



## RECON13™ 5G

### Up to 13-in-1 High Performance IP67/IP69K Antenna

A rugged outdoor antenna, RECON13 is designed to provide high performance LTE and 5G connectivity for fleet and public safety vehicles and assets. The extremely low profile makes it more covert and less obstructive. Equipped with up to 13 ports, this antenna connects to virtually any vehicular router or modem.

#### FEATURES

- Powerful MIMO technology
- Up to 4 x LTE/5G (600 MHz - 6 GHz) elements
- Up to 8 x Wi-Fi 6/6E/7 (2.4 & 5-7.1 GHz) elements
- Optional GNSS element
- Ground plane independent
- Ultra-low 1.8" height
- IP67 and IP69K ingress protection
- Available in black or white

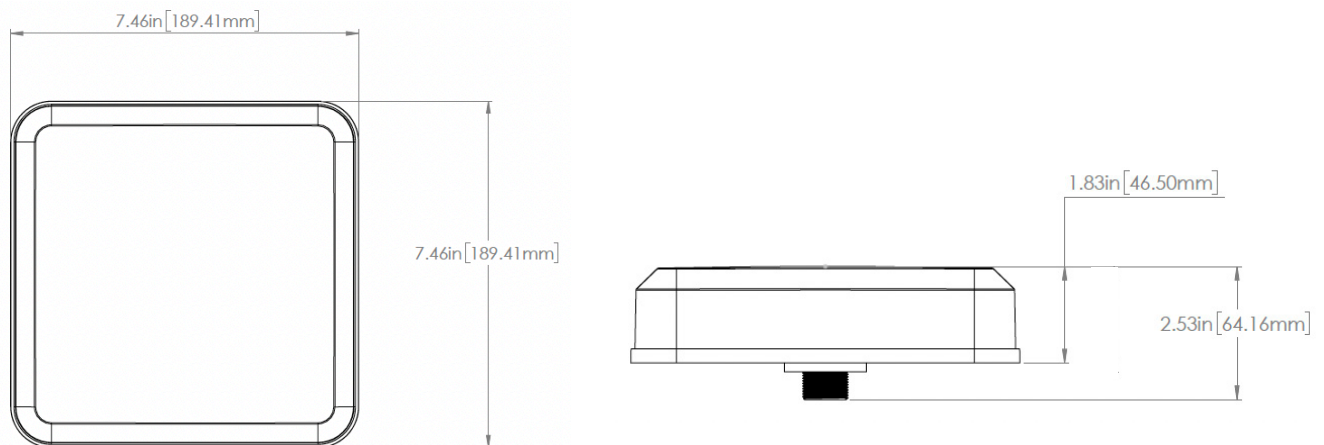
#### ADVANTAGES

- High efficiency provides better performance
- Omni-directional radiation pattern provides uniform coverage
- EZConnect™ cable harness allows for quick and easy customizations
- Includes pre-attached mounting foam for
  - installation on uneven surfaces
- 5 year limited warranty included<sup>1</sup>
- Covered by one or more patents and pending applications<sup>2</sup>

<sup>1</sup>See terms and conditions at <https://www.airgain.com/product-support/antenna-plus-product-support/>

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

#### DIMENSIONS



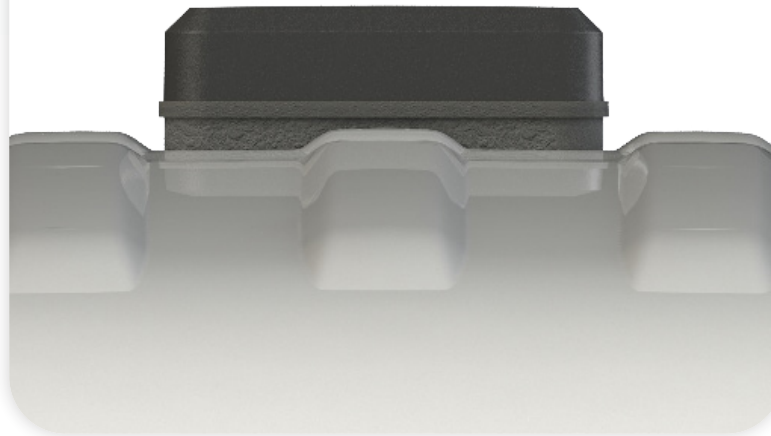
**COMMON PART NUMBERS (inquire to Airgain for other configurations)**

