

# SELECTABLE FREQUENCY SYNTHESIZER

## SURFACE MOUNT MODEL: FCPL3239-10

### OPTIMIZED LOOP PARAMETERS

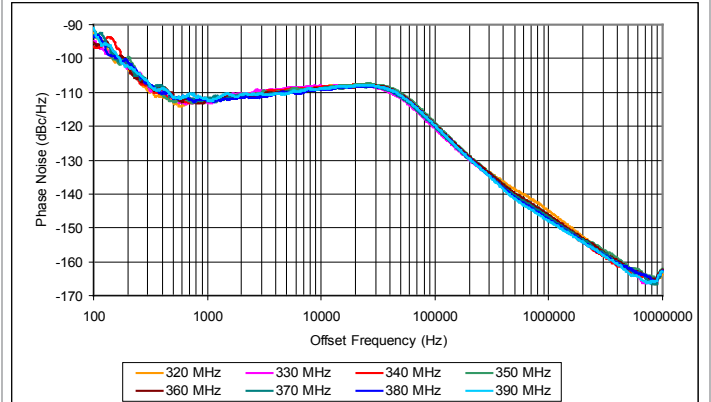
### 320 - 390 MHz

#### FEATURES:

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



#### Phase Noise

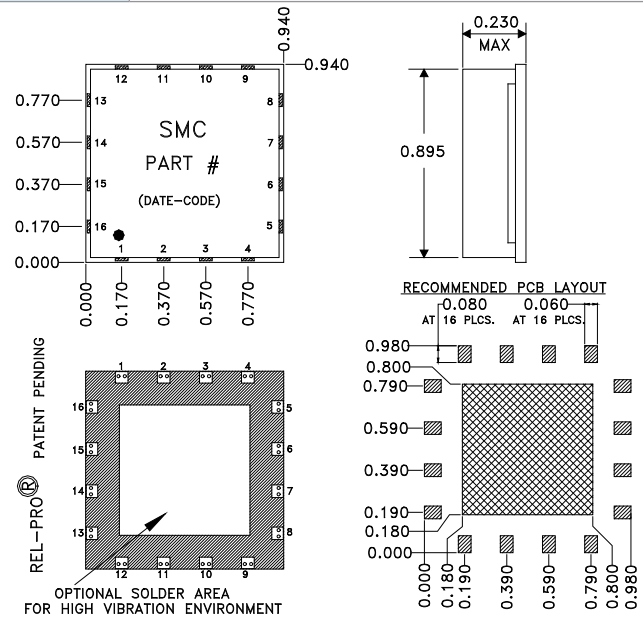


#### SPECIFICATIONS (Rev. C 12/09/08)

Frequency	320 - 390 MHz		
Step Size	10 MHz		
Reference Input Frequency	10 MHz		
Reference Input Voltage	1.5 V p-p to 3.0 V p-p		
Bias Voltage	Vcc	V (Vdc)	I (mA Max)
	PLL	+5	10
	VCO	+5	30
	Vtune	+5	15
D1, D2, D3	0 V / +5V		
Output Power	+3 dBm ±2dB		
Spurious & Ref. Sideband	80 dB (Typ.)		
Harmonic Suppression	12 dB (Typ.)		
Settling Time	100 mSec (Max.)*		
Output Impedance	50 Ohms		
Typical Phase Noise	Offset	Phase Noise	
	@ 1 kHz	-112 dbc/Hz	
	@ 10 kHz	-108 dbc/Hz	
@ 100 kHz	-120 dbc/Hz		
Operating Temperature Range	-30 to +70 °C		

\* From stable power on to stable lock detect

Package # 273LF



PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200

#### Port Configuration

Pin 1 - NC	Pin 8 - VCC 2 (Vtune)	Pin 15 - NC
Pin 2 - D1	Pin 9 - VCC 3 (VCO)	Pin 16 - NC
Pin 3 - D2	Pin 10 - GND	
Pin 4 - D3	Pin 11 - GND	NC - Not Connected
Pin 5 - NC	Pin 12 - GND	GND - Ground
Pin 6 - Ref. Input	Pin 13 - RF Out	
Pin 7 - VCC 1 (PLL)	Pin 14 - Lock Detect	

#### Binary Frequency Selection

D1	D2	D3	Frequency (MHz)
0	0	0	320
1	0	0	330
0	1	0	340
1	1	0	350
0	0	1	360
1	0	1	370
0	1	1	380
1	1	1	390

