

**OUTPUTS**

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±1.5 dBm
B	100 MHz	+20 ±1.5 dBm

**VSWR**

< 1.5:1, typical

**STABILITY**

**Aging**

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

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

	10 MHz	100 MHz
1 Hz	-110	-86
10 Hz	-140	-116
100 Hz	-162	-137
300 Hz	-167	-137
1 kHz	-172	-151
10 kHz	-174	-172
100 kHz	-174	-174
1 MHz	-174	-175
≥10 MHz	-174	-175

**Temperature Stability**

±5 x 10<sup>-8</sup>, 0 to +50°C (Ref. +25°C)

**Harmonics**

≤ -25 dBc

**Sub-Harmonics**

≤ -70 dBc

**PLL Reference Products**

≤ -70 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**

≤ 17 Watts for 5 minutes

**Total Power**

≤ 10 Watts at +25°C

**Supply Voltage**

+15 VDC ±5%

**ADJUSTMENT**

**Mechanical Tuning** (Internal 10 MHz)

±1 x 10<sup>-6</sup>

**Electrical Tuning**

±2 x 10<sup>-7</sup>, ±5 VDC

Negative Slope

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

Target Bandwidth: ~250 Hz

Type 2 Loop

**CRYSTAL**

**Type**

10 MHz SC-cut

100 MHz SC-cut

**ENVIRONMENT**

**Operating Temperature**

0 to +50°C

**Storage Temperature**

-50 to +85°C

**Relative Humidity**

Up to 65%, non-condensing, operating

**OTHER**

**Label**

Use conventional label with the

following information:

501-26745 (Current Rev.)

10M/100M MXO-PLMX

+15 VDC

Serial # - Date Code

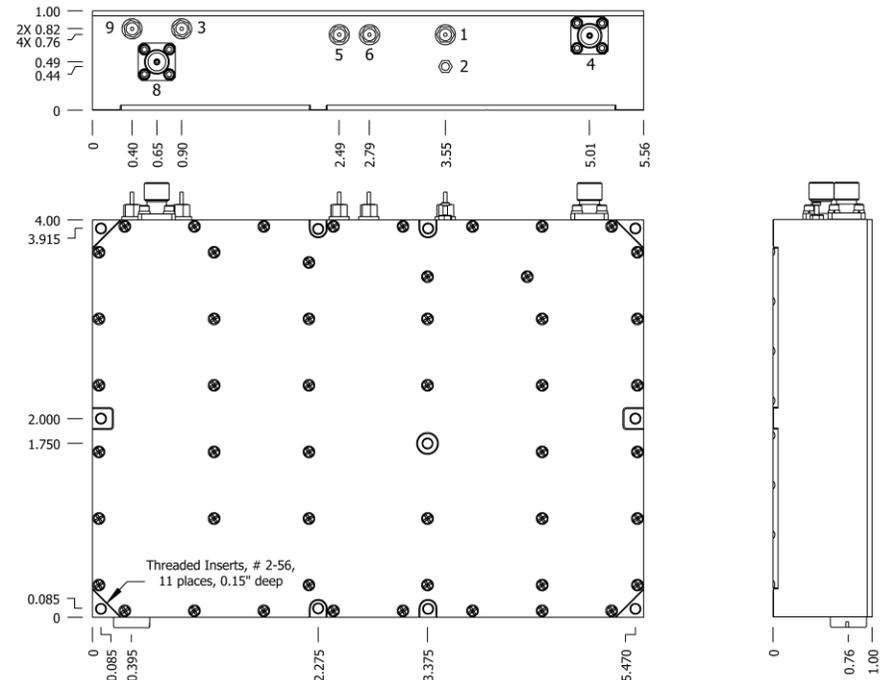
(Mark connectors with function)

**Test Data**

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

REV	DATE	REVISION RECORD	DWN	AUTH
-	04-11-13	Initial Release	Liz	
A	10-29-15	Updated Drawing	PAC	

J1PMX MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
3	Electrical Tuning
4	RF Output B
5	Phase Lock Voltage
6	Phase Lock Alarm
8	RF Output A
9	N/C



**Wenzel Associates, Inc.**

Austin, Texas

Title:

**10/100 MHz Ultra Low Noise Crystal Oscillator (MXO-PLMX)**

P/N:

**501-26745**

Rev:

**A**

Date:

**10-29-15**

Drawn:

62821

Ref:

26045

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:  
**±0.030"**

0.XXX Dec:  
**±0.010"**

FSCM:  
**62821**

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