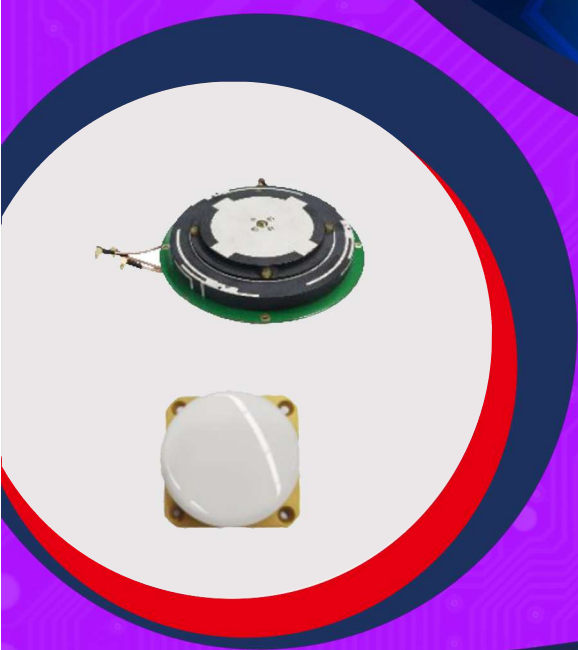
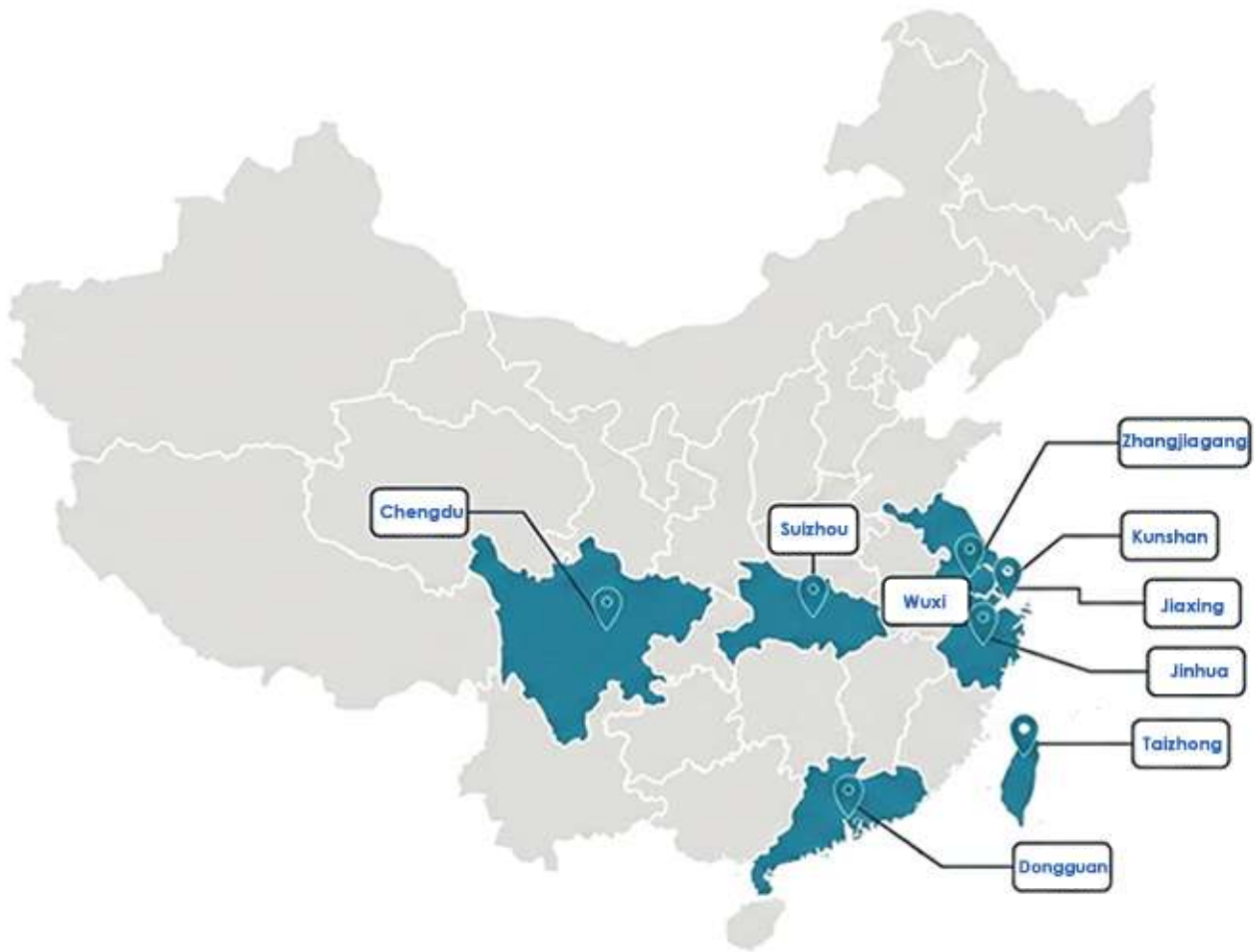




*Jiaxing
Manufacturing
Base Catalog*



Manufacturing Footprint Map



WTL has deeply established its expertise in electronic components, with five production bases strategically located across nine cities in five provinces in China. Our facilities are situated in key industrial hubs across South China, East China, Central China, Southwest China, as well as Taiwan, leveraging a coordinated multi-base production network to integrate a full spectrum of product resources.

Backed by a well-structured production layout and robust supply chain capabilities, WTL offers a comprehensive product portfolio, complete specifications, and ample production capacity. We are fully equipped to meet diverse industry needs and application scenarios through one-stop procurement and customized solutions, while delivering stable, diversified, and end-to-end integrated solutions to our customers.

Rooted in China, Serving the Globe

About Us

The Jiaxing base focuses on R&D and sales of microwave dielectric ceramic parts and satellite navigation assemblies, widely used in satellite navigation, IoT and new-generation mobile communication fields.

It is among China's few enterprises owning independent intellectual property rights of LTCC and HTCC material technologies, with mature large-scale production capacity.

Certified as National High-tech Enterprise, National Specialized & Innovative Little Giant Enterprise and other honors, it ranks among China's Top 100 Electronic Components Enterprises.

It has built multiple provincial-level research platforms and an academician expert workstation.

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CERAMIC ANTENNA

Ceramic antennas are dielectric antennas with excellent performance prepared from microwave dielectric ceramic materials through sintering, silver coating, and silver burning. Ceramic antennas are mainly divided into GNSS positioning antennas and wireless communication antennas classified by functions. Microwave dielectric ceramics have a high dielectric constant, and silver layers are used as electrodes on the front and back sides. The piezoelectric effect is formed by high voltage DC to achieve signal reception and reflection.



Satellite Positioning Antenna

Model	Frequency	Gain	Output VSWR	Size	Polarization	Image
SPATB1L1G1364 BL5456_JHS04	GPS L1/L5 BDS B1/B2a GLONASS G1 GALILEO E1/E5a	3.5@B1L1E1G1 3.0@L5E5aB2a	≤2.0	45*45*6mm+36*36*4mm	RHCP	
SPATL1364BL54 08_G003	GPS L1/L5 BDS B1 GLONASS G1 GALILEO E1/E5a	3.5@B1L1E1G1 2.5@L5E5a	≤2.0	40*40*8mm+36*36*4mm	RHCP	
SPATL1364BL53 66_G002	GPS L1/L5 BDS B1 GLONASS G1 GALILEO E1/E5a	3.0@B1L1E1G1 1.5@L5E5a	≤2.0	36*36*6mm+36*36*4mm	RHCP	
GGL5-36H325H 4-JHY06	GPS L1/L5 GLONASS G1 GALILEO E1/E5a	3.0	≤1.5	36*36*3mm+25*25*4mm	RHCP	
SPATL1254BL5 334_G001	GPS L1/L5 BDS B1 GLONASS G1 GALILEO E1/E5a	1.0@B1L1E1G1 1.0@L5E5a	≤2.0	33*33*4mm+25*25*4mm	RHCP	
SPATL1182BL5 254_J7002	GPS L1/L5 GALILEO E1/E5a	2.5	≤2.0	25*25*4mm+18*18*2mm	RHCP	
DAS1582R36D 36-3F	GPS L1 BDS B1 GALILEO E1 GLONASS G1	4	≤1.5	36*36*6mm	RHCP	
DAS1595R25Y 14_70	GPS L1 GLONASS G1	2.5	≤1.5	25*25*4mm	RHCP	
DAS1575R25C 12_70	GPS L1	3.0	≤1.5	25*25*2mm	RHCP	
DAS1575R20C 14_50	GPS L1	3.0	≤1.5	20*20*4mm	RHCP	

Satellite Positioning Antenna

Model	Frequency	Gain	Output VSWR	Size	Polarization	Image
DAS1575R18C 14_Y5003	GPS L1	2.5	≤ 1.5	18*18*4mm	RHCP	
DAS1575R15C 14_30	GPS L1	0.5	≤ 1.5	15*15*4mm	RHCP	
DAS1575R12C 14_Y2001	GPS L1	-2.0	≤ 1.5	12*12*4mm	RHCP	
DAS1575R10C 14_20	GPS L1	-4.0	≤ 1.5	10*10*4mm	RHCP	
DAI1176X104C 13_C02A	GPS L5	-1	≤ 2.5	10*4*3mm	Linear	
DAI1032_W06A	GPS L1/L2/L5 BDS B1/B2/B3 GALILEO L1/E5a/E5b GLONASS G1/G2/G3	3	≤ 3.5 @1557~1612MHz ≤ 2.5 @1164~1278MHz	10*3.2*1.5mm	Linear	

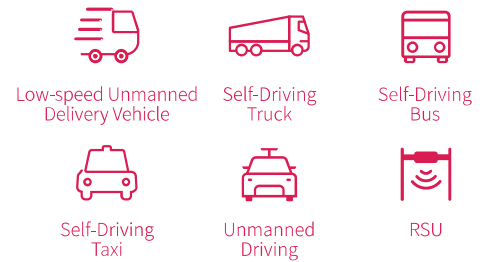
Wireless Communication Antenna

Model	Frequency	Gain	Output VSWR	Size	Polarization	Image
GSM_PA1_900- 1800A	890-960MHz 1710-2170MHz	1.5@890-960MHz 3.0@1710-2170MHz	≤ 3.0	24*5.6*4.4mm	Linear	
DAI790_2700_ W07A	790-960MHz 1700-2700MHz	1.5@790-960MHz 4.5@1700-2700MHz	≤ 3.5	33*6*3mm	Linear	
DAI902_928_W10A	902-928MHz	1.3@902-928MHz	≤ 3.5	9*3*0.63mm	Linear	

VEHICLE ANTENNA

High-precision positioning technology is a critical component of intelligent connected vehicles and serves as one of the core technologies for achieving vehicle autonomy. This technology involves receiving signals through a high-precision positioning antenna. By employing RTK algorithms, various errors introduced by the data link are eliminated, resulting in positioning accuracy at the centimeter or even millimeter level.

GLEAD offers extensive antenna solutions tailored for various autonomous vehicles. These solutions ensure reliable satellite signal tracking and streamline vehicle mass production. When integrated with high-precision maps, these antennas enable all-weather navigation and comprehensive positioning for autonomous driving.



Standard-Precision Positioning Antenna

Model	Configuration	Electrical	Gain	Connector	Size	Image
DAM1568R2J1Y_AT 04H_J3M_PM	1*GNSS	GNSS: L1/B1	5 dBic Based on 70*70mm ground plane	Universal SMA, customizable	L55*W47*H17.7mm	
DAM1568A4DZ10_R P041_K1.46M_PXW	1*GNSS	GNSS: L1/B1	4.5 dBic Based on 70*70mm ground plane	Universal FAKRA, customizable	L55.2*W50.2*H18mm	
DAM1568A4ZB10LC0 1_XW03_KW1.5M_PM	1*GNSS	GNSS: L1/B1	4.5 dBic Based on 70*70mm ground plane	Universal FAKRA, customizable	L49*W37*H19mm	
DAM1568A4A1LC01 _XW03_J3M	1*GNSS	GNSS: L1/B1	4.5 dBic Based on 70*70mm ground plane	Universal SMA, customizable	L48.6*W39.2*H15.2mm	
DAML11L5RS4NO_ P80MM	1*GNSS	GNSS: L1/L5/B1/G1	1.0 dBic (1176 MHz) 2.0 dBic (1559-1610MHz) at Zenith Max	Universal IPEX, customizable	L55*W55*H14.5mm	
DAML11L5AR4NOL C01_P100MM	1*GNSS	GNSS: L1/L5/B1/G1	1 dBic (1176 MHz) 1 dBic (1559-1610MHz) Based on 50*50mm ground plane	Universal IPEX, customizable	L50*W50*H10.7mm	
DAM1568A2NO_YJ 72V2.0_P55MM	1*GNSS	GNSS: L1/B1	4.5 dBic Based on 70*70mm ground plane	Universal IPEX, customizable	L25*W25*H7mm	
DAM1568C2NO_YJ0 06_X59MM	1*GNSS	GNSS: L1/B1	4 dBic Based on 70*70mm ground plane	Universal IPEX, customizable	L18*W18*H6.6mm	
DAM1575E2NO_JL 01V2.0_P130MM	1*GNSS	GNSS: L1	2 dBic Based on 70*70mm ground plane	Universal IPEX, customizable	L12*W12*H6.6mm	
DAM1575G2NO_JL 02V2.0_P100MM	1*GNSS	GNSS: L1	1 dBic Based on 70*70mm ground plane	Universal IPEX, customizable	L10*W10*H6.6mm	
RTKLCL136H6NO _P100MM	1*GNSS	GNSS: L1/B1	2.5 dBic Based on 36*36mm ground plane	Universal IPEX, customizable	L36*W36*H9.3mm	

Standard-Precision Positioning Antenna

Model	Configuration	Electrical	Gain	Connector	Size	Mounting	Experimental Level	Image
DAML1L5RS4J M1_J3M	1*GNSS	1164-1185MHz 1559-1606MHz	1.0 dBic (1164-1186MHz) 2.0 dBic (1559-1606MHz)	SMA Male RG174 (Irradiation) Cable length 3M	W67*L67*H21mm (Size without pad)	Cable out from the side Magnetic mounted	Meet ISO16750 standard requirements	
DAMTA4CT10VM 12_RX_K2.85M	1*GNSS 2*GNSS	GNSS:1559-1576MHz V2X:5850-5925MHz	4.5dBic	GNSS: FAKRA-C V2X: FAKRA-Z	φ90*H65mm (Size without pad)	Cable out from the bottom	Meet ISO16750 standard requirements	
GLV122_TG001_ K6M	1*GNSS 2*4G 2*C-V2X	GNSS:1559-1576MHz 4G:698-960MHz 1710-2690MHz V2X:5850-5925MHz	4.5dBic	GNSS: FAKRA-C 4G: FAKRA-D V2X: FAKRA-C	φ143*H85mm (Size without pad)	Cable out from the bottom	Meet ISO16750 standard requirements	
QDAMBA4DF210G11 _K1.3M_C6202	1*GNSS 1*4G	GNSS:1559-1576MHz 4G:820-960MHz 1710-2690MHz	4.5dBic	GNSS: FAKRA-C 4G: FAKRA-D	W70*L45*H17.5mm (Size without pad)	Cable out from the side	Meet ISO16750 standard requirements	
SFA4BL14M_A7900 207_K200MM	1*GNSS 2*4G 1*AM/FM	GNSS:1573-1576MHz 4G(M):824-960MHz 1710-2690MHz 4G(A):1710-2690MHz AM:520-1710kHz FM:87.5-108MHz	4.5dBic	GNSS:FAKRA-C 4G(M):FAKRA-D 4G(A):FAKRA-E AM/FM:ISO-J	181*15.2*66.5mm (Size without pad)	Cable out from the bottom	Meet ISO16750 standard requirements	

Communication and Navigation Antenna

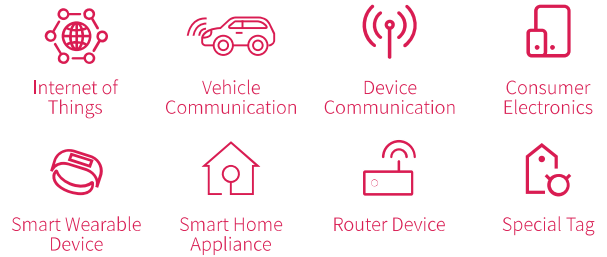
Model	Configuration	Electrical	Gain	Connector	Size	Image
DAMP5GL1L5RA1_ K500MM	1*GNSS 4*5G	GNSS: L1/ L5 5G L1/4: 824-960M& 1710-2690M&3.3-3.8G &4.4-5G; 5G 2/3:1710-2690M& 3.3-3.8G&4.4-5G;	Main Antenna: 3dBi(820~960MHz) 8dBi(1710~2690MHz) 7dBi(3300~3800MHz) 6dBi(4400~5000MHz) Vice Antenna: 8dBi (1710~2690MHz) 7dBi (3300~3800MHz) 7dBi (4400~5000MHz) GPS: -3.5dBic(1176MHz) 1dBic(1575MHz) Based on 36*36mm ground plane	Universal SMA, customizable	L131.5*W70.3*H21mm	
DAMBA4CV10T11_ ZQ_K2.5M	1*GNSS 1*4G	GNSS: B1/ L1 4G: 824-960M& 1710-2690M;	1.5 dBi type (824~960MHz) 4.0 dBi type (1710~2700MHz)	Universal FAKRA, customizable	L110*W42*H18.3mm	
DAMBA4E10T11YA _K3M_KH	1*GNSS 1*4G	GNSS: B1/ L1 4G : 824-960M& 1710-2690M;	4.5 dBic Based on 70*70mm ground plane	Universal FAKRA, customizable	φ76.8*H15mm	
QDAMTA4HR10TM11 _J865mm_26262568	1*GNSS 2*4G	GNSS: B1/ L1 4G Main: 824-960M& 1710-2690M; 4G Vice: 824-960M& 1710-2690M;	2.0 dBic Based on 70*70mm ground plane	Universal FAKRA, customizable	L120*W50*H22.3mm	
DAMTA4RA10T11M 13_KW800MM	1*GNSS 2*4G	GNSS: B1/ L1 4G Main: 824-960M& 1710-2690M; 4G Vice: 1710-2690M;	2.0 dBic Based on 70*70mm ground plane Main Antenna:1.5 dBi type (824~960MHz) , 3.0 dBi type (1710~2700MHz) Vice Antenna: 3.0dBi type(1710~2700MHz)	Universal FAKRA, customizable	L124*W52.5*H24mm	
DAMDA2Y1G1X_J4 M-N_J4M	1*GNSS 1*4G	GNSS: L1 GSM: 806-960M& 1710-2170M;	4.5dBic Based on 70*70mm ground plane 1575.42MHz±3 MHz	Universal SMA, customizable	φ75*H14.1mm	

Communication Antenna

Model	Electrical	Connector	Size	Mounting	Image
PAMQ4G2458M4 N1_J500MM	2*4G::824-960MHz, 1710~2700MHz 2*WIFI:2.4&5.8GHz	SMA-J	L131*W70*T20mm (Size without pad)	Cable out from the side Double faced adhesive tape fixed	

WIRELESS COMMUNICATION ANTENNA

Communication antennas generally refer to antennas that transmit or receive signals between wireless devices. They usually consist of transmission lines and antennas. The transmitter couples the alternating current signal containing information to the transmission line, and radiates the alternating electromagnetic field into free space through the transmitting antenna. Electromagnetic waves propagate in the form of traveling waves in free space. At the position of the receiving antenna, the traveling wave will be received by the receiving antenna and converted into an alternating current signal, and finally processed at the receiving end to realize the communication function.



