

airGrid™ M

airMAX™ Wireless Broadband CPE

Models: AG-HP-2G16, AG-HP-2G20, AG-HP-5G23, AG-HP-5G27

High Performance, Long Range

Integrated InnerFeed™ CPE

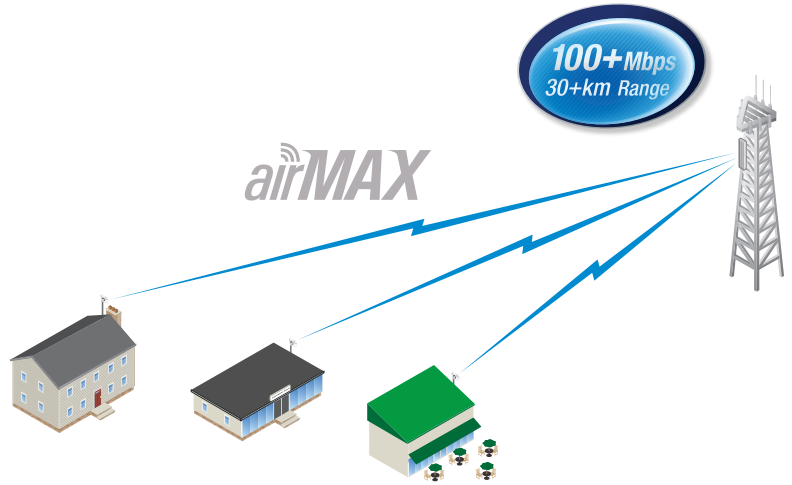
Easy Assembly and Installation

airGrid™ M

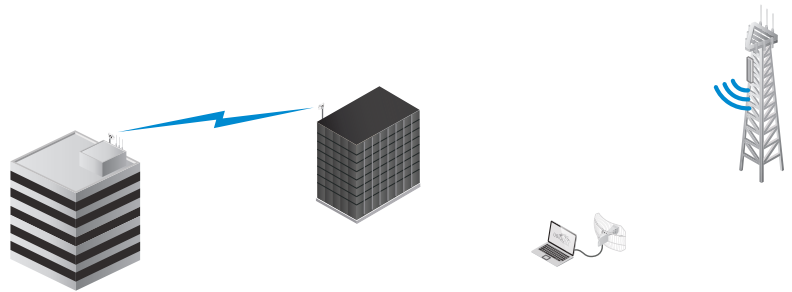
Utilizing InnerFeed™ technology, the new airGrid™ HP Series from Ubiquiti Networks™ represents the latest evolution of outdoor wireless broadband devices. The revolutionary InnerFeed technology integrates the entire radio system into the feedhorn of the antenna. airGridM combines Ubiquiti's InnerFeed and airMAX™ (TDMA protocol) technologies to create a simple, yet extremely powerful and robust wireless CPE (Customer Premises Equipment).

Complete antenna and radio system integration provides affordable cost/performance solutions to the wireless broadband industry. airGridM operates in the worldwide, license-free frequency range of either 2 GHz or 5 GHz, and features breakthrough performance up to 100+ Mbps in real outdoor throughput and incredible range up to 30+ km.

The low-cost, high-performance, robust "all-in-one" design and light weight of airGridM make it versatile and ideal in several different applications.



airGridM as a cost-effective CPE in an airMAX Point-to-Multi-Point network.



Use an airGridM on each side of a Point-to-Point link to create a reliable connection.

airGridM as a powerful wireless client.

