

MEGAMESH-PRO



Designed for maximum performance in harsh environments, **MegaMesh-Pro** is the HyMesh version of MegaMesh. It combines LTE capabilities with WiMesh technology to enable data, voice, and video applications.

Combined with our LuceorOs operating system, it enables the global deployment of our HyMesh technology-based network intelligence with its automatic failover and dynamic selection of the best available path for the ultimate combination of end-to-end performance, resiliency, security, mobility, and minimum operating cost.

MegaMesh-Pro is equipped with a cellular interface, three radio transceivers, GNSS interface and dual Gigabit Ethernet ports.

3 x WIMESH

LTE/4G

OUTDOOR ROUTER

KEY FEATURES

2 x 2x2 MIMO 5GHz 802.11a/b/g/n/ac radio transceivers

1 x LTE-A Cat-7 with up to 300Mbps downlink and 150Mbps uplink

1x 2x2 MIMO 2.4GHz 802.11n transceiver

Wide range for external 2x2 MIMO antennas (up to 8 ports)

LuceorOS manages network traffic by dynamically and intelligently selecting the best connection

Automatic and optimum switching between WiMesh and 4G to ensure reliable connectivity

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

Suitable for video surveillance, emergency services, public safety, industries, ports, monitoring systems, and other fixed and highly mobile networks

3D VIEWS



HARDWARE SPECIFICATIONS

CPU	Quad-core CPU ARM Cortex A7 up to 717MHz, 128 MB Nand Flash, 32MB Nor Flash and DDR3L 256 MB		
WLAN	Interface	802.11a/b/g/n 2x2 MIMO 2.4GHz	2 x 802.11a/b/g/n/ac 2x2 MIMO 5GHz
	Frequency¹	2412 - 2482 MHz	5180 - 5825 MHz
	Modulation	DSSS, CCK, OFDM	OFDM: 256-QAM, 64-QAM, 16-QAM, QPSK, BPSK
	Max. Physical Layer Data Rate	300 Mbps	866 Mbps
	Max. RFTX Power^{2,3}	29 dBm	28 dBm
	RX Sensitivity⁴	-96 dBm (@ 6 Mbps) to -70 dBm (@ MCS7, MCS15, HT40)	-96 dBm (@ 6 Mbps) to -62dBm (@ MCS9, MCS19, MCS29, HT80)

Cellular	Interface	LTE-A Cat-7 2x2 MIMO		
	Frequency Bands¹	4G LTE	B1, B3, B7, B8, B20, B28, B32, B38, B40, B41, B42, B43	
		3G/ HSPA+	B1, B5, B8	
	Data Rate	Peak Downlink	300Mbps	
		Peak Uplink	150Mbps	
	Max. RFTX Power^{2,3}	23dBm		
RX Sensitivity⁵	-100 dBm (Full RB on downlink; BW: 10 MHz)			
Navigation	Multi-constellation GNSS (GPS, Galileo, GLONASS, Beidou)			
Antennas	6 x N-Female for WLAN 2 x N-Female for cellular 1 x SMA for GPS			
Ethernet Interfaces	2 x RJ-45, 10/100/1000BaseT, , IEEE 802.3, auto MDI/MDIX, passive POE			
LED Indicators	1 x Power indicator 2 x Status indicator			
Button	1x push button to restore factory settings and restart the device			
Power Supply	48 VDC Passive POE			
Power Consumption⁶	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

⁵Cellular RX sensitivity depends on the LTE bands

⁶Power 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
	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 15.247
	Part 15.407
	Part 1.1310 & 2.1091
	Part 15.203
	Part 15.207
	Part 15.205
Part 15.209	

Environmental	IEC 60529 (IP67) RoHs compliance
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ORDERING INFORMATION

OWR-3000ACN-4G	MegaMesh-NG with one 2.4 GHz, 2x2 MIMO, 802.11an, two 5GHz, 2x2 MIMO, 802.11ac and one LTE-A Cat-7 , 2x2 MIMO radio transceivers
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