Wi-Fi/BT Communication Antenna

Model	Frequency	Gain	Antenna Unit	Output VSWR	Connector	Size	Image
PAMW2458GM4N11_K1.6M	Dual WIFI 2400MHz~2500MHz 5150MHz~5850MHz	6.0@2400~2500 6.0@5150~5850	4	≤3.0	Universal FAKRA, customizable	L131.5*W73.5*H20mm	
	Dual BT 2400MHz~2500MHz	6.5@2400~5000		≤2.5			
WIFI_PAMDE1W1W_J1M	2400MHz~2500MHz 5000MHz~6000MHz	3.5@2400~2500 4.0@5000~6000	2	≤3.5	Universal SMA, customizable	Φ77*H15mm	
WIFI_PAM2458S10_K200MM	2400MHz~2500MHz 5100MHz~5800MHz	2.5@2400~2500 3.0@5100~5800	1	≤3.0	Universal FAKRA, customizable	Φ52*H14.2mm	
PAM2458YS1_LS01_J1M	2400MHz~2500MHz 5100MHz~5800MHz	2.5@2400~2500 3.0@5100~5800	1	≤3.0	Universal SMA, customizable	Φ46.4*H14mm	
WIFI_PL2400C1D_J	2400MHz~2500MHz 5150MHz~5850MHz	3.5@2400~2500 3.5@5150~5850	1	≤2.0	Universal SMA	Φ7.8*H108.1mm	
WIFI_WA2400A1DV2.0_G5M	2400MHz~2500MHz 5150MHz~5850MHz	5.0/Losses Uncalculated	1	≤2.0	Universal SMA, customizable	Φ45*H150.5mm	

Cellular Communication Antenna

Model	Frequency	Gain	Antenna Unit	Output VSWR	Connector	Size	Image
PAMQ5GM4N1_J500MM	5G Main 820MHz~960MHz 1710MHz~5000MHz	3.0@820~960 7.0@1710~5000	4	≤3.0	Universal SMA, customizable	L131.5*W73.5*H20mm	
	5G Vice 1710MHz~5000MHz	7.0@1710~5000					
PAM900CVT11M13_K1M	4G Main 824MHz~960MHz 1710MHz~2690MHz	1.5@820~960 4.0@1710~2690	2	≤2.5	Universal FAKRA, customizable	L110*W42*H18.3mm	
	4G Vice 1710MHz~2690MHz	3.0@1710~5000					

Cellular Communication Antenna

Model	Frequency	Gain	Antenna Unit	Output VSWR	Connector	Size	Image
LTE_PM900U11V 5.0_K2.5M	820MHz~960MHz 1710MHz~2170MHz 2500MHz~2700MH	1.0@820~960 2.0@1710~2170 2.0@2500~2700	1	≤2.0	Universal FAKRA, customizable	L108*W18*H4.5mm	
LTE_PM900WT1_J3M	820MHz~960MHz 1710MHz~2170MHz 2500MHz~2700MH	1.0@820~960 2.0@1710~2170 2.0@2500~2700	1	≤2.0	Universal SMA, customizable	L117*W21.5*H4.5mm	
GSM_PL900K1_J	820MHz~960MHz 1710MHz~2700MHz	3.0@820~960 5.0@1710~2700	1	≤2.0	Universal SMA,	L157*W21mm	
LTE_PL900W1_G3M	820MHz~960MHz 1710MHz~2700MHz	2.0@820~960 5.0@1710~2700	1	≤2.0	Universal SMA, customizable	Φ68*H276mm	

HIGH PRECISION TIMING ANTENNA

Timing antennas are mainly used for base station communication timing, emergency communication timing, and power communication timing. These antennas utilize the high-precision atomic clock aboard satellites to transmit real-time satellite time, which is achieved by receiving the carrier signal emitted by the satellite.



Base Station



Electric Power

Timing Antenna

Model	Frequency	Gain	LNA Gain	Noise Figure	Operating Voltage	Size (Connector Included)	Connector	Image
SSAML1L5RS4 HC17_K	GPS L1/L5 BDS B1i/B1c/B2a GLONASS L1	3dBi	34±2dB	3.5dB	4.5-5V	Φ108.6*140mm	N Female	
WMRL1L5RSW F17_K	GPS L1/L5 BDS B1i/B1c/B2a GLONASS L1	3dBi	31±4dB	2.5dB	3-5V	Φ110.3*105mm	N Female	
SSAM1582RWD V9V2.0_K	GPS L1 BDS B1i/B1c GLONASS L1	3dBi	28±3dB	3.5dB	2.7-9V	Φ60*54mm	TNC Female	
SSAM1582R4F1 7V2.0_40_K	GPS L1 BDS B1i/B1c GLONASS L1	5.5dBi	40±3dB	2.5dB	3-5V	Φ110.3*105mm	N Female	
SSAM1582R4F1 7V2.0_20_K	GPS L1 BDS B1i/B1c GLONASS L1	5.5dBi	20±3dB	2.5dB	3-5V	Φ110.3*105mm	N Female	

IOT RFID ANTENNA

GLEAD, leveraging cutting-edge UHF special electronic tag design technology, has the capability to produce diverse electronic tags, including ceramic, PCB, INLAY, and flexible variants. Our specialized electronic tag production line enables us to offer OEM services or provide electronic tag antennas (excluding chips) and electronic tags. IoT RFID antennas find extensive applications in smart city projects (such as gas cylinder management and manhole cover management), temperature monitoring systems, medical instrument management, vehicle management systems, and asset management.



Smart City



Smart Logistics



Electricity Supervision



Asset Management



Medical Instrument



Vehicle Management

RFID Reader Antenna

Model	Frequency	Gain	Axial Ratio	Output VSWR	Connector	Size	Image
PAM915UN1_S110MM	866-868 MHz (EU) 902-928 MHz (US)	5.5dBic	≤3dB	≤1.5	Universal SMA, customizable	Antenna: 80*80*6mm Overall: 120*120*8mm	
PAM915TPN1_S100MM	866-868 MHz (EU) 902-928 MHz (US)	2.5dBic	≤3dB	≤1.5	Universal SMA, customizable	Antenna: 60*60*6mm Overall: 70*70*8mm	
PAM915AN1_S110MM	866-868 MHz (EU) 902-928 MHz (US)	0.5dBic	≤3dB	≤1.5	Universal SMA, customizable	Antenna: 25*25*4mm Overall: 35*35*5mm	
PAM915WPN1_S300MM	866-868 MHz (EU) 902-928 MHz (US)	2.2dBic	≤3dB	≤1.5	Universal FAKRA, customizable	Antenna: 40*40*5mm Overall: 50*50*7mm	
PAM915YD1_SK100MM	902~928MHz	8.0dBic	≤3dB	≤1.5	Universal SMA, customizable	260*220*23.4mm	
UHF_ANT-15-2_V3_JL01	902~928MHz	2.0dBic	≤3dB	≤1.5	Universal MMCX, customizable	70*70*13.2mm	

RFID Tag Antenna

Model	Frequency	Compatible Chip	Operating Principle	Operation Temperature	Size	Recognition Distance/Metal	Image
IDA915X2525-YZ25-937	866-868 MHz (EU) 902-928 MHz (US)	Alien H Series/ Impinj M series	EPC/ISO 18000-6C	-20°C~+85°C	25*25*2.75mm	10.5	
IDA915X2509-EP6066	866-868 MHz (EU) 902-928 MHz (US)	Alien H Series/ Impinj M series	EPC/ISO 18000-6C	-20°C~+85°C	25*9*3mm	8	
IDA923X2117-TX21	866-868 MHz (EU) 902-928 MHz (US)	Alien H Series/ Impinj M series	EPC/ISO 18000-6C	-20°C~+85°C	21*17*2.25mm	7.5	
IDA915XΦ16-TX16-930	866-868 MHz (EU) 902-928 MHz (US)	Alien H Series/ Impinj M series	EPC/ISO 18000-6C	-20°C~+85°C	Φ16*2mm	4.5	
IDA923XΦ10-YZ10-960	866-868 MHz (EU) 902-928 MHz (US)	Alien H Series/ Impinj M series	EPC/ISO 18000-6C	-20°C~+85°C	Φ10*1.5mm	1.8	

RFID Electronic Tag

Model	Frequency	Compatible Chip	Operating Principle	Operation Temperature	Size	Recognition Distance/Metal	Image
TAC915X2525H3N W_YZ25-937	CN/US/EU	ALIEN H3 Customizable	EPC/ISO 18000-6C	Metallic State/ Nonmetallic State	25*25*2.75mm	11	
TAC915X2509H3N B_EP6066	CN/US/EU	ALIEN H3 Customizable	EPC/ISO 18000-6C	Metallic State/ Nonmetallic State	25*9*3mm	8	
TAC915X2117H2N B_TX21	CN/US/EU	ALIEN H3 Customizable	EPC/ISO 18000-6C	Metallic State/ Nonmetallic State	21*17*2.25mm	7	
TAC915Xφ10H2N B_YZ10-960	CN/US/EU	ALIEN H3 Customizable	EPC/ISO 18000-6C	Metallic State/ Nonmetallic State	Φ10*1.5mm	2.2	
TAC915X0505H3N B_MT050503-920	CN/US/EU	ALIEN H3 Customizable	EPC/ISO 18000-6C	Metallic State	5*5*3mm	1.5	
TAC915X0602H2N N_MT622-931	CN/US/EU	ALIEN H3 Customizable	EPC/ISO 18000-6C	Metallic State	6*2*2mm	0.8	
TAP923X7028H3N N_P702803	CN	ALIEN H3 Customizable	EPC/ISO 18000-6C	Nonmetallic State	70*28.5*3.3mm	4	
TAP923X4015H2N N_P401516	CN	ALIEN H3 Customizable	EPC/ISO 18000-6C	Metallic State	41*14.5*1.6mm	3	
TAE923X5720H3F N_IE12520	CN	ALIEN H3 Customizable	EPC/ISO 18000-6C	Metallic State	117.3*49.9*3.73mm	12	
TAE923X3838H3B N_IE9620	CN	ALIEN H3 Customizable	EPC/ISO 18000-6C	Nonmetallic State	38*33.4*12.2mm	1	

FULL RANGE OF PRODUCTS

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Ceramic Antennas

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■ SATELLITE POSITIONING ANTENNA

TECHNICAL ADVANTAGES

technological superiority

Air Medium Technology

Metal parts are used as the antenna radiator to eliminate the influence of the loss tangent value and dielectric constant fluctuations of the plate on antenna performance.

- Lightweight Antenna
- Compact Overall Design
- Enhanced Anti-Multipath Performance
- Stable Antenna Phase Center

Three-Dimensional Technology Choke Coil Structure Design

Miniaturized choke coil structure design technology employing horizontal choke slots

A 3D choke structure combined with vertical choke plates.

- Miniaturized, with a volume reduced to one-quarter of the original.
- The product is lightweight, weighing only one-fifth of traditional products.
- The antenna has high gain at low elevation angles.
- Antenna phase center stability

Low-Profile Technology

In electromagnetic wave phase adjustment, an EBG impedance adjustment structure is introduced, maintaining excellent impedance matching and radiation characteristics of the antenna and reducing the height to 30% of that of traditional dipole antennas.

- The antenna has high gain at low elevation angles.
- The antenna has a wide bandwidth.
- Antenna phase center stability
- The antenna design is flexible and can be adjusted according to parameters.

Drone/Handheld Device Antenna

Product model	Frequency range	Maximum gain	Low-noise amplification gain	Noise factor	Working current	The Qiao line has ended.	Antenna weight	Picture
HX-CH3605A Dual-system, three-frequency antenna	GPS L1 BDS B1/B3	2dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	$\phi 27.5 \times 59$ mm	≤ 19 g	
HX-CH3602A Three-system, three-frequency antenna	GPS L1 BDS B1 GLONASS L1	2dBi	33 ± 2 dB	≤ 2 dB	≤ 35 mA	$\phi 27.5 \times 59$ mm	≤ 19 g	
HX-CH6601A Three-system, six-frequency antenna	GPS L1/L2 BDS B1/B2 GLONASS L1/L2	2dBi	33 ± 2 dB	≤ 1.2 dB	≤ 55 mA	$\phi 27.5 \times 59$ mm	≤ 19 g	
HX-CH7604A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	2dBi	33 ± 2 dB	≤ 1.2 dB	≤ 55 mA	$\phi 27.5 \times 59$ mm	≤ 19 g	
HX-CHX603A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6	2dBi	23 ± 2 dB	≤ 2 dB	≤ 35 mA	$\phi 27.5 \times 59$ mm	≤ 25 g	
HX-CH8604A Four-system, eight-frequency antenna	GPS L1/L5 BDS B2a/B11/B1C GALILEO E5a/E1 GLONASS G1	2dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	$\phi 27.5 \times 59$ mm	≤ 25 g	
HX-CH8600A Four-system, eight-frequency antenna	GPS L1/L5 BDS B2a/B11/B1C GALILEO E5a/E1 GLONASS G1	1.5dBi	23 ± 2 dB	≤ 2 dB	≤ 30 mA	$\phi 23 \times 55.6$ mm	≤ 18 g	
HX-CH6017A Three-system, six-frequency antenna	GPS L1/L2 BDS B1/B2 GLONASS L1/L2	2dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	$\phi 23.8 \times 46.8$ mm	≤ 10 g	
HX-CUX003A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 3 GLONASS L1/L2 GALILEO E1/E5a/E5b L-Band	2dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	60 mm x 16.7 mm	≤ 60 g	
HX-CH7603A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	3.5dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	$\phi 40 \times 75.2$ mm	≤ 40 g	
HX-CHX600A Four-system full-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b/E6 L-Band	3.5dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	$\phi 40 \times 82.6$ mm	≤ 45 g	
HX-CU7603A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b QZSS L1/L2/L5/L6 L-Band IRNSS L5 SBAS L1/L5	2.5dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	D33*45.8mm	≤ 20 g	
HX-CU7005A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b QZSS L1/L2/L5/L6 L-Band IRNSS L5 SBAS L1/L5	2.5dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	$\phi 30 \times 34$ mm	≤ 10 g	
HX-CU7006A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b QZSS L1/L2/L5/L6 L-Band IRNSS L5 SBAS L1/L5	2.8dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	44*31.7mm	≤ 15 g	
HX-CH7018A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b QZSS L1/L2/L5/L6 L-Band IRNSS L5 SBAS L1/L5	2.5dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	44*28mm	≤ 11 g	
HX-CH7609A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 L-Band IRNSS L5 SBAS L1/L5	2.8dBi	33 ± 2 dB	≤ 2 dB	≤ 55 mA	$\phi 43.6 \times 40.8$ mm	≤ 50 g	
HX-CH3039A Three-system, three-frequency antenna	BDS B1 GPS L1 GLONASS L1 Galileo E1	1.5dBi	28 ± 2 dB	≤ 1.5 dB	≤ 20 mA	20*19.9*23.3mm	≤ 5 g	
HX-CH7005A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	4dBi	36 ± 2 dB	≤ 2 dB	≤ 55 mA	65*59*15.5mm	≤ 120 g	
HX-CUX007A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 Galileo E1/E5a/E5b/E6	3.5dBi	36 ± 2 dB	≤ 2 dB	≤ 60 mA	70*70*14mm	≤ 90 g	

