

**OUTPUTS**

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±2 dBm
B	840 MHz	+13 ±2 dBm

**STABILITY**

**Aging**

- 1 x 10<sup>-7</sup> first year after 30 days operating, typical
- 5 x 10<sup>-8</sup> second year, typical
- 2 x 10<sup>-8</sup> per year thereafter, typical

**Phase Noise L(f), dBc/Hz, typical**

	10 MHz	840 MHz
10 Hz	-140	-100
100 Hz	-160	-118
300 Hz	-165	-121
1 kHz	-172	-135
10 kHz	-174	-155
100 kHz	-175	-157

**Temperature Stability**

±5 x 10<sup>-9</sup>, 0 to +50°C (Ref. +25°C)

**Harmonics**

≤ -25 dBc

**Sub-Harmonics**

≤ -60 dBc

**PLL Reference Products**

≤ -60 dBc

**Spurious**

≤ -80 dBc, excluding power supply line related spurs

**Phase Lock Alarm**

TTL  
 Locked: +3.5 VDC to +5.2 VDC (Hi)  
 Out-of-Lock: +0.8 VDC max (Lo)

**Phase Lock Voltage Monitor**

Voltage monitor pin supplied

**MECHANICAL**

**Dimensions**

5.56 x 4 x 1"

**Connectors**

RF Outputs: SMA(f)  
 Power, Monitoring: Feed Thru Terminals  
 GND: Ground Turret

**Packaging**

Nickel-plated machined aluminum housing – J1PMX

**Mounting**

Threaded inserts on base, #2-56, 9 places

**POWER REQUIREMENTS**

**Warm-Up Power**

≤ 18 Watts for 5 minutes

**Total Power**

≤ 12 Watts at +25°C

**Supply Voltage**

+15 VDC ±5%

**ADJUSTMENT**

**Mechanical Tuning** (Internal 10 MHz)

±1 x 10<sup>-6</sup>

**Loop BW** (Internal 120 MHz PLL)

Target Bandwidth: ~300 Hz  
 Type 2 Loop

**CRYSTAL**

**Type**

10 MHz SC-cut  
 120 MHz SC-cut (x7)

**ENVIRONMENT**

**Operating Temperature**

0 to +50°C

**Storage Temperature**

-50 to +85°C

**OTHER**

**Label**

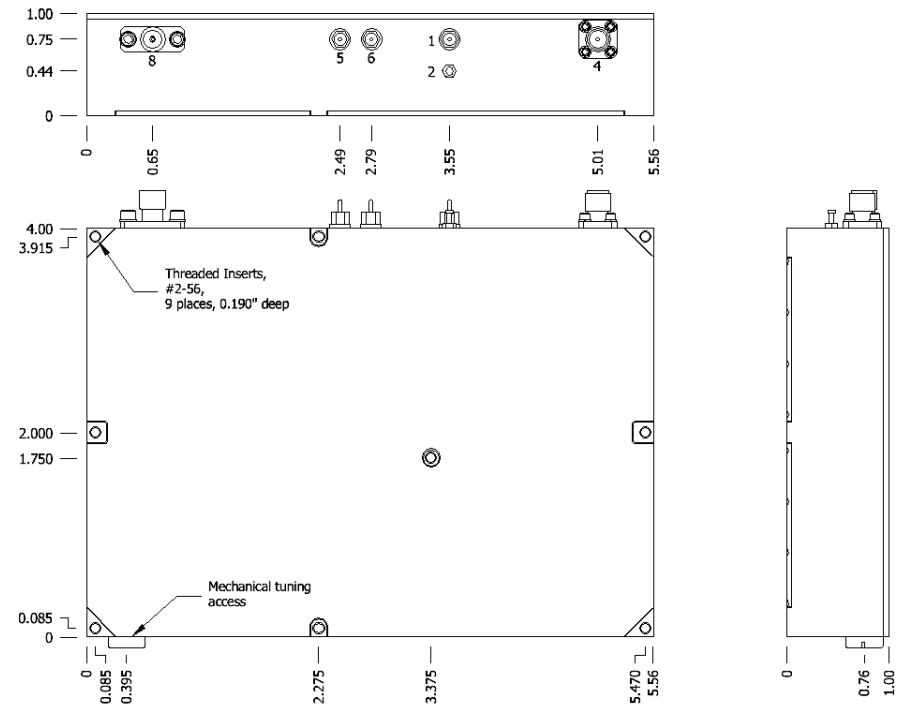
Use conventional label with the following information:  
 501-25784 (Current Rev.)  
 10M/840M MXO-PLMX  
 +15 VDC  
 Serial # - Date Code  
 (Mark connectors with function)

**Test Data**

- Output Level
- Phase Noise
- Temperature Stability
- Harmonics, Subs, Products, Spurs
- Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-02-13	Initial Release	PAC	

J1PMX MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
4	RF Output B
5	Phase Lock Voltage
6	Phase Lock Alarm
8	RF Output A



**WA Wenzel Associates, Inc.**  
 Austin, Texas

Title: **10 & 840 MHz Multiplied Crystal Oscillator (MXO-PLMX)**

P/N: <b>501-25784</b>	Rev: <b>-</b>	Date: <b>07-02-13</b>	Drawn:	Ref:
Tolerances: (except as noted) Dimensions are in inches	0.XX Dec: <b>±0.030"</b>	0.XXX Dec: <b>±0.010"</b>	FSCM: <b>62821</b>	Page <b>1</b> of <b>1</b>