

2025

LOCOSYS

GNSS Wireless & Communication

Embark on a New Journey

***Leading Smart Positioning
Innovating the Future***

LOCOSYS Technology Inc.

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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.

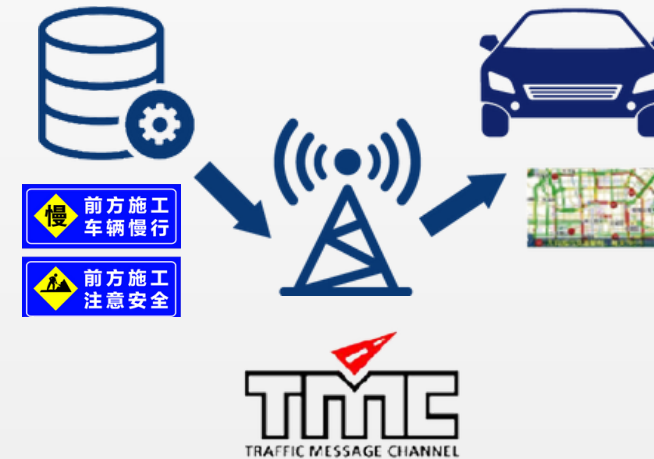
Founded in Taiwan, LOCOSYS originated from a prestigious information technology research institute. Over the past 20 years, we have continuously advanced our software, hardware, and system integration capabilities. With strong R&D expertise, we have become an Alpha-grade certified module design supplier 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



Officially Established



2005

Company Established
Achieved ISO 9001
Certification

2006

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

Fully Committing to
TS-16949 Automotive
Quality Management
System Certification

2010

Formally Partnering with
Qualcomm Atheros to
Design GPS+WiFi Modules



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



Meter level positioning module



RTK High-precision positioning module



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



LOCOSYS Base Station Equipment



TianTong (LEO) Antenna



2020

2021

2022

2023

2024

2025

Formally Introducing
the SUB METER (L1+L5)
Module

Introducing the World's
Smallest High-Precision
RTK Module

Joining the Global
Drone Association

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

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

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. Dacheng 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

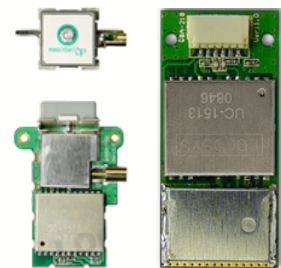


Module Type



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



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



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



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

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.

