

## OUTPUTS

Output	Frequency	Level (into 50Ω)
A	100 MHz	+13 ±2 dBm
B	500 MHz	+13 ±2 dBm
C	1 GHz	+13 ±2 dBm

## STABILITY

### Aging

- 1 x 10<sup>-6</sup> first year
- after 30 days operating, typical
- 5 x 10<sup>-7</sup> second year, typical
- 3 x 10<sup>-7</sup> per year thereafter, typical

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

	100 MHz	500 MHz	1 GHz
10 Hz	-100	-85	-77
100 Hz	-130	-115	-109
1 kHz	-158	-143	-136
10 kHz	-175	-159	-153
100 kHz	-176	-160	-154

## Temperature Stability

±5 x 10<sup>-7</sup>, 0 to +50°C (Ref. +25°C)

## Harmonics

≤ -25 dBc

## Sub-Harmonics

≤ -60 dBc

## Spurious

≤ -80 dBc, excluding power  
supply line related spurs

## MECHANICAL

### Dimensions

3.21 x 4 x 1"

### Connectors

RF Outputs: SMA(f)  
Power, ET: Feed Thru Terminals  
GND: Ground Turret

### Packaging

Nickel-plated machined  
aluminum housing – J2-013

### Mounting

Threaded inserts on base,  
#2-56, 6 places

## POWER REQUIREMENTS

### Warm-Up Power

≤ 11 Watts for 5 minutes

### Total Power

≤ 7.5 Watts at +25°C

### Supply Voltage

+15 VDC ±5%

## ADJUSTMENT

### Mechanical Tuning

±4 x 10<sup>-6</sup>

### Electrical Tuning

±5 x 10<sup>-7</sup>, ±5 VDC

Negative Slope

## CRYSTAL

### Type

100 MHz SC-cut (x10)

## OTHER

### Label

Use conventional label with the  
following information:

501-25471 (Current Rev.)

100M/500M/1G MXO-FR

+15 VDC

Serial # - Date Code

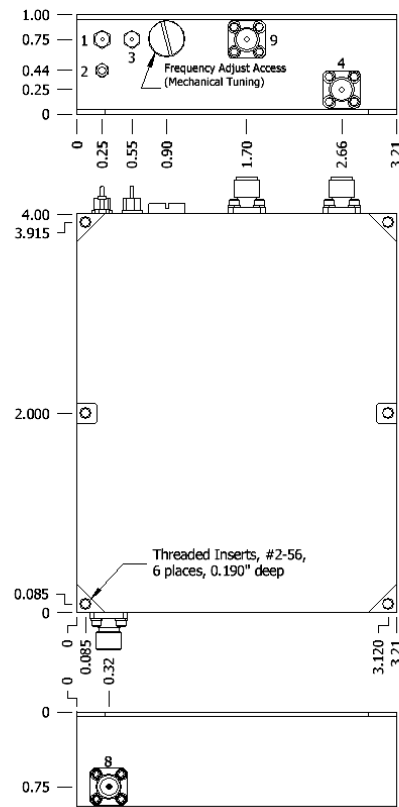
(Mark connectors with function)

### Test Data

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

REV	DATE	REVISION RECORD	DWN	AUTH
-	06-14-12	Initial Release	PAC	

J2-013 MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
3	Electrical Tuning
4	RF Output C
8	RF Output A
9	RF Output B



**Wenzel Associates, Inc.**

Austin, Texas

Title:

**100 MHz, 500 MHz and 1 GHz  
Multiplied Crystal Oscillator (MXO-FR)**

P/N:

**501-25471**

Rev:

**-**

Date:

**06-14-12**

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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