

 **STONEX**

S9i

**THE *intelligent* GNSS
RECEIVER**



**The never
ending evolution**

STONEX S9i: The never ending evolution

THE STORY CONTINUES

It was the year 2010 when a revolutionary GNSS receiver, STONEX S9 1° started to break the rules of the Geomatic world. Amazing features, often exceeding long-established competitors, STONEX S9 1° opened the door toward the GPS technology to thousands of Professional Surveyors.

Three more S9 were developed after the 'First generation' and today STONEX is proud to introduce the new Intelligent S9i which re establish a new milestone and clarify the gap between STONEX and its imitators.

GOING BEYOND THE STANDARD FEATURES

In a fourth generation GNSS as S9i any User takes for granted several features, as a centimetric accuracy in RTK mode, a multiconstellation facility - NAVSTAR, GLONASS, BEIDOU, GALILEO - the GPRS modem to connect with an existing GPS Network: all features that make a GPS receiver the best tool for a fast and reliable survey work.

S9i goes beyond.....

A long working day? The dual slot for two Smart hot swappable batteries gives you up to 12 hours using the integrated UHF radiomodem. The power level can be checked and seen on the controller or directly on a led bar on the battery. Moreover, the same battery is used on S9i and on the Stonex controllers S4II C/H.

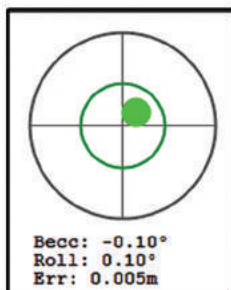
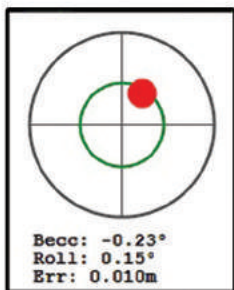
..... WEB USER INTERFACE



Using a smartphone? Connect it via WiFi to S9i and enjoy the powerful WEB User Interface, that offers the total control of the unit.

The WEB UI allows to initialize, manage, monitor the settings of the unit and to download data using a PC, a smart phone or a tablet with Wifi capability.

..... ELECTRONIC BUBBLE



Today the bubble on the pole can retire : with E-Bubble, STONEX S9i features an high accuracy inertial system which makes reliable every measurement, both during the survey and the stake out works, and makes extremely faster the acquisition of points; up to 40% of the field work time can be saved!



THE MOST ADVANCED WIRELESS COMMS SYSTEMS

The high speed Five Bands UMTS/HSPA+ (WCDMA/FDD) mobile data connection capability ensures rapid transfer of differential data in several formats (RTCM 2.3/3.0/3.2 MSM, CMR, CMR+,sCMRx) with reliable Internet connection and very low latency.

In the amazingly compact structure the long range Bluetooth® and WiFi modules allow always reliable data flow to the controller, and the integrated TX/RX UHF radiomodem, with selectable frequencies and output power, make S9i the perfect tool for a Base + Rover system.

RELIABLE AND FAST

IP 67 certification, combined with a high shock resistance - S9i survives even after a 2 m drop on an hard surface - guarantee the maximum strength and the best water and dust tight even in harsh environments.

The new Ceramic zero-phase-shift multi-system antenna with L-band support is essential for high accuracy measurements even in urban canyons and under bushy vegetation.

The extremely short initialization time, lets the User save time everyday, every minute, every point.

And when the GPS signal is lost, the advanced STONEX™ technology used in S9i dramatically minimize the re-initialization time, while positioning accuracy, checked from the field software, gives the smoothest field workflow.



THE STONEX SYSTEM

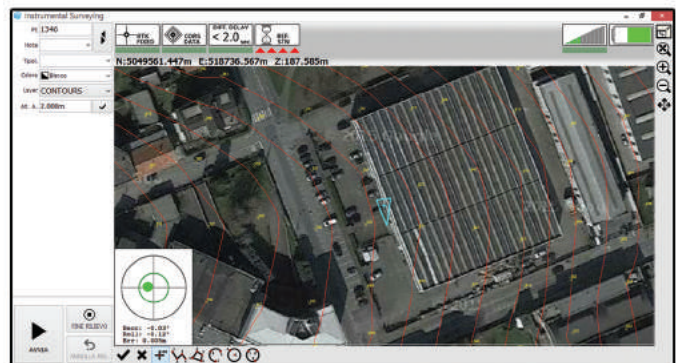
S9i GNSS is compatible with most of the worldwide known field softwares.

