Synchronization and Timing Solutions for the Twenty First Century -

MFTS

Modular Frequency and Time System

Features:

- Highly Accurate Frequency and Time System
- Versatile For Various Frequency and Timing Applications
- Modular System Configurations
- Hot Swap Capability On All Modules
- All Critical Modules Can Be Fully Redundant
- Multiple Oscillator Options
- Field Configurable with Expansion and Upgrade Capability
- GPS Disciplining Option

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MFTS

Modular Frequency and Time System

Electrical Specifications

• Output/Frequency/Waveform:

MFTS Series:	4 to 40/5 MHz/10 MHz/sine wave or TTL/or 1PPS
MFTD Series:	4 to 40/5 MHz/10 MHz/sine wave or TTL/or 1PPS
	(Additional frequencies available - contact factory)

• Output Levels into 50 Ohms:

Sine outputs:	3-5 Vpp
1 PPS Output:	TTL compatible
	Max. Low 0.25 Vdc
	Min. High 2.5 Vdc
	Rise Time ≤20 ns
	Fall Time ≤100 ns
	Min. Pulse Width 10µs (typical 400 micros)
	Jitter ≤5 ns pulse to pulse

• Short Term Stability Rubidium:

1.0 Second (Allan Variance):	3E-4
10 Second (Allan Variance):	1E-11
100 Second (Allan Variance):	0.3E-11

• Short Term Stability Crystal:

1.0 Second (Allan Variance):	1E-10

• Frequency Accuracy: <1E-11**

• Timing Accuracy: 100 ns*

• 24h Flywheel (no GPS disciplining): ≤3 micros (Rb)
≤50 micros (XO)

• Phase Noise:

10 Hz from carrier:	-88 dBc/√Hz
100 Hz from carrier:	-125 dBc/√Hz
1kHz from carrier:	-130 dBc/√Hz
10 kHz from carrier:	-137 dBc/√Hz

• Harmonic/Non-Harmonic Distortion: -40 dBc/-75 dBc

• Power Required: 115 Vac ±10%

Option 1:	-48 Vdc only
Option 2:	+24 Vdc only
Option 3:	220 Vac, ±10%
Option 4:	Dual power supply modules (for redundancy)

• Power Consumption: (fully loaded systems)

	Warm-up	Steady State
MFTS:	~130W	~95W
MFTD:	~40W	~40W

• "Hot Pull" Modules: Insertion and removal of modules is possible with power applied.

• "Hitless" Switching: Switching between primary and secondary modules (rubidium and/or crystal) does not disrupt outputs

Environmental Specifications

• Operating Temperature Range: 0°C to +50°C (ambient)
• Storage Temperature: -40°C to +75°C
• Relative Humidity: ≤95%, Non-condensing
• EMI: Designed to meet FCC Part 15 Class B and CE requirements

Physical Specifications

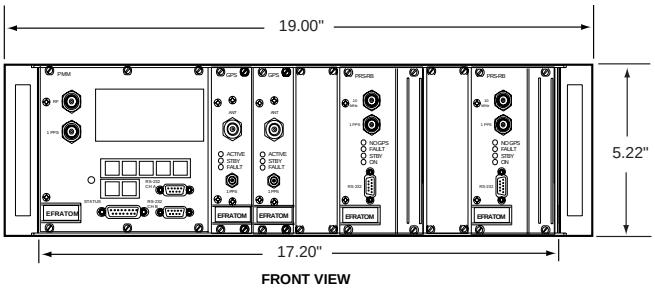
• Size:

MFTS:	5.25"H X 19.0"W X 22.0" D
MFTD:	5.25"H X 19.0"W X 10.0" D

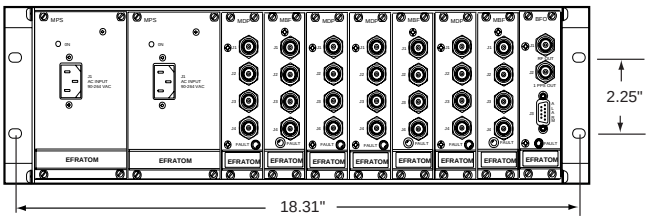
• Weight:

MFTS:	<35 lbs.
MFTD:	<25 lbs.

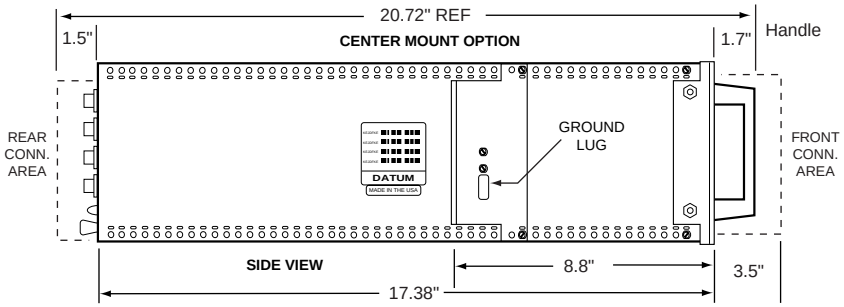
* Includes SA and assumes 4h continuous operation in a fixed stationary position.
** Subject to sufficient satellite availability.



FRONT VIEW



REAR VIEW



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For more information about the complete line of quality timing products from DATUM Irvine, call **1-800-337-2866** in the U.S.

Or visit us on the World Wide Web at **http://www.datum.com** for continuously updated product specifications, news and information.

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