Measurement Antenna

Product model	Frequency range	Maximum gain	Low-noise amplification gain	Noise factor	Working current/ voltage	Antenna Size (No Connector)	Antenna weight	Picture
HX-CS3607A Three-system, three-frequency antenna	GPS L1 BDS B1 GLONASS L1	5.5dBi	40±2dB	≤2dB	≤35mA +3.3~+12VDC	φ 152*62.2mm	≤400g	
GPS1000 Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b/E6 L-Band	5.5dBi	40±2dB	≤2dB	≤45mA +3.3~+12VDC	φ 152*62.2mm	≤450g	
HX-CSX601A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 L-Band	5.5dBi	40±2dB	≤2dB	≤45mA +3.3~+12VDC	φ 173.4*62.6mm	≤450g	
HX-CSX608A Four-system full-frequency (including S-band) antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b/E6 BeiDou Generation 1: S	5.5dBi	40±2dB	≤2dB	≤45mA +3.3~+12VDC	φ 173.4*62.6mm	≤470g	
HX-CSX225A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 SBAS L1/L5 4G/WIFI L-Band	GNSS: 5.5dBi 4G: 0.5dBi WIFI: 0.5dBi	L1: 32±2dB L2: 34±2dB	≤2dB	≤45mA +3.3~+12VDC	127.8 mm × 20.3 mm	≤220g	
HX-CSX048A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b/E6 L-Band	5.5dBi	40±2dB	≤2dB	≤45mA +3.3~+12VDC	φ 152*25mm	≤280g	
HX-CSX100A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 SBAS L1/L5 Dual 4G/BT/MiFi L-Band	GNSS: 5.0dBi BT/WiFi: 1dBi 4G: 0.5dBi	L1: 38±2dB L2: 40±2dB	≤2dB	≤45mA +3.3~+12VDC	φ 125*24.3mm	≤220g	
HX-CSX166A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b QZSS L1/L2/L5/L6 IRNSS L5 SBAS L1/L5 L-Band 4G/BT/WiFi 12.45G/WiFi 15.8G	GNSS: 5dBi BT/WiFi: 1dBi 4G: 1dBi	L1: 38±2dB L2: 40±2dB	≤2dB	≤45mA +3.3~+12VDC	φ 133*14.7mm	≤200g	

Measurement Antenna

Product model	Frequency range	Maximum gain	Low-noise amplification gain	Noise factor	Noise factor	The Qiao line has ended.	Antenna weight	Picture
HX-CSX627A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 SBAS L1/L5 L-Band	5.5dBi	L1: 38 ± 2 dB L2: 40 ± 2 dB	≤ 2 dB	≤ 45 mA +3.3~+12VDC	$\phi 152 \times 62.2$ mm	≤ 400 g	
HX-GPS300 Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2I/B3I/BIC/B2a/B2b GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 L-Band	5dBi	L1: 38 ± 2 dB L2: 40 ± 2 dB	≤ 2 dB	≤ 45 mA +3.3~+12VDC	Medium 142*66.5 mm	≤ 450 g	
HX-GPS320 Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2I/B3I/BIC/B2a/B2b GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 L-Band	5dBi	L1: 34 ± 2 dB L2: 36 ± 2 dB	≤ 2 dB	≤ 45 mA +3.3~+12VDC	$\phi 142 \times 66.5$ mm	≤ 450 g	
HX-GPS520 Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 SBAS L1/L5 L-Band	4.5dBi	L1: 34 ± 2 dB L2: 36 ± 2 dB	≤ 2 dB	≤ 45 mA +3.3~+12VDC	$\phi 152 \times 62.2$ mm	≤ 400 g	

Thyristor coil antenna

Product model	Frequency range	Maximum gain	Low-noise amplification gain	Working current/voltage	Operating current	Every inch of the celestial tent	Antenna weight	Picture
HX-CGX606A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2I/B3I/BIC/B2a/B2b GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L1/L5 L-Band	6dBi	50 ± 2 dB	≤ 2 dB	≤ 60 mA	$\phi 322 \times 261$ mm	≤ 5.6 kg	
HX-CGX601A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2I/B3I/BIC/B2a/B2b GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L1/L5 L-Band	7dBi	40 ± 2 dB 50 ± 2 dB	≤ 2 dB	≤ 60 mA	$\phi 379 \times 312$ mm	≤ 9.3 kg	
HX-CGX611A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1I/B2I/B3I/BIC/B2a/B2b GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L1/L5 L-Band	6.5dBi	50 ± 2 dB	≤ 2 dB	≤ 60 mA	$\phi 185 \times 148$ mm	≤ 1.8 kg	

Aerospace Antenna

Product model	Frequency range	Maximum gain	Low-noise amplification gain	Noise factor	Working Current	Antenna Size (No Connector)	Antenna weight	Picture
HX-BA681A Three-system, six-frequency antenna	GPS L1/L2 BDS B1/B2 GLONASS L1/L2	3dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	88.9*35 mm	≤ 190 g	
HX-BA682A Three-system, four-frequency antenna	GPS L1/L2 BDS B1/B2 GLONASS L1/L2	3dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	119.8*76.6*34.5mm	≤ 230 g	
HX-BA484A Three-system, four-frequency antenna	GPS L1 BDS B1/B3 GLONASS L1	3dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	119.8*76.6*34.5mm	≤ 230 g	
HX-CA7608A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	3dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	119.8*76.6*34.5mm	≤ 230 g	
HX-CA3603A Three-system, three-frequency antenna	GPS L1 BDS B1 GLONASS L1	4dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	90*35.9 mm	≤ 130 g	
HX-CA7607A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	4dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	$\phi 90 \times 41.5$ mm	≤ 150 g	
HX-CAX601A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2 GALILEO E1/E5a/E5b L-Band	4dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	$\phi 90 \times 41.9$ mm	≤ 150 g	
HX-CA7606A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	4dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	115*71.8*41.5mm	≤ 170 g	
HX-CAX602A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 L-Band	3dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	115*71.8*41.5mm	≤ 170 g	
HX-CA7614A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	4dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	90*36.3 mm	≤ 100 g	
HX-CA7618A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	4dBi	36 ± 2 dB	≤ 2 dB	≤ 45 mA	70*70*41.9mm	≤ 150 g	

High-vibration-resistant antenna

Product model	Frequency range	Maximum gain	Low-noise amplification gain	Antenna dimensions (excluding connector)	Antenna weight	Picture
HX-CVX602A Four-system full-frequency antenna	High frequency band: 1.525 to 1.615 GHz Low frequency band: 1.165 to 1.278 GHz GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 SBAS L1/L5 L-Band	5.5dBi	40 ± 2 dB	$\phi 150 \times 53$ mm	≤ 600 g	
HX-CVX603A Four-System Full-Frequency Antenna	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 SBAS L1/L5 L-Band	4.0dBi	40 ± 2 dB	$\phi 90.6 \times 26$ mm	≤ 250 g	

Integrated Antenna

Product model	Frequency range	Accuracy	Maximum gain	Antenna weight	Working voltage	Antenna size	Apply	Picture
HX-CO2002A RTK positioning antenna	GPS L1 BDS B1	$\leq 20\text{CM}$	FPC	4g	3.3-5.5V	W24*L24*H20.2mm	Person Positioning	
HX-CO2006A RTK positioning antenna	GPS L1 BDS B1	$\leq 20\text{CM}$	Pottery and porcelain	15g	3.3-5.5V	035*H7.5mm	Person Positioning	
HX-CO6001A RTK positioning antenna	GPS L1/L2 BDS B1/B2 GLONASS L1/L2 GALILEO E1/E5b QZSS L1/L2	RTK 0.01m+ 1ppm CEP	FPC	20g	3.3-5.5V	L55*W47*H29.7mm	Unmanned Aerial Vehicle (UAV) Positioning	

High-speed rail antenna

Product model	Frequency range	Gain	Low-noise amplification gain	Noise factor	Working Current	Antenna Size (No Connector)	Antenna weight	Picture
HX-MV7600A Three-system, seven-frequency antenna	GPS L1/L2 BDS B1/B2/B3 GLONASS L1/L2	L1/L2/B1/B2 $\geq 3\text{dBi}$, B3 $\geq 1.5\text{dBi}$ 825-960MHz $\geq 2.5\text{dBi}$ 1710-2170MHz $\geq 5.5\text{dBi}$ 2300-2400MHz $\geq 4\text{dBi}$ 2170-2700MHz $\geq 5\text{dBi}$	$40 \pm 2\text{dB}$	$\leq 2\text{dB}$	$\leq 50\text{mA}$	266.5*106.5*98mm	$\leq 1.7\text{kg}$	
HX-MVX600A Four-system full-frequency antenna	GPS L1/L2/L5 BDS B1/B2I/B3I B1C/B2a/B2b GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IR-NSS L5 SBAS L1/L5 L-Band	GNSS $\geq 5\text{dBi}$ 400-470MHz $\geq 3\text{dBi}$ 825-960MHz $\geq 4\text{dBi}$ 1710-2170MHz $\geq 6\text{dBi}$ 2400-2700MHz $\geq 8\text{dBi}$ 5700-5900MHz $\geq 8.5\text{dBi}$	$50 \pm 2\text{dB}$	$\leq 1.5\text{dB}$	$\leq 60\text{mA}$	260*140*115mm	$\leq 1.9\text{kg}$	

Time-feeding antenna

Product model	Frequency range	Gain	Low-noise amplification gain	Noise factor	Working voltage	Antenna size (including the connector)	Joint type	Picture
SSAML1L5RS4 HC17_K Three-system dual-frequency antenna	GPS L1/L5 BDS B1i/B1c/B2a GLONASS L1	3dBi	$34 \pm 2\text{dB}$	3.5dB	4.5-5V	$\phi 108.6*140\text{mm}$	NFemale	
WMRL1L5RSW F17_K Three-system dual-frequency antenna	GPS L1/L5 BDS B1i/B1c/B2a GLONASS L1	3dBi	$31 \pm 4\text{dB}$	2.5dB	3-5V	$\phi 110.3*105\text{mm}$	N Female	
SSAM1582RWD V9 V2.0_K Three-system single-frequency antenna	GPS L1 BDS B1i/B1c GLONASS L1	3dBi	$28 \pm 3\text{dB}$	3.5dB	2.7-9V	60*54 mm	TNC Female	
SSAM1582R4F1 7V2.0_40_K Three-system single-frequency antenna	GPS L1 BDS B1i/B1c GLONASS L1	5.5dBi	$40 \pm 3\text{dB}$	2.5dB	3-5V	$\phi 110.3*105\text{mm}$	NFemale	
SSAM1582R4F1 7V2.0_20_K Three-system single-frequency antenna	GPS L1 BDS B1i/B1c GLONASS L1	5.5dBi	$20 \pm 3\text{dB}$	2.5dB	3-5V	$\phi 110.3*105\text{mm}$	N Female	

HX-CGX601A

3D choke coil antenna

HXCGx601A is a multi-system full-frequency 3D choke coil that covers BDS, GPS, LONASS and GALILEO

The antenna features high precision, excellent stability, strong satellite tracking capability at low elevation angles, and superior resistance to multipath effects.

The product has passed the NGS Phase Center testing and has been successfully implemented in numerous large-scale projects both domestically and internationally.



Antenna dimensions: D379*312mm

technical feature

◎The phase center accuracy reaches the sub-millimeter level, with high stability and excellent repeatability.

◎ 3D choke coil design achieves excellent multi-path suppression performance

◎It offers high gain at low elevation angles, demonstrates strong tracking capability for low-elevation satellites, and effectively ensures the number of available satellites for the system.

○ The low-noise amplifier offers high gain, with the matching cable length exceeding 100 meters.

○ The unique waterproof and dustproof design ensures complete sealing of core components, making it suitable for harsh outdoor environments.

application area



Large-scale surveying and mapping



Earthquake monitoring



Bridge deformation monitoring



landslide monitor

Antenna performance

Frequency range	GPS L1/L2/L5 BDS B1/B2/B3/BIC/B2a/B2b GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSSL1/L2/L5/L6 IRNSS L1/L5 L-Band
Impedance	50 ohms
Polarization Method	Right-handed circular polarization
Antenna axis ratio	$\leq 3\text{dB}$
Horizontal surface coverage angle	360°
Output standing wave	≤ 2.0
Maximum gain	7dBi
Phase center error	$\pm 1\text{mm}$

Structural Characteristics

Antenna size	$\phi 379 \times 312\text{mm}$
Joint type	TNC penis

Low-Noise Amplifier Specifications

Gain	$50 \pm 2\text{dB}$
Noise factor	$\leq 2\text{dB}$
Output standing wave	≤ 2.0
Band flatness	$\pm 2\text{dB}$
Working voltage	3.3-12VDC
Working Current	$\leq 60\text{mA}$
Differential transmission delay	$\leq 5\text{ns}$

Work Environ-ment

Working temperature	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage Temperature	$-55^\circ\text{C} \sim +85^\circ\text{C}$
Humidity	95% non-condensing



Antenna dimensions: $\phi 185 \times 148$ mm

HX-CGX611A

Smalled coil antenna

The HX-CGX611A is a compact 扼ed coil antenna supporting four systems—BDS, GPS, GLONASS, and GALILEO—with full-frequency coverage. Featuring a stable phase center and exceptional multipath resistance, it delivers millimeter-level positioning accuracy while offering compact dimensions, lightweight construction, and high reliability. This antenna finds extensive applications in high-precision scenarios such as ground-based augmentation systems, geodesy, marine surveying, deformation monitoring, and seismic monitoring.

antenna performance

	GPS L1/L2/L5 BDS B1I/B2I/B3/BIC/B2a/B2b
Frequency range	GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6
	QZSS L1/L2/L5/L6 IRNSS L1/L5 L-Band
Impedance	50 ohms
Polarization Method	Right-handed circular polarization
Antenna axis ratio	≤ 3 dB
Horizontal surface coverage angle	360°
Output standing wave	≤ 2.0
Maximum gain	6.5dBi

Structural Characteristics

Dimensions	$\phi 185 \times 148$
Weight	mm ≤ 1.8 kg
Joint type	TNC phallus

technical feature

- Supports GNSS four-system full-band satellite signals, achieving multi-system compatibility
- The adoption of a choke structure design achieves excellent multi-path suppression performance.
- Stable phase center with millimeter-level positioning accuracy
- Miniature antenna design suitable for various installation environments

application area



Land-based Surveying Geodesy



earthquake monitoring



Bridge deformation supervisory control



landslide

Low-noise amplifier specifications

Gain	50 ± 2 dB
Noise factor	≤ 2 dB
Output standing wave	≤ 2
Working voltage	3.3-12VDC
Working Current	≤ 60 mA

Gain flatness ± 2 dB

Work Environment

Operating Temp.	-40°C $+85^{\circ}\text{C}$
Storage Temp.	-55°C to $+85^{\circ}\text{C}$;
Humidity	95% non-condensing



Antenna dimensions: $\phi 127.8 \times 20.3$ mm

HX-CSX225A

Built-in measurement antenna

The HX-CSX225A is a four-system, full-frequency built-in measurement antenna supporting GPS, GLONASS, BDS, and GALILEO, compatible with 4G and WiFi operating bands to meet the multi-system compatibility requirements of modern measurement equipment. It finds extensive applications in geodetic surveying, marine surveying, navigation channel measurement, dredging surveys, seismic monitoring, bridge deformation monitoring, landslide detection, and port container operations.

