FEATURES:
- Exceptionally Low Phase Noise
- No Programming Required
- Lead Free - RoHS Compliant
- Patented REL-PRO® Technology
- Small Size, Surface Mount
- Buffered Output

SPECIFICATIONS (Rev. E 12/20/11)

**Frequency**
1000 MHz

**Reference Input Frequency**
10 MHz

**Reference Input Voltage**
1.0 V p-p to 3.3 V p-p

**Bias Voltage**

<table>
<thead>
<tr>
<th>Vcc</th>
<th>V (Vdc)</th>
<th>I (mA Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vcc 1 (Digital)</td>
<td>+5</td>
<td>15</td>
</tr>
<tr>
<td>Vcc 2 (Vtune)</td>
<td>+8</td>
<td>10</td>
</tr>
<tr>
<td>Vcc 3 (VCO)</td>
<td>+8</td>
<td>55</td>
</tr>
</tbody>
</table>

**Lock Detect Indicator**
CMOS 3.3 V

**Output Power**
+3 dBm (Min.)

**Spurious Suppression**
90 dB (Typ.)

**Harmonic Suppression**
15 dB (Typ.)

**Power Up Time**
100 mSec (Max.) *

**Output Impedance**
50 Ohms (Nom.)

**Typical Phase Noise**

<table>
<thead>
<tr>
<th>Offset Frequency (Hz)</th>
<th>Phase Noise (dBc/Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ 1 kHz</td>
<td>-98 dBc/Hz</td>
</tr>
<tr>
<td>@ 10 kHz</td>
<td>-117 dBc/Hz</td>
</tr>
<tr>
<td>@ 100 kHz</td>
<td>-140 dBc/Hz</td>
</tr>
</tbody>
</table>

**Operating Temperature Range**
-40 to +85 °C

* From stable power on to stable lock detect.

**Absolute Maximum Ratings**

| Storage Temp. Range | -55 to +125 °C |
| Bias Voltage (PLL) | +5.25 V |
| Bias Voltage (Vtune) | +8.5 V |
| Bias Voltage (VCO) | +8.5 V |
| DC Voltage Applied to RF Out | ± 25 V |

**Recommended Part Numbers**

- SMC PART # 7,612,294
- 0.940
- 0.235
- 0.895
- 0.680
- 0.580
- 0.480
- 0.380
- 0.280
- 0.180
- 0.080
- 0.000

**PORT CONFIGURATION**

| Pin 6 - Ref. Input | Pin 13 - RF Out |
| Pin 7 - Vcc 1 (Digital) | Pin 14 - Lock Detect |
| Pin 8 - Vcc 2 (Tune) | Pin 1,2,3,4,5,15,16 - NC |
| Pin 9 - Vcc 3 (VCO) | Pin 10,11,12 - GND. |

**Package Mounting:** See application note AN7250 & AN7300

**Absolute Maximum Ratings**

- Storage Temp. Range: -55 to +125 °C
- Bias Voltage (PLL): +5.25 V
- Bias Voltage (Vtune): +8.5 V
- Bias Voltage (VCO): +8.5 V
- DC Voltage Applied to RF Out: ± 25 V

This product is manufactured under one or more of the following patents. Approved: 5,160,810; 5,122,621; 5,390,349; 5,416,449; 5,650,754; 5,805,431; 6,525,623; 6,850,575; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113; 7,365,612; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 7,580,693; 7,586,381; 7,605,670; 7,636,021; 2,533,623

Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; EV31369834; 1 1/259766; 60/622485 & 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 2,563,174; 7,580,693; 7,612,296; 2,524,751

Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 USA • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com
This product is manufactured under one or more of the following patents. Approved: 5,160,810; 5,122,621; 5,390,349; 5,416,449; 5,650,754; 5,805,431; 5,805,431; 6,525,623; 6,850,575; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113; 7,365,612; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 2,563,174; 7,580,693; 7,586,381; 7,605,670; 7,636,021; 2,533,623
Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; EV31369834; 1 1/259766; 60/622485 & 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 2,563,174; 7,580,693; 7,612,296; 2,524,751

Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 USA • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com