Integrated airMAX Technology

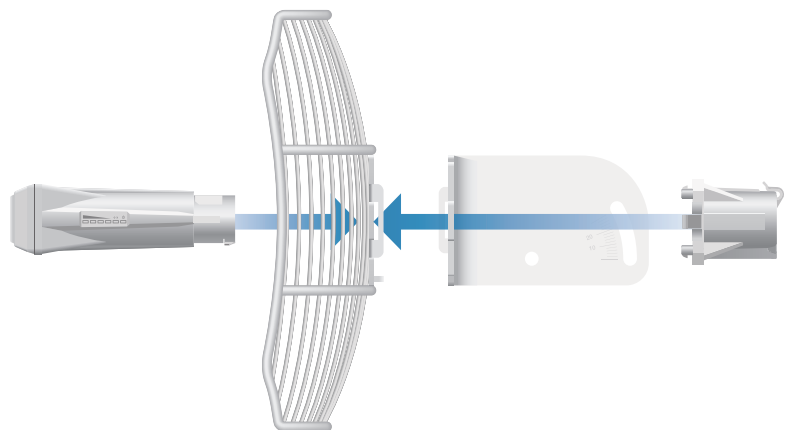
Unlike standard Wi-Fi protocol, the exclusive Ubiquiti Networks airMAX Time Division Multiple Access (TDMA) protocol allows each client to send and receive data using pre-designated time slots managed by an intelligent AP controller. This "time slot" method eliminates hidden node collisions and maximizes airtime efficiency.

Compared to other systems in its class, the airGridM delivers superior performance in reduced latency, throughput, and scalability.

- **Intelligent QoS** Priority is given to voice/video for seamless access.
- **Scalability** High capacity and scalability.
- **Long Distance** Capable of high-speed, 30+ km links.

Easy, No Tool Assembly

The updated mechanical design makes assembling and disassembling the airGridM, literally, a snap. No tools are required.



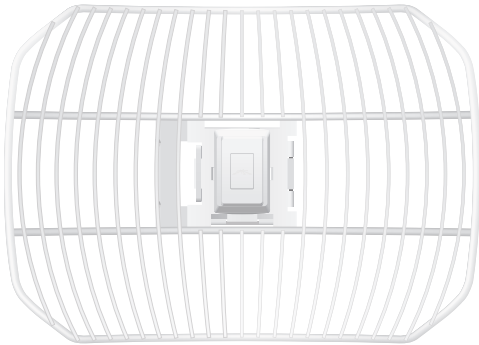
You simply snap the feed, antenna, mounting bracket and rear housing together for a secure, solid assembly.

