

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-28-11	Initial Release	PAC	JR

**INPUT**

**Frequency**

5 MHz,  $\pm 2 \times 10^{-6}$

**Level**

+7 dBm  $\pm 5$  dB into 50 ohms

**OUTPUT**

**Frequency**

100 MHz

**Level**

+13 dBm  $\pm 2$  dB into 50 ohms

**STABILITY**

**Output Phase Noise L(f)  
(Free-Running)**

- 100 Hz -130 dBc/Hz
- 1 kHz -155 dBc/Hz
- 10 kHz -175 dBc/Hz
- 100 kHz -176 dBc/Hz

**Aging**

$\pm 1 \times 10^{-6}$  per year after 30 days operating, typical

**Temperature Stability**

$\pm 5 \times 10^{-7}$  free-running from 0 to +50°C, (Ref. +25°C)

**Phase Lock Alarm**

TTL

Locked: +3.5 VDC to +5.2 VDC (Hi)  
Out-of-Lock: +0.8 VDC max (Lo)

**Phase Lock Voltage Monitor**

Voltage monitor pin supplied

**SPECTRAL PURITY**

**Harmonics**

$\leq -30$  dBc

**Sub-Harmonics**

$\leq -50$  dBc

**PLL Divider Products**

$\leq -60$  dBc

**Spurious**

$\leq -70$  dBc

**MECHANICAL**

**Dimensions**

2.5 x 3.5 x 0.8"

**Connectors**

SMA's and solder pins on side  
Feed-thru terminals for lock alarm,  
supply and phase lock voltage monitor

**Packaging**

Nickel-plate machined  
aluminum housing

**Mounting**

Tapped holes on sides, 16 places  
Through holes, 4 places  
Threaded inserts on base, 4 places

**POWER REQUIREMENTS**

**Supply Voltage**

+15 VDC  $\pm 5\%$

**Warm-Up Power**

$\leq 8$  Watts at start-up for 5 minutes  
at +25° C

**Total Power**

$\leq 5$  Watts at steady state +25°C

**ADJUSTMENT**

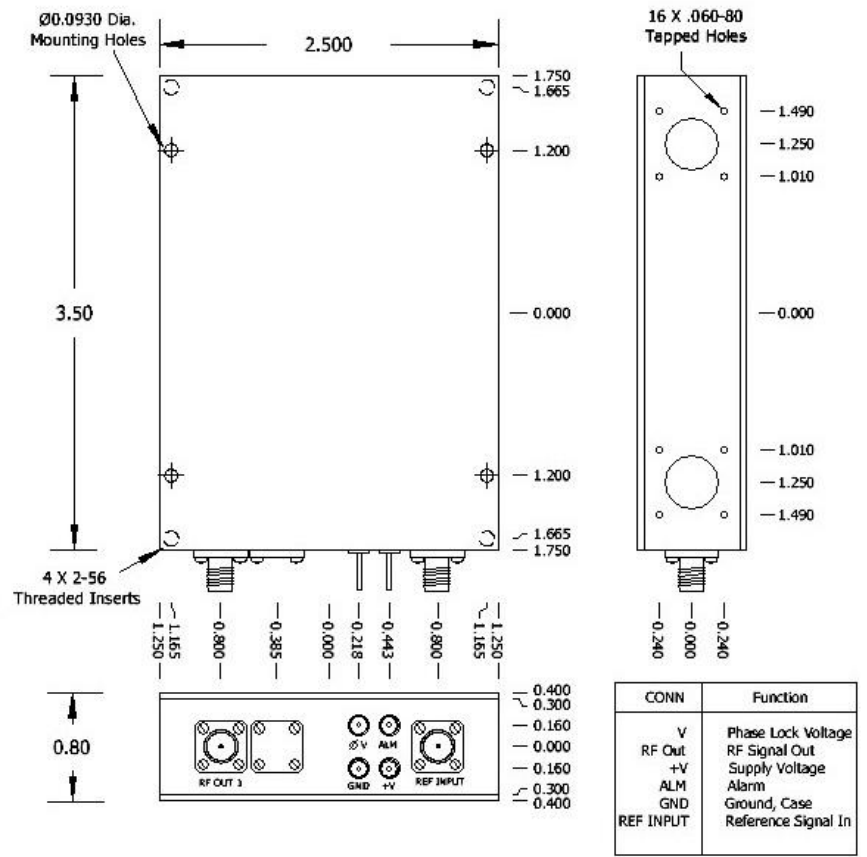
**Loop BW**


Target Bandwidth: < 60 Hz  
Type 2 Loop

**CRYSTAL**

**Type**

SC-cut





**Wenzel Associates, Inc.**  
Austin, Texas

Title:  
**Premium 100 MHz-SC Phase Lock Crystal Oscillator**

P/N: <b>501-24802</b>	Rev: -	Date: <b>07-28-11</b>	Drawn:	Ref: ULN
Tolerances: (except as noted) Dimensions are in inches		0.XX Dec: <b><math>\pm 0.030</math>"</b>	0.XXX Dec: <b><math>\pm 0.010</math>"</b>	FSCM: <b>62821</b>

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