

OUTPUT A

Frequency

2 GHz

Level

+13 dBm ± 2 dB into 50 ohms

OUTPUT B

Frequency

4 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), dBc/Hz, typical

	2 GHz	4 GHz
100 Hz	-102	-96
1 kHz	-129	-123
10 kHz	-146	-140
100 kHz	-147	-141

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

4.16 x 4 x 1"

Connectors

RF Outputs: SMA(f)

Power, ET: Feed Thru Terminals

GND: Ground Turret

Packaging

Nickel-plated machined
aluminum housing – J3-35

Mounting

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

POWER REQUIREMENTS

Warm-Up Power

≤ 14 Watts for 5 minutes

Total Power

≤ 10.5 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 (x40)

OTHER

Label

Use conventional label with the
following information:

501-31218 (Current Rev.)

2G/4G MXO-FR

+15 VDC

Serial # - Date Code

(Mark connectors with function)

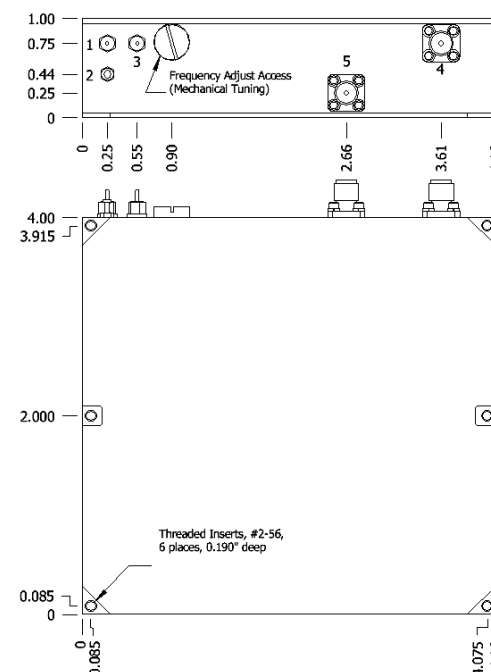
Test Data

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

REV	DATE	REVISION RECORD	DWN	AUTH
-	09-28-17	Initial Release	CB	

J3-35 MXO Connections

Connector	Function
1	Supply Voltage
2	Ground, Case
3	Electrical Tuning
4	RF Output B
5	RF Output A



Wenzel Associates, Inc.

Austin, Texas

Title:

2 GHz & 4 GHz Multiplied Crystal Oscillator (MXO-FR)

P/N:

501-31218

Rev:

-

Date:

09-28-17

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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