

INTELLIGENT INTERACTIVE SYNTHESIZER

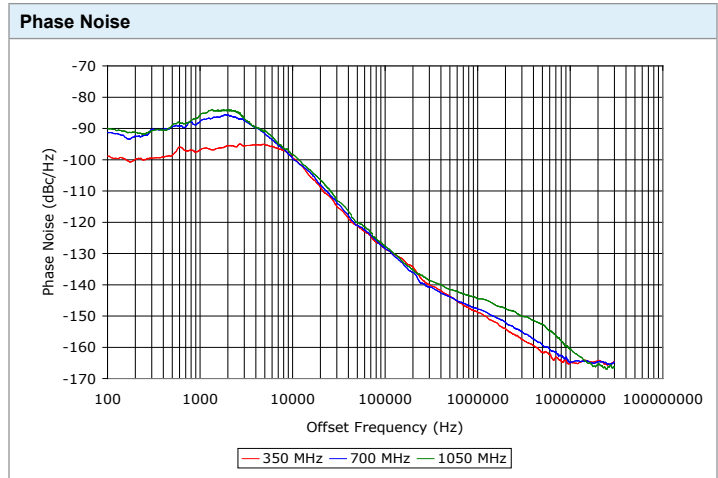
SURFACE MOUNT MODEL: LFSW35105-20

WIDE BANDWIDTH

350 - 1050 MHz

FEATURES:

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



SPECIFICATIONS (Rev. F 04/07/11)

Frequency	350 - 1050 MHz		
Step Size	200 kHz		
Reference Input Frequency	10 MHz ¹		
Reference Input Voltage	1 V p-p to 3.3 V p-p		
Bias Voltage	Vcc	V (Vdc)	I (mA Max.)
	Digital	+5	65
	VCO	+5	105
	Analog	+5	5
Output Power	+8 dBm (Min.)		
Spurious Suppression	80 dB (Typ.)		
Harmonic Suppression	20 dB (Typ.)		
Settling Time	30 mSec (Typ.) ²		
Output Impedance	50 Ohms (Nom.)		
Lock Detect Indicator	CMOS 3.3 V		

Typical Phase Noise	Offset	Phase Noise
	@ 1 kHz	-90 dBc/Hz
	@ 10 kHz	-98 dBc/Hz
	@ 100 kHz	-128 dBc/Hz
Operating Temperature Range	-30 to +75 °C	
Programming	See Application Note: AN7100	
¹ Reference input frequency is programmable (See AN7100) 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)	+5.25 V
Bias Voltage (VCO)	+5.5 V
Bias Voltage (Analog)	+5.25 V
DC Voltage Applied to RF Out	±25 V

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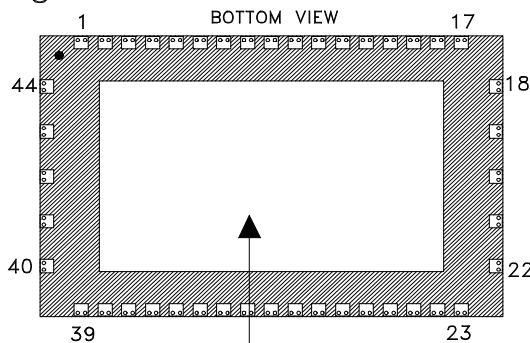
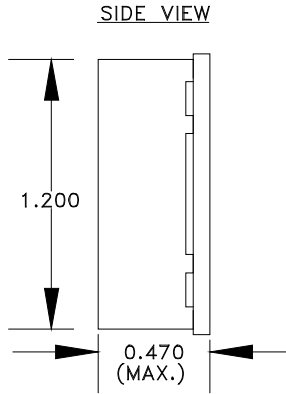
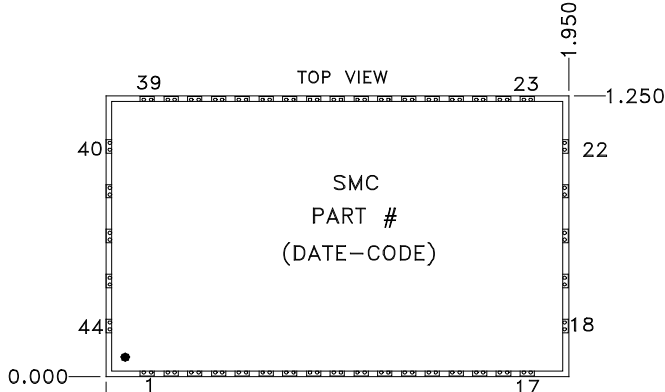
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Package # 280LF



