



With two decades of excellence in microwave wireless technology, AWAN empowers clients through cutting-edge R&D and precision engineering. By leveraging sophisticated simulation tools and scalable manufacturing, we provide high-quality, customized antenna solutions at a competitive edge. Our expertise spans the entire spectrum of connectivity—from IoT and smart homes to network infrastructure and RF communication modules.



Responsible Business Alliance
Advancing Sustainability Globally



2000
Founded



500+
Group Employees



100+
R&D Members



100+
Exclusive patent



41M USD
Revenue (2025)



6818
Stock code TPEx

Our Strategic Milestones

2000 – 2026 • 26 YEARS OF INNOVATION

2000 - 2008

- **2000:** Wireless communication business was established in ACON.
- **2001:** Kunshan factory established.
- **2004:** Major mobile phone antenna supplier.
- **2007:** Leading laptop antenna supplier.



2009 - 2016

- **2010:** Expansion of production line in Jiang-Xi
- **2013:** Automated LDS production line
- **2016:** Build NFC design and test equipment



2017 - 2021

- **2017:** Brand "AWAN" officially established.
- **2019:** Expansion of production line in Vietnam.
- **2020:** Build 5G Dual-Mode CATR Chamber.
- **2021:** AWAN Successful IPO.



2022 – 2025+

- **2022:** Build SATIMO Chamber .
- **2023:** Entry into CPE & Base Stations.
- **2024:** Entry into Automotive modules & AHRS/INS.
- **2025:** Entry into LEO/ AGV/ AMR/ Robot.

World-wide Office & Manufacturing



Taipei (Headquarters)

- Design Center
- Sale and Market Center
- After Service



Kun-Shan

- Manufacturing Plant (CY: 7KK/M)
- Design Center
- Sale and Market Service



Japan (Shin-Yokohama)

- Sales and Market Service
- After Service



Jiangxi

- Manufacturing Plant (CY: 5KK/M)
- Sale and Market Service



USA (California)

- Sale and Market Service



Vietnam

- Manufacturing Plant (CY: 800K/M)
- Sale and After Service

Our Core Competency



Outstanding R&D Capabilities

- Strong academic background
- Advanced simulation software
- Standard 3D passive/active Chamber
- Advanced simulation software
- Design-center in Taipei and Kunshan
- Complete certification test equipment



Flexible & Timely Manufacturing

- Good co-operation between EE and ME for quickly sample preparation
- Advanced sampling & measurement equipment
- Strong quickly sample equipment:
 - ✓ Laser cutting & engraving
 - ✓ 3D printing
 - ✓ Etching machine
 - ✓ Dry film developing machine



Reliable & Efficient MP Experience

- Innovative Expertise in Tooling Development
- Multi - ports Network Analyzer Various manufacturing process
- Auto laser cable stripping & cutting
- Auto production process



Strict Quality Control

- ISO 9001, 14001
- Green Program Partner
- Lead-free and RoHS compliance
- EICC certification
- RBA VAP
- IATF16949

Complete Simulation Platform



- Computational add design (Simulation CST)
- Model analysis
- Element Pattern analysis
- S11, S21, Gain, Radio Pattern analysis
- Discuss Cost/Performance trade-off
- Suggest PCB/Metal Layout
- Suggest Antenna Location

- Provide 3D drawing for unite ME design at early stage to reduce the project design phase
- Fix layout location
- Maximize Performance
- Test for radiation pattern report

- Through-put report
- Corner through-put test report
- S11 report
- Unit pattern report
- Rental house test report



RF Measurement Facilities



Equipment photos		
Chamber Model	ETS (Taipei x3)	Bwant (Taipei x1)
Dimension	L*W*H 8M*4M*4M	L*W*H 7.1M*4.1M*4.2M
Support Frequency	600MHz ~ 7500MHz	600MHz ~ 7500MHz 22GHz ~ 40GHz
Equipment photos		
Chamber Model	MVG/StarLab (Taipei x2)	Yipu (Taipei x 1; KunShan x2)
Dimension	L*W*H 4M*4M*4M	L*W*H 5M*5M*5M
Support Frequency	600MHz ~ 7500MHz	600MHz ~ 7500MHz

RF Test & Sample Fabrication Equipment

Prototype Tools

- Flexible & Timely Antenna Sample Manufacturing
- Rapid PCB antenna prototype
- Rapid shite metal antenna prototype
- 3D printing enclosure Radio pattern Evaluation



