

# INTELLIGENT INTERACTIVE SYNTHESIZER

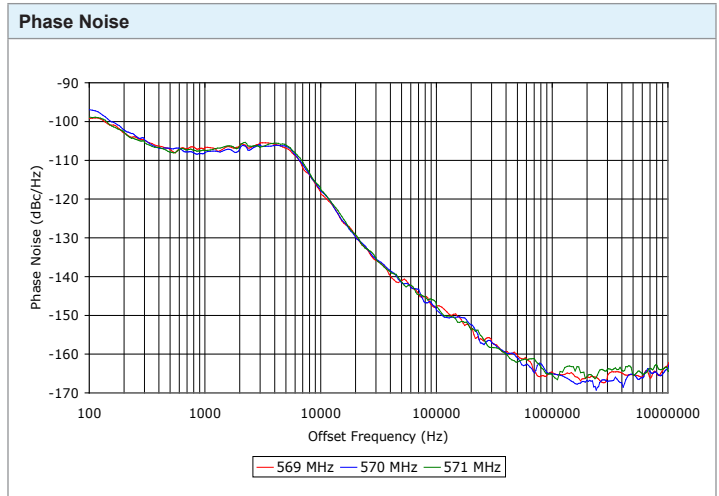
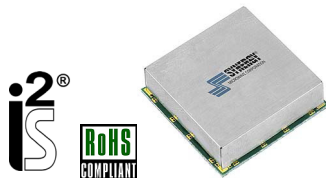
## SURFACE MOUNT MODEL: FSFN570-5R0

**OPTIMIZED BANDWIDTH**

**569 - 571 MHz**

**FEATURES:**

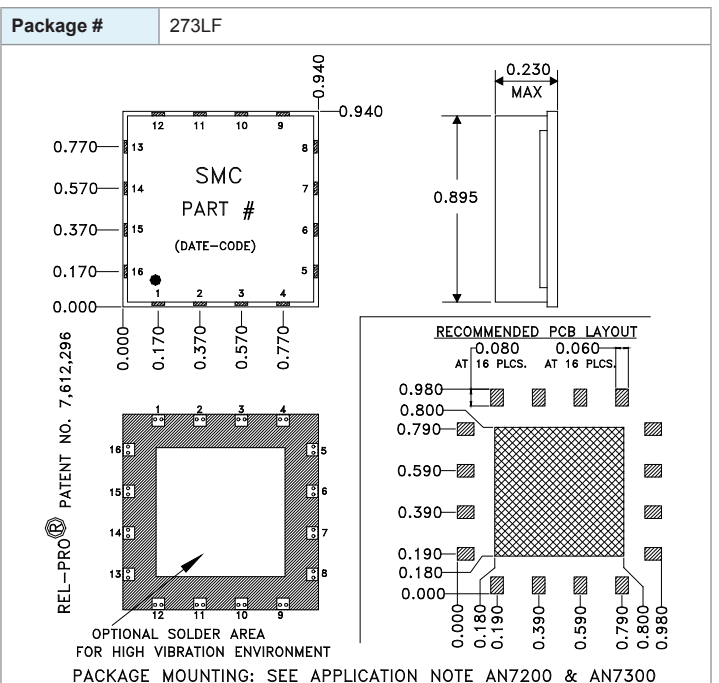
- ▶ Exceptionally Low Phase Noise
- ▶ Interactive Communication
- ▶ Standard Programming Interface
- ▶ Ultra Wide Tuning Range
- ▶ Lead Free - RoHS Compliant
- ▶ Patent Pending REL-PRO® Technology
- ▶ Small Size, Surface Mount



**SPECIFICATIONS (Rev. E 01/25/13)**

Frequency	569 - 571 MHz		
Step Size	50 kHz		
Reference Input Frequency	20 MHz		
Reference Input Voltage	1 V p-p to 3.3 V p-p		
Bias Voltage	Vcc	V (Vdc)	I (mA Max.)
	Digital	+5	15
	VCO	+8	10
	Tune	+8	40
Output Power	+7 dBm (Min.)		
Spurious Suppression	80 dB (Typ.)		
Harmonic Suppression	12 dB (Typ.)		
Settling Time	20 mSec (Max.) *		
Output Impedance	50 Ohms (Nom.)		
Typical Phase Noise	Offset	Phase Noise	
	@ 1 kHz	-105 dbc/Hz	
	@ 10 kHz	-112 dbc/Hz	
	@ 100 kHz	-145 dbc/Hz	
Operating Temperature Range	-40 to +85 °C		
Programming	See Application Note: AN7100		

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



**Absolute Maximum Ratings**

Storage Temp. Range	-55 to +125 °C
Bias Voltage (Digital)	+5.25 V
Bias Voltage (Tune)	+12 V
Bias Voltage (VCO)	+8.5 V
DC Voltage Applied to RF Out	±25 V

Port Configuration		
Pin 1 - NC	Pin 7 - Vcc (Digital)	Pin 15 - Data In
Pin 2,3 - NC **	Pin 8 - Vcc (Tune)	Pin 16 - Clock In
Pin 4 - Error Flag **	Pin 9 - Vcc (VCO)	All Others - Ground
Pin 5 - Latch Enable In	Pin 13 - RF Out	
Pin 6 - Ref. In	Pin 14 - Lock Detect Out *	NC - No Connection

\* High when locked (source/sink 500 uA)  
 \*\* Pins 2,3,4 can be ground or floating.

