
2025
LOCOSYS
GNSS Wireless & Communication
Embark on a New Journey
Leading Smart Positioning
Innovating the Future
LOCOSYS Technology Inc.

LOCOSYS
GNSS Wireless & Communication

Contents

Company Profile

LOCOSYS Technology is a global leader in the design and manufacturing of satellite positioning modules, specializing in Global Navigation Satellite System (GNSS/RTK), wireless communication, embedded systems, industrial/automotive applications, and avionics. We provide high-performance and highly reliable solutions tailored to various industries.

Founded in Taiwan, LOCOSYS originated from a prestigious information technology research institute. Over the past 20 years, we have continuously advanced our software, hardware, and system integration capabilities. With strong R&D expertise, we have become an Alpha-grade certified module design supplier for internationally renowned chip manufacturers. Today, our network spans over 20 distributors worldwide, providing localized services and comprehensive product lines with technical support, enabling customers to quickly implement high-performance solutions.

Beyond the traditional GNSS market, we actively expand into high-precision RTK, AI-assisted positioning, IoT integration, 5G communication, Low Earth Orbit (LEO) satellite communication, smart transportation, and autonomous vehicles, driving industry upgrades through technological innovation.

Company Development History

2005

Officially Established

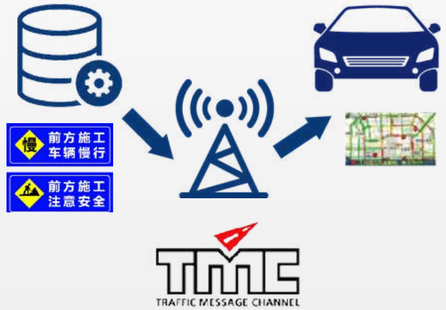
Company Established
Achieved ISO 9001 Certification

2006

SiRF, ATMEL, u-blox, MEDIATEK 聯發科技

Design and Mass Production of Modules Based on Chips Such as SiRF, MTK, Atmel, u-blox

2007



Design of RDS-TMC (Global Real-Time Traffic Message Channel) Module

2008

CERTIFIED ISO/TS 16949:2009 COMPANY

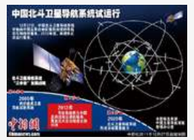
Fully Committing to TS-16949 Automotive Quality Management System Certification

2010

Qualcomm ATHEROS, ATHEROS

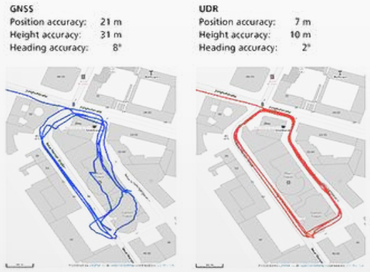
WiFi

Formally Partnering with Qualcomm Atheros to Design GPS+WiFi Modules



life.augmented AEC-Q Compliant

IATF 16949:2016
The requirements of a quality management system for organizations in the automotive industry



2012

Globally Launching the First GPS+BeiDou Dual-Mode Positioning Module Solution

2013

STMicro Partners in Designing GPS+Inertial Navigation Module
ADR Inertial Navigation Module Successfully Enters the Asia-Pacific Automotive Market

2014

Entering the Chinese Automotive (OEM) Industry

2016

Successfully Upgraded to **IATF-16949** Automotive Quality Management

2019

Introducing ADR/UDR (IMU)High-Performance Inertial Navigation Module Solution

LOCOSYS
GNSS Wireless & Communication

Meter level positioning module

RTK High-precision positioning module

PX4 autopilot
ARDUPILOT Versatile, Trusted, Open

High-precision positioning +
High-precision orientation +
High precision attitude

LOCOSYS Base Station Equipment

TianTong (LEO) Antenna

2020

Formally Introducing
the SUB METER (L1+L5)
Module

2021

Introducing the World's
Smallest High-Precision
RTK Module

2022

Joining the Global
Drone Association

2023

Introducing
RTK High-Precision Positioning
+ High-Precision Orientation
+ High-End IMU Products

2024

RTK base station provides
centimeter-level accuracy
for precise applications.

2025

LOCOSYS TT0 is a
compact S-band antenna
ensuring stable satellite and
wireless communication.

Economies of Scale

Economic Scale of the Industry

According to multiple market research reports, the global GPS market is expected to continue its growth trajectory.
The 2019 NIST report estimated that GPS technology contributes over $65 billion annually to the U.S. economy, with an even greater impact globally. By 2024, the global GPS market size is projected to reach several hundred billion dollars, potentially exceeding $100 billion.

Key Application Areas

1. **Transportation :**

GPS technology is widely used in navigation systems, vehicle tracking, and logistics management, enhancing transportation efficiency and reducing fuel consumption.

2. **Agriculture :**

Precision agriculture relies on GPS for crop monitoring, fertilization, and irrigation, thereby increasing yield and reducing costs.

3. **Construction and Engineering :**

RTK plays a crucial role in surveying, land management, and large-scale infrastructure construction, improving accuracy and efficiency in construction.

4. **Communication :**

GPS technology is also vital for synchronization and location services in mobile communication networks.

LOCOSYS Global Market Strategy

The GPS market strategy for 2025 will be influenced by technological advancements, industry demands, and market trends. Key Strategies and Development Trends for LOCOSYS Technology:

I.Technological Innovation

1. **Accuracy and Reliability:**

Enhance the accuracy and reliability of GPS systems, particularly in urban environments and under adverse conditions, which is crucial for applications like autonomous vehicles and drones.

2. **Multi-frequency Support:**

Develop and implement integrated receivers supporting multiple frequencies (such as L1, L2, L5, L6, etc.) to improve positioning accuracy and interference resistance.

II. Integrated Technologies

Integration with Other Navigation Systems: Combine GPS with other global navigation satellite systems (such as GLONASS, Galileo, BeiDou, IRNSS, QZSS) to improve the availability and accuracy of positioning.

III. Market Application Expansion

Autonomous Driving and Intelligent Transportation: Strengthen applications in autonomous vehicles and intelligent transportation systems by providing high-precision positioning and navigation services, supporting vehicle-to-everything (V2X) communication.

IV. Security and Protection, Anti-jamming and Anti-spoofing:

Develop anti-jamming and anti-spoofing technologies to protect GPS signals from interference and spoofing attacks, ensuring the security of critical applications.

V. Business Model Innovation:

Subscription-based high-precision positioning services offering customized services for different industries and applications.

VI. Collaboration and Ecosystem Building:

Establish partnerships with other technology providers and industry partners to jointly develop innovative applications and market solutions.

VII. Regulations and Standards:

1. **Compliance Management:**

Follow and participate in the formulation of global and regional navigation and positioning standards to ensure products meet relevant regulations and standards.

2. **Carbon Policy Support:**

Actively participate in policy making and ESG promotion by government and EU organizations.

LOCOSYS Development Direction

The development direction of GPS in 2025 will be influenced by technological advancements, application demands, and market trends. Dachen Technology anticipates the following directions.

I.Accuracy Improvement:

1. High-Precision Positioning:

With increasing demand, high-precision positioning will become a key development direction for GPS technology. This will involve the use of multi-frequency receivers, Ground-Based Augmentation Systems (GBAS), and Satellite-Based Augmentation Systems (SBAS) to achieve sub-meter and even centimeter-level accuracy.

2. Precise Point Positioning (PPP/PPK):

Developing and popularizing precise point positioning technology to enable its application in broader commercial and consumer fields, providing high-precision and reliable positioning services.。

II. Integration of Technologies:

1. Multi-GNSS System Integration:

Combining GPS with other Global Navigation Satellite Systems (GNSS) such as GLONASS, Galileo, and BeiDou to provide higher positioning accuracy and reliability, especially in urban canyons and other environments where signals are obstructed.

2. MEMS Multi-Sensor Integration:

Integrating with technologies such as Inertial Navigation Systems (INS), Wi-Fi (6/7), Bluetooth (Beacon), LoRa/Zigbee, and Ultra-Wideband (UWB) to provide seamless indoor and outdoor positioning services, achieving all-weather high-precision positioning.

III. Anti-interference and Security

Anti-interference technology: Develop stronger anti-interference technologies to prevent signal interference and spoofing attacks, ensuring stable and reliable operation in harsh environments.

IV. Autonomous Driving and Intelligent Transportation

1. **Autonomous Driving:**

High-precision and high-reliability GPS technology is crucial for autonomous vehicles, driving further development and adoption of autonomous driving technologies.

2. **Intelligent Transportation Systems:**

In smart cities and intelligent traffic management systems, GPS technology will be used for traffic flow management, vehicle tracking, and public transit scheduling, enhancing transportation operational efficiency and safety.

V. Artificial Intelligence of Things (AIoT) and Smart Devices

1. **IoT Devices:**

GPS technology will be widely used in IoT devices for applications such as asset tracking, environmental monitoring, and smart logistics, providing low-power and high-precision positioning services.

2. **Wearable Devices:**

In wearable devices for health monitoring and activity tracking, GPS will provide accurate positioning and data recording capabilities, enhancing user experience.

VI. Agriculture and Resource Management

1. **Precision Agriculture:**

Utilizing GPS technology for precise navigation and control of agricultural machinery, optimizing crop planting, fertilization, and irrigation to enhance agricultural production efficiency and sustainability.

2. **Natural Resource Management:**

In forestry, water resource management, and environmental monitoring, GPS technology will be used for accurate resource positioning and management, supporting environmental protection and sustainable development.

VII. Commercial and Consumer Applications

1. **Logistics and Supply Chain Management:**

GPS technology will play a crucial role in logistics and supply chain management, providing real-time tracking and route optimization to enhance transportation efficiency and accuracy.

2. **Consumer Navigation:**

In everyday consumer applications such as smartphone navigation and fitness trackers, GPS technology will offer more precise and reliable positioning services, improving user experience.