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LOCOSYS

GNSS Wireless & Communication

2025 GNSS/RTK Position Module



L1 FOR ALL GNSS SOLUTION



Multi-constellation GNSS module
& ultra low power



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



Multi-constellation GNSS module
& ultra low power



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+L5 GNSS MODULES

Dual-frequency multi-constellation
GNSS positioning module

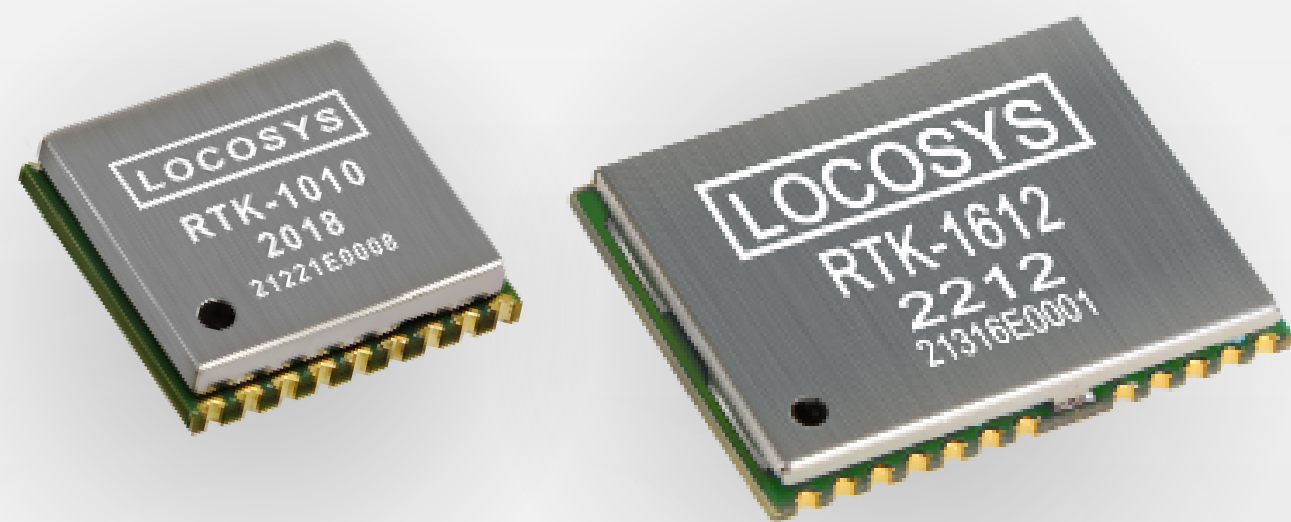


MC-1010-V2b/MC-1612-V2b					
Satellite System	GPS	GLONASS	BEIDOU	GALILEO	QZSS
	●	●	●	●	●
Hardware spec					
Frequency	L1	L2	L5	Acquisition Time	< 15s
	●		●		
Channels	135			Max. Velocity	< 500 m/
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)				
Update rate	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

