

OUTPUTS

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±1.5 dBm
B	100 MHz	+20 ±1.5 dBm

VSWR

< 1.5:1, typical

STABILITY

Aging

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

Phase Noise L(f), dBc/Hz

	10 MHz	100 MHz
1 Hz	-110	-86
10 Hz	-140	-116
100 Hz	-162	-137
300 Hz	-167	-137
1 kHz	-172	-151
10 kHz	-174	-172
100 kHz	-174	-174
1 MHz	-174	-175
≥10 MHz	-174	-175

Temperature Stability

±5 x 10⁻⁸, 0 to +50°C (Ref. +25°C)

Harmonics

≤ -25 dBc

Sub-Harmonics

≤ -70 dBc

PLL Reference Products

≤ -70 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

≤ 17 Watts for 5 minutes

Total Power

≤ 10 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: ~250 Hz

Type 2 Loop

CRYSTAL

Type

10 MHz SC-cut

100 MHz SC-cut

ENVIRONMENT

Operating Temperature

0 to +50°C

Storage Temperature

-50 to +85°C

Relative Humidity

Up to 65%, non-condensing, operating

OTHER

Label

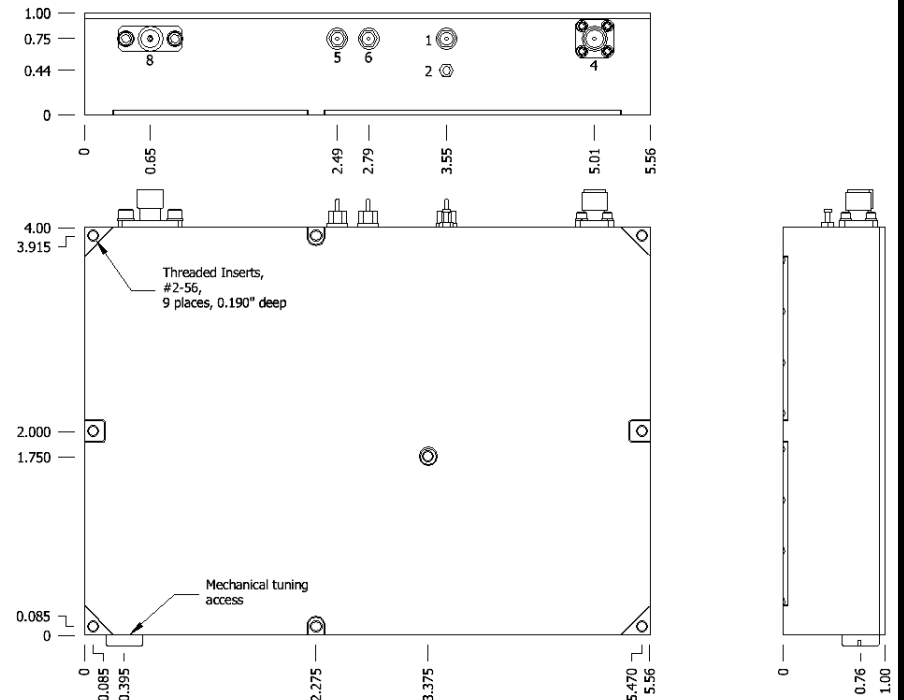
Use conventional label with the following information:
500-26745 (Current Rev.)
10M/100M MXO-PLMX
+15 VDC
Serial # - Date Code
(Mark connectors with function)


Test Data

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

REV	DATE	REVISION RECORD	DWN	AUTH
-	04-11-13	Initial Release	Liz	

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



 Wenzel Associates, Inc. Austin, Texas				
Title:				
10/100 MHz Ultra Low Noise Crystal Oscillator (MXO-PLMX)				
P/N:	Rev:	Date:	Drawn:	Ref:
501-26745	-	04-11-13		26045
Tolerances: (except as noted) Dimensions are in inches	0.XX Dec: ±0.030"	0.XXX Dec: ±0.010"	FSCM: 62821	Page 1 of 1