

INPUT

Frequency

10 MHz

Level

+13 dBm ± 1 dB into 50 ohms

OUTPUT

Frequency

3 GHz

Level

+13 dBm ± 2 dB into 50 ohms

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), typical (free-running)

100 Hz -107 dBc/Hz

1 KHz -131 dBc/Hz

10 KHz -152 dBc/Hz

100 KHz -153 dBc/Hz

Temperature Stability

$\pm 5 \times 10^{-7}$ free-running from 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

MECHANICAL

Dimensions

6.36 x 4 x 1"

Connectors

RF Outputs: SMA(f)

Power, ET: Feed Thru Terminals

GND: Ground Turret

Packaging

Nickel-plated machined
aluminum housing – G2PM

Mounting

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

POWER REQUIREMENTS

Warm-Up Power

≤ 22 Watts for 5 minutes

Total Power

≤ 18 Watts at +25°C

Supply Voltage

+15 VDC $\pm 5\%$

ADJUSTMENT

Target Bandwidth: ~ 300 Hz

Type 2 Loop

PHASE LOCK STATUS

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

Electrical tuning monitor pin supplied

CRYSTAL

Type

100 MHz SC-cut (x30)

OTHER

Label

Use conventional label with the
following information:

501-29189 (Current Rev.)

3 GHz GMXO-PLM

+15 VDC

Serial # - Date Code

(Mark connectors with function)

Test Data

Output Level

Phase Noise (free-running)

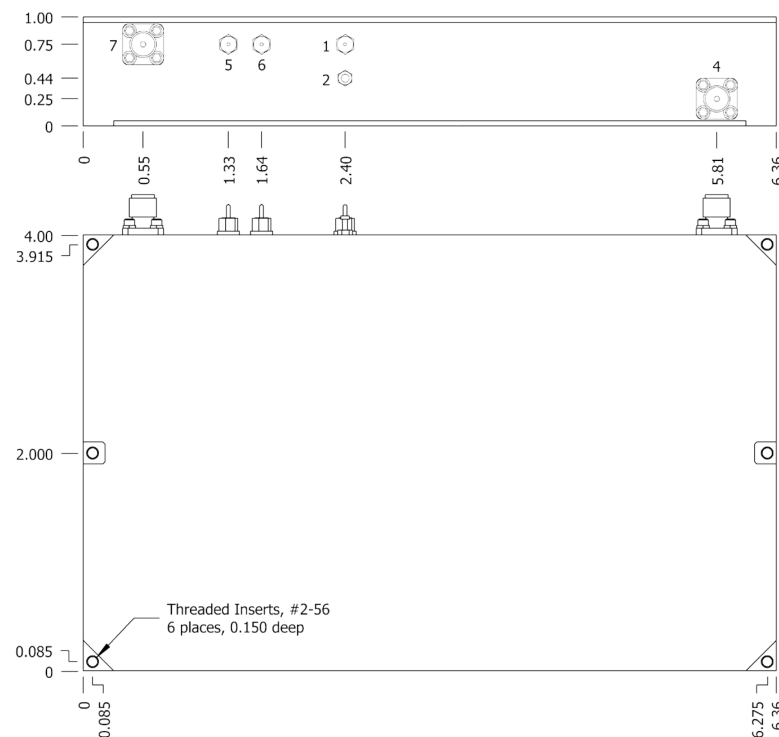
Temperature Stability (free-running)

Harmonics, Subs, Products, Spurious

Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-01-15	Initial Release	CB	
A	07-07-15	Improved Phase Noise	CB	

G2PM MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
4	RF Output
5	Phase Lock Voltage
6	Phase Lock Alarm
7	External Reference Input



Wenzel Associates, Inc.

Austin, Texas

Title:

**3 GHz Golden
Multiplied Crystal Oscillator (GMXO-PLM)**

P/N:

501-29189

Rev:

A

Date:

07-07-15

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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