StartMesh HD

StartMesh HD is the amplified version of the StartMesh Lite router, enabling long distance transmission and high-performance communication with up to 500 Mbps throughput to enable data, voice and video applications. It offers plug-and-play installation thanks to its integrated high-gain MIMO antenna and pointing LEDs. StartMesh HD is the ideal choice to build wireless point-to-point links (i.e.: LAN-to-LAN connectivity, backhaul, etc.).

WIMESH | **BUILT-IN ANTENNA** | **OUTDOOR RATED**

KEY FEATURES

- 2x2 MIMO 5GHz 802.11a/b/g/n/ac radio transceiver
- Built-in 24dBi 2x2 dual-slant polarization directional antenna
- Useful Throughput up to 500Mbps
- 2 x 10/100/1000Mbps Ethernet (Passive POE)
- 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

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	**Physical Layer**	Complies with IEEE 802.11a/b/g/n/ac, supports 2x2 MIMO and provides a maximum rate of 866Mbps		
	Frequency[1]	U-NII-1: 5180 – 5250 MHz U-NII-2A: 5250 – 5330 MHz U-NII-2C: 5470 – 5725 MHz U-NII-3: 5725 – 5825 MHz		
	Modulation	OFDM : BPSK, QPSK, DBPSK, DQPSK, CCK, 16-QAM, 64-QAM, 256-QAM		
	Max. EIRP[2,3]	51 dBm		
	RX Sensitivity[4]	nHT20	-96 dBm @ 6 Mb/s	-80 dBm @ 54 Mb/s
		HT20	-93 dBm @ MCS8	-76 dBm @ MCS15

		HT40	-90 dBm @ MCS8	-73 dBm @ MCS15
		VHT20	-93 dBm @ MCS0	-71 dBm @ MCS8
		VHT40	-90 dBm @ MCS0	-68 dBm @ MCS9
		VHT80	-88 dBm @ MCS0	-61 dBm @ MCS9
Integrated Antenna	Gain	24 dBi		
	Polarization	Slant X		
	Beamwidth	8°/8°		
Ethernet Interfaces	1x RJ45 output port ,10/100/1000BaseT, full duplex, IEEE 802.3, auto MDI/MDIX, passive POE 1x RJ45 input port , 10/100/1000BaseT, full duplex, IEEE 802.3, auto MDI/MDIX, passive POE			
LED Indicators	1 x RGB LED for RSSI and Alarm status			
Button	1x push button to restore factory settings and restart the device			
Power Supply	24 VDC Passive POE			
Power Consumption[5]	Max. 9 W			
Temperature	Operating temperature: -40°C to 70°C | -40°F to 176° F Storage temperature: -45°C to 105°C | -49°F to 221° F			
Humidity	Operating Humidity : 5 to +95% (non-condensing) Storage Humidity : 0 to +90% (non-condensing)			
Wind Resistance	250Km/h			
Dimensions	390 x 390 x 76.9 mm 15.35 x 15.35 x 3.03 in.			
Weight	2.9 Kg 6.39 lb.			
IP code	IP67			
Materials	ABS, PTFE			

[1]Channel, Frequency Channel, frequency and bandwidth options will vary based upon regional and local regulations
[2]Transmission power is governed by local regulations and varies by frequency
[3]EIRP power Tolerance is ±2 dB
[4]RX sensitivity Tolerance is ±2 dB
[5]Power 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)
	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/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

QoS Features	Queue mapping and scheduling
	User-based bandwidth limiting
	Adaptive bandwidth management (automatic bandwidth adjustment based on the user quantity and radio environment)

