

SPECIFICATIONS

GNSS Performance	
Channels	336
GPS	L1 C/A, L2E, L2C, L5
GLONASS	L1 C/A, L2 C/A, L3 CDMA
BDS	B1, B2
Galileo	E1, E5A, E5B, E5AltBOC
QZSS	L1 C/A, L1 SAIF, L2C, L5, LEX
SBAS	L1 C/A, L5
L-Band	Trimble RTX,OmniSTAR
Update Rate	1Hz, 2Hz, 5Hz, 10Hz, 20Hz, 50Hz
Reacquisition	<2s
Cold Start	<45s
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	0.0025m+1ppm
Vertical	0.005m+1ppm
Single Point Positioning	
Horizontal	<1.0m
Vertical	<1.5m
PPP(Precision Point Positioning) ^[7]	
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
	Extended NMEA-0183: PSIC PST, GSI, BSI, VCV, TRA, SLB, EDP, TPI, TRI, VCM, STA, DEV, AAT, REC, DAL
	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 RTK and 12 hours Static
Environmental	
Operating temperature	-30℃~+65℃
Storage temperature	-35℃~+75℃
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)



S680N

Innovative Network RTK Receiver



Intelligent,Versatile,Innovative,
Compact,Lightweight,Rugged



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Linux OS



All constellations



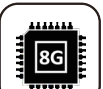
AP hot spot



Precise Point Positioning



Optional L-Band



8G SSD storage



RINEX support

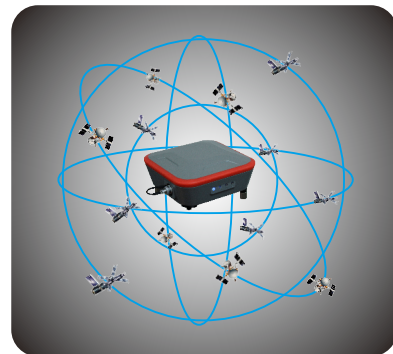
S680N

During the Multiple constellation age, KOLIDA keeps developing and optimizing the innovative products for customers, KOLIDA S680N 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, 336 channels and unmatched GNSS multi-constellation tracking performance, KOLIDA S680N 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

8GB SSD

KOLIDA S680N 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.

L-Band & PPP

With the high-performance of GNSS board, S680N reserves **L-Band** signal tracking, and **PPP** (Precise Point Positioning) function.

PPP

L-Band

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, S680N supports STH, Rinex2.x and Rinex3.x format data storage.

Relying on the advanced GNSS board, S680N can support 20Hz static sampling rate after upgrading.



Rinex

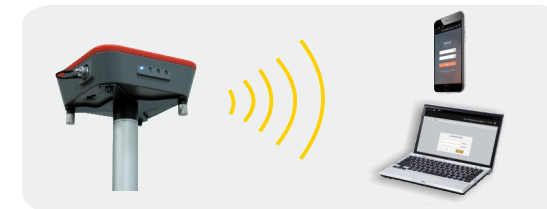


20Hz

PERFORMANCE OF S680N

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.



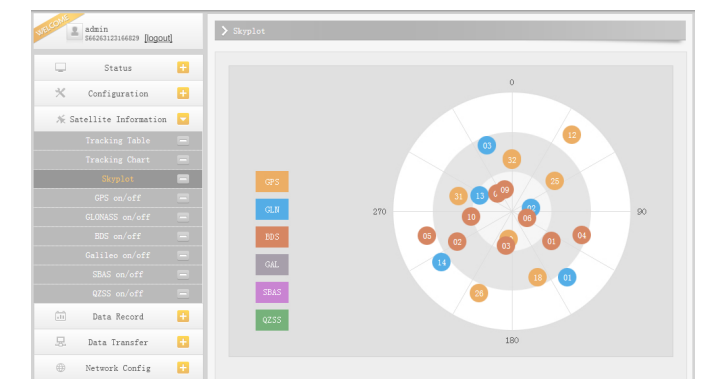
Outstanding receiver housing

The brand new design for improvement of waterproof, and the steadiness of inner structure, S680N 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 KOLIDA intelligent cloud platform, S680N 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

S680N 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.

