

## INPUT

### Frequency

10 MHz

### Level

+13 dBm  $\pm 1$  dB into 50 ohms

## OUTPUTS

Output	Frequency	Level (into 50 $\Omega$ )
--------	-----------	---------------------------

A	100 MHz	+16 $\pm 2$ dBm
---	---------	-----------------

B	2 GHz	+13 $\pm 2$ dBm
---	-------	-----------------

## STABILITY

### Aging (free-running)

$1 \times 10^{-6}$  first year

after 30 days operating, typical

$5 \times 10^{-7}$  second year, typical

$3 \times 10^{-7}$  per year thereafter, typical

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

	100 MHz	2 GHz
--	---------	-------

10 Hz	-105	-76
-------	------	-----

100 Hz	-136	-107
--------	------	------

1 kHz	-162	-133
-------	------	------

10 kHz	-183	-154
--------	------	------

100 kHz	-188	-157
---------	------	------

### 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 Divider 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-03

## Mounting

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

## POWER REQUIREMENTS

### Warm-Up Power

$\leq 20.5$  Watts for 5 minutes

### Total Power

$\leq 16.5$  Watts at +25°C

### Supply Voltage

+15 VDC  $\pm 5\%$

## ADJUSTMENT

Target Bandwidth:  $\sim 300$  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 (x20)

## OTHER

### Label

Use conventional label with the  
following information:

501-30246 (Current Rev.)

100M/2G GMXO-PLM

+15 VDC

Serial # - Date Code

(Mark connectors with function)

## Test Data

Output Level

Phase Noise (free-running)

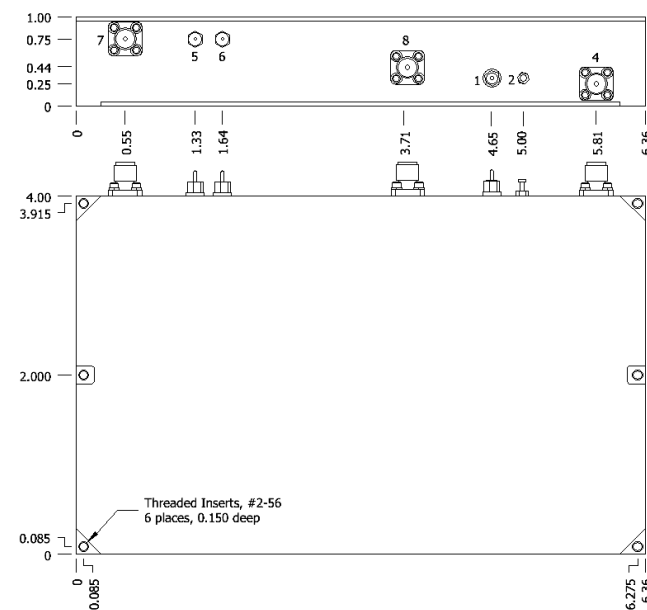
Temperature Stability (free-running)

Harmonics, Subs, Products, Spurious

Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	08-09-16	Initial Release	CB	

G2PM-03 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:

**100 MHz & 2 GHz Golden  
Multiplied Crystal Oscillator (GMXO-PLM)**

P/N:

**501-30246**

Rev:

**-**

Date:

**08-09-16**

Drawn:

Ref:

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:

**$\pm 0.030$ "**

0.XXX Dec:

**$\pm 0.010$ "**

FSCM:

**62821**

Page 1 of 1