

SELECTABLE FREQUENCY SYNTHESIZER

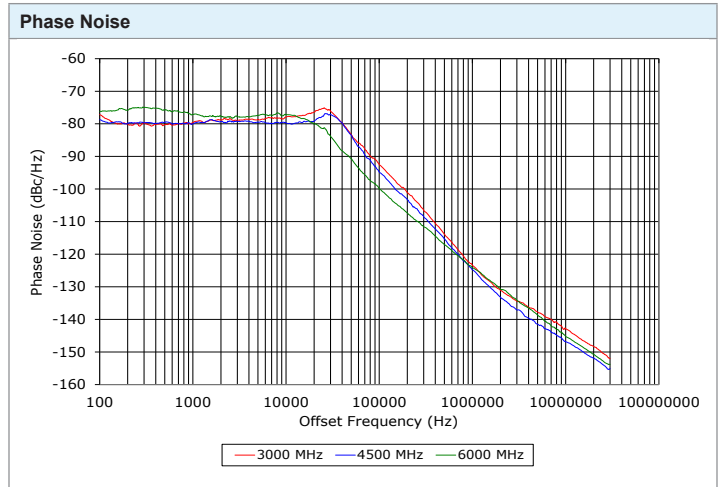
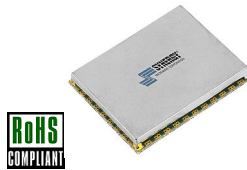
SURFACE MOUNT MODEL: FCPH300600-10

WIDE BANDWIDTH

3000 - 6000 MHz

FEATURES:

- ▶ Exceptionally Low Phase Noise
- ▶ No Programming Required
- ▶ Lead Free - RoHS Compliant
- ▶ Patented REL-PRO® Technology
- ▶ Small Size, Surface Mount
- ▶ Buffered Output



SPECIFICATIONS

Frequency	3000 - 6000 MHz		
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	45
	VCO	+5	50
	Converter	+5	45
Output Power	+3 dBm (Min.)		
Spurious Suppression	70 dBc (Typ.)		
Harmonic Suppression	15 dBc (Typ.)		
Power Up Time	90 mSec (Typ.) ¹		
Output Impedance	50 Ohms (Nom.)		
Typical Phase Noise	Offset	Phase Noise	
	@ 1 kHz	-78 dBc/Hz	
	@ 10 kHz	-78 dBc/Hz	
	@ 100 kHz	-95 dBc/Hz	
Operating Temperature Range	-40 to +85 °C		

¹ From stable power on to stable lock detect.

Absolute Maximum Ratings

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

Binary Frequency Selection Table

D3*	D2*	D1*	D0*	Freq. (MHz)
0	0	0	0	--
0	0	0	1	--
0	0	1	0	--
0	0	1	1	--
0	1	0	0	--
0	1	0	1	--
0	1	1	0	--
0	1	1	1	4350
1	0	0	0	4600
1	0	0	1	--
1	0	1	0	--
1	0	1	1	--
1	1	0	0	--
1	1	0	1	--
1	1	1	0	--
1	1	1	1	--

-- Reserved for future use.
 * Voltage levels: 0V or gnd. / +5V or open.