Models

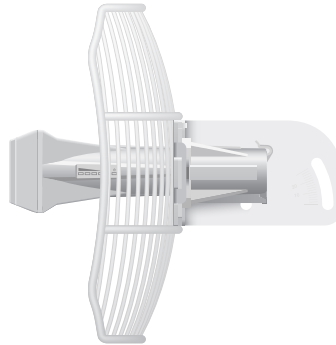
airGrid M2 HP

Model: AG-HP-2G16

- 2412 - 2462 MHz
- 16 dBi
- Antenna Size: 370 x 270 mm



Front View

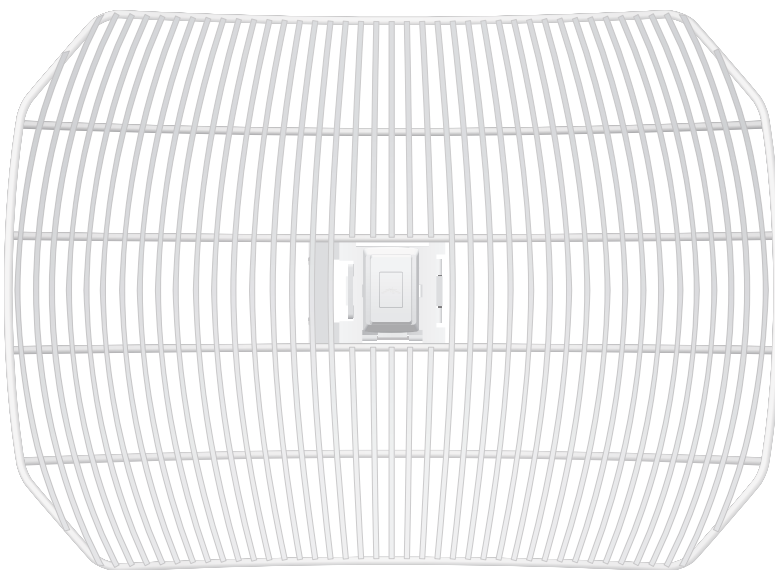


Side View

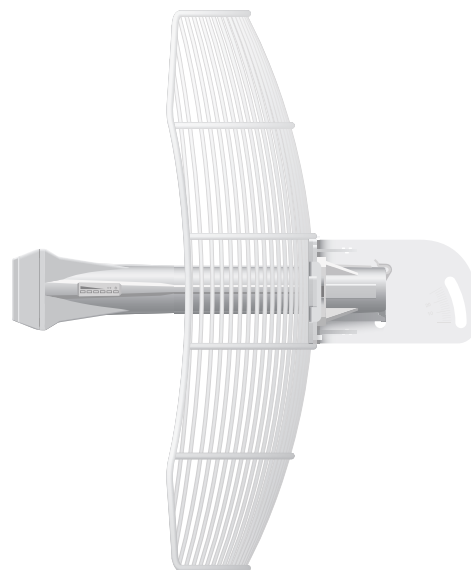
airGrid M2 HP

Model: AG-HP-2G20

- 2412 - 2462 MHz
- 20 dBi
- Antenna Size: 620 x 460 mm



Front View



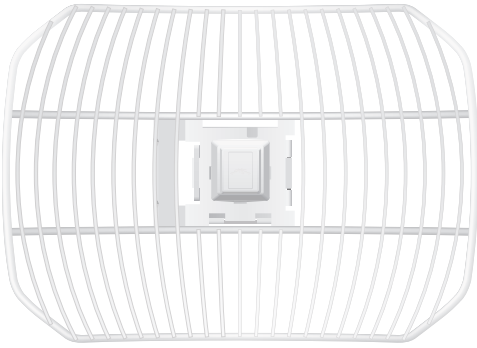
Side View

Models

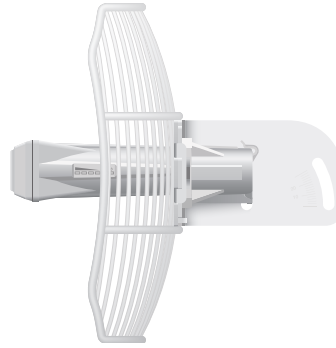
airGrid M5 HP

Model: AG-HP-5G23

- Worldwide: 5170 – 5875 MHz
- India: 5825 – 5875 MHz
- USA: 5725 – 5850 MHz
- 23 dBi
- Antenna Size: 370 x 270 mm



Front View

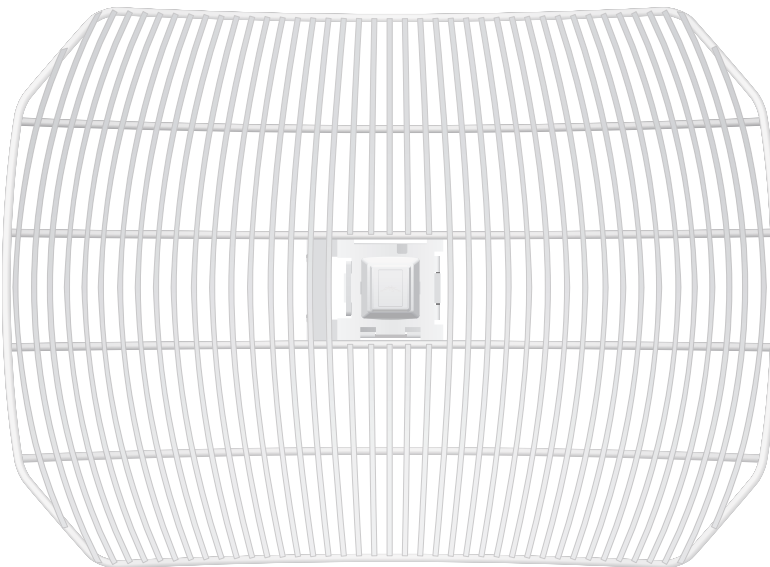


Side View

airGrid M5 HP

Model: AG-HP-5G27

- Worldwide: 5170 – 5875 MHz
- India: 5825 – 5875 MHz
- USA: 5725 – 5850 MHz
- 27 dBi
- Antenna Size: 620 x 460 mm



