

# NTP80

## Triple-Port Network Time Server

The NTP80 provides highly accurate yet economic time distribution over local area networks (LAN) using Network Time Protocol (NTP), the industry-standard means of time distribution over networks.



### NTP80

- Stand-alone unit or with 19" rack-mountable panel
- Sync, Status & Power LEDs
- Choice of oscillator accuracy: TCXO or OCXO

### Features

- Economic triple-port stratum 1 Network Time Server
- Can act as both host and server in peer-to-peer mode
- Capable of synchronising up to 3 discrete networks independently
- Client system accuracy to within 50  $\mu$ s\*
- Precision timing circuits ensure stability in event of synchronisation signal interruption.
- Configuration and alarm reporting capabilities using Simple Network Management Protocol (SNMP)
- 1pps output
- Supports up to 1500 clients

### Input Synchronisation Options

- Satellite (GPS, GPS/GLONASS or GPS/BEIDOU) via Active Antenna or Long Distance Antenna System
- Analogue timecode, e.g. IRIG-B, AFNOR NFS-87500 (see over for full list)
- NTP (Peer-to-Peer)
- LF (MSF, DCF-77, etc)

*\* Accuracy subject to Reference Clock and network conditions*

### Applications

The NTP80 provides a cost-effective way of providing time from a trusted source, which is critical in many organisations such as airports, railways, financial institutions, telecommunications companies, etc.

#### Enterprise/Corporate Networks

Any business using devices on a network can benefit from using the NTP80 - not only can it use a selection of highly accurate, trusted time sources, it is easily integrated into internal systems thus eliminating network security issues that arise from using external time source e.g. from the internet.

#### Rail

The ability to operate in peer-to-peer mode means that the NTP80 is especially useful as a sub-master clock in rail applications.

### Key Benefits

- Accurate & reliable time data from a trusted source
- Control over configuration via web browser
- Synchronisation between users - eradicates discrepancies
- System time stamping (e.g. for e-commerce transactions, e-mail sent & receive, etc) is accurate
- Automatic systems procedures, such as backups, occur at the correct time and in the correct order

# NTP80 Specifications

## Connections

The unit provides three discrete RJ45 connections to separate 10/100BASE-T networks.

The synchronisation source input is connected via a 50 BNC socket.

1pps output is also supplied on a BNC connector (female) at a level of 5 volts

A RS232/RS422/RS485 serial port for configuration and as optional serial time code output

## Interface Standards

- NTP Version 3 [RFC 1305], NTP Version 4 [RFC5905]  
Also SNTP compatible
- SNMP Enterprise MIB (RFC1155, RFC1157, RFC1213)
- Daytime Protocol (RFC867), Time Protocol (RFC 868)
- Ethernet/IEEE802.3
- Ipv4 (IPv6-ready)
- UDP/IP
- ICMP

## Network Configuration

Configuration of network parameters including IP Address, Sub-net Mask, Gateway Address, SNMP Trap Address, and SNMP Read/Write community names is via web-browser. All such details are stored in non-volatile memory.

User specific network parameters can be factory configured upon request.

Same user port available for upgrade of flash code for newer versions or additional options.

## Physical (stand-alone unit)

Size: 170mm W x 142mm D x 34mm H  
 Weight: 600g  
 Power: 90-264VAC 47-63Hz utilising transformer plug supplied) or PoE+

## Environment (Operation & Storage):

Temperature: -5°C to +50°C  
 Humidity: up to 95% RH (non-condensing)  
 EMC: CE compliant

## Input Synchronisation Options

### Satellite

GPS Time Accuracy (signal available): ±100 nanoseconds from UTC

A GPS Active Antenna is supplied as standard  
 Upgrade option: compatible with Long Distance GPS Antenna for use with cat5/5e/6 cable.

N.B. GPS/GLONASS & GPS/BEIDOU] also available - please contact Sales Team

### Timecode

Formats accepted: IRIG-B, IRIG-E, XR3, 2137, NASA36, AFNOR NFS-87500

Time Accuracy: ±1 millisecond from received time

### Low Frequency

Signals available: MSF, DCF-77 & WWVB

## Frequency Stability:

Oscillator		Stability per °C	Performance while disciplined						Holdover accuracy at constnt temperature after loss of reference		
			Averaging Time						Time	Frequency	
Option	Description		1s	10s	100s	1000s	10000s	1 day	1 day	1 day	3 days
01	TCXO	1.5x10 <sup>-8</sup>	2x10 <sup>-9</sup>	5x10 <sup>-10</sup>	5x10 <sup>-10</sup>	5x10 <sup>-10</sup>	6x10 <sup>-11</sup>	1x10 <sup>-12</sup>	<2 ms	<2.0x10 <sup>-8</sup>	<3.0x10 <sup>-8</sup>
02	OCXO	1.2x10 <sup>-10</sup>	3x10 <sup>-10</sup>	3x10 <sup>-10</sup>	4x10 <sup>-10</sup>	4x10 <sup>-10</sup>	5x10 <sup>-11</sup>	1x10 <sup>-12</sup>	<60 µs	2x10 <sup>-9</sup>	<4x10 <sup>-9</sup>

N.B. Option 1 TCXO supplied as standard unless otherwise specified

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