Patent : <http://www.synergymwave.com/patents>

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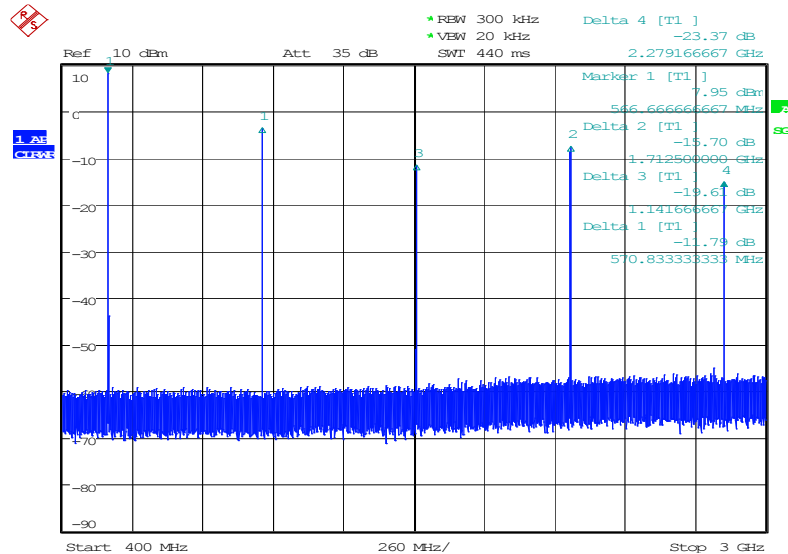
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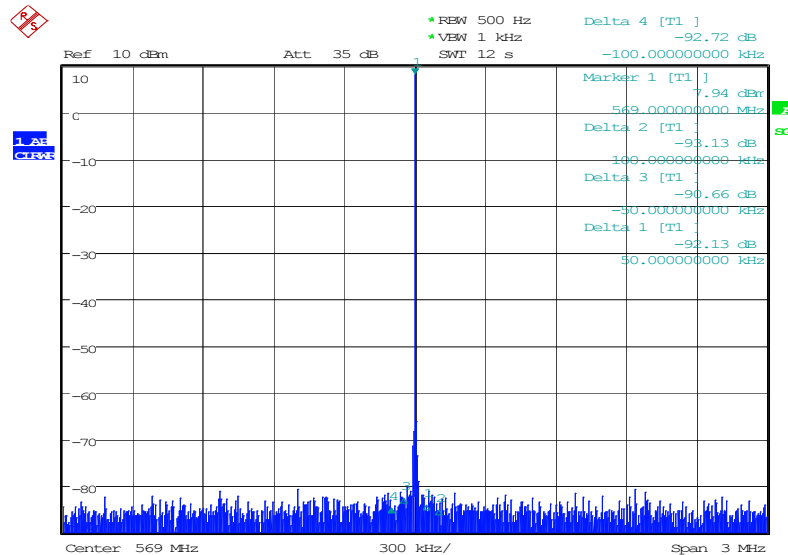
OPTIMIZED BANDWIDTH

569 - 571 MHz

### HARMONIC SUPPRESSION



### REFERENCE SIDEBAND SUPPRESSION



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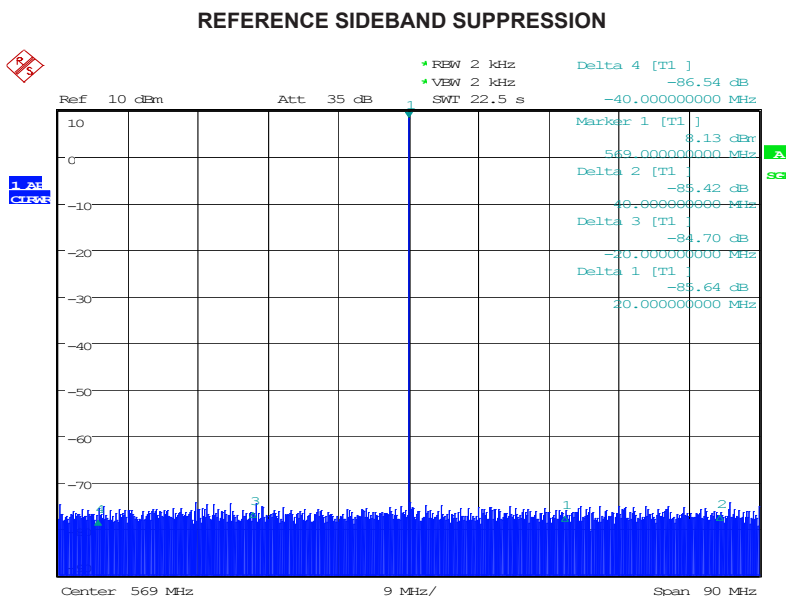