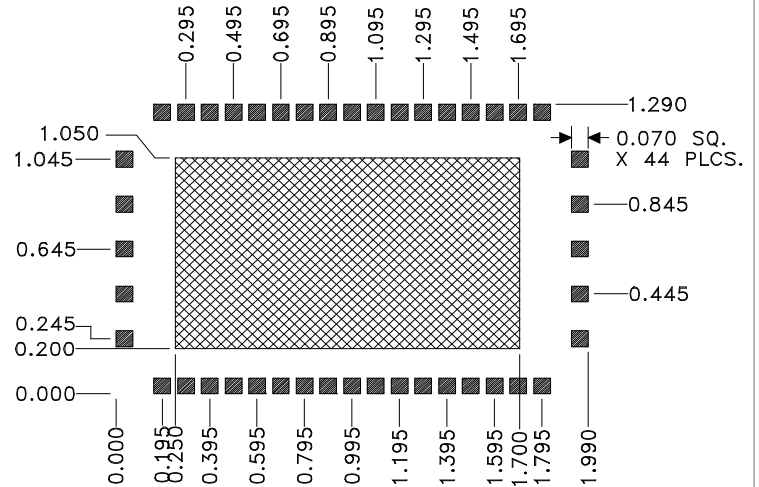
OPTIONAL SOLDER AREA
FOR HIGH VIBRATION ENVIRONMENT

TOLERANCES ON THREE
DECIMAL PLACES = ± 0.015

PACKAGE MOUNTING:

SEE APPLICATION NOTE AN7200 & AN7300

RECOMMENDED PCB LAYOUT



Port Configuration

Pin 6 - RF Out	Pin 26 - Data In	Pin 10, 19-22, 24, 29 - NC
Pin 8 - Ref In	Pin 27 - Error Flag	Pin 30, 32, 33 - NC
Pin 9 - Vcc(VCO) ****	Pin 28 - Clock In	All Others Ground
Pin 12 - Lock Detect Out*	Pin 31 - VCO (On/Off) *****	
Pin 14 - Vcc(Tune) ***	Pin 34 - Vcc(Digital) ****	NC - No Connection
Pin 16 - Vout(Converter) ***	Pin 36 - Vtune Output	
Pin 25 - Latch Enable In	Pin 38 - Vcc(Analog) ****	

* High when locked (source/sink 500 uA)
 *** Connect pins 14 and 16 together externally and add 10uF tantalum bypass capacitor to ground.
 ***** Supply external filtering for pin 9, 34 and 38
 ***** Logic high or NC for normal operation, Logic Low to switch off.