Antenna performance	
Frequency range	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3
	GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5
	SBAS L1/L5 4G/WIFI L-Band
Impedance	50 ohms
Polarization Method	Right-handed circular polarization
Antenna axis ratio	≤ 3 dB
Horizontal surface coverage angle	360°
Output standing wave	≤ 2.0
Maximum gain	GNSS: 5.5 dBi 4G: 0.5 dBi WIFI: 0.5 dBi

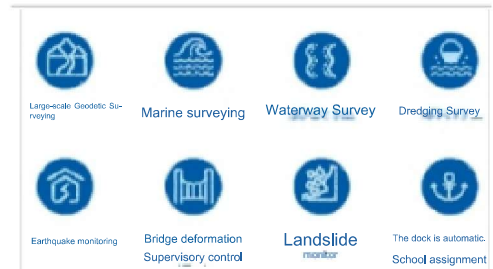
Structural Characteristics

Dimensions	$\phi 127.8 \times 20.3$ mm
Weight	≤ 220 g
Joint type	GNSS: MMCX-JW 4G_1: IPEX 4G_2: IPEX Public Wi-Fi: IPEX Public Wi-Fi

technical feature

- Supports GNSS four systems across all frequency bands
- Supports 4G, BT, and WIFI
- Stable phase center with centimeter-level positioning accuracy
- Exhibits strong anti-interference capability and can withstand harsh operating environments.
- Excellent electromagnetic compatibility, facilitating product integration

application area



Low-Noise Amplifier Specifications

gain	L1 frequency band: 32 ± 2 dB
Noise coefficient, Output standing wave	L2 frequency band: 34 ± 2 dB ≤ 2.0 VDC;
voltage, Operating current, Gain, Flatness	$+3.3 \sim +12$ VDC; ≤ 45 mA; ± 2 dB

Work environment

Working temperature	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage Temperature	$-55^\circ\text{C} \sim +85^\circ\text{C}$
Humidity	95% non-condensing



Antenna dimensions: $\phi 152 \times 62.2$ mm

HX-CSX627A

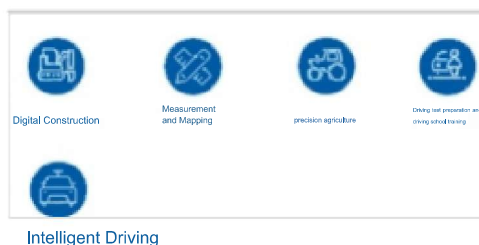
External measurement antenna

The HX-CSX627A is a four-system, full-frequency external measurement antenna supporting GPS, BDS, GLONASS, and GALILEO, meeting the multi-system compatibility requirements of modern measurement equipment. It finds extensive applications in geodetic surveying, marine surveying, navigation channel measurement, dredging and filling surveys, seismic monitoring, bridge deformation monitoring, landslide detection, and port container handling operations.

technical feature

- Supports GNSS four systems across all frequency bands
- Stable phase center with millimeter-level positioning accuracy
- The structure is reliable, with a protection rating of IP67.
- Exhibits strong anti-interference capability and can withstand harsh operating environments.

application area



Antenna performance	
Frequency range	GPS L1/L2/L5 BDS B11/B21/B31/B1C/B2a/B2b
	GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 L-Band
Impedance	50 ohms
Polarization Method	Right-handed circular polarization
Antenna axis ratio	≤ 3 dB
Horizontal surface coverage angle	360°
Output standing wave	≤ 2.0
Maximum gain	5.5 dBi

Structural Characteristics

Antenna size	$\phi 152 \times 62.2$ mm
Antenna weight	≤ 400 g
Joint type	TNC penis

Low-noise amplifier specifications	
Gain	L1 frequency band: 38 ± 2 dB
	L2 frequency band: 40 ± 2 dB
Noise factor	≤ 2 dB
Output standing wave	≤ 2.0
Working voltage	+3.3 ~ +12 VDC
Working Current	≤ 45 mA
Gain flatness	± 2 dB

Work environment

Working temperature	$-40^\circ \text{C} \sim +85^\circ \text{C}$
Storage Temperature	$-55^\circ \text{C} \sim +85^\circ \text{C}$
Humidity	95% non-condensing



Antenna dimensions: $\phi 142 \times 66.5$ mm

technical feature

- Supports GNSS signals across all frequency bands of the four systems
- Stable phase center with millimeter-level positioning accuracy
- Excellent band-pass suppression and anti-interference capability
- Compact in size and reliable in structure

GPS300

External measurement antenna

The GPS300 is a four-system, full-frequency external measurement line supporting GPS, BDS, GLONASS, and GALILEO, meeting the multi-system compatibility requirements of modern surveying equipment. It finds extensive applications in geodetic surveying, marine surveying, navigation surveying, dredging surveys, seismic monitoring, bridge deformation monitoring, landslide detection, and port container handling operations.

Application area



Antenna performance	
Frequency range	GPS L1/L2/L5 BDS B1/B2/B3I/B1C/B2a/B2b
	GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6
	QZSS L1/L2/L5/L6 IRNSS L5 L-Band
Impedance	50 ohms
Polarization Method	Right-handed circular polarization
Antenna axis ratio	≤ 3 dB
Horizontal surface coverage	360°
Output standing wave	≤ 2.0
Maximum gain	5 dBi
Phase center error	± 2 mm

Structural Characteristics

Dimensions	$\phi 142 \times 66.5$
Weight	mm ≤ 450 g
Connector	TNC phallus

Low-noise amplifier specifications

Gain	L1 frequency band: 38 ± 2 dB
	L2 frequency band: 40 ± 2 dB
Noise factor	≤ 2 dB
Output standing wave	≤ 2.0
Band flatness	± 2 dB
Working voltage	+3.3 ~ +12 VDC
Working Current	≤ 45 mA
Differential transmission delay	≤ 5 ns

Work Environment

Working temperature	-40° C ~ +85° C
Storage Temperature	-55° C to +85° C,
Humidity	95 % , no condensation



Antenna dimensions: Medium 43.6*40.8 mm

HX-CH7609A

External drone antenna

The HX-CH7609A is a multi-system, multi-frequency external drone antenna supporting BDS, GPS, GLONASS, and GALILEO. It can be widely used in industries such as surveying and mapping, navigation and dispatching, and is particularly suitable for various applications of lightweight drones, including aerial photography, remote telemetry, disaster monitoring, traffic patrols, and public security surveillance.

Antenna performance	
Frequency range	GPS L1/L2/L5/L-Band BDS B1/B2/B3
	GLONASS L1/L2 GALILEO E1/E5a/E5b/E6
Impedance	50 ohms
Polarization Method	Right-handed circular polarization
Antenna axis ratio	≤3dB
Horizontal surface coverage angle	360°
Output standing wave	≤2.0
Maximum gain	2.8dBi

Structural Characteristics	φ 43.6*40.8mm
Dimensions	<50g
Weight	SMA-J
Connector	

technical feature

- Supports full-band signals across all four GNSS systems, including L-Band.
- The dual four-arm spiral design ensures optimal signal reception at low elevation angles.
- Excellent band-pass suppression and anti-interference capability
- Innovative low-profile design for easy integration of the entire unit

application area


Public Security Monitoring


Disaster Monitoring


traffic patrolling


aerial photo


Remote Telemetry

Low-Noise Amplifier Specifications

Increase the noise coefficient output,	33±2dB
standing wave operating voltage, and operating current.	≤2dB
Gain flatness	≤2.0
	+3.3~+5VDC
	≤55mA
	±2dB

Work environment	
Working temperature	-40° C~+70° C
Storage Temperature	-40° C~+70° C
Humidity	95% non-condensing



Antenna dimensions: $\phi 44 \times 28 \text{mm}$

technical feature

- Phase center stability
- Low elevation angle results in high gain.
- High stability in the L-band
- Compact size, easy to integrate
- The material is lightweight.

HX-CH7018A

Built-in drone antenna

The HX-CH7018A is an integrated drone antenna supporting BDS, GPS, GLONASS, GALILEO, and L-Band technologies. It finds extensive applications in surveying, mapping, navigation, and dispatching industries, particularly for various lightweight drone scenarios such as aerial photography, remote telemetry, disaster monitoring, traffic patrols, and public security surveillance.

application area



Public Security Monitoring



Disaster Monitoring



traffic patrolling



aerial photo



Remote Telemetry

Antenna performance

Frequency range	GPS L1/L2/L5	BDS B1/B2/B3
	GLONASS L1/L2/L3	GALILEO E1/E5a/E5b/E6 L-Band
Impedance	50 ohms	
Polarization Method	Right-handed circular polarization	
Antenna axis ratio	$\leq 3 \text{dB}$	
Horizontal surface coverage angle	360°	
Output standing wave	≤ 2.0	
maximum gain	2.5 dBi	

Structural Characteristics

Dimensions	$\phi 44 \times 28 \text{mm}$
Weight	8g
Connector	IPEX-Female advanced

Low-noise amplifier specifications

Gain	$33 \pm 2 \text{dB}$
Noise factor	$\leq 2 \text{dB}$
Output standing wave	≤ 2.0
Working voltage	$+3.3 \sim +12 \text{VDC}$
Working Current	$\leq 55 \text{mA}$
Gain flatness	$\pm 2 \text{dB}$

Work environment

Working temperature	$40^\circ \text{C} \sim +70^\circ \text{C}$
Storage Temperature	$-40^\circ \text{C} \sim +85^\circ \text{C}$
Humidity	95% non-condensing



HX-CAX601A

External aviation antenna

The HX-CAX601A is a high-gain, low-drag four-system full-frequency external aviation antenna featuring compact design, high sensitivity, and low power consumption, significantly enhancing positioning accuracy and speed for rapidly moving targets. Widely used in navigation, tracking, monitoring, and telemetry applications, it is particularly suitable for high-speed mobility scenarios such as civilian drones and vehicle-mounted systems.

Antenna performance	
Frequency range	BDS B1/B2/B3 GPS L1/L2/L5 GLONASS L1/L2/L3 GALILEO E1/E5a/E5 L-Band
Impedance	50 ohms
Polarization Method	Right-handed circular polarization
Antenna axis ratio	≤3dB
Horizontal surface coverage angle	360°
Output standing wave	≤2.0
Maximum gain	4dBi

Structural Characteristics	
Dimensions	φ90*41.9
Weight	mm ≤150g
Connector	TNC phallus

- technical feature
- Supports GNSS four systems across all frequency bands
 - Stable phase center with millimeter-level positioning accuracy
 - The signal output is stable and enables tracking in complex environments.
 - Compact in size and lightweight overall
 - Featuring a patented waterproof and breathable design with an IP67 waterproof rating.

application area

observe and control

space flight and aviation

tracking monitoring

Low-Noise Amplifier Specifications	
gain	36±2dB
Noise coefficient; Output standing wave flatness within the band; Operating voltage; Operating current; Differential transmission delay	≤2dB ≤2.0 ±2dB +3.3~+12VDC ≤45mA ≤5ns

Work environment	
Working temperature	40° C~+85° C
Storage Temperature	-55° C~+85° C
Humidity	95% non-condensing



Antenna dimensions: $\phi 150 \times 53$ mm

HX-CVX602A

High-vibration-resistant antenna

The HX-CVX602A is a four-system, full-frequency external measurement antenna supporting BDS, GPS, GLONASS, and GALILEO technologies, meeting the current demands for high precision and multi-system compatibility in measurement equipment. When used with various receivers, it finds extensive applications in geodetic surveying, marine measurement, navigation channel surveying, dredging and leveling operations, seismic monitoring, bridge deformation monitoring, landslide detection, and port container handling operations.

Antenna performance	
Frequency range	High frequency band: 1.525 to 1.615 GHz Low frequency band: 1.165 to 1.278 GHz
	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3
	GLILEOE1/E5a/E5b/E6 SBAS L1/L5
	QZSS L1/L2/L3/E6 IRNSS L5 L-band
Impedance	50 ohms
Polarization Method	Right-handed circular polarization
Antenna axis ratio	≤ 3 dB
Horizontal surface coverage angle	360°
Output standing wave	≤ 2.0
Maximum gain	5.5dBi

Structural Characteristics	
Dimensions	$\phi 150 \times 53$
Weight	mm, ≤ 600 g,
Connector	TNC tip

technical feature

- Stable phase center with millimeter-level positioning accuracy
- Metal + composite plastic structural housing
- Corrosion-resistant, drop-resistant, vibration-resistant
- IP69K waterproof and dustproof rating

application area



Low-noise amplifier specifications	
Gain	L1 frequency band: 38 ± 2 dB
	L2 frequency band: 40 ± 2 dB
Noise factor	≤ 2 dB
Output standing wave	≤ 2.0
Working voltage	+3.3~+18VDC
Working Current	≤ 45 mA
Differential transmission delay	≤ 5 ns

Work-environment	
Working temperature	$45^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Storage Temperature	-55°C to $+85^{\circ}\text{C}$,
Humidity	95%, no condensation



Antenna dimensions: φ108.6*140 mm

technical feat-ure

- high gain
- Level 7 waterproofing
- Strong anti-interference capability
- Lightning Protection Design

SSAML1L5RS4HC17_K

Three-system dual-frequency timing antenna

SSAML1L5RS4HC17_ is a timing antenna covering BDS, GPS, GLONASS and GALILEO signals. The core uses ceramic antenna and front-end filtering scheme, featuring high gain, strong anti-interference, lightning protection and P67 waterproofing. The product is widely used in satellite timing and other fields.

application area



Satellite Time Service

Antenna performance		Low-noise amplifier specifications		Structural Characteristics	
Frequency range	GPSL1/L5 BDSB1i/B1c/B2a GLONASSL1	Gain	34±2dB	Antenna size	108.6*140 mm
Gain	3dBi	Noise factor	≤3. 5dB	Joint type	N Female
		Working voltage	4. 5-5V		



Antenna dimensions: φ110.3*105 mm

technical feature

- high gain
- Level 7 waterproofing
- Strong anti-interference capability
- Lightning Protection Design

SSAM1582R4F17V2.0_40_K

Three-system single-frequency timing antenna

The SSAM1582R4F17V2.0_40_K is a time synchronization antenna supporting BDS, GPS, GLONASS, and GALILEO signals. Featuring an L1-band ceramic antenna core and a front-end filtering solution, it offers high gain, strong anti-interference capability, lightning protection, and IP67 waterproof rating, making it widely used in satellite time synchronization applications.

application area



Satellite Time Service

Antenna performance		Low-noise amplifier specifications		Structural Characteristics	
Frequency range	GPSL1 BDS B1i/B1c GLONASS L1	Gain	40±3dB	Antenna size	Medium 110.3*105 mm
Gain	5. 5dBi	Noise fac tor	≤2. 5dB	Joint type	N Female
		Working voltage	3-5V		

■ VEHICLE ANTENNA

TECHNICAL ADVANTAGES

Technological Superiority

Multilayer Array Technology

The combination of horizontal and vertical dimensions forms the application, ensuring symmetry of the positioning design, minimizing the size of the integrated antenna and maximizing the capacity of the antenna element.

- Small size, large capacity
- Good physical symmetry
- Good symmetry electromagnetic

Structural Redundancy Design Technology

The maximum number of antennas that can be accommodated in the structure can be increased or decreased within the determined range without changing the structure.

- Adjustable functions, unchanged performance
- Various configurations, unified structure
- Multiple mounting ways: screw locking & magnetic attachment

Total Polarization Inhibition

Adopts RHCP & choke ring structure, effectively suppresses low-angle multipath interference.

- Increase the low-angle gain
- Inhibit multi-path signal reception
- Inhibition of antipolarization signal reception

Fused Isolation Technology

Multi-dimensional isolation for co/non-co frequencies.

- Built-in co-frequency isolator for higher isolation
- Less pattern overlap reduces coupling
- Different polarizations for co-frequency isolation
- Spatial separation ensures reliable isolation

High-precision positioning antenna

Product model	Product configuration	Electrical character	Gain	Jump Cable-Junction	Antenna size	Fixed form	Test class	Picture
HX-AULT006 High-Precision GNSS & V2X Vehicle Antenna	GNSS (1)	1164-1278M& 1540-1615M;	4.5dBic	FAKRA-Z Mother Head RG 174 (irradiated), outer shell length 10-15 cm (Bus length: 22 cm)	Outline dimension : W96.9 × L96.9 × H36.8 mm (excluding the rubber pad dimensions) Kernel size: W85*L85' H23mm	Base cable exit with nut lock	ISO 16750 standard	
HX-AULT008 High-Precision GNSS & V2X Vehicle Antenna	GNSS (1)	1164-1278M& 1540-1615M;	3.5dBic	FAKRA-Z Mother Head RG174 (irradiated); the outer casing length is 10-15 cm (Bus length: 22 cm)	Outline dimension : W95.3 × L95.3 × H34.5 mm (excluding the dimensions of the rubber pad) Kernel size: W85*L85' H23mm	Side cable exit with adhesive fixing	ISO 16750 standard	
HX-AULT010 High-Precision GNSS & V2X Vehicle Antenna	GNSS (1)	1164-1278M& 1540-1615M;	4dBic	FAKRA-Z Mother Head RG 174 (irradiated); outer shell length: 20-25 cm (The bus is 25-30 cm long.)	Outline dimension : W75*L75*H26mm (excluding rubber pad dimensions); Core dimensions: W66*L66' H18mm	Side cable exit with adhesive fixing	ISO 16750 standard	
HX-AULT011 High-Precision GNSS & V2X Vehicle Antenna	GNSS (1)	1164-1278M& 1540-1615M;	2.5dBic	FAKRA-Z Mother Head RG174 (irradiated); the outer casing length is 10-15 cm (Bus length: 22 cm)	External dimensions: φ58"H26mm (without rubber pad dimensions); Core dimensions: φ44"H18mm	Side cable exit with adhesive fixing	ISO 16750 standard	
HX-AULT012 High-Precision GNSS & V2X Vehicle Antenna	GNSS (1)	1164-1278M& 1540-1615M;	3.5dBic	FAKRA-Z Mother Head RG 174 (irradiated), outer shell length 10-15 cm (Bus length: 22 cm)	Outline dimension : W70*L70*H27.5mm (excluding rubber pad dimensions); Core dimensions: W62*L62*H20mm	Side cable exit with adhesive fixing	ISO 16750 standard	
HX-AULT013 High-Precision GNSS & V2X Vehicle Antenna	GNSS (1)	1164-1278M& 1540-1615M;	4dBic	FAKRA-Z Mother Head RG 174 (irradiated), outer shell length 10-15 cm (Bus length: 22 cm)	Outline dimension : W58*L58*H24mm (without rubber pad dimensions) Core dimensions: W50' L50*H18mm	Side cable exit with adhesive fixing	ISO 16750 standard	

