REV	DATE	REVISION RECORD	DWN	AUTH
-	11-07-02	Draft	PAC	LR
A	03-06-03	Updated Drawing	PAC	
B	04-30-03	Updated drawing and phase noise specs	PAC	LR
C	03-27-09	Updated loop BW adjustment	VG	DC

INPUT

Frequency

10 MHz, ±2 x 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	-125dBc/Hz
1 kHz	-155dBc/Hz
10 kHz	-170dBc/Hz

Aging

±1 x 10^{-6} per year after 30 days operating, typical

Temperature Stability

±5 x 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

Warm-Up Power

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

Total Power

5 Watts at steady state +25ºC

ADJUSTMENT

Loop BW

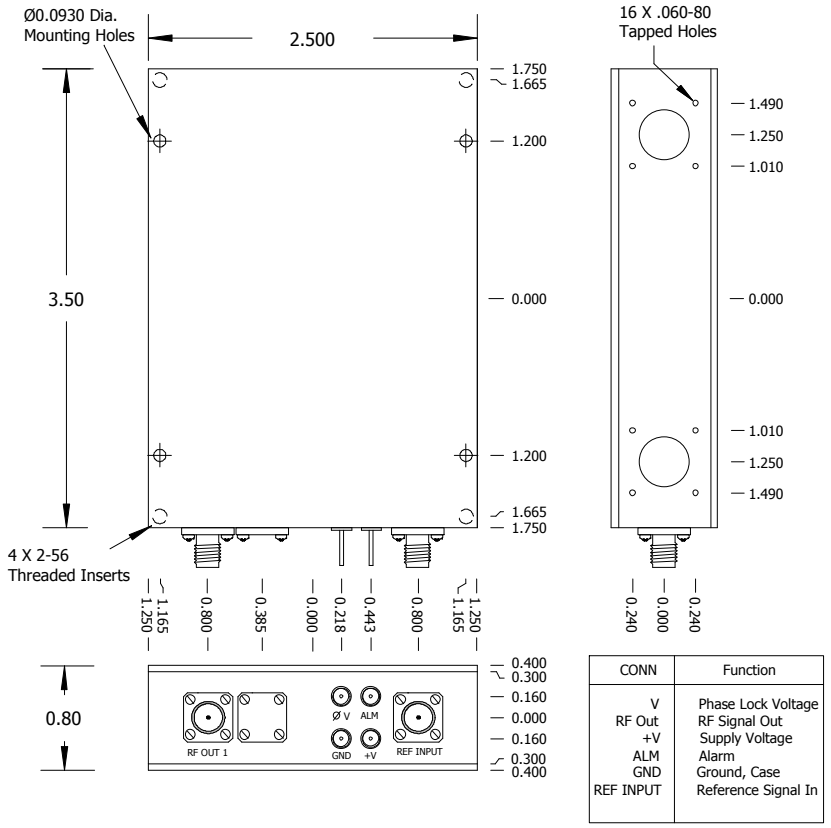
Target Bandwidth: 60 Hz

Type 2 Loop

CRYSTAL

Type

SC-cut



CONN	Function
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:

100 MHz-SC Phase Lock Crystal Oscillator

P/N:	Rev:	Date:	Drawn:	Ref:
501-10137	**C**	**03-27-09**		

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