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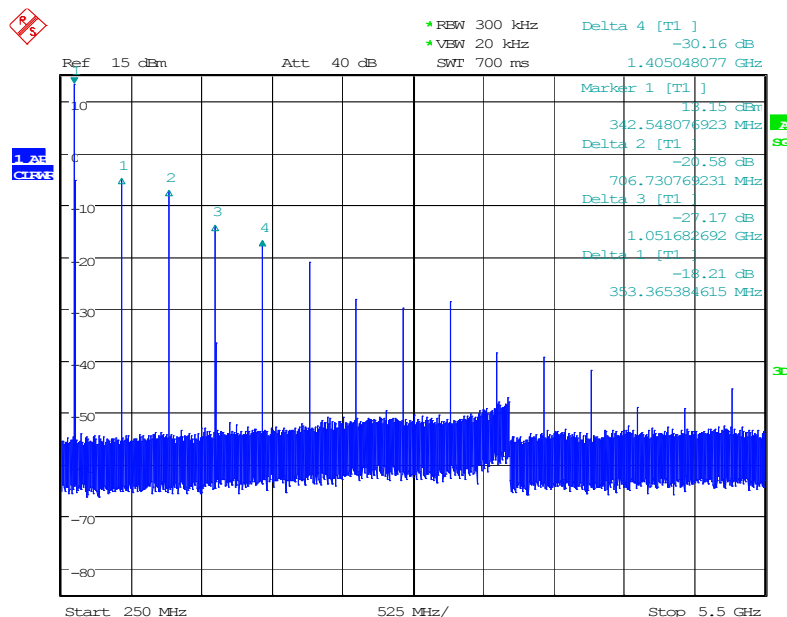
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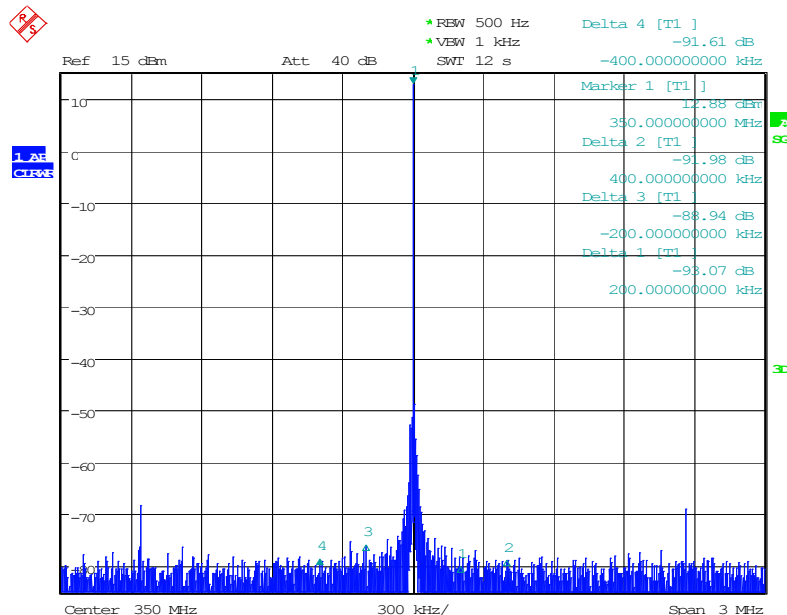
WIDE BANDWIDTH

