

OUTPUTS

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±2 dBm
B	100 MHz	+13 ±2 dBm
C	5 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), dBc/Hz, typical

	10 MHz	100 MHz	5 GHz
10 Hz	-140	-120	-83
100 Hz	-160	-138	-101
300 Hz	-165	-144	-106
1 kHz	-172	-157	-119
10 kHz	-174	-174	-136
100 kHz	-175	-176	-138

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

- 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-03

Mounting

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

POWER REQUIREMENTS

Warm-Up Power

- ≤ 22.5 Watts for 5 minutes

Total Power

- ≤ 15.5 Watts at +25°C

Supply Voltage

- +15 VDC ±5%

ADJUSTMENT

Mechanical Tuning (Internal 10 MHz)

- ±1 x 10⁻⁶

Loop BW (Internal 100 MHz PLL)

- Target Bandwidth: ~250 Hz
- Type 2 Loop

CRYSTAL

Type

- 100 MHz SC-cut (x50)

OTHER

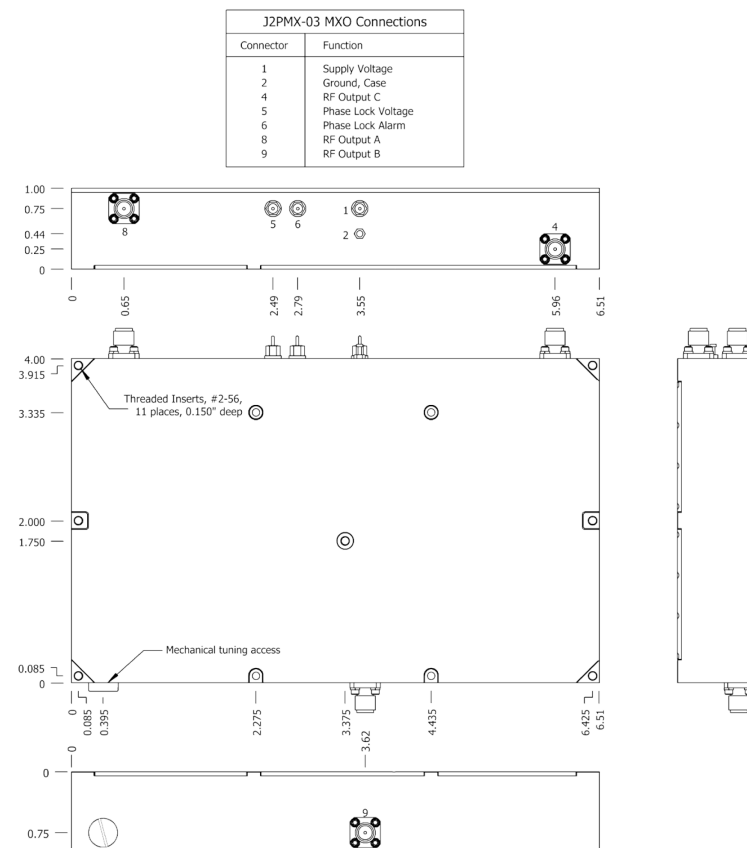
Label

- Use conventional label with the following information:
501-31781 (Current Rev.)
10M/100M/5G 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
-	06-22-18	Initial Release	CB	



Wenzel Associates, Inc.
Austin, Texas

Title:

**10 MHz & 100MHz & 5 GHz
Multiplied Crystal Oscillator (MXO-PLMX)**

P/N:

501-31781

Rev:

-

Date:

06-22-18

Drawn:

62821

Ref:

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:

±0.030"

0.XXX Dec:

±0.010"

FSCM:

62821

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