

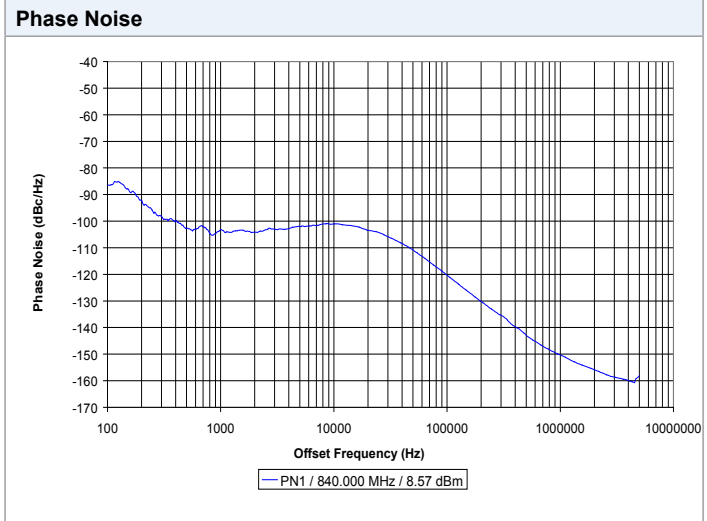
# FIXED FREQUENCY SYNTHESIZER

## 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



**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	Vcc	V (Vdc)	I (mA Max.)
	PLL	+5	15
	VCO	+5	55
	Tune	+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	Offset	Phase Noise	
	@ 1 kHz	-103 dbc/Hz	
	@ 10 kHz	-101 dbc/Hz	
Operating Temperature Range	@ 100 kHz -120 dbc/Hz		
	-40 to +85 °C		

\* From stable power on to stable lock detect.

**Package #** 273LF

SMC  
PART #  
(DATE-CODE)

REL-PRO® PATENT PENDING

OPTIONAL SOLDER AREA FOR HIGH VIBRATION ENVIRONMENT

RECOMMENDED PCB LAYOUT  
AT 16 PLCS. AT 16 PLCS.

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	NC - Not Connected
Pin 7 - Vcc (PLL)	Pin 14 - Lock Detect	
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  
 Copyright © Synergy Microwave Corporation  
 201 McLean Boulevard • Paterson, New Jersey 07504 • Tel: (973) 881-8800 • Fax: (973) 881-8361  
 E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com

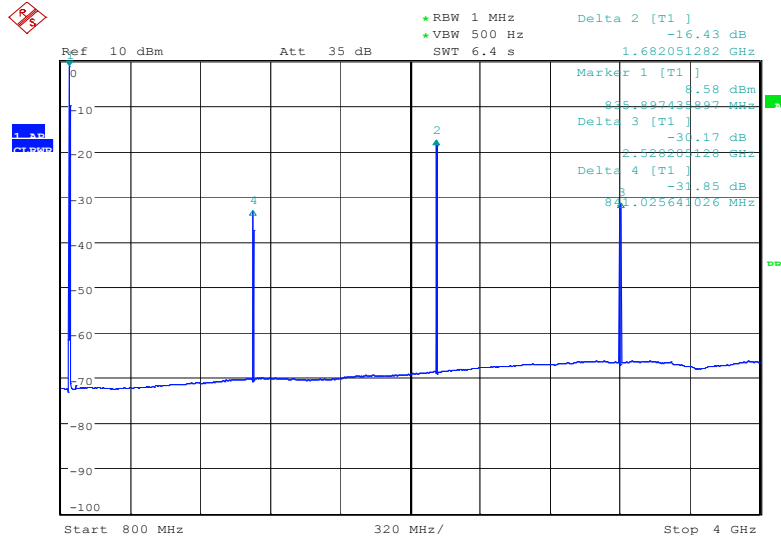


# FIXED FREQUENCY SYNTHESIZER

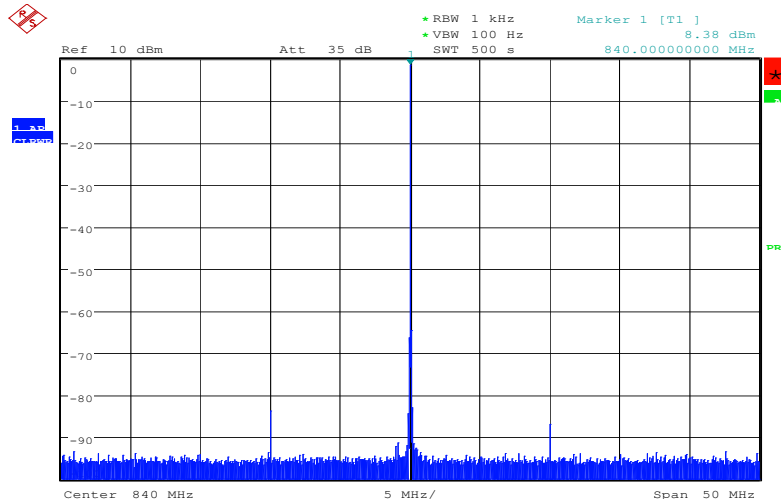
## SURFACE MOUNT MODEL: FCPL840-10

840 MHz

### HARMONIC SUPPRESSION



### REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

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

Copyright © Synergy Microwave Corporation

201 McLean Boulevard • Paterson, New Jersey 07504 • Tel: (973) 881-8800 • Fax: (973) 881-8361  
 E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com

