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# Network Time Server- NTP Time Server

with TCXO + OLED for GPS L1/Beidou B1/GLONASS L1/QZSS L1 - GF-NTP-PRO



GF-NTP-PRO NTP Server Network Time Server (TCXO + OLED)  
for GPS L1/Beidou B1/GLONASS L1/QZSS L1

## Description:

Network Time Server is a stratum 1 NTP server with an integrated GNSS receiver. It provides NTP, 1PPS and TOD timing outputs. The NTP server uses GNSS (Global Navigation Satellite Systems) signals from GPS, GLONASS, Beidou, and QZSS as the primary time source for synchronization.

The time server can use its built-in, TCXO (temperature compensated crystal oscillator) as autonomous time base for providing several hours of accurate holdover in case that GNSS signals are not available.

The time server has 6 ethernet ports isolated physically, the ports have no communication with each other to ensure network security.

The NTP server is in a 19-inch 1U chassis with rack mount ears for installation.

#### Features:

- 6000 transaction/second for every port
- NTP accuracy 0.5-2ms
- **6 ethernet** ports with full physical isolation to ensure network security
- TCXO (temperature compensated crystal oscillator)
- Web UI monitoring and management
- Multi-GNSS receiver (GPS, GLONASS, Beidou and QZSS)
- NTP v2 (RFC 1119), NTP v3 (RFC 1305), and NTP v4 (RFC5905)
- SNTP v3 (RFC 1769) and SNTP v4 (RFC 2030)
- NTP md5 authentication
- NTP Unicast and Broadcast mode
- 1PPS output
- 1 RS-232 serial port with ToD output (NMEA ZDA or RMC)
- GPSd is supported via ethernet port 1 (TCP protocol, port 4001)
- RTC
- OLED display
- Power consumption < 10W

#### NTP Parameters:

- Interface: 10/100 Base-Tx
- Interface Standard: Compliance with IEEE-802.3u Standard
- Interface Rate: 10/100M Adaptive
- Interface Connector: RJ-45
- NTP LAN Timing Accuracy: 0.5-2ms
- Support Protocols: NTPv2, NTPv3, NTPv4 and SNTP
- MD5 Information Verification: Yes

#### Receiver Parameters:

- Interface: 10/100 Base-Tx
- Support Satellites:
  - GPS L1
  - Beidou B1
  - GLONASS L1
  - QZSS L1
- Horizontal Positioning Accuracy:
  - <2.5m/8.2ft CEP50 (autonomous)
  - <2m/6.6ft CEP50 (SBAS)

- Vertical Positioning Accuracy:  
<5m/16.4ft CEP50 (autonomous)  
<3m/9.8ft CEP50 (SBAS)
- First Positioning Time:  
Reacquisition: <1s 50%  
Hot Start: <1s 50%  
Warm Start: <46s 50%  
Cold Start: <50s 50%
- Sensitivity:  
Tracking: -160 dBm  
Acquisition: -148 dBm
- Time Synchronization Accuracy: 100ns
- Dynamic:  
Acceleration 4g  
Speed: 515m/s

#### Electrical Parameters:

- Working Voltage: AC 100-240V/AC
- GNSS Antenna Voltage: 3.3V
- Ethernet Port: RJ45, 10/100Mbps, cross-connection adaptive
- Encapsulation Way: RJ45
- Reliability Level: 2KV Electromagnetic Isolation
- Working Temperature: -20 to 45°C
- Storage Temperature: -45 to 105°C
- Working Humidity: 5% to 95% RH (No condensation)
- Storage Humidity: 5% to 95% RH (No condensation)

#### Package Included:

- 1 x NTP Server
- 1 x 10M/32.8FT Antenna



#### Port Introduction:

- ANT: Satellite antenna input. BNC connector, 5V feed
- Ethernet: NTP network time service. RJ45 connector, 10/100M adaptive
- Power voltage: 100-240V AC input
- PW: Power supply indicator
- GNSS: GPS indicator

- NTP: NTP working indicator. Under normal circumstances, the indicator light is always on. When there is no NTP signal, the indicator light is off all the time
- ALARM: Alarm indicator



**Product Size:**

- Product size: 1U rackmount

**Note:**

- Default IP: 192.168.0.101
- It does not support IE browser