

M211

High Capacity Modular Time & Frequency System

The M211 High Capacity Modular Time & Frequency System is a highly flexible timing system designed for use in any applications where reliable time information is required, especially to synchronise different output interfaces.



M210 Modular Time & Frequency system also available, which is only 1U high and has 3 module slots

Features

- 9-slot module output capacity
- Choice of clock synchronisation options
- Choice of master clock accuracy
- Large range of output options
- 3 U high standard 19" rack mount
- 5-segment front panel button for equipment configuration and control
- Large alphanumeric display of time, date and status
- Equipment configuration stored in non-volatile memory

The M211 High Capacity Modular Time & Frequency System allows the inclusion of a large number of options such as data interfaces and standard time receiver modules.

These options allow the output of time and date in various formats with local time adjustments, together with the automatic synchronisation of the Master Clock to the various national and international time standards that are available. The inclusion of a precision oscillator ensures long-term high stability. With use of the M842 Changeover Unit provision is made for the M211 to be part of a high availability Dual Redundant System.

The M211 High Capacity Modular Time & Frequency System is designed to support applications requiring a large number of varied interfaces, or the inclusion of high precision oscillators. The provision of 9 module slots gives great scope to the functionality of the M211, whilst it still remains compact within a 3U 19" rack mountable unit. This ensures that the M211 can fulfil complex system requirements, which are beyond the capacity of the smaller M210 Modular Time & Frequency System.

Input Synchronisation Options

- Satellite (GNSS)
- Analogue timecode, (IRIG-B, AFNOR, IEEE1344)
- Terrestrial Low Frequency (MSF, DCF77)
- Serial timecode (RS232, RS422)
- NTP

Output Options

- Serial data outputs (RS232, RS422)
- Time code outputs (IRIG, AFNOR, IEEE1344)
- Frequency (5/10/1.544/2.048 MHz)
- Pulse Per Second PPS, PPM, PPH
- NTP
- Dry Contact Status Alarms

Master Clock (Oscillator) Options

- Disciplined Temperature Compensated Crystal Oscillator (TCXO)
- Precision Oven Controlled Crystal Oscillator (OCXO)
- Rubidium (Rb)



M211 Specifications

Performance Specification at 20°C

Time Accuracy:	Standard crystal oscillator maintains free run accuracy of 20 milliseconds over 4 hours at 20°C. Accuracy to UTC depends on the input source. Other free run accuracies depend on the oscillator option selected and the prior synchronisation time.
Display:	2 row by 40 character LCD. Character height 5mm.
Keyboard:	5-segment button keypad for equipment configuration and control. Storage of equipment configuration in non-volatile memory.
Power:	90-260V AC \pm 10% 50-60Hz Load 40W (typical)- subject to options and oscillator fitted. Connection via 3 pin IEC plug.
Mechanical:	19 inch rack mounting 3U high 353mm deep.

Environment (Operation and Storage)

Temperature:	0°C to +40°C
Humidity:	Up to 95% RH (non-condensing)
EMC:	EN61000-6-3:2007 + A1:2011 EN61000-6-2:2005 EN50121-4:2016 + A1:2019

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