

GIGAMESH-3



GIGAMESH-3 is a high-end of the Luceor WiMesh Industrial Routers range with capacity to act as core infrastructure of a Unified Mesh Mobile Backhaul network.

GIGAMESH-3 comes with our unique LuceorOS operating system embedded. It, therefore, enables global deployment of Luceor's Mesh technology-based network intelligence with its dynamic selection of the best network available path for the ultimate combination of end-to-end performance, resilience, security, mobility, rapid deployment and minimal operating cost.

With its 3 radios architecture, combined with LuceorOS multi-radio intelligence, it offers up to 1.5Gbit/s aggregated useful data rate. It can be configured for any network topology: point-to-point, point-to-multipoint, relay, mesh, Wi-Fi AP or mixed.

Designed for harsh industrial outdoor environments, **GIGAMESH-3** offers the core power you need for your critical field applications in any circumstances.

3 x WIMESH

ROUTER

OUTDOOR RATED

KEY FEATURES

- 3 x 2x2 MIMO 5GHz 802.11a/b/g/n/ac radio transceivers with useful throughput up to 500Mbps per radio
- Wide range of external 2x2 MIMO antennas (up to 6 ports)
- 1x 10/100/1000Mbps Ethernet, Passive POE input voltage range 10 to 60V
- 1x 10/100/1000Mbps Ethernet, 802.3at POE input voltage range 37 to 57V
- GNSS interface (GPS, Galileo, GLONASS, Beidou, ZQSS)
- LuceorOS manages network traffic by dynamically and intelligently selecting the best connection
- MeshTool Suite software and web interface operate in tandem to configure, troubleshoot, and monitor the network architecture
- Plug-and-Play installation
- Outdoor rated: IP67, -40°C to +80°C temperature range

3D VIEWS



HARDWARE SPECIFICATIONS

CPU	Dual core CPU ARMv8 800MHz, 1GB DDR4 and 8GB eMMC Flash Memory		
WLAN	Interface	3 x radio transceivers, 2x2 MIMO, 802.11a/b/g/n/ac, dual-band 2.4/5GHz	
	Frequency¹	2412-2472 MHz 5150-5825 MHz	
	Modulation	OFDM (256-QAM, 64-QAM, 16-QAM, QPSK, BPSK)	
	Max. Physical Layer Data Rate	866 Mbps	
	Max. RF TX Power^{2,3}	27dBm	
	RX Sensitivity⁴	2.4GHz	-93dBm @ nHT20, MCS0 to -76dBm, nHT20, MCS7
	5GHz	-93dBm @ n/ac HT20, MCS0 to -71dBm, n/ac HT20, MCS8	-88dBm @ n/ac HT80, MCS0 to -65dBm, n/ac HT80, MCS9

Navigation	Multi-constellation GNSS : GPS, Galileo, GLONASS, Beidou, ZQSS
External Ports	1 x RJ45, 10/100/1000 Mbps Ethernet, auto MDI/MDIX, passive POE 1 x RJ45 10/100/1000 Mbps Ethernet, auto MDI/MDIX, active POE, IEEE 802.3at 1 x USB3.0 1 x DC IN, 8~60 VDC 1 X DC OUT , 8~60 VDC , Max. 50W
Antennas	6 x N-Female for WLAN 1 x SMA for GPS
LED Indicators	1 x Power indicator 2 x Status indicator
Power Supply	8~60 VDC IN connector 36~57 VDC 802.3at POE 10~60 VDC passive POE
Power Consumption⁵	Max. 25W
Dimensions	220 x 250 x 90 mm 8.66 x 9.84 x 3.54 in.
Weight	2.73 Kg 6 lb.
Temperature	-40°C to 80°C -40°F to 176° F
Wind Resistance	250Km/h
IP code	IP67
Materials	Aluminum

¹Channel, Frequency Channel, frequency and bandwidth options will vary based upon regional and local regulations

²TX power is governed by local regulations and varies by frequency

³TX power Tolerance is ±2 dB

⁴RX sensitivity Tolerance is ±2 dB

⁵Power consumption depends on transceiver configuration

SOFTWARE SPECIFICATIONS

Networking	Compliance with 802.11s Mesh networking
	Compliance with IEEE 802.1q
	Proactive link-state routing protocol for Mesh networking
	SSID-based VLAN assignment
	Service set identifier (SSID) hiding
	Automatic and manual rate adjustment
	Automatic channel scanning and interference avoidance
	Frame aggregation, including A-MPDU (Tx/Rx) and A-MSDU (Tx/Rx)
	VLAN trunk on uplink Ethernet ports
	Management channel of the AP uplink port in tagged and untagged mode
	DHCP client, obtaining IP addresses through DHCP
	Tunnel data forwarding and direct data forwarding
	STA isolation in the same VLAN
	Access control lists (ACLs)
	Link Layer Discovery Protocol (LLDP)
Network Address Translation (NAT)	

	Virtual Router Redundancy Protocol (VRRP)
	Supports IPv6/ IPv4, UDP, TCP, ICMP, Telnet, SNMP, HTTP and FTP protocols
	Static IP, dynamic IP or zero-configuration deployment
Management	Web local management through HTTP or HTTPS
	Real-time configuration monitoring and fast fault location using the NMS
	SNMPv2c and v3
	System status alarm
	Network Time Protocol (NTP)
	Control and Provisioning of Wireless devices
	Remote software update
Security	Open system authentication
	WPA/WPA2/WPA-WPA2-PSK authentication and encryption
	Wireless intrusion detection system (WIDS) and wireless intrusion prevention system (WIPS)
	WPA/WPA2/WPA-WPA2-802.1x authentication and encryption with MAC address authentication, and Portal authentication
	802.1x authentication, MAC address authentication, and Portal authentication
	DHCP snooping
	IP Source Guard
	VPN / L2TP with AES encryption
WPA, WPA2, and WPA-WPA2 support TKIP and CCMP encryption algorithms, where CCMP uses 128-bit advanced encryption standard (AES) encryption algorithm and has high security	
QoS Features	Priority mapping and packet scheduling based on a Wi-Fi Multimedia (WMM) profile to implement priority-based data processing and forwarding
	WMM parameter management for each radio
	WMM power saving
	Priority mapping for upstream packets and flow-based mapping for downstream packets

STANDARDS AND CERTIFICATIONS

FCC	Part 15.C
	Part 15.E
	Part 15.407
ETSI	EN 300 328 V2.2.2
	EN 301 893 V2.1.1
	EN 301 489-1 V2.1.1
	EN 303 413 V1.1.1

EN 62 311

IEC 62 368-1

IEC 60 950-22

Environmental**IEC 60529 (IP67)**

ORDERING INFORMATION

OWR-3000AC-A**GigaMesh3 with three radio transceivers: dual-band 2.4/5GHz, 2x2 MIMO, 802.11a/b/g/n/ac**