Laser Sculpture Machine



Sculpture Machine



3D Printer



Network Analysis



**Automatic wire
crimping machine**

Quality Certifications



China

No.	International Standard	Description	Number	Certification Body
1	ISO 9001:2015	Design and manufacturing of wireless electronic components	112408012	ITS
2	QC 080000:2017	Design and manufacturing of wireless electronic components	IECQ-H MOODY 24.0010	ITS
3	ISO 14001:2015	Design, manufacturing, and related management activities of wireless electronic components	00125E31864R1M/3200	CQC
4	ISO 45001:2018	Design, manufacturing, and related management activities of wireless electronic components	00125S31580R1M/3200	CQC
5	ISO 22301:2019	Business continuity management activities related to the design and manufacturing of wireless electronic components	HXC18921BC1002R1M	Beijing Huaxinchuang
6	ISO 27001:2022	Information security management activities related to the design and manufacturing of wireless electronic components	15/25IS1548R00	WIT
7	RBA VAP	Silver Label	VAR-20240708-CN-01A01-5	BSI
8	IATF16949:2016	Production of printed circuit board assemblies	0547157	NQA
9	ISO 14064-1:2008	Production of printed circuit board assemblies	27325T10060ROM	Zhongren

Vietnam

No.	International Standard	Description	Number	Certification Body
1	ISO9001:2015	Design and manufacturing of wireless electronic components	KAC25/0171	KNA
2	ISO14001:2015	Design, manufacturing, and related management activities of wireless electronic components	2601134.EMS.CN26	KNA
3	RBA VAP	Silver Label	VAR-20241204-VN-01B02-2	BSI

ESG Status

➤ Strengthening ESG Capabilities

- Continuous enhancement of corporate capabilities aligned with global ESG trends
- Expansion of ESG certification framework to support sustainable operations and competitiveness.



➤ ISO27001 、ISO22301

Strengthening Secure and Resilient for Our Operations

➤ IATF16949 、ISO9001 、QC080000

Solid Foundation of Our Product Quality

➤ ISO14001 、ISO45001 、RBA

A Strong Foundation for Our Sustainable Growth

Fields of Application



NB / PC

People needed a smarter wireless connections. Through our extensive development experience and high-tech test labs, AWAN is confident that we can provide our customers excellent antenna designs with total solutions.



Netcom

Offering professional antenna technologies for network communication. Our expertise ensures reliable signal transmission and coverage for commercial and consumer devices.



Wearable Device

Our research capabilities can support a variety of mobile wearable devices, including NFC, BLE, LTE, 5G and other short range communication specifications, with the help of high-tech research centers and test labs.



IoT

Through our extensive development experience and high-tech test labs. Advancing the IoT landscape through continuous R&D of innovative antenna technologies.



NEW GROWTH

Auto/LEO/AHRS/INS

AWAN is expanding into the AUTO, LEO & AHRS/INS markets, seamlessly integrating its cutting-edge antenna design capabilities into modular solutions. This integration enhances product performance and delivers a more streamlined and reliable user experience

Application – PC & Laptop

High-performance Integrated Architecture for Next-Gen Device

Wireless Support

- Wi-Fi 2.4G/5G
- Wi-Fi 6E
- Wi-Fi 7
- WWAN MAIN / AUX
- WWAN MIMO 1
- WWAN MIMO 2



Structural Solutions

- ✓ Metal Ring
- ✓ Slot Antenna
- ✓ Hinge Antenna
- ✓ Speaker Antenna
- ✓ Y= 6mm Antenna
- ✓ Full band Tuner Antenna
- ✓ Curve type
- ✓ P-Sensor Integration
- ✓ Windowless series



