

INTELLIGENT INTERACTIVE SYNTHESIZER

SURFACE MOUNT MODEL: LFSW35105-50

WIDE BANDWIDTH

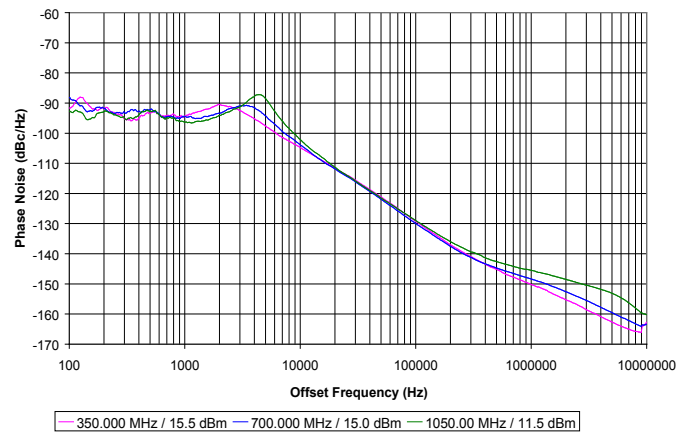
350 - 1050 MHz

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
- ▶ Buffered Output



Phase Noise



SPECIFICATIONS (Rev. F 08/07/07)

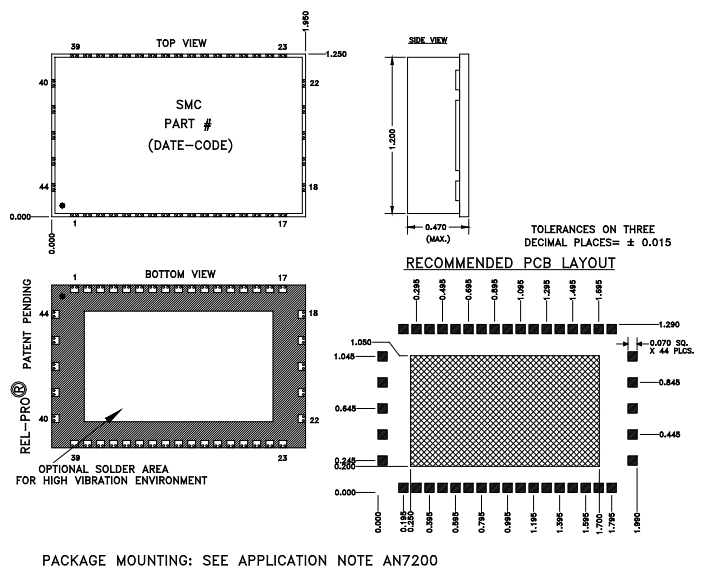
Frequency	350 - 1050 MHz		
Step Size	500 kHz		
Reference Input Frequency	10 MHz*		
Reference Input Voltage	1 V p-p to 3.3 V p-p		
Bias Voltage		V (Vdc)	I (mA Max.)
	Digital	+5	65
	VCO	+5	50
	Converter	+5	65
	Analog	+5	5
Output Power	+10 dBm (Min.)		
Spurious Suppression	80 dB (Typ.)		
Harmonic Suppression	20 dB (Typ.)		
Settling Time	10 mSec (Typ.)**		
Output Impedance	50 Ohms		
Typical Phase Noise	Offset	Phase Noise	
	@ 1 kHz	-95 dbc/Hz	
	@ 10 kHz	-103 dbc/Hz	
	@ 100 kHz	-130 dbc/Hz	
Operating Temperature Range	-30 to +75 °C		
Programming	See Application Note: AN7100		

* Reference input frequency is programmable in multiples of the step size, 10 MHz is the default setting with 150 MHz (Max.).
 ** 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 (Converter)	+8 V
Bias Voltage (Analog)	+5.25 V
DC Voltage Applied to RF Out	±25 V

Package # 280LF



Pin-Out

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

* High when locked (source/sink 500 uA)