Front View



Side View

Specifications

System Information	
Processor Specs	Atheros MIPS 24KC, 400 MHz
Memory Information	32 MB SDRAM, 8 MB Flash
Networking Interface	(1) 10/100 Ethernet Port

Regulatory / Compliance Information	
Wireless Approvals	FCC Part 15.247, IC RS210, CE
RoHS Compliance	Yes

Physical / Electrical / Environmental	
Enclosure Characteristics	Outdoor UV Stabilized Plastic
Mounting Kit	Pole Mounting Kit (Included)
Max. Power Consumption	3 W
Power Supply	24V, 0.5A PoE Adapter (Included)
Power Method	Passive Power over Ethernet (Pairs 4, 5+; 7, 8 Return)
Operating Temperature	-30 to 75° C
Operating Humidity	5 to 95% Condensing
Shock and Vibration	ETSI300-019-1.4
ETSI Specification	EN 302 326 DN2



AG-HP-2G20

AG-HP-2G16



AG-HP-5G27

AG-HP-5G23

airGrid™ M2HP

Model: AG-HP-2G16



AG-HP-2G16 Specifications

Dimensions	370 x 270 x 270 mm (Mount Included)
Weight	1478 g (Mount Included)
Wind Survivability	125 mph
Wind Loading	8 lbf @ 125 mph

Antenna / Radio Information

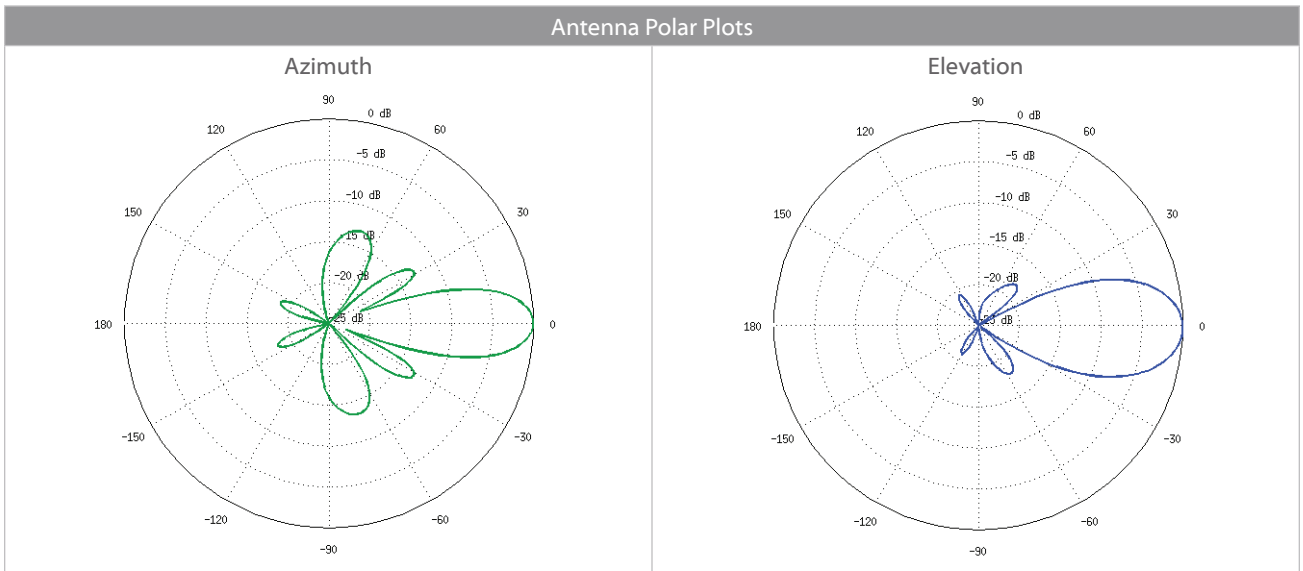
Operating Frequency	2412 - 2462 MHz
Output Power	28 dBm
Max. VSWR	1.5:1
Gain	16 dBi