Application- Ear Phone Series

TWS



- LDS Bluetooth Antenna for 2.4Ghz



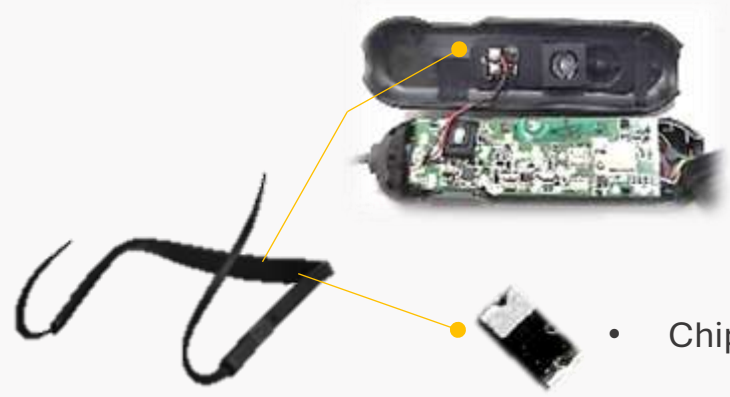
- LDS Antenna for 2.4Ghz



- Chip BT/Wi-Fi Antenna for 2.4Ghz



TWS Charging(WPC)



headphones

- FPC NFC Antenna for 13.56Mhz

- Chip BT/Wi-Fi Antenna for 2.4Ghz

Headset



- Stamped Metal BT/Wi-Fi Antenna for 2.4G

- Chip BT/Wi-Fi Antenna for 2.4G



Earphone

- FPC BT Antenna for 2.4Ghz

Application- Wearable



- **LDS Antenna**
 - WiFi 2.4G/5G
 - Bluetooth 2.4G
 - LTE 4G
 - GPS



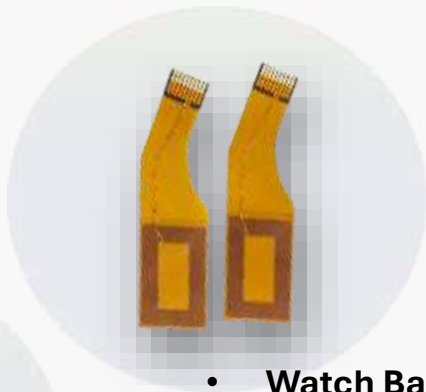
- **Chip Antenna**
 - WiFi 2.4G/5G
 - Bluetooth 2.4G
 - GPS
 - NFC 13.56Mhz



- **FPC Antenna**
 - NFC
 - WiFi 2.4G/5G
 - Bluetooth 2.4G



- **Watch WPC**
 - 13.56MHz Coil
 - WPC Coil



- **Watch Band Antenna**
 - NFC Antenna
 - LTE/Wi-Fi Antenna

Application- Handheld game console



- LDS Antenna
 - WiFi 2.4G/5G
 - Bluetooth 2.4G



- Chip Antenna
 - WiFi 2.4G/5G
 - Bluetooth 2.4G



- PCB/FPC Antenna
 - WiFi 2.4G/5G
 - Bluetooth 2.4G



- NFC
 - NFC Antenna
 - NFC Tag

Application- IoT



VR Helmet

VR helmet antennas focus on small size and high efficiency, so that customers can complete better product appearance



Smart Doorbell

Doorbells need to add WIFI antennas due to the demand for streaming video.



AR/Smart Glasses

The antenna of AR/smart glasses is often hidden in the frame. For the customer's product appearance, FPC can make more flexible for customers.



Tracker

Tracker's antenna applications for positioning are LTE, GPS positioning, LDS can effectively improve product space utilization.

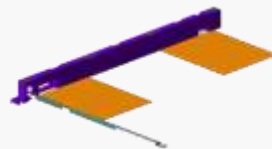
Thermostat

The thermostat uses the LDS antenna, in order to make the transmission distance longer, it uses 868/915MHz.



Smart photo frame

Smart photo frame is like a tablet computer, the antenna is usually hidden near the bezel.



Drone

The product demand for drones usually comes from GPS positioning, AHRS/INS, Wi-Fi transmission, and BT communication.