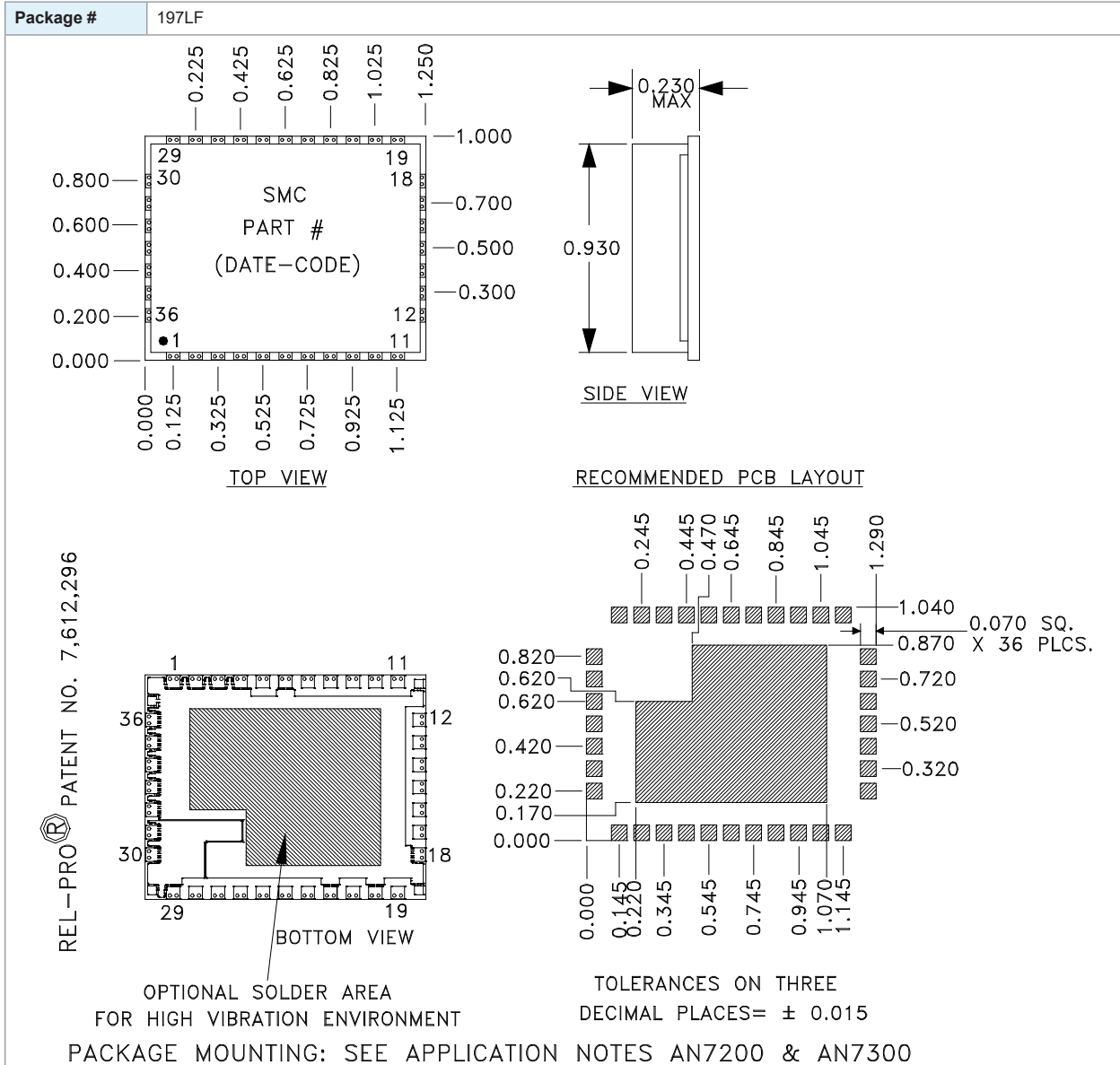
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PERFORMANCE PLOTS



REL-PRO® PATENT NO. 7,612,296

Pin Configuration		
Pin 5 - RF Out	Pin 17 - D2	Pin 28 - Vcc(Converter)
Pin 7 - Lock Detect Out	Pin 21 - Ref In	Pin 9,10,11,14 - NC
Pin 8 - D0	Pin 23 - Vcc(Digital)	Pin 16, 19, 24 - NC
Pin 12 - D3	Pin 25 - Vcc(VCO)	All Others - Ground
Pin 13 - VCO on/off ctrl (CMOS)	Pin 26 - *	NC - No Connection
Pin 15 - D1	Pin 27 - *	

*Connect externally together to ground with a bypass capacitor 10uF (tantalum 35V Min.)

