

INPUT

Frequency

10 MHz

Level

+13 dBm ± 1 dB into 50 ohms

OUTPUT A

Frequency

100 MHz

Level

+13 dBm ± 2 dB into 50 ohms

OUTPUT B

Frequency

1 GHz

Level

+13 dBm ± 2 dB into 50 ohms

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)

	<u>100 MHz</u>	<u>1 GHz</u>
100 Hz	-130	-109
1 kHz	-158	-136
10 kHz	-175	-153
100 kHz	-176	-154

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 Reference 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/Outputs: SMA(f)

Power, Monitoring: Feed Thru Terminals

GND: Ground Turret

Packaging

Nickel-plated machined

aluminum housing – J2PM-03

Mounting

Threaded inserts on base,

#2-56, 6 places

POWER REQUIREMENTS

Warm-Up Power

≤ 13 Watts for 5 minutes

Total Power

≤ 10 Watts at +25°C

Supply Voltage

+15 VDC $\pm 5\%$

ADJUSTMENT

Loop BW

Target Bandwidth: ~200 Hz

Type 2 Loop

CRYSTAL

Type

100 MHz SC-cut (x10)

OTHER

Label

Use conventional label with the
following information:

501-25487 (Current Rev.)

100M/1GHz MXO-PLM

+15 VDC

Serial # - Date Code

(Mark connectors with function)

Test Data

- Output Level

- Phase Noise – free-running

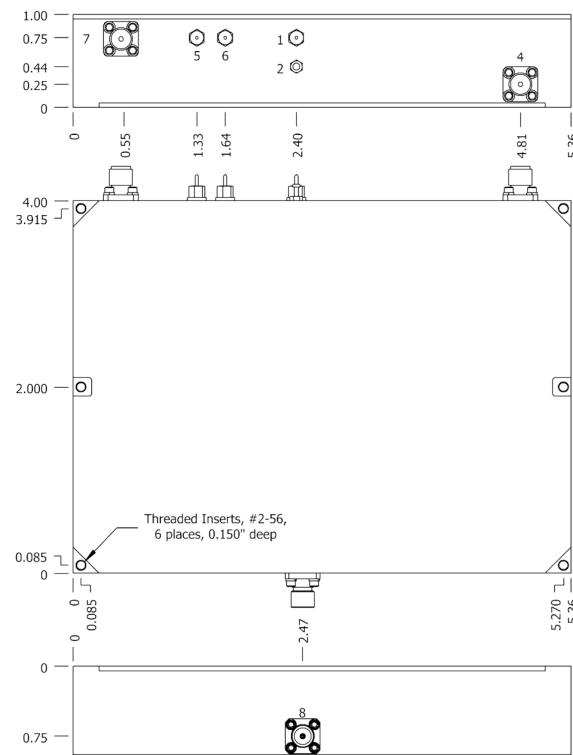
- Temperature Stability – free-running

- Harmonics, Subs, Products, Spurious

- Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	05-17-12	Initial Release	PAC	

J2PM-03 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 & 1 GHz Multiplied Crystal Oscillator (MXO-PLM)

P/N:

501-25487

Rev:

-

Date:

05-17-12

Drawn:

Ref:

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:

± 0.030 "

0.XXX Dec:

± 0.010 "

FSCM:

62821

Page 1 of 1