



M2MAX®

Up to 5-in-1 High Performance External IP67 Antenna

A rugged outdoor antenna, M2MAX is designed to provide high performance connectivity for wireless machine-to-machine applications. This antenna mounts to virtually any M2M or IoT enabled asset and requires no servicing through its lifetime.

FEATURES

- Up to five embedded antenna elements with powerful MIMO technology that operate over multiple bands in one IP67 rated housing
- Up to 2 x Wideband Cellular LTE elements
- Up to 2 x 2.4 & 4.9-6 GHz Wi-Fi elements
- Optional GNSS element
- Available in black or white

ADVANTAGES

- High gain provides bigger cellular footprint
- EZConnect™ configuration option allows for compatibility with customized EZConnect Cable Harness from a USA factory ensuring fast turnaround
- 5 year limited warranty included¹
- Covered by one or more patents and pending applications²

¹See terms and conditions at airgain.com/antenna-plus-support/

²For a list of the patents covering this product please visit <https://airgain.com/product-support/patents/>

PART NUMBER(S)

CONFIGURATION	CELLULAR ELEMENTS	Wi-Fi ELEMENTS	GNSS	PART NUMBER <small>*Indicates EZConnect configuration option</small>	DESCRIPTION
5-in-1	2	2	Yes	*AP-MM4G-C2W2G-[x]-B1	MIMO Cell/LTE x 2, Wi-Fi x 2 & GNSS, Black, 1 foot coax
				AP-CABLE-C2W2G-1-2-1-6	EZConnect Cable Harness with MIMO Cell/LTE x 2, Wi-Fi x 2, & GNSS, SMA on Cell/LTE & GNSS, RP SMA on Wi-Fi, 6 feet length
				AP-M2M2-CCWWG-[x]-S22222-RP34-BL-6	MIMO Cell/LTE x 2, Wi-Fi x 2 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 6 feet coax

4-in-1	2	1	Yes	*AP-MM4G-C2WG-[x]-B1	MIMO Cell/LTE x 2, Wi-Fi & GNSS, Black, 1 foot coax
				AP-CABLE-C2WG-1-2-1-6	EZConnect Cable Harness with MIMO Cell/LTE x 2, Wi-Fi, & GNSS, SMA on Cell/LTE & GNSS, RP SMA on Wi-Fi, 6 feet length
				AP-M2M2-CCWG-[x]-S2222-RP3-BL-6	MIMO Cell/LTE x 2, Wi-Fi x 1 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 6 feet coax
3-in-1	2	0	Yes	*AP-MM4G-C2G[x]-B1	MIMO Cell/LTE x 2 & GNSS, Black, 1 foot coax
				AP-CABLE-C2G-1-1-6	EZConnect Cable Harness with MIMO Cell/LTE x 2 & GNSS, SMA on Cell/LTE & GNSS, 6 feet length
				AP-M2M2-CCG-[x]-S222-BL-6	MIMO Cell/LTE x 2 & GNSS, SMA on Cell/ LTE & GNSS, Black, 6 feet coax
3-in-1	2	1	No	*AP-MM4G-C2W-[x]-B1	MIMO Cell/LTE x 2 & Wi-Fi, Black, 1 foot coax
				AP-CABLE-C2W-1-2-6	EZConnect Cable Harness with MIMO Cell/LTE x 2 & Wi-Fi, SMA on Cell/LTE, RP SMA on Wi-Fi, 6 feet length
				AP-M2M2-CCW-[x]-S222-RP3-BL-6	MIMO Cell/LTE x 2 & Wi-Fi, SMA on Cell/ LTE, RP-SMA on Wi-Fi, Black, 6 feet coax
3-in-1	1	1	Yes	*AP-MM4G-CWG-[x]-B1	Cell/LTE, Wi-Fi & GNSS, Black, 1 foot coax
				AP-CABLE-CWG-1-2-1-6	EZConnect Cable Harness with Cell/ LTE, Wi-Fi, & GNSS, SMA on Cell/LTE & GNSS, RP SMA on Wi-Fi, 6 feet length
				AP-M2M2-CWG-[x]-S222-RP2-BL-6	Cell/LTE x 1 & Wi-Fi, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 6 feet coax
2-in-1	2	0	No	*AP-MM4G-C2-[x]-B1	MIMO Cell/LTE x 2, Black, 1 foot coax
				AP-CABLE-C2-1-6	EZConnect Cable Harness with MIMO Cell/LTE x 2, SMA on Cell/LTE, 6 feet length
				AP-M2M2-CC-[x]-S22-BL-6	MIMO Cell/LTE x 2, SMA on Cell/LTE, Black, 6 feet coax
2-in-1	1	0	Yes	*AP-MM4G-CG-[x]-B1	Cell/LTE & GNSS, Black, 1 foot coax
				AP-CABLE-CG-1-1-6	EZConnect Cable Harness with Cell/ LTE & GNSS. SMA on Cell/LTE & GNSS, 6 feet length
				AP-M2M2-CG-[x]-S22-BL-6	Cell/LTE x 1, SMA on Cell/LTE & GNSS, Black, 6 feet coax
2-in-1	0	2	No	*AP-MM4G-W2-[x]-B1	MIMO Wi-Fi x 2, Black, 1 foot coax
				AP-CABLE-W2-2-6	EZConnect Cable Harness with MIMO Wi-Fi x 2, RP SMA on Wi-Fi, 6 feet length
				AP-M2M2-WW-[x]-S22-RP-BL-6	Wi-Fi x 2, RP-SMA on Wi-Fi, Black, 6 feet coax

