INTELLIGENT INTERACTIVE SYNTHESIZER
SURFACE MOUNT MODEL: LFSW110250-50

WIDE BANDWIDTH

1100 - 2500 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 03/31/11)

Frequency: 1100 - 2500 MHz
Step Size: 500 kHz
Reference Input Frequency: 10 MHz
Reference Input Voltage: 1 V p-p to 3.3 V p-p

Bias Voltage:
- Vcc V (Vdc) I (mA Max.)
  - Digital: +5 50
  - VCO: +5 35
  - Converter: +5 55

Output Power: +5 dBm (Min.)

Spurious Suppression: 75 dB (Typ.)
Harmonic Suppression: 15 dB (Typ.)
Settling Time: 15 ms (Typ.)
Output Impedance: 50 Ohms (Nom.)
Lock Detect Indicator: CMOS 3.3 V

Typical Phase Noise:
- Offset Phase Noise
  - @ 1 kHz: -90 dBc/Hz
  - @ 10 kHz: -92 dBc/Hz
  - @ 100 kHz: -115 dBc/Hz

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 (VCO): +5.5 V
- Bias Voltage (Converter): +8 V
- DC Voltage Applied to RF Out: ±25 V

Package #: 197LF

Port Configuration:
- Pin 5 - RF out
- Pin 6 - Vcc (Digital)
- Pin 7 - Lock Detect Out *
- Pin 8 - Data In
- Pin 9 - Error Flag
- Pin 10 - VCO (On/Off)
- Pin 11 - Clock In
- Pin 13 - VCC (Output)
- Pin 14 - Vout (Converter)
- Pin 15 - Vcc (VCO)
- Pin 16 - Vcc (Tune)
- Pin 17 - Vcc (Converter)
- Pin 18 - Vcc (Converter)
- Pin 19 - Latch Enable In

* High when locked (source/sink 500 µA)
*** 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; 2,563,174; 7,580,693; 7,586,381; 7,605,670; 7,636,021; 2,533,623

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HARMONIC SUPPRESSION

REFERENCE SIDEBAND SUPPRESSION

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REFERENCE SIDEBAND SUTPRESSION

-10 dBm
-12 dBm
-14 dBm
-16 dBm
-18 dBm
-20 dBm
-22 dBm
-24 dBm
-26 dBm
-28 dBm
-30 dBm
-32 dBm
-34 dBm
-36 dBm
-38 dBm
-40 dBm
-42 dBm
-44 dBm
-46 dBm
-48 dBm
-50 dBm
-52 dBm
-54 dBm
-56 dBm
-58 dBm
-60 dBm
-62 dBm
-64 dBm
-66 dBm
-68 dBm
-70 dBm
-72 dBm
-74 dBm
-76 dBm
-78 dBm
-80 dBm
-82 dBm
-84 dBm
-86 dBm
-88 dBm
-90 dBm
-92 dBm
-94 dBm
-96 dBm
-98 dBm
-100 dBm

Date: 18.MAY.2007  10:29:02

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PERFORMANCE PLOTS
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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; 7,546,229; 7,586,683; 7,605,670; 7,636,021; 2,524,751

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