



# Tekron Network Time Server NTS 01

## Secure, Accurate & Reliable

The Tekron NTS 01 is an exceptionally accurate, yet simple to install, NTP Time Server for synchronizing control and SCADA networks.

The electrical isolation of the NTS 01, together with its ability to withstand extreme temperatures and humidity, means that the NTS 01 is ideal for use in harsh environments such as power plants and substations.



## About Tekron

Tekron International is a leading developer of exceedingly accurate GPS clocks and time synchronization solutions for use in industrial applications.

Tekron GPS clocks are simple to install and use and are extremely rugged, attributes that are a prerequisite in the often extreme environments in which the clocks are installed.

Tekron GPS clocks have been installed in thousands of power stations & substations across the globe, where they prove invaluable in assisting power companies to operate efficiently, minimizing downtime and increasing the accuracy of control decisions.

With a Tekron GPS clock you can be confident that you can set it up and walk away.

## Features

- Isolated power supplies
- Redundant Power Supply
- UTC and LST with user defined DST options
- Master/ Slave function

## Supports

- NTP (v2, v3, v4)
- NTP Unicast, Multicast
- SNTP Simple Network Time Protocol (SNMPv3 (RFC3584)
- DHCP (RFC2131)
- MD5 Authentication (RFC1321)
- SMTP
- IPv4
- BOOTP
- ARP
- UDP
- TFTP

## > TEKRON | NTS 01 Datasheet

### Dimensions

19" rack mount 1U high

(W) 160 mm x (D) 155 mm x (H) 40 mm, 0.8 Kg

IP20 (Ingress Protection rating)

### Front panel display

The NTS 01 has a 2 line x 16 character FSTN LCD display and two LEDs indicating multiple statuses, including:

- Sync Status
- Antenna cable fault
- Satellite acquisition mode

### GPS Receiver

L1, C/ A code, 12 Channel Parallel-tracking receiver

Frequency:	1575.42 MHz	
Pulse accuracy:	15 ns	
Sensitivity:	Acquisition	-136 dBm
	Tracking	-141 dBm
Acquisition:	Hot Start	<18 s
	Warm Start	<45 s
	Cold Start	<50 s

### Antenna

#### Physical

Conical shaped polycarbonate durable shell which minimizes snow and dust buildup.

Dimensions: 98 mm tall  
90 mm diameter

Weight: 200 g

#### Specifications

Bandwidth: 1575.42 ± 1.023 MHz

Attenuation: 60 dB (typical) at  
1575.42 ± 50 MHz

Gain: 38 dB  
5 +/- 0.5 V (27 mA max)

Operating temperature: -40 to 85° C

#### Antenna Cable

Low loss, high shielding antenna cable

### Inputs & Outputs



2 x RJ45 UTP connectors

100 Mbps

Timing accuracy: <200 ns to UTC

This UTP network interface option allows the NTS 01 to function as a Stratum 1 NTP/ SNTP Time Server.

Protocols Supported:

ARP, TCP, ICMP, Telnet, TFTP, DHCP, SNMP, and BOOTP.

#### Plus:

1 x RS422 IRIG-B input

#### Plus:

1 x RS422 +/- 6 V IRIG-B output, 50 loads

Timing accuracy: <100 ns to UTC

#### Plus:

Sync Status Relay with NC/NO contacts

### Options

#### Expansion Kit

3 xRJ45 UTP connectors

100 Mbps

Timing accuracy: <200 ns to UTC

Protocols Supported:

ARP, UDP, ICMP, TFTP, DHCP, SNMP, and BOOTP.

#### Lightning protection kit

Multi-strike weather proofed low throughput energy lightning arrestor kit.

#### Antenna Mounting Bracket

Adjustable 500 mm mounting bracket.

## Configuration software

Windows based configuration software is supplied on CD and is also available to be downloaded from the Tekron website. User adjustable options include:

### Timing & Synchronization

Worldwide daylight savings and 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 GPS signal through antenna cable.

## Environmental & Electrical

Power supply:                L = 14-36 Vdc  
                                      M = 20-72 Vdc  
                                      H = 90-300 Vdc

AC Power adaptor available (Excludes IEC Power Cord).

Power Drain:                6 W max

Operating temperature:   -10 to +65°C

Humidity:                    To 95% non-condensing

## Request a quote

Web:    [www.tekroninternational.com](http://www.tekroninternational.com)

Phone: +64 4 566 7722

Fax:    +64 4 569 9272

Email: [information@tekroninternational.com](mailto:information@tekroninternational.com)

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