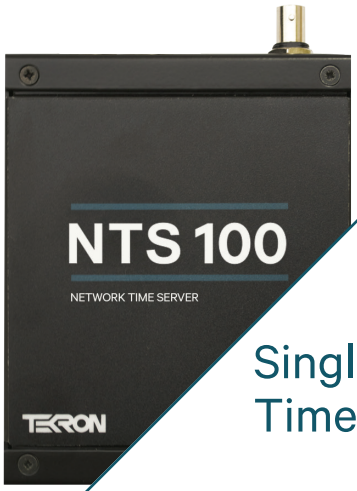



## Single Port NTP & PTP Time Server

# NTS100

The NTS100 is a compact & reliable single port NTP Time Server for synchronizing control and SCADA networks, and offers optional PTP support.

## KEY FEATURES

- Wide range, isolated power supply
- Single NTP/SNTP RJ45 port
- UTC & LST with user defined DST options
- Remote configuration
- Security including password protection, user authentication & data encryption
- Complies with IEC 61850-3
- PTP (IEEE 1588 v2) Master/Slave function

## SUPPORTS

- SNMP v1, v2c & v3
- NTP/SNTP (IEC 61850)
- PTP (Power Profile: 37.238)
- PTP (Telecom Slave Profile: ITU G.8265.1)

## PHYSICAL

Metal DIN rail mountable case with IP30 rating
155mm (L) x 110mm (W) x 45mm (H) 0.42 Kg

## LED INDICATORS

Three LEDs indicating multiple statuses:
- Sync
- Alarm
- Power

## GNSS RECEIVER

L1, C/ A code, 32 Channel Parallel-tracking receiver

| | |
|---|---|
| Frequency: | 1598 MHz |
| Sensitivity: | |
| Acquisition | -155 dBm |
| Tracking | -160 dBm |

## INPUTS

| | |
|---|---|
| 1 x RJ45 UTP connector: | 10/100 Mbps |
| 1 x USB2.0 | Type B |
| 1 x BNC Antenna | 5V |

## OUTPUTS

1 x Sync indication output: 200 V, 100 mA (Max)

## INPUT AND OUTPUT OPTIONS

**Networking**
DHCP - auto-configuration with fallback to ARP tested link-local address
VLAN - packet tagging

**NTP**
- Stratum-1 NTP & SNTP time server
- Multicast & Broad cast server capability
- Optional MDS authentication

**SNMP**
- v1, v2c & v3 support can be independently enabled
- Configurable v1, v2c community names & security groups
- Fully configurable via SNMP
- v3 User-based Security Module (USM) support
- USM MIB support

**PTP (IEEE 1588v2)**
- One or Two Step operation
- End to End or Peer to Peer delay calculations
- Layer 2 (Ethernet) or Layer 3 (UDP) transport
- Master & Slave modes
- Default Profile support
- Power Profile support (C37.238)
- Telecom Profile support (Slave only - ITU G. 8265.1)
- C37.238 TLV supported
- Alternate Time Offset TLV supported with automatic or manual offset
- C37.238 SNMP MIB supported

**USM authentication methods**
- MD5, SHA

**USM privacy methods**
- DES, AES

**Notifications**
- SNMP trap generation v1, v2c & v3
- SNMPv3 traps can be authenticated & privatised via USM
- Syslog (RFC-3164 & 5424 verified)

## UPGRADES

Remote upgrade via Ethernet.
Firmware is cryptographically signed, & authenticated prior to permitting an upgrade

## CONFIGURATION SOFTWARE

Windows based configuration software is available to be downloaded from the Tekron website.

**User adjustable features include:**
- Multi-level access control
- Privacy & authentication methods equivalent to SNMP USM
- “Supervisor-mode” prevents non-approved changes

**Timing & Synchronization**
Worldwide daylight savings & local time configuration using either rule based or fixed date methods.

Options that allow equipment checks prior to full installation and adjustable hold-over times to increase reliability in the case of poor GPS coverage.

Adjustments to compensate for installation parameters such as delay of GNSS signal through antenna cable.

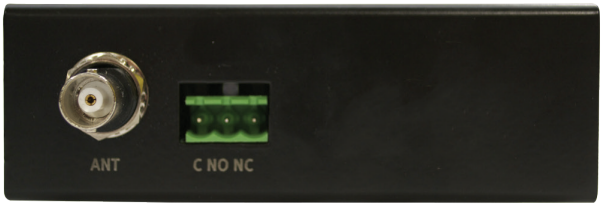
## ENVIRONMENTAL AND ELECTRICAL

| | |
|---|---|
| Power supply: | 36-300 Vdc |
| Power Drain: | 5 W max |
| Operating temperature: | -40 to +85°C |
| Humidity: | To 95% non-condensing |
| Isolation | |
| Power to Antenna: | 3.75 kV |
| Power to I/O: | 3.75 kV |

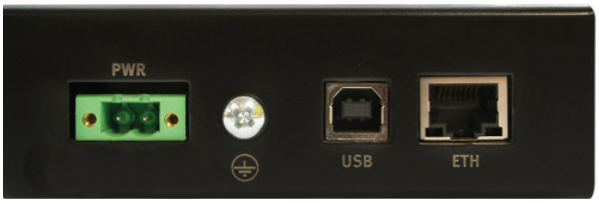
## COMPLIANCE

The NTS 100 passes the following tests:

**Applicable council directive according to:**
- CE Compliance Low voltage directive EN60950-1
- EMC Directive EN61000-6-2, EN61000-6-4
- C22.2 No. 60950-1



NTS100 Top View



NTS100 Bottom View

## OPTIONAL ACCESSORIES

**Physical**
- GNSS antenna
- Antenna cable
- Adjustable antenna mount
- Lightning protection kit

Refer to tekron.com for full techinical specifications


## ABOUT TEKRON

Tekron is a leading developer of accurate GPS/GLONASS clocks and time synchronisation solutions for use in industrial applications.

WORLD WIDE WARRANTY
10 YEARS

## CONTACT US

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+64 4 566 7722

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1800 608 572

**Sales Freephone: (North America)**
1800 256 2309

**Note:**
The quickest and most effective method to request a quote is through the online quote request form on the Tekron website