

OUTPUTS

| Output | Frequency | Level (into 50Ω) |
|--------|-----------|------------------|
| A | 10 MHz | +13 ±2 dBm |
| B | 100 MHz | +13 ±2 dBm |
| C | 500 MHz | +13 ±2 dBm |

STABILITY

Aging

- 1 x 10⁻⁷ first year
- after 30 days operating, typical
- 5 x 10⁻⁸ second year, typical
- 2 x 10⁻⁸ per year thereafter, typical

Phase Noise L(f), dBc/Hz, typical

| | 10 MHz | 100 MHz | 500 MHz |
|---------|--------|---------|---------|
| 10 Hz | -140 | -120 | -105 |
| 100 Hz | -160 | -138 | -123 |
| 300 Hz | -165 | -144 | -129 |
| 1 kHz | -172 | -157 | -142 |
| 10 kHz | -174 | -174 | -159 |
| 100 kHz | -175 | -176 | -161 |

Temperature Stability

±5 x 10⁻⁹, 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

5.56 x 4 x 1"

Connectors

RF Outputs: SMA(f)
 Power, Monitoring: Feed Thru Terminals
 GND: Ground Turret

Packaging

Nickel-plated machined aluminum housing – J1PMX-01

Mounting

Threaded inserts on base, #2-56, 9 places

POWER REQUIREMENTS

Warm-Up Power

≤ 19 Watts for 5 minutes

Total Power

≤ 12 Watts at +25°C

Supply Voltage

+15 VDC ±5%

ADJUSTMENT

Mechanical Tuning (Internal 10 MHz)

±1 x 10⁻⁶

Loop BW (Internal 100 MHz PLL)

Target Bandwidth: ~300 Hz
 Type 2 Loop

CRYSTAL

Type

100 MHz SC-cut (x5)

OTHER

Label

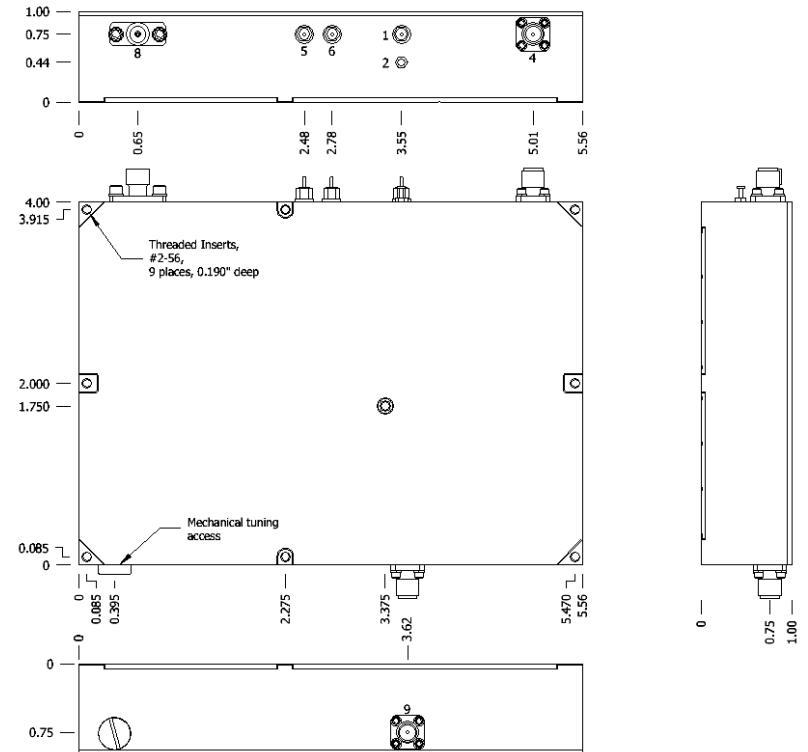
Use conventional label with the following information:
 501-25937 (Current Rev.)
 10M/100M/500M MXO-PLMX
 +15 VDC
 Serial # - Date Code
 (Mark connectors with function)

Test Data

- Output Level
- Phase Noise
- Temperature Stability
- Harmonics, Subs, Products, Spurs
- Power – Warm-up and Total

| REV | DATE | REVISION RECORD | DWN | AUTH |
|-----|----------|-----------------|-----|------|
| - | 02-07-13 | Initial Release | PAC | |
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| | | | | |
| | | | | |

| J1PMX-01 MXO Connections | |
|--------------------------|--------------------|
| Connector | Function |
| 1 | Supply Voltage |
| 2 | Ground, Case |
| 4 | RF Output C |
| 5 | Phase Lock Voltage |
| 6 | Phase Lock Alarm |
| 8 | RF Output A |
| 9 | RF Output B |



Wenzel Associates, Inc.
 Austin, Texas

| | | | | |
|---|-----------------------------|------------------------------|-----------------------|-------------|
| Title: 10 MHz, 100 MHz & 500 MHz Multiplied Crystal Oscillator (MXO-PLMX) | | | | |
| P/N: 501-25937 | Rev: - | Date: 02-07-13 | 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 |