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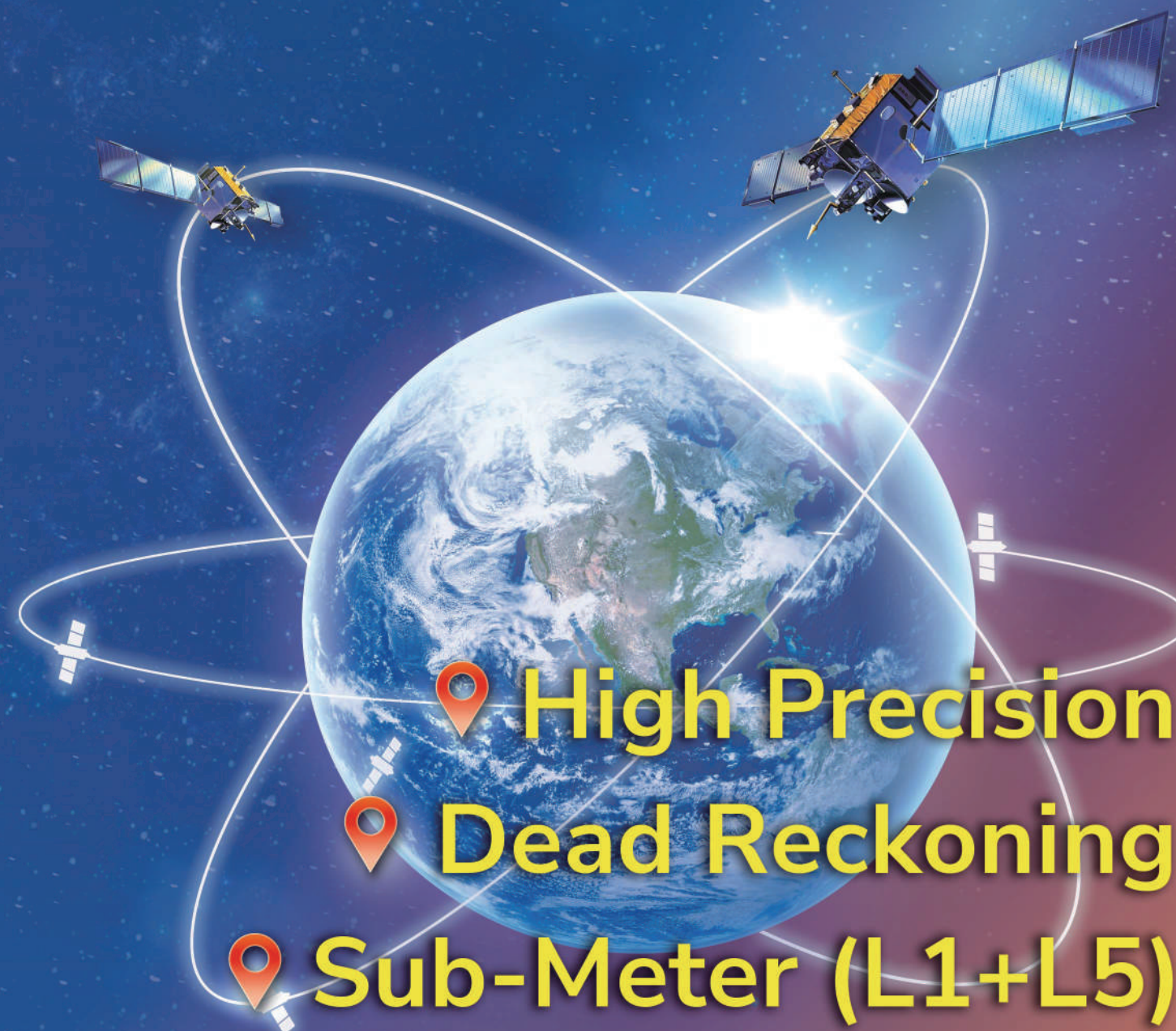
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LOCOSYS