Standard Precision Positioning Antenna

Product model	Product configuration	Electrical character	Gain	Jump Cable-Junction	Antenna size	Fixed form	Test class	Picture
DAML1L5RS4J M1_J3M GNSS Navigation Antenna	GNSS (1)	116-1185MHz 1559-1606MHz	1.0dBic (11641186MHz) 2.0 dBic (1559-1606MHz)	SMA round head RG174 (irradiated), with an exposed length of 3M	W67*L67*H21mm (Excluding rubber pad dimensions)	Side cable with magnetic mount	ISO 16750 standard	
DAMTA4CT10VM 2 RX_K2.85M GNSS Navigation Antenna	GNSS (1) C-V2X (2)	GNSS: 155-1576MHz V2X: 5850-5925MHz	4.5dBic	GNSS: FAKRA-C V2X: FAKRA-Z	φ 90*H65mm (Excluding rubber pad dimensions)	Bottom outlet	ISO 16750 standard	
GLV122_TG001_K6M GNSS Navigation Antenna	GNSS (1) 4 G (2) C-V2X (2)	GNSS: 1559-1576MHz 4G: 698-960MHz 1710-2690MHz V2X: 5850-5925MHz	4.5dBic	GNSS: FAKRA-C 4G: FAKRA-D V2X: FAKRA-C	143*H85 mm (excluding the rubber pad dimensions)	Bottom line	ISO 16750 standard	
QDAMBA4DF210G11_K1.3M_C6202 GNSS + Cellular Antenna	GNSS (1) 4 G (1)	GNSS: 1559-1576MHz 4G: 820-960MHz 1710-2690MHz	4.5dBic	GNSS: FAKRA-C 4G: FAKRA-D	W70*L45*H17.5mm (excluding the rubber pad dimensions)	Side outlet	ISO 16750 standard	
SFA4BL14M_A7900207_K200MM GNSS + Cellular Antenna	GNSS (1) 4 G (2) AM/FM (1)	GNSS: 1573-1576MHz 4G (M): 824-960MHz 1710-2690MHz 4G (A): 1710-2690MHz AM: 520-1710kHz FM: 87.5-108MHz	4.5dBic	GNSS: FAKRA-C 4G (M): FAKRA-D 4G (A): FAKRA-E AM/FM: SO-J	181*151.2*66.5mm (excluding the rubber pad dimensions)	Bottom outlet	ISO 16750 standard	

Standard Precision Positioning Antenna

Product model	Product configuration	Electrical character	Gain	Jump Cable-Junction	Antenna size	Picture
DAM1568R2J1Y_AT 04H_J3M_PM Dual-GNSS Single-Band External Vehicle Antenna	GNSS (1)	GNSS unit : L1/B1	5dBic Based on 70*70mm ground plane	SMA: Universal connector, customizable	L55*W47*H17.7mm	
DAM1568A4DZ10_R P041_K1.46M_PXW Dual-GNSS Single-Band External Vehicle Antenna	GNSS (1)	GNSS unit : L1/B1	4.5dBic Based on 70*70mm ground plane	FAKRA: Universal connector, customizable	L55.2*W50.2*H18mm	
DAM1568A4ZB10LCO_ XW03_KW1.5M_PM Dual-GNSS Single-Band External Vehicle Antenna	GNSS (1)	GNSS unit : L1/B1	4.5 dBic Based on 70*70mm ground plane	FAKRA: Universal connector, customizable	L49W37*H19mm	
DAM1568A4A1LC01 _XW03_J3M Dual-GNSS Single-Band External Vehicle Antenna	GNSS (1)	GNSS unit : L1/B1	4.5 dBic Based on 70*70mm ground plane	SMA: Universal connector, customizable	L48.6*W39.2*H15.2mm	
DAML1L5RS4NO_ P80MM Three-system, dual- frequency vehicle- mounted built-in antenna	GNSS (1)	GNSS unit: L1/L5/B1/G1	1.0 dBic(1176 MHz) 2.0 dBic(1559-1610 MHz) at Zenith Max	IPEX: Universal connector, customizable	L55*W55*H14.5mm	
DAML1L5AR4NOL C01_P100MM Three-system, dual- frequency vehicle- mounted built-in antenna	GNSS (1)	GNSS unit: L1/L5/B1/G1	1dBic(1176 MHz) 1 dBic(1559-1610MHz) Based on 50*50mm ground plane	IPEX: Universal connector, customizable	L50*W50*H10.7mm	
DAM1568A2NO_YJ 72V2.0_P55MM Dual-system, single- frequency vehicle- mounted built-in antenna	GNSS (1)	GNSS unit : L1/B1	4.5dBic Based on 70*70mm ground plane	IPEX: Universal connector, customizable	L25*W25*H7mm	
DAM1568C2NO_YJO_06_ X59MM Dual-system, single- frequency vehicle- mounted built-in antenna	GNSS (1)	GNSS unit : L1/B1	4dBic Based on 70*70mm ground plane	IPEX: Universal connector, customizable	L18*W18*H6.6mm	
DAM1575E2NO_JL 01V2.0_P130MM Single-system, single- frequency vehicle- mounted built-in antenna	GNSS (1)	GNSS cell : L1	2dBic Based on 70*70mm ground plane	IPEX: Universal connector, customizable	L12*W12*H6.6mm	
DAM1575G2NO_JL 02V2.0_P100MM Single-system, single- frequency vehicle- mounted built-in antenna	GNSS (1)	GNSS unit : L1	1 dBic Based on 70*70mm ground plane	IPEX: Universal connector, customizable	L10*W10*H6.6mm	
RTKLCL136H6NO _P100MM Dual-system antenna single-frequency RTK	GNSS (1)	GNSS unit : L1/B1	2.5 dBic Based on 36*36mm gro- und plane	IPEX: Universal connector, customizable	L36*W36*H9.3mm	

Integrated transmission and reception antenna

Product model	Product configuration	Electrical character	Gain	Jump Cable-Junction	Antenna size	Fixed form	Test class	Picture
HX-AUST002 Shark Fin Connected Car Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278M&1540-1615M; 5G1/2 cell : 824-960M&1710-2690M& 3.3-3.6G&4.8-5G; 5G 3/4-cell: 1710-2690 MHz 3.3-3.6G&4.8-5G; 5.85-5.925G	3.5dBic	FAKRA-Z mother head RG174 (irradiated); the outer diameter of the shell is 10-15 cm. (Bus length: 22 cm)	External dimensions: L160*W85*T68 mm (excluding footpad dimensions); Core dimensions: L115*W78*T58mm	The antenna rear end cable is secured by a magnet	ISO 16750 standard	
HX-AUST005 Shark Fin Connected Car Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278M&1540-1615M; 5G1/2 cell : 824-960M&1710-2690M& 3.3-3.6G&4.8-5G; 5G 3/4-cell: 1710-2690 MHz 3.3-3.6G&4.8-5G; 5.85-5.925G	3.5dBic	FAKRA-Z mother head RG174 (irradiated); the outer diameter of the shell is 10-15 cm. (Bus length: 22 cm)	External dimensions: L160*W85*T77mm (excluding footpad dimensions) <u>Kernel size:</u> L115*W78*T58mm	The antenna rear end cable is secured by a magnet	ISO 16750 standard	
HX-AUST003 Glass-Integrated Smart Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278M&1540-1615M; 5G 1/2 band: 824-960 MHz, 1710-2690 MHz, 3.3-3.6 GHz, 4.8-5 GHz; 5G 3/4 band: 1710-2690 MHz 3.3-3.6G&4.8-5G; 5.85-5.925G	3.5dBic	FAKRA-Z head RG174 (irradiated), outer cable length of the housing 10-15cm (Bus length: 22 cm)	Outline dimension : L138*W138*T29mm (excluding the rubber pad dimensions); Core dimensions: L125*W125*T23mm	The antenna rear end cable is secured by a magnet	ISO 16750 standard	
HX-AUST006 Glass-Integrated Smart Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278M&1540-1615M; 5G1/2 unit: 824-960M&1710-2690M&3.3-3.6G&4.8-5G; 5G 3/4 unit: 1710-2690M& 3.3-3.6G&4.8-5G; 5.85-5.925G	3dBic	FAKRA-Z mother head RG174 (irradiated), with an outer shell length of 10-15 cm (Bus length: 22 cm)	Outline dimension : L127*W75*T68 mm (excluding rubber pad dimensions); Core dimensions: L115*W78*T58mm	The wire extends from the bottom of the antenna and is secured with a nut.	ISO 16750 standard	
HX-AUST007 Shark Fin Connected Car Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278M&1540-1615M; 5G1/2 unit : 698-960M& 1710-2690 MHz & 3.3-3.6 GHz & 4.8-5 GHz; 5G 3/4-cell: 1710-2690 MHz 3.3-3.6G&4.8-5G; 5.85-5.925G	3.5dBic	FAKRA-Z mother head RG174 (irradiated), with an outer shell length of 10-15 cm (Bus length: 22 cm)	Outline dimension : L127*W75*T68 mm (excluding rubber pad dimensions); Core dimensions: L115*W78*T58mm	The wire extends from the bottom of the antenna and is secured with a nut.	ISO 16750 standard	
HX-AUST008 Shark Fin Connected Car Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278M&1540-1615M; 5G 1/2 unit: 698-960M& 1710-2690M& 3.3-3.6G& 4.8-5G; 5G 3/4 unit: 1710-2690M& 3.3-3.6G&4.8-5G; 5.85-5.925G	3.5dBic	FAKRA-Z mother head RG174 (irradiated), with an outer shell length of 10-15 cm (Bus length: 22 cm)	Outline dimension : L127*W75*T68 mm (excluding rubber pad dimensions); Core dimensions: L115*W78*T58mm	The wire extends from the bottom of the antenna and is secured with a nut.	ISO 16750 standard	

Integrated transmission and reception antenna

Product model	Product configuration	Electrical character	Gain	Jumper connector	Antenna size	Fixed form	Test class	Picture
HX-AULT002 Cylindrical Smart Vehicle Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278M&1540-1615M; 5G1/2/3/4 units: 824-960M&1710-2690M&3.3-3.6G&4.8-5G; 5. 85-5. 925G	5dBic	FAKRA-Z mother head RG174 (irradiated), with an outer shell length of 10-25 cm (Bus length: 22 cm)	Outline dimension : $\phi 136^*$ H58mm (excluding the gasket dimensions); Core dimensions: $\phi 128^*$ H48 mm	Base cable exit with nut lock	ISO 16750 standard	
HX-AULT003 Cylindrical Smart Vehicle Antenna	GNSS (1);5G (4);C-V2X (2);	1164-1278M&1540-1615M; 5G1/2/3/4 units: 824-960M&1710-2690M&3.3-3.6G&4.8-5G; 5. 85-5. 925G	5. 5dBic	FAKRA-Z mother head RG174 (irradiated),outer housing length 10-15 cm (Bus length: 22 cm)	Outline dimension : $\phi 149^*$ H86mm (excluding gasket dimensions); Core dimensions: $\phi 130^*$ H76mm	Base cable exit with nut lock	ISO 16750 standard	
HX-AULT005 Cylindrical Smart Vehicle Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278M&1540-1615M; 5G 1/2/3/4 bands: 824-960 MHz, 1710-2690 MHz, 3.3-3.6 GHz, and 4.8-5 GHz; 5. 85-5. 925G	3. 5dBic	FAKRA-Z mother head RG174 (irradiated); the outer diameter of the shell is 10-15 cm. (Bus length: 22 cm)	Outline dimension : $\phi 105^*$ H77mm (dimensions excluding rubber pad) Core dimensions: Middle 77*H66mm	Base cable exit with nut lock	ISO 16750 standard	
HX-AULT014 Cylindrical Smart Vehicle Antenna	GNSS (1); 5G (6); C-V2X (2);	1164-1278 MHz & 1540-1615 MHz; 5G 1/2-band: 698-960 MHz, 1710-2690 MHz, 3.3-4.2 GHz, 4.4-5 GHz; 5G 3/4-band: 1710-2690 MHz 3. 3-4. 2G&4. 4-5G; 5G 5/6 bands: 3.3-4.2 GHz & 4.4-5 GHz; 5. 85-5. 925G	4dBic	FAKRA-Z mother head RG174 (irradiated), with an outer shell length of 10-15 cm (Bus length: 22 cm)	$\phi 143^*$ H85mm (excluding joints and threads)	Base cable exit with nut lock	ISO 16750 standard	
HX-AULT015 Cylindrical Smart Vehicle Antenna	GNSS (1); 5G (4 units); C-V2X (2);	1164-1278M&1540-1615M;5G 1/2 band: 698-960M&1710-2690M&3.3-4.2G&4.4-5G; 5G 3/4 band: 1710-2690M&3. 3-4. 2G&4. 4-5G; 5. 85-5. 925G	5dBic	FAKRA-Z Mother Head RG174 (irradiated), outer shell length 10-15cm (Bus length: 22 cm)	Outline dimension : $\phi 136^*$ H65.5mm (excluding the gasket dimensions); Core dimensions: $\phi 128^*$ H48mm	Side lead-out, nut fastened	ISO 16750 standard	
HX-AULT016 Cylindrical Smart Vehicle Antenna	GNSS (1); 5G (4); C-V2X (2);	1164-1278 MHz & 1540-1615 MHz; 5G 1/2-band: 698-960 MHz & 1710-2690 MHz & 3.3 GHz & 4.4-5 GHz; 5G 3/4-band: 1710-2690 MHz 3. 3-4. 2G&4. 4-5G; 5. 85-5. 925G	5dBic	FAKRA-Z mother head RG 174 (irradiated), outer cable length 10-15 cm (Bus length: 22 cm)	Outline dimension : $\phi 136^*$ H60mm (excluding the gasket dimensions); Core dimensions: $\phi 128^*$ H50mm	Base cable exit with nut lock	ISO 16750 standard	

Integrated transmission and reception antenna

Product model	Product configuration	Electrical character	Gain	Jump Cable-Junction	Antenna size	Picture
DAMP5GL1L5RA1_K500MM Single-system dual-frequency compatible 5G vehicle-mounted combined antenna	GNSS (1); 5G (4);	GNSS units: L1/L5; 5G1/4 units: 824~960 MHz, 1710~2690 MHz, 3.3~3.8 GHz, and 4.4~5 GHz; 5G 2/3 units: 1710~2690 MHz. 3. 3~3. 8G&4. 4~5G;	Main antenna : 3dBi (820~960MHz) 8dBi (1710~2690MHz) 7dBi (3300~3800MHz) 6dBi (4400~5000MHz) Secondary antenna: 8dBi (1710~2690MHz) 7dBi (3300~3800MHz) 7dBi (4400~5000MHz) GPS: -3. 5dBic (1176MHz) 1 dBic (1575MHz) Based on 36*36mm ground plane	SMA: Universal connector, customizable	L131. 5*W70. 3*H21mm	
DAMBA4CV10T11_ZK2. 5M Dual-system, single-frequency compatible 4G automotive combined antenna	GNSS (1); 4G (1);	GNSS unit : B1/L1 4G frequency bands: 824~960 MHz and 1710~2690 MHz;	1. 5 dBi type (824~960MHz) 4. 0 dBi type (1710~2700MHz)	FAKRA: Universal connector, customizable	L110*W42*H18. 3mm	
DAMBA4E10T11YA_K3M_KH Dual-system single-frequency compatible 4G vehicle-mounted combined antenna	GNSS (1); 4G (1);	GNSS cell : B1/L1 4G frequency bands: 824~960 MHz and 1710~2690 MHz;	4. 5 dBic Based on 70*70mm ground plane	FAKRA: Universal connector, customizable	φ 76. 8*H15mm	
QDAMTA4HR10TM11_J865mm_26262568 Dual-system single-frequency compatible 4G vehicle-mounted combined antenna	GNSS (1); 4G (2);	GNSS unit: B1/L1 4G main unit: 824~960MHz & 1710~2690 MHz; 4G secondary unit: 824~960MHz&1710~2690MHz;	2. 0 dBic Based on 70*70mm ground plane	FAKRA: Universal connector, customizable	L120*W50*H22. 3mm	
DAMTA4RA10T11M3_KW800MM Dual-system, single-frequency compatible 4G automotive combined antenna	GNSS (1); 4G (2);	GNSS cell : B1/L1 4G main unit: 824~960 MHz & 1710~2690 MHz; 4G sub-unit: 1710~2690 MHz;	2. 0 dBic Based on 70*70 mm ground plane Main antenna: 1.5dBi type (824~960 MHz), 3.0 dB type (1710~2700 MHz) auxiliary antenna: 3. 0dBi type (1710~2700MHz)	FAKRA: Universal connector, customizable	L124*W52. 5*H24mm	
DAMDA2Y1G1X_J4M-N_J4M Single-system, single-frequency compatible GSM vehicle-mounted combined antenna	GNSS (1); 4G (1);	GNSS cell : L1 GSM frequency bands: 806~960 MHz and 1710~2170 MHz;	4. 5dBic Based on 70*70mm ground plane 1575. 42 MHz ± 3MHz	SMA: Universal connector, customizable	φ 75*H14. 1mm	

Communication Antenna

Product model	Electrical character	Jump Cable-Junction	Antenna size	Fixed form	Picture
HX-V2X001 V2X Antenna	Frequency: 5850~5925 MHz	FAKRA-Z Mother Head	External dimensions: φ46.6*37.5 mm Core dimensions: φ6*29.5 mm	3M adhesive tape	
WIFI/Bluetooth antenna	Frequency: 2.4 GHz & 5.8 GHz	ipex	L20*W16*H0. 6mm	3M adhesive tape	
AM/FM antenna	Frequency: 0.5 MHz~1.5 MHz & 88 MHz~108 MHz	ipex	L30*W26. 5*H2mm	3M adhesive tape	

Communication Antenna

Product model	Electrical character	Jumper connector	Antenna size	Fixed form	Picture
UWB antenna	Frequency: 2~6 GHz	ipex	L20*W12*H0.8mm	3M adhesive tape	
4G antenna	Frequency: 824 MHz-5G	ipex	L63.7*W25.5*T0.6mm	3M adhesive tape	
4G antenna	Frequency: 700 MHz-5G	ipex	L58*W29T1mm	3M adhesive tape	
5G antenna	Frequency: 824 MHz-5G	sma	Φ 22.58*L274mm	Thread locking	
5G Skyline	Frequency: 1.7~5 GHz	ipex	L32*W21.5*T0.5mm	3M adhesive tape	
AM/FM flexible board antenna	Frequency: 0.5 MHz~1.5 MHz & 88 MHz~108 MHz	BNC	L350*W30*H0.6mm	3M adhesive tape	
FM antenna	FM: 87.5~108MHz; LNA: 10±3dB	The FAKRA universal connector is customizable.	L110mm*W19mm° T14mm	Screw fixing	
DAB antenna	DAB170~240MHz; LNA: 10±3dB	The FAKRA universal connector is customizable.	L110mm*W19mm*T14mm	Screw fixing	
PAMQ4G2458M4 N1_J500MM Dual 4G + dual WIFI antennas	4G: 824~960MHz, 1710~2700MHz WIFI: 2.4&5.8GHz	SMA-J	L131*W70*T20mm (excluding the rubber pad dimensions)	Side outlet Double-sided adhesive tape	

HX-AULT010

High-precision positioning intelligent connected vehicle antenna

The HXAULT010 is a four-system full-frequency external automotive antenna supporting BDS, GPS, GLONASS, and GALILEO, capable of operating simultaneously in the L-band frequency range. Featuring a compact design with high gain, exceptional sensitivity, low power consumption, and minimal wind resistance, it significantly enhances positioning accuracy and speed for high-speed mobile targets. Designed to meet stringent vehicle navigation requirements, this antenna finds applications in lane-level positioning and advanced automotive precision systems.

