

EXTERNAL REFERENCE INPUT**Input Frequency**

10 MHz

Input Level

+7 dBm ±6 dB into 50 ohms

OUTPUT**Output Frequency**

100 MHz

Output Level

A: +13 dBm ±2 dB (± 3 dB *) into 50 ohms
 B: +10 dBm ±2 dB (± 3 dB *) into 50 ohms,
 each output

STABILITY, free running**Aging (typical)**1 x 10⁻⁶ per year after 30 days operating5 x 10⁻⁷ per year, second year3 x 10⁻⁷ per year, thereafter**Phase Noise L(f)**

	Standard	Premium
10 Hz	-95 dBc/Hz	-99 dBc/Hz
100 Hz	-125 dBc/Hz	-130 dBc/Hz
1 kHz	-155 dBc/Hz	-157 dBc/Hz
10 kHz	-165 dBc/Hz	-167 dBc/Hz
100 kHz	-167 dBc/Hz	-170 dBc/Hz

Temperature StabilityE: ± 2 x 10⁻⁷, 0° to +50°C (Ref +25°C)F: ± 5 x 10⁻⁷, -20 to +70°C (Ref +25°C)G*: ± 2 x 10⁻⁶, -55° to +85°C (Ref +25°C)**SPECTRAL PURITY****Harmonics**

-30 dBc

PLL Divider Products

-50 dBc

Non-Harmonic Spurious

-70 dBc

MECHANICAL**Packaging**

Nickel-Plated Machined Aluminum Case

A: Single Output

B: Dual output

Dimensions

2.5" x 3.5" x 0.8"

Connectors

RF Input/Output: SMA(f)

Power, Monitoring: Feed-Thru Solder Pins

GND: Ground Turret

POWER REQUIREMENTS**Supply Voltage**

+15 VDC ±5% or +12 VDC ±5%

Warm-Up Power

≤ 8 Watts for 5 minutes at +25°C

Total Power

≤ 5 Watts at +25°C

ADJUSTMENT**Loop BW**

Target Bandwidth: ≤ 60 Hz

Type 2 Loop

CRYSTAL**Type**

100 MHz SC-cut

Acceleration Sensitivity

Select desired g-sensitivity:

5: 5e-10 per g, per axis typical

3: 3e-10 per g, per axis guaranteed

2: 2e-10 per g, per axis guaranteed

PHASE LOCK STATUS**Phase Lock Alarm (ALM)**

Locked: +3.5 VDC to +5.2 VDC (Hi)

Out-of-Lock: +0.8 VDC max (Lo)

Phase Voltage Monitor (ΦV)

Electrical tuning monitor pin provided

REV	DATE	REVISION RECORD	DWN	AUTH
-	11-21-13	Initial Release	CB	PAC

Wenzel Associates, Inc.

Austin, Texas

Title:

100 MHz-SC Phase Lock Crystal Oscillator V1
(LBW=60 Hz)

P/N: 501-27589-xx	Rev: -	Date: 11-21-13	Drawn:	Ref: C/P
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Tolerances: (except as noted) Dimensions are in inches	0.XX Dec: ±0.030"	0.XXX Dec: ±0.010"	FSCM: 62821	Page 1 of 3
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Ordering Options

-xx	G-Sensitivity	Voltage	Phase Noise L(f)	Package	Temp (Ref +25 °C)
01	5	+15V	Standard	A	E
02	5	+15V	Standard	A	F
03	5	+15V	Standard	A	G
05	5	+15V	Standard	B	E
06	5	+15V	Standard	B	F
07	5	+15V	Standard	B	G
11	5	+15V	Premium	A	E
12	5	+15V	Premium	A	F
13	5	+15V	Premium	A	G
15	5	+15V	Premium	B	E
16	5	+15V	Premium	B	F
17	5	+15V	Premium	B	G
21	5	+12V	Standard	A	E
22	5	+12V	Standard	A	F
23	5	+12V	Standard	A	G
25	5	+12V	Standard	B	E
26	5	+12V	Standard	B	F
27	5	+12V	Standard	B	G
31	5	+12V	Premium	A	E
32	5	+12V	Premium	A	F
33	5	+12V	Premium	A	G
35	5	+12V	Premium	B	E
36	5	+12V	Premium	B	F
37	5	+12V	Premium	B	G

-xx	G-Sensitivity	Voltage	Phase Noise L(f)	Package	Temp (Ref +25 °C)
41	3	+15V	Standard	A	E
42	3	+15V	Standard	A	F
43	3	+15V	Standard	A	G
45	3	+15V	Standard	B	E
46	3	+15V	Standard	B	F
47	3	+15V	Standard	B	G
51	3	+15V	Premium	A	E
52	3	+15V	Premium	A	F
53	3	+15V	Premium	A	G
55	3	+15V	Premium	B	E
56	3	+15V	Premium	B	F
57	3	+15V	Premium	B	G
61	3	+12V	Standard	A	E
62	3	+12V	Standard	A	F
63	3	+12V	Standard	A	G
65	3	+12V	Standard	B	E
66	3	+12V	Standard	B	F
67	3	+12V	Standard	B	G
71	3	+12V	Premium	A	E
72	3	+12V	Premium	A	F
73	3	+12V	Premium	A	G
75	3	+12V	Premium	B	E
76	3	+12V	Premium	B	F
77	3	+12V	Premium	B	G