CONFIGURATION	CELLULAR ELEMENTS	WI-FI ELEMENTS	GNSS	PART NUMBER <small>*Requires EZConnect Cable Harness</small>	DESCRIPTION
13-in-1	4	8	Yes	*AP-RT5G-C4W8G-[x]-B1	EZConnect Antenna with MIMO LTE/5G x 4, Wi-Fi x 8 & GNSS, Black, 1 foot coax
				[z]-C4W8G-1-2-1-14	EZConnect Cable Harness with Cell x 4, Wi-Fi x 8, GNSS, SMA on Cell & GNSS, RP-SMA on Wi-Fi, 14 feet length
10-in-1	4	5	Yes	*AP-RT5G-C4W5G-[x]-B1	EZConnect Antenna with MIMO LTE/5G x 4, Wi-Fi x 5 & GNSS, Black, 1 foot coax
				[z]-C4W5G-1-2-1-14	EZConnect Cable Harness with Cell x 4, Wi-Fi x 5, GNSS, SMA on Cell & GNSS, RP-SMA on Wi-Fi, 14 feet length
9-in-1	4	4	Yes	*AP-RT5G-C4W4G-[x]-B1	EZConnect Antenna with MIMO LTE/5G x 4, Wi-Fi x 4 & GNSS, Black, 1 foot coax
				[z]-C4W4G-1-2-1-14	EZConnect Cable Harness with Cell x 4, Wi-Fi x 4, GNSS, SMA on Cell & GNSS, RP-SMA on Wi-Fi, 14 feet length
7-in-1	4	2	Yes	*AP-RT5G-C4W2G-[x]-B1	EZConnect Antenna with MIMO LTE/5G x 4, Wi-Fi x2 & GNSS, Black, 1 foot coax
				[z]-C4W2G-1-2-1-14	EZConnect Cable Harness with Cell x 4, Wi-Fi x 2, GNSS, SMA on Cell & GNSS, RP-SMA on Wi-Fi, 14 feet length
5-in-1	4	0	Yes	*AP-RT5G-C4G-[x]-B1	EZConnect Antenna with MIMO LTE/5G x 4 & GNSS, Black, 1 foot coax
				[z]-C4G-1-1-14	EZConnect Cable Harness with MIMO/Cell x 4 & GNSS, SMA on Cell & GNSS, 14 feet length
4-in-1	4	0	No	*AP-RT5G-C4-[x]-B1	EZConnect Antenna with MIMO LTE/5G x 4, Black, 1 foot coax
				[z]-C4-1-14	EZConnect Cable Harness with Cell x 4, SMA on Cell, 14 feet length

MOUNTING OPTIONS [x]	DESCRIPTION
Q	Threaded Bolt Mount (includes pre-attached mounting foam for uneven surfaces) <sup>3</sup> , must purchase AP-MAG for magnetic mount or AP-SCM for suction mount
EZConnect CABLE HARNESS [z]	DESCRIPTION
CH	Inquire to distributor for select SKUs
CCH	Custom Cable Harness with cable lengths up to 34 feet, and other variations

Also available in color white. For mounting instructions please visit <https://www.airgain.com/installation-and-removal-guides/>.