Products Milestone

2006~2012

Supplier

MEDIATEK u-blox SiRF life.augmented

Module Type

Dimension (mm)
10*10/ 15*13/ 16*12/
16*13/ 17*22/ 20*24

Smart Antenna Type

Type –T Type
Mini-L Type
Slim –type
Turn-key

Mouse Receiver

LS23030~6

2013~2018

Supplier

MEDIATEK Qualcomm ATHEROS Techtotop SiRF life.augmented 梦芯科技 MENGXIN TECHNOLOGY 华大北斗 ALLYSTAR

Module Type

GNSS/ RTK L1+L2
Dimension (mm)
10*10/ 15*13/ 16*12/
16*13/ 17*22

GNSS+ADR/UDR

*ST-1612i-DGX *MC-1612-DG

Smart Antenna Type

LS2003C/-G
LS2003E/-G
LS2003D/-G

Mouse Receiver

LS23030~6-G

2018~2022

Supplier

life.augmented MEDIATEK SONY

Module Type

GNSS(L1+L5) / RTK
Dimension (mm)
10*10/ 16*12/ 17*22

RTK+DR

*RTK-1612AD-DR
*MC-1612AD-DR

L1+L5 RTK Heading Solution

*RTK-4057-MHPD
*RTK-DAUL

L1+L5 RTK device for UAV

*HAWK-series

2023 to future plan

Supplier

life.augmented MEDIATEK

PCI-E M.2 Card Solution

M.2-V2b
M.2-15R
M.2-35AD
M.2-R35AD
M.2-STi-DG
M.2-STi-GT

RTK Level High Position Antenna

RTK Helix Antenna

L1+L5 Patch Antenna

RTK Survey Antenna

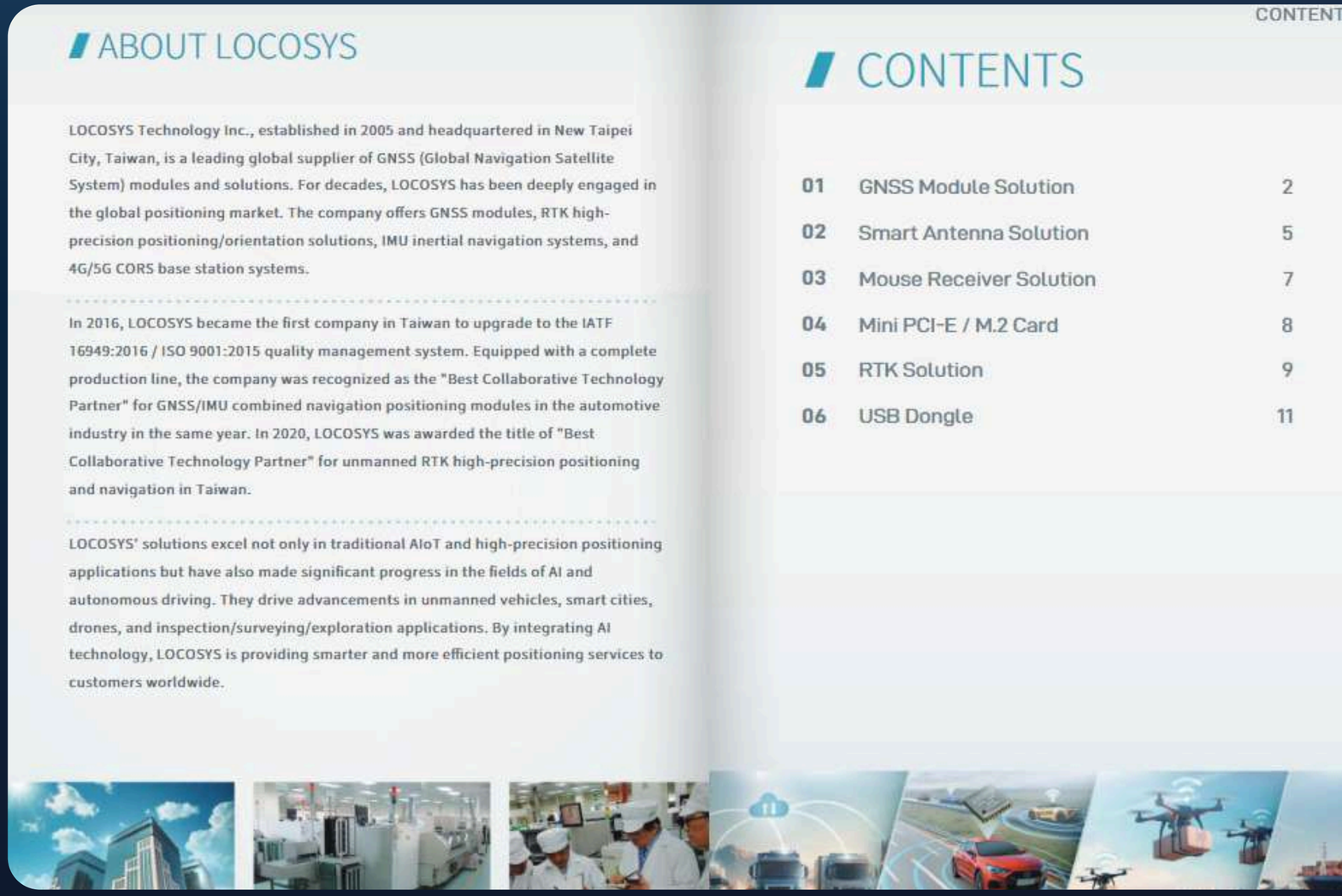
LOCOSYS
GNSS Wireless & Communication

ECATALOG

LOCOSYS Product Introduction

You can view an online version of our printed catalog by click the catalog website.

E-catalog Website



ABOUT LOCOSYS

LOCOSYS Technology Inc., established in 2005 and headquartered in New Taipei City, Taiwan, is a leading global supplier of GNSS (Global Navigation Satellite System) modules and solutions. For decades, LOCOSYS has been deeply engaged in the global positioning market. The company offers GNSS modules, RTK high-precision positioning/orientation solutions, IMU inertial navigation systems, and 4G/5G CORS base station systems.

In 2016, LOCOSYS became the first company in Taiwan to upgrade to the IATF 16949:2016 / ISO 9001:2015 quality management system. Equipped with a complete production line, the company was recognized as the "Best Collaborative Technology Partner" for GNSS/IMU combined navigation positioning modules in the automotive industry in the same year. In 2020, LOCOSYS was awarded the title of "Best Collaborative Technology Partner" for unmanned RTK high-precision positioning and navigation in Taiwan.

LOCOSYS' solutions excel not only in traditional AIoT and high-precision positioning applications but have also made significant progress in the fields of AI and autonomous driving. They drive advancements in unmanned vehicles, smart cities, drones, and inspection/surveying/exploration applications. By integrating AI technology, LOCOSYS is providing smarter and more efficient positioning services to customers worldwide.

CONTENT

CONTENTS

LOCOSYS
GNSS Wireless & Communication

2025 GNSS/RTK Position Module / Smart Antenna

L1 FOR ALL GNSS SOLUTION

LOCOSYS
GNSS Wireless & Communication

Multi-constellation GNSS module & ultra low power

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

MG-1010-52Q

Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec

Frequency	L1 L2 L5 ●	**Acquisition Time**	< 15s
Channels	47	**Max. Velocity**	< 500 m/
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)		
Update rate	1Hz default, up to 10Hz	**Max. Altitude**	< 18,000 m
Position Accuracy	1.5m (CEP)	**Supply Current**	3.3V
Dimension	10.1 x 9.7 x 2.2 mm	**Operating Temp**	-40°C~+85°C

L1 FOR ALL GNSS SOLUTION

LOCOSYS
GNSS Wireless & Communication

Multi-constellation GNSS module & ultra low power

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MG-1612-52Q

Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

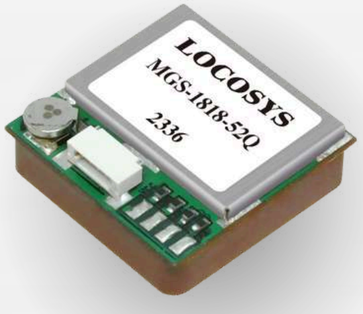
Hardware spec

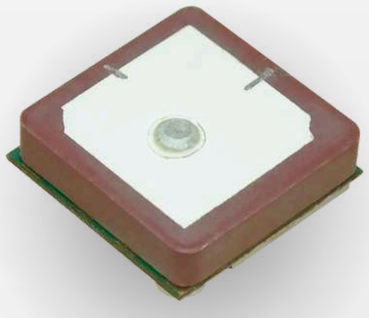
Frequency	L1 L2 L5 ●	**Acquisition Time**	< 15s
Channels	47	**Max. Velocity**	< 500 m/
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)		
Update rate	1Hz default, up to 10Hz	**Max. Altitude**	< 18,000 m
Position Accuracy	1.5m (CEP)	**Supply Current**	3.3V
Dimension	16 x 12.2 x 2.4 mm	**Operating Temp**	-40°C~+85°C

L1 FOR ALL GNSS SOLUTION

LOCOSYS
GNSS Wireless & Communication

Multi-constellation GNSS Smart Antenna & ultra low power





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MGS-1818-52Q

Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

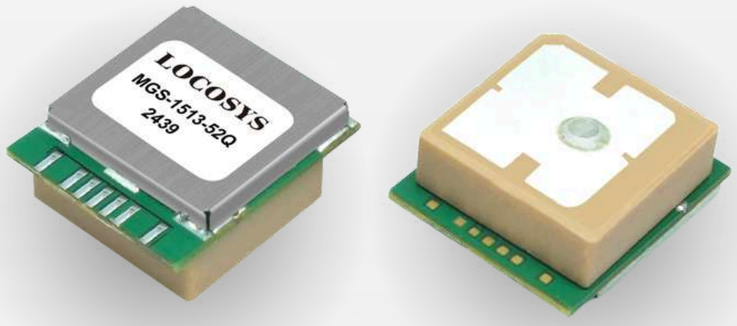
Hardware spec

Frequency	L1	L2	L5	Acquisition Time	< 15s
	●				
Channels	47			Max. Velocity	< 100 m/s
Update rate	1Hz default, up to 10Hz			Max. Altitude	< 18,000 m
Position Accuracy	1.5m (CEP)			Supply Current	3.3V
Dimension	18.3 x 18.4 x 7.4mm			Operating Temp	-40°C~+85°C

