

Standard Frequency Output Module

For use with Time & Frequency Solutions' M210 and M211 Modular Timing Systems. The Standard Frequency Output Module is a general-purpose sine-wave reference frequency generator module, particularly relevant to Primary Reference Clock generation for Telecommunications applications.



Features

- Four outputs (2 pairs)
- Useful in Telecoms applications
- Available frequencies: 1MHz, 5MHz, 10MHz, 2.048MHz (E1), 1.544MHz (T1) dependent upon oscillator choice
- Use with Disciplined Oscillator Module
- Suitable where high stability traceable external frequency source required

Module Benefits

The module provides four outputs that can be factory selected as 1MHz, 5MHz, 10MHz, 2.048MHz (E1), or 1.544MHz (T1). The four outputs are grouped as two pairs, with each pair of outputs being selectable from the frequencies described.

This module is used in conjunction with the Disciplined Oscillator module which includes a precision oscillator.

The on-board oscillator is disciplined by the synchronising input thus ensuring that the oscillator is automatically calibrated and a precise frequency is available.

During periods where the synchronising input signal is unavailable or deemed to be unsuitable, the performance of the module reverts to the oscillator specification.

The Standard Frequency Output Module is ideally suited for use in applications where a high stability traceable frequency source is required.

Furthermore, the automatic re-calibration of this module from the received time broadcast carrier eliminates the need for regular re-calibration of the frequency source by field engineers with transfer standards.

Applications in Telecommunications

The module is suitable for two main types of Telecoms application; Primary Reference Clock (defined by G.811) and Synchronization supply unit (defined by G.812). It meets the original CCITT Recommendation G703 section 10 (now section 13).

Standard Frequency Output Module Specifications

Outputs

The module provides 4 outputs; each pair can be configured to a separate frequency. For available frequencies see the table below.

- All outputs types are sinewave.
- Each output is independently monitored and the status is indicated by rear panel LED, and so is available to a monitoring system using SNMP

Applications	Frequencies	Module Connections	Output Levels
General	1 MHz, 5 MHz or 10MHz	50Ω BNC sockets	1Vrms into 50Ω load
Telecoms	2.048MHz or 1.544MHz	75Ω BNC sockets	1.5Vpp to 3Vpp

Frequency Output and Temperature Stability

Please see Disciplined Oscillator Module specifications.

Environment (Operation & Storage)

Temperature : 0°C to +40°C

Humidity : Up to 95% RH (non-condensing)

EMC : CE Compliant

Ordering Information

Please quote part number when ordering: 0210FM000C

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