

INPUT

Frequency

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

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 -128 dBc/Hz

1 kHz -155 dBc/Hz

10 kHz -170 dBc/Hz

100 kHz -171 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

≤ -30 dBc

Sub-Harmonics

≤ -50 dBc

PLL Divider Products

≤ -80 dBc

Spurious

≤ -80 dBc, excluding power
supply line related spurs

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-plated machined
aluminum housing

Mounting

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

POWER REQUIREMENTS

Supply Voltage

+12 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

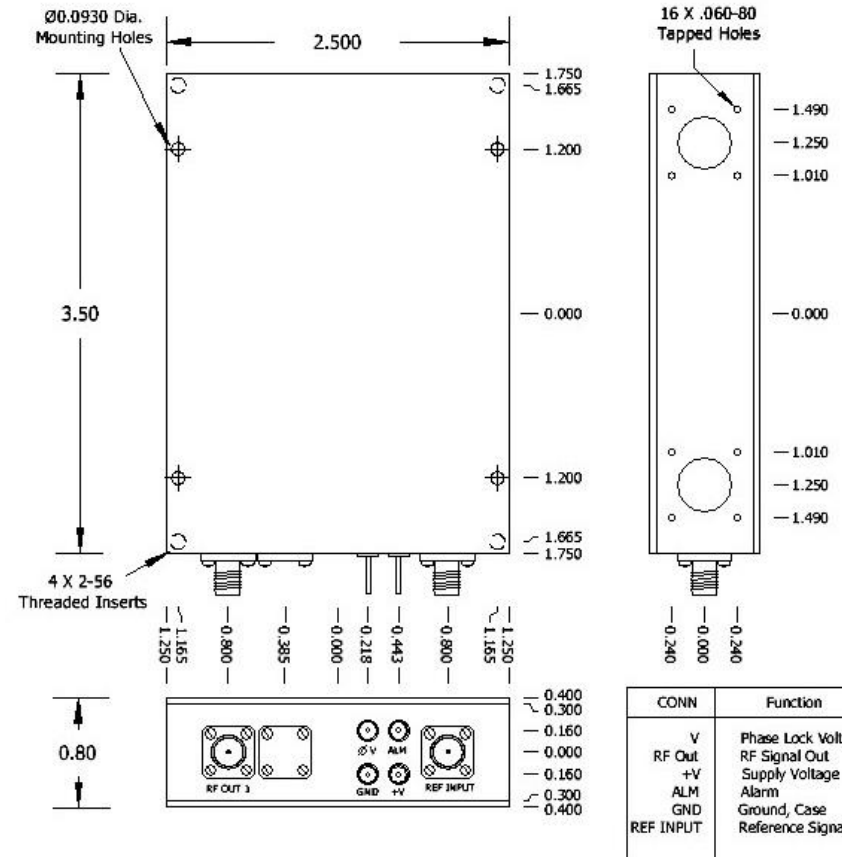
Detector Lock Frequency: 5 MHz
Target Bandwidth: < 60 Hz
Type 2 Loop

CRYSTAL

Type

SC-cut

REV	DATE	REVISION RECORD	DWN	AUTH
-	08-24-11	Initial Release	PAC	



Wenzel Associates, Inc.

Austin, Texas

Title:

Standard 100 MHz-SC Phase Lock Crystal Oscillator

P/N:

501-24896

Rev:

-

Date:

08-24-11

Drawn:

Ref:

SPR

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:

± 0.030 "

0.XXX Dec:

± 0.010 "

FSCM:

62821

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