



*ptf 3300A*



Precise Time and Frequency, LLC

"TymeMaster"

IEEE 1588 - v2

PTP Grand Master

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# TymeMaster ptf 3300A

## IEEE 1588-v2 PTP Grandmaster Clock

### Features

- **Stratum 1 Reference Clock with GNSS**
- **Increased Precision Hardware Time Stamping**
- **Multiple Constellations**
  - GPS, Galileo, Glonass, QZSS
  - IRNSS/NavIC, SBAS, Beidou
- **Alternate Inputs**
  - 1PPS, 10MHz, Time Code
- **4xRJ45 PTP and 1xPTP Gigabit Ports**
- **Management Ports**
  - 1xRJ45 Remote Monitor/Control
  - 1xUSB Console Port
- **Signal Outputs**
  - 10MHz, 1PPS
- **Redundant Power**
  - DC or AC options
- **Status Display**
  - Vacuum Fluorescent, Front Panel
- **Multiple Profiles Available as Standard**
  - Default, Telecom, Power, SMPTE
  - Others optional
- **High Quality Internal OCXO**
  - Provides exceptional stability
  - Extended holdover capability

### Description

The ptf 3300A TymeMaster provides a fully IEEE 1588-2008 PTP v2 compliant Grandmaster Clock.

In Master mode ptf 3300A is able to synchronize one step clocks and two-step clocks, provides management messages (TLV) and includes a variety of pre-loaded profiles available for user selection.

Offering either AC or DC input power (or optionally both) the ptf 3300A is the product of choice when the requirement exists for simple, yet precise transmission of time and frequency is required.

In Boundary Clock mode the ptf 3300A give unprecedented performance with the possibility of unlimited fan-out for large networks.

The performance of TymeMaster benefits from the decades of time and frequency experience of the Precise Time and Frequency team and delivers the latest advances in technology in a user oriented package.

## Specifications

### Inputs

GNSS Input – L1 / L5

- GPS, Galileo, Glonass, Beidou
  - QZSS, IRNSS, SBAS
- Other External Inputs
- 1PPS, 10MHz, E1, T1, TOD

### Outputs

- 10MHz CMOS Square Wave
- 1PPS

### Connectivity

- 5 x RJ45 Ethernet Jacks
  - 10BASE-Te/100BASE-TX/1000BASE-T
- Duplex Optical LC connected to SFP transceiver receptacle
- USB Console Port

### Accuracy (Locked to GNS)

- 10MHz <math><5E-12</math>(24hr average)
- 1PPS <math><30</math>ns rms
- Clock <math><100</math>ns

### Holdover ( 1 day)

- 10MHz
  - OCXO <math><5E-10</math> (24hr)
  - Rubidium <math><5E-12</math> (24hr)
- 1PPS / Clock
  - OCXO <math><10</math> microseconds (24hr)
  - Rubidium <math><1</math> microsecond (24hr)

### Power

- Dual Redundant AC 100VACV to 240VAC OR
- Dual Redundant DC 18V to 72V OR
- One AC and one DC input

### Physical

Dimensions (in inches)

- 19 wide x 16 deep x 1U (1.75) High
- Environmental
- Operating temperature 0 to 50 deg C
  - Operating humidity 90% non-condensing



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