** A low on this input will reset the internal controller. Leave unconnected for normal operation.

*** Connect pins 14 and 16 together externally and add 10uF tantalum bypass capacitor to ground.

**** Supply external filtering for pin 9, 10, 34 and 38

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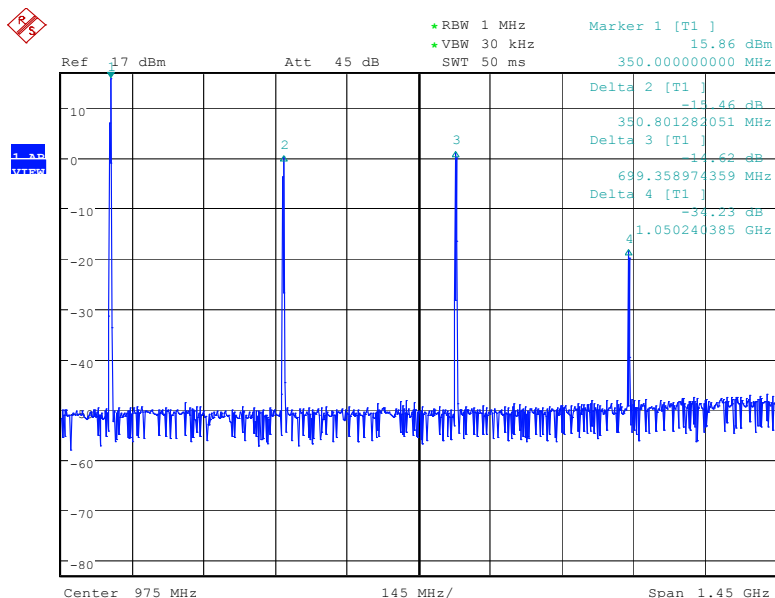
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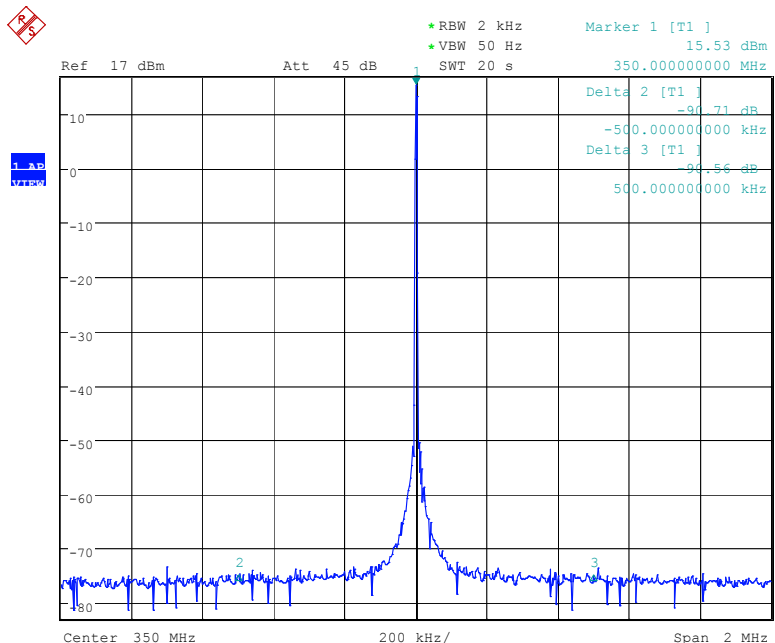
WIDE BANDWIDTH

