INPUT
Frequency
10 MHz Nominal
Signal Type / Level
Sine, +10 dBm ±2 dB into 50 ohms
Phase Noise L(f), Static (dBc/Hz)

10 Hz	-125
100 Hz	-140
>1 KHz	-150

OUTPUT
Frequency
100 MHz
Signal Type / Level
Sine, +17 dBm ±2 dB to drive 50 ohms
STABILITY
Aging, typical
$\pm 1 \times 10^{-6}$ first year, after 30 days operating
$\pm 5 \times 10^{-7}$ second year, $\pm 3 \times 10^{-7}$ per year thereafter
Phase Noise L(f), Locked (dBc/Hz)

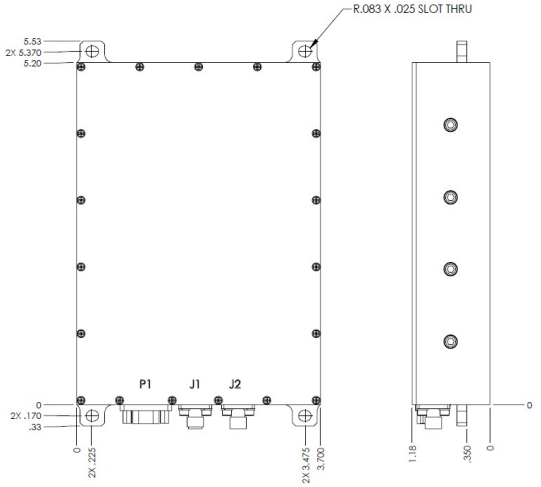
	Static	Dynamic*
1 Hz	-70	–
10 Hz	-105	-95
50 Hz	-125	-100
100 Hz	-135	-127
500 Hz	-154	-154
1 kHz	-158	-158
2 kHz	-165	-165
10 kHz	-180	–
100 kHz	-185	–
>100 kHz	-188	–

** goal is a straight-line fit of data points*
Temperature Stability
Phase locks to input from 0 to +60°C
Electrical performance from +25 to +45°C
Harmonics of 100 MHz
≤ -30 dBc
Spurious, 100 kHz to 1 MHz
≤ -90 dBc, excluding power supply line related spurs
PLL Divider Products
≤ -80 dBc
Phase Lock Alarm
TTL, Locked,+3.5 to +5.2 VDC (Hi),
Out-of-lock +0.8 VDC max (Lo)
Phase Lock Voltage Monitor
0 to +0.9 VDC, nominal, positive slope
Frequency Accuracy
$\pm 1 \times 10^{-7}$, typical (at time of shipment), free-running
ADJUSTMENT
Loop BW
Target Bandwidth: 4 Hz
Type 2 Loop
MECHANICAL
Dimensions
5.86" x 3.7" x 1.18"
Connectors
RF Input and Output: SMA(f)
DC Power & Control: Micro-D, 9 pin
Packaging
Aluminum machined enclosure
Finish: Chem-film, clear
Mounting
Tabs for #6 screw, 4 place
Threaded Inserts, #6.32, 4 places
Weight
1.5 lbs. maximum
POWER REQUIREMENTS
Warm-Up Power
≤ 10 Watts for 5 minutes @ +25°C
Total Steady-State Power
≤ 8 Watts @ 0°C
≤ 6 Watts @ +25°C
≤ 4 Watts @ +60°C
Supply Voltage
+12 VDC ±5%
CRYSTAL
100 MHz SC-cut
ENVIRONMENT
Operating Temperature
0 to +60°C
Operating Temperature Range, No Damage
-40 to +85°C
Storage Temperature
-44 to +95°C
Random Vibration Test Profile
.001 g^2/Hz 10 to 2 KHz
OTHER
Design
- Vibration compensation system for best noise under vibration using Bootstrap technology
- Polyurethane conformal coating for tin whisker mitigation and moisture resistance

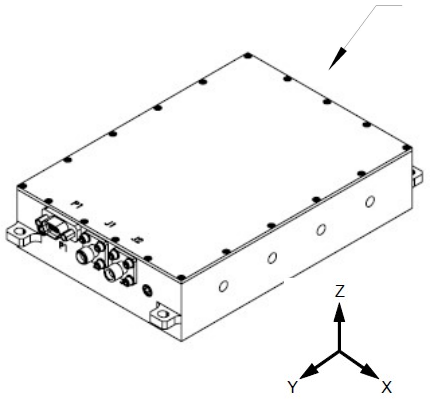
Test Data
- Output Level
- Phase Noise, Static & Dynamic
- Temperature Stability
- Harmonics, Subs, Products, Spurs
- Power – Warm-up and Total

EAR
ECCN: 3A001.b.10

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-20-23	Released	BH	LR



Label this face
(opposite connectors)



Wenzel Associates, Inc.
Austin, Texas

Title:
100 MHz Golden Bootstrap Phase Lock Oscillator (PLO) with Vibration Isolation

P/N:	Rev:	Date:	Drawn:	Ref:
501-35195	**-**	**07-20-23**		

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