



**Size**(L × W × H): 71 mm × 41 mm × 11 mm  
**Weight**: 18g

# K700 GNSS Module

## COST-EFFECTIVE

The SinoGNSS K700 is an entry level cost-effective GNSS engine which can deliver scalable sub-meter to centimeter (SBAS and RTK) positioning for various applications. With the advanced QUANTUM™ technology, it remarkably improves the stability and reliability of positioning accuracy in standalone and RTK modes.

## ADVANCED HARDWARE STRUCTURE

As the updated version of the K500, the K700 is embedded with advanced SinoGNSS ASIC Chip, which makes great improvement in positioning performance and power consumption. Integrated with the advanced Micro processor unit, the K700 is ideal for applications that require higher output data rate.

## DESIGNED FOR DIVERSE APPLICATIONS

The K700 is a multifunctional high-precision GNSS product with many built-in functions. The RTK function makes it very suitable to work with low-cost land surveying products. It is also a good choice for GIS applications or fleet management system when working with the RTD and SBAS. In terms of DP-Filter smooth function<sup>1</sup>, it largely increases efficiency and productivity in precision agriculture applications.

## EASY TO INTEGRATE

The size of K700 is 41 mm x 71 mm x 11 mm, even smaller than a business card. The I/O and pin definitions are compatible with major brands. Compared with large-size OEM boards, the K700 makes it easier to integrate into small handheld devices, and its lower power consumption is an advantage for field work.

## Features

GPS L1, BeiDou B1, GLONASS L1, SBAS

DP-Filter Smooth Function<sup>1</sup>

Advanced QUANTUM™ Technology

Support Short Baseline RTK

Support PPS and Event Marker

Low Power Consumption and Compact Size

Output PJK Coordinates Directly

Support Maximum 20 Hz RTD/RTK

# K700 GNSS Module

K Series GNSS Module Ver.2020.11.30

<b>Signal Tracking</b>	Channels	200
	GPS	L1
	BeiDou	B1
	GLONASS	L1
	SBAS	WAAS, EGNOS, MSAS and GAGAN
<b>Performance Specifications</b>	Cold Start	<50s
	Warm start	<45s
	Signal reacquisition	<3s
	Velocity accuracy	0.03 m/s
	Acceleration	4g
	Overload	15g
<b>Positioning Specifications</b>	Time accuracy	20ns
	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	<0.4m RMS
	SBAS	1m 3D RMS
<b>Communications</b>	Standalone	1.5m 3D RMS
	3 LV-TTL ports, baud rates up to 921, 600 bps	
	PPS output, Event Marker input	
	3 LED status indicators	
<b>Data Format</b>	Correction data I/O	RTCM 2.X, 3.X, CMR (GPS only),CMR + (GPS only)
	Position data output	ASCII: NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA; PTNL, PJK; PTNL, GGK; PTNL, AVR; NAVPOS ComNav Binary Data: up to 20Hz output BINEX Data: 0x00, 0x01-01, 0x01-02, 0x01-05, 0x7d-00, 0x7e-00, 0x7f-05 Position data output: 1 Hz, 2 Hz ,5 Hz, 10 Hz, 20 Hz
<b>Physical</b>	Size(L × W × H)	71 mm × 41 mm × 11 mm
	I/O interface	2 × 12 pin male connector
	Weight	18 g
	Antenna connector	1 × MCX female, 50 Ω
<b>Electrical</b>	Input voltage	+3.3 V ~ +5.5 VDC
	Power consumption	0.6 W
<b>Environmental</b>	Working temperature	-40 °C to + 80 °C
	Storage temperature	-55 °C to + 95 °C
	Humidity	95% no condensation
<b>Software</b>	ComNav Compass Receiver Utility software	
<b>Optional Accessories</b>	AT-series GNSS antenna	
	5 m/10 m RF Cables	
	OEM Board Evaluation Kit	

1. DP-Filter smooth function largely improves the pass to pass accuracy.  
Please refer to white paper for more information.

Specifications subject to change without notice.