

## INPUT

### Frequency

10 MHz

### Level

+7 dBm  $\pm$ 6 dB into 50 ohms

## OUTPUT

### Frequency

640 MHz

### Level

+16 dBm  $\pm$ 2 dB into 50 ohms

## 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

### Output Phase Noise L(f)

#### (Free-Running)

10 Hz -85 dBc/Hz

100 Hz -116 dBc/Hz

1 KHz -144 dBc/Hz

10 KHz -167 dBc/Hz

100 KHz -168 dBc/Hz

### Temperature Stability

$\pm$ 5 x 10<sup>-7</sup> free-running from 0 to +50°C  
(Ref. +25°C)

### Harmonics

$\leq$  -25 dBc

### Sub-Harmonics

$\leq$  -60 dBc

### PLL Divider Products

$\leq$  -60 dBc

### Spurious

$\leq$  -80 dBc, excluding power  
supply line related spurs

## MECHANICAL

### Dimensions

4.45 x 4 x 1"

### Connectors

RF Outputs: SMA(f)

Power, ET: Feed Thru Terminals

GND: Ground Turret

### Packaging

Nickel-plated machined  
aluminum housing – G1P

## Mounting

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

## POWER REQUIREMENTS

### Warm-Up Power

$\leq$  15 Watts for 5 minutes

### Total Power

$\leq$  11.5 Watts at +25°C

### Supply Voltage

+15 VDC  $\pm$ 5%

## ADJUSTMENT

### Loop BW

Target Bandwidth: < 10 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

128 MHz SC-cut (x5)

### Label

Use conventional label with the  
following information:

501-27252 (Current Rev.)

640 MHz GMXO-PLD

+15 VDC

Serial # - Date Code

(Mark connectors with function)

### Test Data

Output Level

Phase Noise (free-running)

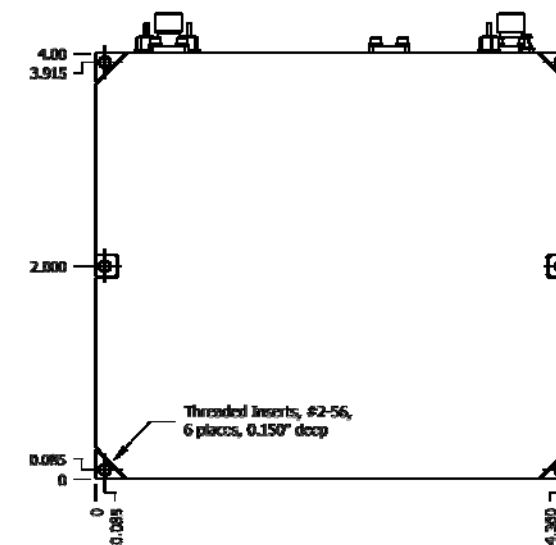
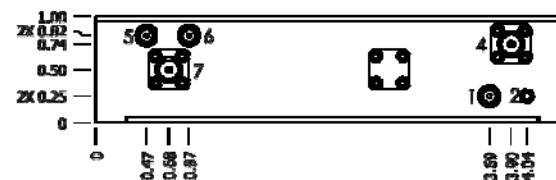
Temperature Stability (free-running)

Harmonics, Subs, Products, Spurious

Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	10-14-13	Initial Release	LR/PC	
A	02-06-14	Output Level, Phase Noise, Current	PAC	

G1P MXD 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



**Wenzel Associates, Inc.**

Austin, Texas

Title:

**640 MHz Golden Multiplied Crystal Oscillator  
( GMXO-PLD )**

P/N:

**501-27252**

Rev:

**A**

Date:

**02-06-14**

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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