

EXTERNAL REFERENCE INPUT

Frequency

10 MHz

Level

+7 dBm $\pm$ 6 dB into 50 ohms

OUTPUT

Frequency

10 MHz

Level

A: +13 dBm $\pm$ 2 dB ($\pm$ 3 dB *) into 50 ohms

B: +10 dBm $\pm$ 2 dB ($\pm$ 3 dB *) into 50 ohms,
each output

STABILITY, free running

Aging

5×10^{-10} /day after 24 hours operating

5×10^{-8} /year, second year, typical

3×10^{-8} per year, thereafter

Phase Noise L(f)

	Standard	Premium
10 Hz	-140 dBc/Hz	-145 dBc/Hz
100 Hz	-157 dBc/Hz	-160 dBc/Hz
1 kHz	-169 dBc/Hz	-172 dBc/Hz
10 kHz	-172 dBc/Hz	-174 dBc/Hz

Temperature Stability

E: $\pm 5 \times 10^{-9}$, 0° to +50°C (Ref +25°C)

F: $\pm 1 \times 10^{-8}$, -20° to +70°C (Ref +25°C)

G*: $\pm 1 \times 10^{-7}$, -55° to +85°C (Ref +25°C)

SPECTRAL PURITY

Harmonics

$\leq$ -30 dBc

PLL Divider Products

$\leq$ -50 dBc

Non-Harmonic Spurious

$\leq$ -80 dBc, excluding power
supply line related spurs

MECHANICAL

Packaging

Nickel-Plated Machined Aluminum Case

Dimensions

2.5" x 3.5" x 0.8"

A: Single Output

B: Dual output

Connectors

RF Input/Output: SMA(f)

Power, Monitoring: Feed Thru Terminals

GND: Ground Turret

POWER REQUIREMENTS

Supply Voltage

+15 VDC $\pm$ 5% or +12 VDC $\pm$ 5%

Warm-Up Power

$\leq$ 6 Watts for 5 minutes at +25°C

G* $\leq$ 8 Watts for 5 minutes at +25°C

Total Power

$\leq$ 2.5 Watts at +25°C

G* $\leq$ 4 Watts at +25°C

ADJUSTMENT

Loop BW

Type 2 Loop

Target Bandwidth: $\leq$ 10 Hz

CRYSTAL

Type

10 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

^For 1e-10 per g, per axis option,
see P/N: 501-27602-xx

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 (Φ V)

Electrical tuning monitor pin provided

REV	DATE	REVISION RECORD	DWN	AUTH
-	03-19-14	Initial Release	CB	PAC

Wenzel Associates, Inc.

Austin, Texas

Title:

**10 MHz-SC Phase Lock Crystal Oscillator V2
(LBW=10Hz)**

P/N:

501-27594-xx

Rev:

-

Date:

03-19-14

Drawn:

Ref:

ULN

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:

± 0.030 "

0.XXX Dec:

± 0.010 "

FSCM:

62821

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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

^For 1e-10 per g, per axis option,
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Austin, Texas

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0.XX Dec:

±0.030"

0.XXX Dec:

