



NTS20

GPS Network Time Server

Accurate. Reliable. Compact



NTS20 Network Time Server is an accurate, low cost, extremely compact Din Rail mount GPS for network time synchronisation.

Network Time Server takes the time from GPS satellites and provide accurate time output over NTP protocol, to synchronize slave devices with 1 milliseconds accuracy or better with respect to universal UTC time. NTP is an "open source" (royalty free) time synchronization distribution and this feature is freely/already available in computer servers with different OS support, IP cameras and NVR's

NTS20 is a compact Network Time Server having time signal output like NTP for time synch applications.

NTS20 provides accurate reference time signals for synchronization of security related applications that includes time synchronization of DVR and NVR, servers, access control servers, operator workstations, and even IP cameras. More general applications include time-synchronisation of windows, Mac and Linux PCs and servers.

NTS20 Network Time Server is supplied with GPS magnetic antenna with built in LNA. It is supplied with 3 meter of RG174 cable terminated with an SMA male connector. It can be fixed to any window which has a clear view of the sky. Optionally roof top antenna and antenna cable with extended length is provided if required.

NTS20 Network Time Server can be powered up over the network by PoE or by a 5V DC power supply.

Features

- Reliable and cost effective
- 12 Satellite parallel tracking
- Highly accurate TCXO type crystal (OCXO Optional)
- Supports synchronization of IED61850 compliant devices via NTP/SNTP protocol
- Synchronization software for server & client
- PoE option
- Supporting timing protocols:
 - NTP/SNTP(v2/v3)
- IPv4, UDP, TCP, SNMP, HTTP, Telnet networking protocols
- Remote alarm notification by SNMP
- Remote configuration using webserver, telnet
- Firmware Upgrade: Supported through Bootloader over (Ethernet)

Applications

- Time synchronization of
 - Various security devices such as IP camera, CCTV, DVR, NVR, biometric identification devices, Access control system.
 - Microsoft windows, Linux, Servers/Clients, workstations and network infrastructure.
 - Automation systems, SCADA, Network monitoring and control systems (PLC/DCS)

TECHNICAL SPECIFICATIONS

GPS Receiver				Interface	
Timing Accuracy	< 15 ns with GPS receiver (Receiver is locked on fixed position)			Ethernet Connector Type	10/100Mbps (RJ45)
Horizontal Position Accuracy	< 10 m			Supporting TCP/IP and UDP Protocol	IPv4, TELNET, SNMP, DHCP, Web Server
Tracking Satellite	12 parallel channels			Monitoring and Reporting	SNMP v1/v2c trap alarms (can be disabled), status LED
Input Operating Frequency	1575.42 MHz L1 C/A code				
Hot Start	5 second				
Warm Start	38 second				
Cold Start	45 second				
Status LED	Power, PPS, GPS lock, Watch dog			NTP / SNTP Client Software	Platform support: Windows 10 & above, Windows server 2016 & above, Unix, Linux, Solaris server for Time Synchronization Using Net T Sync Software
Time Server					
Time Source	GPS				
Antenna				Power	
Antenna Type	Magnetic	Roof Top (Optional)		Power Adaptor (5V/1A)	5V DC (MSTB connector)
Connector	SMA	SMA		PoE Type	Optional (RJ45 connector)
Antenna Type	28 dB	Active L1 GPS 40 dB gain		Power Consumption	<2.5W
Antenna Cable Type	RG174	RG 6/RG 11		Physical	
Operating Temperature	-40 to 85 °C	-40 to 85 °C		Dimension (in mm)	27 X 66 X 100 (H X W X L)
Humidity	95%	95%		Mounting	Din Rail, Wall mount
Ingress Protection	IP67	IP67		Ingress Protection	IP20
Weight	60 g	150 g		Weight	0.3 Kg approx
Time Signal Output				Environmental	
Output Type	Description	Connector	Accuracy	Operating Temperature	0 to 55 °C
NTP	NTPv2/v3/v4 (RFC1119, RFC1305, RFC5905)	RJ45	±1ms	Storage Temperature	-20 to 80 °C
	SNTP (RFC4330, RFC2030, RFC1769)			Humidity	20-90% non-condensing

Ordering Code

Model	PoE Option		Mounting		Antenna		Antenna Cable Length	
NTS20	X		X		X		X	
	N	None	W0	Wall mount	N	None	N	None
	Y	Yes	D0	Din Rail mount	1	Magnetic	1	15 Meters
					2	Rooftop	2	30 Meters
							3	50 Meters
							4	100 Meters
							S	Special

Note: For magnetic antenna 3 meter RG174 antenna cable will be provided
For rooftop antenna specify antenna cable length

Standard Accessory

Non PoE Option	PoE Option
Power adaptor with USB Cable	1 no mounting clamp
1 no mounting clamp	2 Meter RJ45 Ethernet Cable - 1 No.
2 Meter RJ45 Ethernet Cable - 1 No.	

Note: 0.5 Meter SS Antenna mounting rod integrated - 1 No. (In case Rooftop Antenna is Selected)

Application Diagram

