

**OUTPUTS**

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±2 dBm
B	100 MHz	+13 ±2 dBm
C	500 MHz	+13 ±2 dBm
D	1 GHz	+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	100 MHz	500 MHz	1 GHz
10 Hz	-140	-120	-105	-99
100 Hz	-160	-138	-123	-117
300 Hz	-165	-144	-129	-122
1 kHz	-172	-157	-142	-135
10 kHz	-174	-174	-159	-152
100 kHz	-175	-176	-161	-154

**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**

6.51 x 4 x 1"

**Connectors**

RF Outputs: SMA(f)  
 Power, Monitoring: Feed Thru

**Terminals**

GND: Ground Turret

**Packaging**

Nickel-plated machined aluminum housing – J2PMX-013

**Mounting**

Threaded inserts on base,  
 #2-56, 11 places

**POWER REQUIREMENTS**

**Warm-Up Power**

≤ 20.5 Watts for 5 minutes

**Total Power**

≤ 13.5 Watts at +25°C

**Supply Voltage**

+15 VDC ±5%

**ADJUSTMENT**

**Mechanical Tuning (Internal 10 MHz)**

±1 x 10<sup>-6</sup>

**Loop BW (Internal 100 MHz PLL)**

Target Bandwidth: ~300 Hz  
 Type 2 Loop

**CRYSTAL**

**Type**

100 MHz SC-cut (x10)

**OTHER**

**Label**

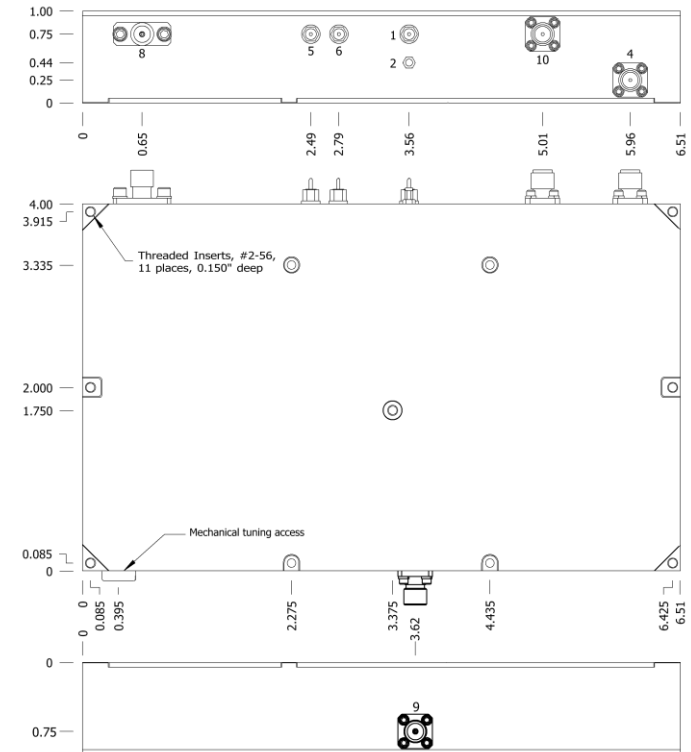
Use conventional label with the following information:  
 501-25938 (Current Rev.)  
 10M/100M/500M/1GHz MXO-PLMX  
 +15 VDC  
 Serial # - Date Code  
 (Mark connectors with function)

**Test Data**

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

REV	DATE	REVISION RECORD	DWN	AUTH
-	06-13-12	Initial Release	PAC	

Connector	Function
1	Supply Voltage
2	Ground, Case
4	RF Output D
5	Phase Lock Voltage
6	Phase Lock Alarm
8	RF Output A
9	RF Output B
10	RF Output C



Wenzel Associates, Inc.  
Austin, Texas

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Title: **10 MHz, 100 MHz, 500 MHz & 1 GHz Multiplied Crystal Oscillator (MXO-PLMX)**

P/N: <b>501-25938</b>	Rev: -	Date: <b>06-13-12</b>	Drawn:	Ref:
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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 1 of 1
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