Application- Netcom

High-Performance 5G Antenna Solutions



Base Station

5G Array Antenna

We offers flexible solutions for outdoor/indoor antenna design



Router/Bridge

Dipole Antenna

Optimized dipole antenna for Router, Bridge to ensure reliable connectivity



Router/Bridge/CPE

Embedded Antenna

Optimized embedded antenna for device to ensure reliable connectivity



Outdoor Enclosure

Enclosure & Antenna

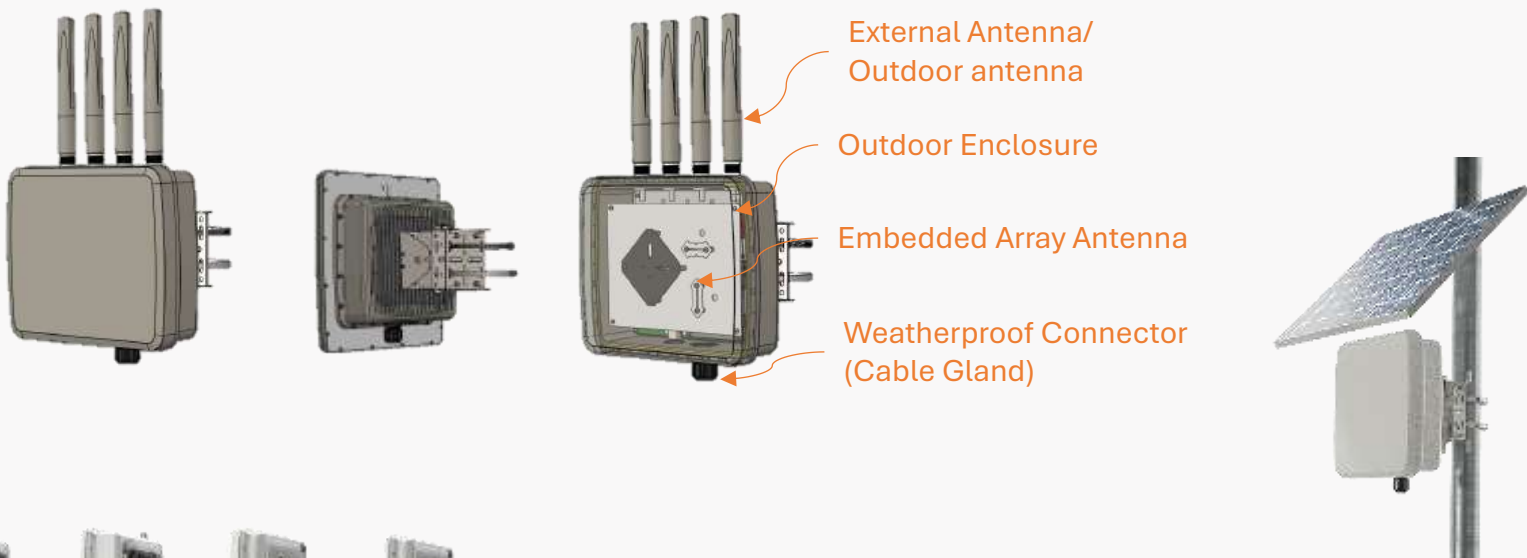
Our enclosures come in multiple form factors for various deployment needs



Application- Radio & Security Outdoor Enclosure

■ Application:

- Surveillance Controller Box
- Wireless Device
- Outdoor IoT device
- Remote IoT sensor
- Long range wireless device
- RFID antenna module
- Point to Point unit
- Point to Multi-Point unit
- CPE



AWAN provides a robust, waterproof outdoor enclosure tailored for system integrators deploying diverse wireless solutions. Designed for versatility, it supports outdoor antennas, IoT devices, and wireless network equipment.



Outdoor Sector Directional Antenna

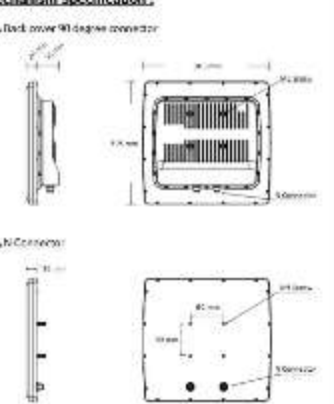
5.9-7.2 GHz

Electrical	
Frequency range	5.9-7.2 GHz
Gain	24 dBi
VSWR	1.3
Color	Black, Silver, and others
Power handling	50W
Dimensions (mm)	100 x 100 x 100
Weight (kg)	0.5
Material	Aluminum
Mounting	Wall mount
Environment	Indoor/Outdoor
Options	Customized



Mechanism Specification

1. Back door 90 degree connector



AWAN provides a robust, waterproof outdoor enclosure tailored for system integrators deploying diverse wireless solutions. Designed for versatility, it supports outdoor antennas, IoT devices, and wireless network equipment.

Application – Automotive



Connectivity



- 5G /4G
Wi-Fi
BLE

Supports 5G/4G, Wi-Fi 6, and BLE integration to achieve high-bandwidth in-vehicle communication

Application

- EV Charger Station
- Media Player
- Dashcam
- DAB/DTV
- T-Box
- V2X
- GPS



Smart Radar Sensing



- 60GHz RADAR
77GHz RADAR

From "Interior Life Protection" to "Exterior Blind Spot Monitoring," our mmWave RADAR solutions provide comprehensive and intelligent safety protection for passengers and drivers.