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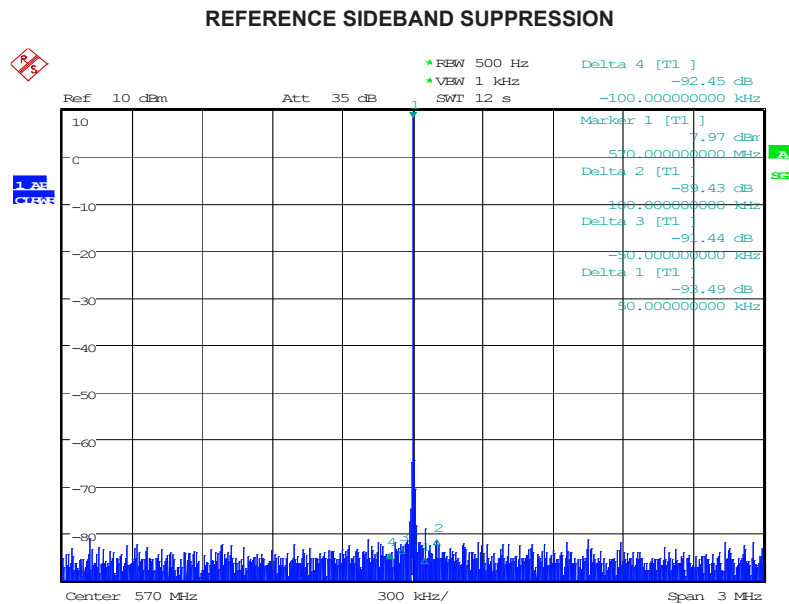
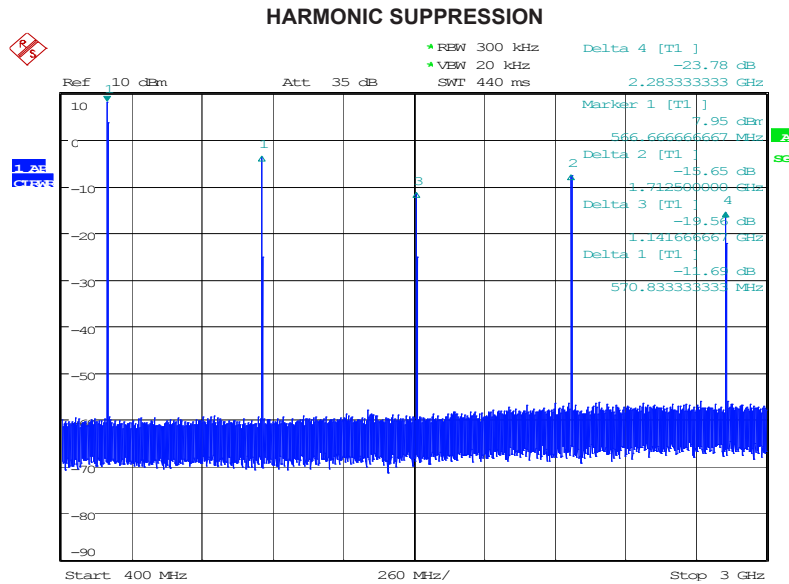
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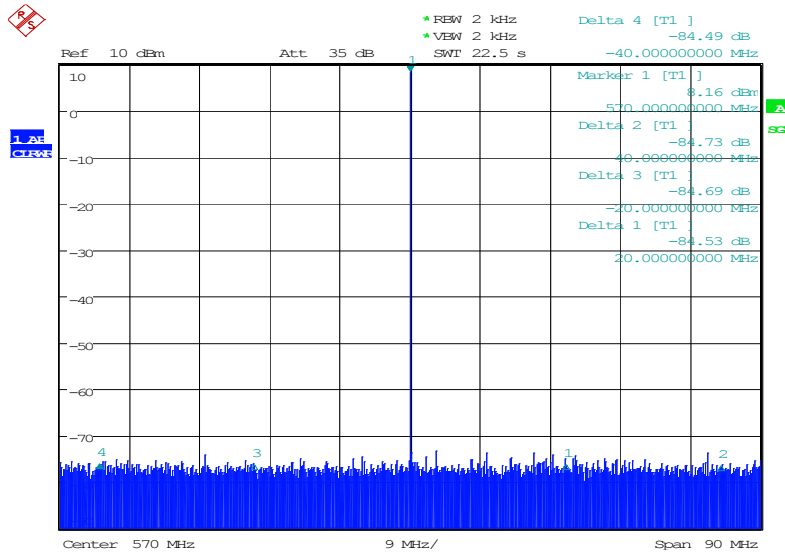
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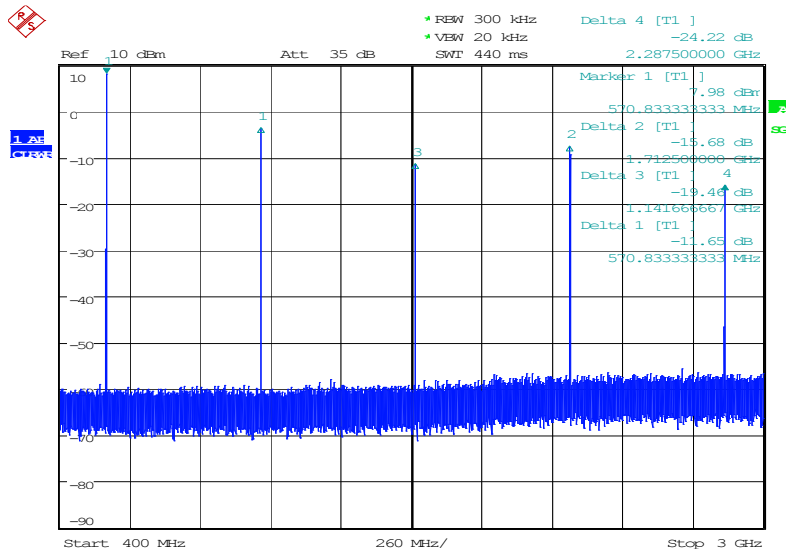
