INPUT

Frequency

10 MHz

Level

+7 dBm ±6 dB into 50 ohms

OUTPUT

Frequency

4 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

Output Phase Noise L(f)
(Free-Running, typical)

10 Hz	-72 dBc/Hz
100 Hz	-102 dBc/Hz
1 KHz	-129 dBc/Hz
10 KHz	-149 dBc/Hz
100 KHz	-150 dBc/Hz
1 MHz	-150 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 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 – G3P

Mounting

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

POWER REQUIREMENTS

Warm-Up Power

≤ 20.5 Watts for 5 minutes

Total Power

≤ 16.5 Watts at +25°C

Supply Voltage

+15 VDC ±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

100 MHz SC-cut (x40)

OTHER

Label

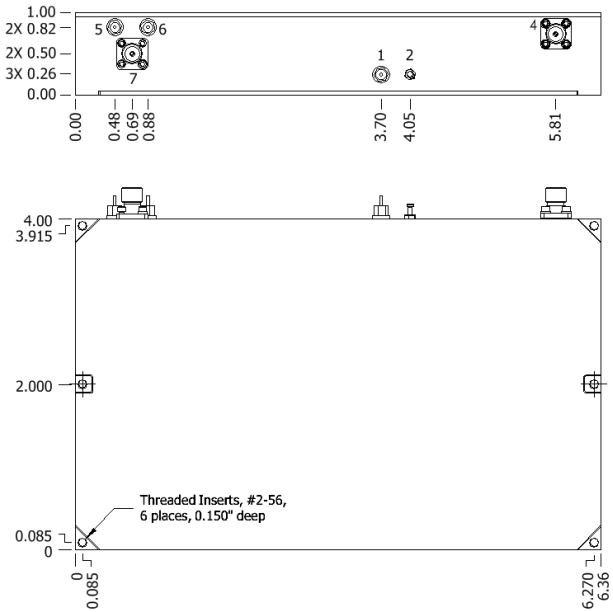
Use conventional label with the
following information:
501-31433 (Current Rev.)
4 GHz GMXO-PLD
+15 VDC
Serial # - Date Code
(Mark connectors with function)

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
-	01-29-18	Initial Release	CB	
A	07-19-18	Modified 10K, 100K, 1M offsets	CB	

G3P 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:

4 GHz Golden Multiplied Crystal Oscillator (GMXO-PLD)

P/N:	Rev:	Date:	Drawn:	Ref:
501-31433	**A**	**07-19-18**		

Tolerances: (except as noted) Dimensions are in inches	0.XX Dec:	0.XXX Dec:	FSCM:	Page 1 of 1
	±0.030”	±0.010”	62821	