INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSW80210-50

WIDE BANDWIDTH
800 - 2100 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. D 04/25/11)

Frequency
800 - 2100 MHz
Step Size
500 kHz
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>Voltage</th>
<th>Vcc (Vdc)</th>
<th>I (mA Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital</td>
<td>+5</td>
<td>50</td>
</tr>
<tr>
<td>VCO</td>
<td>+5</td>
<td>35</td>
</tr>
<tr>
<td>Converter</td>
<td>+5</td>
<td>55</td>
</tr>
</tbody>
</table>

Lock Detect Indicator
CMOS 3.3 V

Spurious Suppression
76 dB (Typ.)

Harmonic Suppression
15 dB (Typ.)

Settling Time
5 mSec (Typ.)

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>-92 dBC/Hz</td>
</tr>
<tr>
<td>10 kHz</td>
<td>-93 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

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temp. Range</td>
<td>-55 to +125 °C</td>
</tr>
<tr>
<td>Bias Voltage (Digital)</td>
<td>+5.25 V</td>
</tr>
<tr>
<td>Bias Voltage (VCO)</td>
<td>+5.5 V</td>
</tr>
<tr>
<td>Bias Voltage (Converter)</td>
<td>+8 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>±25 V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Package #</th>
<th>197LF</th>
</tr>
</thead>
</table>

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; 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
INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSW80210-50

WIDE BANDWIDTH
800 - 2100 MHz

HARMONIC SUPPRESSION

REFERENCE SIDEBAND SUPPRESSION

Date: 21.AUG.2008  01:02:13

Date: 21.AUG.2008  01:01:03
INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSW80210-50

WIDE BANDWIDTH
800 - 2100 MHz

REFERENCE SIDEBAND SUPPRESSION

PERFORMANCE PLOTS
INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSW80210-50
WIDE BANDWIDTH 800 - 2100 MHz

HARMONIC SUPPRESSION

REFERENCE SIDEBAND SUPPRESSION

Date: 21.AUG.2008  01:02:19
Date: 21.AUG.2008  01:02:06
INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSW80210-50

WIDE BANDWIDTH
800 - 2100 MHz

REFERENCE SIDEBAND SUPPRESSION

Date: 21.AUG.2008  01:01:50