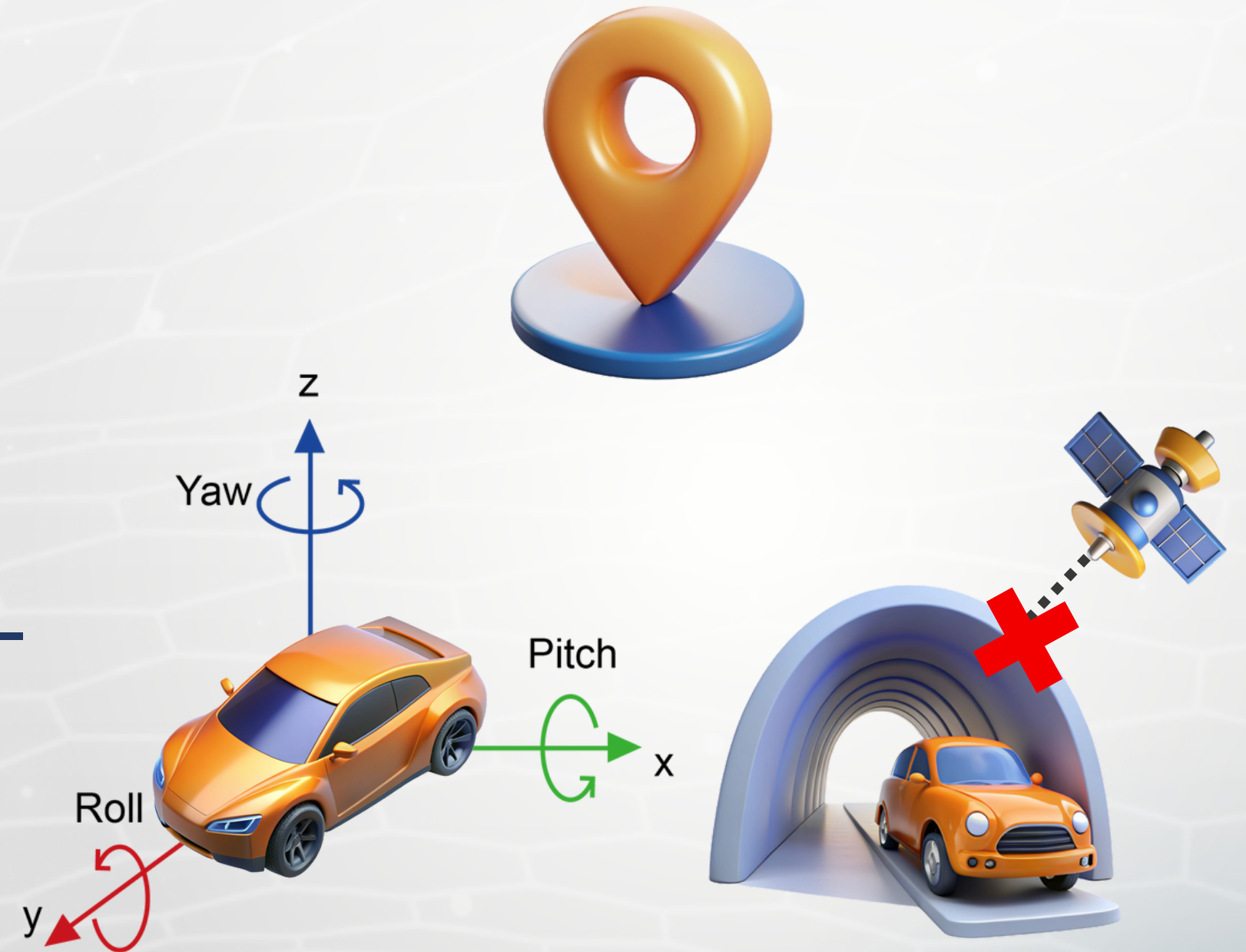
L1+L5 RTK MODULES

Dual-frequency multi-constellation
GNSS RTK module



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		

2025 GNSS/RTK With DR Solution



L1+L5+DR MODULES



Dual-frequency Multi-constellation
GNSS Untethered dead reckoning
module



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



High-precision Untethered
dead reckoning module



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

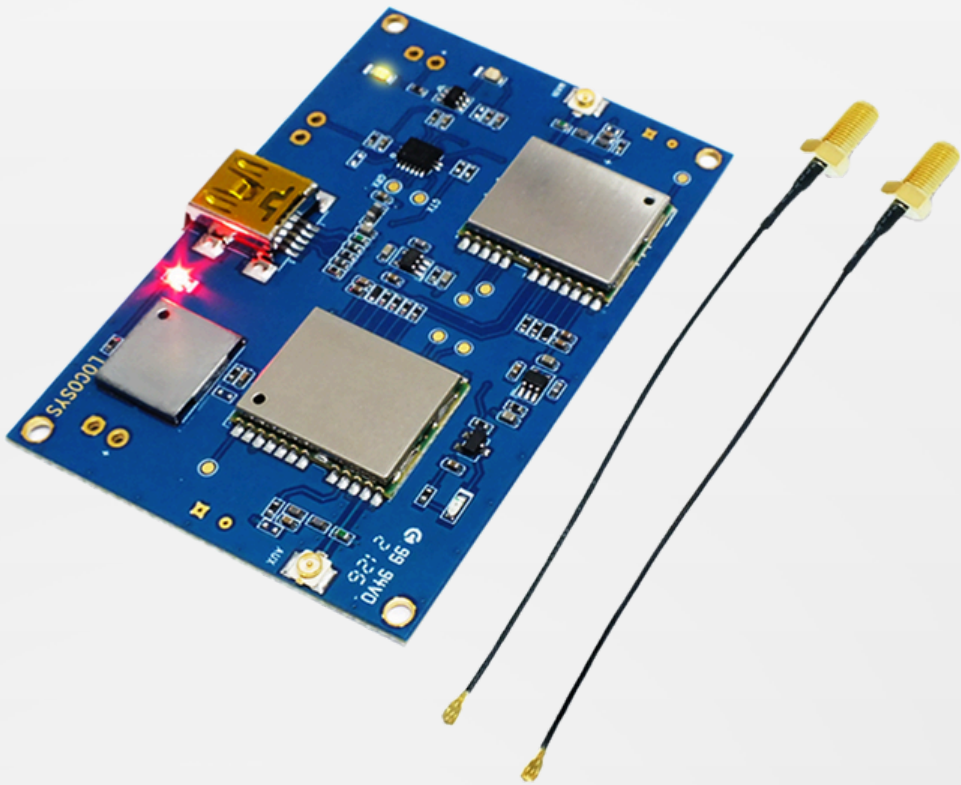
Dual-frequency multi-constellation
GNSS mouse



