STONEX

S8 PLUS

GNSS SYSTEM FOR PROFESSIONAL SURVEYORS

NEW OPPORTUNITIES FOR LAND SURVEY PROFESSIONALS

Staking out a new road, collecting 3D points for a volume calculation, establishing a boundary for a cadastral job … just some of the scenarios where a STONEX S8 Plus is your perfect partner for your daily surveying job. Its seamless data flow, even in environments where other GPSs do not give any precise response, makes any job a safe and pleasant activity. STONEX S8 Plus integrated GPS receiver tracks all the present GNSS constellations and satellite signals – GPS, GLONASS and GALILEO – and the on line upgradable firmware offers the opportunity to be day by day updated with the latest available features. The 'all in one' case holds a fully complete topographic and communications equipment, able to simultaneously manage signals from 60 satellites on 2 frequencies, correction signals from a GPS network or from a base GPS, and to send the precise positioning data to an external Bluetooth™ controller.

A COMPLETE SOLUTION

STONEX S8 Plus boasts a 120 channels GNSS, four constellations board with accurate and quick satellite fixing, an UHF, 2W internal transmitting and receiving radiomodem, a GSM 3G WCDMA modem to receive GPS network differential correction (VRS, FKP, etc.) and a Bluetooth™ device for completely cable-free operations. S8 Plus GNSS can work as Base, transmitting to one or more Rovers, and as GPS network Rover: the complete set of communications options give you a completely free operating choice from the beginning, no after sale options are requested.

COMPATIBLE, FLEXIBLE, VERSATILE

The integrated UHF transmitting and receiving radiomodem, with output power up to 2W, combined with Rovers, makes STONEX S8 Plus GNSS a powerful source of GPS corrections. Moreover, S8 Plus is compatible with several GPSs protocols like Satel™ and TRIMTALK™ 450S and where a GPS Network is available, S8 Plus GNSS is the perfect rover, using the 3G integrated modem. All this makes STONEX S8 Plus the ideal solution for constructions sites, cadastral and land survey, marine and hydrographic applications.

FAST AND PRECISE

The IP 67 certification, combined with a high shock resistance guarantee an excellent water/dust-tight. With its extremely short initialization time and signal reacquisition, S8 Plus GNSS lets you save time minute of the job. And when the GPS signal is lost, the S8 Plus GNSS reduces to a moment the re-initialization time, while positioning accuracy, checked from the field software, gives you a totally comfortable feeling of a good result. The Bluetooth™ device, make S8 Plus a fast and completely cable free one man system for every kind of topographic job.

TECHNICAL FEATURES S8 PLUS

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RECEIVER

Channels	120
Satellite tracked	GPS: Simultaneous L1, L2, L2C, L5 GLONASS: Simultaneous L1, L2 GALILEO: E5a, E5b, Alt-BOC BeiDou:B1, B2 SBAS: Simultaneous L1 C/A, L5 QZSS (Quasi-Zenith Satellite System) L-Band
Position Rate	Up to 5 Hz (higher frequency optional)
Signal Reacquisition	< 1 s
RTK Signal Initialization	< 10 s
Hot start	< 35s
Initialization reliability	> 99.9 %
Internal memory	256 MB
Micro SD Card	4 GB Internal Memory (Over 60 days of raw static data storage with recording sample every 1 second)

POSITIONING[1]

STATIC	
Horizontal	5 mm + 0.5 ppm RMS
Vertical	10 mm + 0.5 ppm RMS
STATIC (Long time observations)	
Horizontal	3 mm + 0.1 ppm RMS
Vertical	3.5 mm + 0.4 ppm RMS
CODE DIFFERENTIAL POSITIONING	
3D	0.25 m RMS
SBAS Positioning	0.6 m 3D RMS[2]
REAL TIME KINEMATIC (<25 Km) – NETWORK SURVEYING[3]	
Fixed RTK Horizontal	10 mm + 1 ppm RMS
Fixed RTK Vertical	20 mm + 1 ppm RMS

COMMUNICATION

Connectors I/O	7-pins Lemo and 5-pins Lemo interfaces. Multicable with USB interface for connecting with PC
Bluetooth Device	2.4 GHz class II: maximum range 50 m
Reference Outputs	CMR, CMR+, RTCM 2.1, 2.3, 3.0, 3.1
Navigation Outputs	Navigation output support for NMEA-0183 and detailed NovAtel ASCII and binary logs.

INTEGRATED GNSS ANTENNA

High accuracy four constellation microstrip antenna, zero-phase center, with internal multipath suppressive board

1. Accuracy and reliability are generally subject to satellite geometry (DOPs), multipath, atmospheric conditions and obstructions. In static mode they are subject even to occupation times: the longer is the Baseline, the longer must be the occupation time.
2. Depends on SBAS system performance.
3. Network RTK precisions depends on the network performances and are referenced to the closest physical base station.
4. Varies with the operating environment and with electromagnetic pollution.

INTERNAL RADIO

Frequency Range	403 - 473 MHz
Channel Spacing	12.5KHz / 25 KHz
Emitting Power	0.5/1/2 W
Maximum Range	3-4 Km (urban environment), 5-6 Km with optimal conditions[4]
Radio Protocol	Transparent EOT/EOC/FST, SATEL, South, Stonex Type 1, TRIMTALK II/IIe, TRIMMARK 3, TRIMTALK 450S

WIRELESS MODULE

Band	GSM/GPRS/EDGE : 850/900/1800/1900 MHz WCDMA/HSDPA: 2100/1900/850 MHz
Output power	GSM850, EGSM900 : 33 dBm(2W) GSM1800, PCS1900 : 30 dBm(1W) WCDMA : 23 dBm

POWER SUPPLY

Battery	2500 mAh high capacity Lithium battery, Voltage 7.4 V
Voltage	9 to 15 V DC external power input with over-voltage protection
Working Time in Static Mode (GPS+GLONASS)	7 hours
Working Time in Wireless Network with Cable Connection (GPS+GLONASS)	6.5 hours
Working time in wireless network with Bluetooth connection (GPS+GLONASS)	around 4 hours
Charge Time	typically 7 hours
Power Consumption	< 3.8 W
Remaining Time Battery Light Blinking	1 hour

PHYSICAL SPECIFICATION

Weight	1.2 Kg with internal battery, radio standard UHF antenna
Operating Temperature	-30°C to 60°C (-22°F to 140°F) (internal radio TX 50°C)
Storage Temperature	-40°C to 80°C (-40°F to 176°F)
Waterproof/Dustproof	IP67. Protected from temporary. immersion to depth of 1 meter and from 100% humidity
Shock Resistance	Designed to survive a 2 m pole drop on concrete
Vibration	Vibration resistance
Winter Grade Option	Operating at -40°C (-40°F)

Specifications subject to change without notice

IP67 Bluetooth CE FC RoHS 2011/65/EU

UNI EN ISO 9001:2008 DECEMBER 2015 REV-02

STONEX AUTHORIZED DEALER

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