

OUTPUTS

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±2 dBm
B	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	500 MHz
10 Hz	-140	-105
100 Hz	-160	-123
300 Hz	-165	-129
1 kHz	-172	-142
10 kHz	-174	-159
100 kHz	-175	-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

Mounting

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

POWER REQUIREMENTS

Warm-Up Power

≤ 18 Watts for 5 minutes

Total Power

≤ 11 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

10 MHz SC-cut
100 MHz SC-cut (x5)

ENVIRONMENT

Operating Temperature

0 to +50°C

Storage Temperature

-50 to +85°C

OTHER

Label

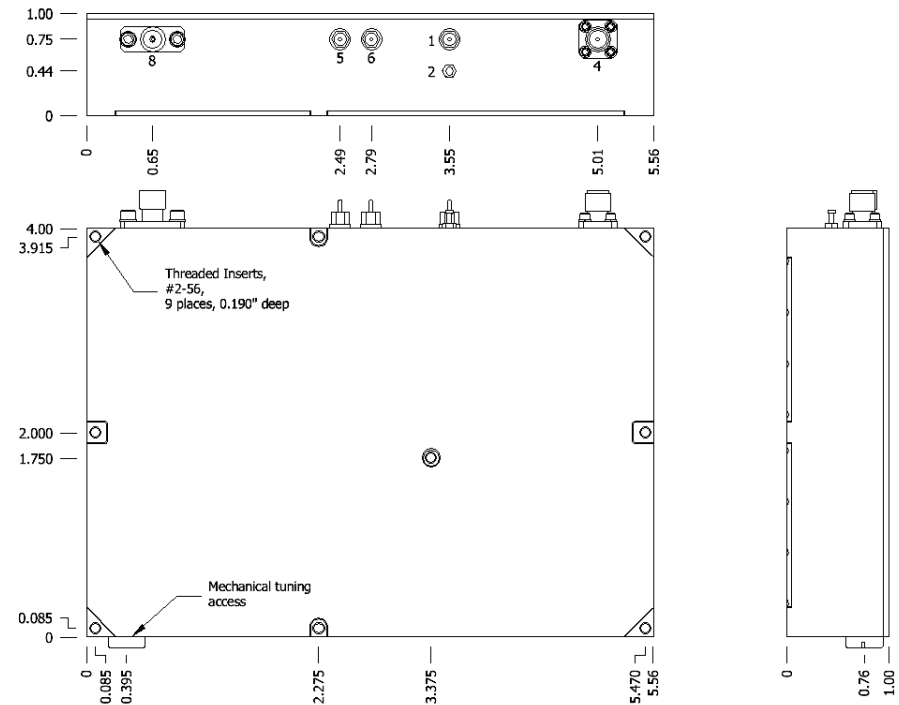
Use conventional label with the following information:
501-25495 (Current Rev.)
10M/500M MXO-PLMX
+15 VDC
Serial # - Date Code
(Mark connectors with function)

Test Data

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

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

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



WA Wenzel Associates, Inc.
Austin, Texas

Title:
10 & 500 MHz Multiplied Crystal Oscillator (MXO-PLMX)

P/N: 501-25495	Rev: -	Date: 07-02-13	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