

# FIXED FREQUENCY SYNTHESIZER

## SURFACE MOUNT MODEL: FCPL840-10

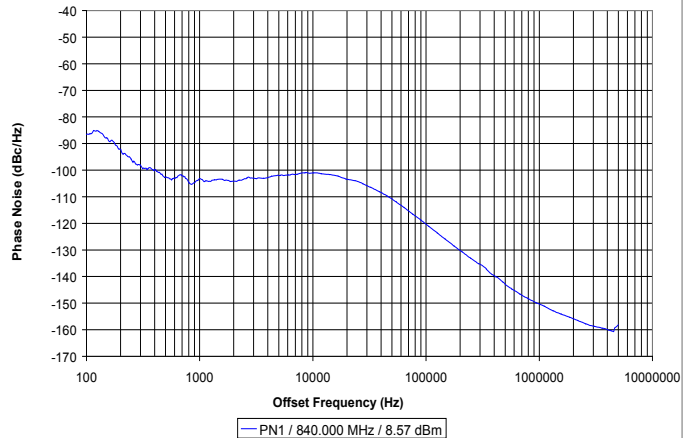
840 MHz

### FEATURES:

- ▶ Exceptionally Low Phase Noise
- ▶ No Programming Required
- ▶ Lead Free - RoHS Compliant
- ▶ Patent Pending REL-PRO® Technology
- ▶ Small Size, Surface Mount



### Phase Noise

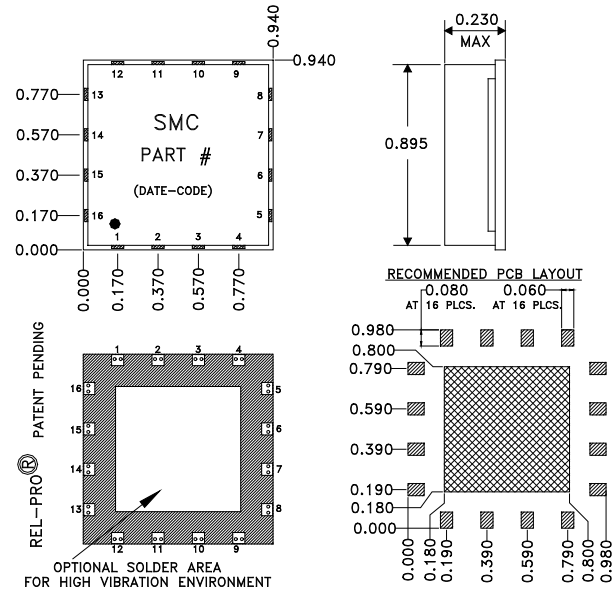


### SPECIFICATIONS (Rev. C 02/23/07)

Frequency	840 MHz																
Reference Input Frequency	10 MHz																
Reference Input Voltage	1.0 V p-p to 3.3 V p-p																
Bias Voltage	<table border="1"> <thead> <tr> <th></th> <th>Vcc</th> <th>V (Vdc)</th> <th>I (mA Max.)</th> </tr> </thead> <tbody> <tr> <td>PLL</td> <td>+5</td> <td>+5</td> <td>15</td> </tr> <tr> <td>VCO</td> <td>+5</td> <td>+5</td> <td>55</td> </tr> <tr> <td>Tune</td> <td>+5</td> <td>+5</td> <td>10</td> </tr> </tbody> </table>		Vcc	V (Vdc)	I (mA Max.)	PLL	+5	+5	15	VCO	+5	+5	55	Tune	+5	+5	10
	Vcc	V (Vdc)	I (mA Max.)														
PLL	+5	+5	15														
VCO	+5	+5	55														
Tune	+5	+5	10														
Output Power	+3 dBm (Min.)																
Spurious Suppression	85 dB (Typ.)																
Harmonic Suppression	18 dB (Typ.)																
Power-Up Time	90 mSec (Typ.)*																
Output Impedance	50 Ohms (Nom.)																
Typical Phase Noise	<table border="1"> <thead> <tr> <th>Offset</th> <th>Phase Noise</th> </tr> </thead> <tbody> <tr> <td>@ 1 kHz</td> <td>-103 dbc/Hz</td> </tr> <tr> <td>@ 10 kHz</td> <td>-101 dbc/Hz</td> </tr> <tr> <td>@ 100 kHz</td> <td>-120 dbc/Hz</td> </tr> </tbody> </table>	Offset	Phase Noise	@ 1 kHz	-103 dbc/Hz	@ 10 kHz	-101 dbc/Hz	@ 100 kHz	-120 dbc/Hz								
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@ 1 kHz	-103 dbc/Hz																
@ 10 kHz	-101 dbc/Hz																
@ 100 kHz	-120 dbc/Hz																
Operating Temperature Range	-40 to +85 °C																

