

Communication and Navigation Antenna

For autonomous vehicles, communication and navigation antennas are crucial components that enable reliable operation and connectivity. A combined antenna can provide optimal performance in the most challenging environments.



Communication Antenna

Glead’s Communication antennas for autonomous vehicles typically support multiple technologies, including: Cellular networks (e.g., 4G/5G LTE) for high-speed data transmission and internet connectivity, Wi-Fi and Bluetooth for local connectivity, and interactions with nearby devices and infrastructure.



AUTOMATE YOUR DRIVE, CONNECT WITH PRECISION

Founded in 2008, Harxon Corporation is a subsidiary of BDStar, the first listed company in China 's satellite navigation industry. Harxon focuses on the R&D, production and sales of GNSS antennas, vehicle antennas, wireless data radios and smart antennas. Harxon is able to provide customized products and positioning solutions for global customers in various industries.

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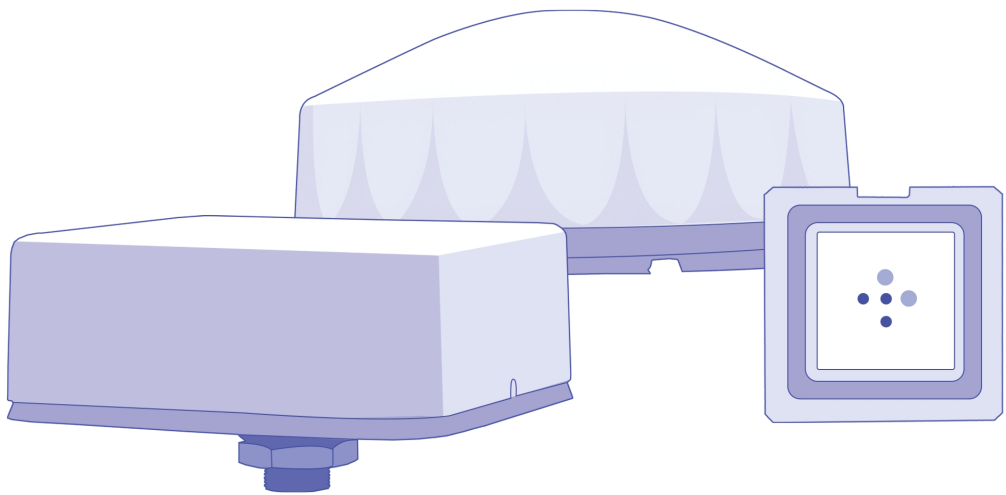
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2024
Revised in May.



HIGH-PRECISION GNSS VEHICLE ANTENNA FOR AUTONOMOUS VEHICLES



A Leading Brand of GNSS Positioning Antenna Solution Provider

VEHICLE ANTENNAS

Connected autonomous vehicles have become a reality due to advances in positioning and sensor integration. Connectivity has emerged as a critical factor for ensuring the end-user functions to keep vehicles connected with road infrastructure, network and other road users. This is possible with advances in high-precision GNSS positioning, V2X, 4G/5G, Wi-Fi, Bluetooth and more.

A fully autonomous vehicle needs an accurate localization solution paired with the confidence that the communication solution is smooth. Our technology solutions for autonomous vehicles include high-precision GNSS positioning antenna, intelligent connected vehicle antenna, communication/ navigation antenna that are easy to integrate and meet different levels of positioning and communication.