<sup>3</sup> Attached to rib with mounting foam  
(cannot be mounted between ribs of 2020+ Ford Explorer)



## TECHNICAL SPECIFICATIONS

Performance results are measured in a test chamber with 1' LMR-100 cables and over a 2'x2' ground plane, results are more reliable than data from software simulations

### ELECTRICAL

Frequency Range	Elements 1 up to 4	617-960/1700-2700/3300-4200/5150-5850 MHz
	Elements 5 up to 12	2.4/5.15-7.125 GHz
	Element 13 (optional)	1550~1610 MHz
Operational Bands	Elements 1 up to 4	5G (Band 71, LTE, CBRS, LAA)
	Elements 5 up to 12	Wi-Fi 6E
	Element 13 (optional)	GPS L1/GALILEO E1/GLONASS G1/BeiDou B1/QZSS L1
Peak Gain: Isotropic	Elements 1 up to 4	617-960 MHz, 5.9 dBi
		1700-2700 MHz, 8.1 dBi
		3300-4200 MHz, 7.5 dBi
		5150-5850 MHz, 7.5 dBi
	Elements 5 up to 12	2.4 GHz, 6.3 dBi
		5-7 GHz, 8.0 dBi
Element 13 (optional)	33.4 dBi	
Isolation	Elements 1 up to 4	>10 dB
	Elements 5 up to 12	>9 dB
Average Efficiency	Elements 1 up to 4	617-960 MHz, >55%
		1700-2700 MHz, >60%
		3300-4200 MHz, >52%
		5150-5850 MHz, >47%
	Elements 5 up to 12	2.4 GHz, >50%
		5-7 GHz, >47%
Correlation Co-efficient	Elements 1 up to 4	617-960 MHz, <0.3
		1700-5850 MHz, <0.03

## ENVIRONMENTAL

Hazardous Substances	RoHS Compliant
Temperature	-40°C to 85°C (-40°F to + 185°F) Operating and Storage
Humidity (Non-Condensing)	60°C and 95% RH Operating and Storage
Water Ingress	IP67 and IP69K
Shock and Vibration	Conformance to MIL-STD 810G

## MECHANICAL

Dimensions	Height	1.83" (46.5mm)
	Width	7.46" (189.4mm)
	Length	7.46" (189.4mm)
Color	Black (B) or White (W)	

## CABLE

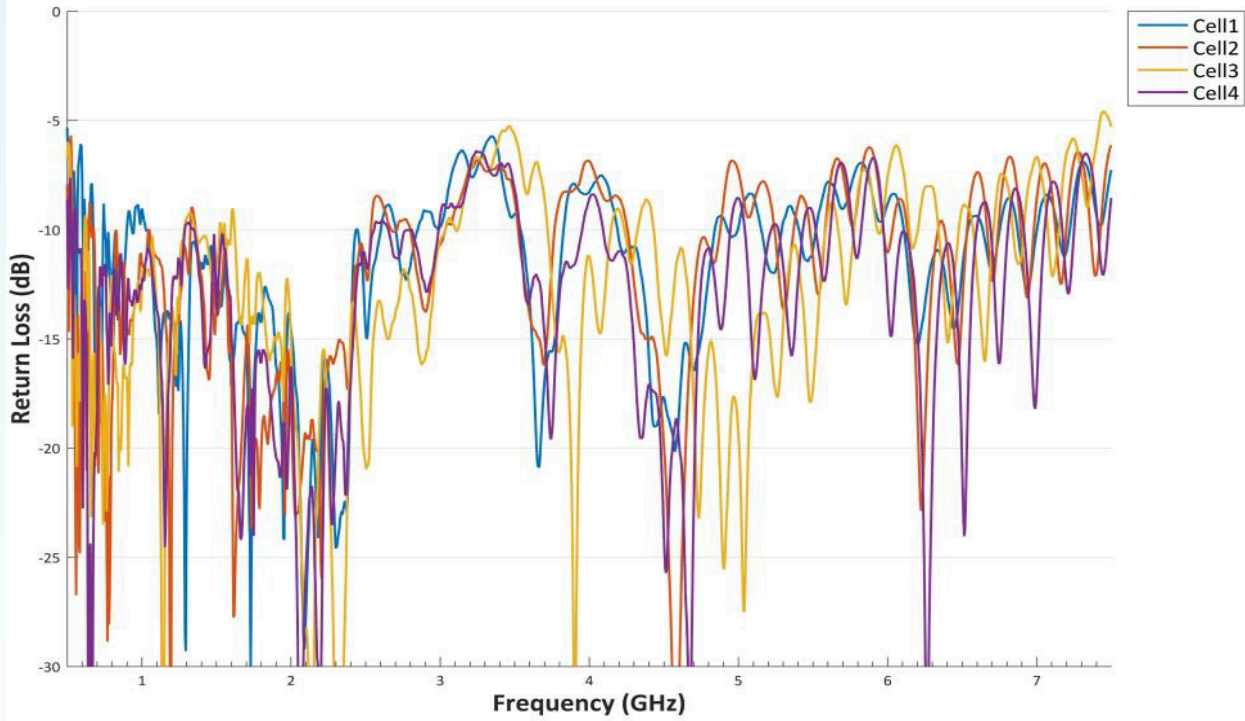
Cell	Type	LMR-100 Low Loss
	Diameter	0.110" (2.79mm)
	Length	1 ft (0.3m)
	Termination	SMA Male
Wi-Fi	Type	LMR-100 Low Loss
	Diameter	0.110" (2.79mm)
	Length	1 ft (0.3m)
	Termination	SMA Female
GNSS	Type	LMR-100 Low Loss
	Diameter	0.110" (2.79mm)
	Length	1 ft (0.3m)
	Termination	FME Female