TX Power Specifications

RX Power Specifications

Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
11g	1 - 24 Mbps	28 dBm	± 2 dB	11g	1 - 24 Mbps	-97 dBm min.	± 2 dB
	36 Mbps	26 dBm	± 2 dB		36 Mbps	-80 dBm	± 2 dB
	48 Mbps	25 dBm	± 2 dB		48 Mbps	-77 dBm	± 2 dB
	54 Mbps	24 dBm	± 2 dB		54 Mbps	-75 dBm	± 2 dB
11n / airMAX	MCS0	28 dBm	± 2 dB	11n / airMAX	MCS0	-96 dBm	± 2 dB
	MCS1	28 dBm	± 2 dB		MCS1	-95 dBm	± 2 dB
	MCS2	28 dBm	± 2 dB		MCS2	-92 dBm	± 2 dB
	MCS3	28 dBm	± 2 dB		MCS3	-90 dBm	± 2 dB
	MCS4	27 dBm	± 2 dB		MCS4	-86 dBm	± 2 dB
	MCS5	25 dBm	± 2 dB		MCS5	-83 dBm	± 2 dB
	MCS6	23 dBm	± 2 dB		MCS6	-77 dBm	± 2 dB
	MCS7	22 dBm	± 2 dB		MCS7	-74 dBm	± 2 dB

Antenna Polar Plots



airGrid™ M2HP

Model: AG-HP-2G20



AG-HP-2G20 Specifications

Dimensions	620 X 460 X 390 mm (Mount Included)
Weight	2603 g (Mount Included)
Wind Survivability	125 mph
Wind Loading	8 lbf @ 125 mph

Antenna / Radio Information

Operating Frequency	2412 - 2462 MHz
Output Power	28 dBm
Max. VSWR	1.5:1
Gain	20 dBi

