INPUT

Frequency

10 MHz

Level

+7 dBm ±6 dB into 50 ohms

OUTPUTS

RF Output	Frequency	Output Level (into 50 ohms)
A	100 MHz	+13 dBm ±2 dB
B	500 MHz	+13 dBm ±2 dB

STABILITY

Aging (free-running)

1×10^{-6} first year

after 30 days operating, typical

5×10^{-7} second year, typical

3×10^{-7} per year thereafter, typical

Phase Noise L(f), dBc/Hz, typical, (free-running)

	100 MHz	500 MHz
10 Hz	-100	-85
100 Hz	-130	-115
1 kHz	-158	-143
10 kHz	-175	-159
100 kHz	-176	-160
1 MHz	-176	-160

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/Outputs: SMA(f)

Power, Monitoring: Feed Thru Terminals

GND: Ground Turret

Packaging

Nickel-plated machined aluminum housing – J1P-01

Mounting

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

POWER REQUIREMENTS

Warm-Up Power

≤ 11 Watts for 5 minutes

Total Power

≤ 8 Watts at +25°C

Supply Voltage

+15 VDC ±5%

ADJUSTMENT

Loop BW

Target Bandwidth: ≤ 10 Hz

Type 2 Loop

CRYSTAL

Type

100 MHz SC-cut (x5)

OTHER

Label

Use conventional label with the following information:

501-25475 (Current Rev.)

100M/500M MXO-PLD

+15 VDC

Serial # - Date Code

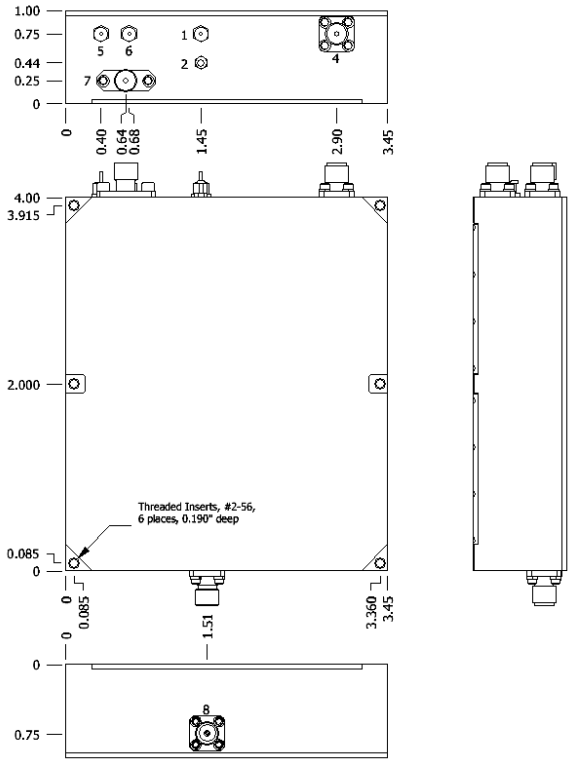
(Mark connectors with function)

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
-	11-07-13	Initial Release	PAC	

J1P-01 MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
4	RF Output B
5	Phase Lock Voltage
6	Phase Lock Alarm
7	External Reference Input
8	RF Output A



Wenzel Associates, Inc.

Austin, Texas

Title:

100 MHz & 500 MHz
Multiplied Crystal Oscillator (MXO-PLD)

P/N:	Rev:	Date:	Drawn:	Ref:
501-25475	-	11-07-13		

Tolerances: (except as noted) Dimensions are in inches	0.XX Dec:	0.XXX Dec:	FSCM:	Page 1 of 1
	±0.030”	±0.010”	62821	