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

Dual-Frequency (Position& Orientation) RTK Board



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



Dual-frequency, Multi-constellation
RTK Box



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

L1+L5 RTK device for OTG on
Android system



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)			Connector	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

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



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	
Sensitivity	Tracking :-165dBm (with external LNA) Cold start :-148dBm (with external LNA)					
Update rate	5Hz default, up to 10Hz			Power	67mA	
PPS	100ms pulse width, 1.8Vdc			Operating Temp	-40°C~+85°C	

RTK SYSTEM



Rugged and industrial grade RTK computer



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

Rugged and industrial grade RTK computer



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

Rugged and industrial grade RTK computer



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










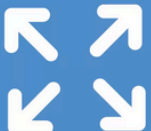



Rugged and industrial grade
8” and 10.1” RTK Android Tablet PC



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

Model Name	Photos	 L1L2L5	 Wi-Fi		 4G LTE			 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		●	●						

Antenna Accessories



Helix-Antenna (L1/L5)

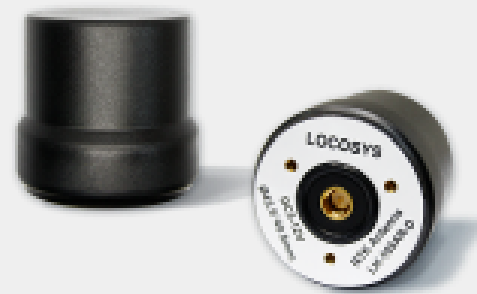


LH-105A2-B

Frequency : L1+L5

Waterproof : IPX7

Suitable for
handheld,UAV

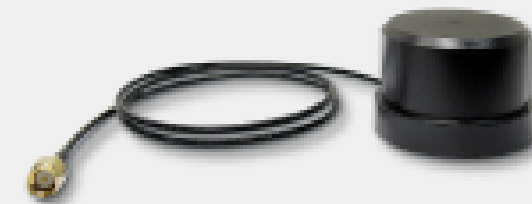


LH-105AR-D

Frequency : L1+L5

Waterproof : IP67

Suitable for
handheld,UAV



LH-105AR-DC

Frequency : L1+L5

Waterproof : IP67

Suitable for
handheld,UAV

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



LH-105AR-D

Frequency :
L1+L2+L5 +L6

Waterproof : IP67

Suitable for
handheld,UAV



LH-105AR-E

Frequency : L1+L5

Waterproof : IP67

Suitable for
handheld,UAV



LH-1256L

Frequency : L1+L5

Waterproof : IPX7

Suitable for
handheld,UAV

Patch Antenna (GNSS/RTK)



