

# GIGAMESH-AWS



GigaMesh-AWS is a portable, autonomous, and remotely controlled WiMesh router designed to provide reliable and secure connectivity for temporary network deployment.

GigaMesh-AWS provides three radio transceivers with exceptionally high throughput and a wide range of external antennas, Gigabit Ethernet ports with support of POE, a USB GPS module for precise reporting on tactical maps, and a Battery with integrated BMS to power the platform and third party equipment like a camera for several hours.

Its rugged carrying enclosure, fast mounting brackets, intelligent battery modules, and automatic configuration features allow easy installation anywhere. GigaMesh-AWS is genuinely designed for the most demanding high-performance tactical networks.

**3 x WIMESH**

**OUTDOOR ROUTER**

**TACTICAL NETWORK**

## KEY FEATURES

3 x 2x2 MIMO 5GHz 802.11a/b/g/n/ac radio transceivers with high throughput
Wide range of external 2x2 MIMO antennas (up to 6 ports)
Manageable battery (choice of 100Wh or 200Wh) in waterproof case
2 x 10/100/1000Mbps Ethernet, one of which supports active POE for powering third party devices
USB GPS module
Quick mounting system and carrying handles
Remote control (up to 100m)
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 +70°C temperature range

## HARDWARE SPECIFICATIONS

<b>WLAN</b>	<b>Interface</b>	3x 2x2 MIMO 802.11a/b/g/n/ac dual-band 2.4/5GHz radio transceiver		
	<b>Frequency<sup>1</sup></b>	2412-2472 MHz 4920-5250 MHz		
	<b>Modulation</b>	OFDM (256-QAM, 64-QAM, 16-QAM, QPSK, BPSK)		
	<b>Max. Physical Layer Data Rate</b>	867Mbps		
	<b>Max. RFTX Power<sup>2,3</sup></b>	27dBm		
	<b>RX Sensitivity<sup>4</sup></b>	2.4GHz	-93dBm @ nHT20, MCS0 to -76dBm, nHT20, MCS7	-92dBm @ nHT40, MCS0 to -73dBm, nHT40, MCS7
	5GHz	-93dBm @ n/ac HT20, MCS0 to -71dBm, n/ac HT20, MCS8	-88dBm @ n/ac HT80, MCS0 to -65dBm, n/ac HT80, MCS9	
<b>External Ports</b>	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 USB2.0 for optional GPS module 1 x 12 VDC input connector, 1 X 12 VDC output connector, Max. 50W			
<b>Antennas</b>	6 x N-Female for WLAN			
<b>Battery</b>	Packs of 2x100Wh or 2x200Wh			
<b>LED Indicators</b>	1 x Power indicator 2 x Status indicator			
<b>Power Supply</b>	AC input: 100~240 VAC, 50-60Hz (via Luceor AWS-FCH, included) Battery: 10~32 VDC			
<b>Power Consumption<sup>5</sup></b>	Max. 15W			
<b>Dimensions</b>	350 x 300 x 230 mm 13.78 x 11.81 x 9.10 in.			

<b>Weight</b>	12 Kg 26.46 lb.
<b>Temperature</b>	-40°C to 70°C -40°F to 158° F
<b>Wind Resistance</b>	250Km/h
<b>IP code</b>	IP67
<b>Materials</b>	Aluminum

<sup>1</sup>Channel, Frequency Channel, frequency and bandwidth options will vary based upon regional and local regulations

<sup>2</sup>TX power is governed by local regulations and varies by frequency

<sup>3</sup>TX power Tolerance is ±2 dB

<sup>4</sup>RX sensitivity Tolerance is ±2 dB

<sup>5</sup>Power consumption depends on transceiver configuration

## SOFTWARE SPECIFICATIONS

<b>Networking</b>	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	
<b>Management</b>	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	
<b>Security</b>	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
<b>QoS Features</b>	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

<b>AWS-100W-GigaMesh-3r</b>	GigaMesh-AWS router with 100Wh battery
<b>AWS-200W-GigaMesh-3r</b>	GigaMesh-AWS router with 200Wh battery
<b>AWS-2x100W-GigaMesh-3r</b>	GigaMesh-AWS router with 2x100Wh batteries
<b>OBS-400W</b>	Additional battery pack with 2x200Wh
<b>AWS-RC</b>	Remote control + circuit breaker (100m range)
<b>AWS-FS</b>	Fast mounting kit
<b>GIGA-POE</b>	802.3af or 802.3at POE-OUT module
<b>GIGA-GPS</b>	USB GPS module