

LOW NOISE CRYSTAL OSCILLATORS > GOLDEN MXO (PLO W. DIVIDERS)

FEATURES:

- PLO with Integrated Multipliers
- Frequency Dividers Used When Phase Locking
- Frequencies from 200 MHz to 12 GHz, fixed
- Golden Ultra Low Phase Noise Performance
- Excellent Spectral Purity
- Easily Customized to Specific Frequency

APPLICATIONS:

- Military Applications
- Airborne, Ground, Shipboard
- Radar Systems
- Tactical Radio
- Vehicular Communication
- Reference Source

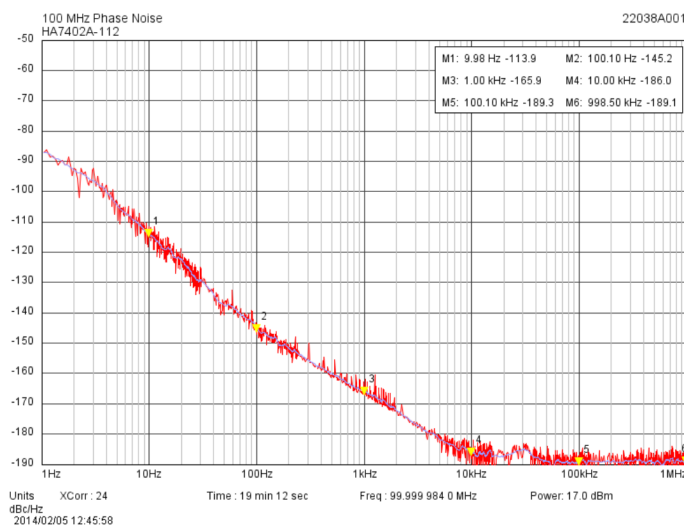


DESCRIPTION:

The Golden Multiplied Crystal Oscillator (GMXO-PLD) is a fixed frequency industry leading ultra-low noise Golden PLO with a phase noise floor as low as -190 dBc/Hz, highly integrated with one or more "special" low noise multipliers stages to create a high performance frequency signal between 200 MHz and 12 GHz with unsurpassed phase noise performance in an OCXO based product. The GMXO-PLD also

Electrical Specifications	
Output Frequency (fixed; specify within range)	200 MHz to 12 GHz
Output Level	+13 dBm $\pm$ 2 dB into 50 ohms
External Reference Input Frequency	10 MHz (standard; other options available)
External Reference Input Level	+7 dBm $\pm$ 6 dB into 50 ohms
Aging	
	Per day after 30 days operating, typical
	5×10^{-9}
	Second year, typical
	5×10^{-7}
Per year thereafter, typical	
	3×10^{-7}
Temperature Stability (consult factory for other ranges)	
Range E: 0 to +50°C (Ref: +25°C)	$\leq \pm 5 \times 10^{-7}$
	$\leq \pm 1 \times 10^{-6}$
Range F: -20 to +70°C (Ref: +25°C)	
Phase Noise	
(Frequency Dependent: See Std Specifications and Part Numbers table below for details)	
Harmonics	≤ -25 dBc
Sub-Harmonics	≤ -60 dBc
PLL Divider Products	≤ -60 dBc
Spurious	≤ -80 dBc
PLL Loop Bandwidth	≤ 10 Hz, typical
Supply Voltage	+15 VDC ($\pm$ 5%)
Warm-up	≤ 12 to 22 Watts for 5 minutes at +25°C
Total	≤ 9 to 19 Watts at +25°C
Crystal Type	SC-cut
Crystal Acceleration Sensitivity	5×10^{-10} /g, typical; to 2×10^{-10} /g, available
Mechanical	
Packaging	Nickel-Plated Machined Aluminum
Dimensions	See Mechanical Drawing
Connectors / Mounting	SMA(f) and solder pins on side Threaded Inserts, #2-56, 6 places

