REV	DATE	REVISION RECORD	DWN	AUTH
-	11-16-11	Initial Release	SS	PAC

INPUT

Frequency

10 MHz, ±2 x 10^{-7}

Level

-4 to +9 dBm into 50 Ohms

OUTPUT

Frequency

10 MHz

Level

+13 dBm ±2 dB into 50 ohms

STABILITY

Output Phase Noise L(f)

Free-Running

10 Hz	-132 dBc/Hz
100 Hz	-155 dBc/Hz
1 kHz	-172 dBc/Hz
10 kHz	-174 dBc/Hz

Aging

±1 x 10^{-7} per year after 30 days operating, typical

Temperature Stability

±1 x 10^{-8} free-running from 0 to +50°C, (Ref. +25°C)

Harmonics

-30 dBc

Sub-Harmonics

-50 dBc

PLL Divider Products

-50 dBc

Non-Harmonic Spurious

-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 .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

Shock mount patterns on sides through holes, 4 places

Threaded inserts on base, 4 places

POWER REQUIREMENTS

Supply Voltage

+15 VDC

Warm-Up Power

10 Watts at start-up for 5 minutes at +25º C

Total Power

6 Watts at steady state +25ºC

ADJUSTMENT

Loop BW

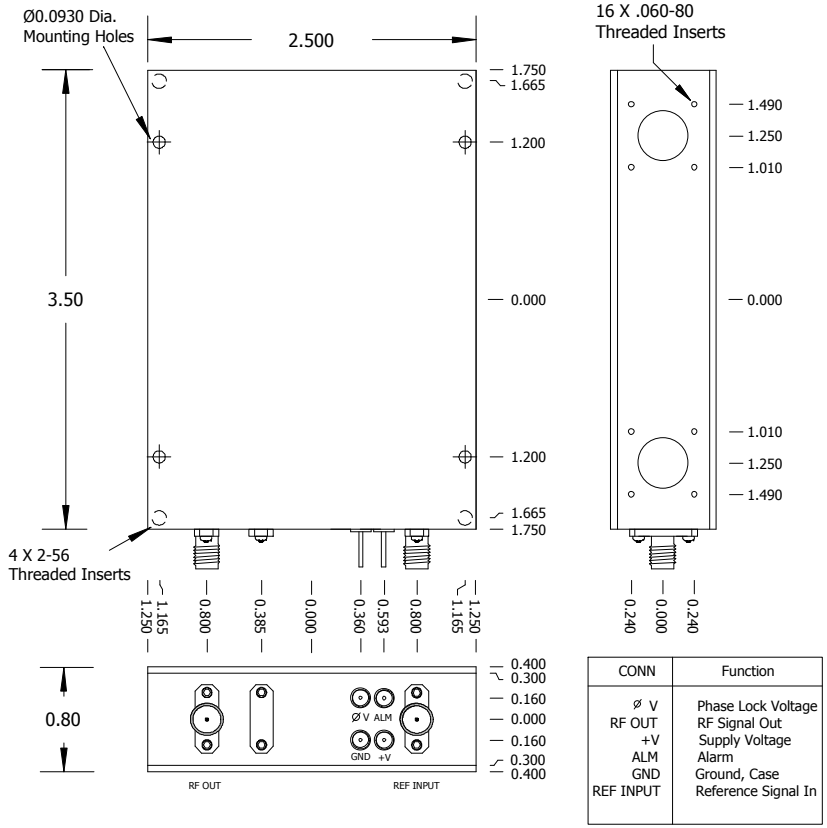
Target Bandwidth: < 1 Hz

Type 2 Loop, < 5 minutes to ±1 x 10^{-9} of input

CRYSTAL

Type

SC-cut



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

Wenzel Associates, Inc.

Austin, Texas

Title:

10 MHz-SC ULN Phase Lock Crystal Oscillator

P/N:	Rev:	Date:	Drawn:	Ref:
501-25190	**-**	**11-16-11**		501-10136B

Tolerances: (except as noted) Dimensions are in inches	0.XX Dec:	0.XXX Dec:	FSCM:	Page 1 of 1
	±0.030”	±0.010”	62821	