GNSS Wireless & Communication

LOCOSYS

GNSS / RTK Product Catalog

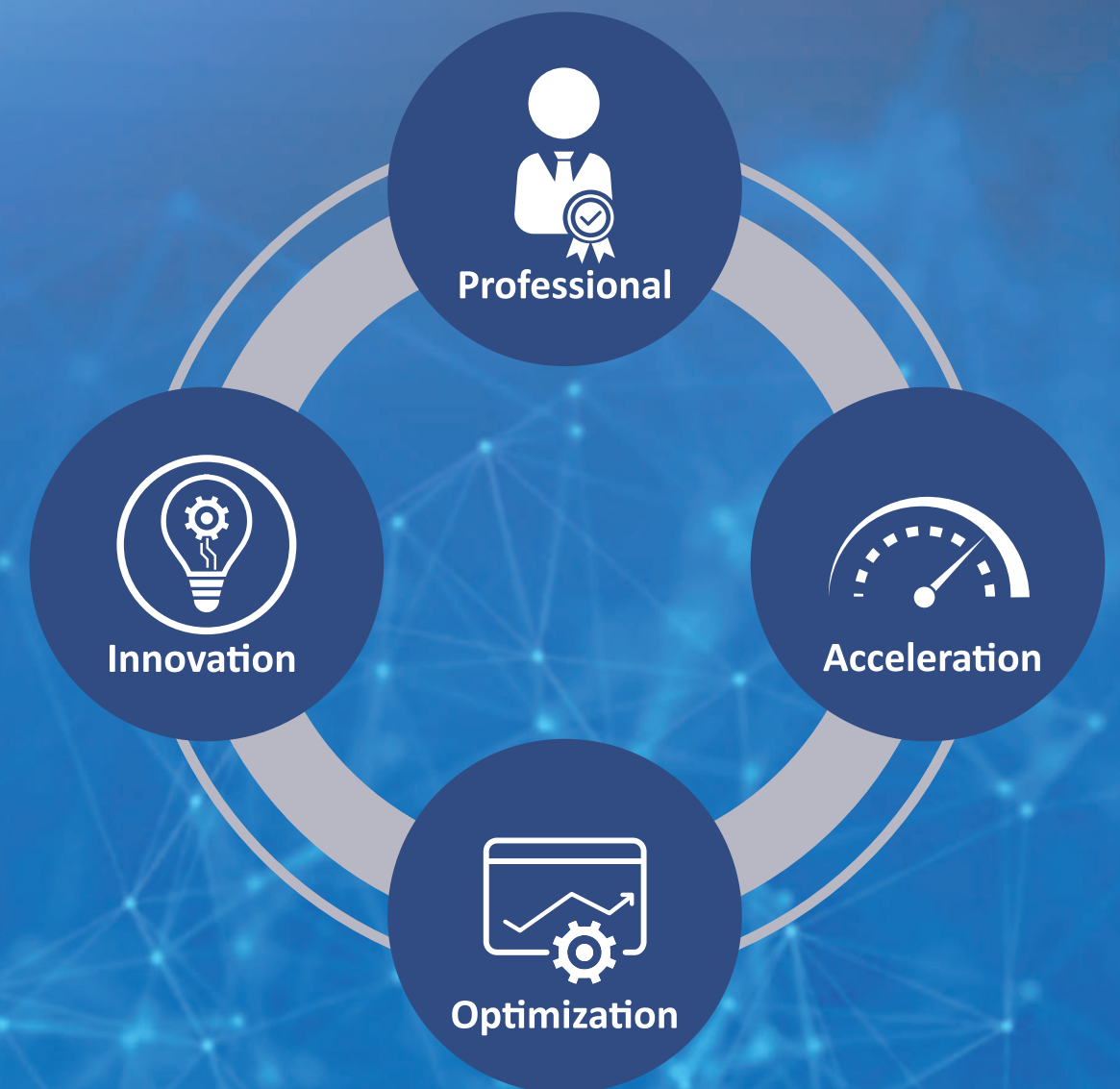


LOCOSYS Introduction

LOCOSYS Technology is a global leading company of satellite positioning module, we dedicate ourselves in the global market for more than 20 years, and now LOCOSYS has become No.1 leading company of GNSS/RTK solutions in Taiwan, and top 5 in the world. We provide high quality and reliable GNSS wireless solutions to fulfill customers' needs, with our own designing and manufacturing capability, LOCOSYS keep providing α -level Global Navigation Satellite System (GNSS) high-precision positioning/orientation solutions to our global customers.

