

MegaMesh One



Designed for harsh outdoor environments, **MegaMesh One** is a member of the Luceor industrial routers ranges with the capacity to act as a mobile endpoint of the Luceor WiMesh mobile backhaul network.

Embedded with the LuceorOS operating system, it powers the global WiMesh technology-based network intelligence which dynamically selects the best path available to provide the ultimate combination of end-to-end performance, resiliency, security, and seamless mobility along with rapid deployment and minimal operating costs.

With its 2×2 MIMO radio interface for usage with a wide choice of antennas, MegaMesh One router provides up to 500 Mbps of useful data and is therefore ideal for mobile industrial equipment integration to deliver the ground-to-mobile ultimate performance you need for your critical field applications in any circumstance.

WIMESH

ROUTER

OUTDOOR RATED

KEY FEATURES

2x2 MIMO dual band 2.4GHz/5GHz 802.11a/b/g/n/ac radio transceiver
Useful throughput up to 500Mbps
2 x N-male connectors for external antenna
1x 10/100/1000Mbps Ethernet, Passive POE
GNSS interface (Galileo, Glonass, GPS, BeiDou)
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

HARDWARE SPECIFICATIONS

CPU	Dual core CPU ARMv8 800MHz, 1GB DDR4 and 8GB eMMC Flash Memory		
WLAN	Physical Layer	Complies with IEEE 802.11a/b/g/n/ac, supports 2x2 MIMO and provides a maximum rate of 866Mbps	
	Frequency¹	2412-2472 MHz 5150-5825 MHz	
	Modulation	OFDM: 256-QAM, 64-QAM, 16-QAM, QPSK, BPSK	
	Max. RFTX Power^{2,3}	27 dBm	
	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		
Antennas	2 x N-Female for WLAN 1 x SMA for GPS		
External Ports	1 x RJ-45, 10/100/1000 Mbps Ethernet, auto MDI/MDIX, passive POE 1 x USB2.0 port		
LED Indicators	1 x Power indicator 2 x Status indicator		
Power Supply	10V~60 VDC Passive POE		
Power Consumption⁵	Max. 13W		
Temperature	-40°C to 60°C -40°F to 140° F		
Wind Resistance	250Km/h		
Dimensions	121 x 214 x 90 mm 4.76 x 8.43 x 3.54 in.		
Weight	1.3 Kg 2.86 lb.		

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)
	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)
Management	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
	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)
Security	Control and Provisioning of Wireless devices
	Remote software update
	Open system authentication
	WPA/WPA2/WPA-WPA2-PSK/WPA3 authentication and encryption
	Wireless intrusion detection system (WIDS) and wireless intrusion prevention system (WIPS)
	WPA/WPA2/WPA-WPA2-802.1x authentication and encryption
IP Source Guard	
VPN with public key security (SSL/TLS mode) using client & server certificates.	

	WPA, WPA2, and WPA-WPA2 support TKIP and CCMP encryption algorithms, where CCMP uses 256-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
	Queue mapping and scheduling
	User-based bandwidth limiting
	Adaptive bandwidth management (automatic bandwidth adjustment based on the user quantity and radio environment)

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-1000AC-B	MegaMesh One with one radio transceiver, dual band 2.4GHz/5GHz, 2x2 MIMO, 802.11a/b/g/n/ac
---------------------	--