

Reference Options

- GPS
- NTP
- Time Code
- High Stability Oscillator
- NMEA 0183
- NENA 911 PSAP Standard

Output Options

- NTP
- Time Code
- Truetime/Kinematics
- NMEA 0183
- NENA 911 PSAP Standard
- PPO
- PPS
- 10MHz sine wave



The MCR1000 **M**aster **C**lock **R**eference system is a compact, precision time and frequency device.

One unit can reference and output NTP, time code, and 10 MHz sine wave all locked to the Atomic Clocks in the GPS satellites with a high stability crystal oscillator backup in the case that GPS signal is lost. With specifications that are equal or better than almost any other similar product the MCR is up to 60% less expensive than its competition.

The MCR1000 is available in multiple configurations to fit almost any need with configurable modules.

Rack mountable with an **RM4**



MODULAR FEATURES

Reference Sources

- Atomic Clocks in GPS Satellites via GPS Antenna
- NTP via Ethernet
- Time Code - IRIG A, B, and E, SMPTE, EBU
- High stability OCXO oscillator $\pm .25$ min/year
- NMEA 0183 via RS-232 or USB
- NENA Format 0, 1, and 8 via RS-232 or USB

Outputs

- PC time set via USB serial
- NTP - client via 10/100 Mb Ethernet
- Time Code - IRIG A, B, and E, SMPTE, EBU
- NMEA 0183 via RS-232 or USB
- NENA Format 0,1, and 8 via RS-232 or USB
- 5V at 20mA Pulse Per Second and Programmable Pulse Output
- 10MHz sine wave
- DB9 - Breakout adapter

Other Features

- Programmable relay closure. 1 event per day with N/O (N/C configurable) dry relay contact, 24V - AC/DC (250mA max)
- 6 or 9 digit display
- Basic Relay Scheduler for multiple events per day

Setup & Configuration Software

- WinDiscovery app
- Telnet software for UNIX/LINUX

Physical

Size: 6.75 x 4.13 x 1.5 in
17.15 x 10.48 x 3.81 cm **Weight:** 17.3 oz
490.5 g

Operating Temperature and Humidity

- Temperature: 0 to +60°C (0 to 40°C ± 1 min/year)
- Humidity: Up to 90%, non-condensing

In depth module datasheets on the following pages.