OUTPUT

Frequency
80 MHz

Signal Type / Level
Sine, +13 dBm ±2 dB into 50 ohms

Start Time
≤ 2 seconds, to achieve 90% amplitude

STABILITY

Aging
$\pm 1 \times 10^{-6}$ first year,
after 30 days operating, typical
$\pm 5 \times 10^{-7}$ second year, typical
$\pm 3 \times 10^{-7}$ per year thereafter, typical

Phase Noise L(f), dBc/Hz, typical

	Static	Dynamic, Harmonic Vibration	Dynamic, Random Vibration
1 Hz	-70	---	---
4 Hz	---	-86	---
5 Hz	---	-87	-78
10 Hz	-105	-86	-87
15 Hz	---	-85	---
20 Hz	---	-86	-92
25 Hz	---	-86	---
50 Hz	---	---	-114
100 Hz	-140	---	-129
500 Hz	---	---	-146
1 kHz	-150	---	-150
2 kHz	---	---	-160
10 kHz	-170	---	---
100 kHz	-174	---	---
1 MHz	-175	---	---
10 MHz	-180	---	---

G-Sensitivity
≤ 2×10^{-11}/g per axis, typical from 5 Hz to 300 Hz
≤ 2×10^{-10}/g per axis, typical from >300 Hz to 2 kHz
(Configured with shock mount provisions for vibration isolation option for effective g-sensitivity to 5E-12/g)

Temperature Stability
$\pm 5 \times 10^{-8}$, 0° to +50°C (Ref +25°C)

Harmonics
≤ -30 dBc

Sub-harmonics
≤ -80 dBc

PLL Products
≤ -80 dBc

Spurious
≤ -90 dBc, ±100 kHz, excluding power supply line related spurs

Frequency Accuracy
$\pm 1 \times 10^{-7}$, typical (at time of shipment)

Retrace
To within $\pm 2 \times 10^{-7}$ of Fo when on for 24 hrs after 48 hours off time.

MECHANICAL

Dimensions
3.75 x 3.5 x 0.9”

Connectors
RF Output: SMA(f)
DC Power & Control:
Feed thru capacitor solder pins

Packaging
Nickel-plated machined steel enclosure

Mounting
Threaded Inserts, #2-56, 8 places, 0.150” deep
Tapped Holes for Mounts, # 0.06-80, 16 places

Weight
≤ 1.5 lbs.

POWER REQUIREMENTS

Warm-Up Power
≤ 9 Watts for 5 minutes @ +25°C

Total Steady-State Power
≤ 7 Watts @ 0°C
≤ 5 Watts @ +25°C
≤ 3 Watts @ +50°C

Supply Voltage
+15 VDC ±5%

ADJUSTMENT

Electrical Tuning
$\pm 1.5 \times 10^{-6}$ min., 0 to +8 VDC
Positive Slope

CRYSTAL

Type
(2) 80 MHz SC-cut (Low-g)

ENVIRONMENT

Operating Temperature
0° to +50°C

Storage Temperature
-40° to +85°C

Harmonic Vibration Profile
Per modified MIL-STD-167-1, Type I
4 to 25 Hz

Random Vibration Profile (0.74 G_{RMS})
5 Hz to 20 Hz, 0.02 g^2/Hz
2000 Hz, 0.0000001 g^2/Hz
(-26.5 dB/decade slope from 20 Hz to 2 kHz)

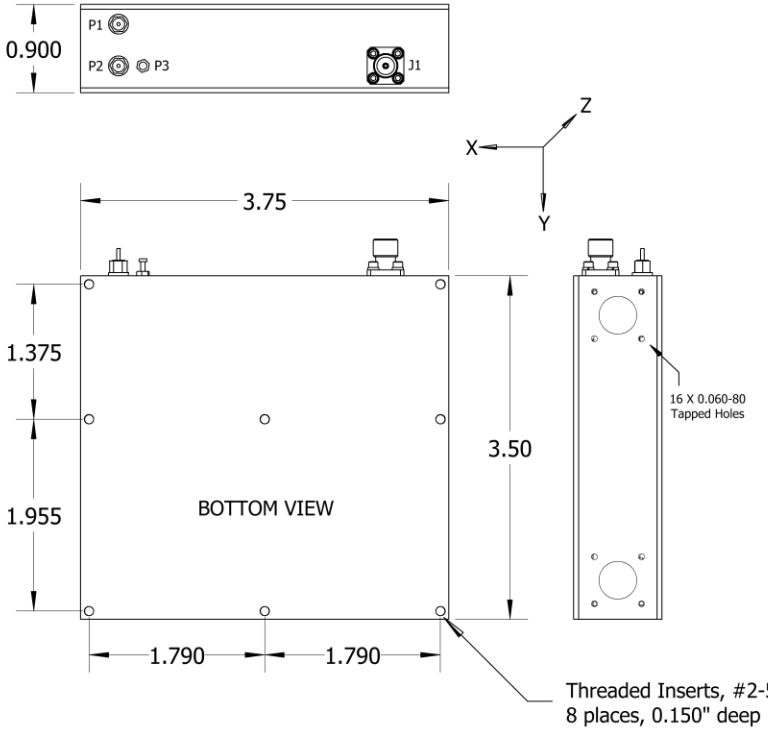
OTHER

Design
Vibration compensation system for best noise under vibration utilizing Bootstrap Technology

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

REV	DATE	REVISION RECORD	DWN	AUTH
-	03-24-17	Initial Release	PAC	
A	11-06-18	1 kHz to -150 dBc/Hz	PAC	

Connector	Function
P1	Electrical Tuning
P2	Supply Voltage
P3	Ground, Case
J1	RF Output



Wenzel Associates, Inc.
Austin, Texas

Title:
80 MHz Bootstrap Low G-Sensitivity Oscillator

P/N:	Rev:	Date:	Drawn:	Ref:
501-30735	A	11-06-18		

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