Antenna dimensions:W75' L75' H26MM

technical feature

- Small size enables vehicle miniaturization for on-board use.
- GNSS covers all frequency bands with extensive signal coverage
- High-position phase center for achieving high-precision positioning
- High anti-interference capability, providing stable and reliable GNSS signals
- Compliance with vehicle classification test requirements

application area



Self-driving truck



Self-driving bus



Unmanned ehi-cle

Antenna performance

Frequency range	1557MHz~1612MHz, 1164MHz~1278MHz	GPS L1/L2/L5
	BDSB1/B2/B3	GLONASSG1/G2/G3 GALILEOL1/E5a/E5b
Impedance	50 ohms	
Polarization Method	Right-handed circular polarization	
Horizontal surface coverage angle	360°	
VSWR	≤2.0	
Gain (typical value)	French direction: 4 dBic;	
Axial ratio	≤3dB	
Phase center error	≤5mm	

Structural Characteristics

Antenna size	W75' L75' H26MM
Joint type	Fakra Z female connector (customizable; common connectors:SMA male connector, Fakra Z male connector)

Low-noise amplifier specifications

LNA Gain	30±3dB
	(Customizable according to the actual module)
Gain Flatness	±2dB
LNA Noise Figure	≤2dB
LNA Output VSWR	≤2
LNA Operating Voltage	+3.3~+12VDC
LNA Operating Current	≤45mA

Work Environment

Working temperature	-40° C~+85° C
Storage Temperature	-40° C~+95° C
Dust and water resistance rating	Ip67



Antenna dimensions:L 160*W 85*H 68.2 mm

HX-AUST002

Shark Fin Smart Connected Vehicle Antenna

HX-AUST002 is a four-system, full-band intelligent vehicle antenna that integrates GNSS antenna unit, 5G antenna unit, and V2X antenna unit. With its high integration level, the antenna achieves high-precision positioning while reducing system communication complexity, thereby enhancing overall vehicle communication performance and efficiency. It is suitable for autonomous driving applications at Level 3 and above.

Antenna performance	
Frequency range	GNSS: L1: 1557MHz~1612MHz L2: 1164~1278MHz
	5G1/2: 824~960 MHz 1710~2690MHz
	3300~3600 MHz 4800~5000 MHz
	5G34: 1710~2690MHz 3300~3600MHz 4800~5000MHz
	V2X1 main/secondary unit: 5850~5925 MHz
Impedance	50 ohms
Polarization Method	GNSS: Right-handed circular polarization 5G/V2X: Linear polarization
Axial Ratio (Normal)	≤3dB
Horizontal surface coverage angle	360°
VSWR	GNSS: ≤2.0; 5G: low frequency ≤5.5, high frequency ≤4.5; V2X: ≤2.0
Gain/(typical value/average value)	GNSS: 3.5dBic; 5G1/2: 824M-960M ≥30%
	1710M-2170M ≥40% 2300M-2690M ≥40%
	3.3-3.6&4.8-5G ≥35%; 5G34/4: 1710M-2170M ≥35%
	2300M-2690M ≥35% 3.3-3.6&4.8-5G ≥35%;
V2X HAverage Gain: -1.5dBi	
Insulation	Within units (same system): ≤-9 dB Between systems: ≤-15 dB
Change in phase center	≤3mm

Structural Characteristics	
Antenna size	L160*W85*H68.2mm
Joint type	FakraZ male connector (customizable; common connectors: SMA male connector, FakraZ male connector)
Way to install	Thread locking

technical feature

- GNSS's total system-wide operating bandwidth across all frequency bands
- Integrated Conduction and Communication Function
- Highly stable phase center
- Inhibition of Co-frequency Coupling: Various Isolation Technologies
- high performance cost ratio
- Simple to install and easy to manage

Application area



Low-noise amplifier specifications	
Low-noise amplification gain	33±3dB (Customizable according to the actual module)
Gain flatness	±2dB
Low-noise amplifier noise coefficient	≤2dB
Low-noise amplifier output standing wave	≤2
Low-noise amplifier operating voltage	+3.3~+12VDC
Low-noise amplifier operating current	≤55mA
Low-noise differential transmission delay	≤5ns
V2X antenna low-noise amplifier	Customizable for specific scenarios

Work Environment

Working temperature	-40°℃~+85℃
Storage temperature	40°℃~+95°℃
Dust and water resistance rating	Ip67



Antenna dimensions:W95.3 * L95.3 * H34.5 mm

HX-AULT008

High-precision positioning intelligent connected vehicle antenna

The HX-AULT008 is a four-system, full-frequency external vehicle-mounted antenna supporting BDS, GPS, GLONASS, and GALILEO signals. Featuring a compact design, high gain, exceptional sensitivity, low power consumption, and low wind resistance, it significantly enhances positioning accuracy and speed for high-speed mobile targets. Compatible with various receivers, this product is suitable for diverse applications, particularly in high-speed mobility scenarios. It can also be configured with dual antennas for attitude measurement applications.

antenna performance		
Frequency range	GPS L1/L2/L5	BDS B1/B2/B3
	GLONASS L1/L2/L3	GALILEO E1/E5a/E5b/E6
	L_Band	
Impedance	50 ohms	
Polarization Method	Right-handed circular	
Horizontal surface coverage angle	360°	
VSWR	≤2.0	
Axial Ratio (Normal)	≤2dB	
Gain	Directional pattern: 4.5 dBic (typical value)	
GNSS phase center	PCO: X north ≤3 mm; Y east ≤3 mm	

Structural Characteristics	
Outline dimension	W95.3 * L95.3 * H34.5mm
Kernel size	W85 * L85 * H23mm
Joint type	FAKRA-Z parent head RG174 (irradiated)
Way to install	The outer line of the housing is 20 cm long (total bus length: 25 cm) (DL Line))The antenna cable extends from the side and is secured with adhesive.

Technical Feature

- GNSS covers all frequency bands, with functions comparable to those of measurement-type antennas.
- Highly stable phase center
- **Strong anti-interference capability**
- Complies with automotive-grade testing requirements

application area



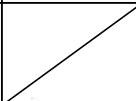
Low-noise amplifier specifications	
GNSS low-noise amplification gain	40±2 dB (customizable)
GNSS low-noise signal with 100 MHz out-of-band suppression	≥40dB
GNSS low-noise noise reduction coefficient	≤2dB
GNSS low-noise output standing wave	≤2.0
GNSS low-noise band flatness within the frequency range	±2dB
GNSS low-noise transmission operating voltage	+3.3~+12VDC
GNSS low-noise operation current	≤55mA
GNSS low-noise differential transmission delay	≤5ns

Work Environment

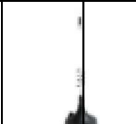
Working temperature	-40° C~+85° C
Storage temperature	40° C~+95° C
Dust and water resistance rating	Ip67

■ WIRELESS COMMUNICATION ANTENNA

Cellular communication antenna

Product model	Frequency range	Gain	Antenna element	Output Standing Wave Ratio	Joint type	Antenna size	Picture
PAMQ5GM4N1J500MM 5G All-Network Antenna	5G main band: 820 MHz~960 MHz; 1710 MHz~5000 MHz	3.0@820~960 7.0@1710~5000	4	≤ 3.0	The SMA universal connector is customizable.	L131.5*W73.5*H20mm	
	5G Deputy 1710MHz~5000MHz	7.0@1710~5000					
PAM900CVT11M13_K1M 4G Main & Diversity Antenna	4G primary band: 824 MHz~960 MHz; 1710 MHz~2690 MHz	1.5@820~960 4.0@1710~2690	2	≤ 2.5	The FAKRA universal connector is customizable.	L110*W42*H18.3mm	
	4G secondary 1710MHz~2690MHz	3.0@1710~5000					
LTE_PM900U11V5.0_K2.5M 4G Main Antenna	820MHz~960MHz 1710MHz~2170MHz 2500MHz~2700MHz	1.0@820~960 2.0@1710~2170 2.0@2500~2700	1	≤ 2.0	The FAKRA universal connector is customizable.	L108*W18*H4.5mm	
LTE_PM900WT1J3M Rubber Duck 4G Antenna	820MHz~960MHz 1710MHz~2170MHz 2500MHz~2700MHz	1.0@820~960 2.0@1710~2170 2.0@2500~2700	1	≤ 2.0	The SMA universal connector is customizable.	L117*W21.5*H4.5mm	
GSM_PL900K1_J Rubber Duck 4G Antenna	820MHz~960MHz 1710MHz~2700MHz	3.0@820~960 5.0@1710~2700	1	≤ 2.0	SMA universal joint	L157*W21mm	
LTE_PL900W1_G3M Rod-Type 4G Antenna	820MHz~960MHz 1710MHz~2700MHz	2.0@820~960 5.0@1710~2700	1	≤ 2.0	The SMA universal connector is customizable.	68*H276 mm	

WIFI/BT communication antenna

Product model	Frequency range	Gain	Antenna element	Output Standing Wave Ratio	Joint type	Antenna size	Picture
PAMW2458GM4N11_K1.6M Dual WIFI supports dual BT antennas	Dual WIFI 2400MHz~2500MHz 5150MHz~5850MHz	6.0@2400~2500 6.0@5150~5850	4	≤ 3.0	The FAKRA universal connector is customizable.	L131.5*W73.5*H20mm	
	Dual BT 2400MHz~2500MHz	6.5@2400~5000		≤ 2.5			
WIFI_PAMDE1W1W_J1M Dual WIFI Antenna	2400MHz~2500MHz 5000MHz~6000MHz	3.5@2400~2500 4.0@5000~6000	2	≤ 3.5	The SMA universal connector is customizable.	77mm x H15mm	
WIFI_PAM2458S10_K200MM WIFI antenna	2400MHz~2500MHz 5100MHz~5800MHz	2.5@2400~2500 3.0@5100~5800	1	≤ 3.0	The FAKRA universal connector is customizable.	Medium 52*H14.2mm	
PAM2458YS1_LS01_J1M WIFI antenna	2400MHz~2500MHz 5100MHz~5800MHz	2.5@2400~2500 3.0@5100~5800	1	≤ 3.0	The SMA universal connector is customizable.	φ46.4*H14mm	
WIFI_PL2400C1D_J Adhesive WIFI rod antenna	2400MHz~2500MHz 5150MHz~5850MHz	3.5@2400~2500 3.5@5150~5850	1	≤ 2.0	SMA universal joint	7.8H108.1mm	
WIFI_WA2400A1D V2.0_G5M Magnetic suction rod cylindrical WIFI antenna	2400MHz~2500MHz 5150MHz~5850MHz	5.0/No line loss calculated	1	≤ 2.0	The SMA universal connector is customizable	φ45*H150.5mm	

PAMQ5GM4N1_J500MM

5G full-network antenna

The PAMQ5GM4NJ500MM is a high-gain combined communication antenna featuring: the 1st and 4th radiation elements support 2G/3G/4G/5G frequencies; the 2nd and 3rd elements operate on 4G/5G frequencies; its 4-element design ensures superior anti-interference performance, making it widely applicable in vehicle communications, Industry 4.0, and IoT communication applications.



Antenna dimensions:
L131.5*W73.5*H20mm

technical feature

- ◎The antenna has a high peak gain.
- ◎Low standing wave ratio, high efficiency, and strong anti-interference capability
- Widely applicable, suitable for various vehicle models and multiple installation positions.
 - Glue-on type, easy to install
- ◎Sturdy and durable construction

Antenna performance

Antenna element	There are 4 antenna units.
Frequency range	5G main antenna: 820 MHz~960 MHz 1710MHz~5000MHz 5G secondary antenna: 1710 MHz to 5000 MHz
Gain	5G main antenna 3.0@820~960 7.0@1710~5000 5G secondary antenna 7.0@1710-5000
Output Standing Wave Ratio	≤3.0

Structural Characteristics

Antenna size	L131.5*W73.5*H20mm
Joint type	SMA universal connector, customizable

LLE PM900WT1_J3M

4G main antenna

LLE PM900WT1_J3M 是一款入门级车体无线通讯天线, 全频工作, 易于安装, 容量大

④④4G communication frequencies are widely used in vehicles due to their excellent cost-performance ratio.

Phone: 13624808888

Tianhong Automobile:
81879825*945

technical feature

④Line-polarized omnidirectional communication antenna

④Ultra-long broadband with high efficiency

④ Widespread application: Compatible with various vehicle models and handheld navigation devices

④Easy installation: Adhesive tape mounting, slot positioning, and customizable cables and connectors

④Small size and lightweight

④Sturdy and durable construction

application area



Antenna performance

Antenna element	There are 4 antenna units.
Frequency range	820MHz~960MHz
	1710MHz~2170MHz
	2500MHz~2700MHz
Gain	1.0@820~960
	2.0@1710~2170
	2.0@2500~2700
Output Standing Wave Ratio	≤2.0

Structural Characteristics

Antenna size	L117*W21.5*H4.5
Joint type	SMA universal connector, customizable



Antenna size: $\phi 45^{\circ}$ H150.5mm

WIFI_WA2400A1DV2.0_G5M

Magnetic suction rod-shaped WIFI antenna

The WIFI_WA2400A1DV2.0_G5M is a rod-shaped WiFi cable polarized communication antenna with compact size and lightweight design. Its base features a magnetic suction design for easy installation, making it widely applicable in various handheld devices and WiFi terminals.

technical feature

- Line-polarized omnidirectional communication antenna
- 2.4GHz& 5.8GHz dual-band, high efficiency
- Widespread application: Suitable for various communication terminals requiring clear installation space
- Easy to install: Magnetic mounting
- Small size and lightweight

application area



Device Communication WiFi Terminal

Antenna performance				Structural Characteristics	
Antenna element	1 antenna unit	Gain	5.0/No line loss calculated	Antenna size	$\phi 45^{\circ}$ H150.5mm
Frequency range	820MHz~960MHz 1710MHz~2170MHz	Output Standing Wave Ratio	≤ 2.0	Joint type	SMA universal connector, customizable
	2500MHz~2700MHz				



Antenna dimensions: $\phi 7.8^{\circ}$ * H108.1mm

WIFI_PL2400C1D_J

Adhesive rod WIFI antenna

The WIFI_PL2400C1D_J is a rod-shaped WiFi cable polarized communication antenna, featuring compact size and lightweight design. It connects directly via SMA male-female connectors and is widely used in various handheld devices and WiFi terminals.

technical feature

- Line-polarized omnidirectional communication antenna
- 2.4GHz& 5.8GHz dual-band, high efficiency
- Widespread application: Suitable for various communication terminals requiring clear installation space
- Easy installation: SMA male-female connector interface
- Small size and lightweight

application area



Antenna performance				Structural Characteristics	
Antenna element	1 antenna unit	Gain	3.5@2400~2500	Antenna size	$\phi 7.8^{\circ}$ H108.1mm
Frequency range	2400MHz~2500MHz		3.5@5150~5850 ≤ 2.0	Joint type	SMA universal joint
	5150MHz~5850MHz	The output standing wave ratio is ≤ 2.0			