Application

- Blind Spot Detection (BSD-77G)
- Child Presence Detection (CPD-60G)



Access & Nav



- UWB /NFC/BLE
AHRS/INS

Keyless system(UWB/NFC/BLE)

Features UWB+NFC+BLE with our antenna designs and algorithms for precise unlocking. And it provides complete iOS and Android SDK, allowing for flexible custom APP development.

AHRS/INS

Provides raw sensor data and advanced correction algorithms to output stable 3-axis attitude (Pitch, Roll, and Yaw) and dead reckoning, enabling high-precision navigation and motion control.



Inertial Navigation Technology Overview

1. IMU (Inertial Measurement Unit)

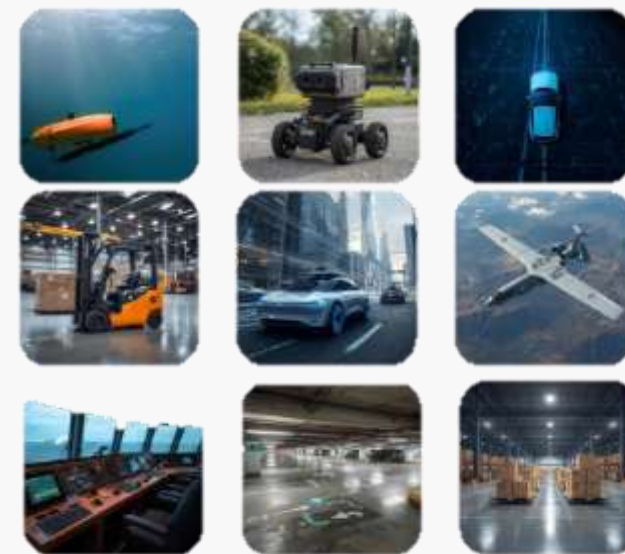
- Outputs Raw Data (Acceleration & Angular velocity)

2. AHRS (Attitude and Heading Reference System)

- Stable 3-Axis Attitude (Pitch, Roll, and Yaw/Heading)
- Algorithmic drift correction

3. INS (Inertial Navigation System)

- Full Positioning solution
- Dead Reckoning for GPS-denied environments



Acgyma (AHRS/INS) Series Product



TAIWAN

Designed & Made in Taiwan

High-Precision MEMS Tech

High-Performance Processor

Industrial-Grade Standard

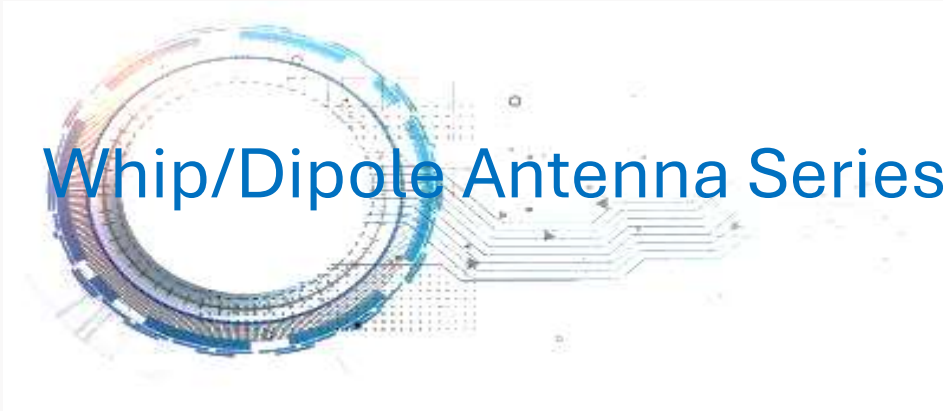
Anti-Interference Design

Compact & Low Power

Multi-Protocol Support

Intuitive GUI Interface

Products – External Antenna



Whip/Dipole Antenna Series

External Antenna



ADW-B002M

2.4/ 5G



ADW-PH07G

1592~1602MHz



AGE-001

860~930MHz

External Dipole (Waterproof)



