INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSW60170-10

WIDE BANDWIDTH

600 - 1700 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

Phase Noise

<table>
<thead>
<tr>
<th>Offset Frequency (Hz)</th>
<th>Phase Noise (dBc/Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>-165</td>
</tr>
<tr>
<td>1000</td>
<td>-155</td>
</tr>
<tr>
<td>10000</td>
<td>-145</td>
</tr>
<tr>
<td>100000</td>
<td>-135</td>
</tr>
<tr>
<td>1000000</td>
<td>-125</td>
</tr>
<tr>
<td>10000000</td>
<td>-115</td>
</tr>
<tr>
<td>100000000</td>
<td>-105</td>
</tr>
<tr>
<td>1000000000</td>
<td>-95</td>
</tr>
<tr>
<td>10000000000</td>
<td>-85</td>
</tr>
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</tr>
<tr>
<td>1000000000000</td>
<td>-65</td>
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<tr>
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<td>-55</td>
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<tr>
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<td>-45</td>
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<td>-35</td>
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<td>10000000000000000</td>
<td>-25</td>
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<tr>
<td>100000000000000000</td>
<td>-15</td>
</tr>
</tbody>
</table>

SPECIFICATIONS (Rev. C 04/07/11)

Frequency: 600 - 1700 MHz
Step Size: 100 kHz
Reference Input Frequency: 10 MHz
Reference Input Voltage: 1.0 V p-p to 3.3 V p-p

Bias Voltage
- Vcc V (Vdc) I (mA Max.)
  - Digital +5 65
  - VCO +5 40
  - Converter +5 55

Lock Detect Indicator: CMOS 3.3 V
Output Power: +65 dBm (Min.)
Spurious Suppression: 65 dB (Typ.)
Harmonic Suppression: 10 dB (Typ.)
Settling Time: 15 mSec (Typ.)
Output Impedance: 50 Ohms (Nom.)

Operating Temperature Range: -40 to +85 ºC

Programming: See Application Note: AN7100

Absolute Maximum Ratings
- Storage Temp. Range: -55 to +125 ºC
- Bias Voltage (Digital): +5.25 V
- Bias Voltage (VCO): +5.5 V
- Bias Voltage (Converter): +8.0 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; 2,548,329; 7,456,480; 7,456,380; 7,525,670; 7,525,671; 7,525,725; 7,545,229; 2,563,174; 7,580,693; 7,612,296; 2,524,751
Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 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; 7,545,229; 2,563,174; 7,580,693; 7,612,296; 2,524,751
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PERFORMANCE PLOTS

HARMONIC SUPPRESSION

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REFERENCE SIDEBAND SUPPRESSION

PERFORMANCE PLOTS

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