LOCOSYS in-house proprietary RTK solution (HW/SW) based on multi-band GNSS, is able to achieve centimeter level accuracy with high update rate certified by official Standard Instrument Control Library (SICL). With small form factor and low power consumption, it can be embedded to any platform, aiming for Mass Market RTK both in receiver (Rover) and reference (Base Station), to make RTK positioning become universal.

Quality is our No.1 priority, with **AEC-Q100/AEC-Q104** and **IATF 16949:2016/ISO 9001:2015**, we ensure the quality and sustainability of our products to meet customers' standards. Not only providing high quality product, **LOCOSYS also cares about our environment. As an international company with business all over the world, reducing carbon emissions will also be our goals to focus from 2023.** And with more than 20+ agent bases in worldwide. Not only can provide completed product information quickly but also give localized support and services efficiently.



LOCOSYS
GNSS Wireless & Communication



47344



AEC-Q100
AEC-Q104
IATF 16949



CONTENT

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01 Module Solution

GPS Module	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
MC-1010-2RE							Flash	2.5m	3.3V	UART	10.1 x 9.7 x 2.0
MC-1612-2RE							Flash	2.5m	3.3V	UART	16.0 x 12.2 x 2.2
MC-1010							Flash	2.5m	3.3V	UART	10.1 x 9.7 x 2.0
MC-1612							Flash	2.5m	3.3V	UART	16.0 x 12.2 x 2.2



MC-1010-2REMC-1010MC-1612-2REMC-1612

GNSS Module	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
MC-1010-G/-B							Flash	2.5m	3.3V	UART	10.1 x 9.7 x 2.0
MC-1612-G/-B							Flash	2.5m	3.3V	UART	16.0 x 12.2 x 2.2
MC-1010-G2							Flash	2.5m	3.3V	UART	10.1 x 9.7 x 2.2



MC-1010-GMC-1010-BMC-1612-GMC-1612-BMC-1010-G2

L1 GNSS Module	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
MC-1010-18Q							Flash	1.5m	1.8V	UART/(I ² C)	10.1 x 9.7 x 2.2
MC-1010-52Q							Flash	1.5m	3.3V	UART/(I ² C)	10.1 x 9.7 x 2.2
MC-1612-52Q							Flash	1.5m	3.3V	UART/(I ² C)	16.0 x 12.2 x 2.4



MC-1010-18QMC-1010-52QMC-1612-52Q

L1 + L5 GNSS Module	GP	GL	BD	GA	QZSS	IRNSS	L5 Signal	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
MC-1010-V2a							GPS	Flash	1.5m	1.8V	UART/(I ² C)	10.1 x 9.7 x 2.2
MC-1010-V3a							IRNSS	Flash	1.5m	1.8V	UART/(I ² C)	10.1 x 9.7 x 2.2
MC-1010-V2b							GPS	Flash	1.5m	3.3V	UART	10.1 x 9.7 x 2.2
MC-1010-V3b							IRNSS	Flash	1.5m	3.3V	UART	10.1 x 9.7 x 2.2
MC-1612-V2b							GPS	Flash	1.5m	3.3V	UART	16.0 x 12.2 x 2.4
MC-1612-V3b							IRNSS	Flash	1.5m	3.3V	UART	16.0 x 12.2 x 2.4