LP-105A-C

GNSS antenna

Frequency : L1+L5

Waterproof : IP67

Suitable for Automotive



LP-105AR-C

GNSS/RTK antenna

Frequency : L1+L5

Waterproof : IP67

Suitable for Automotive

Survey **Antenna**



LS-125-A

Frequency : L1+L2+L5+L6+L-Band

Waterproof : IP67

**Suitable for Automotive
and Base station**



LS-125F-A

Frequency : L1+L2+L5+L-Band

Waterproof : IP67

**Suitable for Automotive
and Base station**

TianTong (LEO) Antenna



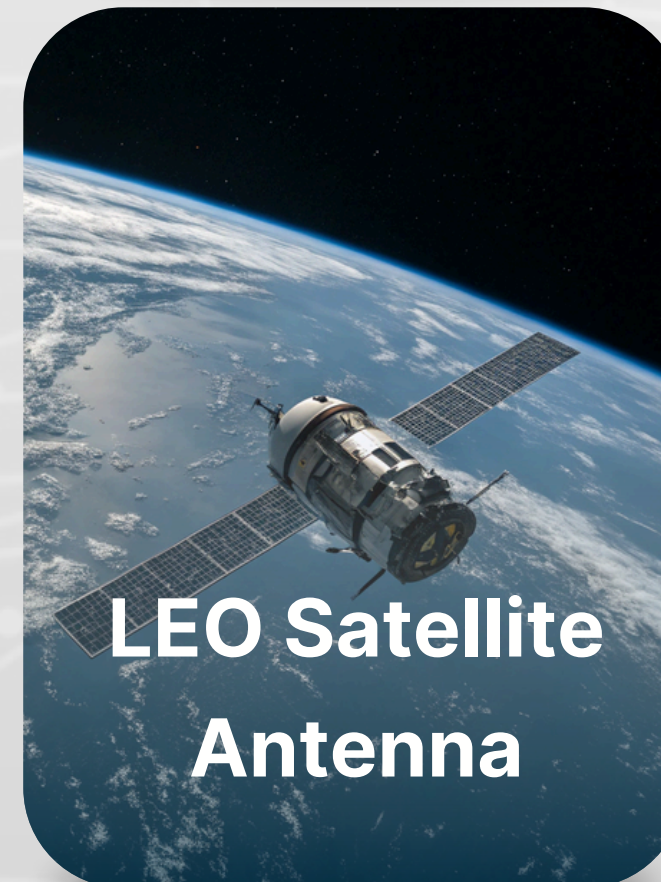
TT01

Frequency : S-Band

**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.



LOCOSYS
GNSS Wireless & Communication

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



LH-1256L



Application



Industrial Surveying



RTK-M300/RTK-M980



GB-104B/WB



ROCK T71/ROCK T101

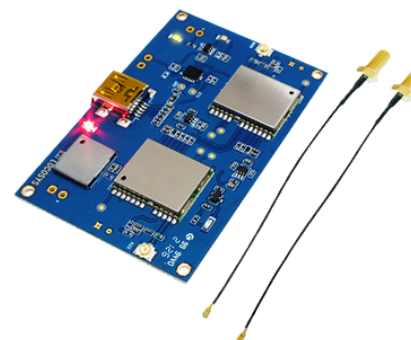
AGV Robotics



RTK-1010



RTK-1612



RTK-4057-MHPD



RTK-DUAL



Application



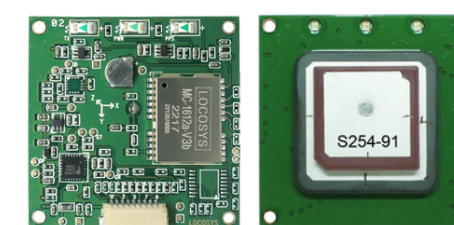
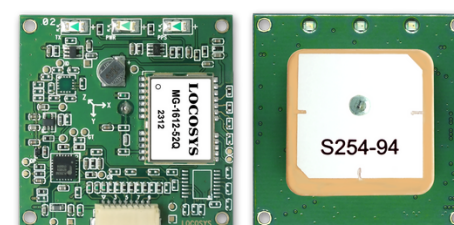
Fleet Management



LS2003xU-G



LC2003x-52Q



LC2003x-Vx



LS2003H-Vx

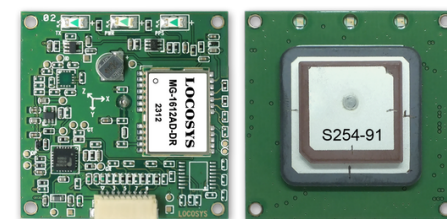
Dead Reckoning



MG-1612AD-DR



RTK-1612AD-DR



LC2003x-35AD



LS2303x-UDG



LU2303x-35AD



Quality & News

Quality Certifications & Recent Achievements

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:

47344/000001/0001

Issue No.:

1

Date of Issue (Original):

04 July 2017

Expiry Date:

28 June 2020

Date of Issue:

28 June 2020

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:

47344/000001/0001

Issue No.:

2

Date of Issue of Certification Cycle:

28 June 2020


Expiry Date:

28 June 2023

IATF No.:

038893

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: LOCOSYS TECHNOLOGY INC.
Scope: 20F.-12 & -13, No. 79, Sec. 1, Xintai 5th Rd., Fuxing Vil., Xizhi Dist., New Taipei City
Verification Criteria: 221432, Taiwan (R.O.C.)
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
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 GROUPE