ADW-001

2.4/ 5G/WiFi 6



ADW-EX15LS

860~940MHz



ADW-MB08L

700-960 & 1700-2700 MHz



ADW-N5R001

690/960~1710/6G



ADW-W8D

5150~5850MHz



ADW-Z5D

2400/2500~4900 /7250MHz

External Dipole



ADE-001

2.4/ 5G



ADE-115C

2.4G/5G



ADE-B0660

600-6000MHz



ADE-EX02D

2.4/ 5G



ADE-EX06D

2.4G/5G



ADE-EX07L

694/960-1400/2700MHz

Products – RF Connector & Cable Assembly

OUR PROVIDES THE BEST WIRELESS CONNECTIVITY SOLUTIONS OF RF CABLE ASSEMBLY.



CONN N PLUG STR 50 OHM CRIMP



CONN N TYPE JACK ST 500HM SOLDER



N Male Plug RF Coaxial connector Clamp



N-Male (plug) crimp for LMR-400-LLPL/non-solder pin



SMA R/A JACK REVERSE P.C. BOARD MOUNT



SMA PANEL JACK 2-HOLE FLANGE STR



CONN SMA RCPT STR 50 OHM SOLDER



RP-SMA STRAIGHT CRIMP JACK RG-1



N Male Crimp Teflon Insulation.



Plug Cable Mount N Connector



BNC-bulkhead jack cr/cr, G1 (RG-58/U), 50 Ohm



Plug N Connector



RF Industries, Sma Male Crimp Plug



CONN TERMINATOR PLUG SMA 500HM



SMA Plug Male Straight Crimp

Products – LDS Antenna



Model	LPKF Micro Line 3D 160i	Fusion 3D 6300
Image		

- 4G/5G and Wi-Fi antenna



Watch



Tracker



IP Camera



Navigator



NB & Pad

- Surface mount assembly for LDS (R/L/C component)



- Our process can use general LDS materials. (Special light source for single point heating, and it will not damage plastic and plating's surface)
- No need to use expensive LDS materials (Reduce material costs)

Products – Waveguide

- **Satellite/Space Communications**
 Uplink
 Downlink
 Broadband
- **Wireless Communications**
 Wireless Backhaul
 Cellular Backhaul
 Point to Point
 Point to Multipoint
- **Military / Defense**
 Satellite Communications
 Radar

TABLE 2				
SATCOM FREQUENCY BANDS				
Band	Downlink Frequency (GHz)	Uplink Frequency (GHz)	Typical Bandwidth (MHz)	Comments
L-	0.9 to 1.6	0.9 to 1.6	15	Terrestrial – shared
S-	1.61 to 1.63	2.48 to 2.5	70	ISM-Band – shared
C-	3.7 to 4.2	5.925 to 6.425	500	Terrestrial – shared
X-	7.25 to 7.75	7.9 to 8.4	500	Mil/Government
Ku-	11.7 to 12.2	14.0 to 14.5	500	Rain attenuation
Ka-	17.7 to 21.2	27.5 to 31.0	3500	Rain attenuation, expensive equipment
	20.2 to 21.2	30.0 to 31.0	1000	

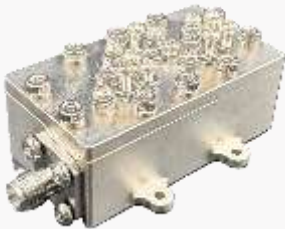
Application	Frequency Bands
Radar	X-band (8-12 GHz), Ku-band (12-18 GHz), Ka-band (26.5-40 GHz), W-band (75-110 GHz)
Electronic Warfare (EW)	S-band (2-4 GHz), X-band, Ku-band, mmWave (40-100 GHz)
Military Communications	UHF (300 MHz-3 GHz), SHF (3-30 GHz), EHF (30-300 GHz)
Surveillance (SIGINT, ELINT, COMINT)	Broadband, HF to mmWave (1 GHz-100 GHz)



Diplexer



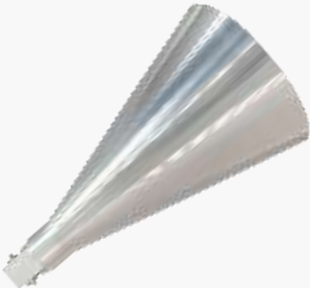
Adapter



Filter



Horn Antenna



Horn Antenna



Filter

Products – UAV Mesh Radio

UAV Mesh Radios create networks that enable drones and autonomous systems to relay data directly for long-range, low-latency communication, even in Non-Line-Of-Sight environments.

