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
- Buffered Output

SPECIFICATIONS (Rev. C 03/24/11)

Frequency 800 - 2100 MHz
Step Size 500 kHz
Reference Input Frequency 10 MHz ¹
Reference Input Voltage 1.0 V p-p to 3.3 V p-p

Bias Voltage
- Vcc V (Vdc) i (mA Max.)
  - Digital +5 15
  - VCO +5 60
  - Tune +25 10

Output Power +5 dBm (Min.)
Spurious Suppression 75 dB (Typ.)
Harmonic Suppression 12 dB (Typ.)
Settling Time 3 mSec (Typ.)²
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>@ 1 kHz</td>
<td>-88 dbc/Hz</td>
</tr>
<tr>
<td>@ 10 kHz</td>
<td>-90 dbc/Hz</td>
</tr>
<tr>
<td>@ 100 kHz</td>
<td>-113 dbc/Hz</td>
</tr>
</tbody>
</table>

Operating Temperature Range -40 to +85 °C
Programming See Application Note: AN7100

Absolute Maximum Ratings
- Storage Temp. Range -55 to +125 °C
- Bias Voltage (Digital) +5.25 V
- Bias Voltage (Tune) +30 V
- Bias Voltage (VCO) +5.5 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; 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
INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: FSW80210-50
WIDE BANDWIDTH
800 - 2100 MHz

PERFORMANCE PLOTS

HARMONIC SUPPRESSION

REFERENCE SIDEBAND SUPPRESSION

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Pending: 60/493075; 60/501371 & 60/501790; 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; 2,563,174; 2,580,693; 7,545,229; 7,580,693; 7,612,296; 2,524,751

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