Multi-port IRIGB Network time server

The TMS3400 is 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 TMS3400 server is NTP-Primary server type with the following functions :

- Level 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.

Multiports

The NTP service is available on 3 ports:
• 10/100 Mbps Ethernet port shared with supervisory functions
• two ports 10/100/1000 Mbps dedicated to the NTP service

Irig-B

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

Remote control

Remote monitoring of the equipment is made by the network link (port 10/100 Mbs) using the integrated web server.

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Oscillator

An internal OCXO type oscillator allows a time stability of 1×10^{-9}/day when disciplined by the external IRIGB input signal.

Configuration

The entire configuration of the equipment is contained in a removable Micro SD memory SDCARD. This approach allows a fast and safe reconfiguration in case of replacement of the unit..

TMS3400 front face of the equipment

TimeLink
m i c r o s y s t e m s

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 the network links.

Network interface:
Ethernet IEEE 802.3. 10/100 Base TX.

1 PPS accuracy :
± 200 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:
20 MHz oscillator.
0.1 ppm
Stability when disciplined by IRIGB reference $<1.10^{-9}$ / day

Dimensions :
Rack 1U, 19'', depth: 350 mm
Weight : 3 kg
Consumption : 20 W

MTBF :
TMS3400   : 100 000 h

Power supply :
Power supply 230V AC :
Female CEE 2P+T with filter & swith On/Off
Voltage : 85-264VAC / 47-440Hz
Consumption : < 20W at 230VAC/50 Hz

Ordering:
TMS3400: standard unit