Single Wi-Fi	0	1	No	*AP-MM4G-W-[x]-B1	Wi-Fi, Black, 1 foot coax
				AP-CABLE-W-2-6	EZConnect Cable Harness with Wi-Fi, RP SMA on Wi-Fi, 6 feet length
				AP-M2M2-W-[x]-S2-RP-BL-6	Wi-Fi x 1, RP-SMA on Wi-Fi, Black, 6 feet coax

MOUNTING OPTIONS [x] (Must be mounted on metal)	DESCRIPTION
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Q	Threaded Bolt Mount
A	Adhesive Mount
M	Magnetic Mount

CABLE LENGTH [y]	DESCRIPTION
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1	1 foot
3	3 feet
4	4 feet
6	6 feet
10	10 feet
15	15 feet
On request	Other lengths

Also available in color white, customizable cable lengths up to 35 feet, and other variations.

TECHNICAL SPECIFICATIONS

ELECTRICAL

Frequency Range	Elements 1 up to 2	689-960/1700-2700 MHz
	Elements 3 up to 4	2.4/4.9-6.0 GHz
	Element 5 (optional)	1550~1610 MHz
Operational Bands	Elements 1 up to 2	LTE/Cellular
	Elements 3 up to 4	Wi-Fi
	Element 5 (optional)	GPS L1/GALILEO E1/GLONASS G1/BeiDou B1/QZSS L1
Peak Gain: Isotropic	Elements 1 up to 2	698-960 MHz, 3 dBi
		1710-2700 MHz, 6 dBi
	Elements 3 up to 4	2.4 GHz, 5.5 GHz, 6.5 dBi, 4.2 dBi
	Element 5 (optional)	30.50 dBi
Isolation	Elements 1 up to 2	>10 dB
	Elements 3 up to 4	>30 dB
Correlation Co-efficient	Elements 1 up to 2	<0.1

ENVIRONMENTAL

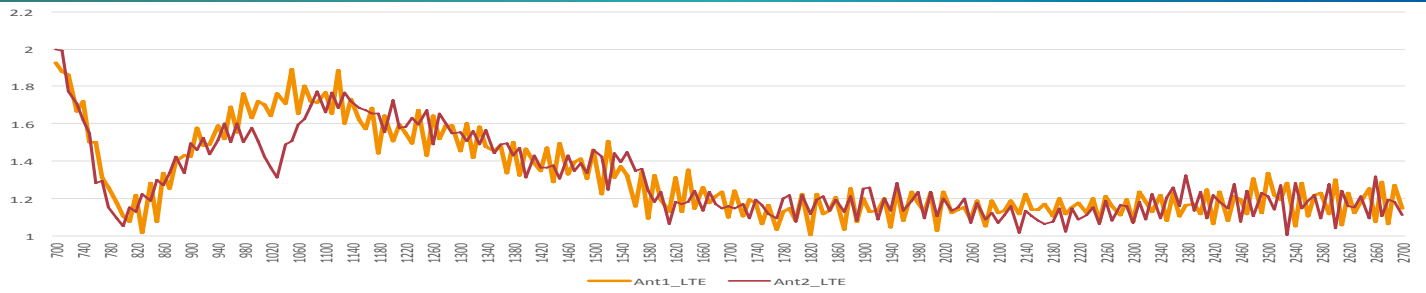
Hazardous Substances	RoHS Compliant
Temperature	-40°C to 65°C (-40°F to + 149°F) Operating and Storage conformance to IEC 60068
Humidity (Non-Condensing)	5% to 96% Operating and Storage conformance to IEC 60068
Water Ingress	IP67
Military Spec	MIL-STD 810 conformance to vibration

MOUNTING

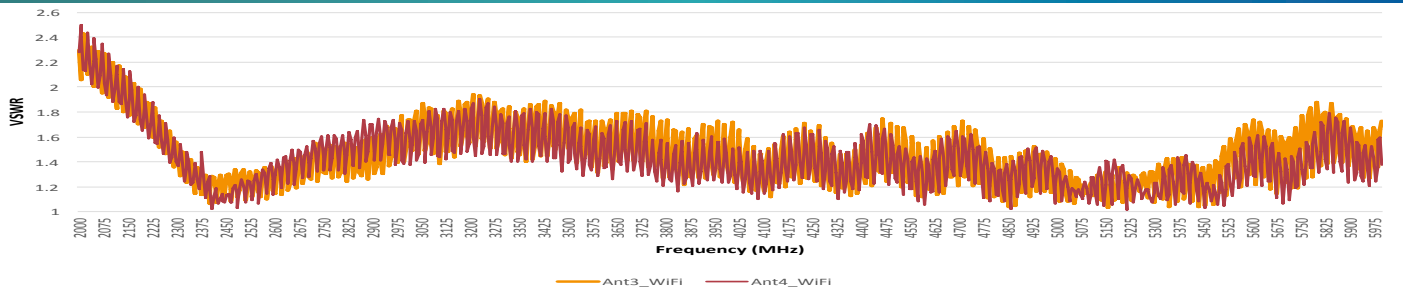
Dimensions	Height	2.19" (55.5mm)
	Width	2.56" (65mm)
	Length	4.84" (122.9mm)
Color	Black (BL) or White (WH)	