350 - 1050 MHz

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

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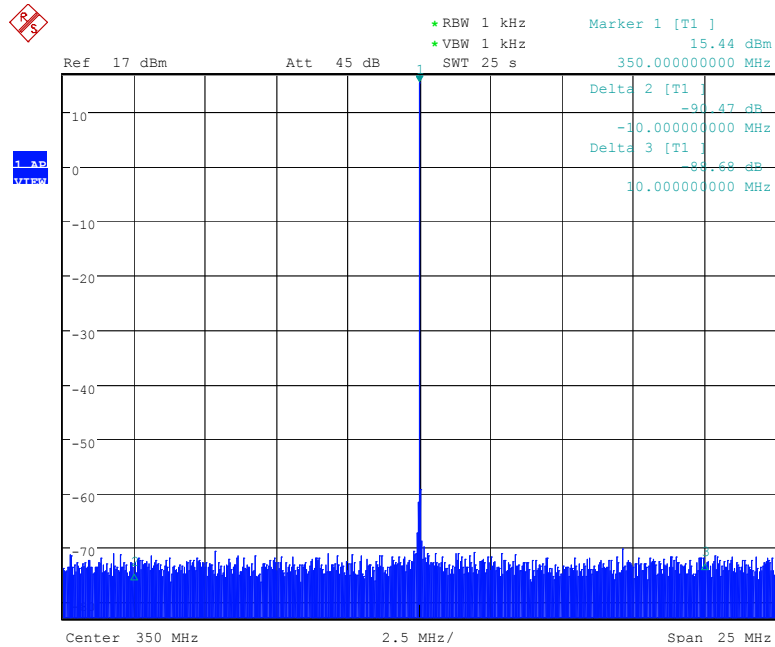
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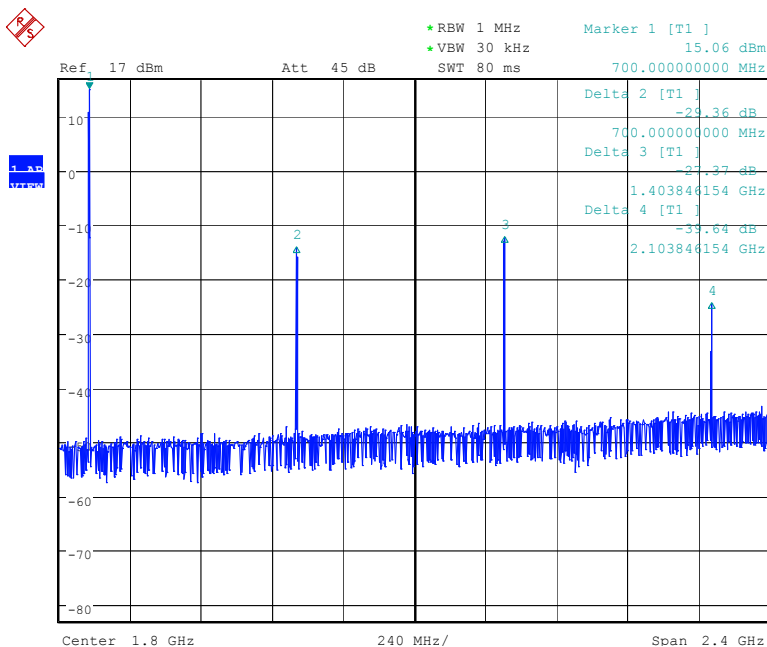
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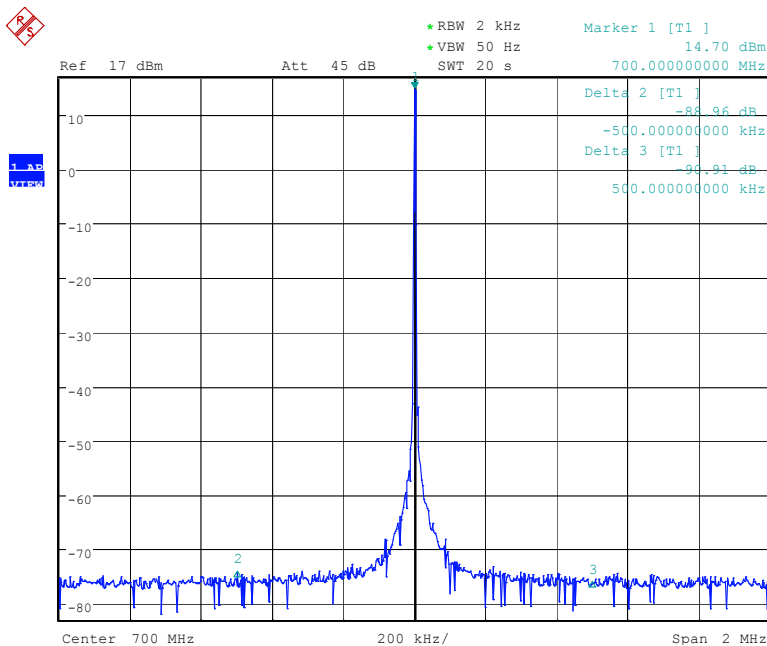