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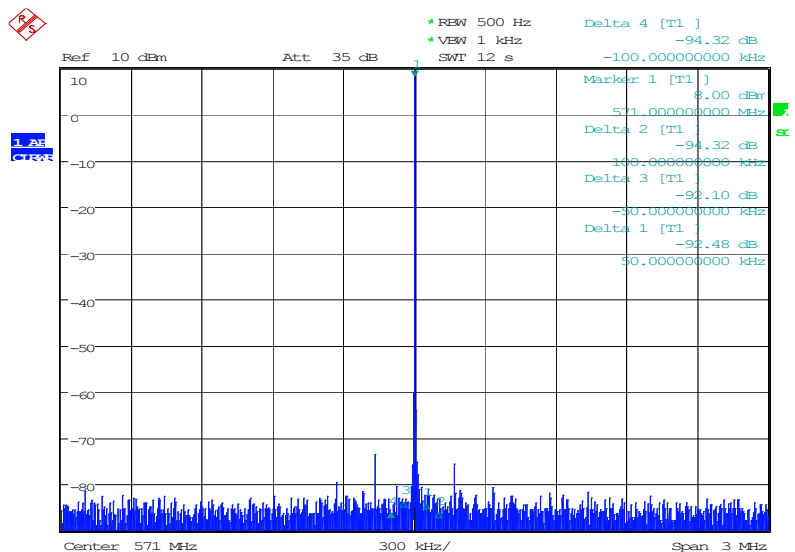
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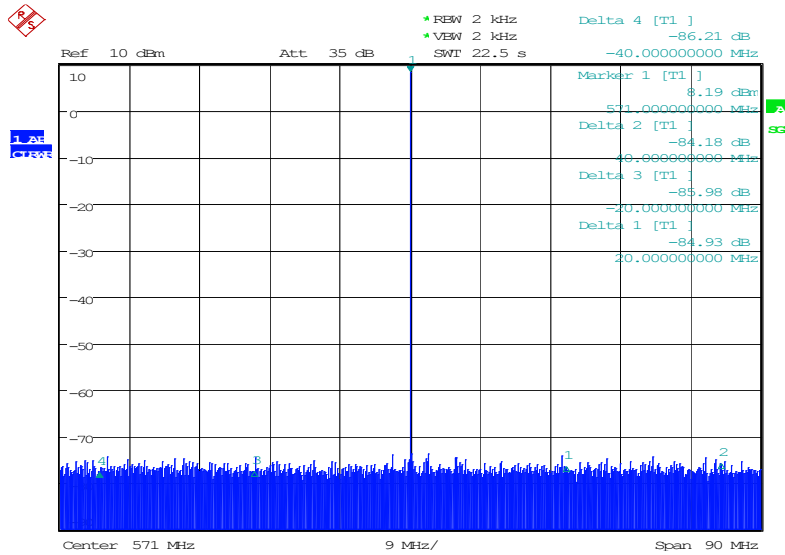
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