

## INPUT

### Frequency

10 MHz

### Level

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

## OUTPUTS

RF Output	Frequency	Output Level (into 50 ohms)
A	100 MHz	+16 dBm $\pm$ 2 dB
B	6 GHz	+16 dBm $\pm$ 2 dB

## STABILITY

### Aging (free-running)

1 x 10<sup>-6</sup> first year

after 30 days operating, typical

5 x 10<sup>-7</sup> second year, typical

3 x 10<sup>-7</sup> per year thereafter, typical

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

	100 MHz	6 GHz
100 Hz	-136 dBc/Hz	-99 dBc/Hz
1 kHz	-162 dBc/Hz	-126 dBc/Hz
10 kHz	-183 dBc/Hz	-143 dBc/Hz
100 kHz	-188 dBc/Hz	-144 dBc/Hz

### Temperature Stability

$\pm$ 5 x 10<sup>-7</sup> 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

### 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

7.31 x 4 x 1"

## Connectors

RF Input/Output: SMA(f)

Power, Monitoring: Feed Thru Terminals

GND: Ground Turret

## Packaging

Nickel-plated machined  
aluminum housing – G3PM-05

## Mounting

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

## POWER REQUIREMENTS

### Warm-Up Power

$\leq$  24 Watts for 5 minutes

### Total Power

$\leq$  20 Watts at +25°C

### Supply Voltage

+15 VDC  $\pm$ 5%

## ADJUSTMENT

### Loop BW

Target Bandwidth: ~200 Hz

Type 2 Loop

## CRYSTAL

### Type

100 MHz SC-cut (x60)

## OTHER

### Label

Use conventional label with the  
following information:

501-28171 (Current Rev.)

100M/6G GMXO-PLM

+15 VDC

Serial # - Date Code

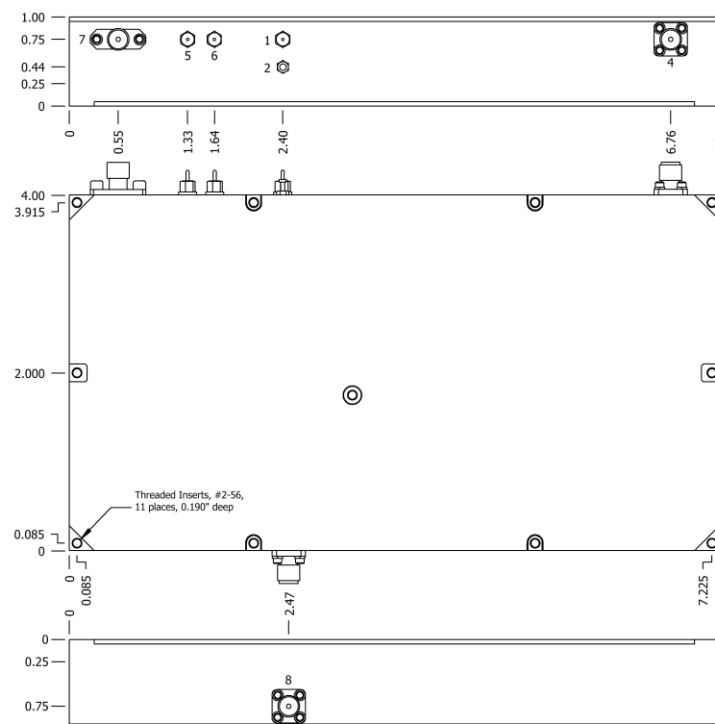
(Mark connectors with function)

## Test Data

- Output Level
- Phase Noise – free-running
- Harmonics, Subs, Products, Spurious
- Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	06-12-14	Initial Release	PAC	

G3PM-05 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



PRELIMINARY DRAWING

**Wenzel Associates, Inc.**

Austin, Texas

Title:

**100 MHz & 6 GHz Multiplied Crystal Oscillator  
(GMXO-PLM)**

P/N:

**501-28171**

Rev:

**-**

Date:

**06-12-14**

Drawn:

Ref:

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:  
 **$\pm$ 0.030"**

0.XXX Dec:  
 **$\pm$ 0.010"**

FSCM:  
**62821**

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