MC-1010-V2aMC-1010-V3aMC-1010-V2bMC-1010-V3bMC-1612-V2bMC-1612-V3b

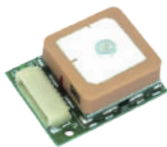
※  GPS  GLONASS  BEIDOU  GALILEO  QZSS  IRNSS

02 Smart Antenna Solution

GPS Smart Antenna	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
LS2003C-2RE							ROM	2.5m	3.3V	UART	15.5 x 15.5 x 6.6
LS2003D-2RE							ROM	2.5m	3.3V	UART	21.0 x 17.0 x 7.2
LS2003E-2RE							ROM	2.5m	3.3V	UART	22.0 x 22.0 x 8.4
LS2003C							Flash	2.5m	3.3V	UART	15.5 x 15.5 x 6.6
LS2003D							Flash	2.5m	3.3V	UART	21.0 x 17.0 x 7.2
LS2003E							Flash	2.5m	3.3V	UART	22.0 x 22.0 x 8.4
LS20030-2RE							ROM	2.5m	3.3V	USB	30.0 x 30.0 x 8.0
LS20031-2RE							ROM	2.5m	3.3V	TTL	30.0 x 30.0 x 8.0
LS20032-2RE							ROM	2.5m	3.3V	RS232	30.0 x 30.0 x 8.0
LS20030U							Flash	2.5m	3.3V	UART	15.5 x 15.5 x 6.6
LS20031U							Flash	2.5m	3.3V	UART	21.0 x 17.0 x 7.2
LS20032U							Flash	2.5m	3.3V	UART	22.0 x 22.0 x 8.4



LS2003C-2RE
LS2003C
LS20030U



LS2003D-2RE
LS2003D
LS20031U



LS2003E-2RE
LS2003E
LS20032U



LS2003x-2RE

GNSS Smart Antenna	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
LS2003J-G							Flash	2.5m	3.3V	UART	16.0 x 12.8 x 2.8
LS2003C-G							Flash	2.5m	3.3V	UART	15.5 x 15.5 x 6.0
LS2003D-G							Flash	2.5m	3.3V	UART	15.5 x 15.5 x 6.0
LS2003E-G							Flash	2.5m	3.3V	UART	22.0 x 22.0 x 8.4
LS20030U-G							Flash	2.5m	3.3V	USB	30.0 x 30.0 x 8.0
LS20031U-G							Flash	2.5m	3.3V	TTL	30.0 x 30.0 x 8.0
LS20032U-G							Flash	2.5m	3.3V	RS232	30.0 x 30.0 x 8.0
LS20030U-B							Flash	2.5m	3.3V	USB	30.0 x 30.0 x 8.0
LS20031U-B							Flash	2.5m	3.3V	TTL	30.0 x 30.0 x 8.0
LS20032U-B							Flash	2.5m	3.3V	RS232	30.0 x 30.0 x 8.0



LS2003J-G



LS2003C-G



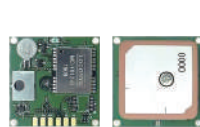
LS2003D-G



LS2003E-G



LS2003xU-G



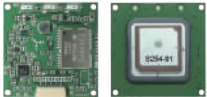
LS2003xU-B

L1 Smart Antenna	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
LC20030-52Q							Flash	1.5m	3.3V	USB	38.0 x 38.0 x 7.9
LC20031-52Q							Flash	1.5m	3.3V	TTL	38.0 x 38.0 x 7.9
LC20032-52Q							Flash	1.5m	3.3V	RS232	38.0 x 38.0 x 7.9

