INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSFN150320-50

WIDE BANDWIDTH
1500 - 3200 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

SPECIFICATIONS (Rev. A 01/25/13)
Frequency
1500 - 3200 MHz
Step Size
500 kHz
Reference Input Frequency
10 MHz
Reference Input Voltage
1.0 V p-p to 3.3 V p-p

<table>
<thead>
<tr>
<th>Bias Voltage</th>
<th>Vcc</th>
<th>V (Vdc)</th>
<th>I (mA Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital</td>
<td>+5</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>VCO</td>
<td>+5</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Converter</td>
<td>+5</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Output Power
+5 dBm (Min.)
Spurious Suppression
65 dB (Typ.)
Harmonic Suppression
25 dB (Typ.)
Settling Time
3 mSec (Typ.)
Output Impedance
50 Ohms (Nom.)

Phase Noise

Operating Temperature Range
-30 to +70 °C

Programming
See Application Note: AN7100

Absolute Maximum Ratings
Storage Temp. Range
-55 to +125 °C
Bias Voltage (Digital)
+5.25 V
Bias Voltage (Converter)
+8.0 V
Bias Voltage (VCO)
+5.5 V
DC Voltage Applied to RF Out
±25 V

Port Configuration
Pin 5 - RF Out
Pin 7 - Lock Detect Out *
Pin 9 - Data In
Pin 10 - Error Flag
Pin 11 - Clock In
Pin 13 - VCO (On/Off)****
Pin 19 - Latch Enable In

* Contact factory for other reference frequency options
** From the rising edge of LE to stable lock detect

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

REFERENCE SIDE BAND SUPPRESSION
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PERFORMANCE PLOTS
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WIDE BANDWIDTH

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