

**OUTPUT****Frequency**

1 GHz

**Level**+13 dBm  $\pm$ 2 dBm, into 50 ohms**STABILITY****Aging**

$1 \times 10^{-6}$  per year, first year  
after 30 days operating, typical

**Phase Noise L(f)**

100 Hz -108 dBc/Hz  
1 KHz -136 dBc/Hz  
10 KHz -151 dBc/Hz  
20 KHz -152 dBc/Hz

**Temperature Stability** $\pm 5 \times 10^{-7}$ , 0° to +50°C (Ref +25°C)**Harmonics,** $\leq -25$  dBc**Sub-Harmonics** $\leq -50$  dBc**Spurious** $\leq -70$  dBc**MECHANICAL****Dimensions**

2.25 x 4 x 1"

**Connectors**

SMA and solder pins

**Packaging**

Machined aluminum housing – J1

**POWER REQUIREMENTS****Warm-Up Power**

&lt;10.0 Watts for 5 minutes

**Total Power**

&lt;7.5 Watts at +25°C

**Supply Voltage**

+15 VDC

**ADJUSTMENT****Mechanical Tuning** $\pm 4 \times 10^{-6}$ **Electrical Tuning**

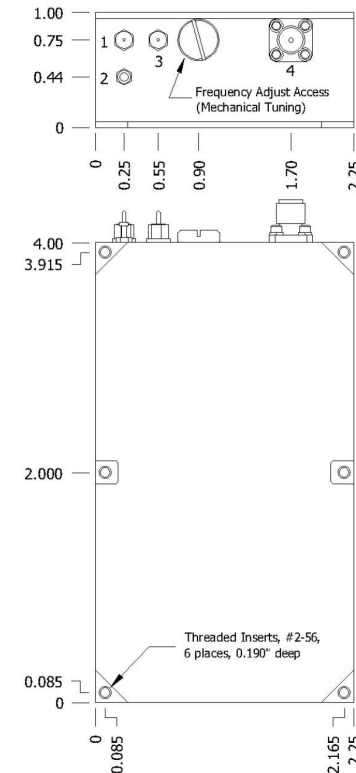
$\pm 5 \times 10^{-7}$ , 0 to +10 VDC  
Negative slope

**CRYSTAL****Type**

100 MHz SC-cut, w/ x10 stage

REV	DATE	REVISION RECORD	DWN	AUTH
-	06-01-09	Draft	VG	JR
A	03-31-10	Revised 10 kHz phase noise offset, and sub harmonic spec	VG	JR

J1 MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
3	Electrical Tuning
4	RF Output

**Wenzel Associates, Inc.**

Austin, Texas

Title:

**1 GHz Multiplied Crystal Oscillator (MXO)**

P/N:

**501-21045**

Rev:

**A**

Date:

**03-31-10**

Drawn:

Ref:

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:

 **$\pm 0.030$ "**

0.XXX Dec:

 **$\pm 0.015$ "**

FSCM:

**62821**

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