TMS2010

IRIGB network time server

The TMS2010 is a rack unit equipment able to provide a high stability time source to any Ethernet TCP/IP network. This timeserver uses the NTP (Network Time Protocol) and TP (Time Protocol) to synchronize all the computers connected to the network.

NTP Server

The TMS2010 server is NTP-Primary server with the following functions :

- Startum 1 server, compliant with NTP protocol release 3.0 or 4.0
- Mode : server (question/answer) or broadcast

The client's computers could be synchronized with a precision of 1 to 10 ms, depending on network load. Equipment and server status information's are available through the SNMP (MIB) protocol.
A NTP client must be installed on every client computer for his synchronization with the server.

It holds for outputs connectors:

- Standard RJ45 for network link. IEEE802.3 10/100 Mbs
- SubD 9 pins dedicated to RS232 serial link for configuration of the equipment
- .BNC for 1PPS phased with UTC time.
- BNC for IRIGB external time reference input.

Irig-B

The IRIGB input uses the standard 1 KHz amplitude modulated signal compliant with IRIGB STANDARDS 200-98.

Remote control

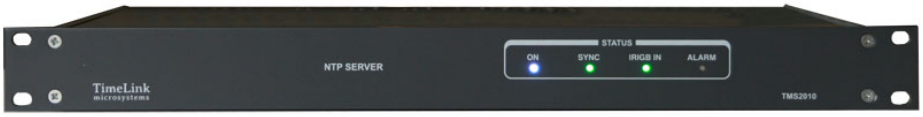
The remote control is done through the network using a dedicated web server.

Oscillator

An internal OCXO type oscillator allows a time stability of $1x10^{-9}$/day when disciplined on the external IRIGB reference.

Configuration

The entire configuration of the equipment is contained in a removable Micro SD memory SDCARD.



Features

NTP/SNTP

(Network Time Protocol):
NTP (RFC 1305) SNTP (RFC 1361) port UDP 123.
Server configuration : V3, V4 or V3/V4 automatic.

TP (Time Protocol)

DAY TIME

Time (RFC 868) using port UDP37

HTTP :

Web pages for remote control.

Connectors :

BNC isolated: IRIGB input
BNC for 1PPS output.
SUB'D 9 pins female for the console serial link .
RJ45 for network connection.

Network interface:

Ethernet IEEE 802.3. 10/100 Base TX.

1 PPS accuracy :

± 500 ns relative to the beginning of the IRIGB frame when disciplined with IRIGB.

IRIGB code:

IRIG-B, signal amplitude modulated 1/3, 1/1 – isolated by transformer.
Code input are compliant with the "year" information.

Internal reference:

Oscillator 10 MHz 1 ppm
Stability in disciplined mode :
$< 1.10^{-9}$.

Accessories :

To be specifies at time of order regarding the receiver type:

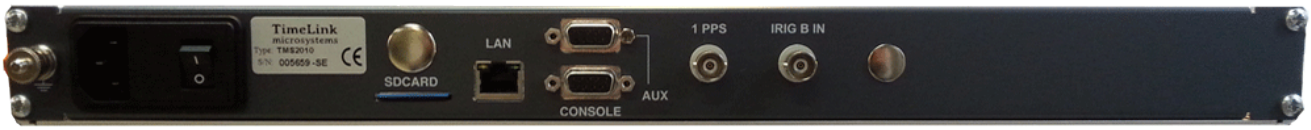
- Antenna GNSS (GPS, GPS+GLONASS,.....)
- lightning arrester

Dimensions :

Rack 1U, 19''
Weight : 3 kg
Consumption : 20 W

MTBF :

TMS2010 : 100 000 h



Ordering:

TMS2010: unit with GPS/GLONASS receiver