INPUT

Frequency

10 MHz, ±5 x 10^{-7}

Level

+7 dBm ±5 dB into 50 Ohms

OUTPUT

Frequency

10 MHz, Dual

Level

+10 dBm ±2 dB into 50 ohms

STABILITY

Output Phase Noise L(f)

Free-Running

1 Hz	-100 dBc
10 Hz	-130 dBc
100 Hz	-158 dBc
1 kHz	-172 dBc
10 kHz	-172 dBc

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 and 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 or machined brass housing

Mounting

Shock mount patterns on sides

Thru 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

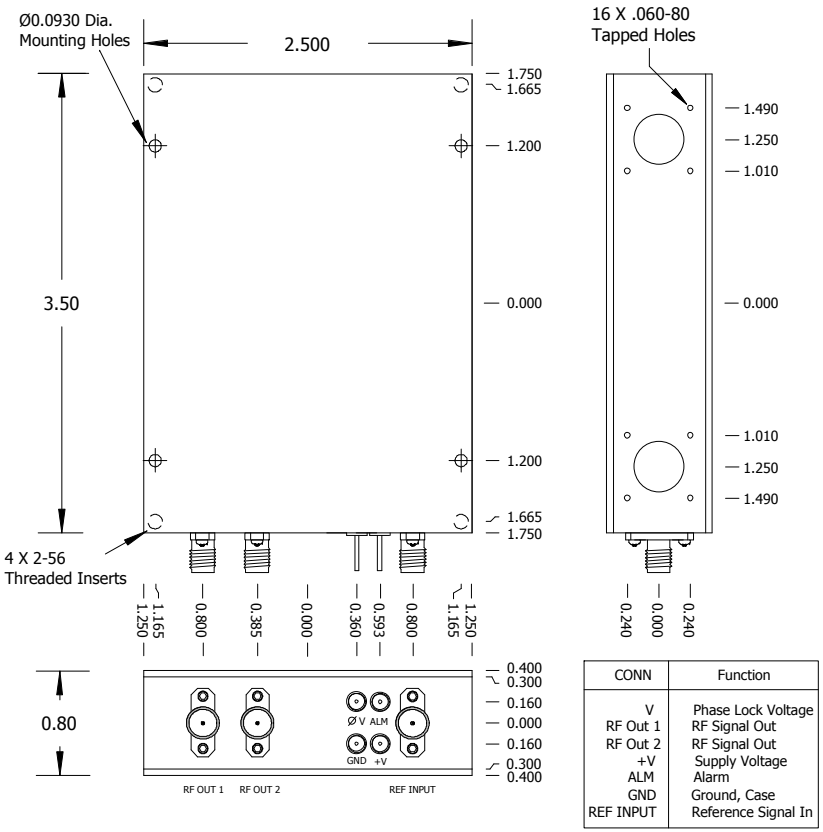
Type 2 Loop, < 5 minutes to ±1 x 10^{-9} of input

CRYSTAL

Type

SC-cut

REV	DATE	REVISION RECORD	DWN	AUTH
-	11-07-02	Draft	PAC	LR
A	05-16-03	Added dimensions on drawing	SS	PAC
B	01-10-05	Phase, Power, Connectors, drawing	SS	LR



CONN	Function
V	Phase Lock Voltage
RF Out 1	RF Signal Out
RF Out 2	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 Dual Output Phase Lock Crystal Oscillator

P/N:	Rev:	Date:	Drawn:	Ref:
501-10136	**B**	**01-10-05**		501-07499E

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