Anyway, the best utilisation of any STONEX GPS can be achieved using specific STONEX softwares: SURPAD and CUBE for Windows™ Mobile 6.5 and CUBE Tablet for Windows™ 10.

Stonex softwares are realized together with the hardware Developers Team, and the whole set of functionalities and features of the GPS units are completely exploited.

FIELD SOFTWARE

CUBE



CUBE Tablet is optimized for STONEX GNSS, from S5 to S10, and is compatible with NMEA GPS receiver of any brand.

SURPAD & S4II



STONEX S4II is the perfect companion of S9i for Users accustomed to Windows Mobile™ field solutions;

SURPAD and CUBE Mobile the right software to complete the system.



RECEIVER

Channels	220
	GPS: Simultaneous L1 C/A, L2E, L2C, L5
	GLONASS: Simultaneous L1, L2
	COMPASS/BEIDOU: B1, B2
Satellite Tracked	GALILEO: Simultaneous E1, E5a, E5b, AltBOC
	Assistance position: WAAS, MSAS, EGNOS, QZSS
Initiation time	< 10 s
Initialization Reliability	> 99.9 %
Internal Memory	4 GB
External TF card	Support the maximum 32 GB
Differential	RTCM 2.3/3.0/3.2 MSM, CMR, CMR+, sCMRx

POSITIONING¹

STATIC ACCURACY (Long time observations) ¹	
Horizontal	2.5 mm + 0.1 ppm RMS
Vertical	3.5 mm + 0.4 ppm RMS
STATIC ACCURACY	
Horizontal	2.5 mm + 0.5 ppm RMS
Vertical	5 mm + 0.5 ppm RMS
SBAS POSITIONING (Typical) ²	
Horizontal	0.5 m RMS
Vertical	0.85 m RMS
REAL TIME KINEMATIC (< 25Km) – NETWORK SURVEYING ³	
Fixed RTK Horizontal	8 mm + 1 ppm RMS
Fixed RTK Vertical	15 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	V2.0 class II
Wi Fi	IEEE 802.11 b/g/n
Network	Five Bands UMTS/HSPA+ (WCDMA/FDD) (850/800, 900, 1900 and 2100 MHz) Quad-Band GSM (850/900/1800/1900 MHz)
Protocol	South 9600/19200, TRIMTALK, TRIMMARK 3, PCC EOT 9600/19200
UHF radio	TX power: 0.5W/2W (adjustable) Frequency: 410-470 MHz

GNSS ANTENNA CHARACTERISTICS

Ceramic zero-phase-shift multi-system antenna with L-band support

E-BUBBLE

Accuracy	Pitch: 0.1° Roll: 0.1°
Feature	Roll and Go survey (feature with Surpad 3.0)

POWER SUPPLY

Battery	3400 mAh (standard configuration: 2 batteries)
Battery life	Over 12 hours (dual battery and hot swap)
Dimensions	φ 159 mm x 89 mm

PHYSICAL SPECIFICATION

Weight	1.15 Kg (with one battery) 1.25 Kg (with two batteries)
Operating Temperature	-30°C to 65°C
Storage Temperature	-40°C to 80°C
Waterproof/Dustproof	IP67. Protected from temporary immersion to depth of 1 meter and from 100% humidity
Humidity	100% non-condensing
Shock Resistance	Designed to survive to a 2 m drop onto hard surface (tested in compliance to MIL-STD 802G)
Vibrations	Designed to operate at 7.5 Hz to 350 Hz 0.015 g2/Hz

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.



Illustrations, descriptions and technical specifications are not binding and may change



Supplier & Service Provider Rugged PDAs, GNSS, INS, OEM & Sensors

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