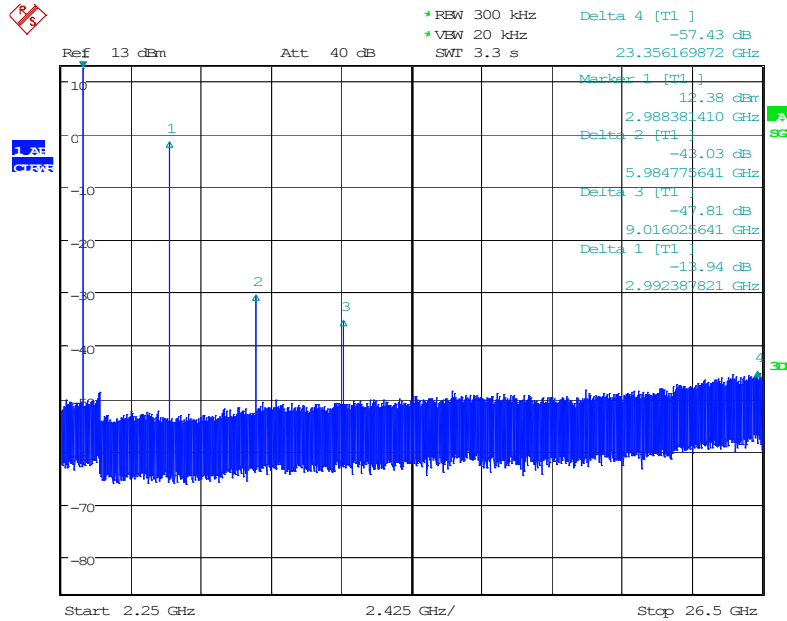
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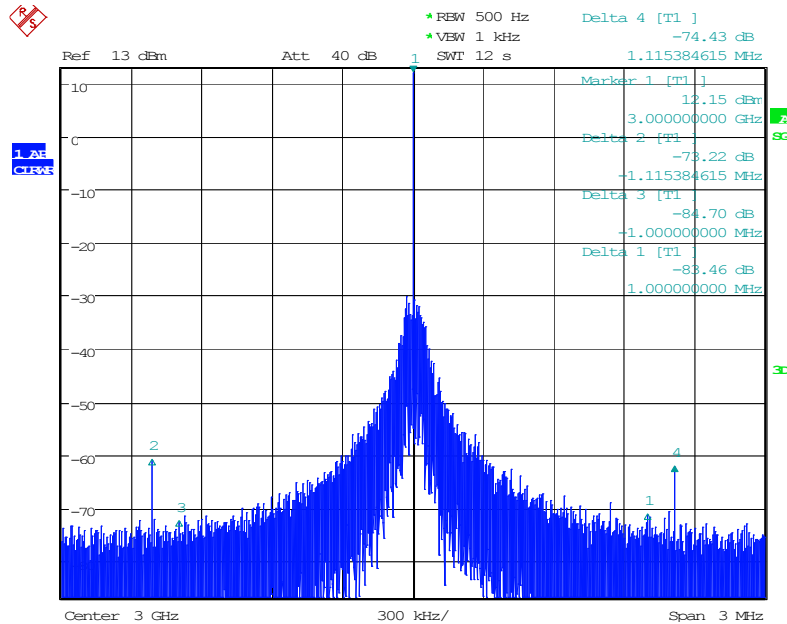
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PERFORMANCE PLOTS