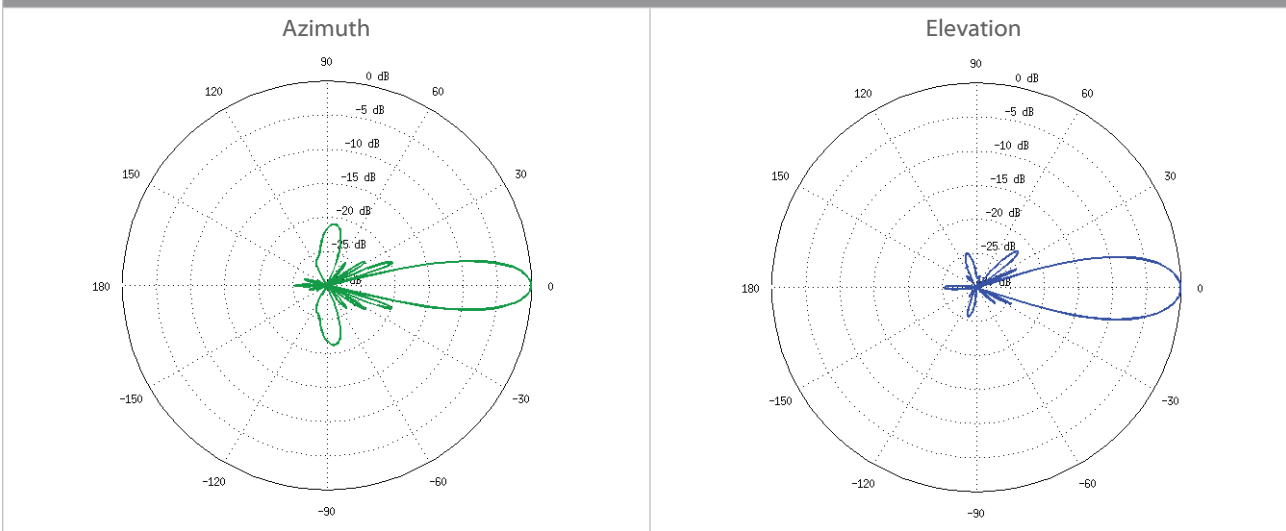
TX Power Specifications

Modulation	Data Rate	Avg. TX	Tolerance
11g	1 - 24 Mbps	28 dBm	± 2 dB
	36 Mbps	26 dBm	± 2 dB
	48 Mbps	25 dBm	± 2 dB
	54 Mbps	24 dBm	± 2 dB
11n / airMAX	MCS0	28 dBm	± 2 dB
	MCS1	28 dBm	± 2 dB
	MCS2	28 dBm	± 2 dB
	MCS3	28 dBm	± 2 dB
	MCS4	27 dBm	± 2 dB
	MCS5	25 dBm	± 2 dB
	MCS6	23 dBm	± 2 dB
	MCS7	22 dBm	± 2 dB

RX Power Specifications

Modulation	Data Rate	Sensitivity	Tolerance
11g	1 - 24 Mbps	-97 dBm min.	± 2 dB
	36 Mbps	-80 dBm	± 2 dB
	48 Mbps	-77 dBm	± 2 dB
	54 Mbps	-75 dBm	± 2 dB
11n / airMAX	MCS0	-96 dBm	± 2 dB
	MCS1	-95 dBm	± 2 dB
	MCS2	-92 dBm	± 2 dB
	MCS3	-90 dBm	± 2 dB
	MCS4	-86 dBm	± 2 dB
	MCS5	-83 dBm	± 2 dB
	MCS6	-77 dBm	± 2 dB
	MCS7	-74 dBm	± 2 dB

Antenna Polar Plots



airGrid™ M5HP

Model: AG-HP-5G23



AG-HP-5G23 Specifications

Dimensions	370 x 270 x 260 mm (Mount Included)
Weight	1452 g (Mount Included)
Wind Survivability	125 mph
Wind Loading	8 lbf @ 125 mph

Antenna / Radio Information

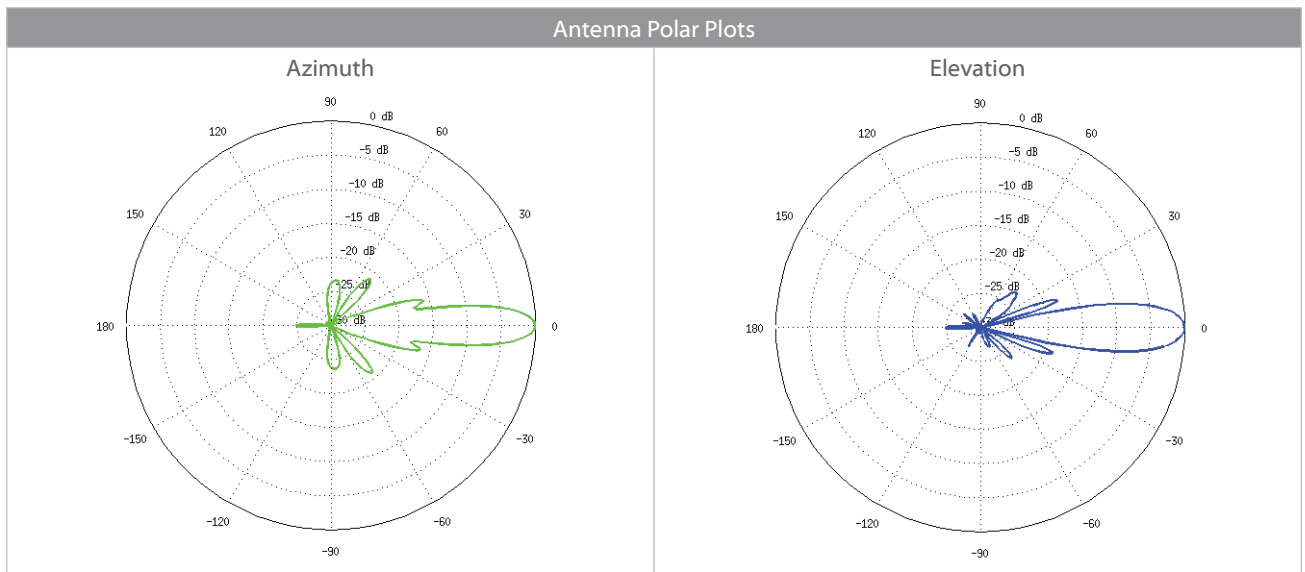
Operating Frequency	Worldwide: 5170 – 5875 MHz USA: 5725 – 5850 MHz
Output Power	25 dBm
Max. VSWR	1.5:1
Gain	23 dBi