L1 FOR ALL GNSS SOLUTION

LOCOSYS
GNSS Wireless & Communication

Multi-constellation GNSS Smart Antenna & ultra low power



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MGS-1513-52Q					
Satellite System	**GPS**	**GLONASS**	**BEIDOU**	**GALILEO**	**QZSS**
	●	●	●	●	●
Hardware spec					
Frequency	L1	L2	L5	**Acquisition Time**	< 15s
	●				
Channels	47			**Max. Velocity**	< 500 m/
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-149dBm (with external LNA)				
Update rate	1Hz default, up to 10Hz			**Max. Altitude**	< 18,000 m
Position Accuracy	1.5m (CEP)			**Supply Current**	3.3V
Dimension	15.2 x 13 x 7.4 mm			**Operating Temp**	-40°C~+85°C

L1+L5 GNSS MODULES

LOCOSYS
GNSS Wireless & Communication

Dual-frequency multi-constellation GNSS positioning module

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MC-1010-V2b/MC-1612-V2b					
Satellite System	**GPS**	**GLONASS**	**BEIDOU**	**GALILEO**	**QZSS**
	●	●	●	●	●
Hardware spec					
Frequency	L1	L2	L5	**Acquisition Time**	< 15s
	●		●		
Channels	135			**Max. Velocity**	< 500 m/
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)				
Update rate	1Hz default, up to 10Hz			**Max. Altitude**	< 18,000 m
Position Accuracy	<1.5m (CEP)			**Power**	65mA
Dimension	16 x 12.2 x 2.4 mm			**Operating Temp**	-40°C~+85°C

* **MC-1612-V3b can receive IRNSS**

L1+L5 RTK MODULES

LOCOSYS
GNSS Wireless & Communication

Dual-frequency multi-constellation GNSS RTK module

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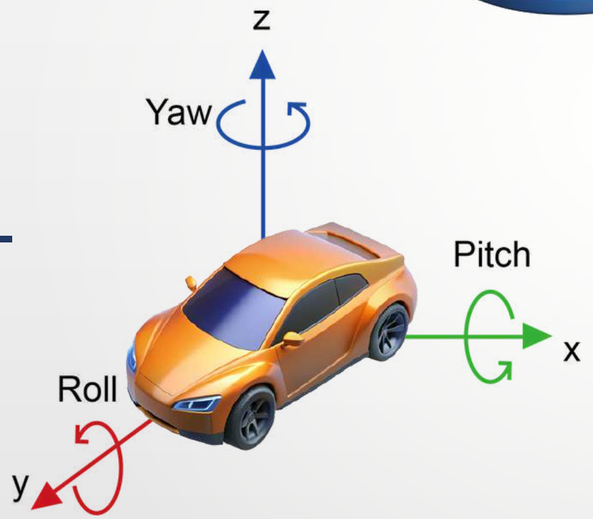
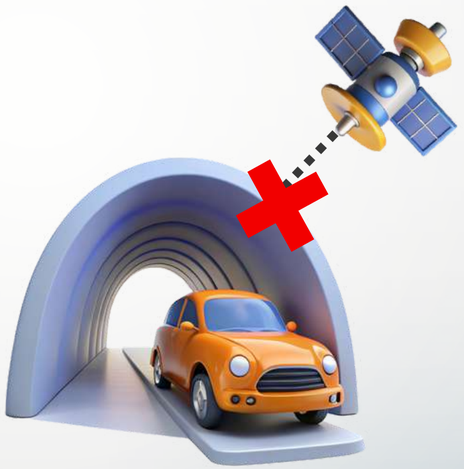
RTK-1010/RTK-1612					
Satellite System	**GPS**	**GLONASS**	**BEIDOU**	**GALILEO**	**QZSS**
	●	●	●	●	●
Hardware spec					
Frequency	L1	L2	L5	**Acquisition Time**	<28s (typical) <10s(RTK Convergence)
	●		●		
Channels	135			**Max. Velocity**	< 500 m/
Sensitivity	Tracking :-165dBm Cold start :-148dBm			**UDR mode**	CEP ≤ 3%
Update rate	1Hz default, up to 10Hz			**Max. Altitude**	< 18,000 m
Position Accuracy	0.01m+1ppm (Horizontal)			**Power**	65mA
Dimension	16 x 12.2 x 2.4 mm			**Operating Temp**	-40°C~+85°C

LOCOSYS
GNSS Wireless & Communication

2025 GNSS/RTK
With DR Solution





L1+L5+DR MODULES

LOCOSYS
GNSS Wireless & Communication

Dual-frequency Multi-constellation GNSS Untethered dead reckoning module

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MG-1612AD-DR

Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec

Frequency	L1	L2	L5	Acquisition Time	1s (typical) 24s (typical)
	●		●		
Channels	135			**Max. Velocity**	< 500 m/
Sensitivity	Tracking :-165dBm Cold start :-148dBm			**UDR mode**	CEP ≤ 3%
Update rate	1Hz default, up to 10Hz			**Max. Altitude**	< 18,000 m
Position Accuracy	1.5m (CEP)			**Power**	56mA
Dimension	16 x 12.2 x 2.4 mm			**Operating Temp**	-40°C~+85°C

RTK+DR MODULES

LOCOSYS
GNSS Wireless & Communication

High-precision Untethered dead reckoning module

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RTK-1612AD-DR					
Satellite System	**GPS**	**GLONASS**	**BEIDOU**	**GALILEO**	**QZSS**
	●	●	●	●	●
Hardware spec					
Frequency	L1	L2	L5	**Acquisition Time**	1s (typical) 24s (typical)
	●		●		
Channels	135			**Max. Velocity**	< 500 m/
Sensitivity	Tracking :-165dBm Cold start :-148dBm			**UDR mode**	CEP ≤ 3%
Update rate	1Hz default, up to 10Hz			**Max. Altitude**	< 18,000 m
Position Accuracy	0.01m+1ppm (Horizontal)			**Power**	56mA
Dimension	16 x 12.2 x 2.4 mm			**Operating Temp**	-40°C~+85°C

LOCOSYS
GNSS Wireless & Communication

2025
System Product

L1+L5 GNSS Mouse

LOCOSYS
GNSS Wireless & Communication

Dual-frequency multi-constellation GNSS mouse

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LU2303x-Vx									
Satellite System	**GPS**		**GLONASS**		**BEIDOU**		**GALILEO**		**QZSS**
	●		●		●		●		●
Hardware spec									
Frequency	L1		L2	L5	**Acquisition Time**		2s (typical)		
	●			●					
Channels	135				**Max. Velocity**		< 500 m/		
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)								
Update rate	1Hz default, up to 10Hz				**Protocol**		NMEA 0183		
Position Accuracy	1.5m (CEP)				**Datum**		WGS-84		
Dimension	52 x 52 x 17 mm				**Operating Temp**		-20°C~+60°C		

L1+L5 RTK BOARD

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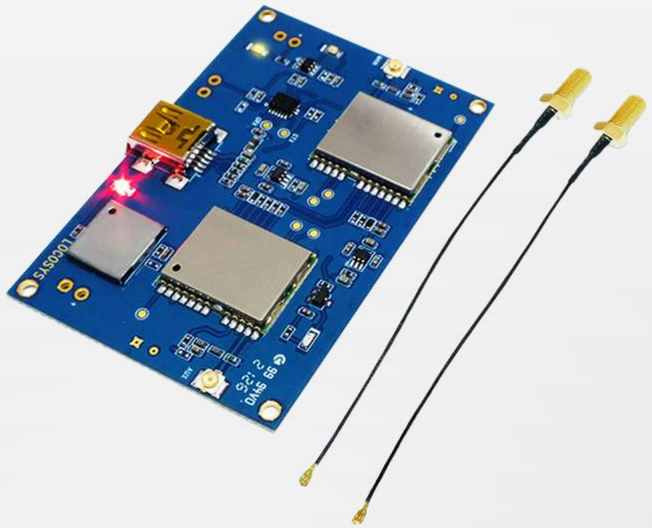
GNSS Wireless & Communication

Dual-Frequency (Position& Orientation) RTK Board



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RTK-4057-MHPD					
Satellite System	**GPS**	**GLONASS**	**BEIDOU**	**GALILEO**	**QZSS**
	●	●	●	●	●
Hardware spec					
Frequency	L1	L2	L5	**Acquisition Time**	<28s (typical) < 10s (RTK Convergence)
	●		●		
Channels	270			**Max. Velocity**	< 500 m/
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)				
Update rate	1/5Hz (default) ; 10Hz (option)			**Max. Altitude**	< 18,000 m
Position Accuracy	0.01m+1ppm (Horizontal)			**Orientation**	< 0.2° RMS.
Dimension	40 x 57 x1 mm			**Operating Temp**	-40°C~+85°C

L1+L5 RTK BOARD

LOCOSYS
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Dual-frequency, Multi-constellation RTK Box

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RTK-DUAL-series					
Satellite	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec					
Frequency	L1	L2	L5	Acquisition Time	<28s (typical) < 10s (RTK Convergence)
	●		●		
Channels	270			Aided heading	Degraded by ≤ 2° (RMS)
Sensitivity	Tracking :-165dBm Cold start :-148dBm			Orientation	< 0.2° RMS.
Update rate	2Hz (default), 5Hz			Operating Temp	-40°C~+85°C
Position Accuracy	1cm+1ppm (horizontal) CEP			Dimension	50 x 42 x 21 mm

RTK For Android System

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L1+L5 RTK device for OTG on Android system

