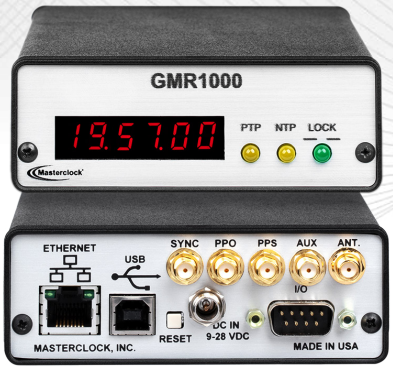
GMR1000

Multi-Functional Master Clock

The **GMR1000** is an enterprise-grade time and frequency generator/server built into a robust and compact design.This Mission-crtical Stratum 1 timing solution synchronizes to GPS, GNSS, IRIG-B, or PTP reference and is backward compatible with legacy signals. Internal-disciplined high-stability oscillator options allow for critical holdover resiliency.



Front

Rear

Standard Features

- Standard Inputs/Reference Sources
- NTP client via RJ45 10/100 Mb Ethernet
- NMEA 0183 via RS232/422, Serial, or IP
- NENA format 0, 1, 8 via RS232/422
- Internal high-stability TCXO oscillator ± 3 sec. /year
- Configuration via USB or Ethernet
- Mount multiple units in a single rack

Specifications

INPUT OPTIONS

- GPS Receiver – 12 channels
- GNSS Receiver - 72-channels - GPS/QZSS L1 C/A, GLONASS L10F, BeiDou B1 SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN Galileo E1B/C
- IRIG-B0 (DCLS), IRIG-B1 (AM), IRIG-A0 (DCLS), IRIG-A1 (AM),IRIG-E0 (DCLS), IRIG-E1 (AM), SMPTE 12M, 309M, 24/25/30 fps and 29.97 drop frame
- Internal high-stability OCXO oscillator ± 0.25 sec/year
- Synchronizing signals: PPS, PPM, PPH
- IEEE 1588 Precision Time Protocol

STANDARD OUTPUTS

- NTP server with 10/100 Mb Ethernet
- NMEA 0183 via RS232/422 or USB
- NENA format 0, 1, 8 via RS232/422 or USB

OUTPUT OPTIONS

- IRIG-H, IRIG-B0 (DCLS), IRIG-B1 (AM), IRIG-A0 (DCLS), IRIG-A1 (AM), IRIG-H0 (DCLS), HAVE QUICK II non-NATO, IRIG-E0 (DCLS), IRIG-E1 (AM), SMPTE 12M, 309M, 24/25/30 fps, 29.97 drop frame
- 5V at 20mA Pulse Per Second (PPS)
- Programmable Pulse Output (PPO)
- 10MHz sine wave
- IEEE 1588v2 Precision Time Protocol (1 MHz & 5 MHz requires Rb (HSO-3) option)
- IEEE 1588v2 Precision Time Protocol

ADDITIONAL FEATURES

- Internal TXCO maintains time during loss of external sync within ± 3 seconds/year
- WinDiscovery configuration software included
- Fully configurable offsets for time zone and DST
- Programmable relay closure - with NO/NC dry contact relay
- Relay alerts loss of sync by default
- Secure configuration and monitoring with SSH SHA2 AES256 encryption
- SNMPv3 with custom MIB
- IPv4/IPv6 compatible

POWER

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

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)

PHYSICAL

- Size: 6.45 x 4.17 x 1.52 in (16.38 x 10.59 x 3.86 cm)
- Weight: 16 oz (453.6 g)

COMPLIANCE

- FCC, ROHS, CE Marked, ANSI

5-YEAR LIMITED PARTS & LABOR WARRANTY **MADE IN THE USA**

US/CAN: (800) 940-2248 INTL: +1 (636) 724-3666 sales@masterclock.com **Masterclock.com**

Ordering Info

AVAILABLE OPTIONS

Part #	Description
GMR-10 MHz-IN	10 MHz Input, SMA Cntr
GMR-DIN	DIN Rail Bracket
GMR-DS6	6-digit front panel display
GMR-GNSS	GNSS Receiver, SMA Connector
GMR-GPS	GPS Receiver, SMA Connector
GMR-HSO-2	OCXO High Stability Oscillator
GMR-PPO	Programmable Pulse Output, SMA Cntr
GMR-PPS-OUT	PPS Output, SMA Cntr
GMR-PTP	PTP IEEE 1588 Server / Client, 10/100 MB, RJ45
GMR-SYNC-IN	PPS, PPM, PPH, Input, SMA Cntr
GMR-TCG	Time Code Generator (IRIG B, IRIG A, IRIG E, SMPTE 12M, 309M, 24/25/30 ND fps - 29.97 Drop Frame). DB9 connector (Includes DB9FTBA DB9 Female to Terminal Block Breakout Adapter)
GMR-TCR	Time Code Reader (IRIG B, IRIG A, IRIG E, SMPTE 12M, 309M, 24/25/30 ND fps - 29.97 Drop Frame). DB9 connector (Includes DB9FTBA DB9 Female to Terminal Block Breakout Adapter)

GPS / GNSS ANTENNAS (KITS)

GPSANT-Basic	28dB Magnetic/Adhesive Mount GPS Antenna with 16’/5m antenna cable and SMA male connector
GPS-KIT-Standard	28dB GPS antenna, with SMA female pigtail connector, threaded pipe/ mast mount kit
GNSS-KIT-High Gain	38dB High Gain GNSS antenna, N Female connector with N male to SMA female adapter, metal L mounting bracket, optional ground plate
GNSS-KIT-Anti Jam	38dB Anti-Jam High Gain GNSS antenna, TNC Female connector with TNC male to SMA female adapter, metal L mounting bracket
PKG-Standard	Standard Antenna Cable: 50’/15m antenna cable with SMA male connectors. Additional cable length options available
	Additional cable length options available

Rack Mount available with RM4

Power Type: DC

Plug Types Available: North American, Euro Plug, U.K. Style, and Australia/New Zealand (Equipment side: Locking Plug , 24VDC Center Pin Positive)