NTS-3000

NTP/SNTP Ethernet Network Time Server

- STRATUM 1 Server NTP/SNTP

- GPS +GLONASS +GALILEO

- SBAS (GNSS) support

- DCF77* support

- 2–6* Ethernet LAN w/ PoE*

- Dual redundant ANT inputs

- –55C/–67F antenna available*

- TCP/IP (IPv4/IPv6)

- PLL/FLL (1PPS) technology

- RS232/485 & USB interface

- SNMP v1,v2,v3 & MIB2 agent

- RADIUS client*

- MD5, RSA, DSA, SSL security

- NTP authentication

- remote configuration:
  HTTP, HTTPS, TELNET, SSH

- Microsoft® Window® compatible MAC OS/X, CISCO®, UNIX® ready including all Linux/FreeBSD versions

CLEPSYDRA
TIME SYSTEMS

a new global brand of ELPROMA

* extra feature requiring additional hardware and/or software firmware upgrade

Server NTS-3000 delivers time directly to LAN network using NTP and SNTP protocols. It is equipped with 2 (max. 6*) independent Ethernet ports working with both IPv4/6 protocols. Multi-satellite GPS+GLONASS+GALILEO signals are standard time reference but time can be simultaneously drawn from other all sources incl. DCF77*, external CS (cesium) beam such as 5071A atomic clock or any other external 1PPS/RS232 source.

The NTS-3000 is equipped with two redundand A/B antennas inputs, each receiving independent satellite systems simultaneously. Built-in quartz (RTC) guarantees time for limited short periods of missing SAT signals.

Server is STRATUM-1. It is ultra high-bandwidth NTP Server. NTS-3000 synchronizes time monotonously (jump-free) and can simultaneously serve up to 100,000 NTP, SNTP clients (workstations, servers and other devices). Std. version of product incl. 2x LAN (PoE) 10/100Base-T (RJ45) to support independent and isolated LAN networks. Optionally NTS-3000 can be equipped with 3,4,5 or max. 6x LAN interfaces.

Server provides nanosecond time accuracy, with ultra high 2E-32 time resolution. The internal NTP digital precission is -20. Server is FreeBSD UNIX driven. NTS-3000 unit has natural air cooling system w/o fan (ventilator). This makes unit - long life. Extra charge Lifetime Warranty is available - Please contact your sales for deteiles.

Redundant Synchronization Sources - All Served Simultaneously

- 2x Antenna INPUT (to connect max. 2 independent, redundand 32ch MultiSAT RCV)
  supported simultaneously SAT systems and frequency ranges:
  - GPS L1 (1575,42MHz)
  - GLONASS L1 (1598,06-1605,38MHz)
  - GALILEO L1 (1575,42MHz)
  - BEIDOU* /COMPASS/ L1 (1561,09-1575,42MHz)

both powered by • SBAS, and w/ extra RF AM* decoder • DCF77* for Central Europe, also • External Clock Devices 1PPS+RS232, incl. max. • 20xNTP backup timeservers
- 2x Antenna OUTPUT GPS NMEA emulation for NTP/SNTP STRATUM-2 servers

Network Time Protocol (NTP v2,v3,v4 & SNTP) supported

- RFC1305 • RFC1119 • RFC5905 • RFC5906 • RFC5907 • RFC1769 • RFC2030

I/O

- 2-6* LAN Ethernet 10/100 Base-T (RJ45),
- 2x Antenna INPUT RS485 (RJ45),
- 1x RS232C (D-SUB9), 1PPS (BNC)
- 2x USB 2.0 (for firmware upload)

Remote configuration

- SNMP (v1,2,3) • MIB 2 • RADIUS • HTTP • HTTPS • SSH • TELNET • NTPQ/NTPDC
  IEC*61850(networking)

Antenna & MultiSAT receiver:

- 32 channel MultiSAT receiver w/ FQ conv. (also available in -55°C/-67°F version)
- 600m [2000ft] UTP cat. 5 or 1.2kM [4000ft] STP (no need to use signal amplifiers)
- NTS-protect* surge protectors are available as separate product (Phoenix Contact)
- Custom built* version of Fiber Optic (or PTPv2) I/O is available on special request

Time Accuracy

- MultisSAT receiver accuracy is better than: 15x 10E-9s (nS- nanosecond)
- Internal TIME SERVER accuracy is better than: 10x 10E-9s (nS- nanosecond)
- Internal NTP digital resolution: 1x 2E-32s
- NTP client accuracy over LAN is better than: 100x 10E-6s (uS- microsecond)
- NTP client accuracy over Internet is better than: 100x 10E-3s (mS- milisecond)
- Internal NTP precission is between: <-19, -21> (typical -20)

Mechanical/environmental

- Size: 484 x 300 x 44,4 mm (RACK'19 1U)
- Power: 110/230 VAC (max 1A) w/ 2x PoE
- Operating temperature: 0°C to +50°C
- Storage temperature: -40°C to +80°C
- Humidity: up to 95%

Lifetime Warranty

is available to buy from distributor NTS-3000 unit has natural cooling (no fan or ventilators) MTBF > .290 million hours [24°C]

CLEPSYDRA
TIME SYSTEMS
a new global brand of ELPROMA

Made in EU   ISO 9001 QUALITY ASSURANCE

International Sales E-MAIL: info@clepsydratime.com