

INTELLIGENT INTERACTIVE SYNTHESIZER

SURFACE MOUNT MODEL: MFSH480540-100

OPTIMIZED LOOP PARAMETER

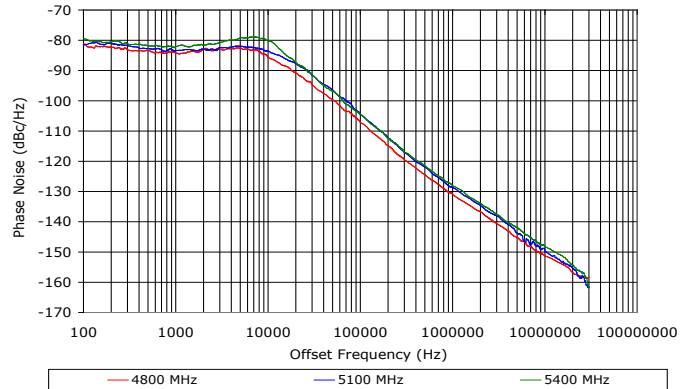
4800 - 5400 MHz

FEATURES:

- ▶ Small Size, Surface Mount (0.6" x 0.6")
- ▶ Exceptionally Low Phase Noise
- ▶ Standard Programming Interface
- ▶ Ultra Wide Tuning Range
- ▶ Lead Free - RoHS Compliant
- ▶ Patented REL-PRO® Technology
- ▶ Buffered Output



Phase Noise



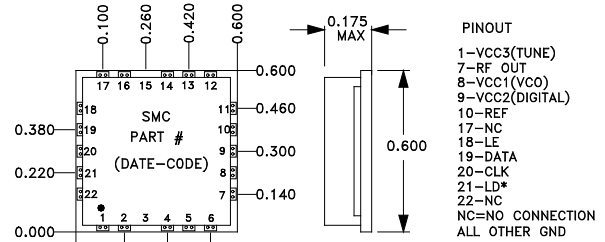
SPECIFICATIONS (Rev. B 04/22/11)

Frequency	4800 - 5400 MHz		
Step Size	1 MHz		
Reference Input Frequency	10 MHz ¹		
Reference Input Voltage	0.5 V p-p to 1.0 V p-p		
Bias Voltage	Vcc	V (Vdc)	I (mA Max.)
	VCO	+5	55
	Digital	+3	18
	Tune	+25	5
Output Power	+2 dBm (Min.)		
Spurious Suppression	70 dB (Typ.)		
Harmonic Suppression	15 dB (Typ.)		
Settling Time	10 mSec (Typ.) ²		
Output Impedance	50 Ohms (Nom.)		
Lock Detect Indicator	CMOS 3.0 V		
Typical Phase Noise	Offset	Phase Noise	
	@ 10 kHz	-83 dBc/Hz	
	@ 100 kHz	-103 dBc/Hz	
Operating Temperature Range	-40 to +85 °C		
Programming	See Application Note: AN7500		
¹ Reference input frequency is programmable (See AN7500) in multiples of the step size, 10 MHz is the factory default setting. 150 MHz (Max.)			
² From the rising edge of LE to stable lock detect			

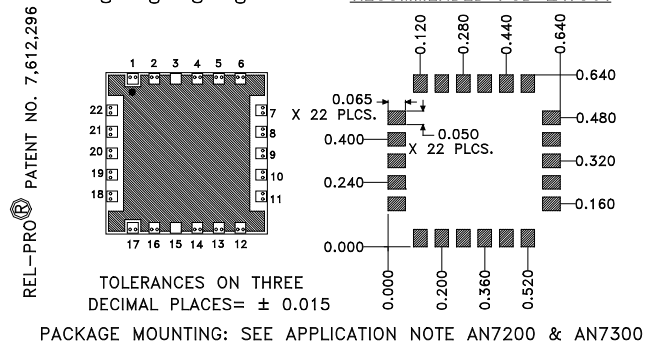
Absolute Maximum Ratings

Storage Temp. Range	-55 to +125 °C
Bias Voltage (Digital)	+3.6 V
Bias Voltage (VCO)	+5.5 V
Bias Voltage (Tune)	+25.25 V
DC Voltage Applied to RF Out	±25 V

Package # 367



RECOMMENDED PCB LAYOUT



* High when locked (source/sink 500uA).