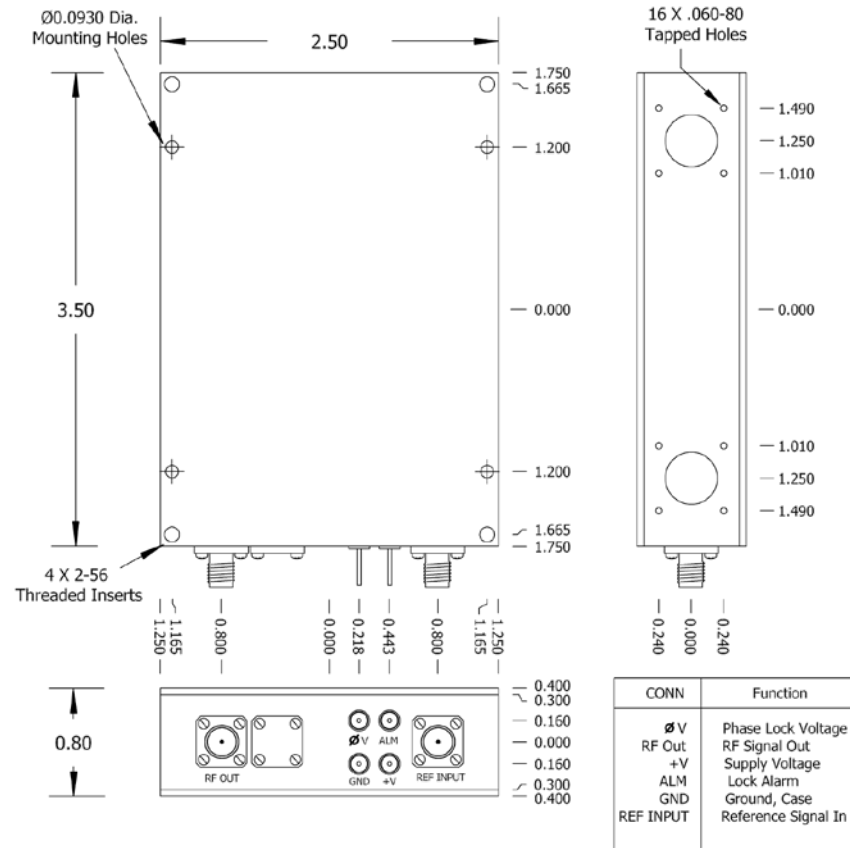
±0.010"

FSCM:

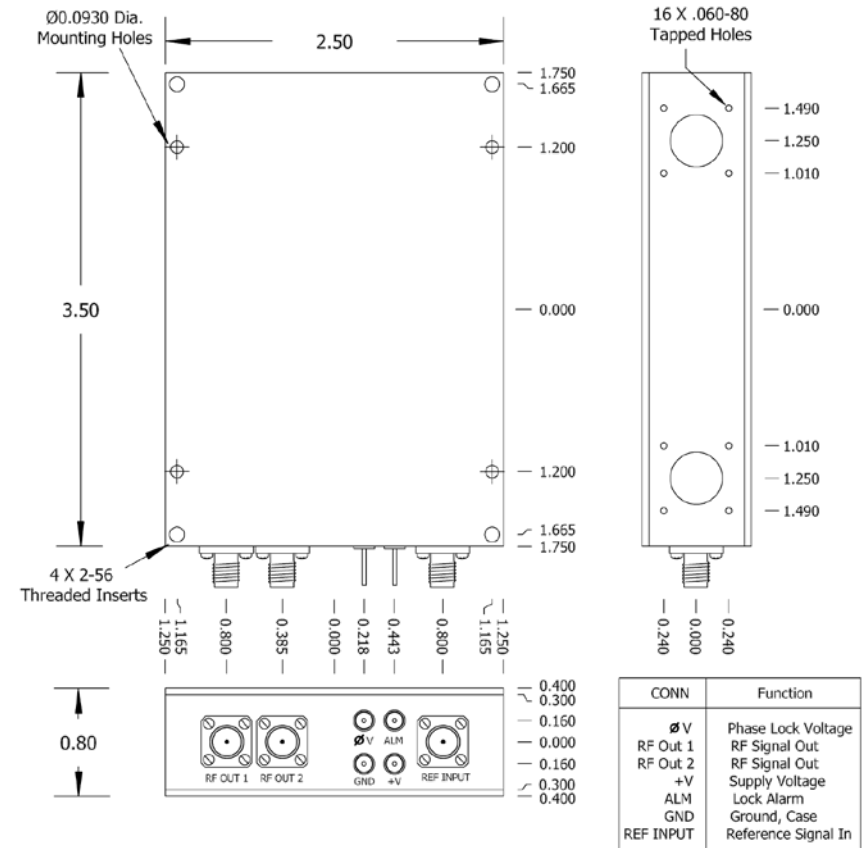
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Package A



Package B



Wenzel Associates, Inc.
Austin, Texas

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P/N: **501-27594-xx** Rev: **-** Date: **03-19-14** Drawn: Ref: **ULN**

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec: **±0.030"** 0.XXX Dec: **±0.010"** FSCM: **62821** Page **3 of 3**