

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-09-04	Draft	SS	LR
A	08-19-04	Add 10 KHz noise, move ET	LR	LR
B	5-30-06	Temperature Stability	SS	BH

**OUTPUT**

**Frequency**  
10 MHz

**Level**  
+4 dBm ±3 dB into 50 ohms

**EXTERNAL REFERENCE INPUT**

**Frequency**  
5 or 10 MHz

**Level**  
+4 dBm ±3dB into 50 ohms

**Automatic Input Select Level**

-2.0 to +0.5 dBm

**Phase Noise L(f)**

1 Hz -85 dBc  
 10 Hz -117 dBc  
 100 Hz -132 dBc  
 1 KHz -142 dBc  
 10 KHz -147 dBc

**STABILITY**

**Aging**

$5 \times 10^{-9}$  /day after 24 hours operating

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

**Phase Noise L(f)**

10 Hz -120 dBc  
 100 Hz -145 dBc  
 1 KHz -160 dBc  
 10 KHz -165 dBc

**Temperature Stability**

$\pm 5 \times 10^{-8}$ , 0° to +60°C (Ref +25°C)

**Subharmonics (5 MHz)**

-30 dBc, maximum

**Type 1 Loop Characteristics**

BW < 1 Hz

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

**Electrical Tuning**

$\pm 1 \times 10^{-6}$ , ±5 VDC

**MECHANICAL**

**Dimensions**

1.75" x 2.938" x 0.6" housing  
 2.25" x 3.40" footprint with brackets

**Connectors**

SMA Output, SMA Input,  
 Feedthru capacitors

**Packaging**

Sealed steel can

**POWER REQUIREMENTS**

**Warm-Up Power**

6 Watts for 5 minutes

**Total Power**

3.5 Watts at +25°C, typical

**Supply Voltage**

+12 or +15 VDC

**CRYSTAL**

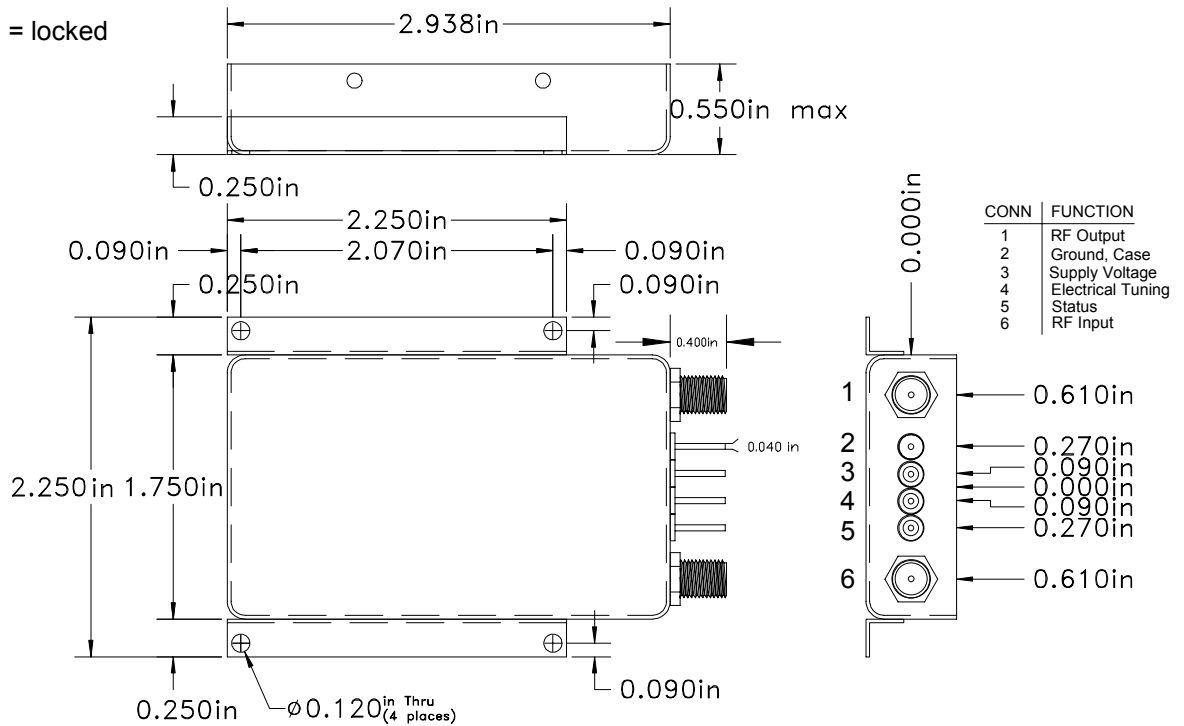
**Type**

10 MHz SC-cut

**STATUS PIN**

**External Reference Loss & Out-of-Lock Alarm**

TTL, Low = loss of reference, not locked  
 TTL, High = locked



**Wenzel Associates, Inc.**  
 Austin, Texas

Title: <b>10 MHz-SC PLO with Auto Input Select</b>				
P/N: <b>501-12970</b>	Rev: <b>B</b>	Date: <b>05-30-06</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>
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