

AIRGAINCONNECT® AC-HPUE™

Multi-Band High Power LTE Antenna-Modem

The AirgainConnect FirstNet Ready™ AC-HPUE high power user equipment (HPUE) built for FirstNet® MegaRange™, delivers the maximum allowed radiated power directly to the LTE antenna elements. The uplink signal is the weakest link in the LTE connection, which can be problematic in fringe coverage areas or inside buildings such as parking structures. When the uplink is disconnected, the user gets no service in the downlink. AirgainConnect's patented technology eliminates the loss over the coax cables from the vehicle router to the roof-mounted antenna, providing 10 times the transmit power when compared to the router's conventional modem. The result is deeper building penetration and higher uplink data speeds at the edge of the network.

AirgainConnect AC-HPUE 6-in-1 is a rugged outdoor mobile antenna with integrated Cat-12 LTE modem, designed to meet the most demanding connectivity needs of public safety and fleet vehicles. AC-HPUE provides two high gain multi-band LTE antennas and one band 14 LTE antenna powered by an HPUE LTE modem. AC-HPUE also supports two high gain tri-band Wi-Fi antennas (with support for Wi-Fi 6, Wi-Fi 6E, and Wi-Fi 7), and an active GNSS element inside a single robust and compact housing.

AC-HPUE attaches to the router WAN port via Ethernet data cable or directly to a laptop via USB cable. Wi-Fi and GNSS antennas connect to the router just like all other Airgain fleet antennas. This means your router can be seamlessly used for Wi-Fi, location-based services, and managed using your existing network management system.

- Innovative design eliminates cable loss, and increases antenna transmit power
- Rugged design
- IP67 rated
- Made in North America
- Antennas: 3 x LTE (built-in), 2 x Wi-Fi, 1 x GNSS
- US Patent 10,511,086 B1
- US Patent 11,165,132 B2

Applications

Whether you are a first responder (e.g., police, fire, EMS), or in a public safety support role (e.g., bus, rail, courier, utility, waste or water management, security), AC-HPUE provides a quick and easy way to upgrade to band 14 LTE service.

AirgainConnect's patented technology boosts coverage for fleet and enterprise users on a wide variety of cellular bands and can be added alongside your current vehicle antenna, providing a dual modem redundant solution.



MIMO Performance



Compact and Robust UV Resistant Housing



Outdoor Installation Ready



Customizable Cables and Connectors to Connect to Any Modem



Flexible Mounting Options



GNSS



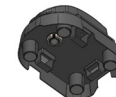
Low loss cable accessories



Fast custom turnaround time



Bolt Mount



Magnetic Mount



Suction Cup Mount

Standard Configurations

Black	White	
AC-HPUE-C3W2G-Q-S-BL-5M	AC-HPUE-C3W2G-Q-S-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables and flat gasket)
AC-HPUE-C3W2G-Q-S-I2C-BL-5M	AC-HPUE-C3W2G-Q-S-I2C-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables, flat gasket, and FAKRA connector)
AC-HPUE-C3-Q-S-BL-5M	AC-HPUE-C3-Q-S-WH-5M	3xLTE (includes 5 m/16.4 ft cables and flat gasket)
AC-HPUE-C3W2G-Q-F15021-BL-5M	AC-HPUE-C3W2G-Q-F15021-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables and modified gasket for 2021+ Ford F-150, F-250 and F-350)
AC-HPUE-C3W2G-Q-F15021-I2C-BL-5M	AC-HPUE-C3W2G-Q-F15021-I2C-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables, modified gasket for 2021+ Ford F-150, F-250 and F-350 and FAKRA connector)
AC-HPUE-C3-Q-F15021-BL-5M	AC-HPUE-C3-Q-F15021-WH-5M	3xLTE (includes 5 m/16.4 ft cables and modified gasket for 2021+ Ford F-150, F-250 and F-350)
AC-HPUE-C3W2G-Q-F-BL-5M	AC-HPUE-C3W2G-Q-F-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables and modified gasket for 2020+ Ford Interceptor)
AC-HPUE-C3W2G-Q-F-I2C-BL-5M	AC-HPUE-C3W2G-Q-F-I2C-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables, modified gasket for 2020+ Ford Interceptor, and FAKRA connector)
AC-HPUE-C3-Q-F-BL-5M	AC-HPUE-C3-Q-F-WH-5M	3xLTE (includes 5 m/16.4 ft cables and modified gasket for 2020+ Ford Interceptor)
AC-HPUE-C3W2G-Q-FEXPD18-BL-5M	AC-HPUE-C3W2G-Q-FEXPD18-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables and modified gasket for 2018+ Ford Expedition)
AC-HPUE-C3W2G-Q-FEXPD18-I2C-BL-5M	AC-HPUE-C3W2G-Q-FEXPD18-I2C-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables, modified gasket for 2018+ Ford Expedition, and FAKRA connector)
AC-HPUE-C3-Q-FEXPD18-BL-5M	AC-HPUE-C3-Q-FEXPD18-WH-5M	3xLTE (includes 5 m/16.4 ft cables and modified gasket for 2018+ Ford Expedition)
AC-HPUE-C3W2G-Q-F19-BL-5M	AC-HPUE-C3W2G-Q-F19-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables and modified gasket for 2016-2019 Ford Interceptor)
AC-HPUE-C3W2G-Q-F19-I2C-BL-5M	AC-HPUE-C3W2G-Q-F19-I2C-WH-5M	3xLTE, 2xWi-Fi, 1xGNSS (includes 5 m/16.4 ft cables, modified gasket for 2016-2019 Ford Interceptor, and FAKRA connector)
AC-HPUE-C3-Q-F19-BL-5M	AC-HPUE-C3-Q-F19-WH-5M	3xLTE (includes 5 m/16.4 ft cables and modified gasket for 2016-2019 Ford Interceptor)

Electrical Data

Ethernet Injector +12 VDC

Ignition sense

Power conditioning built to automotive standard ISO 7637-2

LTE Modem

Cat 12, 3GPP Release 12+

Band 14 output power: 1.25W (Class 1) Element 1

Bands 2, 4, 5, 12, 17, 29, 30, 66 output power: 200mW (Class 3) Elements 2 & 3

Transmit bandwidth: 1.4 MHz through 20 MHz

WCDMA capabilities on bands 2, 4, 5

Wi-Fi Antennas

IEEE 802.11 a/b/g/n/ac/ax Wi-Fi 6, 6E, 7

Frequency Range	Elements 4 & 5	SMA: 2.4/4.9-7.1 GHz, FAKRA: 2.4/4.9-6.0 GHz
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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

Mounting Data

Dimensions	Height	3.27" (83.1 mm)
	Width	5.79" (147.0 mm)
	Length	7.95" (201.9 mm)
Weight	1.7lbs (771g)	
Mount	Bolt Mount	
Color	White (WH), Black (BL)	

SIM Card

3FF Micro SIM card support

Environmental Data

Operating Temperature	-30°C to +70°C
Extended Operating Temperature	+70°C to +80°C