350 - 1050 MHz

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

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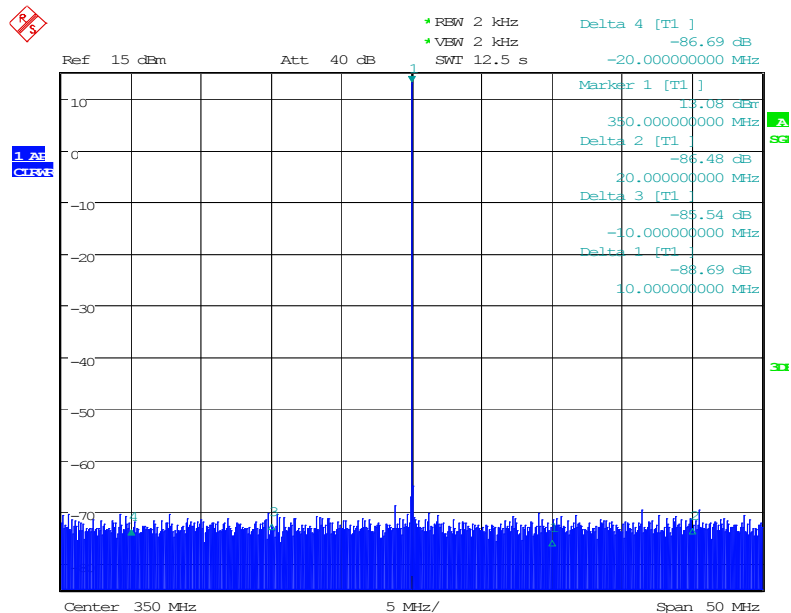
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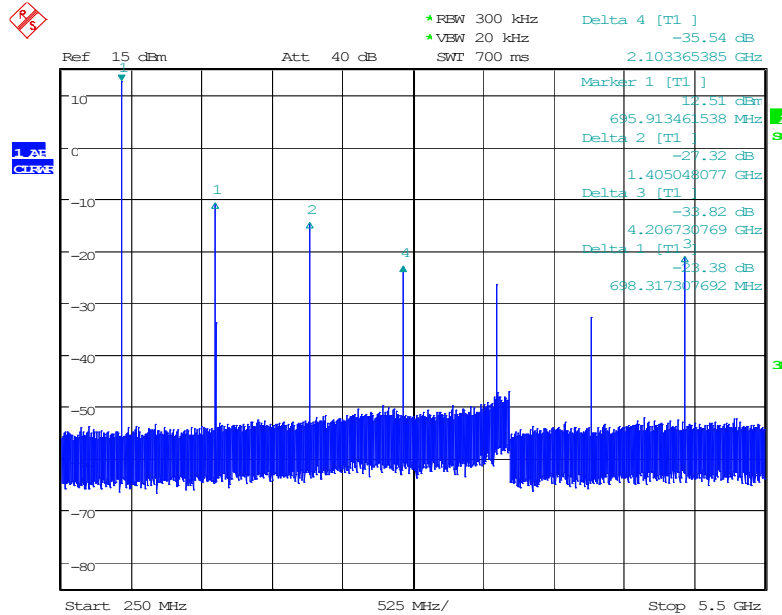
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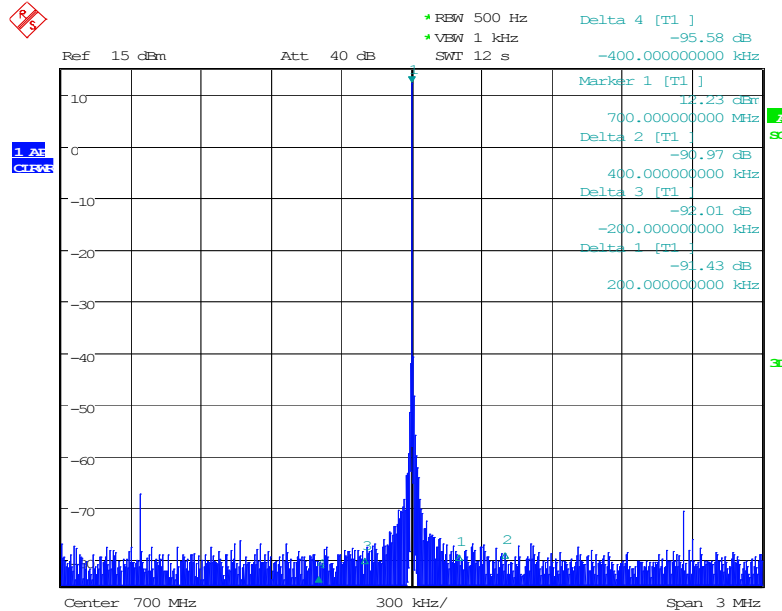
