Masterclock®

The **NTP100-GNSS** is an NTP (Network Time Protocol) server that synchronizes to GNSS satellites and distributes NTP reference signals via Ethernet. When faced with the loss of an external reference the NTP100-GNSS will revert to an internal TCXO or optional OCXO (oven-compensated internal oscillator) to maintain accuracy.

Standard Features

- Compact NTP client / server
- Synchronizes to GNSS satellites for Stratum 1 accuracy
- NTP output accuracy of <0.5 sec RMS as measured in lab
- 6-digit clock display (red)

Specifications

HOLDOVER ACCURACY

- With loss of power, device reverts to an internal precision TCXO temperature-compensated crystal oscillator with accuracy of ± 1min/year
- High-stability option with OCXO provides typical stability of 1 ppb/day (± 250 ms/year) after 30 days of aging

NETWORK COMPATIBILITY

- Supports NTP, DHCPv4 for auto acquisition of network address, name servers, timeserver configuration
- SSH communication
- IPv4/IPv6 compatible

CONFIGURATION

- Configure devices through provided WinDiscovery or SSH
- Configuration is saved to nonvolatile memory and survives power losses
- Authenticated network messages prevent unauthorized tampering of clock configuration

INPUT

- GNSS Receiver, SMA Connector - 72-channels - GPS/QZSS L1 C/A, GLONASS L10F, BeiDou B1 SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN Galileo E1B/C

ANTENNA

- Optional weather-proof (IP67), pre-amplified antenna included with 16 ft (5m) of coaxial cable
- Optional 50ft (15m) or custom length coaxial cable

CONNECTIONS

- RJ45 - 10/100MB Ethernet
- DC input - 2.1 mm male jack
- RS-232 - 9 pin male
- Antenna - SMA
- USB for configuration

POWER

- DC input (9-28 VDC)
- Power consumption: < 7.5W
- Includes external 24 VDC wall-mount power supply with locking DC plug (UL and CE listed)

OPERATING PARAMETERS

- Temperature: 0° to 60°C
- Humidity: Up to 90% (non-condensing)
- MTBF: 625,979 hours
  (Calculated using Fixed/Ground Mil-HDBK-217F assumptions)
- IP Rating: IP30

PHYSICAL

- Size: 6.44 x 4.06 x 1.44 in (16.35 x 10.32 x 3.65 cm)
- Weight: 16 oz (453.6 g)

COMPLIANCE

- FCC, ROHS, CE Marked, ANSI
- Traceability to <1 microsecond
  (ref: tf.nist.gov/general/pdf/3167.pdf)

Mount multiple units with the RM4 rack mount