

EXTERNAL REFERENCE INPUT**Input Frequency**

10 MHz

Input Level

+7 dBm ±6 dB into 50 ohms

OUTPUT**Output Frequency**

200 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)**

1×10^{-6} per year after 30 days operating
 5×10^{-7} per year, second year
 3×10^{-7} per year, thereafter

Phase Noise L(f)

	Standard	Premium
10 Hz	-93 dBc/Hz	-98 dBc/Hz
100 Hz	-123 dBc/Hz	-128 dBc/Hz
1 kHz	-150 dBc/Hz	-153 dBc/Hz
10 kHz	-166 dBc/Hz	-168 dBc/Hz
100 kHz	-167 dBc/Hz	-169 dBc/Hz

Temperature Stability

E: ±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

Sub-Harmonics

-50 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: ≤ 5 Hz

Type 2 Loop

CRYSTAL**Type**

100 MHz SC-cut (x2)

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
A	01-04-17	Standard Phase Noise	PAC	

Wenzel Associates, Inc.

Austin, Texas

Title:

200 MHz-SC Phase Lock Crystal Oscillator V2
(LBW=5 Hz)

P/N:

501-27597-xx

Rev:

A

Date:

01-04-17

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

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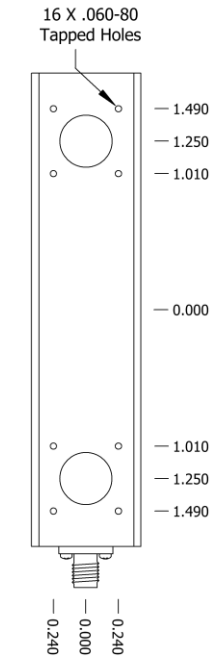
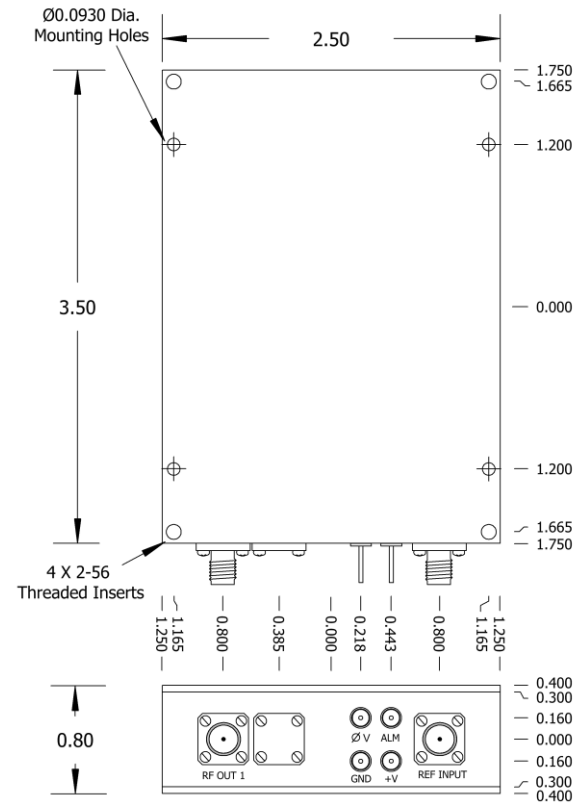
Austin, Texas

