

72 mm



132 mm

**Size:** 132 x 132 x 72 (mm)

**Weight:** ≤1.2Kg

	4G	GYRO	Datalink	GNSS Module
A100 Lite	√	-	-	K803LITE
A100 Pro	√	√	√	K803

## Features

Full-constellation and multi-frequency

Advanced DP-Filter Smooth Function

IP67 waterproof and dustproof

Support 4G/Bluetooth

# A100

## Series Smart Antenna

### ADVANCED TRACKING CAPABILITY

The A100 Series GNSS Smart Antenna combines a GNSS board and high-quality antenna in a compact and durable enclosure. Based on SinoGNSS K8 platform, the A100 has 965 channels, tracking all running and planned constellations, including GPS, BDS, GLONASS, Galileo, QZSS and IRNSS.

### EASY INSTALLATION

As a waterproof and dustproof device complying with IP67, the A100 is suitable for harsh environments. Being only 750g and palm-sized, A100 Series are easy to install, making it ideal for precision agriculture, machine control, UGV, intelligent transportation, land survey and other industries.

### ADVANCED DP-FILTER PERFORMANCE

ComNav Technology's DP-filter performance can reach under 20cm pass-to-pass accuracy and good smooth performance in open environment. This can meet the requirement of some projects which needs high relative position precision and smooth performance, such as guidance system in agriculture. DP-filter can also get the better smooth performance than the competitor in shelter environment, shows the advantage for resisting shelter environment.

### OPTIONAL FUNCTIONS

Optional IMU for A100Pro allows automatic tilt compensation, enabling smooth operation under variable terrain and environmental conditions. A100Pro is equipped with a built-in radio with a frequency range ranging from 410 to 470MHz., can achieve 5km communication in ideal situation.

# A100 Series Smart Antenna

A Series GNSS Receiver Ver.2023.5.18

## GNSS Receiver Specifications

Receiver Type	GNSS Smart Antenna
Signal Received	GPS: L1C/A, L1C, L2P, L2C, L5 BDS: B1I, B2I, B3I, B1C, B2a, B2b GLONASS: G1, G2, G3 Galileo: E1, E5a, E5b, E6c, E5 AltBOC QZSS: L1C/A, L2C, L5, L1C Navic: L5
Channels	965
Update Rate	10 Hz standard, 20 Hz optional
Timing (1 PPS) Accuracy	20 ns
Cold Start	<20 s (Adding Acceleration Capture Module)
Hot Start	<10 s typical

## Positioning Accuracy

Single Baseline RTK	8mm+1ppm Horizontal 15mm+1ppm Vertical
DGPS	<0.4m RMS
SBAS	0.5m RMS Horizontal 0.8m RMS Vertical
Standalone	1.5m 3D RMS
Speed accuracy	≤ 0.02 m/s (PDOP ≤4)
Reacquisition Time	< 1s (typical)
Signal Capture Sensitivity	-138dBm

## Communications

Power/Data Connector	14-pin Deutsch (3x full-duplex RS-232, 1x CAN, 1x pps, 1xEvent, 1xVcc out)
Status Indications (LED)	Power, SAT, LINK
Baud Rates	4800 - 115200
Bluetooth	Bluetooth 4.0 (Class 2)
4G	FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/ B18/B19/B20/B25/B26/B28 TDD: B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19 - 850/900/1800/1900 MHz
Correction I/O Protocol	RTCM2.X, RTCM3.X, CMR, CMR+
Data I/O Protocol	- ASCII: NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, AVR; PTNL, GK - ComNav Binary update to 20 Hz

## Power

Input Voltage	9-36 VDC
Power Consumption	2.6 W Maximum
Current Consumption	≤1 A Maximum
Reverse Polarity Protection	Yes

## Environmental

Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Humidity	95% non-condensing

## Inertial Measurement Unit (IMU)

Gyroscope	3-axis, 200 Hz MAX@115200bps
Accelerometer	3-axis, 200 Hz MAX@115200bps

## Physical Specification

Enclosure	IP67
Dimensions	132 x 132 x 72 (mm)
Weight	750g