

CENTURION™ 5G

Up to 9-in-1 High Performance External IP67 Antenna

CENTURION 5G is a full outdoor antenna, designed specifically to provide high performance LTE and 5G connectivity for Fleet and Public Safety vehicles and assets. Equipped with up to 9 ports, this antenna connects to almost any vehicular router or modem. Delivering powerful MIMO technology, this configurable antenna offers up to 4 high gain Cellular/5G (600 MHz to 6 GHz) antennas and includes support for LTE Band 14 for FirstNet™, Band 71 for T-Mobile, CBRS, and LAA. The CENTURION 5G also supports up to 4 high gain tri-band Wi-Fi antennas (with support for Wi-Fi 6, Wi-Fi 6E, and Wi-Fi 7), and an optional GNSS element inside a single robust and compact housing. This antenna has been designed for the next generation of vehicular 5G routers with multiple carrier switching. The CENTURION 5G provides the ultimate in Wi-Fi support for full HD streaming video and other high bandwidth applications.

- Up to nine embedded antenna technologies that operate over multiple bands in one IP67 rated housing
- Up to 4 x Wideband Cellular 5G (600 MHz - 6 GHz) Elements (MIMO)
- Up to 4 x 2.4 & 5.15 - 7.125 GHz Wi-Fi elements that support up to W-Fi 6, Wi-Fi 6E, and Wi-Fi 7
- Optional GNSS Element
- Leading LTE/5G performance while in coexistence with multiple other embedded antenna technologies
- 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

Description/Applications

The CENTURION 5G 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.

5G



Optimal MIMO Performance for 5G



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

Standard Configurations

| Configuration | Cellular Elements | Wi-Fi Elements | GNSS | Part Number | Description |
|---------------|-------------------|----------------|------|---|---|
| 9-in-1 | 4 | 4 | Yes | AP-NEXT-C4W4G-[x]-SMA-RP5678-BL-15 | MIMO 5G (600 MHz-6 GHz) x 4, Wi-Fi x 4 & GNSS, SMA on Cell/5G & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax |
| 8-in-1 | 4 | 3 | Yes | AP-NEXT-C4W3G-[x]-SMA-RP567-BL-15 | MIMO 5G (600 MHz-6 GHz) x 4, Wi-Fi x 3 & GNSS, SMA on Cell/5G & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax |
| 7-in-1 | 4 | 2 | Yes | AP-NEXT-C4W2G-[x]-SMA-RP56-BL-15 | MIMO 5G (600 MHz-6 GHz) x 4, Wi-Fi x 2 & GNSS, SMA on Cell/5G & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax |
| 6-in-1 | 2 | 3 | Yes | AP-NEXT-C2W3G-[x]-SMA-RP345-BL-15 | MIMO 5G (600 MHz-6 GHz) x 2, Wi-Fi x 3 & GNSS, SMA on Cell/5G & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax |
| 5-in-1 | 2 | 2 | Yes | AP-NEXT-C2W2G-[x]-SMA-RP34-BL-15 | MIMO 5G (600 MHz-6 GHz) x 2, Wi-Fi x 2 & GNSS, SMA on Cell/5G & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax |
| 4-in-1 | 2 | 1 | Yes | AP-NEXT-C2WG-[x]-SMA-RP3-BL-15 | MIMO 5G (600 MHz-6 GHz) x 2, Wi-Fi x 1 & GNSS, SMA on Cell/5G & GNSS, RP-SMA on Wi-Fi, Black, 15ft coax |
| 3-in-1 | 2 | 0 | Yes | AP-NEXT-C2G-[x]-SMA-BL-15 | MIMO 5G (600 MHz-6 GHz) x 2 & GNSS, SMA on Cell/5G & GNSS, Black, 15ft coax |
| 2-in-1 | 2 | 0 | No | AP-NEXT-C2-[x]-SMA-BL-15 | MIMO 5G (600 MHz-6 GHz) x 2, SMA on Cell/5G, Black, 15 ft coax |

| Mounting Options [x] | |
|----------------------|---|
| Q | Threaded Bolt Mount |
| QR | Threaded Bolt Mount with Modified Gasket for 2020 Ford Explorer |
| A | Adhesive Mount |
| AR | Adhesive Mount with Modified Gasket for 2020 Ford Explorer |
| 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 4 | 600-960/1700-2700/3300-4300/5150-5850 MHz | |
| | Elements 5 up to 8 | 2.4/5.15-7.125 GHz | |
| | Element 9 (optional) | 1550~1610 MHz | |
| Operational Bands | Elements 1 up to 4 | 5G (Band 71, LTE, CBRS, LAA) | |
| | Elements 5 up to 8 | Wi-Fi | |
| | Element 9 (optional) | GPS L1/GALILEO E1/GLONASS G1/BeiDou B1/QZSS L1 | |
| Peak Gain: Isotropic | Elements 1 up to 4 | 600-960 MHz | 3.9 dBi |
| | | 1710-2700 MHz | 6.4 dBi |
| | | 3300-4300 MHz | 9.3 dBi |
| | | 5150-5850 MHz | 8.9 dBi |
| | Elements 5 up to 8 | 2.4 GHz, 5-7 GHz 4 dBi, 7 dBi | |
| | Element 9 (optional) | 30.50 dBi | |
| Isolation | Elements 1 up to 4 | > 15 dB | |
| | Elements 5 up to 8 | > 30 dB | |
| Correlation Co-efficient | Elements 1 up to 4 | < 0.1 | |

| Environmental Data | |
|---------------------------|---|
| Hazardous Substances | RoHS Compliant |
| Temperature | 40°C to 70°C (-40°F to +158°F) Operating, -40°C to 85°C (-40°F to +185°F) Storage |
| 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 | 3.26" (82.7 mm) |
| | Width | 4.47" (113.6 mm) |
| | Length | 7.32" (186 mm) |
| Color | Black (BL) or White (WH) | |

| Cable Data- Cellular | | Cable Data- Wi-Fi | | Cable Data- GNSS | |
|----------------------|-------------------|-------------------|------------------|------------------|------------------|
| Type | CFD195 Low Loss | Type | LMR 100 | Type | RG-174U |
| Diameter | 0.195" (4.953 mm) | Diameter | 0.100" (2.54 mm) | Diameter | 0.100" (2.54 mm) |
| Length | 1 feet (0.3 m) | Length | 1 feet (0.3 m) | Length | 1 feet (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 dB |
| Polarization | R.H.C.P. | Voltage | 3.3V~5.6V |
| Axial Ratio | 3.0 dB Typ. | Current | 9.6±1mA@3.3V |