Title: **200 MHz-SC Phase Lock Crystal Oscillator V2 (LBW=5 Hz)**

P/N: 501-27597-xx	Rev: A	Date: 01-04-17	Drawn:	Ref: ULN
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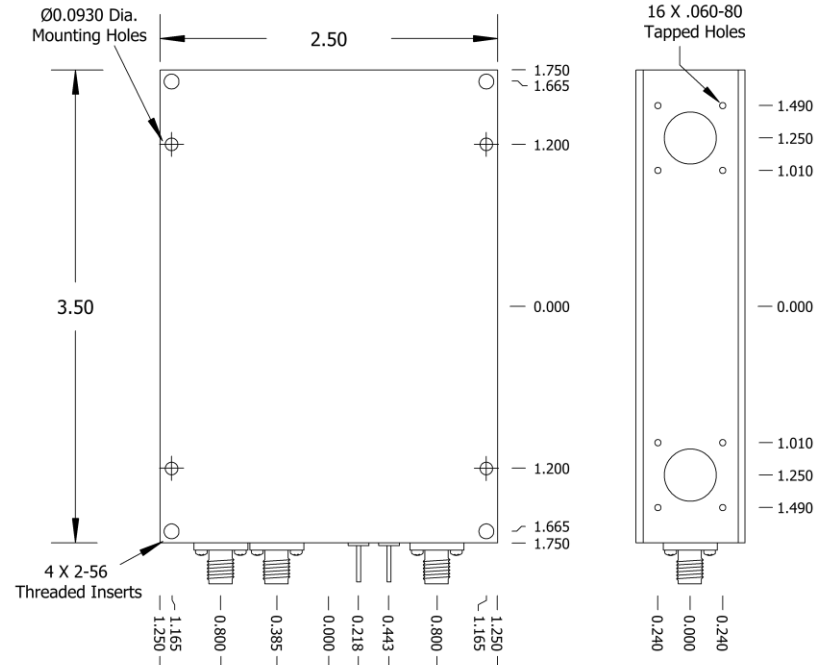
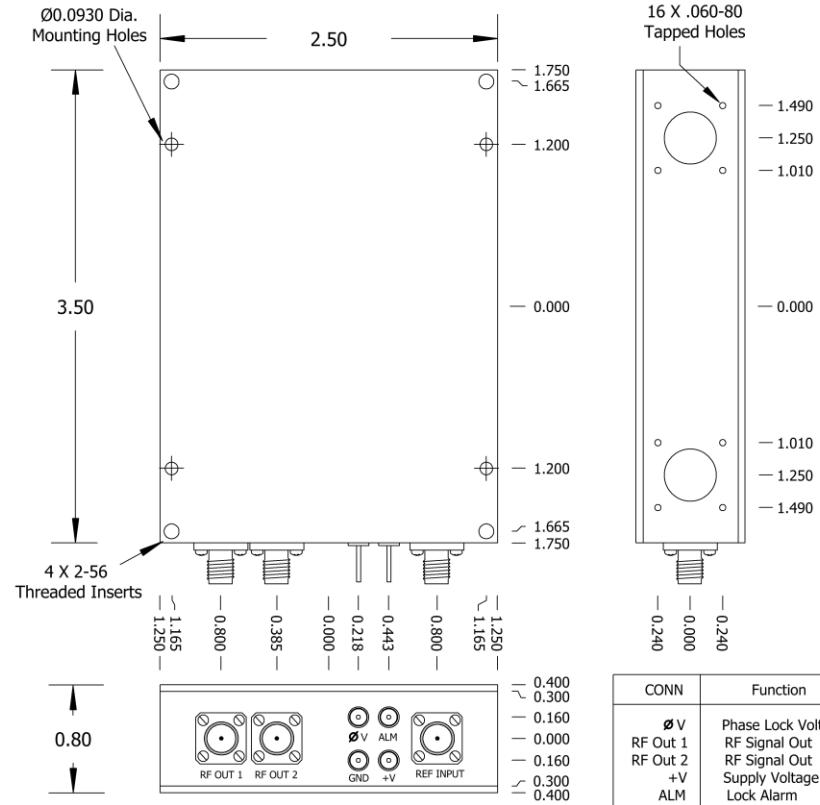
Tolerances: (except as noted) Dimensions are in inches	0.XX Dec: ±0.030"	0.XXX Dec: ±0.010"	FSCM: 62821	Page 2 of 3
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Package A



CONN	Function
∅ V	Phase Lock Voltage
RF Out	RF Signal Out
+V	Supply Voltage
ALM	Alarm
GND	Ground, Case
REF INPUT	Reference Signal In

Package B



CONN	Function
∅ V	Phase Lock Voltage
RF Out 1	RF Signal Out
RF Out 2	RF Signal Out
+V	Supply Voltage
ALM	Lock Alarm
GND	Ground, Case
REF INPUT	Reference Signal In

Wenzel Associates, Inc.

Austin, Texas

Title: **200 MHz-SC Phase Lock Crystal Oscillator V2 (LBW=5 Hz)**

P/N: **501-27597-xx** Rev: **A** Date: **01-04-17** 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**