KEY FEATURES



Comprehensive GNSS Support



Millimeter-level Positioning Accuracy



Excellent Multipath Rejection



Lightweight & Small Form Factor



Seamlessly Integrated into Vehicle's Exterior Design



Highly Integrated Communication & Positioning Systems

KEY TECHNOLOGY



POLARIZATION SUPPRESSION

High gain at low elevation angles
Excellent multi-path rejection/ out-of-band signal rejection



MULTILAYER ARRAY TECHNOLOGY

Small size, large capacity
Perfect physical/electromagnetic symmetry



REDUNDANCY STRUCTURE DESIGN

One structure with more functions/ installation options
Diverse configuration



ANTENNA ISOLATION DESIGN

Minimize interference by physical separation/ antenna pattern optimization/ polarization/ filtering

FEATURED PRODUCTS

Intelligent Connected Vehicle Antenna

ICV integrates multi-constellation multi-band GNSS antennas for reliable and precise positioning, 5G antennas for dedicated short range (DSRC), and vehicle-to-everything (C-V2X) communication. The low-profile shark fin/ radome design minimizes damage from overhead objects. It reduces wind resistance, and the IP67 ruggedized housing ensures a long lifespan in tough environmental conditions such as vibration, harsh weather, and high-speed travel.



Low Profile Shark Fin Design
HX-AUST002

GNSS: L1/L2/L5, B1/B2, G1/G2
5G: 824-960/1710-2690 MHz
3.3-3.6G/4.8-5G
V2X: 5.85-5.925G

1*GNSS, 4*5G, 2*C-V2X

3.5dBi

160*80*68mm

FAKRA-Z Female



Low Profile Radome Design
HX-AULT002

GNSS: L1/L2/L5, B1/B2, G1/G2, E1/E5/E6
5G: 824-960/1710-2690 MHz
3.3-3.6G/4.8-5G
V2X: 5.85-5.925G

1*GNSS, 4*5G, 2*C-V2X

5dBi

φ135*H57mm

FAKRA-Z Female

High-Precision GNSS Vehicle Antenna

To provide the high-precision positioning that autonomous vehicles need, our high-precision GNSS vehicle antenna uses multiple frequencies and multiple GNSS constellations, anti-jam technology, and interference mitigation to ensure the centimeter or millimeter level accuracy.



High Performance
HX-CVX608A

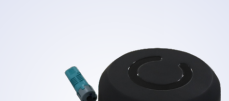
L1/L2/L5, G1/G2/G3, E1/E5a/E5b/E6, B1/B2/B3, L-Band

1*GNSS

4dBi

81mm*81mm*25mm

SMA-J-RG316



Small Size & Low Wind Resistance Design
HX-AULD078

L1/L2/L5, G1/G2/G3, E1/E5a/E5b/E6, B1/B2/B3, L-Band

1*GNSS

3dBi

φ69*H29.9mm

MCX Male/FAKRA-Z Female

High-Precision GNSS Vehicle Antenna



Screw Mount
HX-AULT006

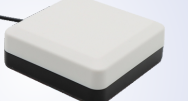
L1/L2/L5, G1/G2/G3, E1/E5a/E5b/E6, B1/B2/B3, L-band

1*GNSS

4.5dBi

95.3*95.3*36.8mm

FAKRA-Z Female



Glue Mount
HX-AULT010

L1/L2/L5, G1/G2/G3, E1/E5a/E5b/E6, B1/B2/B3, L-band

1*GNSS

4dBi

75*75*26mm

FAKRA-Z Female

Standard-Precision GNSS Vehicle Antenna

Glead's high-performance external/embedded ceramic antenna fully meet the requirements for submeter and centimetre navigation and positioning, and it is widely used in the fields of agricultural navigation, unmanned aircraft navigation, unmanned courier vehicle navigation, commercial vehicle navigation.



L1+L5 Embedded Vehicle Antenna
SPATB1L1G1364BL5456_JHS04

L1/L5, G1, B1

1*GNSS

3.5dBi@B1L1E1G1
3.0dBi@L5E5aB2a

45*45*6mm+56*36*4mm

Universal SMA, customizable



L1 Embedded Vehicle Antenna
DAS1595R25Y14_70

L1, G1

1*GNSS

2.5dBi

25*25*4mm

/



L1+L5 External Vehicle Antenna
DAML1L5RS4JM1_J2.5M-N

L1/L5, G1, B1

1*GNSS

2dBi

67*67*21mm

Universal SMA, customizable