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION

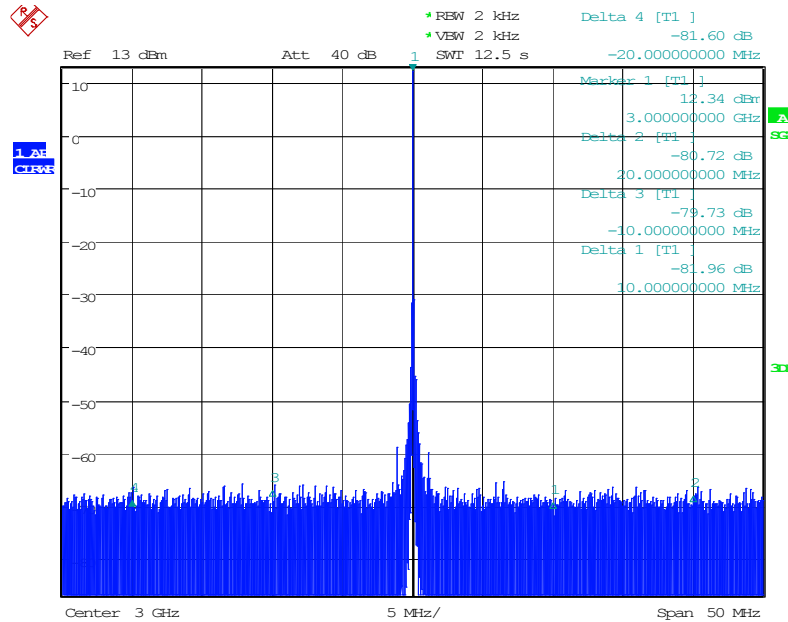


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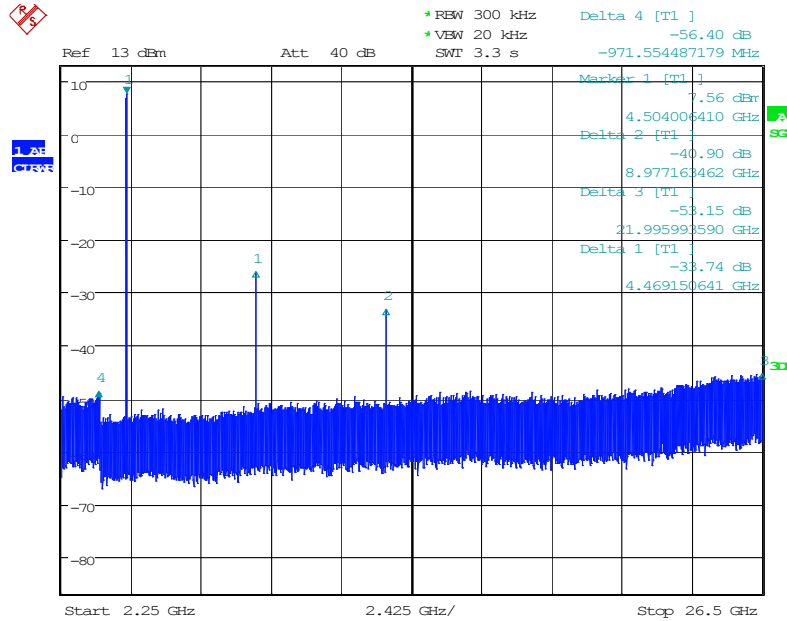
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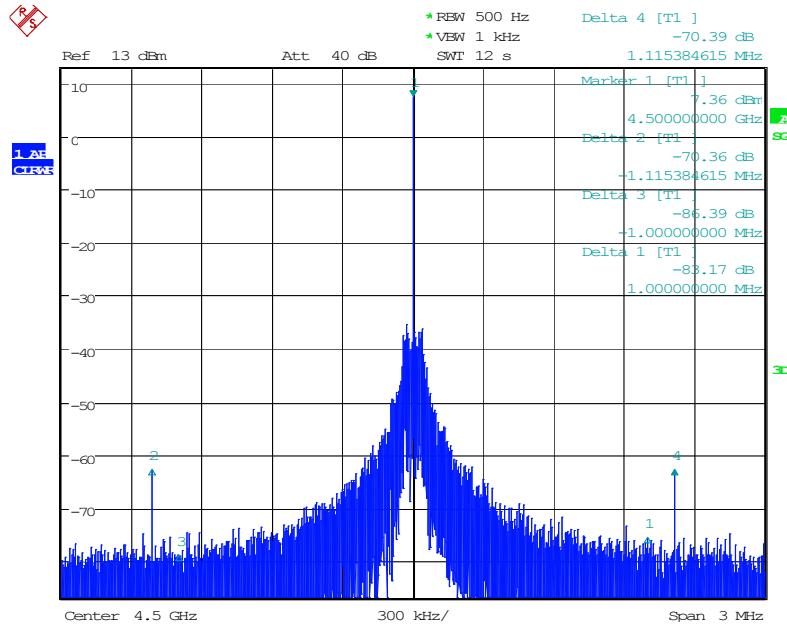
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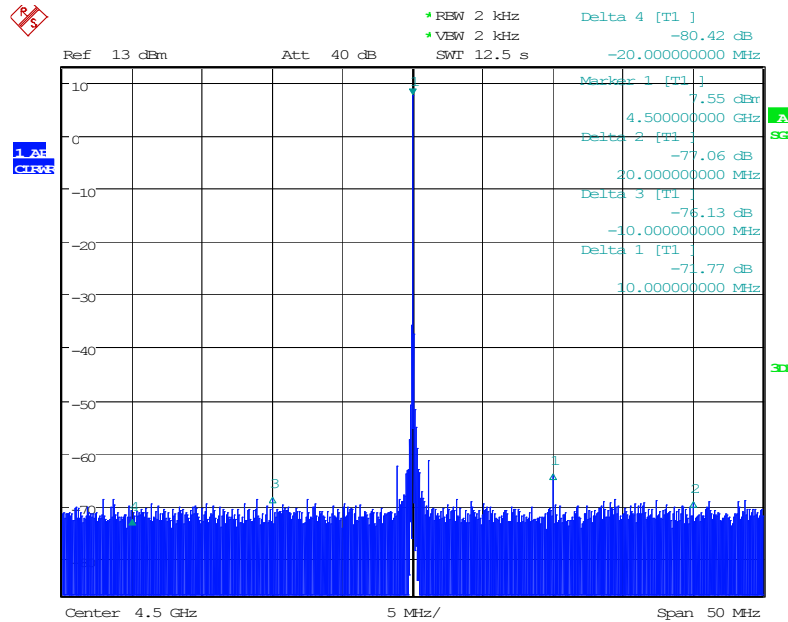