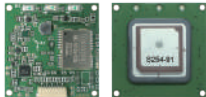


LC2003x-52Q

L1 + L5 Smart Antenna	GP	GL	BD	GA	QZSS	IRNSS	L5 Signal	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
LC20030-V2							GPS	Flash	1.5m	3.3V	USB	38.0 x 38.0 x 7.9
LC20031-V2							GPS	Flash	1.5m	3.3V	TTL	38.0 x 38.0 x 7.9
LC20032-V2							GPS	Flash	1.5m	3.3V	RS232	38.0 x 38.0 x 7.9
LC20030-V3							IRNSS	Flash	2.5m	3.3V	USB	38.0 x 38.0 x 7.9
LC20031-V3							IRNSS	Flash	2.5m	3.3V	TTL	38.0 x 38.0 x 7.9
LC20032-V3							IRNSS	Flash	2.5m	3.3V	RS232	38.0 x 38.0 x 7.9
LS2003H-V2							GPS	Flash	1.5m	3.3V	UART/USB	14.0 x 9.6 x 2.0
LS2003H-V3							IRNSS	Flash	1.5m	3.3V	UART/USB	14.0 x 9.6 x 2.0



LC2003x-V2



LC2003x-V3



LS2003H-V2



LS2003H-V3

03 Mouse Receiver

GPS Mouse Receiver	GP	GL	BD	GA	QZSS	IRNSS	Position Accuracy	VCC	Interface	Connector	Dimension (mm)
LS23030-2RE							2.5m	5V	USB	USB	49.0 x 41.0 x 14.1
LS23032-2RE							2.5m	5V	RS232	PS2	49.0 x 41.0 x 14.1
LS23036-2RE							2.5m	5V	RS232	RJ11	49.0 x 41.0 x 14.1
LS23030							2.5m	5V	USB	USB	49.0 x 41.0 x 14.1
LS23032							2.5m	5V	RS232	PS2	49.0 x 41.0 x 14.1
LS23036							2.5m	5V	RS232	RJ11	49.0 x 41.0 x 14.1



LS2303x-2RE

LS2303x

GNSS Mouse Receiver	GP	GL	BD	GA	QZSS	IRNSS	Position Accuracy	VCC	Interface	Connector	Dimension (mm)
LS23030-G							2.5m	5V	USB	USB	49.0 x 41.0 x 14.1
LS23032-G							2.5m	5V	RS232	PS2	49.0 x 41.0 x 14.1
LS23036-G							2.5m	5V	RS232	RJ11	49.0 x 41.0 x 14.1

L1 + L5 UDR Mouse Receiver	GP	GL	BD	GA	QZSS	IRNSS	Position Accuracy	VCC	Interface	Connector	Dimension (mm)
LU23030-35AD							1.5m	5V	USB	USB	52.0 x 57.0 x 17.0
LU23032-35AD							1.5m	5V	RS232	PS2	52.0 x 57.0 x 17.0
LU23036-35AD							1.5m	5V	RS232	RJ11	52.0 x 57.0 x 17.0

L1 Mouse Receiver	GP	GL	BD	GA	QZSS	IRNSS	Position Accuracy	VCC	Interface	Connector	Dimension (mm)
LU23030-52Q							1.5m	5V	USB	USB	52.0 x 57.0 x 17.0
LU23032-52Q							1.5m	5V	RS232	PS2	52.0 x 57.0 x 17.0
LU23036-52Q							1.5m	5V	RS232	RJ11	52.0 x 57.0 x 17.0

L1 + L5 Mouse Receiver	GP	GL	BD	GA	QZSS	IRNSS	L5 Signal	Position Accuracy	VCC	Interface	Connector	Dimension (mm)
LU23030-V2							GPS	1.5m	5V	USB	USB	52.0 x 57.0 x 17.0
LU23032-V2							GPS	1.5m	5V	RS232	PS2	52.0 x 57.0 x 17.0
LU23036-V2							GPS	1.5m	5V	RS232	RJ11	52.0 x 57.0 x 17.0
LU23030-V3							IRNSS	2.5m	5V	USB	USB	52.0 x 57.0 x 17.0
LU23032-V3							IRNSS	2.5m	5V	RS232	PS2	52.0 x 57.0 x 17.0
LU23036-V3							IRNSS	2.5m	5V	RS232	RJ11	52.0 x 57.0 x 17.0



