

**OUTPUT****Frequency**

500 MHz

**Level**

+13 dBm ±2 dB into 50 ohms

**STABILITY****Aging**1 x 10<sup>-6</sup> first year

after 30 days operating, typical

5 x 10<sup>-7</sup> second year, typical3 x 10<sup>-7</sup> per year thereafter, typical**Phase Noise L(f), typical**

100 Hz -115 dBc/Hz

1 KHz -143 dBc/Hz

10 KHz -159 dBc/Hz

100 KHz -160 dBc/Hz

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

≤ -25 dBc

**Sub-Harmonics**

≤ -70 dBc

**Spurious**

≤ -80 dBc, excluding power supply line related spurs

**MECHANICAL****Dimensions**

2.25 x 4 x 1"

**Connectors**

SMA(f) and solder pins

**Packaging**

Nickel-plated machined aluminum housing – J1

**Mounting**

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

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

≤ 8.5 Watts for 5 minutes

**Total Power**

≤ 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 (x5)

**OTHER****Label**

Use conventional label with the following information:

501-24145 (Current Rev.)

500 MHz MXO-FR

+15 VDC

Serial # - Date Code

(Mark connectors with function)

**Test Data**

Output Level

Phase Noise

Temperature Stability

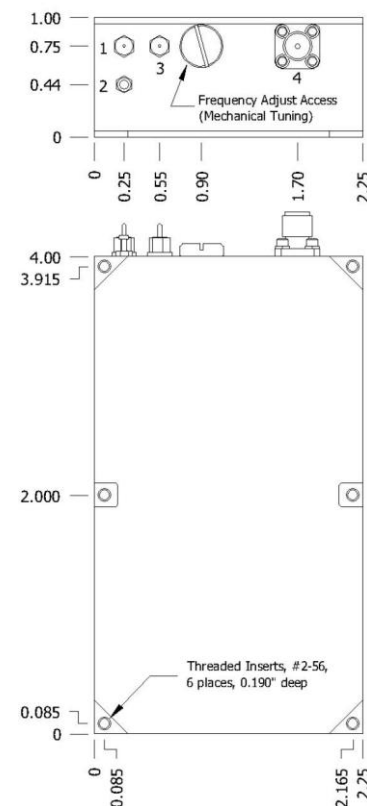
Harmonics, Subs, Spurious

Power – Warm-up and Total

Tuning – MT and ET

| REV | DATE     | REVISION RECORD | DWN | AUTH |
|-----|----------|-----------------|-----|------|
| -   | 06-22-11 | Initial Release | PAC | JR   |
|     |          |                 |     |      |
|     |          |                 |     |      |
|     |          |                 |     |      |

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

**Wenzel Associates, Inc.**

Austin, Texas

Title:

**500 MHz Multiplied Crystal Oscillator (MXO-FR)**

P/N:

**501-24145**

Rev:

**-**

Date:

**06-22-11**

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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