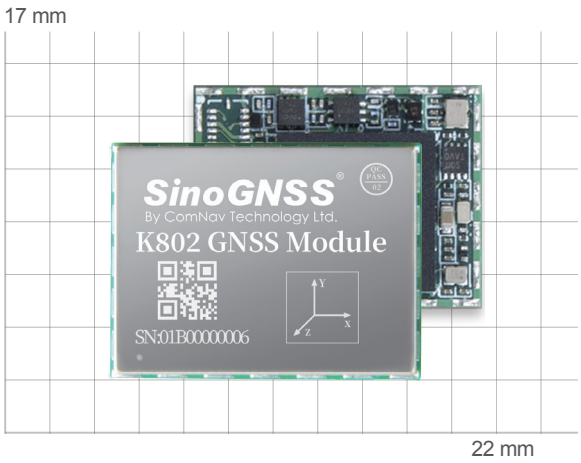
K802 GNSS Module

K Series GNSS Module | Ver.2025.05.06



Size(L×W×H):22mm×17mm×2.8mm
Weight: 5g

K802
GNSS Module

Easy for Integration

K802 is a 22mm×17mm×2.8mm module with surface-mounted design and is ideal for users to integrate. The power consumption is lower to 0.8w.

Features

- BDS-3,BDS-2,GPS,GLONASS,Galileo,SBAS and QZSS
- 100Hz data output*
- GNSS+INS navigation
- 0.8W power consumption

Reliable Performance with Optimized Algorithm

K802 module is embedded with ComNav's latest QUANTUM III SoC chip to provide reliable centimeter positioning accuracy in the most challenging dynamic conditions.The multi-frequency and its ability to track all the current and planned GNSS constellations enables it to receive much more satellite signals.

Professional Level Applications

K802 module adheres to industrial standard quality specifications and production flow and strict qualification tests, which are performed to meet the standard of automative industry.

Applications

Autonomous Driving | UAV | Robotics | Precision Agriculture

INS+GNSS Navigation for Continuous Positioning

K802 is designed with an onboard high-precision IMU module for RTK positioning,which can provide continuous and high-quality positioning data with inertial navigation fusion algorithm where GNSS signalis lost.

SinoGNSS®
By ComNav Technology Ltd.

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Signal Tracking

GPS	L1C/A, L2P, L2C, L5
BDS	B1I, B2I, B2a, B2b, B3I*
GLONASS	G1, G2*
Galileo	E1, E5b, E5a, E6c*
QZSS	L1C/A, L2C, L5
SBAS	L1C/A, L5
NavIC	L5

Periormance specifications

Cold Start	<20s (Adding Acceleration Capture Modie)
Hot Start (with RTC)	<10s (Typica)
Reacquisition	<1s
RTK Initialization time	<5s (baseline<10km)
Initialization Reliability	>99.9%
Velocity Accuracy	≤0.02m/s (PDOP≤4)
Acceleration	4 g
Overload	15 g
Time accuracy	20ns

Positioning specifications

Single Baseline RTK	8 mm+1 ppm Horizontal 15mm+1 ppm Vertical
Post Processing	2.5 mm+1 ppm Horizontal 5mm+1 ppm Vertical
DGPS	<0.4mRMS
SBAS	1m 3D RMS
Standalone	1.5m 3D RMS

Communications

UART	x3
SPI	x1
Event Marker input	x1
Pulse Per Second (PPS)output	x1
I²C	x1

Anti-interference

Signal-to-interference rate is up to 50dB

Data Format

Position data output	-ASCII:NMEA-0183GGA,GSA,GSV,RMC, HDT,ZDA,VTG,GST,GLL;PTNL,PJK;PTNL, AVR;PTNL,GGK '-ComNav Binary -Position data output rate:1 Hz,2Hz,5 Hz, 10Hz,20Hz,50Hz,100Hz(optional)
Corrections data	RTCM2.X,3.X,CMR(GPS only),CMR+(GPS only)

Antenna Interface

Impedance Matching	50 Ω
LNA Power External	+3.3V~+5.0V±5%VDC
LNA Gain	20~40dB

Physical

Size(L×W×H)	22mm×17mm×2.8mm
Weight	5g

Environmental

Operating Temperature	-40C~+85C
storage Temperature	-55C~+95C

Electrica

Voltage	+3.3V±5%DC
Power Consumption	0.8W (Ant-interference off) Set anti-interference on consumes more about 0.2W

"*"upgradeable
1.R(meter) is the length of two GNSS antennas.

SinoGNSS®
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