

OUTPUT

Frequency

2 GHz

Level

+13 dBm ± 2 dB into 50 ohms

STABILITY

Aging

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), typical

100 Hz -102 dBc/Hz

1 KHz -129 dBc/Hz

10 KHz -146 dBc/Hz

100 KHz -147 dBc/Hz

Temperature Stability

$\pm 5 \times 10^{-7}$, 0° to +50°C (Ref +25°C)

Harmonics

≤ -25 dBc

Sub-Harmonics

≤ -60 dBc

Spurious

≤ -80 dBc, excluding power
supply line related spurs

MECHANICAL

Dimensions

3.21 x 4 x 1"

Connectors

SMA(f) and solder pins

Packaging

Nickel-plated machined
aluminum housing – J2

Mounting

Threaded inserts on base,
#2-56, 6 places, 0.190" deep

POWER REQUIREMENTS

Warm-Up Power

≤ 12.0 Watts for 5 minutes

Total Power

≤ 8.5 Watts at +25°C

Supply Voltage

+15 VDC $\pm 5\%$

ADJUSTMENT

Mechanical Tuning

$\pm 4 \times 10^{-6}$

Electrical Tuning

$\pm 5 \times 10^{-7}$, ± 5 VDC

Negative slope

CRYSTAL

Type

100 MHz SC-cut (x20)

OTHER

Label

Use conventional label with the
following information:

501-23355 (Current Rev.)

2 GHz MXO-FR

+15 VDC

Serial # - Date Code

(Mark connectors with function)

Test Data

Output Level

Phase Noise

Temperature Stability

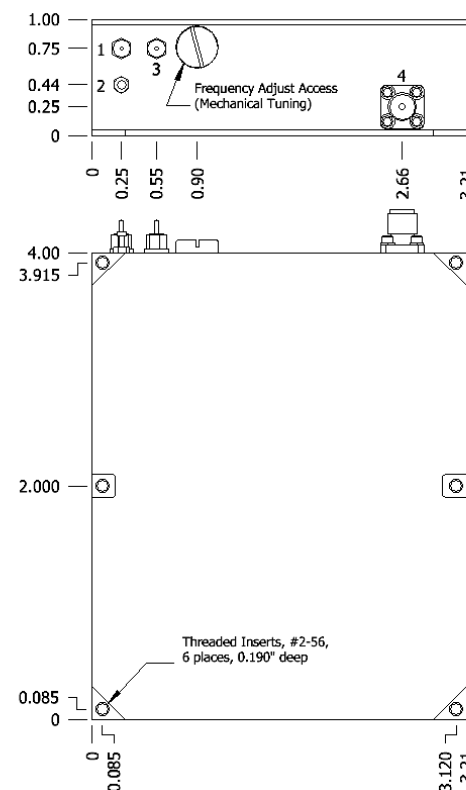
Harmonics, Subs, Spurious

Power – Warm-up and Total

Tuning – MT and ET

REV	DATE	REVISION RECORD	DWN	AUTH
-	12-14-10	Initial Release	PAC	JR
A	01-17-12	Phase Noise; Power; MT	PAC	

J2 MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
3	Electrical Tuning
4	RF Output



Wenzel Associates, Inc.

Austin, Texas

Title:

2 GHz Multiplied Crystal Oscillator (MXO-FR)

P/N:

501-23355

Rev:

A

Date:

01-17-12

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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