

# CENTURION™ AW12

## High Performance External IP67 Antenna

CENTURION AW12 is designed for mating with the AWC AW12 modem. It is a full outdoor vehicle antenna designed specifically to provide high performance connectivity for public safety and fleet vehicles, and assets. This antenna is configurable and offers three high gain cellular/LTE/MIMO antennas, which include support for the LTE Band 14 first responder network, optionally two or three high gain Wi-Fi antennas, and optionally one GNSS antenna inside a single robust and compact housing. This antenna, with its three wideband cellular/LTE elements, has been designed to support the AW12 LTE HPUE modem.

- 3 x Wideband Cellular/LTE Elements (MIMO)
- 2 or 3 x 2.4 & 4.9-6 GHz Wi-Fi Elements (MIMO)
- 1 x GNSS Element
- Leading LTE performance while in coexistence with multiple other embedded antenna technologies
- Lower profile and smaller footprint than competing solutions
- High gain provides bigger cellular footprint
- USA factory ensures fast turnaround customizations
- Must be mounted on metal
- Available in black or white
- US Patent 10109918



Optimal MIMO Performance for LTE



Compact and Robust UV Resistant Housing



Full Outdoor Installation Ready



Customizable Cables and Connectors to Connect to Any Modem



Flexible Mounting Options



GNSS



Low loss cable accessories



Fast custom turnaround time

### Descriptions/Applications

The CENTURION AW12 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. Like all our antennas, this product has been designed to be robust to withstand the natural hazards a vehicle faces including vibration, hot, cold, ice, salt, dirt, car washes, and tree branch sweeps. Our antennas typically outlast the life of a vehicle.



Bolt Mount



Adhesive Mount



Magnetic Mount

### Standard Configurations

<b>AP-C3-Q-SMA-BL-15</b>	MIMO Cell/LTE x 3, Threaded Bolt Mount, SMA on Cell/LTE, Black, 15ft coax
<b>AP-C3W2G-Q-SMA-RP45-BL-15</b>	MIMO Cell/LTE x 3, Wi-Fi x 2 & GNSS, Threaded Bolt Mount, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax
<b>AP-C3W3G-Q-SMA-RP56-BL-15</b>	MIMO Cell/LTE x 3, Wi-Fi x 3 & GNSS, Threaded Bolt Mount, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax

*Also available in color white, customizable cable lengths up to 35 feet, adhesive mount, magnetic mount, and other Wi-Fi & GNSS combinations.*

Electrical Data			
Frequency Range	Elements 1, 2 & 3	698-960/1700-2700 MHz	
	Elements 4, 5 & 6	2.4/4.9-6.0 GHz	
	Element 7	1550~1610 MHz	
Operational Bands	Elements 1, 2 & 3	LTE/Cellular	
	Elements 4, 5 & 6	Wi-Fi	
	Element 7	GPS L1/GALILEO E1/GLONASS G1/BeiDou B1/QZSS L1	
Peak Gain: Isotropic	Elements 1, 2 & 3	698-960 MHz	4 dBi
		1710-2700 MHz	7 dBi
	Elements 4, 5 & 6	2.4 GHz, 5.5 GHz	7 dBi, 4 dBi
	Element 7	30.50 dBi	
Isolation	Elements 1, 2 & 3	> 15 dB	
	Elements 4, 5 & 6	> 30 dB	
Correlation Co-efficient	Elements 1, 2 & 3	< 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
Water Ingress	IP67
Military Spec	MIL-STD 810 conformance to vibration

Mounting Data	
Dimensions	Height 2.27" (57.7mm)
	Width 4.47" (113.6mm)
	Length 7.32" (186mm)
Color	Black (BL) or White (WH)

Cable Data- Cell/LTE		Cable Data- Wi-Fi		Cable Data- GNSS	
Type	CFD195 Low Loss	Type	CFD195 Low Loss	Type	RG-174U
Diameter	0.195" (4.953 mm)	Diameter	0.195" (4.953 mm)	Diameter	0.100" (2.54 mm)
Length	1 ft (0.3 m)	Length	1 ft (0.3 m)	Length	1 ft (0.3 m)
Termination	SMA Male	Termination	RP-SMA Male	Termination	SMA Male

GNSS Data - Ceramic Patch Antenna Specification		GNSS Data - LNA Specification	
Bandwidth	1561 – 1602 MHz	Noise Figure	1.2 dB
Gain@Zenith	2.5 dBi	Gain	28 dBi
Polarization	R.H.C.P.	Voltage	3.3V~5.6V
Axial Ratio	3.0 dB Typ.	Current	9.6±1mA@3.3V