

GPS Receiver Module

For use with our M210 and M211 Modular Timing Systems. The GPS Receiver module receives the Global Positioning System (GPS) transmissions from a corresponding GPS Antenna, decodes the time information and uses it to discipline the oscillator within the timing system.



Features

- Decodes highly accurate time information
- Synchronises timing system to UTC
- Alarm features for easy system monitoring
- Uses one module slot in TFS' M210 and M211 Modular Timing Systems

Key Benefits

The GPS Receiver Module receives and decodes GPS transmissions, allowing the timing system to accurately synchronise to Universal Coordinated Time (UTC).

Local time can be derived from UTC at user selection through use of the equipment menus. The equipment menus also allow examination of time, position and satellite status information.

The GPS Receiver Module also includes alarm changeover contacts, which indicate loss of GPS synchronisation, power fail and failure of the timing system. These alarms allow external monitoring of system performance.

GPS Receiver Module Specifications

Module Connections

GPS broadcast signal from Antenna:
50Ω BNC socket

Alarm Outputs (Power fail/GPS Fail/System Fail):
15 way 'D' type Socket

RS232 Serial Port:
15 way 'D' type Socket

System (On-time) 1PPS output:
50Ω BNC socket

GPS Performance

Time Accuracy (when GPS signal available):
500 nanoseconds to UTC (Assuming adequate
Satellite visibility)

Time Accuracy (if GPS signal unavailable):
Timing System specification applies. Precision
oscillators are available for improved 'free run'
performance.

Time to first fix:
Less than 2 minutes from cold start (90%
probability).

GPS Satellite Data Storage:
All key parameters (eg. Satellite Almanac,
Antenna position) are stored in non-volatile memory
ensuring an optimum restoration of performance
following loss of input power.

Ordering Information

Please quote relevant part number when ordering:

For use with antenna type	Part No.
Active	0210HZ000G
Passive	0210HZ000H

GPS Data Display Facilities

The following information can be viewed on the front
panel display of the Timing System through use of the
menu facilities:

- UTC Time and Date (Hours, Minutes,
Seconds, Day, Month, Year)
- Local Time and Date (Hours, Minutes,
Seconds, Day, Month, Year)
- Latitude, Longitude, Altitude
- Satellite status

GPS Data Output Facilities

The following information can be output through the
data interfaces for the Timing System:

- UTC Time and Date (Hours, Minutes,
Seconds, Day, Month, Year)
- Local Time and Date
- Latitude, Longitude, Altitude
- Satellite Status

Environment

(Operation & Storage)

Temperature : 0°C to +40°C.

Humidity: Up to 95% RH (non condensing)

EMC: CE compliant