

brandywine communications

High Capacity Modular System Model 211



The Brandywine Communications M211 High Capacity Modular Timing System is designed for use in applications where a large number of reliable time/frequency outputs are required. These applications may include the display of time of day, synchronizing of computer systems or networks, telemetry and data acquisition system support or other diverse areas such as scientific experimentation and process control station synchronization.

The M211 High Capacity Modular Time System contains a Master Clock that is based upon a central microprocessor and a precision oscillator time base. The Master Clock provides all the time keeping functions of the M211. A front panel keypad is used in conjunction with an alphanumeric display to control and configure the unit. The keypad and display are used to program key features such as time entry, parameter setting and option configuration. The display also indicates time, date and status information. The modular construction of the M211 allows easy installation of options such as data input-output interfaces and time receiver modules. These options allow the output of time data in various formats and the automatic synchronization of the Master Clock to the various national and international time transmissions that are available. The inclusion of an optional Precision Oscillator ensures a high long-term stability for the M211.

The M211 High Capacity Modular Time System is designed to support applications requiring a large number of varied interfaces, or large Rubidium oscillators. A nine option-module slot instrument, coupled with a choice of nearly fifty standard option modules, offers the system designer unmatched flexibility and ease of design. The M211 High Capacity Time System fulfills complex system requirements with proven, off-the-shelf reliability.

A large variety of option cards are available, see the separately supplied sheet for an up to date list of option availability.

Specifications

Performance Specification at +20°C

Time Accuracy: Standard crystal oscillator maintains free-run accuracy of 20 milliseconds over four hours at +20°C.
Display: Two row by 24 character LCD.
Character height: 5mm.
Keyboard: 5 button keypad for equipment configuration and control.
Power: 115/230V AC \pm 10% 48-62Hz
Load: 50W (typical) subject to options and installed oscillator type.
Connector: 3 pin IEC plug.
Mechanical: 19 inch rack mounting 3U high 360mm deep. The chassis has provisions for up to nine option modules to be installed within the unit.

Environment (Operation and Storage)

Temperature: 0°C to +40°C
Humidity: Up to 95% RH (non-condensing)
EMC: CE Compliant

Options

A wide range of options is available for the M211 High Capacity Modular Time System. These options include GPS synchronization, serial data outputs (RS-232, RS-422, 20mA Current Loop), parallel BCD output, time code outputs (IRIG, etc) and analog clock impulse drivers. GPS and time code synchronization as well as precision oscillator options are also available. New options are continually becoming available. Consult your local Sales office for additional information.

Partial List of Available Options

Option 01	LF Receiver Module	Option 26	AC Measurement Module
Option 04	Precision Oscillator Module	Option 27	NTP Time Server Module
Option 05	Active LF Antenna Option	Option 28	Passive GPS Antenna Option
Option 06	Quad Serial Interface Module	Option 29	Passive LF Antenna Option
Option 07A	Time Code Generator Module	Option 30	Quad Time Code Module
Option 07B	Time Code Reader Module	Option 31	Combine Time Code & Analog Clock Driver Module
Option 08	Combined Time Code & Serial Output Module	Option 32	Octal Serial Interface with Precision Time Input Module
Option 09	Parallel Output Module	Option 33	Disciplined Oscillator for Telecom Module
Option 10	Standard Frequency Output Module	Option 34	T1/E1 Interface Module
Option 13	Omni-directions LF Antenna Option	Option 35	High Gain GPS Antenna Option
Option 14	Quad 20ma Module		
Option 15	GPS Receiver Module		
Option 16	LF Simulator Module		
Option 17	Octal Serial Module		
Option 18	Analog Clock Driver Module		
Option 20	Four Channel Analog Clock Driver Module		
Option 21	Active GPS Antenna		
Option 22	Disciplined OCXO Module		
Option 23	SMPTE-EBU Time Code Module		
Option 24	Speaking Clock Module		
Option 25	Video Annotator Module		