### 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**
- $5 \times 10^{-10}$ /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**
- ±1x10^-8, 0° to 50°C (Ref 25°C), unlocked

### FREQUENCY ACCURACY

±5x10^-8 at time of shipment (+25°C)

### TYPE 2 LOOP CHARACTERISTICS

- **Target BW:** ≤1 Hz
- <5 minute to within ±1x10^-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

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### 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

---

**ADJUSTMENT**

**Mechanical, for Frequency Accuracy**
- ±5 x 10^-7, typical

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**EXTERNAL REFERENCE INPUT**

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**FSCM:** 62821

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**CONNECTORS**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ground</td>
</tr>
<tr>
<td>2</td>
<td>+15V</td>
</tr>
<tr>
<td>3</td>
<td>External Ref. Detect</td>
</tr>
<tr>
<td>4</td>
<td>Out of Lock</td>
</tr>
<tr>
<td>5</td>
<td>Phase Voltage</td>
</tr>
<tr>
<td>6</td>
<td>External Ref. In</td>
</tr>
<tr>
<td>7</td>
<td>RF Out</td>
</tr>
</tbody>
</table>

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**TOLERANCES**

- Except as noted, dimensions are in inches
  - 0.XX Dec: ±0.030"
  - 0.XXX Dec: ±0.010"

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**Wenzel Associates, Inc.**

**Austin, Texas**