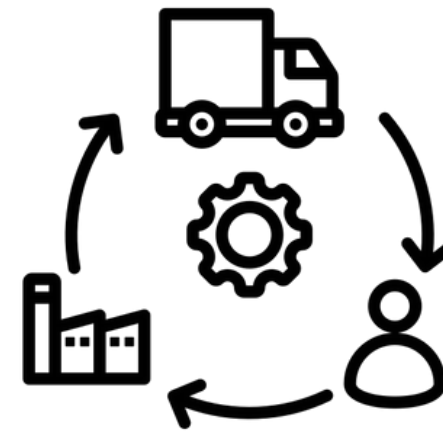
AFNOR Asia Ltd - 艾法蘭集團股份有限公司 - 20F, No. 102, Chung-Ping Road, Taoyuan, 330 R.O.C. - Taiwan
T: +88 63 220 0066- F: +88 63 220 7889 - No. 25099712 - www.asia.afnor.org

Conflict-Free Minerals Policy



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



LOCOSYS
GNSS Wireless & Communication

世界最小型の高精度RTK模組

測位の極み、台湾の誇り

高精度 1cm級高精度測位
省エネ 消費電力65mA
多衛星 最多135機受信可能

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，並獲該協會組織認可具備國際級RTK高精度定位性能，成為台灣第一家真正MIT採用「台灣自製晶片、自行研發演算法」實現高精度定位產品。

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、戰略偵察應用等，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，還結合獨特抗電磁干擾功能、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/L5m精度)、HAWK R1 (RTK高精度等級/1cm精度) 和HAWK R2 (RTK+電壓/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收衛星通數，於空曠地區使用可搜星數超過80顆以上，實際定位衛星數超過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、搬運車、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、車隊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。

(吳佳芬)

經濟日報

產業資訊

大辰發表全球最小尺寸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裁陳建良表示，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、橋樑、大壩、邊坡及建築結構監控、無人機空拍、物流快速與表演、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，而無法普及成為商品。

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衛星通數、65mA (毫安) 低功耗絕佳表現，可作為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。

大辰科技網址: <http://www.locosystech.com>、電話: (02) 8698-3698分機305、E-mail: rtk305@locosystech.com、台灣代理商光麥電子公司電話: (02) 2698-1143



RTK-1010高精度模組。大辰科技 / 提供
分機107周經理, E-mail: andy.chou@koryo.com.tw (吳佳芬)

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。作為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，以及專為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，即使在惡劣環境下仍能穩定接收信號，廣泛應用於自駕車、無人接駁車、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，為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，定位技術已成為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，成為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精度與高兼容性的需求

，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，還為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、智慧聯網（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。



新北市長侯友宜（右一）肯定LOCOSYS大辰科技創新技術。大辰科技／提供

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。



電子資訊

Swift 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

【台北訊】Swift Navigation 與 LOCOSYS 攜手合作，共同推出新一代精準定位技術，為全球客戶提供更高準確性、可靠性和性能解方。該技術結合了 Swift Navigation 的 RTK 定位技術與 LOCOSYS 的多頻段天線技術，為客戶提供全面的定位解決方案。該技術可應用於多種場景，包括自駕車、無人接駁車、農業機械及工業搬運車等。該技術可應用於多種場景，包括自駕車、無人接駁車、農業機械及工業搬運車等。該技術可應用於多種場景，包括自駕車、無人接駁車、農業機械及工業搬運車等。

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20:50 日圓歷史性弱勢告終 東方匯理看好兌美元匯價可再一 08:27 三隻往台北快改道 1台1萬架次孝德全線封閉 拖板車...

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



【台北訊】「智慧交通」是未來發展趨勢，也是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。

Strategic Partners & Customers

Together We Thrive, Building a Brilliant Future!

Strategic Partners



Customers



Taiwan



China



Customers



Japan



America



India



South Korea



Denmark



Canada



New Zealand



Lithuania



Germany



THANKS!



LOCOSYS Web



Youtube



+886-2-86983698



www.locosystech.com