

**EXTERNAL REFERENCE INPUT**

**Frequency**  
10 MHz  
**Level**  
0 dBm ±3dB into 50 ohms

**OUTPUT**

**Frequency**  
10 MHz  
**Level**  
+10 dBm ±2 dB into 50 ohms

**STABILITY**

**Aging**  
5 x 10<sup>-10</sup> /day after 30 days operating  
5 x 10<sup>-8</sup> /year, second year, typical

**Phase Noise L(f), unlocked**

10 Hz -130 dBc  
100 Hz -155 dBc  
1 KHz -165 dBc

**Temperature Stability**

±1x10<sup>-8</sup>, 0° to +50°C (Ref +25°C), unlocked

**Frequency Accuracy**

±5x10<sup>-8</sup> at time of shipment (+25°C)

**Type 2 Loop Characteristics**

Target BW: ≤1 Hz  
<5 minute to within ±1x10<sup>-9</sup> of input

**MECHANICAL**

**Dimensions**

2.375" x 2.750" x 1.1" housing with bracket,  
mounting holes, Diam. 0.125"

**Connectors**

SMA Output, SMA Input,  
Feedthru capacitors

**Packaging**

Solder sealed steel can

**POWER REQUIREMENTS**

**Warm-Up Power**

<6 Watts for 5 minutes

**Total Power**

<4 Watts at +25°C

**Supply Voltage**

+15 VDC

**ADJUSTMENT**

**Mechanical, for Frequency Accuracy**

±5 x 10<sup>-7</sup>, typical

**CRYSTAL**

**Type**

10 MHz SC-cut

**STATUS BITS**

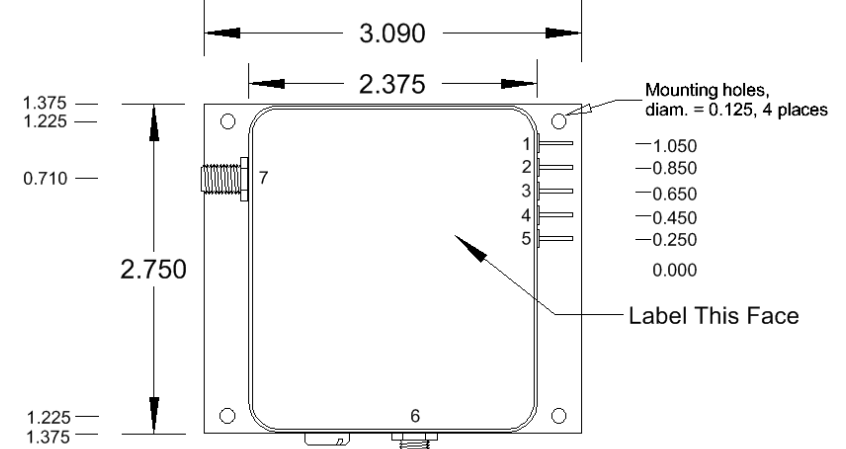
**External Reference Loss**

TTL, Low = loss of refer  
Oscillator will "self " cenl  
when reference is lost.

**Out-of-Lock Alarm**

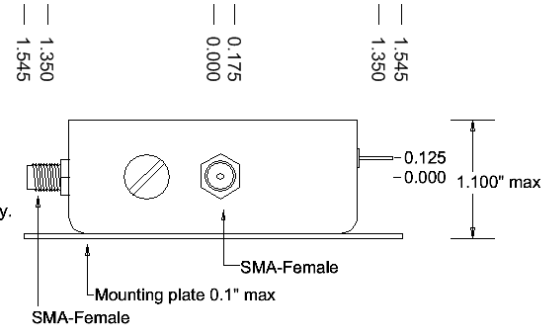
TTL, Low = Locked

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-08-02	Draft	KH	LR
A	10-09-02	Type 1 Loop, Out of Lock, Mechanical	BH	LR
B	1-20-03	Remove "auto-select"	Liz	Liz
C	04-10-03	Dimensions, drwing, removed Phase Voltage	SS	LR
D	05-16-03	Power requirements	SS	PAC
E	08-04-03	Input phase noise, Temp Stability, Status Bits, Drawing	PAC	
F	01-08-04	Added Freq. Accuracy; Changed Alarm	PAC	
G	06-25-04	Temperature Stability	PAC	



Pin	Function
1	Ground
2	Supply Voltage
3	External Ref. Detect
4	Out of Lock
5	Phase Voltage
6	External Ref. In
7	RF Out

Connector numbers are for reference only. They are not marked on unit.



**Wenzel Associates, Inc.**

Austin, Texas

Title: <b>10 MHz-SC Phase Locked Crystal Oscillator</b>				
P/N: <b>501-09815</b>	Rev: <b>G</b>	Date: <b>06-25-04</b>	Drawn:	Ref:
Tolerances: (except as noted) Dimensions are in inches	0.XX Dec: <b>±0.030"</b>	0.XXX Dec: <b>±0.010"</b>	FSCM: <b>62821</b>	Page 1 of 1