

PNT-62xx assured, redundant, modular Edge Grandmaster System



- **PTP/1588 EGM, 10MHz/1PPS**
- **19" half-width, rack-mountable**
- **LEO-STL, L1, L2, L3, L5 GNSS**
- **TCXO, OCXO, CSAC, or Rubidium**
- **GPS RF output for legacy systems**
- **PRELIMINARY SPECIFICATION**

TYPICAL ELECTRICAL SPECIFICATIONS:

Module Specification:	
1 PPS Stability	<5ns rms GPS locked, <65ns rms STL LEO locked
Holdover Performance over 24 hours (at 25°C, no airflow, no motion)	After 7 days with GNSS reference: <250ns (Rubidium), <2us DOCXO
RF Distribution (GPS Transcoder) GPS L1 RF output option	Generates GPS L1 C/A RF output signal to retrofit GPS equipment
NMEA Messages	USB and RS-232 connectors, GGA, RMC, ZDA, GSV, PASHR, GSA
GNSS Receiver	Multi-Frequency: L1, L2, L3, L5 GPS/Glonass/Galileo/BeiDou/QZSS/SBAS
STL LEO Receiver	Custom-designed Low Earth Orbit STL receiver
GPS Sensitivity	Acquisition -148 dBm, Tracking -167 dBm
GNSS TTFF	Cold Start - <29 sec, Warm Start - <2 sec, Hot Start - <2 sec
STL Sensitivity	-100dBm tracking
Supply Voltage (Vdd)	Single or Dual Redundant +12V DC inputs
Power Consumption	<10W (DOCXO variant)
Operating Temperature	-25°C to +75°C, forced air environment
Storage Temperature	-45°C to +95°C
External Reference input options (e.g. 5071A Cesium Beam Clock)	10MHz Sine Wave (0dBm to +15dBm), 1PPS CMOS options
Auto Switchover between external UTC references	GNSS (four frequencies), STL/LEO, PTP/IEEE1588, 10MHz, 1PPS
10MHz output	2x +13dBm 10MHz Sine Wave, Low Phase Noise and ADEV
1PPS Outputs	2x CMOS 3.3V 1PPS (5V option), 50 Ohms coax (>1K Ohms termination)
Oscillator Specification:	
Frequency Output	10MHz from TCXO, DOCXO, CSAC, or Rubidium oscillator options
10MHz Accuracy	<±0.2E-010 after 20 minutes with GNSS
Frequency Stability over Temperature (in Holdover)	-10°C to +75°C: ±0.2E-09 DOCXO option, ±5E-011 Rubidium option
Output spurs	<-110dBc/Hz
Connections:	Connector Type:
RF Antenna (one for STL, one for GNSS)	SMA
10MHz in/out, 1PPS in/out, TTL status	SMA
PTP/IEEE1588 Grandmaster/Slave option	32x to 256x PTP clients, RJ-45 for PTP and configuration console
In Situ firmware updates	Fully field upgradeable through USB or RS-232 serial ports

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PNT-62xx™ Assured Position, Navigation, and Timing Reference **MADE IN USA**



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