

**OUTPUT**

**Frequency**

10 MHz

**Level**

+10 dBm ±2 dB into 50 ohms

**EXTERNAL REFERENCE INPUT**

**Frequency**

10 MHz

**Level**

0 dBm ±3dB into 50 ohms

**STABILITY**

**Aging**

$5 \times 10^{-10}$  /day after 30 days operating

$5 \times 10^{-8}$  /year, second year, typical

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

10 Hz -130 dBc

100 Hz -155 dBc

1 KHz -165 dBc

**Temperature Stability**

$\pm 1 \times 10^{-8}$ , 0° to +50°C (Ref +25°C), unlocked

**Frequency Accuracy**

$\pm 5 \times 10^{-8}$  at time of shipment (+25°C)

**Type 2 Loop Characteristics**

Target BW:  $\leq 1$  Hz

<5 minute to within  $\pm 1 \times 10^{-9}$  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**

$\pm 5 \times 10^{-7}$ , typical

**CRYSTAL**

**Type**

10 MHz SC-cut

**STATUS BITS**

**External Reference Loss**

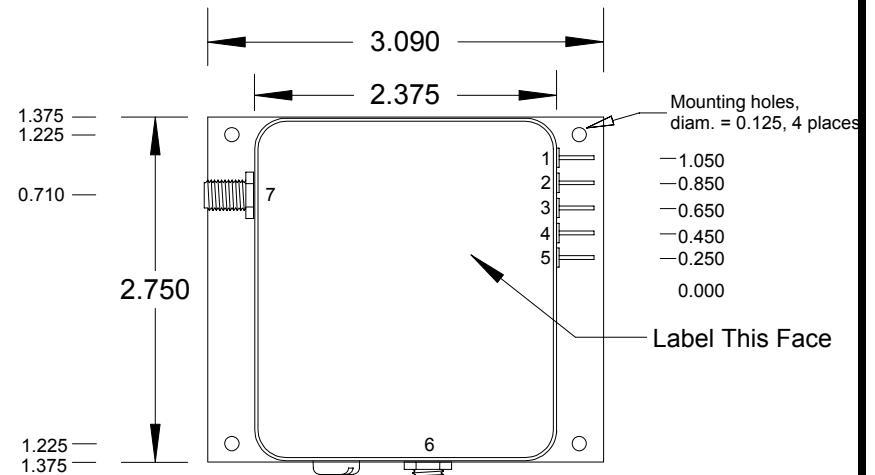
TTL, Low = loss of reference

Oscillator will "self" center when  
reference is lost.

**Out-of-Lock Alarm**

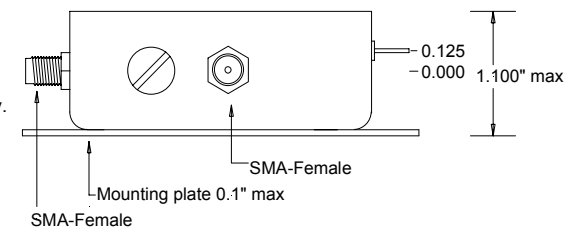
TTL, Low = Locked

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	+15V
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:

**10 MHz-SC Phase Locked Crystal Oscillator**

P/N:

**501-09815**

Rev:

**G**

Date:

**06-25-04**

Drawn:

Ref:

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:

**±0.030"**

0.XXX Dec:

**±0.010"**

FSCM:

**62821**

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