TX Power Specifications

RX Power Specifications

Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
11a	1 - 24 Mbps	25 dBm	± 2 dB	11a	1 - 24 Mbps	-97 dBm min.	± 2 dB
	36 Mbps	24 dBm	± 2 dB		36 Mbps	-90 dBm	± 2 dB
	48 Mbps	22 dBm	± 2 dB		48 Mbps	-86 dBm	± 2 dB
	54 Mbps	21 dBm	± 2 dB		54 Mbps	-84 dBm	± 2 dB
11n / airMAX	MCS0	25 dBm	± 2 dB	11n / airMAX	MCS0	-97 dBm	± 2 dB
	MCS1	25 dBm	± 2 dB		MCS1	-96 dBm	± 2 dB
	MCS2	25 dBm	± 2 dB		MCS2	-93 dBm	± 2 dB
	MCS3	24 dBm	± 2 dB		MCS3	-91 dBm	± 2 dB
	MCS4	23 dBm	± 2 dB		MCS4	-87 dBm	± 2 dB
	MCS5	22 dBm	± 2 dB		MCS5	-84 dBm	± 2 dB
	MCS6	21 dBm	± 2 dB		MCS6	-78 dBm	± 2 dB
	MCS7	19 dBm	± 2 dB		MCS7	-75 dBm	± 2 dB

