FORA GNSS
ADVANTAGES OF A LEADER

e-survey

NET20 PLUS

HIGH-PERFORMANCE GNSS REFERENCE STATION RECEIVER



GNSS Receiver

The eSurvey NET20 PLUS is designed for high-precision CORS reference stations. With a 13600 mAh battery that can ensure continuous recording and respond to the emergency. Users can use any phone or tablet to configure devices easily from the powerful Web UI. The rich data interface demands various applications such as monitoring and machine control.

Multi-constellation and Multi-frequency: Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS and QZSS) of GNSS tracking.

Multiple Remote Administration Methods

- Support frp to remote control

Users can remotely operate Web UI through the frp setting to achieve checking or change settings without going to the site.

- Support FTP and SFTP

Users can set upload recording data to the FTP or SFTP server automatically or select the option on the download page.

OTA Update Function

Support the OTA function so the user can check the latest firmware and choose whether to upgrade it with only one click, instead of downloading the firmware and then uploading it to upgrade.

Complete Functional Continuous Operating Reference Station

- Richer data interface

Enjoy multiple data interfaces, such as serial port, 1PPS, and event to various applications (e.g., meteorology), making versatile applications possible, such as monitoring and machine control.

- Richer wireless communication

Enjoy multiple methods of sending and receiving data, including Wi-Fi, Bluetooth, Ethernet, external radio, and SIM card, which offers more possibilities for communication.

Visualization of Working Status

With a visual display screen, signal lights, and operation buttons, users can more conveniently know the current state of the NET20 Plus and make simple operations.

Safe and Reliable Continuous Operating Reference Station

- Impressive battery life

Work up to 18 hours to respond to emergencies, such as power interruption, and no longer worry about a day's work; its 13600 mAh battery makes your data safe.

- Upgraded smart alert

Receive an alert email and SMS once the charger is disconnected, the battery level is too low, the temperature is too high, or memory storage is almost complete.

- Larger memory storage

Store the data for a longer time, supported by its internal 32 GB storage and TF card expansion, and manage data more conveniently, supported by FTP push.

Product Specification

NET20 PLUS

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GNSS		
Satellites tracking	GPS	L1CA, L1C, L2P (Y), L2C, L5
	BDS	B1I, B2I, B3I, B1C, B2a, B2b
	GLONASS	L1, L2, L3
	GALILEO	E1, E5a, E5b, E6
	QZSS	L1, L2, L5, L6 *
	IRNSS	L5
	SBAS	L1, L5 *
	L-Band	B2b PPP (Only for the Asian-Pacific region) E6HAS
Channels		1408
Signal reacquisition		< 1 second
Cold start		< 60 seconds
Warm start		< 30 seconds
Hot start		< 10 seconds
Initialization reliability		> 99.9%
Update rate		20 Hz
Operation system		Linux + A8
Internal memory		32G
External memory		TF Card

Performance	
Static	■ H: 2.5 mm + 0.5 ppm ■ V: 5 mm + 0.5 ppm
Real-time kinematic	■ H: 8 mm + 1 ppm ■ V: 15 mm + 1 ppm
SBAS	■ H: 0.4 m ■ V: 0.8 m
1PPS	20ns

Power Supply	
Battery	7.2 V, 13600 mAh, 97.92 Wh, Lithium-ion
Power	2-pin DC in
Power Voltage	9 - 28 V dc; 2 A
Working time	Up to 18 hours with internal battery

Internet Modem	
Support band	Global GSM, WCDMA, LTE

*It will be supported through future firmware update.

Communication	
Bluetooth	Bluetooth 2.1+EDR, V4.1
Wi-Fi	802.11 b/g/n
Ethernet	Support
Port	■ 2-pin, DC in ■ 7-pin USB OTG, host / client ■ 5-pin RS232 ■ 5-pin RS232 / RS485 ■ DB9 female RS232 ■ LTE SMA female ■ 1 PPS SMA female ■ Event SMA female ■ SIM slot ■ TF card ■ RJ45 Ethernet,100 / 1000 Mbit, POE ■ GNSS TNC female MMCX female, 50Ω, 5/10 MHz
Baud rate	4800 - 921600
Web UI	Support
NMEA output	NMEA0183
Correction data	RTCM V3.0,RTCM V3.3. RTCM2.3, CMR.DGPS,RAW
Recording format	Binary, RINEX, BINEX
Recording interval	■ 2s,10s,15s, 30s, 60s ■ 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz
Data stream	■ Bluetooth ■ Serial port x 3 ■ Ntrip Server stream x 4 ■ Ntrip Caster stream x1 ■ Ntrip Client stream x 1 ■ Socket (TCP/UDP) stream x 5
Smart alert	E-mail, SMS
FTP function	■ FTP Server ■ FTP Client (FTP push)
NTP server	Support
Others	DDNS, SNMPD, Firewall, VPN

Physical	
Dimension	222 x 164 x 79 mm
Weight	2000 g
Screen	64 px x 256 px (yellow font)
Indicators	Battery, recording, Bluetooth, datalink
Button	■ Power/comfirm button x 1 ■ Function button x 1 ■ Selectionn button x 2
Operation temperature	-30°C - +65°C
Storage temperature	-40°C - +80°C
Humidity	Up to 100%
Shock	Survive a 1 m drop on concrete floor
Water/Dust Proof	IP67
Certificate	CE, FCC, IC