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RTK-15D					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●
Hardware spec					
Frequency	L1	L2	L5	Acquisition Time	<28s (typical) < 10s (RTK Convergence)
	●		●		
Channels	135			System	Android OS
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)				
Update rate	1Hz default, up to 10Hz (option)			Connecter	USB TYPE C
Position Accuracy	0.01m+1ppm (Horizontal)			Power	65mA
Dimension	27.5 x 37.85 x 13 mm			Operating Temp	-40°C~+85°C

USB Dongle

GNSS/RTK USB Receiver

Product name	GNSS	L1	L1+L5	RTK	DR
UB-52Q	●	●			
UB-V2b	●		●		
UB-15R	●		●	●	
UB-35AD	●		●		●
UB-R35AD	●		●	●	●

HAWK For Drone

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L1 band multi-constellation GNSS receiver with e-compass

ARDUPILOT Versatile, Trusted, Open

PX4 autopilot

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HAWK A1e					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec			
Frequency	L1 L2 L5 ●	Acquisition Time	1s (typical) 28s (typical) without AGPS
Channels	47	Dimension	46 x 72.5mm
Max. Altitude	< 18,000 m	Max. Velocity	< 500 m/s
Update rate	5Hz default, up to 10Hz	Power	37 mA
PPS	100ms pulse width	Operating Temp	-40°C~+85°C

HAWK For Drone

LOCOSYS
GNSS Wireless & Communication

Dual-frequency multi-constellation GNSS receiver with e-compass

ARDUPILOT Versatile, Trusted, Open

PX4 autopilot

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

HAWK A2e					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec					
Frequency	L1	L2	L5	Acquisition Time	1s (typical) 28s (typical) without AGPS
	●		●		
Channels	135			Dimension	46 x 72.5mm
Max. Altitude	< 18,000 m			Max. Velocity	< 500 m/s
Update rate	5Hz default, up to 10Hz			Power	77 mA
PPS	100ms pulse width			Operating Temp	-40°C~+85°C

HAWK For Drone

LOCOSYS
GNSS Wireless & Communication

Dual-frequency multi-constellation GNSS receiver with e-compass

ARDUPILOT Versatile, Trusted, Open

PX4 autopilot

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

HAWK A3e						
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS	NAVIC
	●	●	●	●	●	●

Hardware spec					
Frequency	L1	L2	L5	Acquisition Time	1s (typical) 28s (typical) without AGPS
	●		●		
Channels	135			Dimension	46 x 72.5mm
Max. Altitude	< 18,000 m			Max. Velocity	< 500 m/s
Update rate	5Hz default, up to 10Hz			Power	42 mA
PPS	100ms pulse width			Operating Temp	-40°C~+85°C

HAWK For Drone

Dual-frequency multi-constellation RTK receiver

HAWK R1					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec			
Frequency	L1 L2 L5 ● ●	Acquisition Time	<28s (typical) < 10s (RTK Convergence)
Channels	135	Dimension	46 x 72.5mm
Max. Altitude	< 18,000 m	Max. Velocity	< 500 m/s
Update rate	5Hz default, up to 10Hz	Power	77 mA
PPS	100ms pulse width, 1.8Vdc	Operating Temp	-40°C~+85°C

HAWK For Drone

LOCOSYS
GNSS Wireless & Communication

Dual-frequency multi-constellation RTK receiver with e-compass

ARDUPILOT Versatile, Trusted, Open

PX4 autopilot

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

HAWK R2					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●
Hardware spec					
Frequency	L1	L2	L5	Acquisition Time	<28s (typical) < 10s (RTK Convergence)
	●		●		
Channels	135			Dimension	46 x 72.5mm
Max. Altitude	< 18,000 m			Max. Velocity	< 500 m/s
Update rate	5Hz default, up to 10Hz			Power	77 mA
PPS	100ms pulse width, 1.8Vdc			Operating Temp	-40°C~+85°C

RTK SYSTEM

LOCOSYS
GNSS Wireless & Communication

Rugged and industrial grade RTK computer

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

RTK-M300								
Satellite System	**GPS**	**GLONASS**	**BEIDOU**	**GALILEO**	**QZSS**			
	●	●	●	●	●			
Hardware spec								
Frequency	L1	L2	L5			**Acquisition Time**	<28s (typical) < 10s (RTK Convergence)	
	●		●					
Channels	135					**Certifications**	CE/FCC/E13 mark	
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)							
Update rate	1/5Hz (default) ; 10Hz (option)					**Operating**	MIL-STD-810	
Position Accuracy	0.01m+1ppm (Horizontal)					**Power Adapter**	AC100-240V	
Dimension	180 x 120 x 45 mm					**Operating Temp**	-40°C~+85°C	

RTK SYSTEM

LOCOSYS
GNSS Wireless & Communication

Rugged and industrial grade RTK computer

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

GB-10WB					
Satellite System	**GPS**	**GLONASS**	**BEIDOU**	**GALILEO**	**QZSS**
	●	●	●	●	●

Hardware spec					
Frequency	L1	L2	L5	**WI-FI**	2.4Ghz 802.11 b/g/n
	●	●	●	**Bluetooth**	5.0 (BLE)
OS	Micropython			**RF transmit Power (Max.)**	125mW
Battery	2500mAh			**Certification**	CE/FCC
Data Interface	Type-C x 1			**Military Standard**	MIL-STD 810H
Expansion Interface	RTK positioning antenna interface /4G antenna interface/ Wi-Fi and Bluetooth antenna interface				
Dimension	227 x 118 x 35 mm			**Operating Temp**	-20°C to 55°C

RTK SYSTEM

LOCOSYS
GNSS Wireless & Communication

Rugged and industrial grade RTK computer

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

GB-104B

Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec

Frequency	L1	L2	L5	**SIM card slot**	Nano sim *1
	●	●	●	**Bluetooth**	Bluetooth 4.2 (BR/EDR)
OS	FreeRTOS			**RF transmit Power (Max.)**	2W
Battery	2500mAh			**Certification**	CE/FCC
Data Interface	Type-C x 1			**Military Standard**	MIL-STD 810H
Expansion Interface	RTK positioning antenna interface /4G antenna interface/ Wi-Fi and Bluetooth antenna interface				
Dimension	227 x 118 x 35 mm			**Operating Temp**	-20°C to 55°C

RTK System

LOCOSYS
GNSS Wireless & Communication

Rugged and industrial grade
8” and 10.1” RTK Android Tablet PC

ROCK T71/ROCK T101			
CPU	ARM Cortex A73 Octa-core(2.0GHz)	**Position Accuracy**	Autonomous : < 1.5m CEP RTK : 0.01m+1ppm (Horizontal)
GPU	ARM Mali-G72 MP3		
Shake-proof	1-19Hz/1.0mm; 19-200Hz/1.0g	**Reliability**	MTBF>5000h ; MTTR<0.5h
Dropproof /IK	MIL-STD-810G/Method516.6/Procedure IV & Touch Panel IK05		
Waterproof	Class 7 (IEC 60529)	**Certification**	3C /FCC/CE/ROHS/IP67 (IEC 60529)
Dustproof	Class 6 (IEC 60529)	**System**	Android 10.0 / 11.0
Dimension	ROCK T71 202*138*22mm ROCK T101 320*228*12mm	**Operating Temp**	-20°C to 55°C

RTK System

LOCOSYS
GNSS Wireless & Communication

Model Name	Photos	L1	L2	L5	Wi-Fi	Bluetooth	4G LTE	RJ45	Fanless	OS	(mm)
RTK-M300 (4G-LTE)		●		●			●	●	●	Windows	185 X 120 X 45
RTK-M300 (Wi-Fi)		●		●	●			●			
RTK-M980 (4G-LTE)		●	●	●			●	●			
RTK-M980 (Wi-Fi)		●	●	●	●			●			
GB-104B		●	●	●		●	●			RTOS	227 X 118 X 35
GB-10WB		●	●	●	●	●					
GB-304WB		●	●	●		●	●			Android	120 X 100 X 46
GB-30WB		●	●	●	●	●					

LOCOSYS
GNSS Wireless & Communication

Antenna Accessories

Helix-Antenna (L1/L5)

LOCOSYS
GNSS Wireless & Communication

Dual-frequency GNSS antenna for L1 and L5

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LH-105A2-B					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec					
Frequency	L1	L2	L5	Conducted gain	26 ± 3 dB
	●		●	Noise figure	≤ 2 dB
Polarization	RHCP			Operating voltage	2V ~ 6V
Peak gain	0.5 dBi			Operating current	6.7 mA
Connector type	SMA male			Waterproof	IPX7
Dimension	27.5D x 59H mm			Operating Temp	-40°C to 85°C

Suitable for handheld,UAV

Helix-Antenna (L1/L5)

LOCOSYS
GNSS Wireless & Communication

Dual-frequency GNSS antenna for L1 and L5

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LH-105AR-D					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec			
Frequency	L1 L2 L5	LNA Gain	30±3 （Typ. @25°C）
	● ●	Noise figure	＜1.5dB@25°C, Typ. (Pre-filter)
Polarization	RHCP	Operating voltage	3V ~ 12V
Gain	≥2.5 dBi	Operating current	24±3mA(3V)，31±3mA(5V)，Max 45mA(12V)
Connector type	SMA-J	Protection level	IP67
Dimension	43.5D x 40.8H mm	Operating Temp	-40°C to 85°C

Suitable for handheld,UAV

Helix-Antenna (L1/L5)

LOCOSYS
GNSS Wireless & Communication

Dual-frequency GNSS antenna for L1 and L5

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LH-105AR-DC					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec			
Frequency	L1 L2 L5	LNA Gain	30±3 （Typ. @25°C）
	● ●	Noise figure	＜2dB@25°C, Typ. (Pre-filter)
Polarization	RHCP	Operating voltage	3V ~ 12V
Gain	≥2.5 dBi	Operating current	≤50mA
Connector type	SMA-J	Protection level	IP67
Cable Type	RG316	Cable Length	600mm
Dimension	48D x 33H mm	Operating Temp	-40°C to 85°C

Suitable for handheld,UAV

Helix-Antenna (L1/L2/L5/L6/L-Band)