500 MHz Golden MXO-PLD
P/N: 501-27216



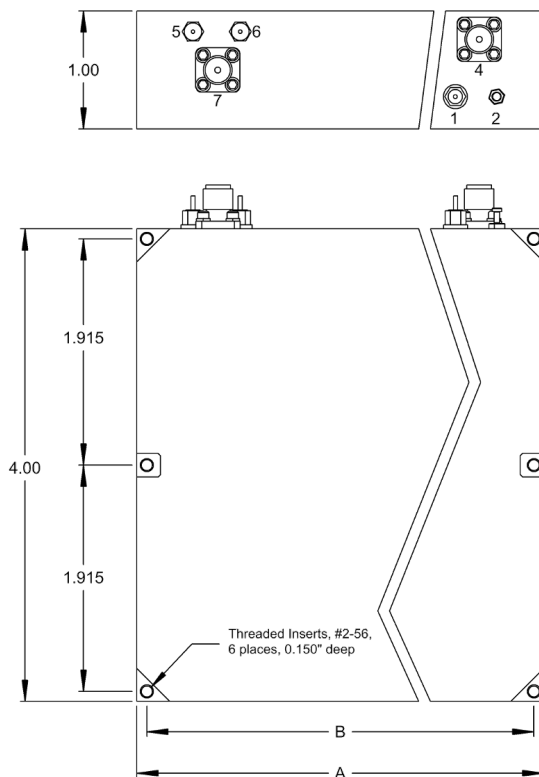


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GMXO-PLD

Package	Dimension A	Dimension B
G1P	4.45	4.275
G2P	5.40	5.230
G3P	6.36	6.185

Connector	Function
1	Supply Voltage
2	Ground, Case
4	RF Output
5	Phase Lock Voltage
6	Phase Lock Alarm
7	External Reference Input

Standard Specifications and Part Numbers **

Part Number	Output Frequency * (MHz)	Typical Phase Noise [dBc/Hz], Static * [free-running]					Output Level (dBm) * into 50 ohms	Temperature Stability (Ref: +25°C) *	Supply Voltage (VDC)	Acceleration Sensitivity (/g per axis) *	External Reference Frequency (MHz)	Package / Connectors	Package Size (inches)
		10 Hz	100 Hz	1 kHz	10 kHz	100 kHz							
501-27768	180	-92	-123	-153	-173	-176	+16 ±2	±5E-7, 0 to +50°C	+15	5E-10, typ	10, LBW≤10 Hz	SMA(f) & Pins on Side	4.45 x 4 x 1
501-27216	500	-89	-120	-146	-167	-170	+16 ±2	±5E-7, 0 to +50°C	+15	5E-10, typ	10, LBW≤10 Hz	SMA(f) & Pins on Side	4.45 x 4 x 1
501-27252	640	-85	-116	-144	-167	-168	+16 ±2	±5E-7, 0 to +50°C	+15	5E-10, typ	10, LBW≤10 Hz	SMA(f) & Pins on Side	4.45 x 4 x 1
501-27313	700	-88	-119	-145	-165	-167	+16 ±2	±5E-7, 0 to +50°C	+15	5E-10, typ	10, LBW≤10 Hz	SMA(f) & Pins on Side	4.45 x 4 x 1
501-27767	500/100	-89	-120	-146	-167	-170	+16 ±2	±5E-7, 0 to +50°C	+15	5E-10, typ	10, LBW≤10 Hz	SMA(f) & Pins on Side	4.45 x 4 x 1
501-27712	1280	-80	-110	-137	-159	-160	+16 ±2	±5E-7, 0 to +50°C	+15	5E-10, typ	10, LBW≤10 Hz	SMA(f) & Pins on Side	5.40 x 4 x 1
501-27337	400/200/100	-89	-119	-147	-165	-168	+16 ±2	±5E-7, 0 to +50°C	+15	5E-10, typ	10, LBW≤10 Hz	SMA(f) & Pins on Side	5.40 x 4 x 1
501-27338	1600/800/400/100	-75	-105	-133	-151	-154	+16 ±2	±5E-7, 0 to +50°C	+15	5E-10, typ	10, LBW≤10 Hz	SMA(f) & Pins on Side	6.36 x 4 x 1

* Consult factory for custom frequency, phase noise performance, output level, temperature stability and acceleration sensitivity options.

** See website for additional Standard Part Numbers and Specifications.



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2215 Kramer Lane, Austin, Texas 78758-4002 • www.wenzel.com

Phone: 512-835-2038 • Fax: 512-719-4086 • sales@wenzel.com