Net S9

Continuously Operating Reference Station

- Integrated professional OEM board
- New design of aluminum alloy housing
- IP67 industrial level standard
- WIFI hotspot and Bluetooth connections
- STH, RINEX raw data storage to FTP server
- eMMC technology for internal memory

Summary

SOUTH NET S9 has integrated professional OEM board, compatible with all constellations.

In addition, we greatly improve the operation experience and convenience for users with the additional function of WiFi hotspot and Bluetooth connections, thus, users are able to configure receiver with any mobile terminal. NET S9 is not only able to record STH file, but also support RINEX file storage.

10000mAh high capacity of battery built-in, can act as a primary power source or as an Uninterupted Power Supply (UPS) backup.

SOUTH NET S9 is using eMMC (Embeded Multi Media Card) technology for internal memory, faster and larger, stable and reliable. Moreover, NET S9 allows to connect to an external storage devices(maximum up to 1TB) via USB Host interface so that you don't have to worry about data storage.

User Interface

Press button
LCD disply
Status Indicating lights
Power and Function

PPS output
External frequency input
UHF antenna
External event input
GNSS antenna
3G/4G network antenna
RJ45 interface
SIM card slot
Power supply
26 pin serial port
USB/DC power supply
Serial port/DC power supply

Distributor Info

GNSS

Channels	692 channels, 220 channels (optional)
GPS	L1 C/A, L2E, L2C, L5
GLONASS	L1 C/A, L1P, L2 C/A(GLONASS M only), L2P, L3
BDS	B1, B2, B3
GIOVE-A	L1 BOC,E5A, E5B, E5 AltBOC
GIOVE-B	L1 CBOC,E5A, E5B, E5 AltBOC
SBAS	L1 C/A, L5
QZSS	L1, L2C, L5
Initialization	Typically<10 seconds
Initialization reliability	>99.9%

Accuracy

Code differential GNSS positioning	Horizontal:	25 cm+1ppm RMS
	Vertical:	50 cm+1ppm RMS
High precision static	Horizontal:	2.5mm+0.1ppm RMS
	Vertical:	3.5mm+0.4ppm RMS
Static GNSS surveying Baseline<30km	Horizontal:	2.5mm+0.5ppm RMS
	Vertical:	5mm+0.5ppm RMS
Real-time Kinematic Baseline<30km	Horizontal:	10mm+1ppm RMS
	Vertical:	20mm+1ppm RMS
Real-time Kinematic Network RTK	Horizontal:	8mm+0.5ppm RMS
	Vertical:	15mm+0.5ppm RMS

Data storage & output

Data storage	8G (extend to 32G) internal memory is capable of cycle-recording raw data, adopts eMMC technology, stable and reliable
Positioning rate	1Hz, 2Hz, 5Hz, 10Hz, 20Hz, 50Hz(depend on setup option)
Reference output	CMR, CMR+, RTCM2.1, RTCM2.2, RTCM2.3, RTCM3.0, RTCM3.1, RTCM3.2, sCMRx, RTCA, NOVATELX
Navigation output	ASCII: NMEA-0183 GSV, AVR, RMC, HDT, VGK, ROT, GGK, GGA, GSA, ZDA, VTG, GST, PJT, PJK, BPQ, GLL, GRS, GBS and binary
Data format	Support STH, RINEX2.x, RINEX3.x raw data stor, HTTPS, FTP Server
Data retrieval	Download form HTTP, FTP Push and USB copy

Data communication

Ethernet protocol	Support TCP/IP, HTTP and NTRIP protocol
Serial port	Navigation data, static data and differential correction data transmission, PPS-UTC
Bluetooth	Bluetooth 2.1 (Class2)+EDR, 2.4GHz
WiFi	2.4GHz, IEEE 802.11 b/g/n, allows to access built-in web user interface with the mobile terminal via its WIFI hotspot

Electrical

Power supply	9V~28V DC input, 3 separate interfaces for power supply with over-voltage protection
Battery	10000mAh high capacity of battery built-in
Battery life	more than 15 hours for continuous work in default configuration
Consumption	Low power consumption 3.8W

User interface

Front panel	Front panel display with buttons and LED screen
Network interface	Two RJ45 network interface
RS-232 serial	One RS-232 serial port(9-pin), data transmission
USB	Two USB port, USB host and USB device
Power interface	Three separate power interface
Multi-function interface	One port supports PPS output, Event marker input, serial port and power supply
External frequency port	One external frequency scale port, supports high-precision atomic clock connection
GPS Antenna interface	Choke ring antenna connection
WIFI antenna interface	Allows to connect a WIFI broadcast antenna

Physical

Dimension(L×W×H)	216mm×178mm×72mm
Weight	2.28kg
Shock and vibration	Rugged aluminum alloy housing plus plastic ring seal, designed to survive a 2m drop onto concrete
Waterproof/Dustproof	IP67 level standard, protect against for temporary immersion to a depth of 1m; Completely protect from dust

Environmental

Storage temperature	-40℃~+80℃
Working temperature	-40℃~+75℃
Humidity	Relative humidity, 10%~100%condensing