

# INTEGRATED FREQUENCY SYNTHESIZER

## SURFACE MOUNT MODEL: FSH9496-20

### OPTIMIZED LOOP PARAMETERS

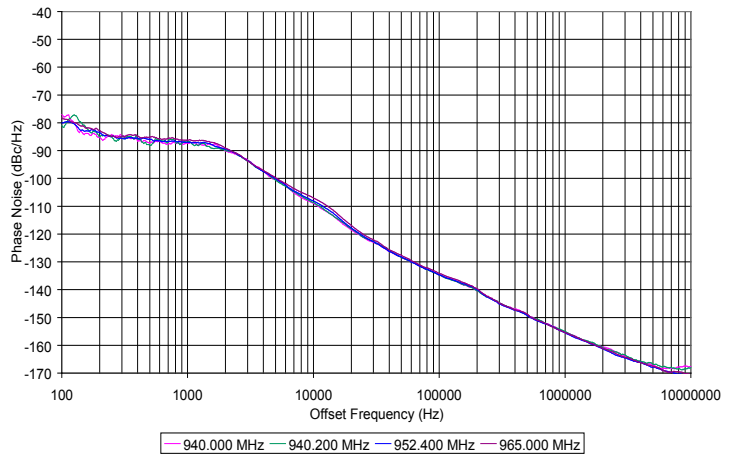
940 - 970 MHz

#### FEATURES:

- ▶ Exceptionally Low Phase Noise
- ▶ Optimized Reference Sidebands
- ▶ Lead Free - RoHS Compliant
- ▶ Patent Pending REL-PRO® Technology
- ▶ Small Size, Surface Mount
- ▶ Buffered Output



#### Phase Noise



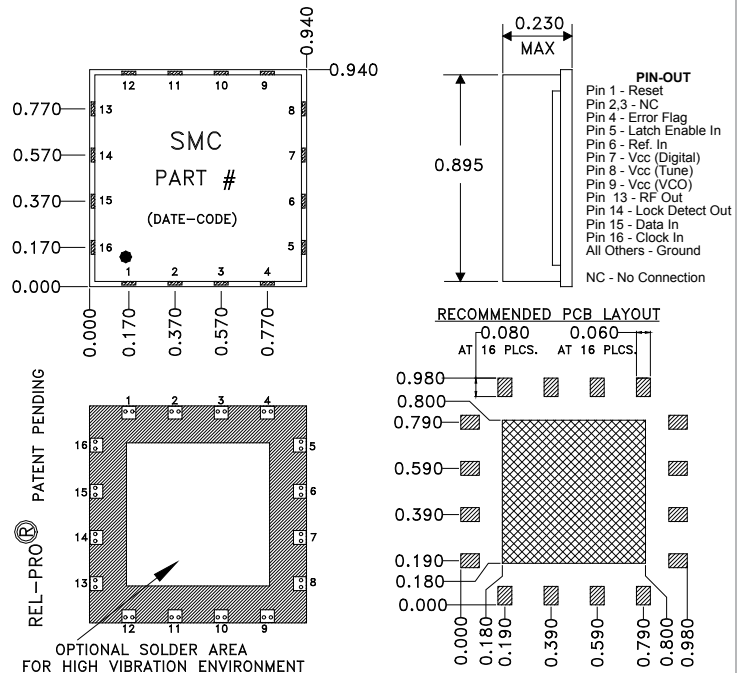
### SPECIFICATIONS (Rev. D 12/19/07)

Frequency	940 - 970 MHz		
Step Size	200 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	55
	Tune	+5	10
Output Power	+5 dBm (Min.)		
Spurious Suppression	90 dB (Typ.)		
Harmonic Suppression	10 dB (Typ.)		
Settling Time	25 mSec (Max.) **		
Output Impedance	50 Ohms (Nom.)		
Typical Phase Noise	Offset	Phase Noise	
	@ 1 kHz	-87 dbc/Hz	
	@ 10 kHz	-109 dbc/Hz	
	@ 100 kHz	-134 dbc/Hz	
Operating Temperature Range	-40 to +85 °C		
Programming	See Application Note: AN7100		

\* Reference input frequency is programmable in multiples of the step size, 10 MHz is the default setting, 150 MHz (Max.).

