ICS— The Infrastructure Coordinator solution - A1

ICS-A1

The integrated high accuracy GIS application platform including Topcon Hyper SR and high accuracy Total station solution
TopoLynx® topoXplore is a powerful easy to use Desktop and Mobile GIS software

With the functionality of many high-end robotic total stations, our ES series is full-featured and ready to tackle modern job sites.
• Long return of prism distance measurements, out to 4,000m
• TSshield™ web services for streamlined maintenance and security
• Topcon’s LongLink™ communication at 300m
• Rugged IP66 environmental rating
• Provides 36 hours of battery life

Advanced, ultra-compact and productive
From decades of Topcon GNSS evolution, the HiPer SR is simplified for all the right reasons.
High-Accuracy
With GNSS RTK functionality, the Sirius Pro delivers 2-5 cm accuracy without ground control points.

Efficient
Save up to 50% of project time by utilizing integrated GNSS with precision timing technology. This determines the exact location that each photo is taken, eliminating the need to set ground control.

Upgrade Easily
Our Sirius Basic device delivers all the features of professional survey tools. Add an antenna and a simple software upgrade to the Sirius Basic to get the same RTK functionality as the Topcon Sirius Pro.
ES- Series

Measurement that exceeds expectations

GENERAL

Display
Dual backlit LCD
(ES-107 Single Display)

Battery Operation
Up to 36 hours

Wireless Connection
Bluetooth® Class 1

Operating Temperature*
-20°C to +60°C*

*Special Arctic version available
(-30 to +50°C)

CERTIFICATIONS AND STANDARDS

Dust/Water Protection
IP66

ANGLE MEASUREMENT

Min. Res/Accuracy
ES-101 0.5”/1”
ES-102 1”/2”

ES-63 1”/3”
ES-65 1”/5”
ES-67 1”/7”

Compensation
Dual-axis compensator

DISTANCE

MEASUREMENT

Prism EDM Range
4000m
(ES-107 3000m)

Measuring Time
Fine: 0.9 sec
Rapid: 0.7 sec
Tracking: 0.3 sec

COMMUNICATIONS

General
LongLink™

Bluetooth® Class 1

USB 2.0 Slot
(Host + Slave)

RS-232C Serial
HiPer SR

Advanced, ultra-compact and productive

Daily setup routines are made easy through the HiPer SR's LongLink intelligence feature. More than just a wireless Bluetooth connection, LongLink serves to automatically connect multiple HiPer SR rovers to your mobile base. Just power them on and let the system do the rest. Combine your Topcon HiPer SR receiver with a robotic total station system, to create a Hybrid solution ready for any environment.

This entry-level GNSS solution is ideal for interference-free, short-range, wireless communication between base and rover. With an optional, internal, dual-SIM cellular modem the HiPer SR can also be used as a MAGNET Relay mobile base, adding flexibility to your portfolio for your various project scenarios.

- Capable of tracking GPS and GLONASS constellations
- Universal Tracking Channels capable of all-in-view tracking
- Hybrid Positioning ready
- Signal scrubbing Fence Antenna® to provide ultimate signal lock

Application Perfect for

- Land Surveying
- Topography & As-Built
- Construction Survey/Layout
- Grade Management
- Site Work
- Landfill
- Mapping
- Utilities
- Forensics
- Forestry
## GNSS TRACKING

**Number of Channels**
226-Channel Vanguard Technology™ with Universal Tracking Channels

**Signals Tracked**
GPS, GLONASS, SBAS, QZSS

**Antenna Type**
Fence Antenna

## ACCURACY

**Static/Fast Static:**
- H: 3.0 mm + 0.4 ppm
- V: 5.0 mm + 0.6 ppm

**Precision Static:**
- H: 3.0 mm + 0.1 ppm
- V: 3.5 mm + 0.4 ppm

**RTK (L1+L2):**
- H: 10 mm + 0.8 ppm
- V: 15 mm + 1.0 ppm

**DGPS**
- H: 0.4 m, V: 0.6 m

**SBAS**
- H: 1.0 m, V: 1.5 m

*See brochure for more information.

## COMMUNICATIONS

**I/O Communications**
Bluetooth®, Serial, USB

**Cellular**
Integrated HSPA+/CDMA

## MEMORY

**Memory**
2GB internal

**Real Time Data Output**
TPS, RTCM SC104 v2.x, 3.x and MSM, CMR/CMR+

**ASCII output**
NMEA 0183 version 2.x, 3.x and 4.x

## PHYSICAL AND ENVIRONMENTAL

**Dimensions**
- W: 5.9” (150 mm)
- D: 5.9” (150 mm)
- H: 2.5” (64 mm)

**Weight**
- 1.87 lbs. (850g) – Basic
- 2.04 lbs. (925g) – Cellular

**Operating Temperature**
- -20°C to 65°C

**Storage Temperature**
- -40°C to 70°C

*With internal batteries

**With external power**

## CERTIFICATIONS AND STANDARDS

**Dust/Water Protection**
IP67

## POWER AND ELECTRICAL

**External Power Connector**
Yes

## PERFORMANCE

**Operation Time**
Up to 20 hours
Prepare your fieldwork by querying your geodatabase

Collect geospatial data and attributes in the field
Mobile GIS data capture

topoXplore is a mobile application for location based data collection, surveying and mapping – with processing intelligence. It is equally suitable for GIS professionals and less trained staff and can be used as integral part of an enterprise-wide GIS infrastructure or stand-alone data capture tool. The software runs on Windows Mobile based devices and customers get a free desktop program for office use.

topoXplore offers users the following main benefits and unique features

- Efficient and simple field data capture workflow
  - Automatization tools to maximize productivity and data quality
  - Fast map drawing algorithms to handle large amount of data
  - Built-in support for all coordinate systems and projections
  - More precise positioning by use of NTRIP, RTK corrections and post processing of raw data
- Advanced topological features
- Thematic mapping by descriptive data fields and code lists
- New look and feel: redesigned user interface with more visible map content
- High-resolution icons and scalable user interface for tablet users
- Simplified toolbar with the most frequently used tools only
- New Settings panel for easier access to each setting
- Redesigned Survey and GNSS panel for faster fieldwork
- Support of Web Feature Service (WFS) standard: ability to download and upload vector features from online services
- Access online services (WMS, WFS, TMS, NTRIP) through proxy services
- Enhanced WMS map caching for offline use
- Improved navigation, stakeout and CoGo tools
- Ability to set up different parallel NTRIP profiles and to switch between them
- Vertices of vector objects can be displayed and this function can be turned on/off during field data collection
- Audible signals indicating the type of GNSS solution