



Size: $\varnothing 205 \times 126.5 \text{ mm}$

Weight: $\leq 2 \text{ kg}$

Features

Millimeter-level high-precision GNSS positioning accuracy

Compatible with varieties of external sensors

Support threshold trigger warning

Support remote monitoring & management

Combining MEMS sensors with GNSS technology for automatic monitoring

Large 8G memory for loop recording

IP68, anti-vibration and anti-lightning for harsh environments

Support 4G/Bluetooth/UHF for flexible communication

Low power consumption

A300 GNSS Receiver

DESIGNED FOR VARIOUS MONITORING TASKS

Embedded with K8-platform, A300 GNSS receiver can reach millimeter-level positioning accuracy for precise monitoring. As a universal GNSS receiver, A300 is compatible with multiple sensors in facing of different kinds of monitoring tasks, which is one of the best choices for monitoring solutions.

POWERFUL REMOTE CONTROL

Featuring 4G/UHF communications, A300 receiver can easily realize device management, system upgrade, status monitoring and other configurations through remote control. Users can view positioning data and warning information anywhere and anytime via a PC or mobile phone.

RELIABLE & DURABLE FOR LONG-TIME OPERATION

Through strict quality control procedures, the MTBF of the A300 receiver can reach more than 50,000 hours. The low-power design makes the A300 more durable due to less heat generation of the electronic components, providing you with a long-term trouble-free operation monitoring solution.

A300 GNSS Receiver

A Series GNSS Receiver

Ver.2021.7.28

Signal Tracking

GPS	L1C/A, L2P, L2C, L5, L1C
GLONASS	L1, L2
BDS	B1I, B2I, B3I, B1C, B2a, B2b
Galileo	E1, E5b, E5a
QZSS	L1C, L2, L5
IRNSS	L5 ¹
SBAS	L1, L5

Performance Specification

Cold start	<60 s
Hot start	<15 s
Initialization time	<10 s
Signal re-acquisition	<1 s
Initialization reliability	>99.9%
Overload	15 g
Time accuracy	20 ns

Positioning Specifications

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

Interfaces

1 14-pin Lemo port	Serial port, USB port, power, switching value Support external sensors input
1 TNC connector	UHF modem
2 SIM card slots	4G modem, dual SIM dual standby

Communication

Serial port	RS232, RS485
USB	USB 2.0
UHF modem	Frequency range: 410MHz-470MHz Transmit power: 0.5-2 W adjustable Range ² : 8-15 km
Bluetooth	4.1/2.1+EDR, 2.4GHz
Network	TCP/IP、MQTT、Ntrip
Indicator LEDs	4 LEDs, indicating power, satellite searching, correction data and GSM status

Data Format

Correction data I/O	RTCM 2.X, 3.X, CMR (GPS only),
Position data output	NMEA-0183, ComNav Binary, RTCM2.X, RTCM3.X
Data update rate	60s, 30s, 15s, 10s, 5s, 1Hz, 2Hz, 5Hz, 10Hz

Physical

Size (L × W × H)	φ205mm*126.5mm
Weight	≤2kg
Housing	FRP cover & aluminum alloy base

Environmental

Operating Temperature	-40℃ to +70℃
Storage Temperature	-55℃ to +85℃
Humidity	100% No-condensing
Waterproof and Dustproof	IP68
MTBF	≥50000h

Electrical

Input voltage	6-36 VDC, overvoltage protection
Power consumption	<2 W

Software

SinoGNSS CDMonitor software

Annotation

1. L5 of IRNSS is upgradeable.
2. Working distance of internal UHF varies in different environments. The maximum distance is 15 Km in ideal situation.