■ Long-Range Communication

- Reliable high-quality data and video transmission

■ Anti-Interference & Security

- Automatic Channel Selection (ACS)
- Dynamic frequency adjustment to avoid interference and detection

■ GPS-Denied Operation

- Maintains stable positioning in GPS-challenged environments

■ Automatic Networking

- Supports multi-UAV mesh networking

■ Flexible Interfaces

- Supports Serial Port, S.BUS, UART
- Easy integration with various UAV platforms and control systems

SISO



MIMO



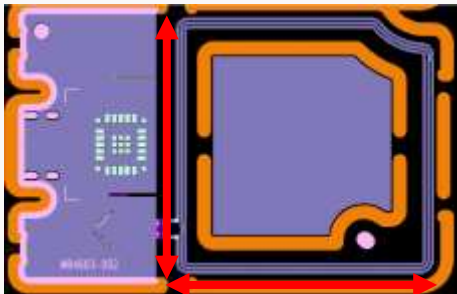
UAV Ground Station (Tracker)



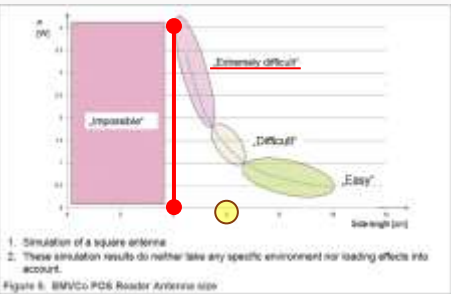
Products – NFC/RFID

NFC Solution

Antenna Size Suggestion



Antenna Detection Performance



Wearable NFC Antenna



Wearable NFC Antenna

NFC Antenna

