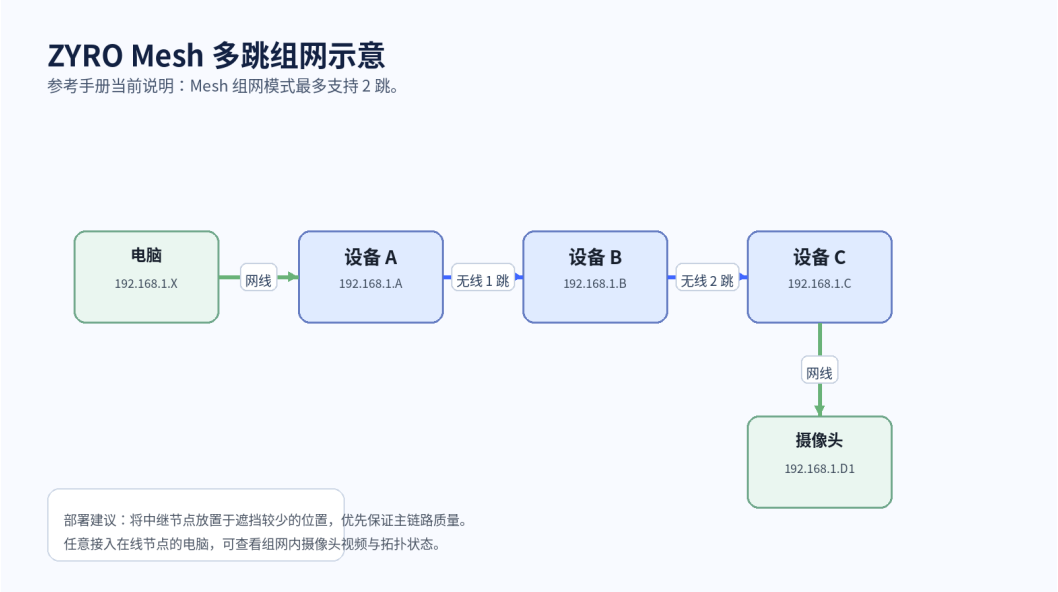
Parameter	Value
Networking mode	Mesh self-organizing network
Deployment logic	Automatic network joining, no master/slave distinction
Web login password	admin (default)
Bandwidth options	1.25M, 2.5M, 5M, 10M, 20M, 10/20/40M
Compression options	Uncompressed or full compression
Encryption modes	None, AES256, DES
Network modes	IP mode by default; MAC mode for carrier-customized transparent transmission
Video playback	VLC recommended; RTSP stream address format: rtsp://camera_ip
Multi-hop optimization	Supported; enabled as needed
RF channel control	Independent on/off control for RF channels

Transmit power control	Per-port configuration, effective immediately

04 Hardware Interface Summary

Parameter	Value
Antenna interfaces	Antenna 1 / Antenna 2
Ethernet activity indicator	Lights when the port is connected and flashes with data traffic
TTL data serial port	2×1W module: R2, GND, T2; 2×10W module: RX, GND, TX
RS232 data serial ports	2×1W module: R1, GND, T1; R0, GND, T0; 2×10W module: RX, GND, TX; RX, GND, TX
Power input	24 V input, GND and VCC
Ethernet port	10/100M, pin order RX1-, RX1+, TX1-, TX1+
Power indicator	Steady on after power-up; if off, disconnect power and inspect immediately
Signal strength indicator	From strong to weak: green, yellow, red, off
Link indicator	Green when linked, red when not linked

05 Web Configuration Highlights



Single-chain networking example

Parameter	Value
Global network sync	When enabled, parameter changes can be synchronized to other nodes in the Mesh network.

Mesh ID	Only modules with the same Mesh ID can join the same network.
Operating mode	Supports roaming, intelligent frequency selection, and single-frequency modes.
Frequency list	Up to 256 center frequencies can be configured.
Distance setting	Adjust according to the actual deployment distance.
Encryption	Supports no encryption, AES256, or DES.
Broadcast/multicast filtering	Whitelist and blacklist controls are supported.
Serial networking	UDP for 1-to-1; TCP server/client mode for 1-to-many.
IP / ID configuration	IP address can be modified directly; ID + 1 corresponds to the final IP octet.
Port mode	Default business mode; parameter web page can be accessed through the Ethernet port.

06 Application Scenarios

- Multi-node video backhaul for unmanned vehicles and drones
- Emergency robots and rapid deployment in complex sites
- Remote viewing for multiple cameras over a shared Mesh network
- Wireless links requiring relay expansion and multi-hop coverage