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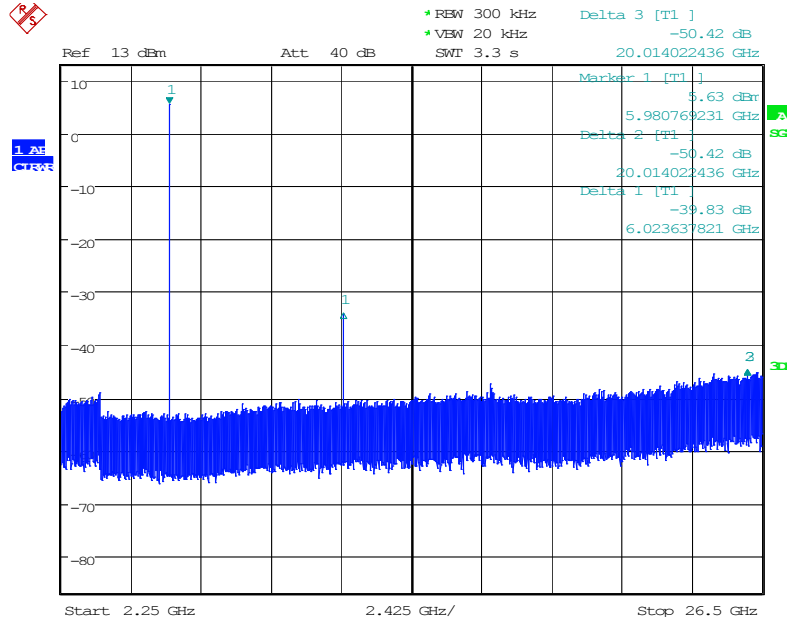
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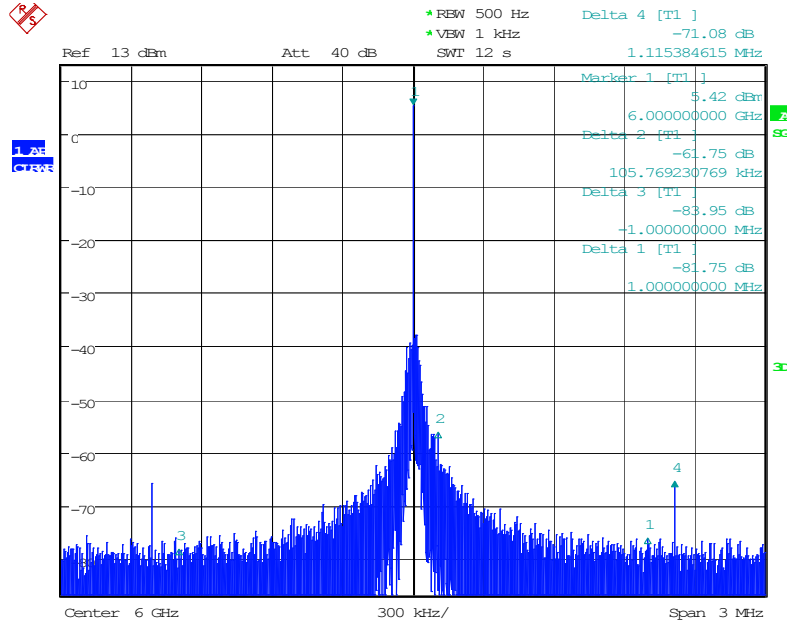
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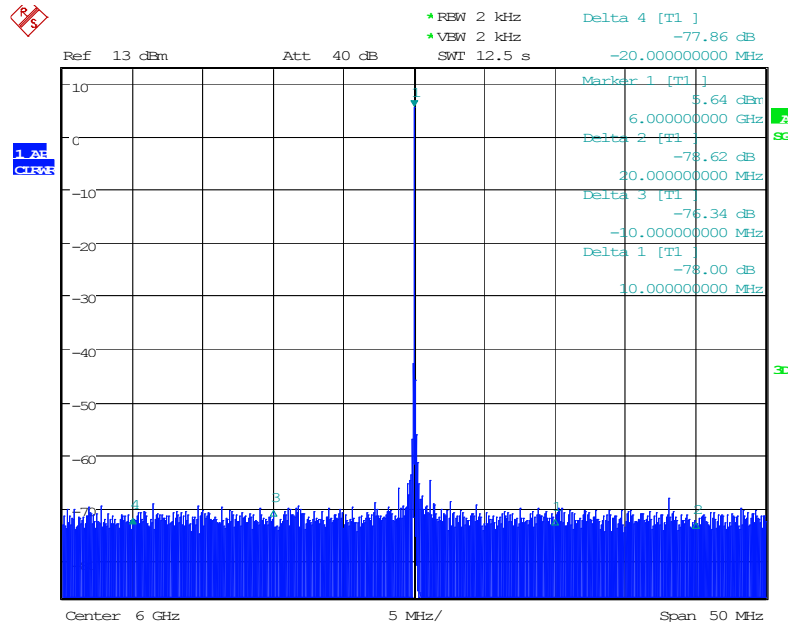


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