## GNSS

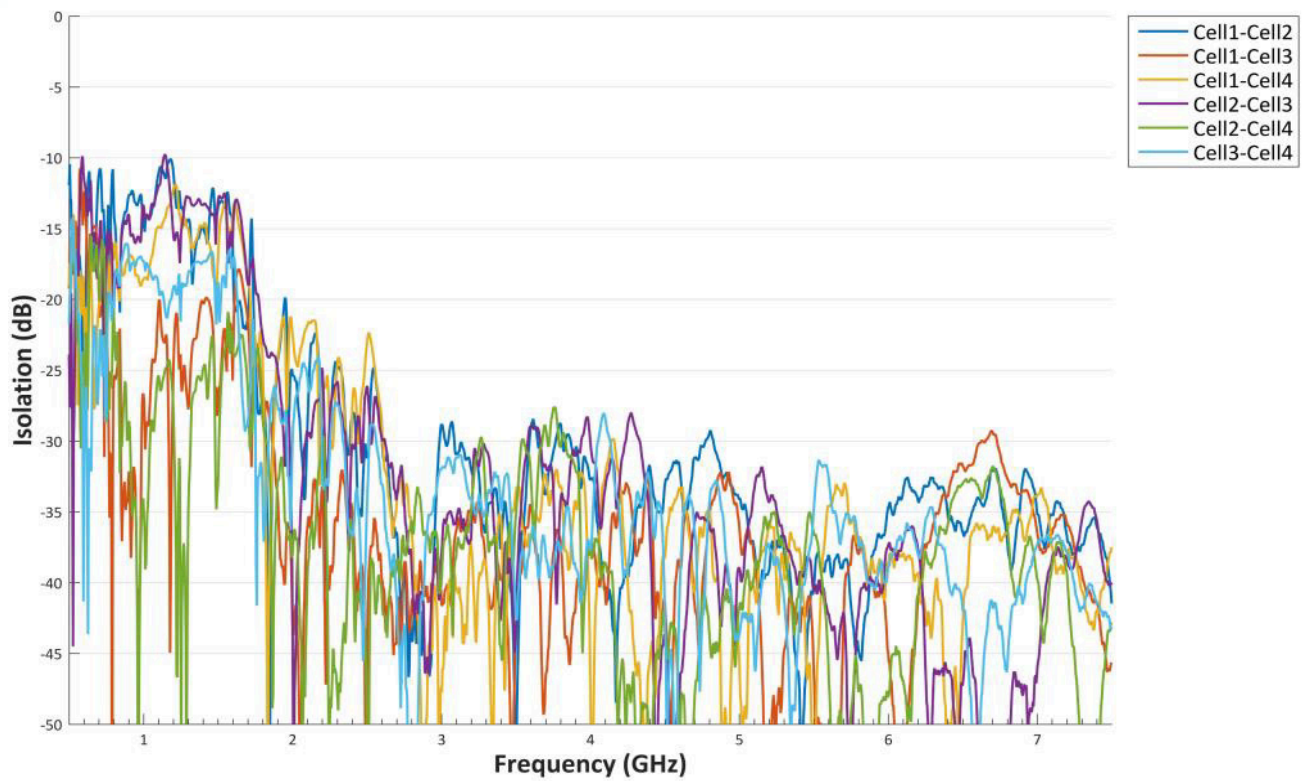
Ceramic Patch Antenna Specification	Bandwidth	1558-1610 MHz
	Gain@Zenith	0 dBi
	Polarization	R.H.C.P.
	Axial Ratio	3.0 dB Typ.
LNA Specification	Noise Figure	1.2 dB
	Gain	35 dBi
	VSWR	<2:1
	Voltage	1.6V~10V
	Current	9+/-2mA@3.3V