LS2303x-G



LU2303x-35AD
LU2303x-52Q
LU2303x-V2
LU2303x-V3

04 Timing Module

Timing Module	GP	GL	BD	GA	QZSS	IRNSS	Memory	Timing Accuracy	Position Accuracy	VCC	Interface	Dimension (mm)
MC-1722-T							Flash	2ns	1.5m	3.3V	UART	22.4 x 17.2 x 2.5
ST-1612-T							Flash	5ns	2.5m	3.3V	UART	16.0 x 12.2 x 2.2
ST-1612i-GT							Flash	3.9ns	1.8m	3.3V	UART	16.0 x 12.2 x 2.4
ST-1612i-BT							Flash	3.9ns	1.8m	3.3V	UART	16.0 x 12.2 x 2.4



MC-1722-T



ST-1612-T



ST-1612i-GT



ST-1612i-BT

※  GPS  GLONASS  BEIDOU  GALILEO  QZSS  IRNSS

05 Mini PCI-E / M.2 Card

GPS Mini PCI-e Card	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
LS26030-2RE							ROM	2.5m	3.3V	USB	50.8 x 28.5 x 3.2
LS26031-2RE							ROM	2.5m	3.3V	USB	26.65 x 28.5 x 3.2
LS26030							Flash	2.5m	3.3V	USB	50.8 x 28.5 x 3.2
LS26031							Flash	2.5m	3.3V	USB	26.65 x 28.5 x 3.2

GNSS Mini PCI-e Card	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
LS26030-G/-B							Flash	2.5m	3.3V	USB	50.8 x 28.5 x 3.2
LS26031-G/-B							Flash	2.5m	3.3V	USB	26.65 x 28.5 x 3.2
LS26030-15R							Flash	0.01m+1ppm < 1.5 m CEP (Autonomous) 0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	USB	50.8 x 28.5 x 3.2
LS26031-15R							Flash		3.3V	USB	26.65 x 28.5 x 3.2

M.2 Card	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
M.2-V2b							Flash	1.5m	3.3V	M.2/USB	41.9 x 22.0 x 4.1
M.2-15R							Flash	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	M.2/USB	41.9 x 22.0 x 4.1
M.2-35AD							Flash		3.3V	M.2/USB	41.9 x 22.0 x 4.1
M.2-R35AD							Flash	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	M.2/USB	41.9 x 22.0 x 4.1



LS2603x-15R



M.2-R35AD

06 RTK Solution

RTK Antenna	GP	GL	BD	GA	QZSS	IRNSS	Antenna Type	Interface	Dimension (mm)
LH-105AR-D							Helix Antenna (L1+L5)	SMA	43.4 (D) x 42.3 (H)
LH-105A2-B							Helix Antenna (L1+L5)	SMA	27.5 (D) x 59.0 (H)
LP-105AR-C							Patch Antenna (L1+L5)	SMA	86.8 x 65.0 x 23.0
LS-125-A							Survey Antenna (L125)	SMA	160.0 (D) x 66.5 (H)



LH-105AR-D



LH-105A2-B



LP-105AR-C



LS-125-A

※ GPS GLONASS BEIDOU GALILEO QZSS IRNSS

RTK Module	GP	GL	BD	GA	QZSS	IRNSS	P/R/Y	DR Function	Heading Accuracy	Position Accuracy	VCC	Interface	Dimension (mm)
RTK-1010-SB										0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	UART	10.1 x 9.7 x 2.2
RTK-1010										0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	UART	10.1 x 9.7 x 2.2
RTK-1612							○		< 0.2°	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	UART	16.0 x 12.2 x 2.4
RTK-1612AD-DR							○	UDR		0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	UART	16.0 x 12.2 x 2.4






