

INPUT

Frequency

10 MHz

Level

+7 dBm \pm 6 dB into 50 ohms

OUTPUT

Frequency

8.8 GHz

Level

+13 dBm \pm 2 dB into 50 ohms

STABILITY

Aging (free-running)

1 x 10⁻⁶ first year

after 30 days operating, typical

5 x 10⁻⁷ second year, typical

3 x 10⁻⁷ per year thereafter, typical

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

100 Hz -78 dBc/Hz

1 KHz -108 dBc/Hz

10 KHz -132 dBc/Hz

100 KHz -133 dBc/Hz

1 MHz -133 dBc/Hz

Temperature Stability

\pm 5 x 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

5.36 x 4 x 1"

Connectors

RF Input/Output: SMA(f)

Power, Monitoring: Feed Thru Terminals

GND: Ground Turret

Packaging

Nickel-plated machined
aluminum housing – J3P

Mounting

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

POWER REQUIREMENTS

Warm-Up Power

\leq 16.5 Watts for 5 minutes

Total Power

\leq 13 Watts at +25°C

Supply Voltage

+15 VDC \pm 5%

ADJUSTMENT

Loop BW

Target Bandwidth: \leq 10 Hz

Type 2 Loop

CRYSTAL

Type

110 MHz SC-cut (x80)

OTHER

Label

Use conventional label with the
following information:

501-31375 (Current Rev.)

8.8 GHz MXO-PLD

+15 VDC

Serial # - Date Code

(Mark connectors with function)

Test Data

- Output Level

- Phase Noise – free-running

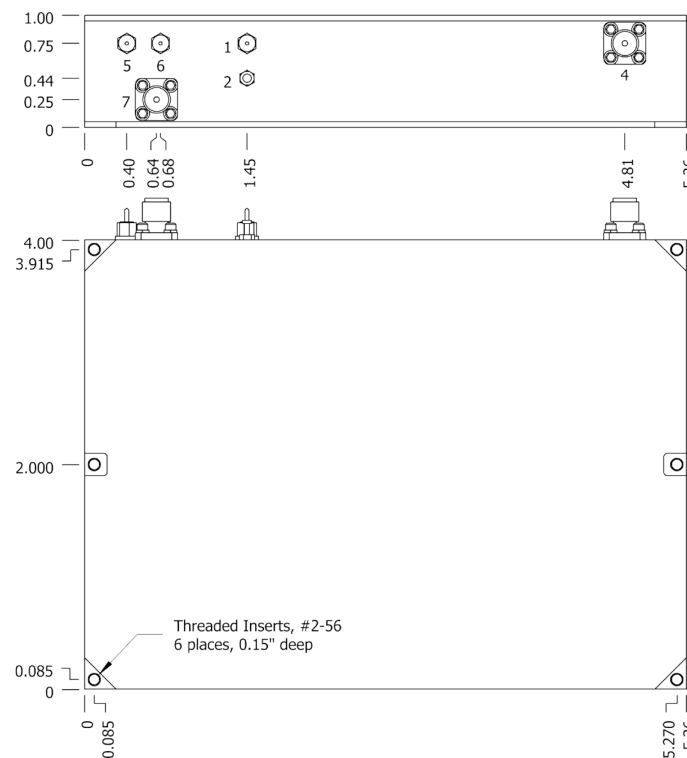
- Temperature Stability – free-running

- Harmonics, Subs, Products, Spurious

- Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	12-15-17	Initial Release	CB	
A	03-01-18	Adjusted 100 Hz and LBW	CB	

J3P 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:

8.8 GHz Multiplied Crystal Oscillator (MXO-PLD)

P/N:

501-31375

Rev:

A

Date:

03-01-18

Drawn:

Ref:

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:

\pm 0.030"

0.XXX Dec:

\pm 0.010"

FSCM:

62821

Page 1 of 1