CERAMIC ANTENNA

Satellite positioning antenna

Product model	Frequency range	Gain	Standing wave ratio	Outline dimension	Polarization Method	Picture
SPATB1L1G1364 BL 5456_JHS04 Four-system dual-frequency ant-enna	GPS L1/L5 BDS B1/B2a GLONASS G1 GALILEO E1/E5a	3.5@B1L1E1G1 3.0@L5E5aB2a	≤ 2.0	45*45*6mm+36*36*4mm	RHCP	
SPATL1364BL54 08_G003 Four-system dual-frequency ant-enna	GPS L1/L5 BDS B1 GLONASSG1 GALILEO E1/E5a	3.5@B1L1E1G1 2.5@L5E5a	≤ 2.0	40*40*8mm+36*36*4mm	RHCP	
SPATL1364BL53 66_G002 Four-system dual-frequency ant-enna	GPS L1/L5 BDS B1 GLONASS G1 GALILEO E1/E5a	3.0@B1L1E1G1 1.5@L5E5a	≤ 2.0	36*36*6mm+36*36*4mm	RHCP	
GGL5-36H325H 4- JHY06 Three-system dual-frequency antenna	GPS L1/L5 GLONASSG1 GALILEO E1/E5a	3.0	≤ 1.5	36*36*3mm+25*25*4mm	RHCP	
SPATL1254BL5 334_G001 Dual-system, dual-frequency an-tenna	GPS L1/L5 BDS B1 GLONASS G1 GALILEO E1/E5a	1.0@B1L1E1G1 1.0@L5E5a	≤ 2.0	33*33*4mm+25*25*4mm	RHCP	
SPATL1182BL5 254_J7002 Dual-system, dual-frequency an-tenna	GPS L1/L5 GALILEO E1/E5a	2.5	≤ 2.0	25*25*4mm+18*18*2mm	RHCP	
DAS1582R36D 36-3F Four-system single-frequency antenna	GPS L1 BDSB1 GALILEO E1 GLONASSG1	4	≤ 1.5	36*36*6mm	RHCP	
DAS1595R25Y 14-70 Dual-system single-frequency antenna	GPS L1 GLONASS G1	2.5	≤ 1.5	25*25*4mm	RHCP	
DAS1575R25C 12-70 Single-system, single-frequency antenna	GPS L1	3.0	≤ 1.5	25*25*2mm	RHCP	
DAS1575R20C 14-50 Single-system, single-frequency antenna	GPSL1	3.0	≤ 1.5	20*20*4mm	RHCP	

Satellite positioning antenna

Product model	Frequency range	Gain	Standing wave ratio	Outline dimension	Polarization Method	Picture
DAS1575R18C 14_Y5003 Single-system, single-frequency ant-enna	GPSL1	2.5	≤ 1.5	18*18*4mm	RHCP	
DAS1575R15C 4-30 Single-system, single-frequency antenna	GPS L1	0.5	≤ 1.5	15*15*4mm	RHCP	
DAS1575R12C 14_Y2001 Single-system, single-frequency antenna	GPSL1	-2.0	≤ 1.5	12*12*4mm	RHCP	
DAS1575R10C 14-20 Single-system, single-frequency antenna	GPS L1	-4.0	≤ 1.5	10*10*4mm	RHCP	
DA11176X104C 13_C02A Single-system, single-frequency antenna	GPS L5	-1	≤ 2.5	10*4*3mm	Linear	
DAI1032_WO6A Four- system dual-frequency antenna	GPSL1/L2/L5 BDS B1/B2/B3 GALILEO L1/E5 a/E5b GLONASS G1/G2/G3	3	$\leq 3.5 @ 1557 \sim 1612 \text{MHz}$ $\leq 2.5 @ 1164 \sim 1278 \text{MHz}$	10*3.2*1.5mm	Linear	

Wireless communication antenna

Product model	Frequency range	Gain	Standing wave ratio	Outline dimension	Polarization Method	Picture
GSM_PA1_900-1800A Cellular mobile communication ant-enna	890-960MHz 1710-2170MHz	1.5@890-960MHz 3.0@1710-2170MHz	≤ 3.0	24*5.6*4.4mm	Linear	
DA1790_2700_WO7A Cellular mobile communication antenna	790-960MHz 1700-2700MHz	1.5@790-960MHz 4.5@1700-2700MHz	≤ 3.5	33*6*3mm	Linear	
DAI868_928_W10A Honey-comb mobile communication antenna	790-960MHz 1700-2700MHz	1.0@790-960MHz 1.0@1700-2700MHz	≤ 3.5	9*3*0.53mm	Linear	

SPATB1L1G1364BL5456_JHS04

IV. System Dual-Frequency Antenna

The SPATB1L1G1364BL5456_JHS04 is a high-performance, large-diameter passive RTK built-in ceramic antenna supporting both L1 and L5 frequency bands. Featuring the industry-leading 45×45 mm × 6 mm + 36×36 mm × 4 mm ceramic element design, it delivers exceptional performance, fully meeting decimeter-and centimeter-level navigation requirements. Widely used in lane-level navigation, precision agriculture, and lawn mower applications, this antenna excels in demanding positioning scenarios.



Antenna dimensions: 45*45*6mm+ 36*36*4mm

technical feature

- ◎ high gain
- ◎Dual-fed point design, flat-shaped compact structure
- ◎ Low reflection loss, small aspect ratio, and excellent phase center stability
- ◎Glue-on design for easy installation
- ◎It has wide applications and can be used with modules for multi-location installation.

Antenna performance

Frequency range	GPSL1/L5 BDS B1/B2a
	GLONASS G1
	GALILEO E1/E5a
Antenna axis ratio	≤5.0dB
Phase center	<2mm
Standing wave ratio	≤2.0
Gain	3.5@B1L1E1G1
	3.0@L5E5aB2a
Polarization Method	RHCP

Structural Characteristics

Antenna size	45*45*6mm+36*36*4mm
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Antenna dimensions: 33*33*4mm+ 25*25*4mm

- It has wide applications and can be used with modules for multi-location installation.

SPATL1254BL5334_G001

Four-system dual-frequency antenna

The SPATL1254BL5334_G001 is a mainstream RTK passive ceramic antenna with high cost-effectiveness and dual-band coverage (L1/L5). Featuring the industry-standard 33*33*4 mm and 25*25*4 mm ceramic chip designs, it fully meets decimeter-and centimeter-level navigation requirements and is widely used in lane-level navigation, precision agriculture, and lawn mower applications.

technical feature

- High cost-performance ratio
- Dual-fed point design, flat-shaped compact structure
- Low reflection loss, small aspect ratio, and high gain
- Glue-on design for easy installation

application area



Antenna performance		Structural Characteristics	
Frequency range	GPSL1/L5 BDS B1	standing wave ratio	≤ 2.0
	GALILEOE1/E5a GLONASSL1	gain	1.0@B1L1E1G1L, 0@L5E5a
Antenna axis ratio	≤ 5.0 dB	Polarization Method	RHCP

Antenna dimensions: 33*33*4 mm + 25*25*4 mm



Antenna dimensions: 25*25*4mm+ 18*18*2mm

technical feature

- Ultra-small size
- Single feed point design, flat-shaped compact structure
- Low reflection loss, small aspect ratio, and high gain
- Glue-on design for easy installation
- Widely applicable, it is implemented in various automotive and consumer scenarios.

SPATL1182BL5254_J7002

Dual-system, dual-frequency antenna

The SPATL1182BL5254_J7002 is a compact, passive RTK ceramic antenna with dual-band (L1/L5) coverage. It features the industry-leading ceramic chip design measuring 25*25*4 mm and 18*18*2 mm in diameter. Its ultra-compact size enables broad compatibility with various handheld devices.



Antenna performance		Structural Characteristics	
Frequency range	GPSL1/L5	Standing wave ratio	≤ 2.0
	GALILEOE1/E5a	Gain	2.5
Antenna axis ratio	≤ 5.0 dB	Polarization Method	RHCP

Antenna dimensions: 25*25*4 mm + 18*18*2 mm



Antenna dimensions: 25*25*4 mm

DAS1595R25Y14_70

Dual-system single-frequency antenna

DAS1595R25Y14_70 is a mainstream built-in passive ceramic antenna currently available on the market, widely used in various fields such as vehicle navigation, vehicle monitoring, and handheld devices.

technical feature

- High cost-performance ratio, mainstream in the market
- Single feed point design, flat-shaped compact structure
- Low reflection loss, small aspect ratio, and high gain
- Glue-on design for easy installation
- It has wide applications and can be used with modules for multi-location installation.

application area



Antenna performance			Structural Characteristics
Frequency range	GPSL1	Standing wave ratio	≤1.5
	GLONASSL1	Gain	2.5
Antenna axis ratio	≤5.0dB	Polarization Method	RHCP

Antenna dimensions: 25*25*4 mm



Antenna dimensions: 18*18*4 mm

DAS1575R18C14-Y5003

Single-system, single-frequency antenna

The DAS1575R18C14-Y5003 is a mainstream built-in passive ceramic antenna currently available on the market, widely used in various applications such as in-vehicle navigation systems, vehicle monitoring systems, handheld devices, and consumer-grade drones.

Technical feature

- High cost-performance ratio, mainstream in the market
- Single feed point design, flat-shaped compact structure
- Low reflection loss, small aspect ratio, and high gain
- Glue-on design for easy installation
- It has wide applications and can be used with modules for multi-location installation.

Application area



Antenna performance			Structural Characteristics
Frequency range	GPSL1	Standing wave ratio	≤1.5
	≤5.0dB	gain	2.5
		Polarization	RHCP

Antenna dimensions: 18*18*4 mm



Antenna dimensions: 10*3.2*1.5 mm

DAI1032_WO6A

Four-system dual-frequency antenna

DAI1032_Wo 6A is a patch-type GNSS antenna covering BDS, GPS, GLONASS and GALILEO signals, based on microwave ceramic substrate, featuring miniaturization, high gain, solder resistance and high reliability.

technical feature

- High cost-performance ratio, mainstream in the market
- Flat-shaped small structure with low reflection loss and high gain
- Widespread applicability: Can be used in conjunction with modules to enable multi-location installation on various positioning terminals.
- Surface-mount design for easy assembly

application area



	Antenna performance		Structural Characteristics
	GPS L1/L2/L5 BDS B1/B2/B3	standing wave ratio $\leq 3.5@1557-1612$ MHz; $\leq 2.5@1164-1278$ MHz; antenna dimens	10*3.2*1.5mm
Frequency range	GALILEO L1/E5a/E5b	Gain: 3 dBi	
	GLONASS G1/G2/G3w	Polarization Method	Linear



Antenna dimensions: 33*6*3 mm

DAI790_2700_W07A

Cellular mobile communication antenna

DAI790_2700_W07A is a patch-type communication antenna covering 2G,3G and 4G signals.Based on microwave ceramic substrate, it features miniaturization, high gain, solder resistance and high reliability, and is widely used in various handheld terminals and communication equipment.

technical feature

- High cost-performance ratio, mainstream in the market
- Flat-shaped small structure with low reflection loss and high gain
- Widespread application: Suitable for various communication terminals requiring clear installation space
- Surface-mount design for easy assembly

application area



	Antenna performance		Structural Characteristics
	790-960MHz	Standing wave ratio	≤ 3.5
Frequency range	1700-2700MHz	Gain	1.5dBi@790-960MHz 4.5dBi@1700-2700MHz
		Polarization Method	Linear

IOT RFID ANTENNA

RFID Reader Antenna

Product model	Frequency range	Gain	Antenna axis ratio	Output Standing Wave Ratio	Joint type	Antenna size	Picture
PAM915UNI_ S110MM Ceramic reader/ writer antenna	866-868MHz (EU) 902-928MHz (US)	5.5dBic	$\leq 3\text{dB}$	≤ 1.5	The SMA universal connector is customizable.	80*80" 6mm @ ceramic antenna; 120*120*8mm @ integrated unit	
PAM915TPNI_ S100MM Ceramic reader/ writer antenna	866-868 MHz (EU) 902-928MHz (US)	2.5dBic	$\leq 3\text{dB}$	≤ 1.5	The SMA universal connector is customizable.	60*60*6mm @ceramic antenna; 70*70*8mm @unit	
PAM915WPNI_ S110MM Ceramic reader/ writer antenna	866-868 MHz (EU) 902-928MHz (US)	2.2dBic	$\leq 3\text{dB}$	≤ 1.5	The SMA universal connector is customizable.	40*40*5mm @ceramic antenna; 50*50*7mm @ unit	
PAM915ANI_ S110MM Ceramic reader/ writer antenna	866-868MHz (EU) 902-928 MHz (US)	0.5dBic	$\leq 3\text{dB}$	≤ 1.5	The SMA universal connector is customizable.	25*25*4mm @ceramic antenna; 35*35*5mm @unit	
PAM915WPNI_ S300MM Ceramic reader/ writer antenna	866-868 MHz (EU) 902-928MHz (US)	2.2dBic	$\leq 3\text{dB}$	≤ 1.5	The FAKRA universal connector is customizable.	40*40*5mm @ceramic antenna; 50*50*7mm @ unit	
PAM915YDI_SK 100MM Air reader antenna	902~928MHz	8.0dBic	$\leq 3\text{dB}$	≤ 1.5	The SMA universal connector is customizable.	260*220*23.4mm	
UHF_ANT-15-2_ V3_JL01 Planar four-arm spiral antenna	902~928MHz	2.0dBic	$\leq 3\text{dB}$	≤ 1.5	The MMCX universal connector is customizable.	70*70*13.2mm	

RFID Tag Antenna

Product model	Frequency range	Applicable Chip	Work Agreement	Working temperature	Dimensions	Identification distance/ Metal	Picture
IDA915X2525- YZ25-937 Ceramic tile antenna	866-868 MHz (EU) 902-928 MHz (US)	AlienH Series / Impinj M Series	EPC/ISO18000-6C	-20° °C~+85°C	25*25*2.75mm	10.5	
IDA915X2509- EP6066 Ceramic tile antenna	866-868 MHz (EU) 902-928MHz (US)	Alien H Series / Impinj M Series	EPC/ISO 18000-6C	-20°C~+85°C	25*9*3mm	8	
IDA923X2117- TX21 Ceramic tile antenna	866-868 MHz (EU) 902-928 MHz (US)	Alien H Series / Impinj M Series	EPC/ISO 1800-6C	-20°C~+85°	21*17*2.25mm	7.5	
IDA915X Φ 16- TX16-930 Ceramic tile antenna	866-868 MHz (EU) 902-928MHz (US)	AlienH Series / Impinj M Series	EPC/ISO18000-6C	-20° °C~+85°C	Φ 16*2mm	4.5	
IDA923X Φ 10- YZ10-960 Ceramic tile antenna	866-868 MHz (EU) 902-928MHz (US)	AlienH Series / Impinj M Series	EPC/ISO 1800-6C	-20°C~+85°C	Φ 10*1.5mm	1.8	

RFID electronic tag

Product model	Frequency range	Applicable Chip	Work Agreement	Working temperature	Dimensions (mm)	Identification distance/Metal (m)	Picture
TAC915X2525H3N W_YZ25-937 Ceramic electronic tag	National Standard / US Standard / European Standard	ALIEN H3 is customizable	EPC/ISO 18000-6C	Metallic state/ Non-metallic state	25*25*2.75mm	11	
TAC915X2509H3N B_EP6066 Ceramic electronic tag	National Standard / US Standard / European Standard	ALIEN H3 is customizable	EPC/ISO 18000-6C	Metallic state/ Non-metallic state	25*9*3mm	8	
TAC915X2117H2N B_TX21 Ceramic electronic tag	National Standard / US Standard / European Standard	ALIEN H3 is customizable	EPC/ISO 18000-6C	Metallic state/ Non-metallic state	21*17*2.25mm	7	
TAC915X φ 10H2N B_YZ10-960 Ceramic electronic tag	National Standard / US Standard / European Standard	ALIEN H3 is customizable	EPC/ISO 18000-6C	Metallic state/ Non-metallic state	φ 10*1.5mm	2.2	
TAC915X0505H3N B_MT050503-920 Ceramic electronic label	National Standard / US Standard / European Standard	ALIEN H3 is customizable	EPC/ISO 18000-6C	Metallic state	5*5*3mm	1.5	
TAC915X0602H2N N_MT622-931 Ceramic electronic label	National Standard / US Standard / European Standard	ALIEN H3 is customizable	EPC/ISO 18000-6C	Metallic state	6*2*2mm	0.8	
TAP923X7028H3N N_P702803 PCB RFID	Guo Biao	ALIEN H3 is customizable	EPC/ISO18000-6C	Non-metallic state	70*28.5*3.3mm	4	
TAP923X4015H2N N_P401516 PCB electronic label	Guo Biao	ALIEN H3 is customizable	EPC/ISO 18000-6C	Metallic state	41*14.5*1.6mm	3	
TAE923X5720H3F N_IE12520 Flexible electronic tag	Guo Biao	ALIEN H3 is customizable	EPC/ISO 18000-6C	Metallic state	117.3*49.9*3.73mm	12	
TAE923X3838H3B N_IE9620 Lead-sealed electronic tag	Guo Biao	ALIEN H3 is customizable	EPC/ISO 18000-6C	Non-metallic state	38*33.4*12.2mm	1	

PAM915UN1_S110MM

Ceramic reader antenna;

The PAM915UN1_S110 MM is an ultra-high-frequency RFD reader-writer antenna featuring a PCB board integrated with a ceramic antenna.

Characterized by wide coverage range, high sensitivity, strong environmental adaptability, and convenient installation, it is widely used in intelligent applications.

