

## OUTPUTS

| Output | Frequency | Level (into 50Ω) |
|--------|-----------|------------------|
| A      | 5 MHz     | +13 ±2 dBm       |
| B      | 250 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

|         | 5 MHz | 250 MHz |
|---------|-------|---------|
| 10 Hz   | -140  | -111    |
| 100 Hz  | -160  | -129    |
| 300 Hz  | -165  | -132    |
| 1 kHz   | -172  | -146    |
| 10 kHz  | -174  | -166    |
| 100 kHz | -175  | -168    |

### 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

## Mounting

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

## POWER REQUIREMENTS

### Warm-Up Power

≤ 16.5 Watts for 5 minutes

### Total Power

≤ 9.5 Watts at +25°C

### Supply Voltage

+15 VDC ±5%

## ADJUSTMENT

### Mechanical Tuning (Internal 5 MHz)

±1 x 10<sup>-6</sup>

### Loop BW (Internal 125 MHz PLL)

Target Bandwidth: ~250 Hz

Type 2 Loop

## CRYSTAL

### Type

5 MHz SC-cut  
125 MHz SC-cut (x2)

## ENVIRONMENT

### Operating Temperature

0 to +50°C

### Storage Temperature

-50 to +85°C

## OTHER

### Label

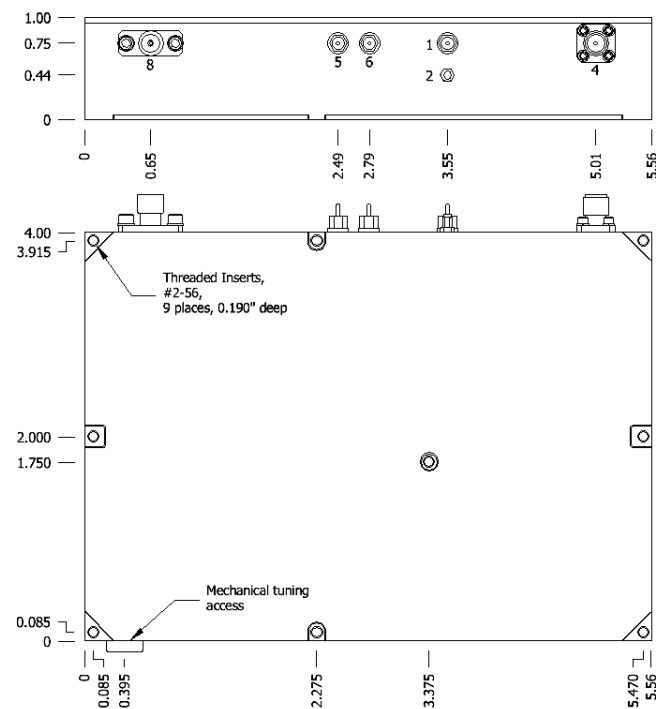
Use conventional label with the following information:  
501-26966 (Current Rev.)  
5M/250M MXO-PLMX  
+15 VDC  
Serial # - Date Code  
(Mark connectors with function)

## Test Data

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

| REV | DATE     | REVISION RECORD | DWN | AUTH |
|-----|----------|-----------------|-----|------|
| -   | 07-02-13 | Initial Release | PAC |      |
|     |          |                 |     |      |
|     |          |                 |     |      |
|     |          |                 |     |      |

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



**Wenzel Associates, Inc.**

Austin, Texas

Title:

**5 & 250 MHz Multiplied Crystal Oscillator (MXO-PLMX)**

P/N:

**501-26966**

Rev:

**-**

Date:

**07-02-13**

Drawn:

**62821**

Ref:

**1 of 1**

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:  
**±0.030"**

0.XXX Dec:  
**±0.010"**

FSCM:  
**62821**

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