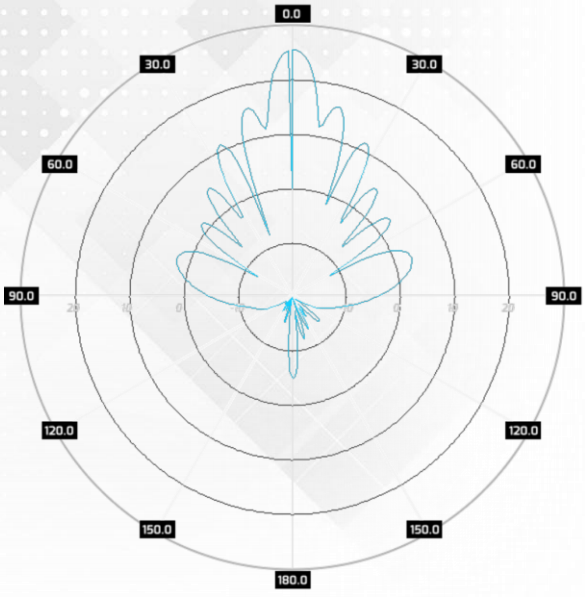
STANDARDS AND CERTIFICATIONS

FCC	Part 15.C Part 15.E Part 15.247 Part 15.407 Part 1.1310 & 2.1091 Part 15.203 Part15.207 Part 15.205 Part 15.209
Environmental	IEC 60529 (IP67) RoHs compliance