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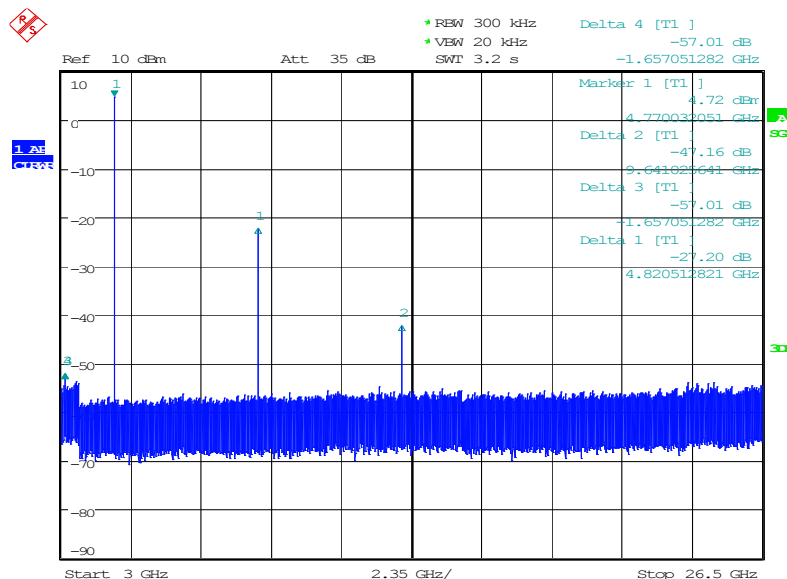
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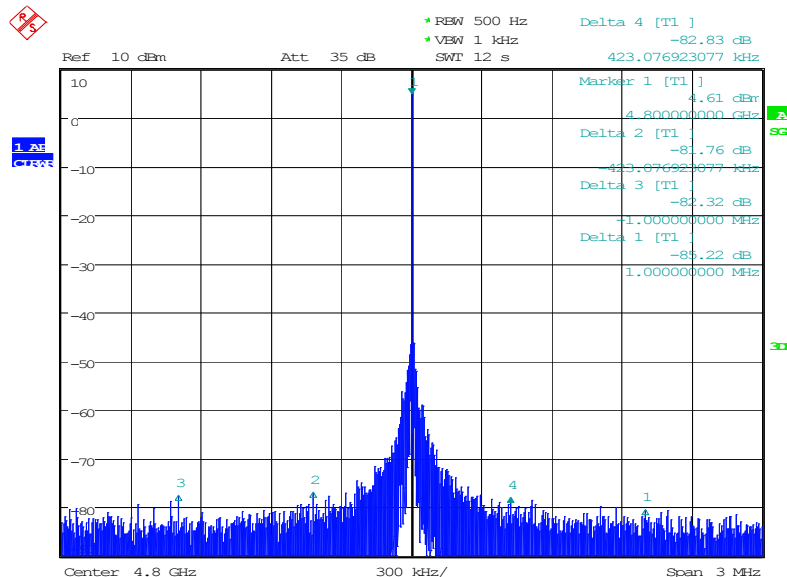
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4800 - 5400 MHz