-xx	G-Sensitivity	Voltage	Phase Noise L(f)	Package	Temp (Ref +25 °C)
81	2	+15V	Standard	A	E
82	2	+15V	Standard	A	F
83	2	+15V	Standard	A	G
85	2	+15V	Standard	B	E
86	2	+15V	Standard	B	F
87	2	+15V	Standard	B	G
91	2	+12V	Standard	A	E
92	2	+12V	Standard	A	F
93	2	+12V	Standard	A	G
95	2	+12V	Standard	B	E
96	2	+12V	Standard	B	F
97	2	+12V	Standard	B	G

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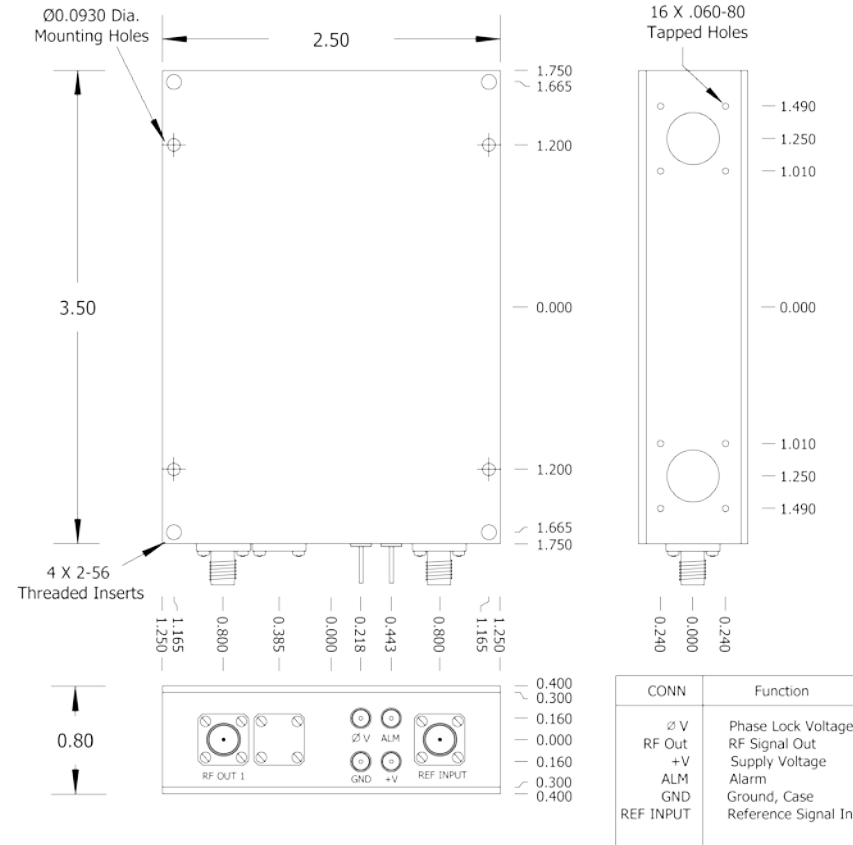
Austin, Texas

Title: **100 MHz-SC Phase Lock Crystal Oscillator V1 (LBW=60 Hz)**

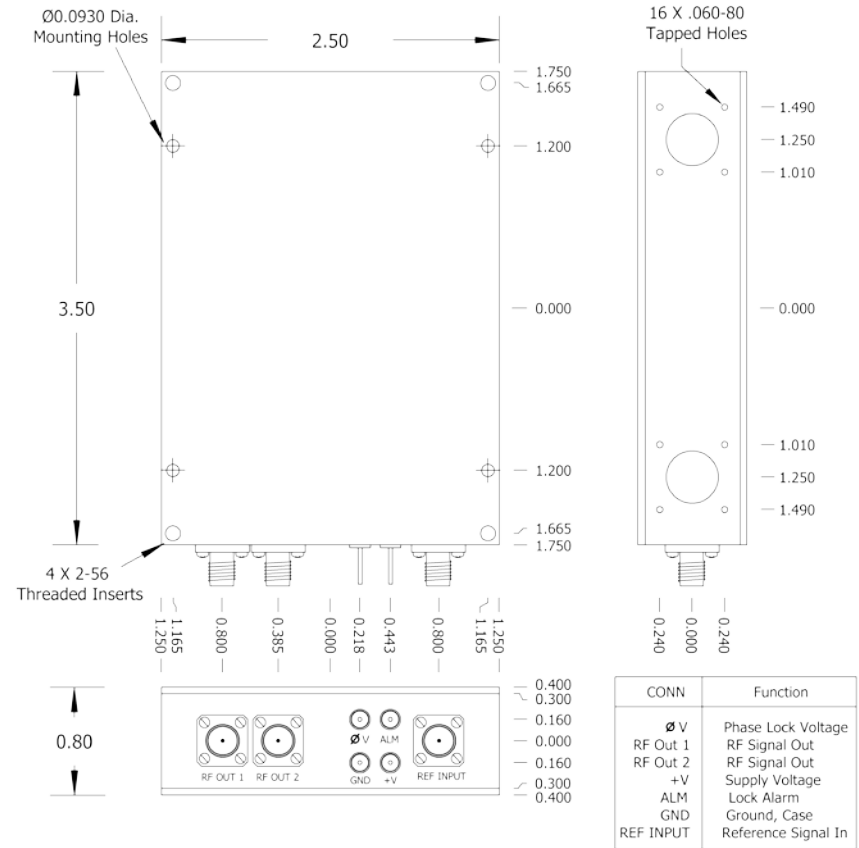
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Package A



Package B



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 ± 0.030 "

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FSCM:
62821

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