RTK-1010-SB

RTK-1010

RTK-1612

RTK-1612AD-DR

RTK Board	GP	GL	BD	GA	QZSS	IRNSS	MEMS sensor	UBX binary for drone	Heading Accuracy	Position Accuracy	VCC	Interface	Dimension (mm)
RTK-4057-MHPD									< 0.2°	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	USB	57.0 x 40.0 x 1.0
RTK-DUAL-A									< 0.2°	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	UART	50.0 x 42.0 x 21.0
RTK-DUAL-B							○		< 0.2°	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	UART	50.0 x 42.0 x 21.0
RTK-DUAL-C								○	< 0.2°	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	UART	50.0 x 42.0 x 21.0




RTK-4057-MHPD

RTK-DUAL

RTK System	GP	GL	BD	GA	QZSS	IRNSS	4G LTE	Ethernet	Position Accuracy	VCC	Interface	Dimension (mm)
RTK-M300							○	○	0.01m+1ppm < 1.5 m CEP (Autonomous)	9-36V	Computer	185.0 x 120.0 x 42.0

RTK USB Dongle	GP	GL	BD	GA	QZSS	IRNSS	P/R/Y	Operation System request	Position Accuracy	VCC	Interface	Dimension (mm)
RTK-15D							○	Android	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	USB TypeC	37.85 x 27.5 x 13.0

RTK Receiver for drone	GP	GL	BD	GA	QZSS	IRNSS	E-COMPASS	Platform support	Position Accuracy	VCC	Interface	Dimension (mm)
HAWK-R1								Pixhawk (PX4) Ardupilot	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	TTL	46.0 x 46.0 x 72.5
HAWK-R2							○	Pixhawk (PX4) Ardupilot	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	TTL	46.0 x 46.0 x 72.5





RTK-M300

RTK-15D

HAWK Series

※  GPS  GLONASS  BEIDOU  GALILEO  QZSS  IRNSS

※ P/R/Y : Pitch / Roll / Yaw

RTK Receiver for drone	GP	GL	BD	GA	QZSS	IRNSS	E-COMPASS	Position Accuracy	VCC	Interface	Dimension (mm)
LS23231								0.01m + 1ppm CEP (Horizontal) 0.015m + 1ppm CEP (Vertical)	5V	TTL	41.2 x 49.2 x 45.0

RTK Receiver for UDR	GP	GL	BD	GA	QZSS	IRNSS	Position Accuracy	VCC	Interface	Connector	Dimension (mm)
LS23236							0.01m + 1ppm CEP (Horizontal) 0.015m + 1ppm CEP (Vertical)	5V	TTL	RJ11	41.2 x 49.2 x 45.0



LS2323x Series

07 USB Dongle

USB Dongle	GP	GL	BD	GA	QZSS	IRNSS	Memory	Position Accuracy	VCC	Interface	Dimension (mm)
UB-52Q							Flash	1.5m	3.3V	USB	85.5 x 32.95 x 19.35
UB-V2b							Flash	1.5m	3.3V	USB	85.5 x 32.95 x 19.35
UB-15R							Flash	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	USB	85.5 x 32.95 x 19.35
UB-35AD							Flash	1.5m	3.3V	USB	85.5 x 32.95 x 19.35
UB-R35AD							Flash	0.01m+1ppm < 1.5 m CEP (Autonomous)	3.3V	USB	85.5 x 32.95 x 19.35



08 GNSS + Dead Reckoning

GNSS DR Module	GP	GL	BD	GA	QZSS	IRNSS	DR mode	Position Accuracy	VCC	Interface	Dimension (mm)
MC-1612-DG							ADR/UDR	2.5m	3.3V	UART	16.0 x 12.2 x 2.4
MC-1612-DB							ADR/UDR	2.5m	3.3V	UART	16.0 x 12.2 x 2.4
ST-1612i-DGX							ADR	1.8m	3.3V	UART	16.0 x 12.2 x 2.3
MG-1612AD-DR							UDR	1.5m	3.3V	UART	16.0 x 12.2 x 2.4



MG-1612AD-DR



MC-1612-DG



MC-1612-DB



ST-1612i-DGX

※ GPS GLONASS BEIDOU GALILEO QZSS IRNSS