

Single Frequency Original Equipment Manufacturers Board



Small Size . . . Tremendous Capabilities

- GPS + GLONASS CAPABILITY
- PRECISE DYNAMIC POSITIONING
- UP TO 100HZ UPDATE RATE
- SCALABLE SOLUTION VIA SOFTWARE OPTION AUTHORIZATION (OAF)
- LOW 1.2 WATT POWER DRAW

TOPCON positioning technology allows integrators to take full advantage of state-of-the-art GPS and GPS+GLONASS signal processing. With update rates of up to 100Hz and centimeter level accuracy, the TG-3 is the solution for many challenging, high dynamic tracking and positioning problems.

TG-3 Board Features & Specifications:

Tracking Features

- 50 channels, all-in-view, L1 GPS, L1 GLONASS (optional), WAAS/EGNOS/MSAS
- Low signal tracking (down to 30 dBHz)
- Reacquisition < 1 Second
- Cold start < 60 Seconds
- Warm start < 35 Seconds
- Hot start < 5 Seconds
- Advanced Multipath Mitigation

Data Features

- DGPS RTCM version 2.x Input/Output
- NMEA 0183 versions 2.1, 2.2, 2.3 and 3.0 Output
- 20Hz data output; 100Hz optional
- Topcon GRIL command interface supported

Position Accuracy*

- Static
Horizontal: 3mm+ 0.8ppm
Vertical: 4mm+ 1.0ppm
- PP Kinematic
Horizontal: 10mm+ 1.0ppm
Vertical: 15mm+ 1.0ppm
- DGPS
Post Processing: Typically 0.3m
Real time DGPS/RTCM based: Typically less than 0.5m

Input/Output

- Two connectors for internal and external antennas
- Up to three high speed RS232 serial ports (up to 460.8 Kbps)
- Bluetooth® wireless technology

Power

- Input supply voltage:
3.3V main supply
5V external antenna supply
- Power consumption:
3.3V: 1W typical; 1.2W max;
5V: depends on antenna type connected

Environmental

- Operating Temperature -40°C to +75°C

Dimensions

- 72.6 x 62.5mm

Main Interface Connector

- Matsushita Narrow pitch AXK4S3060635P connector for board to board connection is used.

Antenna Connector

- Hirose H.FL-R-SMT low profile coaxial connector is used on the board. The central pin supplies +5V voltage for LNA.

* With proper 50 ohm antenna

** For Technical Drawings and additional Technical Specifications go to: www.topconsolutions.com.



TG-3

Powered by our TPSCORE® GPS chip, the economical TG-3 board provides 50 channel GPS+GLONASS single frequency technology with up to 100Hz data and position update capability. And with Topcon's exclusive software option authorization capability (OAF), you only pay for the capability you need today...easily upgrade as your requirements change in the future.

Other OEM Boards

Euro 160T

Standard 160mm Eurocard format delivers GPS L1/L2, and GLONASS tracking and all of Topcon's exclusive and advanced GPS+ features.

Euro 112T

Small Eurocard format (112mm), provides GPS L1/L2, and GLONASS tracking, reduced power consumption, and many of Topcon's exclusive and advanced GPS+ features.

G3 160T

Standard 160mm Eurocard format is the world's first to track signals from all three satellite positioning system -- GPS-GLONASS-Galileo. GPS signal tracking includes L2C and L5.



Topcon Positioning Systems

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www.topconsolutions.com

Specifications subject to change without notice
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