REFERENCE PHASE LOCKED TRANSLATOR
SURFACE MOUNT MODEL: FCTS2000-10-5

2000 MHz

FIXED FREQUENCY

FEATURES:
- Ultra-Low Phase Noise
- No Programming Required
- Lead Free - RoHs Compliant
- Patented REL-PRO Technology
- Small Size, Surface Mount

SPECIFICATIONS (Rev. E 04/22/19)

- Frequency: 2000 MHz
- Reference Input Frequency: 10 MHz
- Reference Input Voltage: 1.0 to 3.3 V p-p

Bias Voltage:

<table>
<thead>
<tr>
<th>Vcc (Vdc)</th>
<th>I (mA Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital</td>
<td>+5</td>
</tr>
<tr>
<td>Tune</td>
<td>+12</td>
</tr>
<tr>
<td>VCO</td>
<td>+5</td>
</tr>
</tbody>
</table>

- Output Power: +5 dBm (Min.)
- Spurious Suppression: 80 dB (Typ.)
- Harmonic Suppression: 20 dB (Typ.)
- Output Impedance: 50 Ohms (Nom.)
- Lock Detect Indicator: CMOS 3.3 V

Typical Phase Noise:

<table>
<thead>
<tr>
<th>Offset</th>
<th>Phase Noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ 100 Hz</td>
<td>-80 dBc/Hz</td>
</tr>
<tr>
<td>@ 1 kHz</td>
<td>-105 dBc/Hz</td>
</tr>
<tr>
<td>@ 10 kHz</td>
<td>-135 dBc/Hz</td>
</tr>
<tr>
<td>@ 1 MHz</td>
<td>-165 dBc/Hz</td>
</tr>
</tbody>
</table>

- Operating Temperature Range: -20 to +70 °C

Absolute Maximum Ratings:

- Storage Temp. Range: -40 to +85 °C
- Bias Voltage (Digital): +5.25 V
- Bias Voltage (Tune): +13.0 V
- Bias Voltage (VCO): +5.5 V

Package # 197LF

PORT CONFIGURATION

- Pin 5 - RF Out
- Pin 7 - Lock Detect
- Pin 21 - Ref. Input
- Pin 25 - Vcc 1 (VCO)

Pin 23 - Vcc 2 (Digital)
Pin 27 - Vcc 3 (Vtune)
All Others - GND.

NC - No Connection

- Patent: http://www.synergymwave.com/patents

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Patents: http://www.synergymwave.com/patents

* High when locked (source/sink 500 uA)
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SURFACE MOUNT MODEL: FCTS2000-10-5

FCTS2000-10-5

2000 MHz

HARMONIC SUPPRESSION

REFERENCE SIDE BAND SUPPRESSION

PERFORMANCE PLOTS