Guidance for interpreting the data sheet is available on our website: <https://www.airgain.com/resources/datasheet-term-guide/>

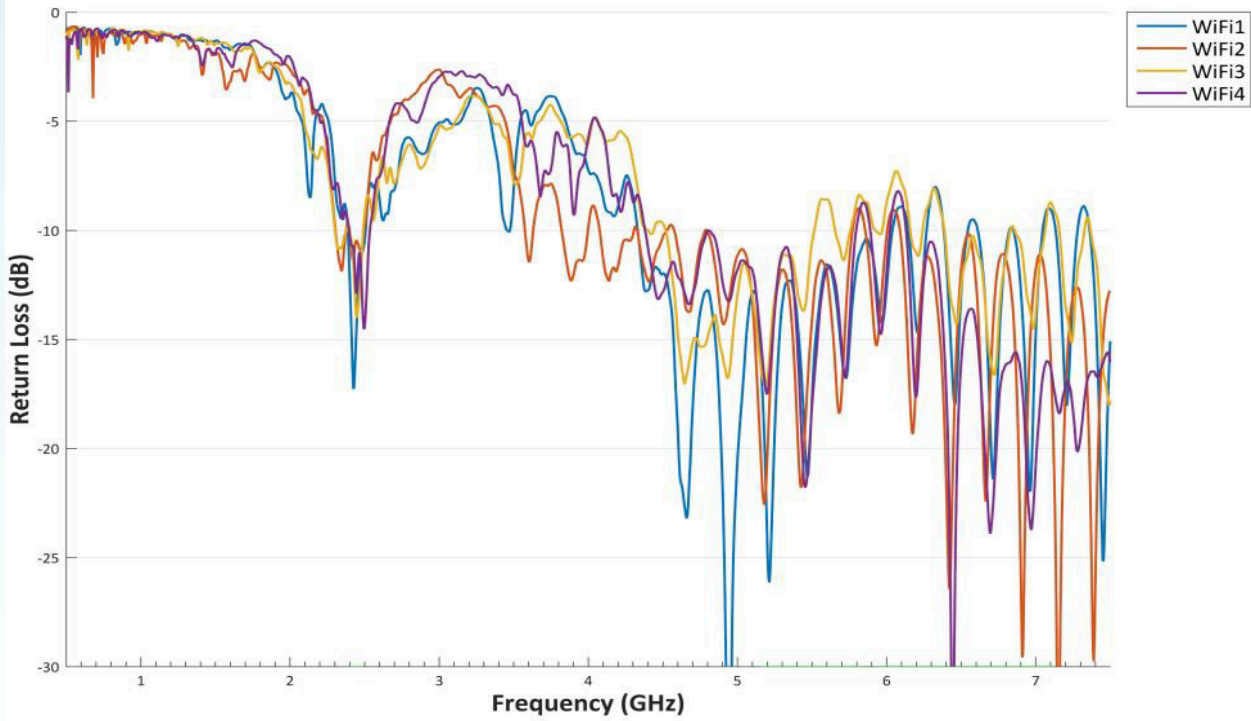
