

OUTPUTS

Output	Frequency	Level (into 50Ω)
A	10 MHz	+13 ±2 dBm
B	11.52 GHz	+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	11.52 GHz
10 Hz	-140	-76
100 Hz	-160	-94
300 Hz	-165	-95
1 kHz	-172	-108
10 kHz	-174	-128
100 kHz	-175	-130

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

7.46 x 4 x 1"

Connectors

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

Packaging

Nickel-plated machined aluminum housing – J3PMX

Mounting

Threaded inserts on base, #2-56, 11 places

POWER REQUIREMENTS

Warm-Up Power

≤ 27 Watts for 5 minutes

Total Power

≤ 20 Watts at +25°C

Supply Voltage

+15 VDC ±5%

ADJUSTMENT

Mechanical Tuning (Internal 10 MHz)

±1 x 10⁻⁶

Loop BW (Internal 90 MHz PLL)

Target Bandwidth: ~250 Hz
 Type 2 Loop

CRYSTAL

Type

10 MHz
 90 MHz SC-cut (x128)

OTHER

Label

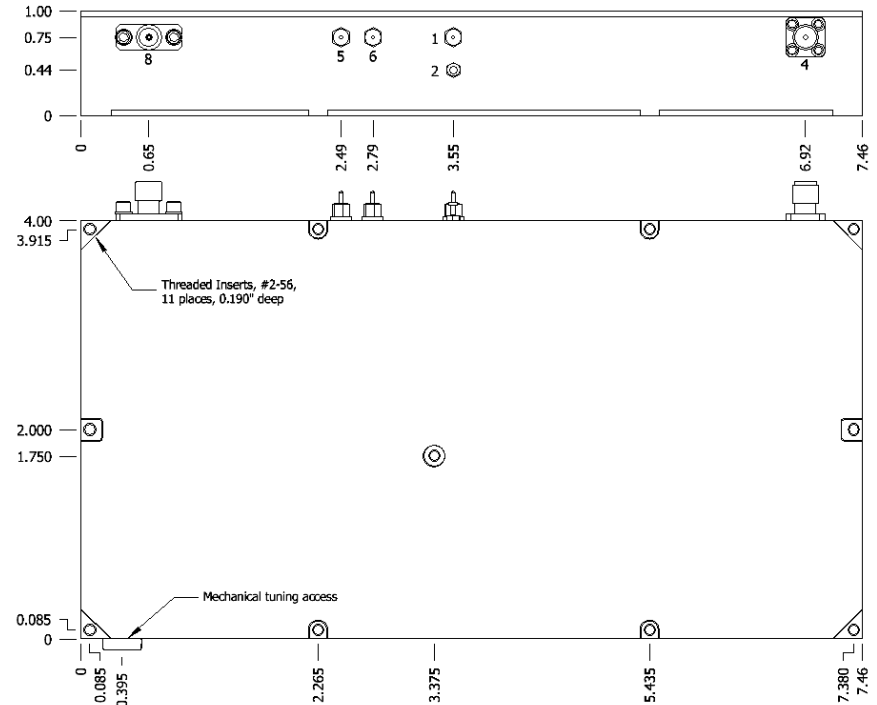
Use conventional label with the following information:
 501-27084 (Current Rev.)
 10M/11.52GHz MXO-PLMX
 +15 VDC
 Serial # - Date Code
 (Mark connectors with function)


Test Data

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

REV	DATE	REVISION RECORD	DWN	AUTH
-	08-15-13	Initial Release	PAC	JR

J3PMX 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 MHz & 11.52 GHz Multiplied Crystal Oscillator (MXO-PLMX)				
P/N: 501-27084	Rev: -	Date: 08-15-13	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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