TOPCON

Integrated GNSS and Total Station

- GNSS and optical rover
- Auto-tracking of prism
- Network or local RTK
- LongLink™ communication
- Rugged, waterproof design
- Improved data workflows

Software – Hardware – Technology

The Hybrid Robotic system solution is the combination of GNSS positioning, an optical total station, and automated data workflow. By utilizing both GNSS and optical measurements, any job site project can be completed faster, and with the precision needed. In addition, by adding new efficient data workflows from the entire MAGNET® system, productivity increases at each phase.

The precision and tracking ability of the DS robotic instrument provides precise measurements anywhere the prism can be seen. The GNSS positioning of the RTK rover pole can be used for measurements that are not in the line of site.

More than just an integrated surveying solution, the Hybrid Robotic System includes the data flow connection to the office. Exchange data files in real-time with MAGNET Enterprise.

There are many additional hardware configurations from Topcon that can benefit from the use of hybrid positioning. This technology is compatible with all modern robotic systems such as the Topcon PS, DS, IS, and QS total station, as well as GNSS receivers such as the HiPer SR, HiPer V, and others.

Hybrid Positioning Performance

Using the Hybrid Positioning System, job site measurements can be completed faster. Productivity will be increased with fewer robotic tripod setups. Collect measurements with GNSS or the robotic total station anywhere on the job site.

Network RTK, MAGNET Relay, or Local RTK

Use any type of GNSS positioning in your hybrid system to enhance your robotic re-acqusition and jobsite localization routines. TopNET*live*, Network RTK, MAGNET Relay, or a local base station RTK message will provide the best hybrid positioning solution.

Learn more at www.topnetlive.com

HYBRID ROBOTIC SYSTEM

DS-AC+

HiPer SR with prism

MAGNET®

MAGNET Enterprise

FC-500

DS-AC+ Instrument Accuracy	
DS-101	1 arc second
DS-103	3 arc seconds
DS-105	5 arc seconds
Prism EDM Range	6,000 m
Prism EDM Accuracy	1.5 mm + 2 ppm
Non-Prism Range	1,000 m
Non-Prism Accuracy	2 mm + 2 ppm

HiPer SR Receiver	
Number of Channels	226-channel Vanguard Technology™ with Universal Tracking Channels
Signals Tracked	GPS, GLONASS, SBAS, QZSS, Galileo, and COMPASS*
RTK Accurcay	H: 10.0 mm + 1.0 ppm V: 15 mm + 1.0 ppm
Dust/Water Rating	IP67
LongLink™ Range	300+ m

Topcon Tesla Geo 3G	
CPU	806 MHz PXA320
Memory	256 MB RAM ,4 GB Flash storage, SD/SDHC slot, user accessible
Display	5.7 in. VGA LCD (640 x 480) Portrait or landscape
GSM	Penta-band 3G GSM/GPRS/EDGE/HSDPA 850/900/1800/1900/2100 MHz
Dust/Water Rating	IP67
Wireless Connection	Bluetooth® and Wi-Fi

Galileo and COMPASS support will be incorporated into HiPer SR when these constellations have matured and are ready for commercial use.

HiPer SR Rover
- Unbelievably small
- Rugged, waterproof design
- Network RTK rover
- Local base/rover RTK

DS-AC+ Total Station
- Small, compact robotic instrument
- Rugged, waterproof design
- Superior angle accuracy
- Powerful tracking EDM

Topcon FC-500
- Large bright screen
- Graphical and intuitive MAGNET Field data collection software
- Internal cellular data (optional)
- Internal NMEA GPS (optional)

Field and Office, connected
- Exchange files
- Chat with other crews
- Track assets
- Observe productivity

TOPCON

For more information:
topconpositioning.com/hybrid