### Return Loss of Cell Antennas



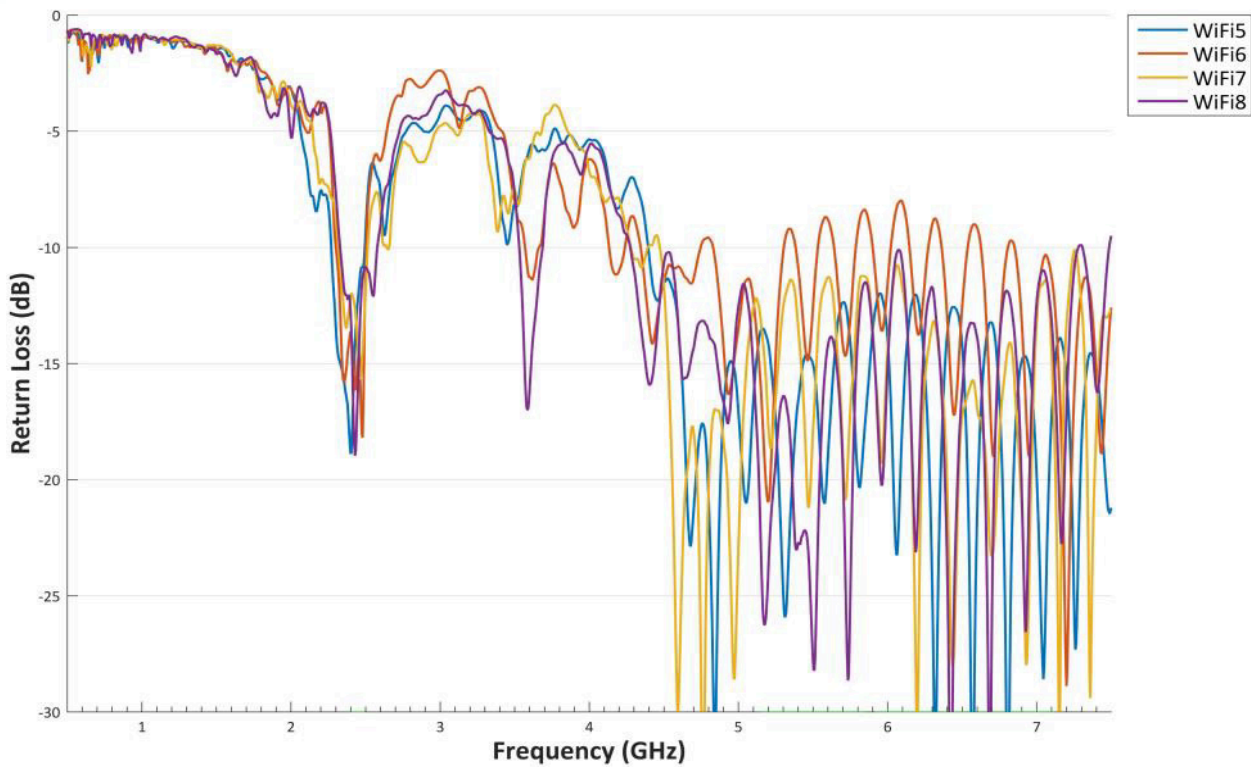
### Isolation of Cell Antennas



Return Loss of Wi-Fi Antennas



Return Loss of Wi-Fi Antennas





### Isolation of Wi-Fi Antennas

