INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: FSW190410-50

WIDE BANDWIDTH
1900 - 4100 MHz

FEATURES:
- Exceptionally Low Phase Noise
- Interactive Communication
- Standard Programming Interface
- Ultra Wide Tuning Range
- Lead Free - RoHS Compliant
- Patented REL-PRO® Technology
- Small Size, Surface Mount

Phase Noise

SPECIFICATIONS (Rev. H 04/04/11)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>1900 - 4100 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step Size</td>
<td>500 kHz</td>
</tr>
<tr>
<td>Reference Input Frequency</td>
<td>10 MHz</td>
</tr>
<tr>
<td>Reference Input Voltage</td>
<td>1 V p-p to 3.3 V p-p</td>
</tr>
<tr>
<td>Bias Voltage</td>
<td>Vcc V (Vdc)  I (mA Max.)</td>
</tr>
<tr>
<td>Digital</td>
<td>+5</td>
</tr>
<tr>
<td>VCO</td>
<td>+5</td>
</tr>
<tr>
<td>Tune</td>
<td>+18</td>
</tr>
</tbody>
</table>

- Lock Detect Indicator: CMOS 3.3 V
- Output Power: -3 dBm (Min.)
- Spurious Suppression: 80 dB (Typ.)
- Harmonic Suppression: 10 dB (Typ.)
- Settling Time: 10 mSec (Typ.)
- Output Impedance: 50 Ohms (Nom.)

Typical Phase Noise
- @ 1 kHz: -82 dBc/Hz
- @ 10 kHz: -62 dBc/Hz
- @ 100 kHz: -109 dBc/Hz

Operating Temperature Range: -20 to +70 °C
Programming: See application note AN7100 for changing factory setting to desired reference frequency.

Storage Temp. Range: -55 to +125 °C
Bias Voltage (Digital): +5.25 V
Bias Voltage (VCO): +5.5 V
Bias Voltage (Tune): +20 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; 2,563,174; 7,580,693; 7,612,296; 2,524,751

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E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com
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REFERENCE SIDEBAND SUPPRESSION

Performance Plots

Date: 18.MAR.2008  13:04:02
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HARMONIC SUPPRESSION

REFERENCE SIDEBAND SUPPRESSION
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PERFORMANCE PLOTS

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7,081,987; 7,100,381; 7,198,011; 7,554,620; 7,892,112; 7,900,175; 7,940,252; 7,948,311; 7,948,317; 7,948,329; 7,968,495; 7,968,587; 7,996,876; 7,996,876; 8,533,025
Pending: 60/493075; 60/501371 & 60/527957 & 60/528670; 60/563481; 60/564170; 60/567951; 60/567952; 60/567953; 60/567954; 60/567954; 60/567954; 60/567954; 60/567954
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