Antenna Polar Plots



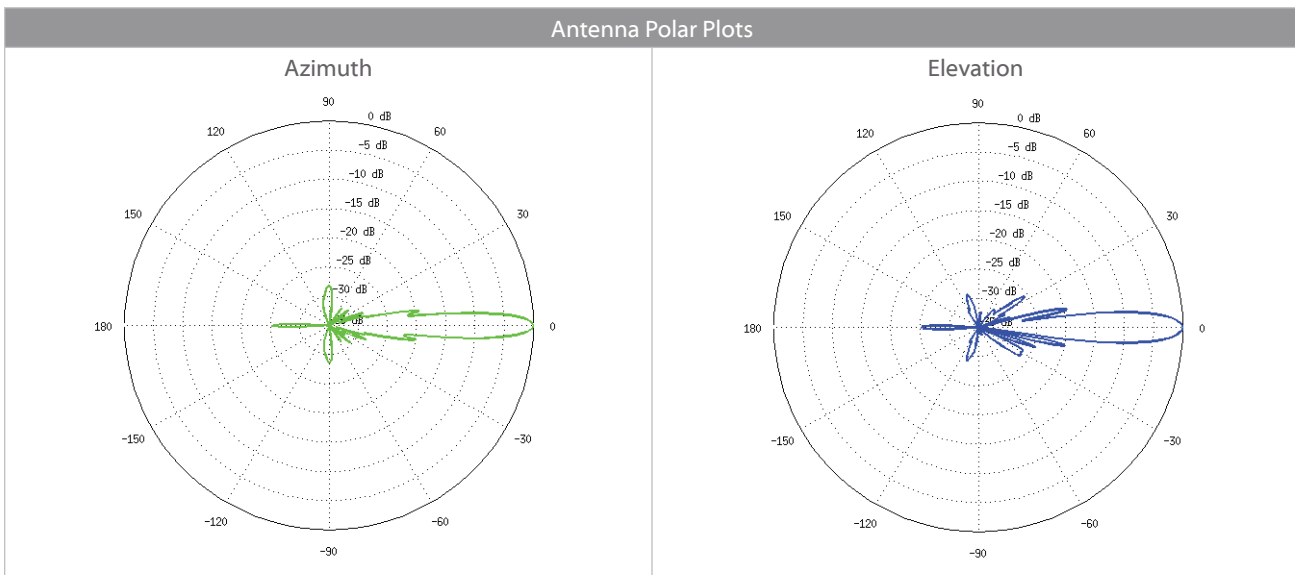
airGrid™ M5HP

Model: AG-HP-5G27



AG-HP-5G27 Specifications	
Dimensions	620 x 460 x 360 mm (Mount Included)
Weight	2585 g (Mount Included)
Wind Survivability	125 mph
Wind Loading	8 lbf @ 125 mph

Antenna / Radio Information							
Operating Frequency		Worldwide: 5170 – 5875 MHz USA: 5725 – 5850 MHz					
Output Power		25 dBm					
Max. VSWR		1.5:1					
Gain		27 dBi					
TX Power Specifications				RX Power Specifications			
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
11a	1 - 24 Mbps	25 dBm	± 2 dB	11a	1 - 24 Mbps	-97 dBm min.	± 2 dB
	36 Mbps	24 dBm	± 2 dB		36 Mbps	-90 dBm	± 2 dB
	48 Mbps	22 dBm	± 2 dB		48 Mbps	-86 dBm	± 2 dB
	54 Mbps	21 dBm	± 2 dB		54 Mbps	-84 dBm	± 2 dB
11n / airMAX	MCS0	25 dBm	± 2 dB	11n / airMAX	MCS0	-97 dBm	± 2 dB
	MCS1	25 dBm	± 2 dB		MCS1	-96 dBm	± 2 dB
	MCS2	25 dBm	± 2 dB		MCS2	-93 dBm	± 2 dB
	MCS3	24 dBm	± 2 dB		MCS3	-91 dBm	± 2 dB
	MCS4	23 dBm	± 2 dB		MCS4	-87 dBm	± 2 dB
	MCS5	22 dBm	± 2 dB		MCS5	-84 dBm	± 2 dB
	MCS6	21 dBm	± 2 dB		MCS6	-78 dBm	± 2 dB
	MCS7	19 dBm	± 2 dB		MCS7	-75 dBm	± 2 dB



TOUGH Cable™

OUTDOOR CARRIER CLASS SHIELDED

Protect your networks from the most brutal environments with Ubiquiti Networks' industrial-grade, shielded Ethernet cable, TOUGH Cable.

Increase Performance

Dramatically improve your Ethernet link states, speeds, and overall performance with Ubiquiti TOUGH Cables.

Extreme Weatherproof

Designed for outdoor use, TOUGH Cables have been built to perform even in the harshest weather and environments.

ESD Damage Protection

Protect your networks from devastating electrostatic discharge (ESD) attacks.

Extended Cable Support

TOUGH Cables have been developed to increase power handling performance for extended cable run lengths.



TOUGH Cable Connectors

Specifically designed for use with Ubiquiti TOUGH Cables, TOUGH Cable Connectors protect against ESD attacks and Ethernet hardware damage, while allowing rapid field deployment without soldering. The standard TOUGH Cable Connectors are available in 100-pc. bags, while the TC-GND versions include ground wires and are available in 20-pc. bags.

TOUGH Switch™ PoE

Advanced Gigabit PoE Managed Switch

Introducing the Advanced Power over Ethernet Controllers, TOUGH Switch™ PoE from Ubiquiti Networks. TOUGH Switch PoE delivers reliable passive PoE and fast 10/100/1000 Mbps connectivity to attached Ubiquiti devices and other devices that support passive PoE.

To connect your PoE devices, simply enable PoE in the easy-to-use TOUGH Switch Configuration Interface. Each port can be individually configured to provide PoE, so both PoE and non-PoE devices can be connected.



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PJHL062113

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