LOCOSYS
GNSS Wireless & Communication

Four constellations multi-band GNSS helix antenna for L1 ,L2 ,L5 and L-bands

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LH-1256AR-D			
Satellite System	**GPS**	**GLONASS**	**BEIDOU**	**GALILEO**	**QZSS**
	●	●	●	●	●
Hardware spec			
Frequency	L1	L2	L5	L6
	●	●	●	●
L-Band	1542±17MHz
Polarization	RHCP
Gain	≥2.5 dBi
Connector type	SMA-J
Dimension	43.5D x 40.8H mm

LNA Gain	30±3 (Typ. @25°C)
Noise figure	<1.5dB@25°C, Typ. (Pre-filter)
Operating voltage	3V ~ 12V
Operating current	≤50mA
Protection level	IP67
Operating Temp	-40°C to 85°C

Suitable for handheld,UAV

Helix-Antenna (L1/L2/L5/L6/L-Band)

LOCOSYS
GNSS Wireless & Communication

Four constellations multi-band GNSS helix antenna for L1 ,L2 ,L5 and L-bands

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LH-1056AR-E

Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

Hardware spec

Frequency	L1 L2 L5 L6	**LNA Gain**	39±3
	● ● ● ●	**Noise figure**	＜1.5dB@25°C, Typ. (Pre-filter)
L-Band	1525 MHz - 1559 MHz		
Polarization	RHCP	**Operating voltage**	3.0-12.0 Recommend 3.3V or 5.0V
Gain	≥2.5 dBi	**Operating current**	≤45mA
Connector type	SMA-J	**Protection level**	IP67
Dimension	43.5D x 40.8H mm	**Operating Temp**	-40°C to 85°C

Suitable for handheld,UAV

Patch GNSS Antenna

LOCOSYS
GNSS Wireless & Communication

Multi-band active GNSS/RTK antenna

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LP-105A-C					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	NavIC
	●	●	●	●	

Hardware spec			
Frequency	L1 L2 L5	LNA Gain	24 dB ± 2 dB
	● ●	Noise figure	＜1.5dB@25°C, Typ. (Pre-filter)
Polarization	RHCP	Prime Power	3V ~ 5V
Zenith Gain	≥3.0±0.5dBi	Operating current	<40mA
Connector type	SMA-J	Humidity	90% RH
Dimension	50 x 55 x 17 mm	Operating Temp	-40°C to 80°C

Suitable for Automotive

Patch RTK Antenna

LOCOSYS
GNSS Wireless & Communication

Multi-band active GNSS/RTK antenna

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LP-105AR-C					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	NavIC
	●	●	●	●	●

Hardware spec					
Frequency	L1	L2	L5	LNA Gain	28±3dB
	●		●	Noise figure	＜1.5dB@25°C, Typ. (Pre-filter)
Polarization	RHCP			Prime Power	3V ~ 5V
Zenith Gain	≥3.0±0.5dBi			Operating current	14mA±2@5V
Connector type	SMA-J			Waterproof	IPX7
Dimension	87 x 65 x 23 mm			Operating Temp	-40°C to 85°C

Suitable for Automotive

Survey Antenna (L1/L2/L5/L6/L-Band)

LOCOSYS
GNSS Wireless & Communication

Four-star multi-frequency satellite navigation antenna

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LS-125-A						
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS	IRNSS
	●	●	●	●	●	●

Hardware spec				
Frequency	L1 L2 L5 L6	LNA Gain	40±2dB (Typ. @25°C)	
	● ● ● ●	Noise figure	≤1.8dB	
L-Band	✔			
Polarization	RHCP	Operating voltage	3V ~ 12V	
Gain	<5.5 dBi	Operating current	≤45mA	
Connector type	TNC-K	Waterproof grade	IP67	
Dimension	Φ160 x 66.5 mm	Operating Temp	-40°C to 85°C	

Suitable for Automotive and Base station

Survey Antenna (L1/L2/L5/L6/L-Band)

LOCOSYS
GNSS Wireless & Communication

High-precision air-type multi-band measurement antenna

REACH COMPLIANT

LEAD FREE RoHS COMPLIANT

HF Halogen FREE

LS-125F-A						
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS	IRNSS
	●	●	●	●	●	●

Hardware spec			
Frequency	L1 L2 L5 L6	LNA Gain	40±2dB (Typ. @25°C)
	● ● ●	Noise figure	2.0dB@25°C, Typ.
L-Band	1170MHz~1278 ,1530HMz~1610MHz		
Polarization	RHCP	Operating voltage	3V ~ 12V
Gain	≥5.5	Operating current	≤40mA
Connector type	TNC-K	Waterproof grade	IP67
Dimension	Φ132 x 55.14 mm	Operating Temp	-40°C to 85°C

Suitable for Automotive and Base station

TianTong (LEO) Antenna

Communication antenna designed for S-band

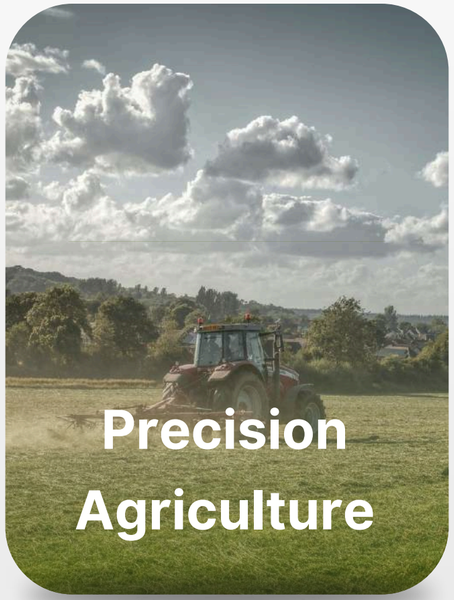
TT01					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●

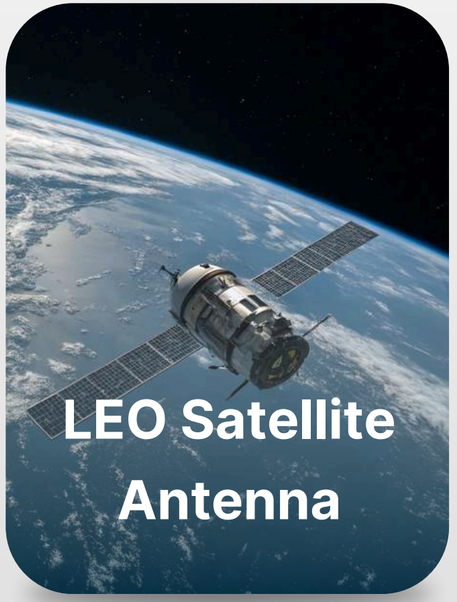
Hardware spec			
Frequency range (MHz)	Uplink: 1980-2010 MHz Downlink: 2170-2200 MHz	**Gain**	3.0 MAX@1980-2010 dBi 3.0 MAX@2170-2200 dBi
Polarization	LHCP	**Connector type**	SMA-J
Dimension	13D x 100H mm	**Operating Temp**	-40°C to 70°C

Suitable for Emergency and Disaster Communication, Marine, Drone,Field Operations

Application Areas

Our products are widely used in automotive navigation, autonomous driving, precision agriculture, drones, and robotics, helping global customers stay ahead and enhance competitiveness.





Application

Automotive Navigation

MG-1010-52Q

MG-1612-52Q

MC-1010-V2b

MC-1612-V2b

USB Dongle

Drones (UAVs)

HAWK R2

LH-105A2-B

LH-105AR-D/LH-105AR-D/
LH-105AR-E

Application

Industrial Surveying

RTK-M300/RTK-M980

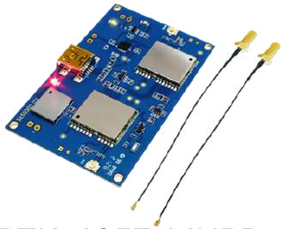
GB-104B/WB

ROCK T71/ROCK T101

AGV Robotics

RTK-1010

RTK-1612



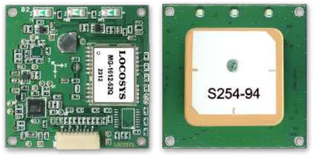
RTK-4057-MHPD

RTK-DUAL

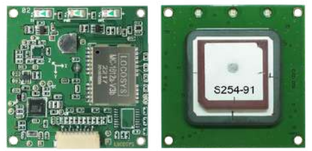
Application

Fleet Management

LS2003xU-G



LC2003x-52Q



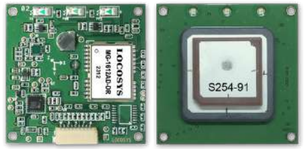
LC2003x-Vx

LS2003H-Vx

Dead Reckoning

MG-1612AD-DR

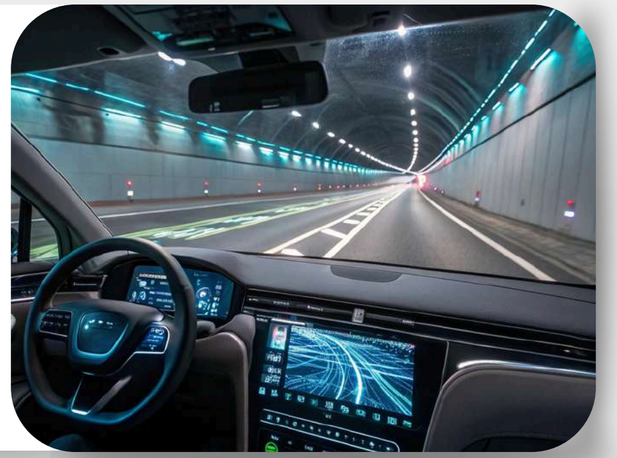
RTK-1612AD-DR



LC2003x-35AD

LS2303x-UDG

LU2303x-35AD



LOCOSYS
GNSS Wireless & Communication

Quality & News

Quality Certifications & Recent Achievements

LOCOSYS
GNSS Wireless & Communication

2016

International Quality Management Certifications

The first GNSS/RTK module supplier in Taiwan to be certified under IATF 16949:2016

