

OUTPUTS

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±2 dBm
B	2.4 GHz	+13 ±2 dBm

STABILITY

Aging

- 1 x 10⁻⁷ first year
- after 30 days operating, typical
- 5 x 10⁻⁸ second year, typical
- 2 x 10⁻⁸ per year thereafter, typical

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

	10 MHz *	2.4 GHz
1 Hz	-110	-63
10 Hz	-142	-93
100 Hz	-167	-111
1 kHz	-175	-127
10 kHz	-176	-144
100 kHz	-176	-145

*based on 501-27521-11

Temperature Stability

±5 x 10⁻⁹, 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

7.46 x 4 x 1"

Connectors

RF Input/Output: SMA(f)
Power, Monitoring: Feed Thru Terminals
GND: Ground Turret

Packaging

Nickel-plated machined aluminum housing – J3PMX

Mounting

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

POWER REQUIREMENTS

Warm-Up Power

≤ 23.5 Watts for 5 minutes

Total Power

≤ 17 Watts at +25°C

Supply Voltage

+15 VDC ±5%

ADJUSTMENT

Mechanical Tuning (Internal 10 MHz)

±1 x 10⁻⁶

Electrical Tuning (Internal 10 MHz)

±2 x 10⁻⁷, ±5 VDC, Negative slope

Loop BW (Internal 100 MHz PLL)

Target Bandwidth: ~250 Hz

Type 2 Loop

CRYSTAL

Type

100 MHz SC-cut (x24)

OTHER

Label

Use conventional label with the following information:

501-29234 (Current Rev.)

10M/2.4 GHz MXO-PLMX

+15 VDC

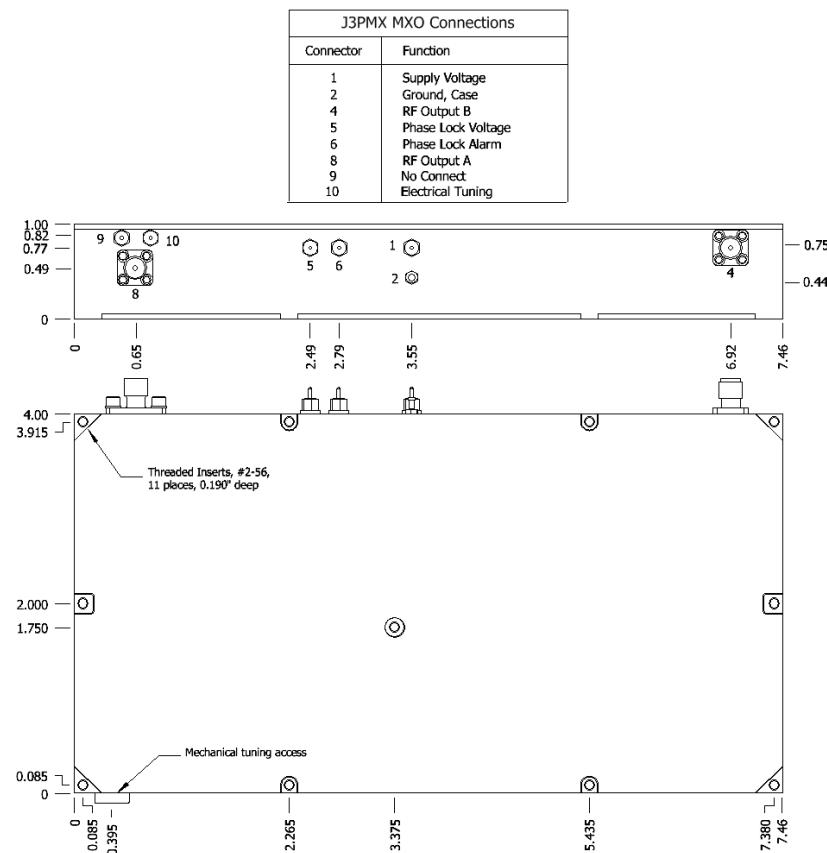
Serial # - Date Code

(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
-	07-10-15	Initial Release	CB	
A	10-15-15	Updated drawing and added MT	CB	



Wenzel Associates, Inc.

Austin, Texas

Title:

2.4 GHz Multiplied Crystal Oscillator (MXO-PLMX)

P/N:

501-29234

Rev:

A

Date:

10-15-15

Drawn:

Ref:

28931

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:
±0.030"

0.XXX Dec:
±0.010"

FSCM:
62821

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