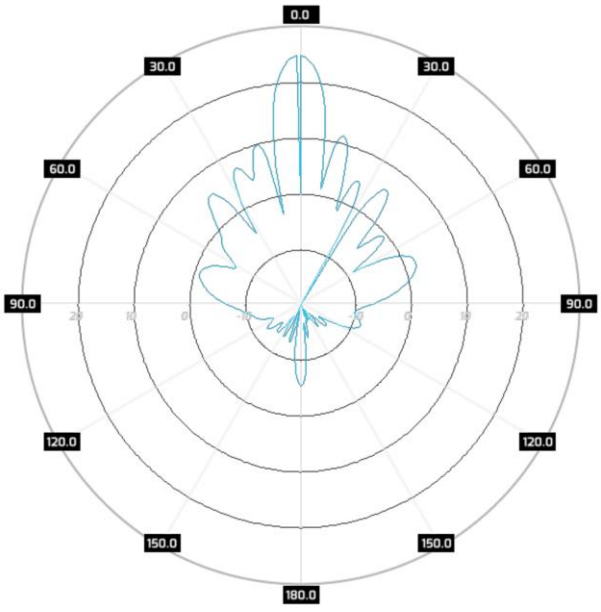
ANTENNA PATTERNS

Port 1 Elevation

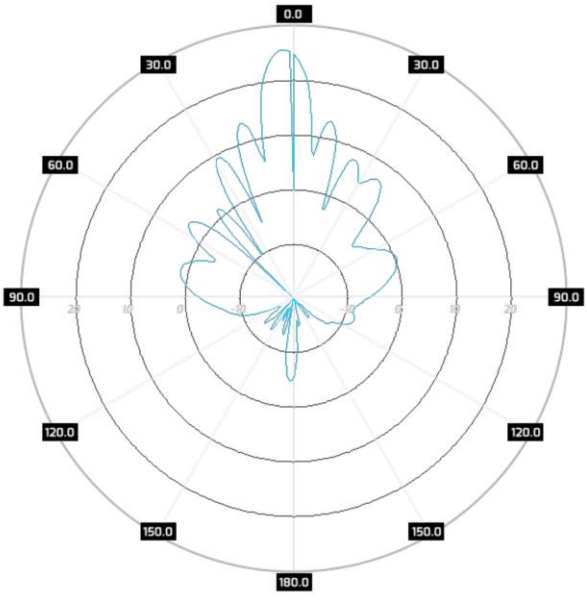
Port 1 Azimuth



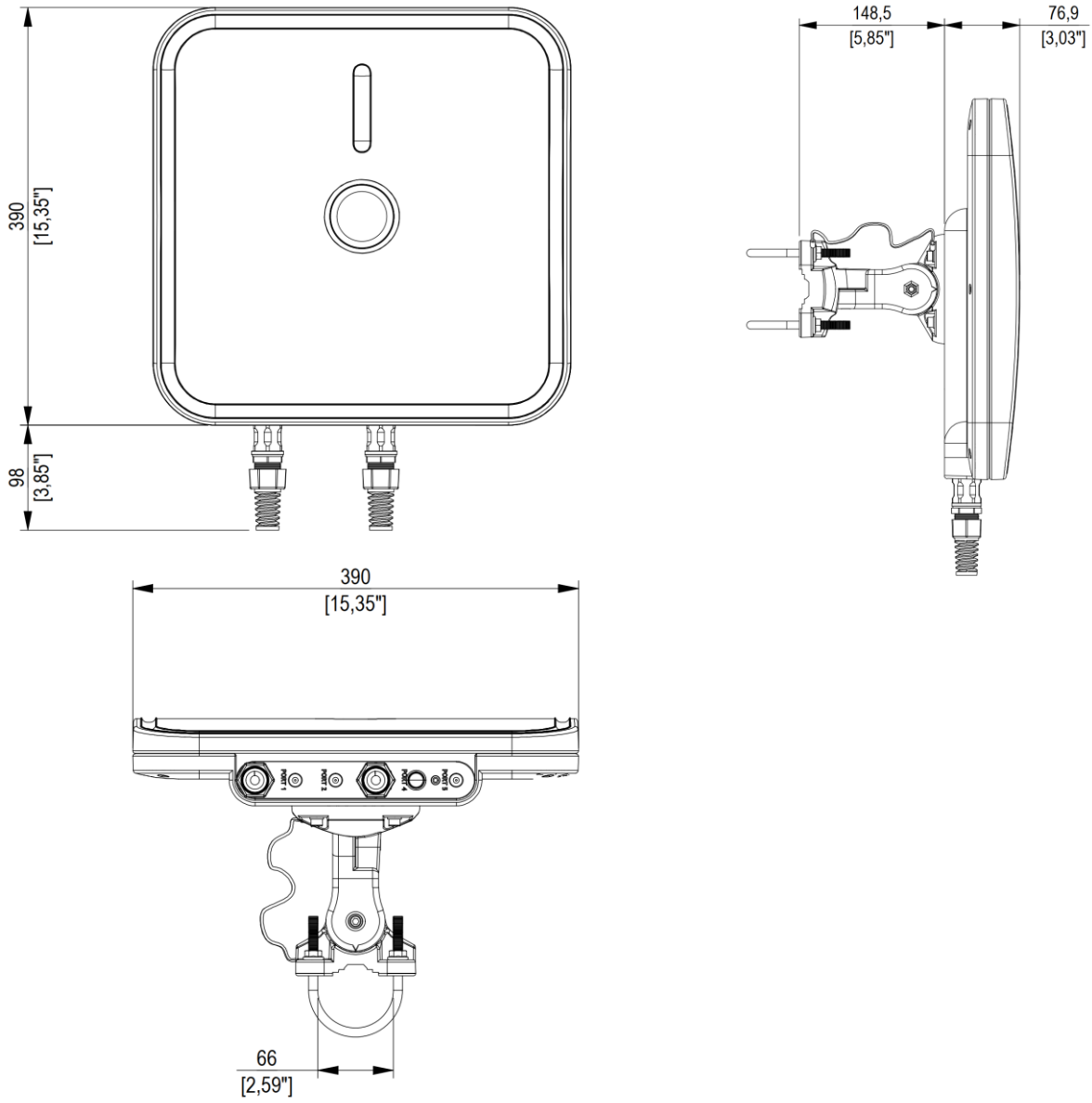
Port 2 Elevation



Port 2 Azimuth



DIMENSIONS



ORDERING INFORMATION

OWR-1000AC-C-I24	StartMesh HD with one radio transceiver 802.11a/b/g/n/ac, 2x2 MIMO, 5GHz, and one integrated antenna, 24dBi.
	AL-0010: 100-240VAC/24V DC 1A passive PoE power supply

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