Near-field reading applications such as container management, smart production lines, and tool management. Antenna dimensions: 120*80mm @ Integrated SMA Universal



technical feature

high gain

©low-loss

Widespread application: Compatible with various readers and writers

Installation method: Screw fixation

application area



built-in antenna

Built-in antenna, card reader, handheld

phone Device Cable



intelligent warehousing

Antenna Perform-ance

frequency range 866-868 MHz (EU)

902928MHZ (US) 3

Antenna axis ratio gain dB

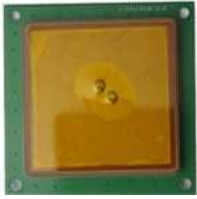
output stand-ing wave ratio 5. 5dBic

≤1. 5

Structural Chara-cteristics

size 80*80*6mm @ Ceramic Antenna; 120*120*8mm @ Integrated SMA Universal

Joint type Connector/Customizable



Antenna dimensions: 50*50*7 mm

PAM915WPN1_S300MM

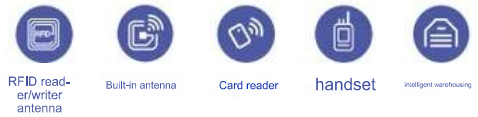
Ceramic reader/writer antenna

PAM915WPN1_S300MM is a cost-effective RFID reader antenna with a 40*40*5mm large aperture ceramic antenna, moderate reading and writing range, and simple installation method. It is widely used in RFID reader, card issuer and other fields.

technical feature

- High cost-performance ratio
- low-loss
- Widespread application: Compatible with various readers and writers
- **Installation method: Screw fixation**

application area



Behaviour of electricity			Structural Characteristics
Frequency range	86-868 MHz (EU) Gain 902-928 MHz (US) Output standing wave ratio	2.2dBic ≤1.5	Antenna dimensions: 40*40*5mm @ ceramic antenna 50*50*7mm @ Overall
Antenna axis ratio	≤3dB	Connection type: SMA universal connector/ customizable	



Antenna dimensions: 25*25*2.75 mm

TAC915X2525H3NW_YZ25-937

Ceramic electronic tag

TAC915X2525H3NW_YZ25-937 is a high-performance RFID ceramic electronic tag with a 25mm ceramic antenna and built-in RFID chip, with a long identification range of up to 11 meters. It is widely used in various metal-resistant RFID terminal devices.

technical feature

- Flat, small structure
- Low reflection loss
- High gain
- Small in size and light in weight
- Easy to install

application area



Behaviour of electricity				Structural Characteristics	
Central frequency (National Standard/ American Standard/ European Standard)	86-868MHz (EU) 902-928MHz (US) ≤3dB	Applicable Chip Work Agreement	ALIEN H3, customizable EPC/ISO 18000-5C	Antenna dimensions: 25*25*2.75 mm	Working temperature Metallic state/Non-metallic state
Identification Distance	11m				



Antenna dimensions: 5*5*3 mm

TAC915X0505H3NB_MT050503-920

Ceramic electronic tag

The TAC915X0505H3NB_MT050503-920 is a compact RFID ceramic electronic tag featuring an integrated RFID chip and a 5 mm diameter ceramic antenna, with an identification range of approximately 1.5 meters. It is widely used in various metal-resistant miniaturized RFID terminal devices.

Technical Feature

- Small Size
- Heat-resistant and metal-resistant
- Low reflection loss
- High gain

application area



Behaviour of electricity			Structural Characteristics		
Center Frequency (CN / US / EU Standards)	866~868 MHz (EU)	Applicable Chip	ALIEN H3, customizable		
	902~928 MHz (US) ≤3dB	Work Agreement	EPC/ISO 18000-6C		
Identification Distance	1.5m		Working temperature	Metallic state	



Antenna dimensions: 41*14.5*1.6mm

TAP923X4015H2NN_P401516

PCB RFID

The TAP923X4015H2NN_P4015160 is a long-shaped RFID PCB electronic tag equipped with an integrated RFID chip, offering an identification range of approximately 3 meters. It is widely used in various metal-resistant miniaturized RFID terminal devices.

Technical Feature

- Adopting a wire-polarized design with a flat, compact structure
- Low reflection loss
- High gain
- Large storage capacity for information
- The read/write distance is long.

application area



Behaviour of electricity			Structural Characteristics		
Central frequency (National Standard)	902~928MHz	Applicable Chip	ALIENH3, customizable	Antenna size	41*14.5*1.6mm
Identification Distance	3m	Work Agreement	EPC/ISO 18000-6C	Joint type	Metallic state



Antenna dimensions: 25*25*2.75 mm

IDA915X2525-YZ25-937

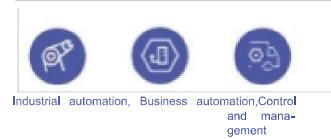
Ceramic tile antenna

The IDA915×2525-YZ25-937 is a high-performance RFID ceramic tag antenna featuring a 25mm diameter ceramic wire, with a recognition range of up to approximately 11 meters. It is widely used in various RFID terminal devices resistant to metal interference.

Technical Feature

- Adopting a wire-polarized design with a flat, compact structure
- Low reflection loss
- High gain
- Large storage capacity for information
- The read/write distance is long.

application area



Antenna performance		Structural Characteristics	
Center frequency	866-868 MHz (EU)	Dimensions	25*25*2.75mm
	902-928MHz (US)	Applicable Chip	AlienH series/Impinj M Series
Identification Distance	10.5m	Work Agreement	EPC/ISO 18000-6C



Antenna dimensions: $\phi 10 \times 1.5\text{mm}$

IDA923X 10-YZ10-960

Ceramic tile antenna

IDA923X $\phi 10$ -YZ10-960 is a cost-effective RFID ceramic tag antenna featuring a small-diameter ceramic antenna with a diameter of 10MM and a long identification range of approximately 1.8 meters. It is widely used in various metal-resistant RFID terminal devices.

Technical feature

- Adopting a wire-polarized design with a flat, compact structure
- Low reflection loss
- High gain
- Large storage capacity for information
- The read/write distance is long.



Antenna performance		Structural Characteristics	
Center frequency	866-868 MHz (EU)	Dimensions	$\phi 10 \times 1.5\text{mm}$
	902-928 MHz (US)	Applicable Chip	Alien H-series/Impinj M series
Identification Distance	1.8m	Work Agreement	EPC/ISO180006C

■ WIRELESS DATA TRANSCEIVER

TECHNICAL ADVANTAGES

Technological Superiority

Digital Modulation & Demodulation

Software-based codec technology delivers hardware-grade performance.

- Multi-modulation support
- Flexible, on-demand switching
- High performance at low cost
- Broad compatibility

Digital Filtering

Software-implemented filtering on high-performance DSP chips.

- Low passband attenuation
- Superior stopband rejection
- High performance, low-cost design

Forward Error Correction (FEC)

Advanced convolutional + RS concatenated coding.

- Stronger error correction
- Lower bit error rate
- Improved reception sensitivity
- Longer communication range

Serial Baud Rate Auto-Adaptation

- Auto baud rate matching
- Simplified operation
- Plug-and-play ease

Adaptive Frequency Hopping

- Robust anti-interference
- Secure communication
- Full-duplex simulation
- High spectral efficiency

RTK wireless data transmission radio

Typical Model		Frequency range	Radio frequency output power		Size	Picture
			High power	Low power		
Built-in data transmission and reception radio	HX-DU1022D	410~470MHz	1W@DC3.3V	0.5W@DC3.3V	33*26.5*3.5mm	
	HX-DU1006D	410~470MHz	1W@DC3.3V	0.5W@DC3.3V	70*47*11mm	
	HX-DU2003D	410~470MHz	2W@DC5V	0.5W@DC5V	70*47*11mm	
	HX-DU2004D	410~470MHz	2W@DC5V	0.5W@DC5V	82*47*11mm	
	HX-DU2005D	410~471MHz	2W@DC5V	0.5W@DC5V	75*46*11mm	
	HX-DU5002D	410~470MHz	5W@DC7.5V	1W@DC7.5V	75*46*11mm	
External data transmission radio	HX-U202	410~470MHz	30W@DC 12V	5W@DC 12V	186*140*65mm	
	HX-DU1601D	410~470MHz	1W@DC 12V	0.5W@DC12V	148*76*30mm	
	HX-DU8608D	410~470MHz	35W@DC12V	5W@DC 12V	186*140*73mm	
Driving Test Radio Station	HX-DU1012R	410~470MHz	DC3.3V	DC3.3V	57*36*8mm	
	HX-DU8609T	410~470MHz	10W@DC12V	5W@DC12V	103*78*41mm	
Frequency-hopping radio station	HX-DU2017D	840~845MHz	1W@DC3.3V	0.5W@DC3.3V	33*26.5*3.5mm	
		902~928MHz				
		865~867MHz				
		907.5~915MHz				
	HX-DU2601D	410~470MHz	1W@DC12V	0.5W@DC3.3V	63*45*15mm	
		840~845MHz				
		902~928MHz				
		865~867MHz				
		907.5~915MHz				
	HX-DU8616D SE	410~470MHz	30W@DC12V	5W@DC 12V	175*130*86.5mm	
		410~470MHz				
		410~470MHz				
eRadio External Data Transmission Radio	HX-DU8616D	410~470MHz	35W@DC 12V	5W@DC 12V	175*130*86.5mm	
	HX-DU8616DPro	410~470MHz	35W@DC 12V	5W@DC12V	175*130*86.5mm	

Low-power wireless data transmission module

Typical Model		Frequency range	Radio frequency output power			Size	Picture
			High power	Medium power	Low power		
Miniature built-in all-in-one data radio with transmission and reception capabilities	HXDU1021D	863~870MHz; 902~928MHz; 410~470MHz	High power (100 mW): 20 ± 1 dBm @ DC 3.3 V	Medium power (50 mW): 17 ± 1.2 dBm @ DC 3.3 V	Low power (15 mW): 14 ± 1.2 dBm @ DC 3.3 V	17.5*14*3.2mm	

HX-DU8616D

eRadio® 外置数传电台

Radio External Data Transmission Radio is the company's first intelligent radio, equipped with a visual CED display and multi-user functionality.

The functional operation buttons feature serial port intelligent recognition, enabling automatic pairing and connection with RTK devices. They support quick operation via mobile apps and allow customizable settings for parameters such as channels, frequencies, power levels, and communication protocols. The product incorporates the company's proprietary high-performance custom protocol ETALK, ensuring extended communication range.

Dimensions:
175*130*86.5 mm

technical feature

○ Smart recognition of power-on status

○ High-definition OLED display with visualization

○ Custom multi-functional button

○ Intelligent identification of serial port baud rate

◎ Customize quick actions in the mobile app

◎ Innovatively developed the ETALK communication protocol, offering long-range communication capabilities.

application area



for RTK use



Measurement and Mapping

Antenna performance

Frequency range	410~470MHz
Work pattern	Integrated sending and receiving, single transmission, radio relay
Channel spacing	25KHz、12.5KHz
Modulation mode	GMSK/4FSK
Number of channels	Supports 32 editable channels
Working voltage	9~16V
Power consumption (typical value)	Transmit high-power (28W) at 78W@12VDC
	Medium power output (22W): 60W @ 12VDC
	Low-power emission (5W): 35W @ 12VDC
	Standby: 2W @ 12V DC
Frequency stability	$\leq \pm 1\text{ppm}$

Physical Characteristics

Size	175*130*86.5mm
Weight	Approximately 2 kg
Antenna Interface	TNC, Mother Head
Antenna interface impedance	50ohm
Data interface	LEMO 5pin

Modem

Air Speed Rate	4800bps/9600bps/19200bps
Serial Port Rate	9600、19200、38400、57600、115200bps

Transmitter Performance Specifications

Radio frequency output power (410~470 MHz)	
High power (28 W):	$44.5 \pm 0.5 \text{ dBm @ DC 12 V}$;
Medium power (22 W):	$43.4 \pm 0.5 \text{ dBm @ DC 12 V}$;
Low power (5 W):	$37 \pm 1 \text{ dBm @ DC 12 V}$
Radio frequency power stability	$\pm 1\text{dB}$
Neighboring channel power	$>50\text{dB}$

Receiver Performance Specifications

Sensitivity	Superior to -114 dBm @ BER10 .
	9600bps
Common Channel Suppression	$>-12\text{dB}$



Dimensions:L 17.5*W 14*H 3.2 mm

HX-DU1021D

Miniature built-in integrated data transmission and reception radio

The HX-DU1021D is a compact, built-in wireless data radio with integrated transceiver, specifically designed for the lawn mower market and IoT wireless transmission applications. Supporting the 868/915 MHz ISM license-free frequency bands, this product features a compact size, low power consumption, extended communication range, superior reception performance, and strong interference resistance.

Antenna Performance

frequency range	863–870 MHz; 902–928
work pattern	MHz half-duplex
modulation mode	LORA
Number of channels	Supports 50 editable channels
Working voltage range	3.3–5V
Power consumption (typical value)	High-power emission: 400 mW @ 3.3 V DC Reception mode: 50 mW @ 3.3 V DC Total standby power: 5mW@3.3V DC

Structural Characteristics

size	17.5*14*3.2mm
weight	Approx-
Antenna Interface	imately 2
Antenna interface impedance	g of IPEX 50 ohm
data interface	20Pin SMT

technical feature

- Supports air port rate switching
- Supports serial port baud rate switching
- Supports multi-level power switching
- Supports the 868/915 MHz ISM band
- Supports a wide voltage supply range of 3.3–5.5 V
- The product features a stamp-hole design for easy internal integration.

application area



Modem

Air Speed	9600bps、19200ps
Serial port rate	115200bps、38400bps、 19200ps、9600ps

Transmitter Performance Specifications

Radio frequency output power	High power (100 mW): 20 ± 1.2 dBm @ DC 3.3 V Medium power (50 mW): 17 ± 1.5 dBm @ DC 3.3 V, low power (25 mW): 14 ± 1.5 dBm @ DC 3.3 V
receiving sensitivity	–123dBm@BER10°, 19200



Dimensions:L33*W26.5*H3.5 mm

HX-DU1022D

Built-in integrated data transmission and reception radio

The HX-DU1022D is a compact, multi-protocol integrated transceiver radio designed specifically for surveying and mapping applications as well as precision agriculture environments. It features a lightweight design, compact size, superior reception performance, low power consumption, and strong anti-interference capabilities. Key features include dual-power level switching, air interface baud rate selection, serial interface baud rate adjustment, and parameter configuration flexibility.

technical feature

- Supports air port rate switching
- Supports serial port baud rate switching
- Compatible with multiple communication protocols
- Supports online upgrade functionality
- Support H/L power switching

application area

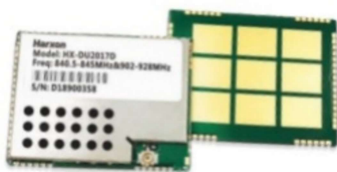


antenna performance	
Frequency range	410-470MHz
Work pattern	Half-duplex
Modulation mode	GMSK\4FSK
Belief Count	Supports 48 editable channels
Working voltage range	3.3-3.6V
Power consumption (typical value)	High-power emission: 4.0 W @ 3.3 V DC Low-power emission: 2.9 W @ 3.3 V DC
Standby power consumption: 0.3W@3.3VDC	

Structural Characteristics	
Size	33*26.5*3.5mm
Weight	Approximately 5.5 g
Antenna Interface	IPEX
Antenna interface impedance	50ohm
Data interface	80PinSMT

Modem	
Air Speed	9600ps、19200ps
Serial port rate	115200ps、38400ps、19200ps、9600bps

Transmitter Performance Specifications	
Radio frequency output power	High power (1.0 W): 30.2±1.0dBm@DC3.3V
	Low power (0.5 W): 27.0±1.2dBm@DC3.3V
Radio frequency power stability	≤±1dB
receiving sensitivity	>50dB@25KHz



Dimensions:L 17.5*W 14*H 3.2 mm

HX-DU2017D

Built-in frequency-hopping radio

The HX-DU2017D is a compact, built-in transceiver radio employing frequency hopping technology, specifically designed for surveying applications and drone control link environments. It features lightweight construction, compact size, superior reception performance, low power consumption, strong anti-interference capabilities, and frequency-hopping time-division duplex operation. Key functionalities include high-low power switching, air interface baud rate switching, serial port baud rate switching, and parameter configuration adjustment.

Antenna performance	
Frequency range	840–845MHz/902–928MHz/865–867MHz/907. 5–915MHz
Work pattern	Time division duplex
Modulation mode	GMSK
Working voltage	3. 60V
Power consumption (typical value)	Transmit high-power signals (2W output) at 7.0W @ 3.6VDC
	Launch a low-power device (0.5W output) with 2.5W @ 3.6VDC
	Receive 0.5W @ 3.6VDC

Structural Characteristics	
size	33*26. 5*3. 5mm
weight	
Antenna Interface	5g±0. 2g IPEX
Antenna interface impedance	50ohm
data interface	46Pin SMT

technical feature

- High/Low Power Switching: Two power levels – 1.5W and 0.5W
- Supports the 865–867 MHz frequency band and can be customized as needed
- Supports frequency-hopping full-duplex operation mode with strong interference resistance and long communication range.
- Supports air port rate switching
- Supports point-to-point, point-to-multipoint, and store-and-forward relaying.
- The surface-mount packaging facilitates easy internal integration.
- Supports serial port baud rate switching
- Support online upgrades

application area



Modem	
Air Speed	19200bps、38400bps、
	57600bps、115200bps、
	172800bps、230000ps

Transmitter Performance Specifications	
Radio frequency output power	High power (2W)
	900M: 30. 5±0. 5dBm@3. 6V
	840M: 32. 6±0. 5dBm@3. 6V
	Low power (0.5 W)
	27. 5±0. 5dBm@3. 6V
Radio frequency power stability	±1dB
Neighboring channel power	>50dB
second harmonic	>55dBc



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