

REV	DATE	REVISION RECORD	DWN	AUTH
-	2-15-2010	Draft	Liz	LR
A	10-20-10	Noise, 1k,10k	Liz	Vito

INPUT

Frequency

10 MHz, $\pm 5 \times 10^{-7}$

Level

+7 dBm ± 5 dB into 50 ohms

OUTPUT

Frequency

100 MHz

Level

+13 dBm ± 2 dB into 50 ohms

STABILITY

Output Phase Noise L(f)

(Free-Running)

100 Hz -125 dBc/Hz

1 kHz -155 dBc/Hz

10 kHz -170 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)

Harmonics

-30 dBc

Sub-Harmonics and Products

-50 dBc

Non-Harmonic Spurious, typical

-70 dBc

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

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

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

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

Total Power

5 Watts at steady state +25°C

ADJUSTMENT

Loop BW

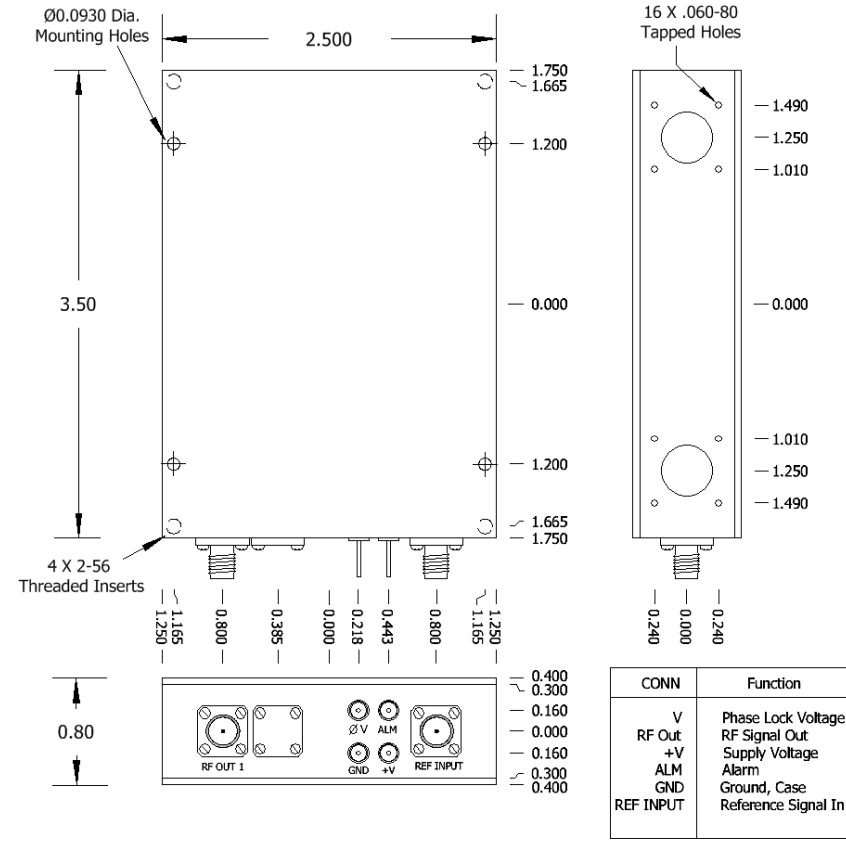
Target Bandwidth: 60 Hz


Type 2 Loop

CRYSTAL

Type

SC-cut





Wenzel Associates, Inc.
Austin, Texas

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

P/N: 501-22074	Rev: A	Date: 10-20-10	Drawn:	Ref:
Tolerances: (except as noted) Dimensions are in inches		0.XX Dec: ± 0.030"	0.XXX Dec: ± 0.010"	FSCM: 62821

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