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

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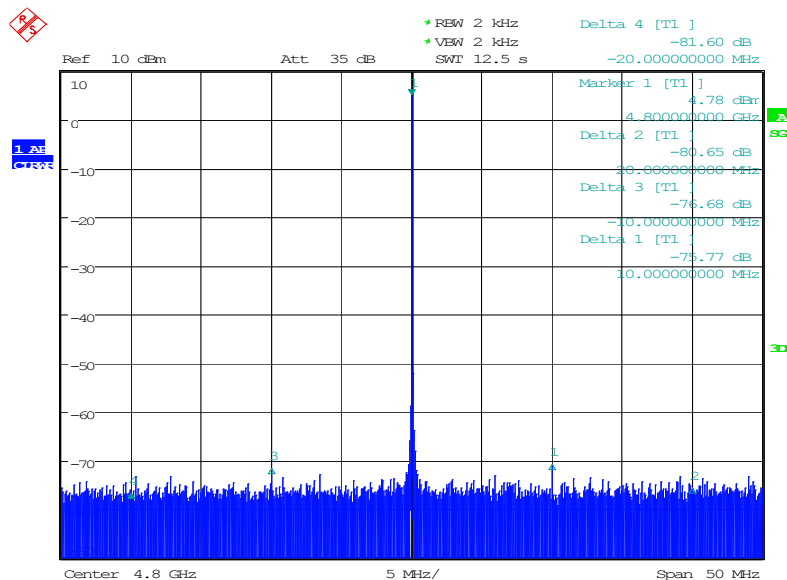
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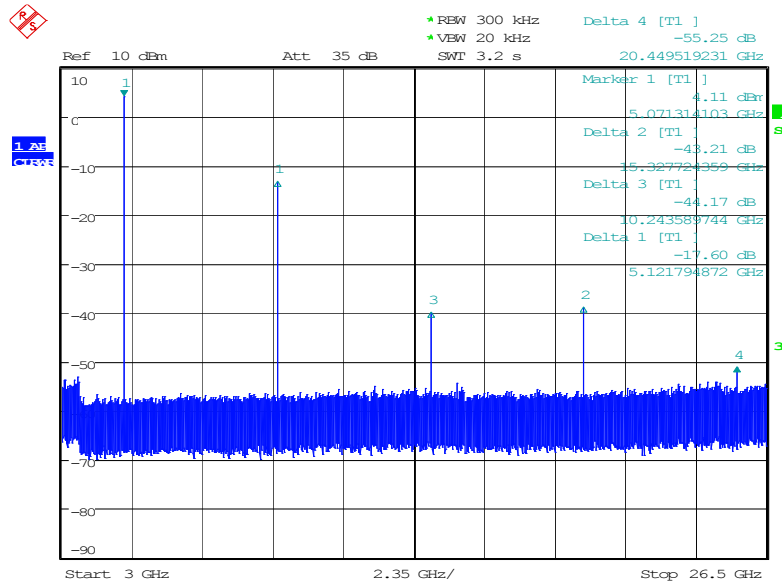
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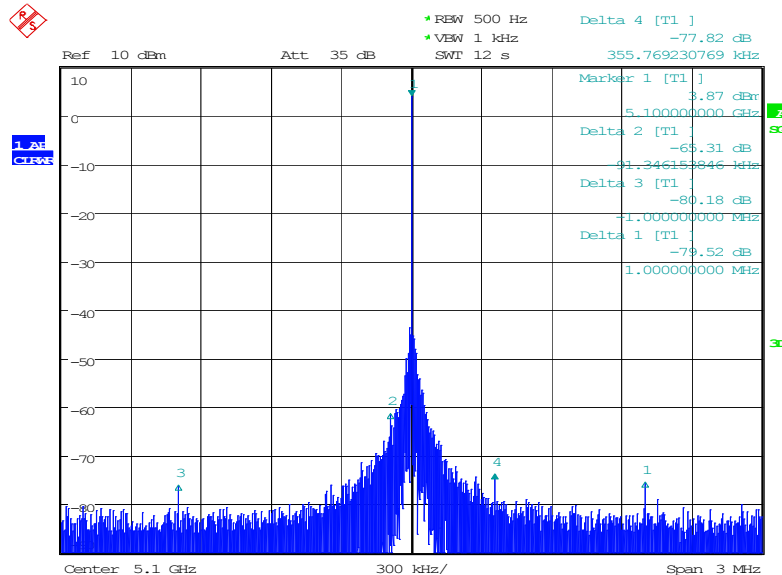
