

## OUTPUTS

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±2 dBm
B	100 MHz	+13 ±2 dBm
C	400 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	100 MHz	400 MHz
10 Hz	-140	-120	-107
100 Hz	-160	-138	-126
300 Hz	-165	-144	-129
1 kHz	-172	-157	-142
10 kHz	-174	-174	-160
100 kHz	-175	-176	-162

### 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-01

## Mounting

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

## POWER REQUIREMENTS

### Warm-Up Power

- ≤ 19 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 100 MHz PLL)

- Target Bandwidth: ~300 Hz
- Type 2 Loop

## CRYSTAL

### Type

- 100 MHz SC-cut (x4)

## OTHER

### Label

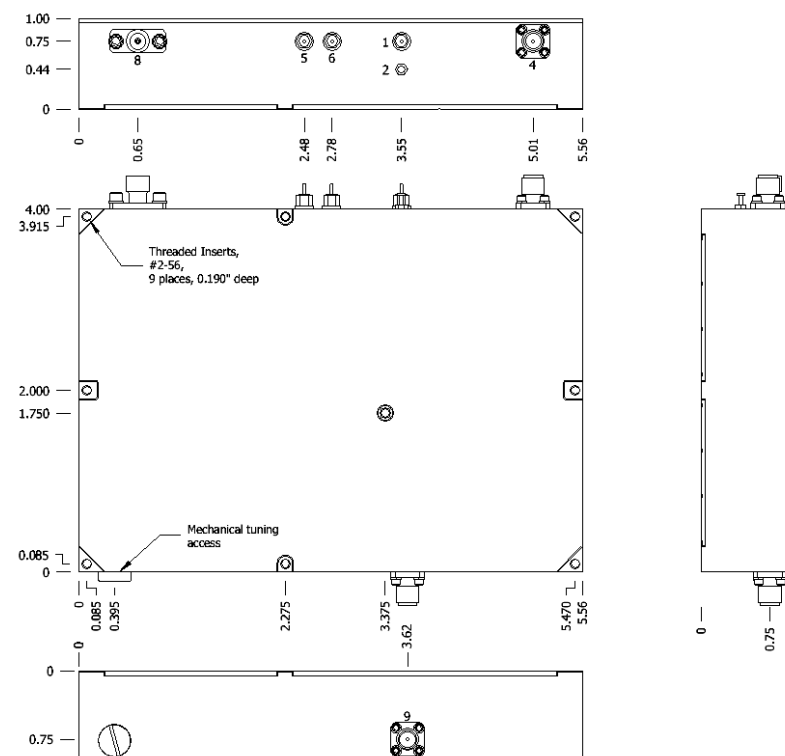
- Use conventional label with the following information:  
501-31592 (Current Rev.)  
10M/100M/400M MXO-PLMX  
+15 VDC  
Serial # - Date Code  
(Mark connectors with function)

## Test Data

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

REV	DATE	REVISION RECORD	DWN	AUTH
-	04-05-18	Initial Release	CB	

J1PMX-01 MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
4	RF Output C
5	Phase Lock Voltage
6	Phase Lock Alarm
8	RF Output A
9	RF Output B



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

Title:

**10 MHz, 100 MHz & 400 MHz  
Multiplied Crystal Oscillator (MXO-PLMX)**

P/N:

**501-31592**

Rev:

**-**

Date:

**04-05-18**

Drawn:

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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