INPUT

Frequency
10 MHz

Level
+13 dBm ±1 dB into 50 ohms

OUTPUTS

Output	Frequency	Level (into 50Ω)
A	80 MHz	+13 ±2 dBm
B	720 MHz	+13 ±2 dBm

STABILITY

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

Phase Noise L(f), dBc/Hz, typical (free-running)

	80 MHz	720 MHz
10 Hz	-105	-84
100 Hz	-135	-114
1 kHz	-160	-139
10 kHz	-175	-154
100 kHz	-176	-155

Temperature Stability (free-running)
$\pm 5 \times 10^{-7}$, 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
5.36 x 4 x 1"

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

Packaging
Nickel-plated machined aluminum housing – J2PM-03

Mounting
Threaded inserts on base, #2-56, 6 places

POWER REQUIREMENTS

Warm-Up Power
≤ 15 Watts for 5 minutes

Total Power
≤ 12 Watts at +25°C

Supply Voltage
+15 VDC ±5%

ADJUSTMENT

Loop BW (Internal 80 MHz PLL)
Target Bandwidth: ~300 Hz
Type 2 Loop

CRYSTAL

Type
80 MHz SC-cut (x9)

ENVIRONMENT

Operating Temperature
0 to +50°C

Storage Temperature
-50 to +85°C

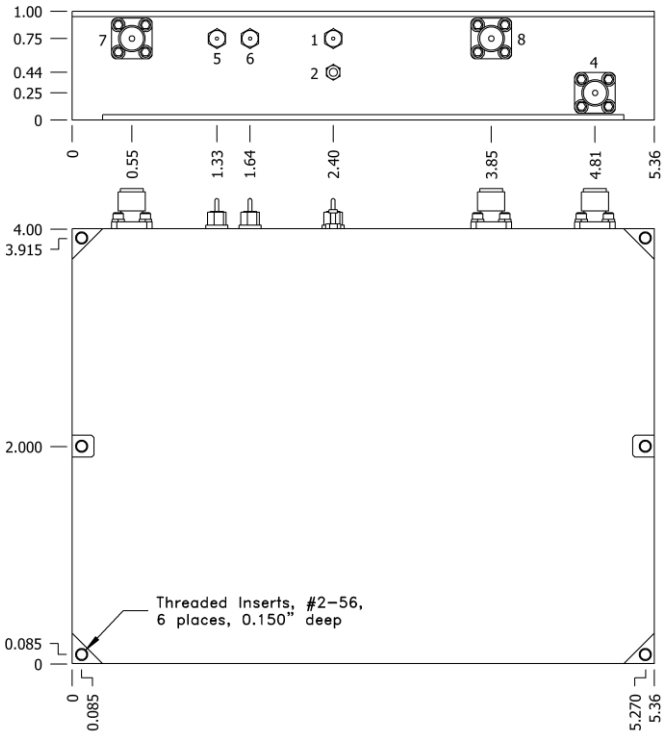
OTHER

Label
Use conventional label with the following information:
501-30391 (Current Rev.)
80M/720M MXO-PLM
+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
-	10-06-16	Initial Release	PAC	

J2PM-13 MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
4	RF Output B
5	Phase Lock Voltage
6	Phase Lock Alarm
7	External Reference Input
8	RF Output A



Wenzel Associates, Inc.
Austin, Texas

Title:
80 & 720 MHz Multiplied Crystal Oscillator (MXO-PLM)

P/N:	Rev:	Date:	Drawn:	Ref:
501-30391	-	10-06-16		

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