INPUT
Frequency
10 MHz
Level
+7 dBm ±6 dB into 50 ohms
OUTPUT
Frequency
160 MHz
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)

10 Hz	-102 dBc/Hz
100 Hz	-132 dBc/Hz
1 KHz	-158 dBc/Hz
10 KHz	-173 dBc/Hz
100 KHz	-175 dBc/Hz

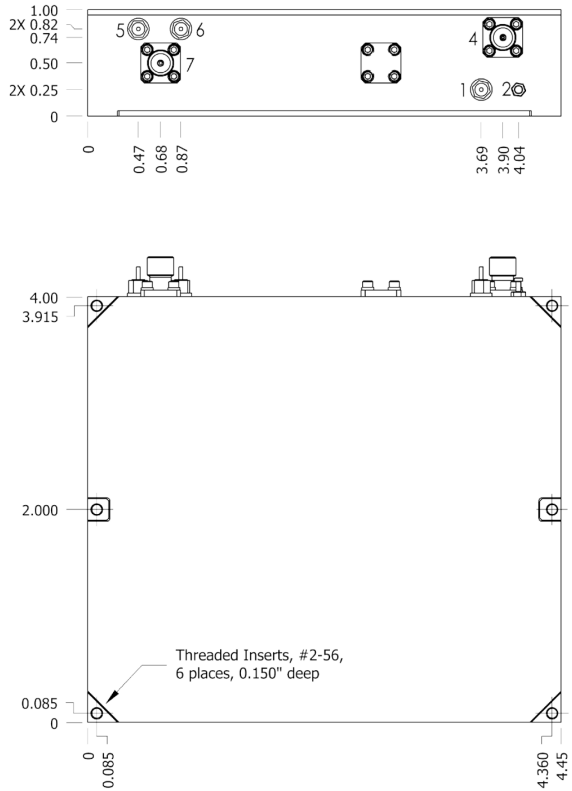
Temperature Stability
$\pm 5 \times 10^{-7}$ free-running from 0 to +50°C
(Ref. +25°C)
Harmonics
≤ -25 dBc
Sub-Harmonics
≤ -60 dBc
PLL Divider Products
≤ -60 dBc
Spurious
≤ -80 dBc, excluding power
supply line related spurs
MECHANICAL
Dimensions
4.45 x 4 x 1”
Connectors
RF Outputs: SMA(f)
Power, ET: 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
≤ 13.5 Watts for 5 minutes
Total Power
≤ 9.5 Watts at +25°C
Supply Voltage
+15 VDC ±5%
ADJUSTMENT
Loop BW
Target Bandwidth: < 30 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
80 MHz SC-cut (x2)
Label
Use conventional label with the
following information:
501-31717 (Current Rev.)
160 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
-	05-23-18	Initial Release	BH	MG
A	06-01-18	Improved L(close-in), Power and LBW; reduced output level to +13 dBm	CB	MG

G1P 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



Wenzel Associates, Inc.
Austin, Texas

Title:
160 MHz Golden Multiplied Crystal Oscillator (GMXO-PLD)

P/N:	Rev:	Date:	Drawn:	Ref:
501-31717	A	06-01-18		27768

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