

INPUT

Frequency

10 MHz

Level

+7 dBm \pm 6 dB into 50 ohms

OUTPUT A

Frequency

100 MHz

Level

+13 dBm \pm 2 dB into 50 ohms

OUTPUT B

Frequency

2.5 GHz

Level

+13 dBm \pm 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>2.5 GHz</u> |
|---------|----------------|----------------|
| 100 Hz | -130 | -100 |
| 1 kHz | -158 | -127 |
| 10 kHz | -175 | -144 |
| 100 kHz | -176 | -145 |

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

4.4 x 4 x 1"

Connectors

RF Input/Outputs: SMA(f)

Power, Monitoring: Feed Thru Terminals

GND: Ground Turret

Packaging

Nickel-plated machined

aluminum housing – J2P-03

Mounting

Threaded inserts on base,

#2-56, 6 places

POWER REQUIREMENTS

Warm-Up Power

≤ 12 Watts for 5 minutes

Total Power

≤ 8 Watts at +25°C

Supply Voltage

+15 VDC \pm 5%

ADJUSTMENT

Loop BW

Target Bandwidth: ≤ 10 Hz

Type 2 Loop

CRYSTAL

Type

100 MHz SC-cut (x25)

SPECIAL

Centering circuit provided which provides
fixed ET voltage when external reference
is not present.

OTHER

Label

Use conventional label with the
following information:

501-31771 (Current Rev.)

100M/2.5GHz MXO-PLD

+15 VDC

Serial # - Date Code

(Mark connectors with function)

Test Data

- Output Level

- Phase Noise – free-running

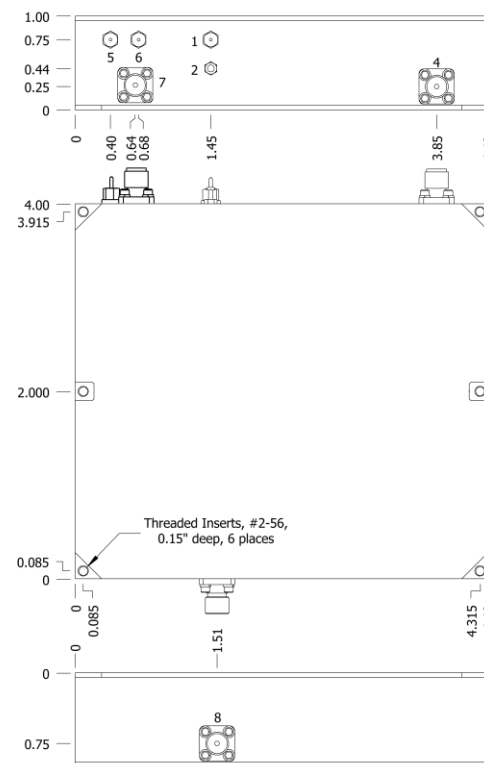
- Temperature Stability – free-running

- Harmonics, Subs, Products, Spurious

- Power – Warm-up and Total

| REV | DATE | REVISION RECORD | DWN | AUTH |
|-----|----------|-----------------|-----|------|
| - | 06-20-18 | Initial Release | PAC | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| J2P-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 & 2.5 GHz Multiplied Crystal Oscillator (MXO-PLD)

P/N:

501-31771

Rev:

-

Date:

06-20-18

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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