**INPUT**

**Frequency**
10 MHz

**Level**
+7 dBm ±6 dB into 50 ohms

**OUTPUT**

**Frequency**
10.0 GHz

**Level**
+17 dBm ±2 dB into 50 ohms

**STABILITY**

**Aging (free-running)**
$1 \times 10^{-6}$ first year
after 30 days operating, typical
$5 \times 10^{-7}$ second year, typical
$3 \times 10^{-7}$ per year thereafter, typical

**Phase Noise L(f), typical**

| | |
|---|---|
| 10 Hz | -65 dBc/Hz |
| 100 Hz | -92 dBc/Hz |
| 1 KHz | -113 dBc/Hz |
| 10 KHz | -129 dBc/Hz |
| 30 KHz | -130 dBc/Hz |
| 100 KHz | -132 dBc/Hz |
| 1 MHz | -148 dBc/Hz |
| 3 MHz | -150 dBc/Hz |
| 10 MHz | -150 dBc/Hz |

**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**
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**
≤ 16 Watts for 5 minutes

**Total Power**
≤ 13 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 (x100)

**OTHER**

**Design**
Includes a SAW filter for improving the
phase noise beyond the ~300 kHz offset

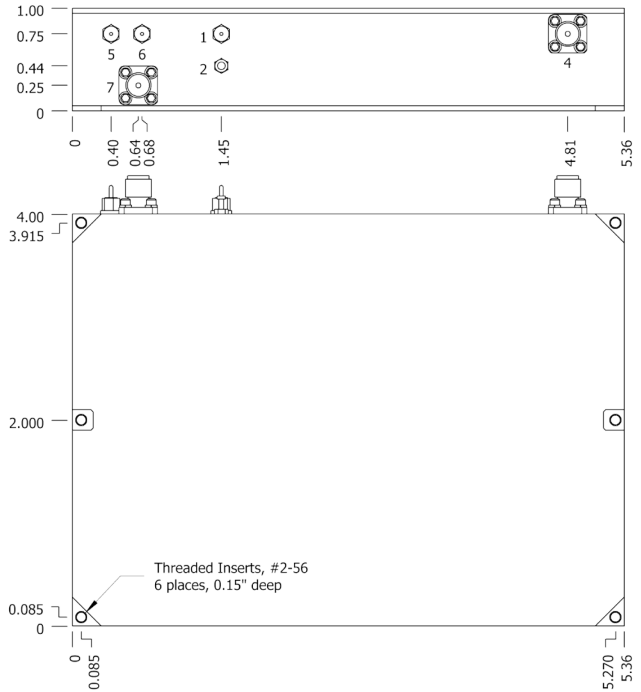
**Label**
Use conventional label with the
following information:
501-29482 (Current Rev.)
10 GHz MXO-PLD
+15 VDC
Serial # - Date Code
(Mark connectors with function)

**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 |
|---|---|---|---|---|
| - | 10-18-15 | Initial Release | Liz | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

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:
**10 GHz Multiplied Crystal Oscillator (GQMXO-PLD)**

| P/N: | Rev: | Date: | Drawn: | Ref: |
|---|---|---|---|---|
| **501-29482** | **-** | **10-18-15** | | |

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