2017

Technical Collaboration Awards

Awarded Best Technical Partner for GNSS/IMU Integrated Navigation Positioning Module in the automotive industry

2020

Selected as Best Technical Partner for Autonomous RTK High-Precision Positioning Navigation in Taiwan

2023

Sustainability Certification

Certified by AFNOR Global Carbon Footprint Assessment

Quality Assurance

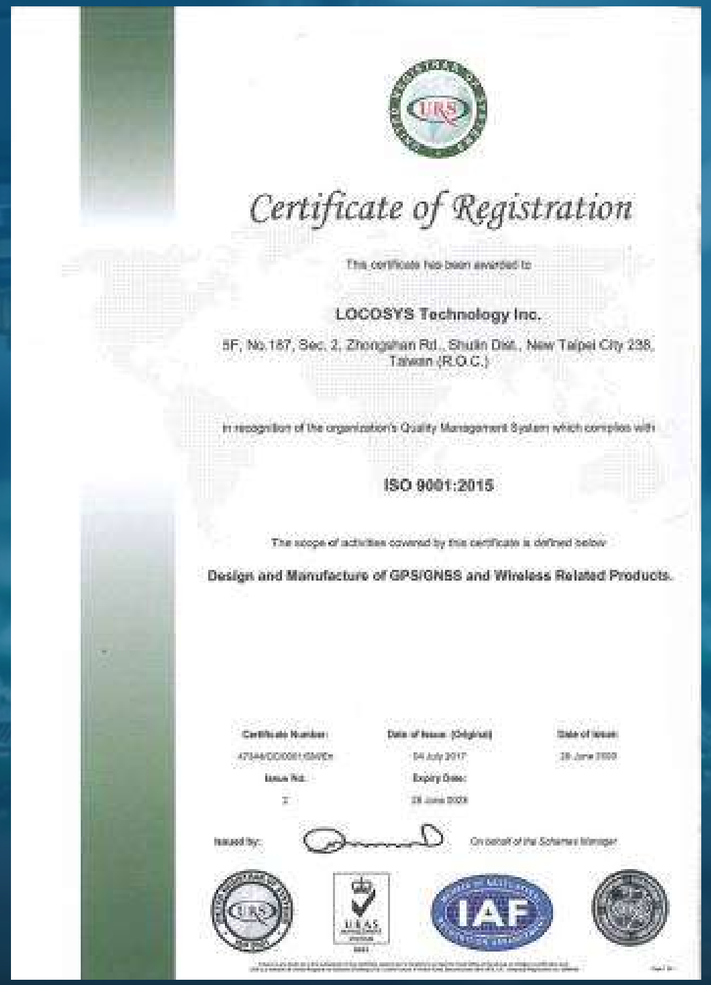
LOCOSYS
GNSS Wireless & Communication

ISO 9001

Globally Recognized Quality Management System Certification.

IATF 16949

Automotive Industry Quality Management System Certification.



Certificate of Registration

This certificate has been awarded to

LOCOSYS Technology Inc.

5F, No.187, Sec. 2, Zhongshan Rd., Shulin Dist., New Taipei City 238, Taiwan (R.O.C.)

In recognition of the organization's Quality Management System which complies with

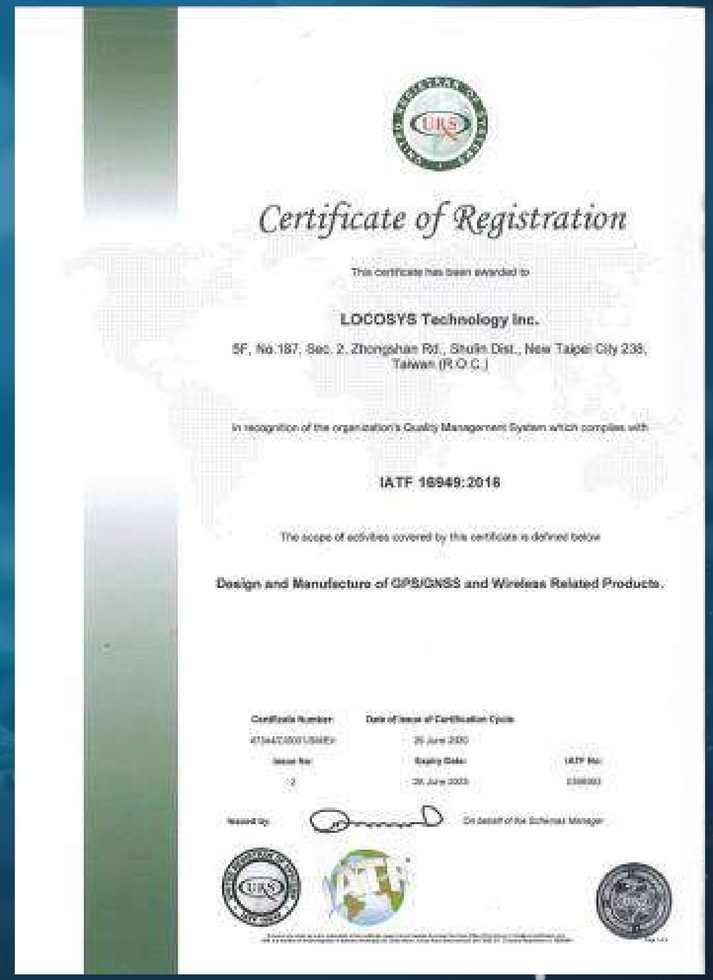
ISO 9001:2015

The scope of activities covered by this certificate is defined below

Design and Manufacture of GPS/GNSS and Wireless Related Products.

Certificate Number:	Date of Issue: (Original)	Date of Issue:
47344/COD001/SWEn	04 July 2017	28 June 2020
Issue No.:	Expiry Date:	
2	28 June 2023	

Issued by: On behalf of the Scheme Manager



Certificate of Registration

This certificate has been awarded to

LOCOSYS Technology Inc.

5F, No.187, Sec. 2, Zhongshan Rd., Shulin Dist., New Taipei City 238, Taiwan (R.O.C.)

In recognition of the organization's Quality Management System which complies with

IATF 16949:2016

The scope of activities covered by this certificate is defined below

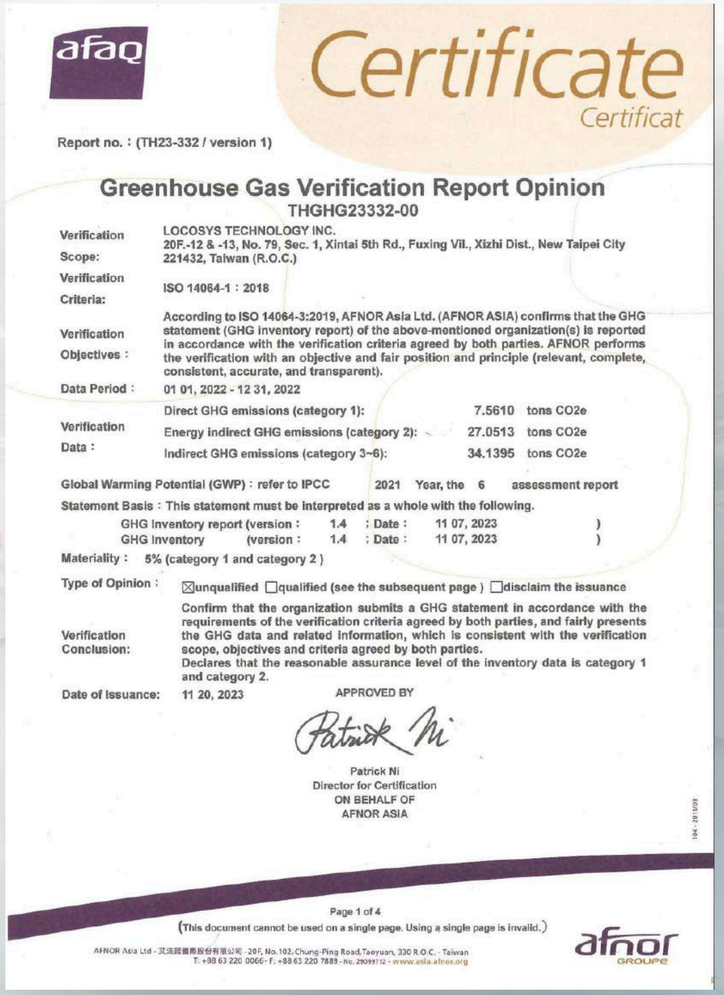
Design and Manufacture of GPS/GNSS and Wireless Related Products.

Certificate Number:	Date of Issue of Certification Cycle:	
47344/COD001/SWEn	28 June 2020	
Issue No:	Expiry Date:	IATF No:
2	28 June 2023	0398003

Issued by: On behalf of the Scheme Manager

Certified Production line

Environment Policy



afaq

Certificate
Certificat

Report no. : (TH23-332 / version 1)

Greenhouse Gas Verification Report Opinion
THGHG23332-00

Verification Scope:	LOCOSYS TECHNOLOGY INC. 20F.-12 & -13, No. 79, Sec. 1, Xintai 5th Rd., Fuxing Vil., Xizhi Dist., New Taipei City 221432, Taiwan (R.O.C.)
Verification Criteria:	ISO 14064-1 : 2018
Verification Objectives :	According to ISO 14064-3:2019, AFNOR Asia Ltd. (AFNOR ASIA) confirms that the GHG statement (GHG inventory report) of the above-mentioned organization(s) is reported in accordance with the verification criteria agreed by both parties. AFNOR performs the verification with an objective and fair position and principle (relevant, complete, consistent, accurate, and transparent).
Data Period :	01 01, 2022 - 12 31, 2022
Verification Data :	Direct GHG emissions (category 1): 7.5610 tons CO2e Energy indirect GHG emissions (category 2): 27.0513 tons CO2e Indirect GHG emissions (category 3~6): 34.1395 tons CO2e

Global Warming Potential (GWP) : refer to IPCC 2021 Year, the 6 assessment report

Statement Basis : This statement must be interpreted as a whole with the following.
GHG Inventory report (version : 1.4 ; Date : 11 07, 2023)
GHG Inventory (version : 1.4 ; Date : 11 07, 2023)

Materiality : 5% (category 1 and category 2)

Type of Opinion : ☒unqualified ☐qualified (see the subsequent page) ☐disclaim the issuance

Verification Conclusion: Confirm that the organization submits a GHG statement in accordance with the requirements of the verification criteria agreed by both parties, and fairly presents the GHG data and related information, which is consistent with the verification scope, objectives and criteria agreed by both parties.
Declares that the reasonable assurance level of the inventory data is category 1 and category 2.

