



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 - RFC1119, v3 - RFC1305, v4 - No RFC)

NTP Unicast, Multicast
SNTP Simple Network Time Protocol (RFC4330)

SNMPv3 (RFC3584)

DHCP (RFC2131)

Telnet (RFC854)

MD5 Authentication (RFC1321)

SMTP

IPv4

BOOTP

ARP

UDP

TCP

TFTP

> TEKRON | NTS 01 Datasheet

Dimensions

19" rack mount 1U high

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

IP20 (Ingress Protection rating)

Front panel display

The NTS 01 has a 2 line x 16 character LCD display with an optimum viewing angle feature and two LEDs indicating multiple statuses.

- Sync Status
- Antenna/ cable fault
- Satellite acquisition mode

GPS Receiver

12 Channels

Frequency: 1575.42Mhz

Pulse accuracy: 15ns

Sensitivity: Acquisition -136dBm
Tracking -141dBm

Antenna

Physical

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

Dimensions: 98mm tall
90mm diameter.

Weight: 200g.

Specifications

Bandwidth: 1575.42Mhz \pm 1.023MHz

Attenuation: 60dB (typical) at
1525/1625 MHz

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

Operating temperature: -40 – 850C

Antenna Cable

LMR240 ultra-flex low loss, high shielding antenna cable

Inputs & Outputs

-2 xRJ45 UTP connectors

10/100Mbps

Timing accuracy: <200ns to UTC

This UTP network interface option allows TTM 01 to function as a Stratum 1 Time Server.

Protocols Supported:

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

-1 x RS422 (B002/B003 + IEEE1344 extensions) input

RS422 +/- 6V, 50 loads (BNC or 2-pin)

Timing accuracy: <100ns to UTC

Sync Status Relay with NC/NO contacts

NTP/ SNTP - accurate to within 200ns of UTC under normal operation.

Options

Expansion Kit

3 xRJ45 UTP connector

10/100Mbps

Timing accuracy: <200ns to UTC

Protocols Supported:

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

Multi-port hub

1 high speed output:

4 IRIG-B outputs on BNC connectors. Either an extra AM IRIG-B (B12x) or TTL (0-5V 25mA) IRIG-B. These outputs are not independently isolated from each other, but are isolated from all other NTS 01 ports

Lightning protection kit

Polyphaser DGXZ+06NFNF-A Impulse Suppressor multi-strike weather proofed low throughput energy lightning arrestor kit.

Note: The NTS01 is available with the expansion kit or the multiport hub options. But not both.

In-line amplifier kit

The LA-21-1575-100N In-line amplifier is available for extending cable runs.

Antenna Mounting Bracket

Adjustable 500mm 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 = 12-36Vdc
M = 20-72Vdc
H = 90-300Vdc

AC Power adaptor available (Excludes IEC Power Cord).

Power Drain: 3W max

Operating temperature: -10°C to +65°C

Humidity: To 95% non-condensing

Request a quote

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