CABLE		STANDARD	EZConnect
Cell	Type	LMR-195 Low Loss	LMR-100 Low Loss
	Diameter	0.195" (4.953mm)	0.110" (2.79mm)
	Length	1 ft (0.3m)	1 ft (0.3m)
	Termination	SMA Male	SMA Male
Wi-Fi	Type	LMR-195 Low Loss	LMR-100 Low Loss
	Diameter	0.195" (4.953mm)	0.110" (2.79mm)
	Length	1 ft (0.3m)	1 ft (0.3m)
	Termination	RP-SMA Male	SMA Female
GNSS	Type	RG-174U	LMR-100 Low Loss
	Diameter	0.100" (2.54mm)	0.110" (2.79mm)
	Length	1 ft (0.3m)	1 ft (0.3m)
	Termination	SMA Male	FME Female
GNSS			
Ceramic Patch Antenna Specification	Bandwidth	1561-1602 MHz	
	Gain@Zenith	2.5 dBi	
	Polarization	R.H.C.P.	
	Axial Ratio	3.0 dB Typ.	
LNA Specification	Noise Figure	1.2 dB	
	Gain	28 dBi	
	Voltage	3.3V~5.6V	
	Current	9.6±1mA@3.3V	

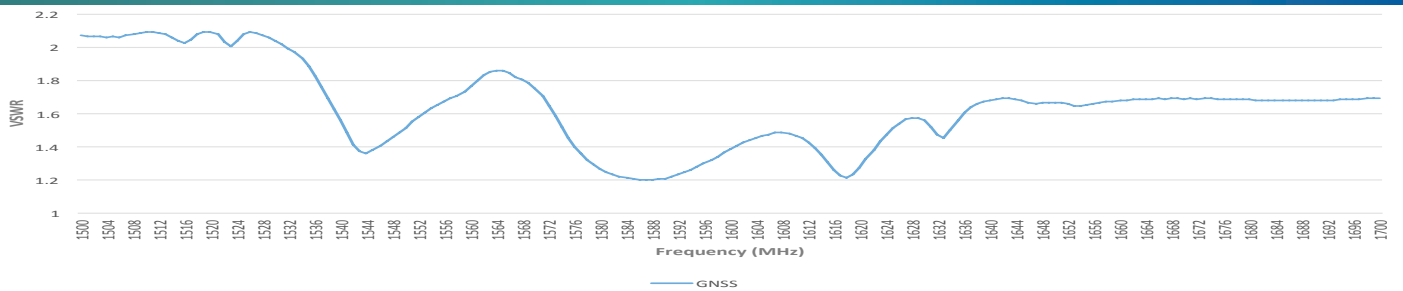
VSWR of LTE Antennas



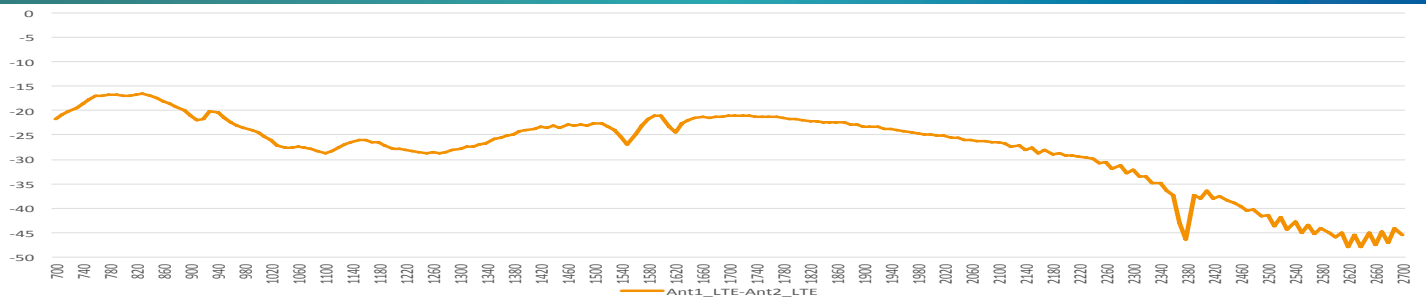
VSWR of Wi-Fi Antennas



VSWR of GNSS Antennas



Isolation of LTE Antennas



Isolation of Wi-Fi Antenna

