

ORIGINAL EQUIPMENT MANUFACTURERS BOARD



Full-featured GNSS in standard Eurocard format

- **Dual frequency GPS and GLONASS tracking capability**
- **Super-fast acquisition and re-acquisition**
- **In-band interference suppression capability**
- **20 satellite, all-in-view, tracking capability**
- **20Hz RTK and update rate**
- **Scalable solution via software option authorization (OAF)**

Field proven, the 160T Eurocard leverages high sensitivity dual frequency GPS and GLONASS signal processing to mitigate effects of myriad signal obstruction and outages. The 160T will continue to provide high quality measurements in the most demanding environments.



Euro 160T Board Features & Specifications:

Tracking Features

- 20 satellites, all-in-view, L1 GPS, L1/L2 GPS, L1/L2 GLONASS, L1/L2 GPS + L1/L2 GLONASS, WAAS/MSAS/EGNOS.
- Up to 30 dB of "IN-BAND" interference suppression.
- Co-Op Tracking (high satellites help low satellites)
- Low signal tracking (down to 30 dBHz)
- Reacquisition < 1 second
- Cold start < 60 seconds
- Warm start < 35 seconds
- Hot start < 5 seconds
- Up to 30 g's of dynamic Advanced Multipath Mitigation

Data Features

- Up to 20 Hz update rate for real time position and raw data (code and carrier)
- 10 cm code phase and 0.1 mm carrier phase precision
- RTCM SC104 versions 2.1, 2.2 and 3.0 Input/Output
- NMEA 0183 versions 2.1, 2.2, 2.3 and 3.0 Output
- Multiple Base RTCM
- Geoid and Magnetic Variation models
- RAIM
- Different DATUMS support
- Output of grid coordinates
- CMR and CMR+ support

Position Accuracy*

- Dual Frequency:
- Static, Fast Static
 - Horizontal: 3mm + 1ppm x (baseline length)
 - Vertical: 5mm + 1ppm x (baseline length)
 - Kinematic, RTK
 - Horizontal: 10mm + 1.5ppm x (baseline length)
 - Vertical: 20mm + 1.5ppm x (baseline length)

Data Storage

- Up to 1 GB of on-board data storage (removable CompactFlash card).

Input/Output

- Four high speed RS232 serial ports (up to 460.8 Kbps).
- Full-duplex 10BASE-T Ethernet port.
- Full-speed USB device port (12 Mbps).
- Direct connection to our GPS-coupled spread spectrum radio.
- External Reference Frequency input/output
- Two 1PPS outputs (LVTTTL) synchronized to GPS, UTC, or GLONASS
- Two Event Marker inputs
- MINTER interface: Four external LED drivers
- ON/OFF control input External command input
- Four General Purpose 3.3V CMOS inputs
- Eight General Purpose 3.3V CMOS outputs

Power

- Input supply voltage: 4.75V to 28V
- Power consumption: 3.5W typical; 4.0W max
- On-board back-up battery for timekeeping and almanac data storage: 10 years of operation min

Environmental

- Operating Temp -40°C to +75°C
- Storage Temp -40°C to +75°C

Other

- Antenna output voltage - 5 VDC
- Back up battery - 10 years

Main Connector

DIN41612, 2 row x 32 pin, Right Angle, Male, AMP 536052-5 is used on the board.

Dimensions

168 x 100 x 15 mm

Antenna Connector

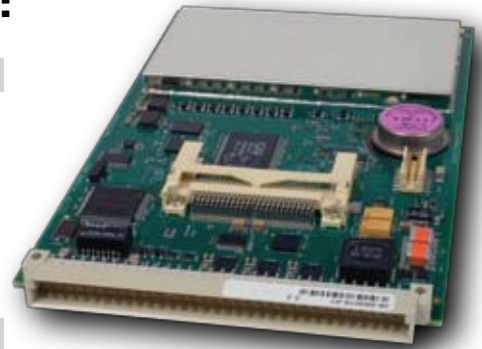
MMCX RIGHT ANGLE PCB JACK, / AMPHENOL/908-24100 connectors are used on the board. Central pin of the antenna connector (J100) supplies 5V (up to 0.08A) for antenna Low Noise Amplifier.

CAN Connector

HEADER, 1X6, MOLEX 53261-0690 is used on the board

* With proper 50 ohm antenna

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



Euro 160T

Powered by our Paradigm® GPS+ chip, the Euro 160T includes dual frequency GPS and GLONASS tracking capability with up to 20Hz RTK and update rates. Its rugged Eurocard interface and vast array of input/output options provides easy and reliable integration for the most demanding applications.

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

TG-3

The economical TG-3 board provides 50 channel GPS+GLONASS single frequency technology with up to 100Hz data and position update capability.

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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