

## INPUT

### Frequency

10 MHz

### Level

+7 dBm  $\pm$ 6 dB into 50 ohms

## OUTPUT

### Frequency

300 MHz

### Level

+13 dBm  $\pm$ 2 dB into 50 ohms

## STABILITY

### Aging (free-running)

$1 \times 10^{-6}$  first year

after 30 days operating, typical

$5 \times 10^{-7}$  second year, typical

$3 \times 10^{-7}$  per year thereafter, typical

### Phase Noise L(f), typical, (free-running)

100 Hz -119 dBc/Hz

1 KHz -147 dBc/Hz

10 KHz -163 dBc/Hz

100 KHz -164 dBc/Hz

### Temperature Stability

$\pm 5 \times 10^{-7}$  free-running from 0 to +50°C  
(Ref. +25°C)

### Harmonics

-25 dBc

### Sub-Harmonics

-60 dBc

### PLL Divider 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

3.45 x 4 x 1"

## Connectors

RF Input/Output: SMA(f)

Power, Monitoring: Feed Thru Terminals

GND: Ground Turret

## Packaging

Nickel-plated machined  
aluminum housing – J1P

## Mounting

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

## POWER REQUIREMENTS

### Warm-Up Power

$\leq 10$  Watts for 5 minutes

### Total Power

$\leq 7$  Watts at +25°C

### Supply Voltage

+15 VDC  $\pm$ 5%

## ADJUSTMENT

### Loop BW

Target Bandwidth:  $\leq 10$  Hz

Type 2 Loop

## CRYSTAL

### Type

100 MHz SC-cut (x3)

## OTHER

### Label

Use conventional label with the  
following information:

501-25382 (Current Rev.)

300 MHz MXO-PLD

+15 VDC

Serial # - Date Code

(Mark connectors with function)

### Test Data

- Output Level

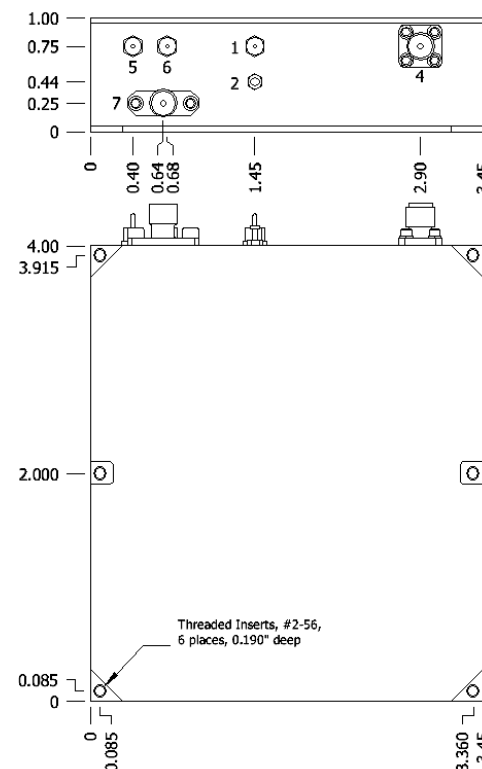
- Phase Noise – free-running

- Harmonics, Subs, Products, Spurious

- Power – Warm-up and Total

| REV | DATE     | REVISION RECORD | DWN | AUTH |
|-----|----------|-----------------|-----|------|
| -   | 03-28-12 | Initial Release | PAC |      |
|     |          |                 |     |      |
|     |          |                 |     |      |
|     |          |                 |     |      |
|     |          |                 |     |      |

| J1P MXO Connections |                          |
|---------------------|--------------------------|
| Connector           | Function                 |
| 1                   | Supply Voltage           |
| 2                   | Ground, Case             |
| 4                   | RF Output                |
| 5                   | Phase Lock Voltage       |
| 6                   | Phase Lock Alarm         |
| 7                   | External Reference Input |



**Wenzel Associates, Inc.**

Austin, Texas

Title:

**300 MHz Multiplied Crystal Oscillator (MXO-PLD)**

P/N:

**501-25382**

Rev:

**-**

Date:

**03-28-12**

Drawn:

Ref:

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:

**$\pm 0.030$ "**

0.XXX Dec:

**$\pm 0.010$ "**

FSCM:

**62821**

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