TMS6004

TMS6005

TMS6006

TMS6007

PTP Grandmaster synchronized by either GNSS, NMEA or IRIGB

IEEE-1588 PTPv2 Grandmaster

NTP server stratum 1

GNSS multi-constellation disciplined

Protected configuration on SDCARD

PPS Hardware Accuracy of ± 100ns / UTC when GNSS disciplined

HTTPS Monitoring and Control through a web-based interface

Monitoring with SNMP V2c, V3

The TMS600X is rack mounted equipment able to provide a high stable time source on an Ethernet TCP / IP network.
The TMS600X is a time server that uses either the Network Time Protocol (NTP) or the Precise Time Protocol (PTP) to synchronize all connected computers on the network.

PTP Grandmaster

The TMS600X supports PTPv2 protocol and acts as a PTP grandmaster.

NTP Server

The TMS600X also provides an NTP service in request / response mode in stratum1 when it is synchronized to its time sources. The client computers can be synchronized with a precision better than 5 ms.
The server has the following main interfaces:
• Network connection IEEE802.3 100/1000 Mbs
• Synchronous UTC pulse top pulse (1 PPS)

Synchronization

The TMS600X synchronizes on GNSS or NMEA/PPS or IRIG-B.
The internal GNSS receiver is a multi-constellation (GPS, GALILEO, GLONASS, BEIDOU) specific receiver dedicated to time application allowing accurate and robust time reference.

Remote control

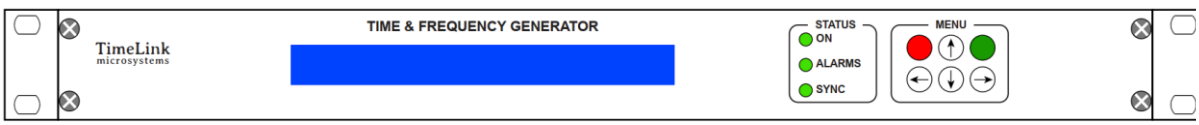
The remote control of The TMS6004/5/6/7 is done via the network, using:

- The SNMP standard protocol (MIB provided)
- The standard SSH protocol
- HTTP/HTTPS

An UDP frame containing the time and status of the TMS600X is emitted every second.

Configuration

The entire configuration of The TMS600X is contained in a removable SDCARD memory for easy system configuration and equipment update. In case of equipment replacement, the current configuration can be simply transferred by plugging the SDCARD in the new equipment minimizing the MTTR.



TMS6004/5/6/7 Front Panel

Specifications

Network Interface

IEEE 802.3. 100/1000 Ethernet physically isolated

NTP (Network Time Protocol)

NTP (RFC 1305) SNTP (RFC 1361) using UDP 123 port
Server configuration V3, V4 or automatic V3/V4

PTP (Precision Time Protocol)

PTP v2 IEE1588-2008
Default PTP profile

HTTP/HTTPS

Advanced web interface for control and monitoring based on Events.

SNMP (Simple Network Management Protocol)

(RFC 1155, 1157, 1213) V2c, V3
SNMP provides the equipment status to the network administrator.
For security reasons no configuration changes can be made with this protocol.

Syslog

Syslog and remote syslog are available

Connectors

1 x TNC for the GNSS antenna input
1 x BNC output for 1PPS
1 x RJ45 network connection

1PPS Accuracy

±100 ns over UTC when the equipment is synchronized by GNSS

Console

A console link for equipment maintenance and configuration is available on the back panel.
The TMS600X allows a direct connection in USB. This USB connection is dedicated to a serial link and cannot accommodate any other type of device.

Power Supply

Power supply range 85 to 260VAC at 47-60 Hz
Power consumption: 30 W

MTBF

>100 000 h

Temperature

Operating temperature:-20° to 60 ° C
Storage temperature:-20 ° to 70 ° C
Operating relative humidity:
10% to 90% (non-condensing)
Storage relative humidity:
5% to 95% (non-condensing)

Dimensions

Rack 1U 19 " Depth 13.8 in

Weight

< 3Kg including the power cable

Certification

Certified CE, ROHS, REACH and ITAR Free

TMS6004 Back Panel

Command code:

TMS6004: GNSS synchronized
TMS6005: NMEA/PPS synchronized
TMS6006: IRIG-B12X synchronized
TMS6007: GNSS, NMEA/PPS, IRIG-B12X synchronized

Please contact us for any further options needed

> ***Additional Options for each equipment types above are available and combinations can be implemented***
> ***OPT1.X Redundant AC Power (X=1) or Redundant DC power (X=2)***
> ***OPT2.X Ethernet Port Extension X=1 to 3 (NTP only)***