

INPUT

Frequency

10 MHz

Level

+7 dBm \pm 6 dB into 50 ohms

OUTPUTS

Output	Frequency	Level (into 50 Ω)
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A	500 MHz	+13 \pm 2 dBm
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B	1 GHz	+13 \pm 2 dBm
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STABILITY

Aging

1 x 10⁻⁶ first year

after 30 days operating, typical

5 x 10⁻⁷ second year, typical

3 x 10⁻⁷ per year thereafter, typical

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

	500 MHz	1 GHz
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10 Hz	-89	-83
100 Hz	-121	-115
1 kHz	-147	-140
10 kHz	-167	-160
100 kHz	-169	-162
1 MHz	-170	-162
10 MHz	-170	-162

Temperature Stability

\pm 5 x 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

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 voltage monitor pin supplied

MECHANICAL

Dimensions

5.40 x 4 x 1"

Connectors

RF Outputs: SMA(f)

Power, ET: Feed Thru Terminals

GND: Ground Turret

Packaging

Nickel-plated machined

aluminum housing – G2P-13

Mounting

Threaded inserts on base,

#2-56, 6 places

POWER REQUIREMENTS

Warm-Up Power

\leq 14 Watts for 5 minutes

Total Power

\leq 10.5 Watts at +25°C

Supply Voltage

+15 VDC \pm 5%

ADJUSTMENT

Target Bandwidth: \leq 10 Hz

Type 2 Loop

CRYSTAL

Type

100 MHz SC-cut (x5, x2)

OTHER

Label

Use conventional label with the
following information:

501-28258 (Current Rev.)

500M/1G GMXO-PLD

+15 VDC

Serial # - Date Code

(Mark connectors with function)

Test Data

Output Level

Phase Noise (free-running)

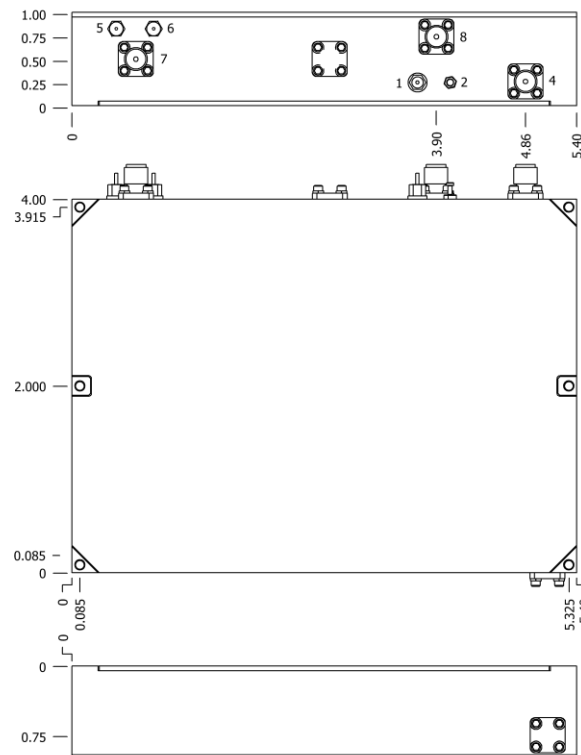
Temperature Stability (free-running)

Harmonics, Subs, Products, Spurious

Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-16-14	Initial Release	LR/PAC	

G2P-13 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:

**500 MHz & 1 GHz Golden
Multiplied Crystal Oscillator (GMXO-PLD)**

P/N:

501-28258

Rev:

-

Date:

07-16-14

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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