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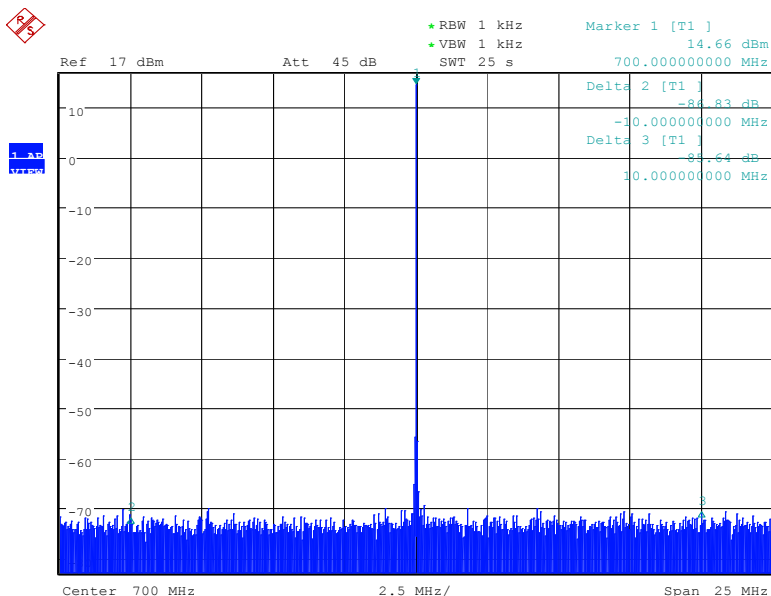
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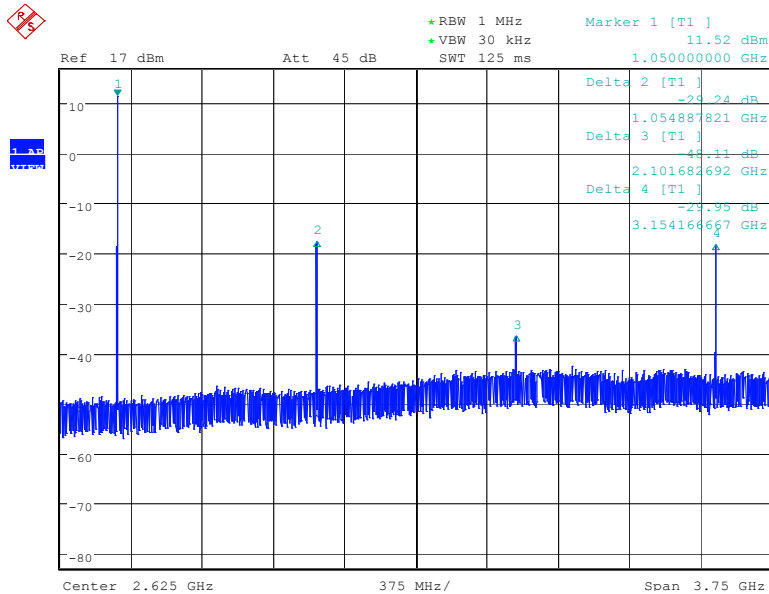
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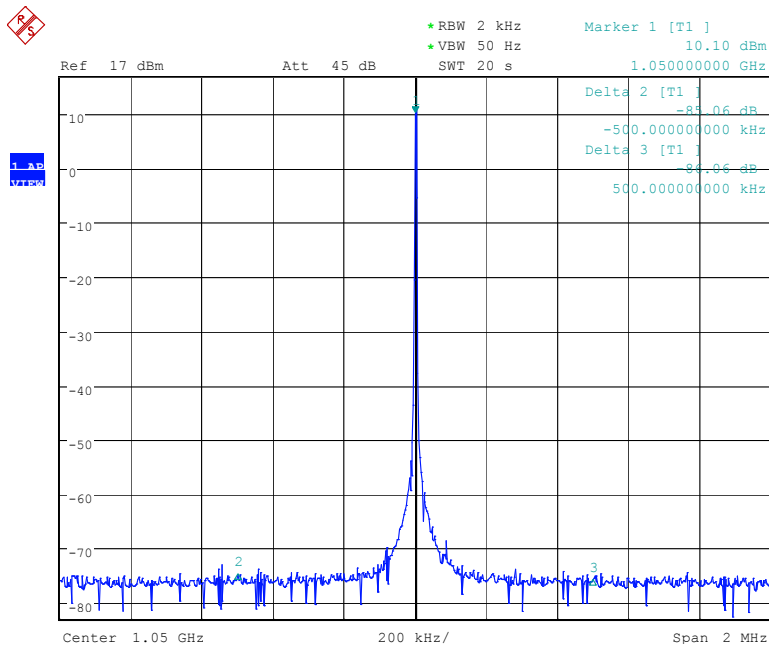
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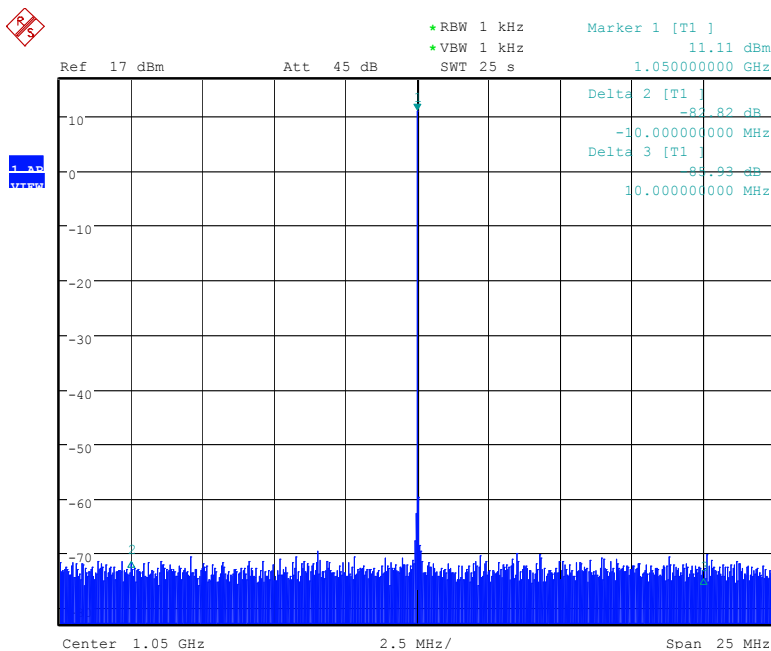
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