# **SPECIFICATIONS**

GNSS Performance	401
Channels	L1, L2C, L2P, L5
GPS	
GLONASS	
BDS	B1, B2, B3, B1C,B2a (Optional)
Galileo	E1C, E5a, E5b
SBAS&QZSS	L1 C/A, L5
L-Band	Optional
Update Rate	1Hz~20Hz
Reacquisition	<1.5s
Cold Start	<60s(40s, integrated with acceleration module)
Real Time Kinematic	
Horizontal	0.010m+1ppm
Vertical	0.020m+1ppm
Initialization time	Typically<10 seconds (Baseline<10km)
Initialization reliability	Typically>99.9%
Code Differential GNSS Positioning	
Horizontal	0.30m+1ppm
Vertical	0.50m+1ppm
Static	
Horizontal	0.0025m+1ppm
Vertical	0.005m+1ppm
Single Point Positioning	
Horizontal	±1.5m
Vertical	±3.0m
PPP(Precision Point Positionning)	
Horizontal	±0.1m
Vertical	±0.2m
Convergence time	20 min
Communication	
Data Interface	LEMO port (Enable to switch to Ethernet port and OTG function)
Bluetooth	Bluetooth V2.1/ Bluetooth V4.0, support EDR
WiFi	802.11 b/g standard
Data Storage and Transmission	
Memory	8GB SSD (Solid State Disk) internal memory
Static data format	STH, Rinex2.x, Rinex3.x
Sampling rate	1Hz, 2Hz, 5Hz,10Hz, 20Hz
Navigation output	Standard NMEA-0183: GSV, AVR, RMC, HDT, VGK, VHD, ROT,
	GGK, GGA, GSA, ZDA, VTG, GST, PJT, PJK, BPQ, GLL, GRS
	Extended NMEA-0183: PSIC PST, GSI, BSI, VCV, TRA, SLB, EDP,
	TPI, TRI, VCM, STA, DEV, AAT, REC, DAL
Deference I/O	BINEX
Reference I/O	CMR, CMR+, sCMRx, RTCM 2.x,RTCM 3.0,RTCM 3.1,RTCM 3.2
Electrical	6800mAh, Li-ion battery built in, 3.7V
Battery	Typically 8 hrs or more
Battery life	
Environmental	-30℃~+65℃
Operating temperature	
Storage temperature	-35°C~+75°C
Operating humidity	5%~95% R.H. non-condensing
Shockproof Weterproof/Dustancef	Withstand drop from 1.5m to concrete
Waterproof/Dustproof	Test to IP67 standard
Physical	
Dimensions(mm)	$115(L) \times 115(W) \times 40(H)$
Weight	540g(Internal battery included)

Remarks: Measurement accuracy and operation range might vary due to atmospheric conditions, signal multipath, obstructions, observation time, temperature, signal geometry and number of tracked satellites. Specifications subject to change without prior notice



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# Intelligent, Versatile, Innovative, Compact, Lightweight, Rugged





All constellations



AP hot spot



RINEX support



Precise Point Positioning

Optional L-Band

L-Band

8G SSD storage

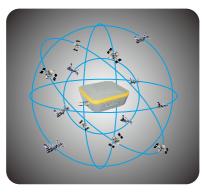
8G



# **NEW FEATURES OF GNSS**

#### Full satellite constellations support

Equipped with most advanced GNSS board, 401 channels and unmatched GNSS multi-constellation tracking performance, SOUTH S660N is able to track most signals from all kinds of running satellite constellations. And this compact device owns the ability of enabling or disabling constellation tracking.



#### Inner optimized structure

Enhancement of anti-interference performance and optimization of capture time and first positioning time.

#### L-Band & PPP

With the high-performance of GNSS board, S660N reserves **L-Band** signal tracking, and **PPP** (Precise Point Positioning) function.



#### Upgraded processing algorithm

The core RTK algorithm upgrade, integrates the adaptive calculation and single point smoothly positioning ability, it can realize the continuous and reliable positioning in bad conditions such as under the trees, around building and etc.



#### Intelligent storage ability



SOUTH S660N is equipped with 8GB Solid State Disk that ensures adequate storage space for data collection, as well as the stability of high data sampling rate.

#### Static performance

Base on the intelligent platform, S660N supports STH, Rinex2.x and Rinex3.x format data storage.



Relying on the advanced GNSS board, S660N can support 20Hz static sampling rate after upgrading.

# PERFORMANCE OF S660N

# WiFi

According to current trend of RTK surveying, WiFi is a brand-new and useful technology of RTK measurement that makes effective use of GNSS receiver, which greatly improves the working efficiency and the flexibility.



#### Functional LEMO interface

The new LEMO interface is designed to integrate data transmission and charging, it's carried out thousands of pullout and insertion experiments, and still maintains good performance.



#### Outstanding receiver housing

The brand new design for improvement of waterproof, and the steadiness of inner structure, S660N new housing can endure every kind of shocks to protect inner components from looseness and damage.



20Hz

# Web User Interface server

Embedded Linux operating system and SOUTH intelligent cloud platform, S660N receiver is no more a simple and compact RTK receiver, now it is a complete intelligent operation system with web UI management platform.



# Application fields

S660N can be widely used in the fields of engineering measurement, GIS data collection, forestry and agricultural land management, etc. Such a high-precision device is sure to meet the needs of various users.