NFC Antenna



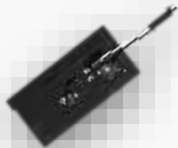
NFC Antenna



NFC Antenna



FPC NFC Antenna



FPC NFC Antenna



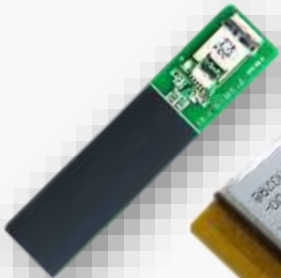
NFC NFC Antenna



NFC Module



NFC Module Mount on motherboard

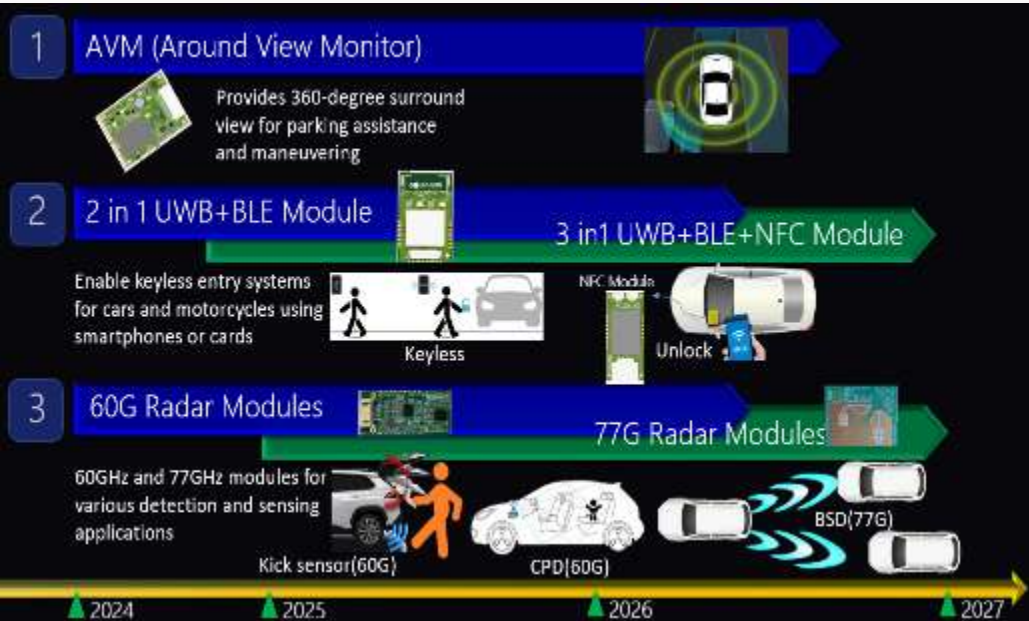


NFC Module



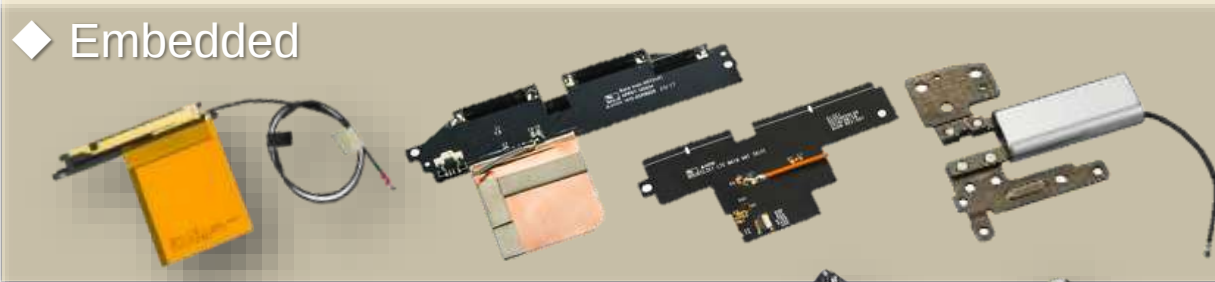
Products – Module Series

- 77G Radar Module
- 60G Radar Module
- NFC Module
- IMU/AHRS module
- UWB Module



Products – Antenna & RF Cable

◆ Embedded



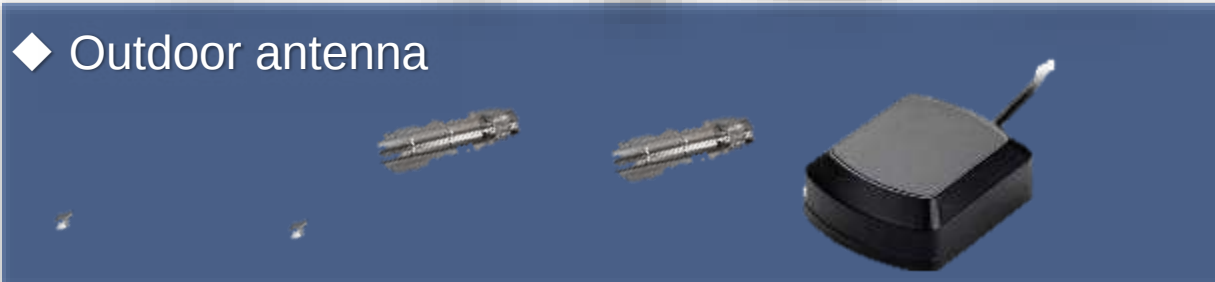
◆ LDS antenna



◆ Dipole antenna



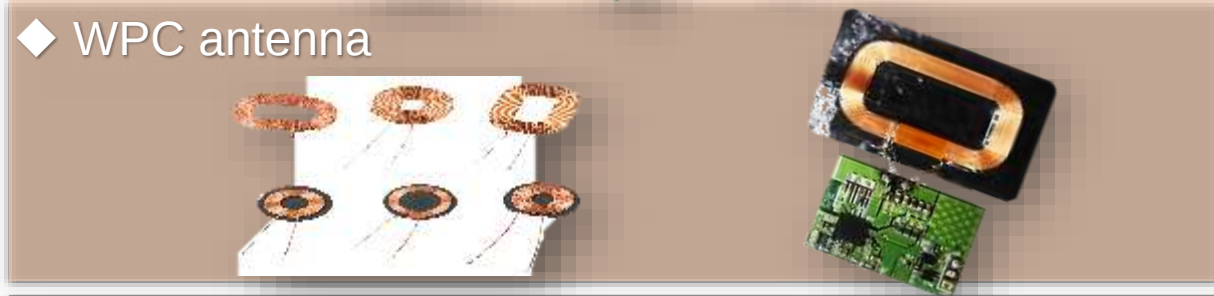
◆ Outdoor antenna



◆ NFC antenna



◆ WPC antenna



◆ Patch /Chip antenna



◆ RF Connector & Cable Assembly

- Ø0.81 II, III, IV, NGFF
- Ø1.13, NGFF
- Ø1.37
- RG174

