

Reference Options

- GPS
- NTP
- Time Code
- High Stability Oscillator
- NMEA 0183
- NENA Format 0, 1, and 8

Output Options

- NTP
- Time Code
- NMEA 0183
- NENA Format 0, 1, and 8
- PPO
- PPS
- 10MHz sine wave



The MCR5000 **Master Clock Reference** system is a **1U rack mount**, precision time and frequency device.

One compact unit can reference and output NTP, time code, and provides a 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 MCR5000 is available in multiple configurations to fit almost any need with configurable plug-in modules.



MODULAR FEATURES

Reference Sources

- Atomic Clocks in GPS Satellites via GPS Antenna
- NTP via Ethernet
- Time Code - IRIG A, B, and E, SMPTE, EBU via coaxial cable
- 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
- NTP - client via 10/100 Mb Ethernet
- Time Code – IRIG A, B, and E, SMPTE, EBU via coaxial cable
- NMEA 0183 via RS-232 or USB
- 5V at 20mA PPO and PPS pulse output
- 10 MHz sine wave
- DB9 – breakout adapter

Other Features

- Programmable relay closure. 1 event per day with N/O relay contact, 24V - AC/DC (250mA max)
- 2 Six digit displays: time and date
- Basic Relay Scheduler for multiple events per day

Setup & Configuration Software

- WinDiscovery App
- Telnet software for UNIX/LINUX

Operating Temperature and Humidity

- Temperature: 0 to +40°C (40 to 50°C ± 1 min/year)
- Humidity: Up to 90% (non-condensing at 25°C)

Physical

Size: 19 x 9 x 1.75 in
48.3 x 22.9 x 4.5 cm

Weight: 3 lbs
1.36 kg

Operating Temperature and Humidity

- Temperature: 0 to +40°C (40 to 50°C ± 1 min/year)
- Humidity: Up to 90% (non-condensing at 25°C)

In depth module datasheets on the following pages.