Note: The plots shown are indicative of the performance for all of the eight selectable frequencies.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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  
 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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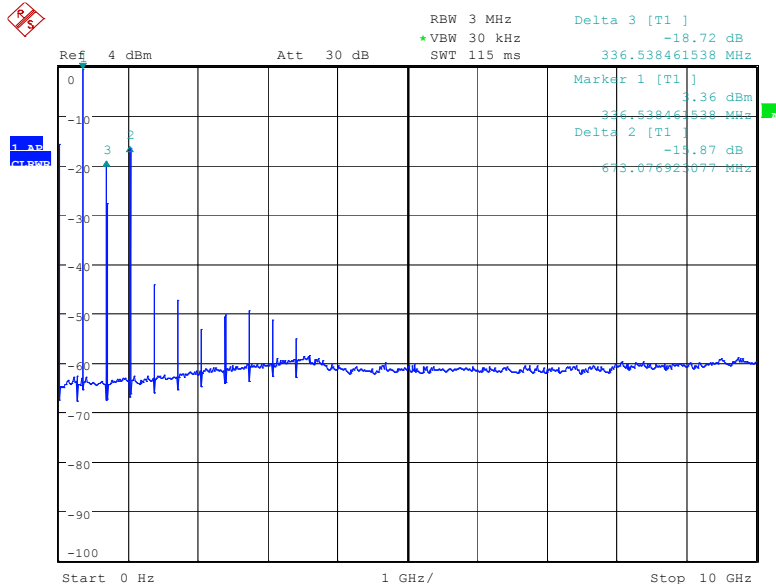
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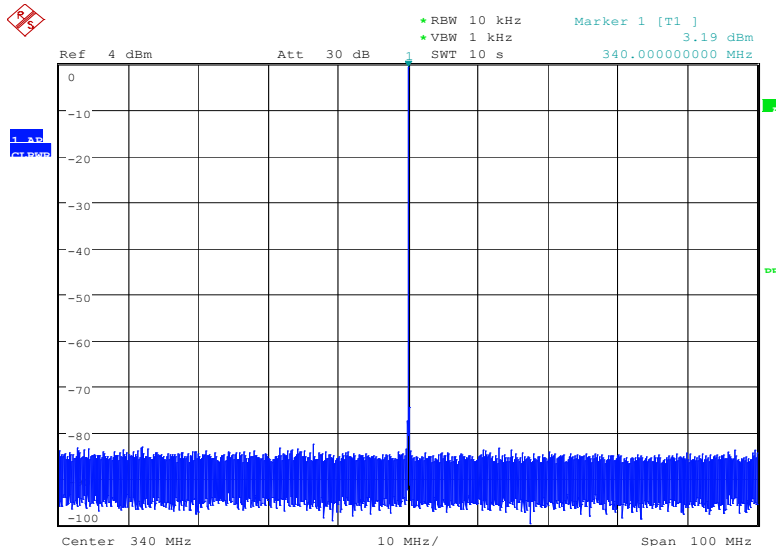
320 - 390 MHz

PERFORMANCE PLOTS

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



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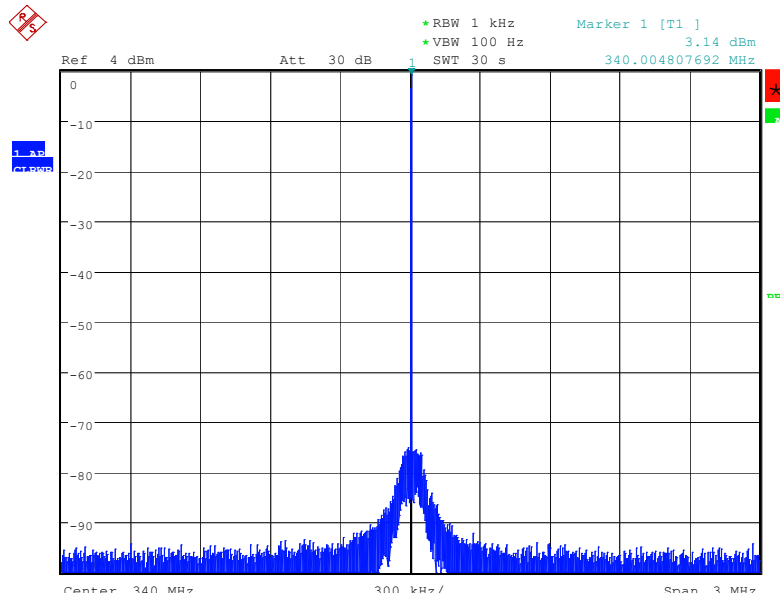
# SELECTABLE FREQUENCY SYNTHESIZER

## SURFACE MOUNT MODEL: FCPL3239-10

OPTIMIZED LOOP PARAMETERS

320 - 390 MHz

CLOSE IN SPURIOUS SUPPRESSION



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