Date of Issuance: 11 20, 2023

APPROVED BY

Patrick Ni
Director for Certification
ON BEHALF OF
AFNOR ASIA

Page 1 of 4
(This document cannot be used on a single page. Using a single page is invalid.)

AFNOR Asia Ltd - 艾法諾國際股份有限公司 - 20F, No.102, Chung-Ping Road, Taoyuan, 330 R.O.C. - Taiwan
T: +886 3 220 0066 - F: +886 3 220 7889 - no. 28099712 - www.asia.afnor.org

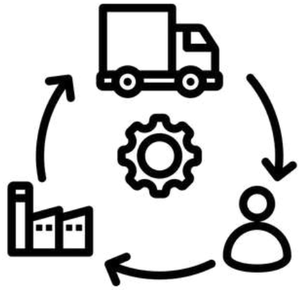
afnor GROUPE

Conflict-Free Minerals Policy

LOCOSYS
GNSS Wireless & Communication

Responsible Sourcing

Committed to not using conflict minerals to ensure ethical standards in products



Supply Chain Social Responsibility

Collaborates with suppliers to ensure compliance with EICC international standards

Continuous Monitoring & Compliance

Actively monitors conflict mineral issues and strictly adheres to environmental and social responsibility standards

Global Carbon Footprint & Sustainability Commitment

LOCOSYS
GNSS Wireless & Communication

01

Low-Carbon Manufacturing

The first GNSS/RTK module supplier in Taiwan to be certified under IATF 16949:2016

02

Green Supply Chain

Collaborating with suppliers to promote environmentally friendly products

03

Circular Economy

Enhancing resource recycling and reuse to minimize waste

04

Carbon Neutrality Goal

Implementing carbon reduction initiatives to move toward carbon neutrality

Introduction to Recent Successful Collaboration Cases

經濟日報

111年10月10日

電子科技

大辰鷹系列 登錄PX4無人機協會

採用台灣自製晶片、自行研發演算法 具備國際級RTK高精度定位性能

【台北訊】台灣大辰科技「HAWK鷹系列」產品正式登錄國際全球PX4無人機協會，並獲該官方協會組織認可具備國際級RTK高精定位性能，成爲台灣第一家實正MIT採用「台灣自製晶片、自行研發演算法」實現高精定位產品。

大辰科技和PX4國際全球無人機協會聯手合作推廣L1+L5多頻多系統高精度定位，從個人DIY娛樂、商業拍攝、農業植保、巡邏監控、物流快遞、戰略偵搜應用等，客群用途越來越廣泛。「RTK高精度定位」儼然形成高性能無人機執行任務的基本配備。

大辰科技「HAWK鷹系列定位接收器」採用自行研發全向性螺旋柱狀接收天線，給予載具精準的定位精度和快速的定位時間，同時支援高更新率、高靈敏度，還結合獨特抗電信干擾功能、慣性航程推估技術，可供飛行時所需的定位座標穩定性。

目前熱銷機種包括HAWK A1（GNSS等級/1.5m精度）、HAWK R1（RTK高精度等級/1cm精度）和HAWK R2（RTK+電羅盤/1cm精度）等3款，一次性接收全球五大衛星系統（包括美國GPS、歐洲Galileo、俄羅斯GLONASS、中國北斗BDS、日本QZSS），擁有高達135收星衛星通道數，於空曠地區使用可搜星數超過80顆以上，實際定位鎖星數超過60顆以上，其動態表現性能優越，非常適用於旋翼機、定翼機、直升機、搜運車、接駁車、機器狗、漁業船舶、自駕車等無人載具平台。

台灣大辰科技深耕全球數十年，目標致力於提供給予客戶高品質、高精度和高性價比產品，擁有IATF 16949:2016／ISO 9001:2015汽車品質管理系統資質和完整生產線設備，產品包括全球導航衛星系統（RTK／GNSS）無線通信、嵌入式Embedded板卡、4G／5G基站系統、車規／工規等級模組、車聯管理系統及消費電子等。海內外擁有20多家代理商，可快速提供產品銷售和技術支援。

台灣大辰科技官網：https://www.locosystech.com/，電話（02）8698-3698，E-mail：Info@locosystech.com。（吳佳汾）

大辰科技海鷗（左）、鷹鷹直升機可適應各種空中任務。 大辰／提供

經濟日報

產業資訊

大辰（雙）全球最小尺寸RTK模組

RTK-1010可同時接收所有全球衛星系統 65mA低功耗 定位精度達1cm

【台北訊】全球定位模組領先設計與軟硬體製造商的大辰科技，開春就有新動作，發表全球最小尺寸RTK-1010（10.1×9.7×2.2mm）多頻／多系統RTK模組。

大辰科技擁有IATF 16949:2016／ISO 9001:2015品質管理系統和完整生產線設備，提供全球導航衛星系統（GNSS）無線通信、嵌入式Embedded系統、航空電子系統、汽車級和消費電子等全面服務。

大辰科技資深行銷副總陳建良表示，衛星定位已普遍應用在生活中，除了航空、軍事、地理測繪等特殊用途外，高精度定位更適合無人移動載具、機械、大壩、邊坡及建築結構體監控、無人機空拍、物流快遞與表演、手持與穿戴裝置、智慧植保與農耕、共享行動、追蹤管理、V2V、V2X、時間校準等各種應用。但以往許多客戶受限於RTK設備售價昂貴、尺寸或功耗太大、技術門檻高，而無法普及成爲商品。

大辰科技RTK-1010模組可同時接收所有全球衛星系統，包含美國GPS L1／C／A、L5C、歐洲伽利略Galileo E1、E5a、俄羅斯GLONASS L1、北斗Beidou B1I／B2a、印度IRNSS L5結合多頻／多系統信號，高達135衛星通道數、65mA（毫安）低功耗絕佳表現，可作爲Base Station基站或Rover移動端使用。

Base Station基站廣播RTCM 3.X原始改正座標數據訊息，Rover在RTK模式可設置提供每秒1~10Hz高更新率，定位精度1cm，定向精度小於0.2度內；RTK定位收斂時間低於10秒，於靜止或高動態狀態下，其規格與性能已領先遠超過同等級進口產品。

大辰科技行銷全球數十年，熟知客戶的需求與痛點，預測RTK高精度模組將會快速擴展到各種民用市場，提供高品質和高性價比產品將會是客戶的首選。大辰科技海內外擁有20多家代理商進行在地化服務，快速提供完整產品系列和技術支持。

RTK-1010高精度模組。 大辰科技／提供

大辰科技網址：http://www.locosystech.com，電話（02）8698-3698分機305，E-mail：rik305@locosystech.com。台灣代理商光菱電子公司電話（02）2698-1143分機107周經理，E-mail：andy.chou@koryo.com.tw。（吳佳汾）

A16 產業動態 經濟日報 中華民國113年11月20日 星期三

大辰創新定位技術 侯友宜按讚

電動車產業鏈博覽會展示多項高精度導航產品與解方 拓展多元化應用

吳佳汾／撰稿

新北市政府日前舉辦「電動車產業鏈博覽會」，匯聚國內外知名企業與新創公司共同參與。作爲全球定位技術的領導者，LOCOSYS大辰科技展示最新高精度定位技術，致力推動電動車產業邁向智慧化與永續發展。新北市市長侯友宜蒞臨LOCOSYS大辰科技攤位，對其創新技術給予高度肯定。

LOCOSYS展出多項創新產品，包括高精度定位模組、多頻段天線，以及專爲自駕車設計的導航解決方案。最新的RTK高精度技術結合厘米級定位能力與多頻段接收功能，即使在複雜的城市環境中，也能提供穩定且可靠的精準定位服務。

另一展示亮點，LOCOSYS的多頻段天線（包括L1、L2、L5、L6、L Band）具備卓越的信號接收性能，全面支持GPS、GLONASS、Galileo、Beidou、QZSS和IRNSS等衛星系統。

該天線採用高增益設計與抗干擾技術，即使在遮擋環境下仍能穩定接收信號，廣泛應用於自駕車、無人搬運車、農業機械及工業搬運車等場景。不僅提升定位系統穩定性，還大幅降低多系統兼容設計成本，爲客戶提供靈活且全面的解決方案。

LOCOSYS業務副總陳建良在展會中分享全球車用市場的深入見解。他表示，隨著智慧交通與自動駕駛技術快速發展，高精度RTK定位需求將呈現爆炸性增長，尤其在自駕車領域，定位技術已成爲實現車輛智慧化的關鍵基石。

LOCOSYS的高精度定位技術結合高精度定向與慣性導航整合功能，有效克服傳統衛星定位技術在信號不足或無信號環境中的限制，提供穩定且連續的導航服務，成爲國際市場的重要競爭優勢。

此外，多頻段天線的研發是LOCOSYS在自駕應用市場的重要突破。陳建良進一步解釋，該天線能滿足多樣化應用場景對高穩定性與高兼容性的需求，例如：無人搬運車在室內外環境切換中的信號穩定性，或農業機械在遼闊偏遠地區的精準導航需求。該產品不僅提升定位精度，還爲客戶提供更強大的應用拓展能力。

