INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSW300600-20

WIDE BANDWIDTH

3000 - 6000 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. C 04/08/11)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>3000 - 6000 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step Size</td>
<td>200 kHz</td>
</tr>
<tr>
<td>Reference Input Frequency</td>
<td>100 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>Converter</td>
<td>+5</td>
</tr>
<tr>
<td>Output Power</td>
<td>+4 dBm (Min.)</td>
</tr>
<tr>
<td>Spurious Suppression</td>
<td>60 dB (Typ.)</td>
</tr>
<tr>
<td>Harmonic Suppression</td>
<td>15 dB (Typ.)</td>
</tr>
<tr>
<td>Settling Time</td>
<td>15 mSec (Typ.)</td>
</tr>
<tr>
<td>Output Impedance</td>
<td>50 Ohms (Nom.)</td>
</tr>
<tr>
<td>Typical Phase Noise</td>
<td>Offset Phase Noise</td>
</tr>
<tr>
<td>@ 1 kHz</td>
<td>-73 dBc/Hz</td>
</tr>
<tr>
<td>@ 10 kHz</td>
<td>-74 dBc/Hz</td>
</tr>
<tr>
<td>@ 100 kHz</td>
<td>-100 dBc/Hz</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-30 to +85 °C</td>
</tr>
</tbody>
</table>

Programming
- See Application Note: AN7100

Absolute Maximum Ratings

| Storage Temp. Range | -55 to +125 °C |
| Bias Voltage (Digital) | +5.25 V |
| Bias Voltage (VCO) | +5.5 V |
| Bias Voltage (Converter) | +8 V |
| DC Voltage Applied to RF Out | ±25 V |

Special Port Configuration:

- Pin 5 - RF out
- Pin 21 - Ref. In
- Pin 7 - Lock Detect Out *
- Pin 23 - Vcc (Digital)
- Pin 9 - Data In
- Pin 24 - Vtune (Output)
- Pin 10 - Error Flag
- Pin 25 - Vco (VCO)
- Pin 11 - Clock In
- Pin 26 - Vout (Converter)***
- Pin 13 - VCO (On/Off)****
- Pin 27 - Vcc (Tune)***
- Pin 19 - Latch Enable In
- Pin 28 - Vcc (Converter)

* High when locked (source/sink 500 uA)
*** Connect externally. Bypassed with a 10uF 35V tantalum capacitor.
**** NC if unused.

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

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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

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REFERENCE SIDEBAND SUPPRESSION

PERFORMANCE PLOTS

Date: 17.APR.2008  18:48:26
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HARMONIC SUPPRESSION

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