INTELLIGENT INTERACTIVE SYNTHESIZER

SURFACE MOUNT MODEL: FSW190410-100

WIDE BANDWIDTH
1900 - 4100 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

SPECIFICATIONS (Rev. I 04/04/11)

Frequency: 1900 - 4100 MHz
Step Size: 1000 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 15
- VCO: +5 50
- Tune: +18 10

Output Power: -3 dBm (Min.)
Spurious Suppression: 80 dB (Typ.)
Harmonic Suppression: 10 dB (Typ.)
Settling Time: 10 mSec (Typ.)
Output Impedance: 50 Ohms (Nom.)
Lock Detect Indicator: CMOS 3.3 V

Typical Phase Noise:
- Offset | Phase Noise dBc/Hz
  - 1 kHz  | -85 dBc/Hz
  - 10 kHz | -83 dBc/Hz
  - 100 kHz| -110 dBc/Hz

Operating Temperature Range: -55 to +125 °C
Programming: See Application Note: AN7100

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

PACKAGE # 273LF

Port Configuration:
- Pin 1,2,3 - NC
- Pin 4 - Error flag
- Pin 5 - Latch Enable In
- Pin 6 - RF In
- Pin 7 - Vcc (Digital)
- Pin 8 - Vcc (Tune)
- Pin 9 - Vcc (VCO)
- Pin 11 - Vcc (Digital)
- Pin 12 - Vcc (Tune)
- Pin 13 - RF Out
- Pin 14 - Lock Detect Out *
- Pin 15 - Data In
- Pin 16 - Clock In
- All Others - Ground

* High when locked (source/sink 500 uA)

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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; 7,612,296; 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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WIDE BANDWIDTH

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REFERENCE SIDEBAND SUPPRESSION

TYPICAL HARMONIC REJECTION

PERFORMANCE PLOTS

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