

# Integrated GNSS System

Stonex Integrated GNSS System (SIGS) is the new, integrated system able to combine GNSS receivers and proprietary software and is entirely produced by STONEX Europe. The system includes the new GPS/GNSS S9 III receiver and CUBE, the new survey software.

STONEX Europe (Italy) has expanded its GPS/GNSS receiver product range with some functional innovations that improve the use for survey professionals. S9 III completes STONEX's offer with a flexible product for surveying applications thanks to its advanced characteristics. S9 III combines a compact and light mechanic with an embedded 220 channel GNSS board accurate and quick in satellite fixing, a UHF internal transmitting and receiving radio, GSM/GPRS module for network connection and a Bluetooth device for wireless purposes. The receiver is delivered complete with accessories for Rover/Base applications.

S9 third generation uses a GPS/GLONASS antenna specifically designed to reduce variations of phase centre position, improving observation accuracy. RHTP (Right Hand Circular Polarisation Characteristics) technology enhances signal reception, reducing errors due to multipath even in case of signal polarisation change.

Carefully designed with bright colours, the STONEX Europe S9 III receiver has its antenna on the upper side and battery and radio on the lower one. IP67 certification ensures optimal watertightness for mechanical parts, a high shock resistance and is completely dustproof. Weight and dimensions are lower than previous receiver series: a weight of 1.2 kg and a carbon pole make S9 III easy to carry.

STONEX Europe S9 III receiver supports all required survey configurations: static, RTK Base plus Rover, RTK Rover with differential corrections received from a reference base or from a GPS network, like Stonex Italian national network.

S9 III receiver ensures a quick setup for every working mode. The thermal stability and battery consumption are also improved, increasing performances on field. International high technological level raises data transfer efficiency in UHF radio mode, reducing bit error rate (BER) value to a maximum of  $10^{-7}$ .

The UHF antenna supplied with the receiver has a 20MHz bandwidth, with constant gain into the entire operative range. S9 III receiver transmits with a radio power of 0.5W as base mode, while for longer distances the connection with higher performance external radio (optional) is always possible.