INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: FSW85150-50

WIDE BANDWIDTH
850 - 1500 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
- Buffered Output

SPECIFICATIONS (Rev. B 03/24/11)

Frequency  850 - 1500 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

<table>
<thead>
<tr>
<th>Vcc</th>
<th>V (Vdc)</th>
<th>I (mA Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Digital</td>
<td>+5</td>
</tr>
<tr>
<td></td>
<td>VCO</td>
<td>+5</td>
</tr>
<tr>
<td></td>
<td>Tune</td>
<td>+16</td>
</tr>
</tbody>
</table>

Output Power +4 dBm (Min.)
Spurious Suppression 85 dB (Typ.)
Harmonic Suppression 20 dB (Typ.)
Settling Time 5 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>-90 dBc/Hz</td>
</tr>
<tr>
<td>@ 10 kHz</td>
<td>-93 dBc/Hz</td>
</tr>
<tr>
<td>@ 100 kHz</td>
<td>-120 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)   | +17 V          |
| Bias Voltage (VCO)    | +5.5 V         |
| DC Voltage Applied to RF Out | ±25 V |

1 Reference input frequency is programmable (see AN7100) in multiples of the step size, 10 MHz is the default setting. 150 MHz (Max.)
2 From the rising edge of LE to stable lock detect

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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; 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; 11/259766; 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
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PERFORMANCE PLOTS
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Date: 18.MAY.2006 23:54:02
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