\*\* From the rising edge of LE to stable lock detect

Package # 273LF



PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200

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; 7,068,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113  
 Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528970; 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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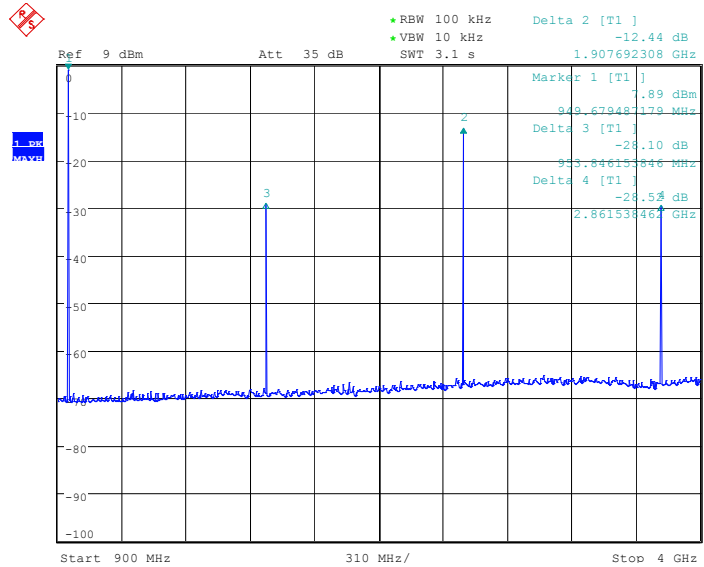
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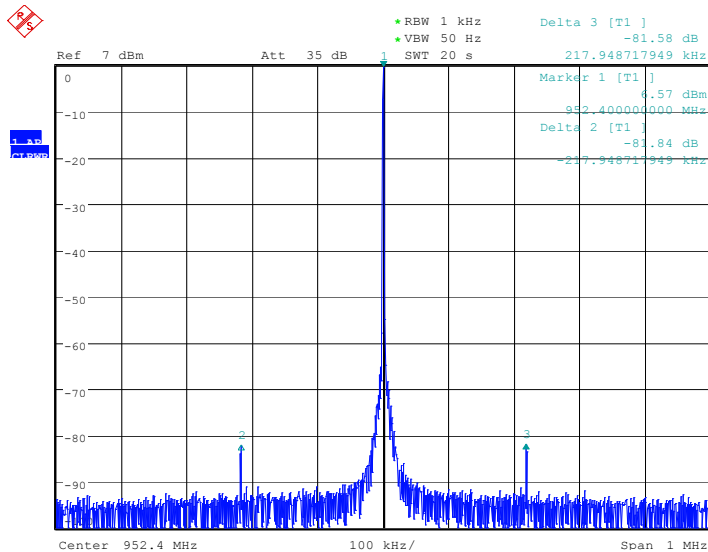
OPTIMIZED LOOP PARAMETERS

940 - 970 MHz

### HARMONIC SUPPRESSION



### REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

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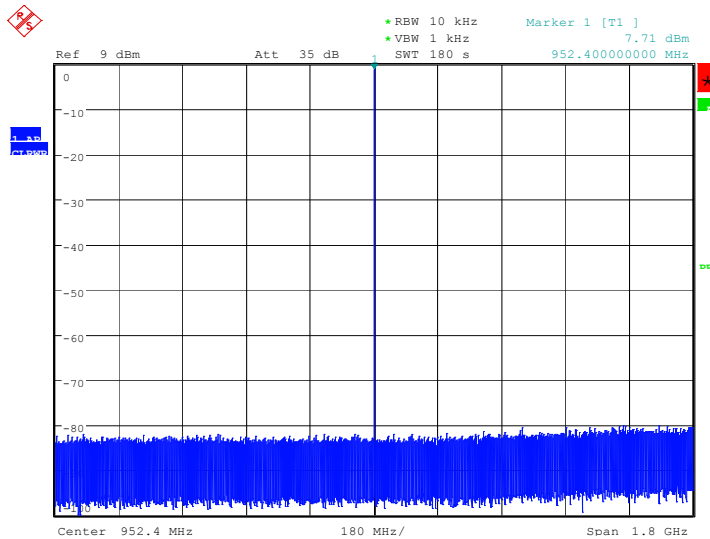
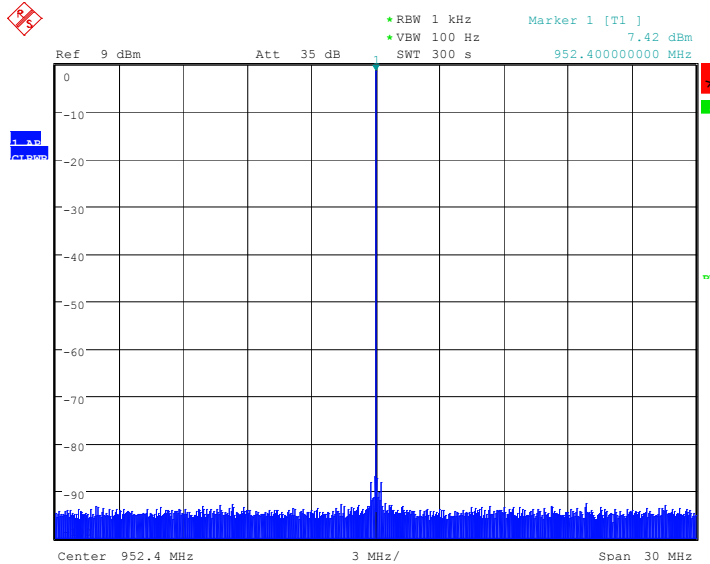
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