

ULTRAMAX™ B

Up to 7-in-1 High Performance External Antenna

ULTRAMAX B is an antenna designed specifically to provide high performance connectivity for Fleet and Public Safety vehicles and assets connecting to almost any vehicular router or modem. This antenna offers up to two high gain Cellular/LTE/MIMO antennas, which include support for LTE Band 14 for FirstNet, up to four high gain Wi-Fi antennas, and an optional GNSS antenna inside a single robust and compact housing.

- Built-in ground plane (to accommodate installation on non-metal surfaces)
- Up to 2 x Wideband LTE/cellular Elements (MIMO)
- Up to 4 x 2.4 & 4.9-6 GHz Wi-Fi/WiMax Elements (MIMO)
- Optional GNSS Element
- Five embedded antenna technologies that operate over multiple bands in one housing
- Leading LTE performance while in coexistence with multiple other embedded antenna technologies
- High gain provides bigger cellular footprint
- Available in black or white
- US Patent 10109918



Optimal MIMO Performance for LTE



Compact and Robust UV Resistant Housing



Flexible Mounting Options



Customizable Cables and Connectors to Connect to Any Modem



Low loss cable accessories



GNSS



Fast custom turnaround time



Bolt Mount



Adhesive Mount

Descriptions/Applications

The ULTRAMAX B antenna builds on the best in class RF performance, leading design features, and extended operational life of our highly successful Fleet and Public Safety Antenna products.

Standard Configurations

Configuration	Cellular Elements	Wi-Fi Elements	GNSS	Part Number	Description
7-in-1	2	4	Yes	AP-CCWWWWGx-S222222-RP3456-BL	MIMO Cell/LTE x 2, Wi-Fi x 4 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax
6-in-1	2	3	Yes	AP-CCWWWG-B[x]-S222222-RP345-BL	MIMO Cell/LTE x 2, Wi-Fi x 3 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax
5-in-1	2	3	No	AP-CCWWW-B[x]-S22222-RP345-BL	MIMO Cell/LTE x 2, Wi-Fi x 3, SMA on Cell/LTE, RP-SMA on Wi-Fi, Black, 15ft coax
5-in-1	2	2	Yes	AP-CCWWG-B[x]-S22222-RP34-BL	MIMO Cell/LTE x 2, Wi-Fi x 2 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax
4-in-1	2	2	No	AP-CCWW-B[x]-S2222-RP34-BL	MIMO Cell/LTE x 2, Wi-Fi x 2, SMA on Cell/LTE, RP-SMA on Wi-Fi, Black, 15ft coax
4-in-1	2	1	Yes	AP-CCWG-B[x]-S2222-RP3-BL	MIMO Cell/LTE x 2, Wi-Fi x 1 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax
3-in-1	2	1	No	AP-CCW-B[x]-S2222-RP3-BL	MIMO Cell/LTE x 2, Wi-Fi x 1, SMA on Cell/LTE & GNSS, Black, 15ft coax
3-in-1	2	0	Yes	AP-CCG-B[x]-S222-BL	MIMO Cell/LTE x 2 & GNSS, SMA on Cell/LTE & GNSS, Black, 15ft coax
3-in-1	1	1	Yes	AP-CWG-B[x]-S222-RP2-BL	Cell/LTE x 1, Wi-Fi x 1 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax
2-in-1	2	0	No	AP-CC-B[x]-S22-BL	MIMO Cell/LTE x 2, SMA on Cell/LTE, Black, 15ft coax
2-in-1	1	0	Yes	AP-CG-B[x]-S22-BL	Cell/LTE x 1 & GNSS, SMA on Cell/LTE & GNSS, Black, 15ft coax
Single Cellular	1	0	No	AP-C-B[x]-S2-BL	Cell/LTE x 1, SMA, Black, 15ft coax

Mounting Options [x]	
Q	Threaded Bolt Mount
A	Adhesive Mount
M	Magnetic Mount

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

Electrical Data

Frequency Range	Elements 1 up to 2	698-960/1700-2700 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	4.9 dBi	
		1710-2700 MHz	7 dBi	
	Elements 3 up to 4	2.4 GHz, 5.5 GHz		7 dBi, 5 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 Data

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
Military Spec	MIL-STD 810 conformance to vibration

Mounting Data

Dimensions	Height	2.183" (55.4mm)
	Diameter	7.650" (194.3mm)
Color	Black (BL) or White (WH)	

Cable Data- Cell/LTE

Type	CFD195 Low Loss
Diameter	0.195" (4.953 mm)
Length	1 feet (0.3 m)
Termination	SMA Male

Cable Data- Wi-Fi

Type	CFD195 Low Loss
Diameter	0.195" (4.953 mm)
Length	1 feet (0.3 m)
Termination	RP-SMA Male

Cable Data- GNSS

Type	RG-174U
Diameter	0.100" (2.54 mm)
Length	1 feet (0.3 m)
Termination	SMA Male

GNSS Data - Ceramic Patch Antenna Specification

Bandwidth	1561 – 1602 MHz
Gain@Zenith	2.5 dBi
Polarization	R.H.C.P.
Axial Ratio	3.0 dB Typ.

GNSS Data - LNA Specification

Noise Figure	1.2 dB
Gain	28 dBi
Voltage	3.3V~5.6V
Current	9.6±1mA@3.3V