

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

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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 redundant 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 precision 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 details.

Redundant Synchronization Sources – All Served Simultaneously

- 2x Antenna INPUT (to connect max. 2 independent, redundant 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

- MultiSAT 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- millisecond)
- Internal NTP precision 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]

Manufactured in:
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