

S599 GNSS Receiver

Compact and light
GNSS Receiver



S599

Compact & Lightweight

The S599 GNSS receiver is an ideal solution for GIS professionals who need high accuracy positioning in a compact and portable device. Weighing just 380 grams and measuring only 98mm in width and 46mm in height, this ultralight receiver offers exceptional ease of use and is well-suited for long hours of field data collection.

Despite its small size, the S599 is IP68 rated and built to withstand tough field conditions, offering a durable and rugged design that ensures reliable performance in any environment.

Equipped with a built-in camera for AR stakeout and mapping, the S599 shows real-time navigation and distance to target points. Its impressive 12-hour battery life ensures full-day operation without the need to recharge, keeping your workflows uninterrupted.



MULTI-CONSTELLATION SYSTEM & PPP

The S599 is capable of tracking and utilizing signals from multiple global satellite constellations, including GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS.



IMU TECHNOLOGY

The S599 is equipped with cutting-edge IMU technology, enabling rapid initialization and accurate measurements even at inclinations of up to 60 degrees.



ULTRA-COMPACT & LIGHTWEIGHT

Weighing just 380 g and measuring only 98 x 46 mm, the S599 offers ultimate portability without compromising on performance.



INTEGRATED CAMERA FOR AR STAKEOUT

The built-in camera provides GIS professionals with the ability to capture photos and geo-tag them directly in the field.



DURABLE AND RUGGED DESIGN

Despite its compact size, the S599 is built to endure tough field conditions and is rated IP68 for water and dust resistance.





COMPACT, LIGHT, READY FOR GIS AND MORE

Paired with a survey pole mounted with a wheel, the S599 becomes the perfect tool for GIS professionals focused on road mapping and linear measurements. Its integrated IMU enables precise data capture even when tilted, allowing you to efficiently map and calculate areas and distances directly along the road.

OnePole

The Stonex OnePole Solution delivers unparalleled surveying versatility by combining one of Stonex's advanced robotic total stations with the ultra-compact, high-precision S599 GNSS receiver. This powerful integration enables seamless switching between Total Station and GNSS modes with just a tap, adapting effortlessly to any field condition.

Thanks to the compact size and state-of-the-art technology of the S599, surveyors enjoy true mobility without compromising accuracy. Coupled with Stonex's robotic total stations and supported by Cube-a software, the OnePole Solution ensures smooth communication, fast data exchange, and streamlined workflows.



cube-connector

Cube-connector is Stonex's intuitive Android app that seamlessly connects your S599 GIS GNSS receiver to any Android device via Bluetooth. By replacing your device's internal GPS with the high-precision data from the S599, Cube-connector delivers the accuracy and reliability essential for GIS and surveying applications.

S599 TECHNICAL FEATURES

RECEIVER

Satellite signals tracked	GPS: L1 C/A, L1C, L2P, L2C, L5
	GLONASS: L1, L2, L3
	BEIDOU: B1I, B2I, B3I, B1C, B2a, B2b
	GALILEO: E1, E5a, E5b, E6
	QZSS: L1, L2, L5, L6
	IRNSS: L5
	SBAS
PPP	B2b PPP, HAS
Channels	1408
Position Rate	Up to 20Hz
Signal Reacquisition	< 1 s
RTK Signal Initialization	< 5 s
Hot Start	Typically < 15 s
Initialization Reliability	> 99.9 %
Operating system	Linux
Internal Memory	8 GB
IMU Rate	200 Hz
Tilt Range	± 60°
Tilt Accuracy	2 cm at 30° - 4 cm at 60°

POSITIONING¹

HIGH PRECISION STATIC SURVEYING	
Horizontal	2.5 mm + 0.5 ppm RMS
Vertical	5 mm + 0.5 ppm RMS
REAL TIME KINEMATIC (< 30 Km) – NETWORK RTK ²	
Fixed RTK Horizontal	8 mm + 1 ppm RMS
Fixed RTK Vertical	15 mm + 1 ppm RMS
PPP Accuracy	< 20 cm RMS
SBAS Accuracy ³	< 60 cm RMS

INTEGRATED GNSS ANTENNA

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

BUILT-IN CAMERA FOR STAKEOUT

Resolution	2 MP
Image frame	25 frame/s
Field of view	88°

COMMUNICATION

I/O Connectors	Type-C for charging and data transfer
Bluetooth	2.1 + EDR, V5.0
Wi-Fi	802.11 b/g/n
Web UI	To upgrade the software, manage the status and settings, and download data. Smartphone, tablet, or other electronic device with Wi-Fi capability can be used.
Reference outputs	CMR, RTCM 3.0, RTCM 3.2, DGPS
Navigation outputs	NMEA 0183

POWER SUPPLY

Battery	Internal battery not removable, 3.65V, 6000 mAh
Power	Type-C PD 12V
Working Time	Up to 12 hours
Charge Time	Typically 4 hours

PHYSICAL SPECIFICATION

Dimensions	98 mm x 98 mm x 46 mm
Weight	385 g
Operating Temperature	-30°C to 60°C (-22°F to 140°F)
Storage Temperature	-40°C to 80°C (-40°F to 176°F)
Waterproof/Dustproof	IP68
Shock Resistance	up to 1.5 m (no damage)
Humidity	100% non-condensing

1. Accuracy and reliability are generally subject to satellite geometry (PDOP), multipath, atmospheric conditions, and obstructions. In static mode, they are also subject to occupation times: the longer the baseline, the longer the occupation time must be.
2. Network RTK precision depends on the network performances and are referenced to the closest physical base station.
3. It depends on the SBAS system's performance.

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

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