LOCOSYS近年積極參與全球展會，與來自美國、日本、歐洲及東南亞的多家知名系統整合商及國際晶片商洽談合作方案。

未來，將針對智慧交通、智聯網（AIoT）與自動駕駛技術持續深入研發，拓展產品多元化應用。計畫參加更多國際博覽會活動，擴大品牌影響力並促進跨國合作。

新北市市長侯友宜（右一）肯定LOCOSYS大辰科技創新技術。 大辰科技／提供

經濟日報 中華民國113年7月2日 星期二

電子資訊

Swift攜Locosys 解鎖新一代精準定位

提供更高準確性、可靠性和性能解方 提高各行業生產力、降低應用風險和成本

宇軒 綠電市場香餑餑

晶泰發展太空電力晶片 開創營運新局

經濟日報

經濟日報 > 商情 > 熱門亮點

Locosys 大辰科技 推出全新高性能 SONY (GNSS/RTK) 全球衛星定位模組

24.11 DRONE ALLIANCE VISITS LOCOSYS

2024/11/19 LOCOSYS

台灣卓越無人機聯盟參訪大辰科技領先企業 聚焦全球定位技術與無人機應用

台北時間上午10點，台灣卓越無人機海外商機聯盟在顏東標的帶領下，由漢翔航空工業、工業技術研究院及經濟部航太產業推動小組等產業代表組成參訪團，蒞臨智慧製造領域的領先企業進行技術交流。本次參訪中，Locosys 大辰科技分享了在RTK（即時動態定位）、慣性導航技術，以及天線應用於無人機系統上的最新成果，並特別介紹了飛行路徑自主規劃演算法等技術亮點。此外，生產品質管理系統的導入及其助力智慧製造的成功經驗，也成為交流重點之一。


LOCOSYS
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Strategic Partners &
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Strategic Partners


Customers

LOCOSYS
GNSS Wireless & Communication

Taiwan

ASKEY
仁寶電腦 COMPAL
ADVANTECH
WNC 啓碁科技股份有限公司
clientron 公信電子
台達 DELTA
ELITEGROUP
英業達 Inventec
msi
廣達電腦 Quanta Computer
工業技術研究院 Industrial Technology Research Institute
TURING
威盛電子
ZyXEL 合勤科技
wistron 緯創資通
SYSTEMS & TECHNOLOGY CORP.
Getac
中興保全 SECOM
Coretronic 中強光電股份有限公司
FOXCONN
SERCOM 中磊電子
AAEON
Mtek
ASUS
交通部運輸研究所 Institute of Transportation, MOTC
中華電信 Chunghwa Telecom
中鋼公司
AXIOMTEK
國家中山科學研究院 National Chung-Shan Institute of Science & Technology
ASKEY
GIGABYTE
WNC 啓碁科技
TURING DRIVE 台灣智慧駕駛

China

Aisino
CHANGHONG 长虹
东风日产
CASKA 卡仕达 汽车导航影音专家
德赛西威 DESAY SV AUTOMOTIVE
千寻位置 QXWZ.COM
UniStrong 合众思壮
HCN 恒晨
吉利汽车 GEELY AUTO
BYD 比亚迪汽车
FREEWAY 飞韵
lenovo
Bcom
北京汽车 BAIC MOTOR
SAILING 启航 EDUCATION GROUP
GPS 赛格車聖
APICAL
CASIC
skyPine 天派
Baidu 百度
高德地图
好帮手电子
YF inside
Excellence 凯欣
MAX

Customers

LOCOSYS
GNSS Wireless & Communication

Japan

clarion
NTT空間情報
PENTAX
DENSO
Crafting the Core
鳥取スター電機グループ
TOTTORI STAR ELECTRIC GROUP
Yupiteru
RICOH
imagine. change.
MITSUBISHI MOTORS
HONDA
TOYOTA
YAMAHA
国土交通省
SONY
JR-EAST

America

AUDIOVOX CORPORATION
LOCKHEED MARTIN
Bad Elf
FUNAI
Cobra
NOTHING COMES CLOSE TO A COBRA
TE connectivity
MEDALLION
INSTRUMENTATION SYSTEMS
gm
NAVTEQ ON BOARD
Honeywell

India

ESCORTS
TATA

South Korea

KIA

Denmark

DENMARK.DK
THE OFFICIAL WEBSITE OF DENMARK

Canada

BOMBARDIER

New Zealand

NAVMAN

Lithuania

TELTONIKA

Germany

SIEMENS
BMW

Company Profile & Product / Application Information

Company Introduction | LOCOSYS Technology Inc. :

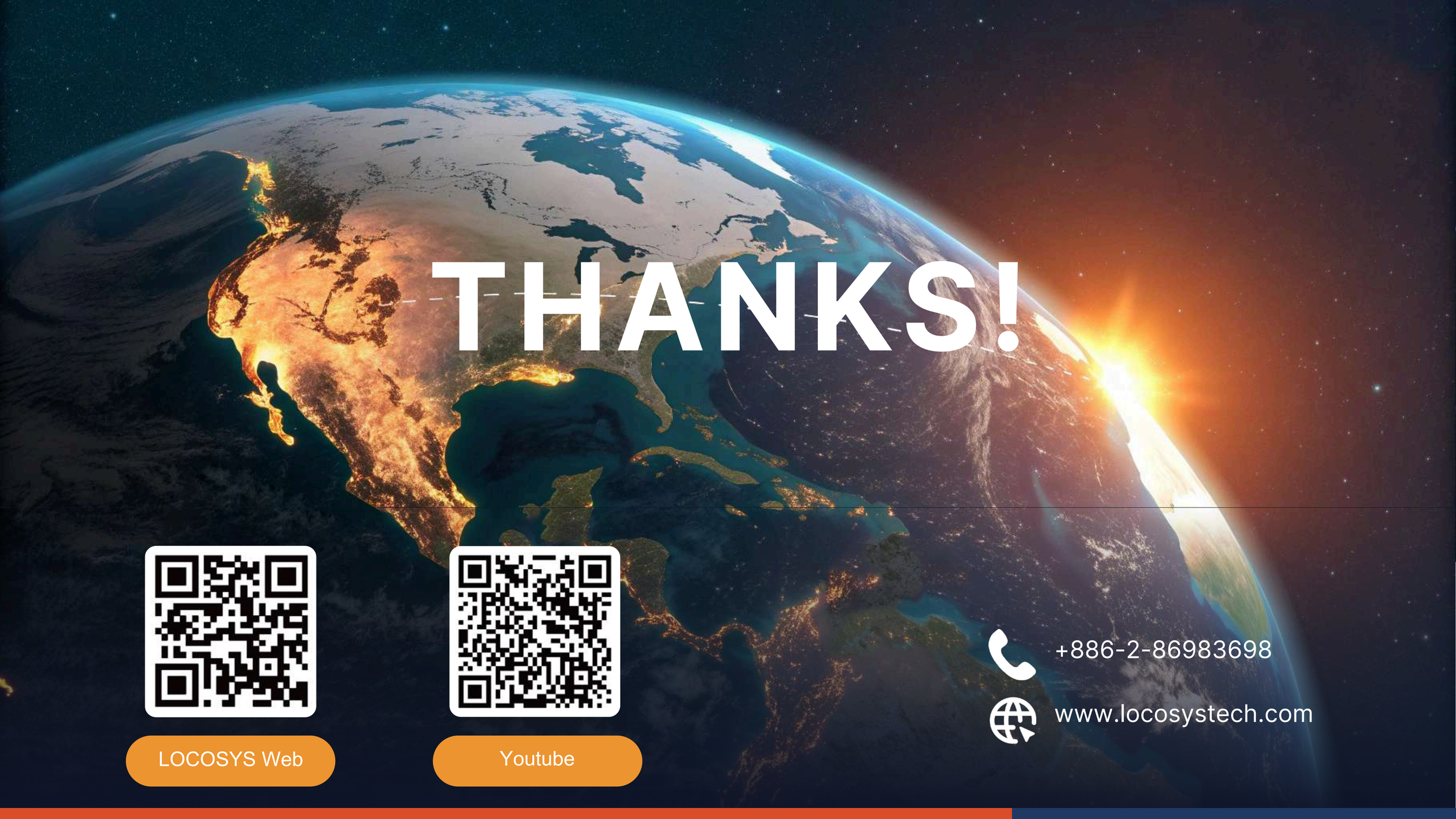
- Company Profile: https://www.locosystech.com/en/page/company-profile.html
- Corporate Video: https://www.youtube.com/watch?v=0_6bELBfkIc&t=3s

GNSS / RTK Product Line Overview :

- GNSS Satellite Positioning Modules : https://www.locosystech.com/en/category/GPS-GNSS-Standard-Modules.html
- RTK High-Precision Positioning Modules : https://www.locosystech.com/en/category/RTK-Modules/RTK-L1-L5-Modules.html
- RTK + Inertial Navigation Integrated Modules (RTK + DR) : https://www.locosystech.com/en/category/RTK-DR-Modules/RTK-DR-Modules.html
- RTK High-Precision Positioning + High-Precision Heading Integrated Modules : https://www.locosystech.com/en/category/RTK-board-L1L5/RTK-board-L1%2BL5.html

Drone / Precision Positioning / Use Cases :

- https://www.youtube.com/watch?v=RGtY-_XAFXY&t=26s
- https://www.youtube.com/watch?v=vCNjcUY3n_I
- https://www.youtube.com/watch?v=jOYFpfDsvIA
- Aerospace Industry Project by Ministry of Economic Affairs : https://www.casid.org.tw/NewsView01.aspx?NewsID=fb0bd22d-9e9a-431e-a784-91aa8cea956b
- Dajia River Precision Aerial Payload Delivery : https://www.youtube.com/watch?v=h-ZHICHW664
- Hualien Emergency Medicine Airdrop for Disaster Relief : https://www.youtube.com/watch?v=KkvfkgyokAI
- Eagle Series News - Economic Daily : https://www.locosystech.com/en/news/locosys-Eagle-series-news.html
- Precision Search & Rescue Drone - Economic Daily : https://www.locosystech.com/en/news/Precision-search-+rescue-drone-news.html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