

## SPECIFICATIONS

| GNSS Performance                                |   |
|---|---|
| Channels  | 336, 692 (optional) <sup>[1]</sup>  |
| GPS   | L1, L2C, L2P, L5  |
| GLONASS   | L1, L2  |
| BDS   | B1, B2, B3 <sup>[2]</sup> , B1C, B2a (Optional)   |
| Galileo   | E1C, E5a, E5b, E5AltBOC <sup>[3]</sup>  |
| QZSS  | L1 C/A, L1 SAIF, L2C, L5, LEX   |
| SBAS  | L1 C/A, L5  |
| L-Band  | Optional <sup>[4]</sup>   |
| Update Rate                                     | 1Hz, 2Hz, 5Hz, 10Hz, 20Hz, 50Hz <sup>[5]</sup>  |
| Reacquisition                                   | <2s   |
| Cold Start                                      | <45s <sup>[6]</sup>   |
| Real Time Kinematic                             |   |
| Horizontal                                      | 0.008m+1ppm   |
| Vertical  | 0.015m+1ppm   |
| Initialization time                             | Typically<8 seconds (Baseline<30km)   |
| Initialization reliability                      | Typically>99.9%   |
| Code Differential GNSS Positioning              |   |
| Horizontal                                      | 0.25m+1ppm  |
| Vertical  | 0.50m+1ppm  |
| Static  |   |
| Horizontal                                      | 2.5mm+1ppm  |
| Vertical  | 5mm+1ppm  |
| Single Point Positioning                        |   |
| Horizontal                                      | <1.0m   |
| Vertical  | <1.5m   |
| PPP(Precision Point Positioning) <sup>[7]</sup> |   |
| Horizontal                                      | <0.1m   |
| Vertical  | <0.2m   |
| Convergence time                                | 20~30 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<br>Extended NMEA-0183: PSIC PST, GSI, BSI, VCV, TRA, SLB, EDP, TPI, TRI, VCM, STA, DEV, AAT, REC, DAL<br>BINEX |
| Reference I/O                                   | CMR, CMR+, sCMRx, RTCM 2.x, RTCM 3.0, RTCM 3.1, RTCM 3.2  |
| Electrical                                      |   |
| Battery   | 6800mAh, Li-ion battery built in, 3.7V  |
| Battery life                                    | Typically 8 hrs or more   |
| Environmental                                   |   |
| Operating temperature                           | -30°C~+65°C   |
| Storage temperature                             | -35°C~+75°C   |
| Operating humidity                              | 5%~95% R.H. non-condensing  |
| Shockproof                                      | Withstand drop from 1.5m to concrete  |
| Waterproof/Dustproof                            | Test to IP67 standard   |
| Physical  |   |
| Dimensions(mm)                                  | 115(L)×115(W)×40(H)   |
| Weight  | 540g(Internal battery included)   |

[1] 336 channels and 692 channels for the option.

[2] B3 is supported by the model which is installed SOUTH board.

[3] GALILEO E5 AltBOC signal acquisition is subjected to the capability of OEM board.

[4] Reserved. And it requires a subscription to data service.

[5] Optional, different board needs firmware to support such a frequency.

[6] Typical value. No almanac or ephemerides and no approximate position or time.

[7] The accuracies depend on correction service chosen.

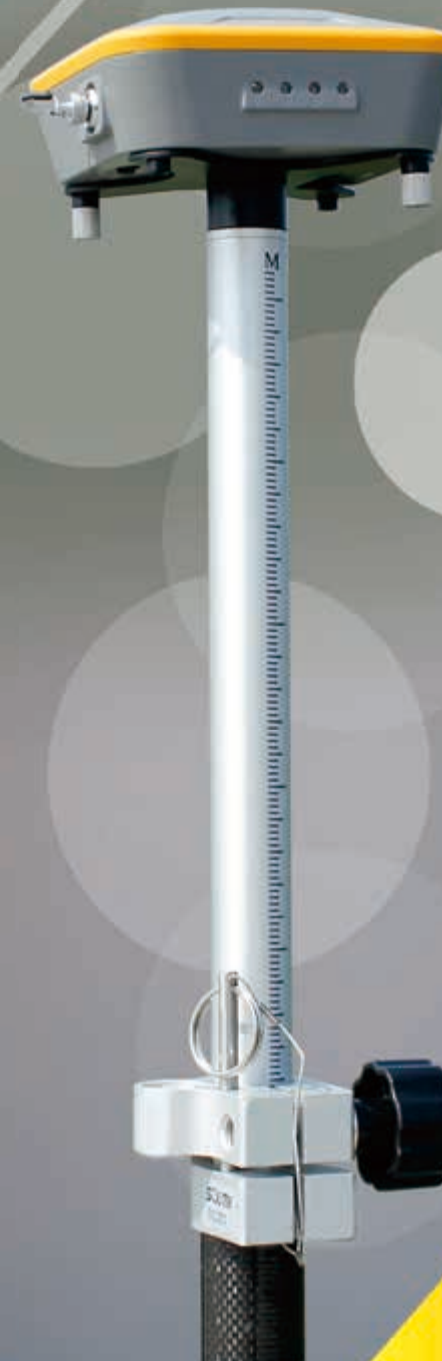
**Remarks:** Measurement accuracy and operation range might vary due to atmospheric conditions, signal multipath, obstructions, observation time, temperature, signal geometry and number of tracked satellites. Specifications subject to change without prior notice

**SOUTH**  
Target your success

**S660N**

Innovative Network RTK Receiver

Intelligent, Versatile, Innovative,  
Compact, Lightweight, Rugged



Linux OS



All constellations



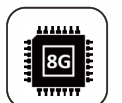
AP hot spot



Precise Point Positioning



Optional L-Band



8G SSD storage



RINEX support

**SOUTH**  
Target your success

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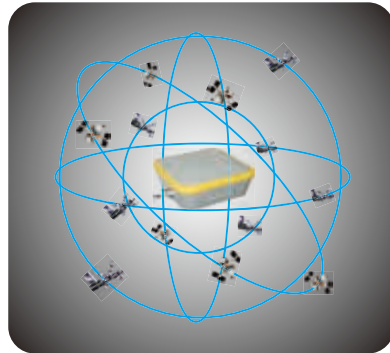
# S660N

During the Multiple constellation age, SOUTH keep developing and optimizing the innovative products for customers, SOUTH S660N Network RTK Receiver adopts intelligent cloud platform as its new engine, to lead the development of smart network RTK system.

## NEW FEATURES OF GNSS

### Full satellite constellations support

Equipped with most advanced GNSS board, 692 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.

### Intelligent storage ability

#### 8GB SSD

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.

#### 20Hz

### 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.



### Static performance

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



Rinex



20Hz

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.



### 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.