\* From stable power on to stable lock detect.

Package # 273LF



PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200

### Pin Configuration

Pin 1 - NC (Reset)	Pin 9 - Vcc (VCO)	Pin 10,11,12 - GND.
Pin 6 - Ref. Input	Pin 13 - RF Out	
Pin 7 - Vcc (PLL)	Pin 14 - Lock Detect	NC - Not Connected
Pin 8 - Vcc (Tune)	Pin 2,3,4,5,15,16 - NC	

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  
 Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/563481; 60/564173; 60/589090; 60/601823;  
 60/605791; EV31369834; 11/259766; 60/622485 & 60/710310; 10/937525/60/736901; 60/732787  
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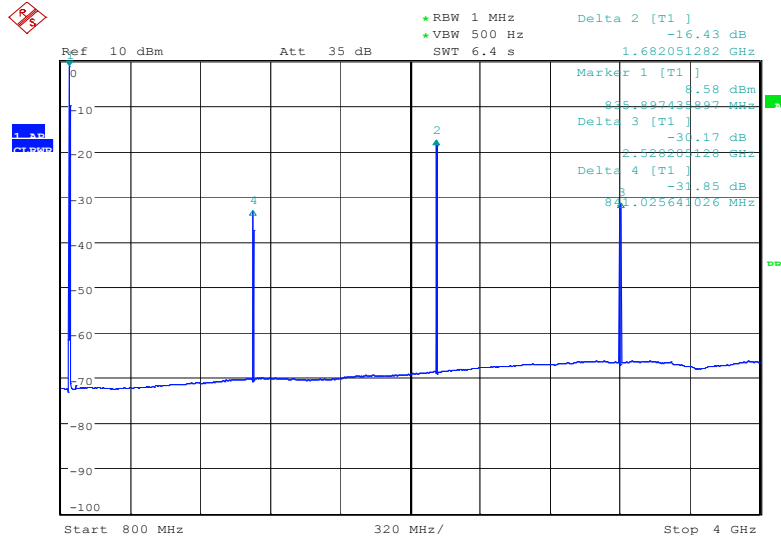


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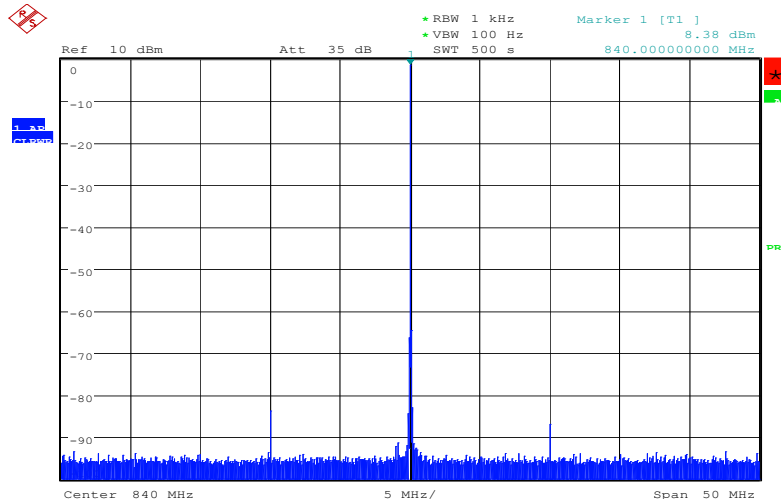
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840 MHz

### HARMONIC SUPPRESSION



### REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

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