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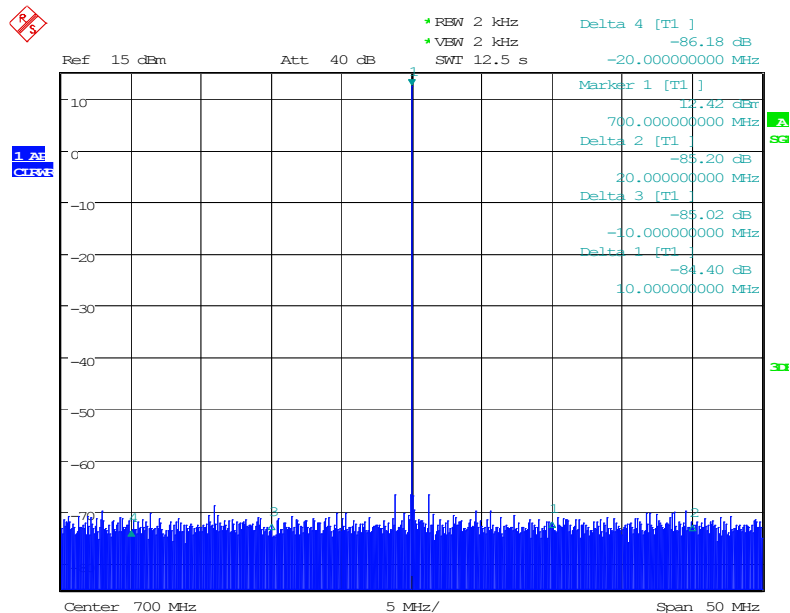
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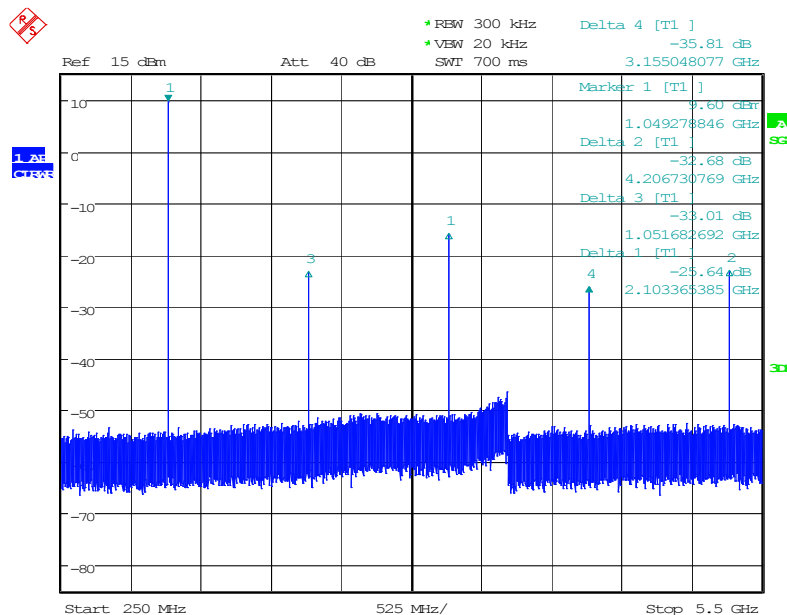
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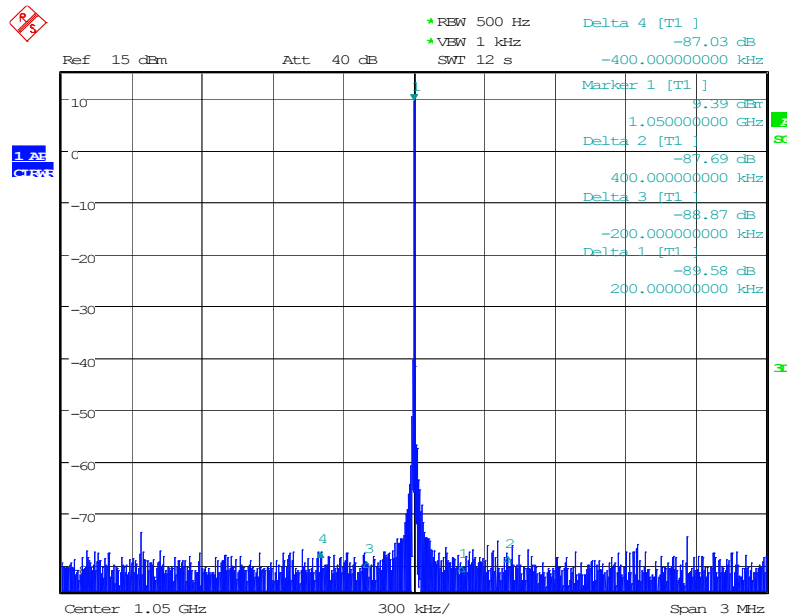
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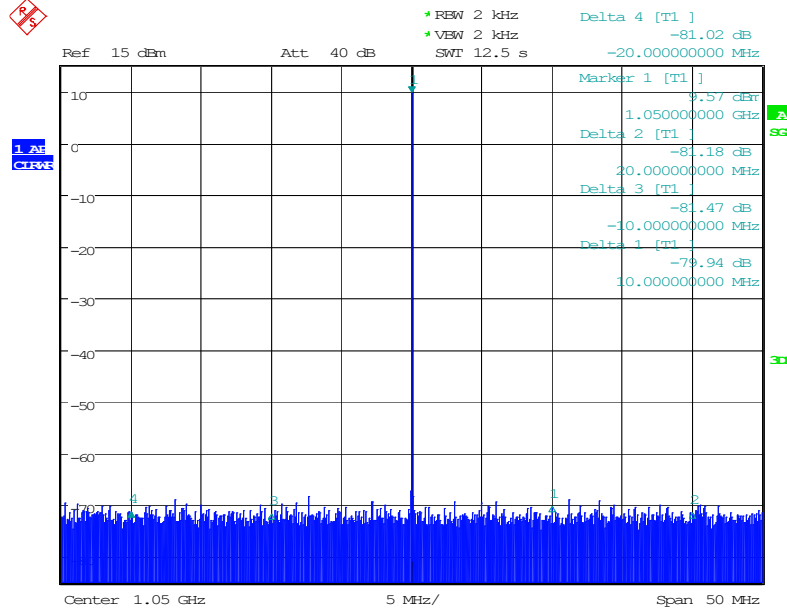
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