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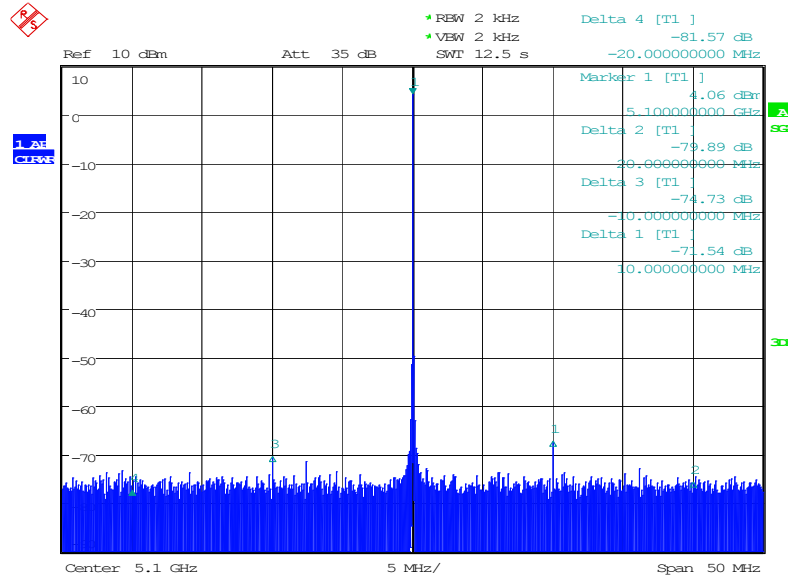
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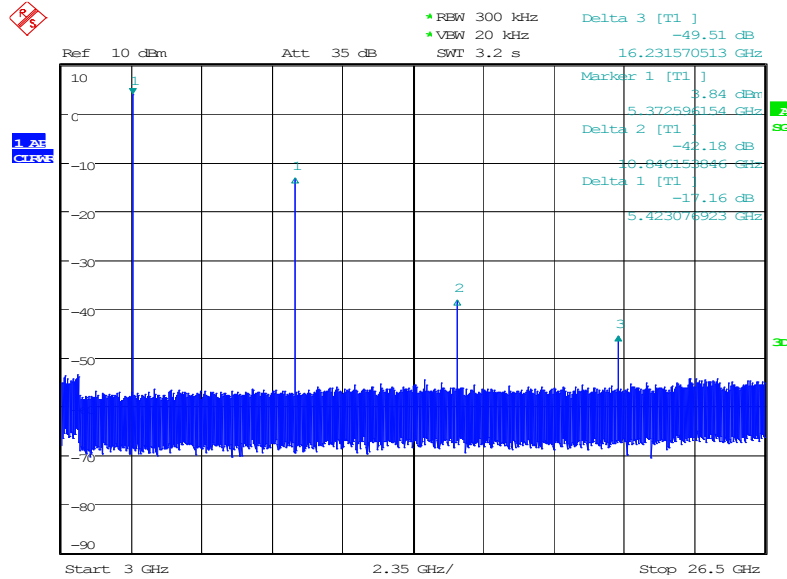
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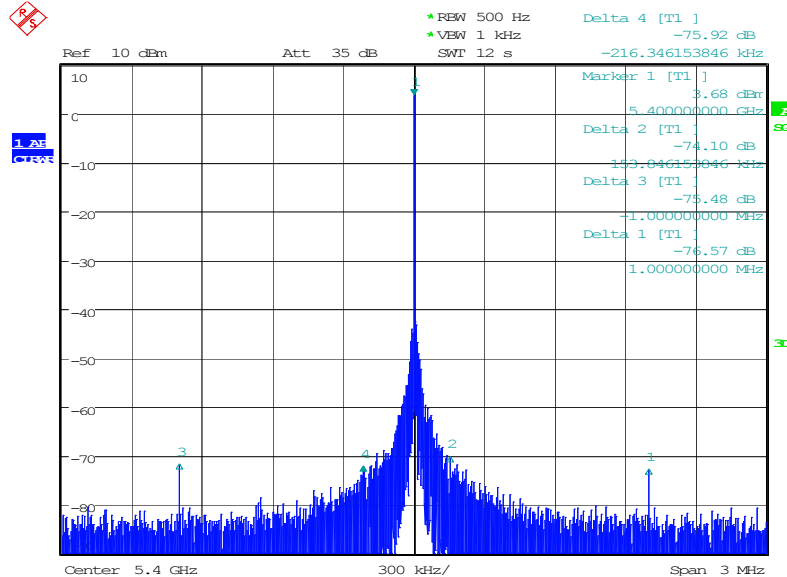
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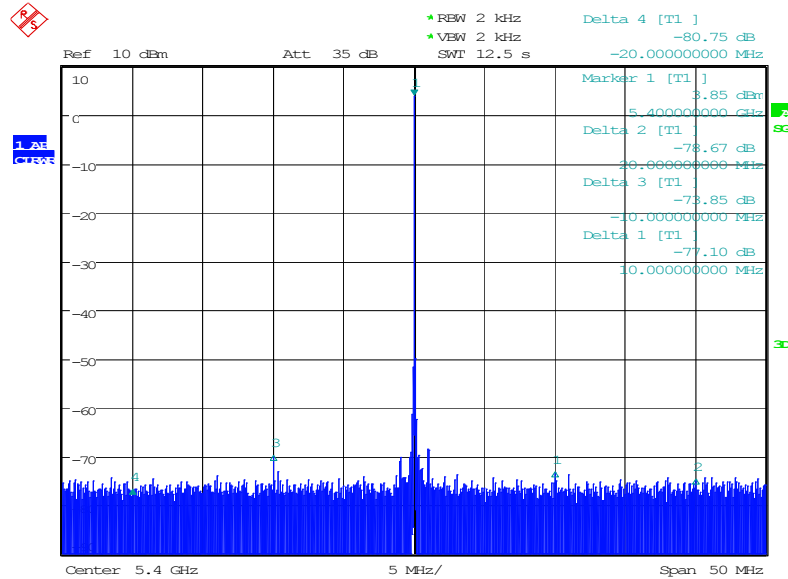
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