

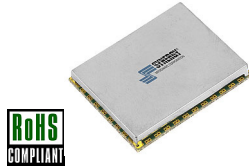
SELECTABLE FREQUENCY SYNTHESIZER

SURFACE MOUNT MODEL: FCPL5460-10

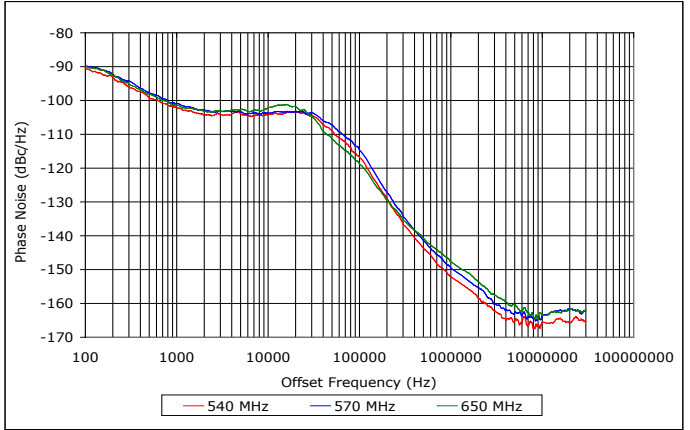
540 - 605 MHz

FEATURES:

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



Phase Noise



SPECIFICATIONS (Rev. A 10/31/11)

Frequency	540 - 605 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.)
	Vcc 1 (Digital)	+5	50
	Vcc 2 (Vtune)	+5	10
	Vcc 3 (VCO)	+5	35
Lock Detect Indicator	CMOS 3.3 V		
Output Power	+7 dBm (Min.)		
Spurious Suppression	75 dB (Typ.)		
Harmonic Suppression	10 dB (Typ.)		
Power Up Time	90 mSec (Typ.) ¹		
Output Impedance	50 Ohms (Nom.)		
Typical Phase Noise	Offset	Phase Noise	
	@ 1 kHz	-100 dBc/Hz	
	@ 10 kHz	-104 dBc/Hz	
	@ 100 kHz	-116 dBc/Hz	
Operating Temperature Range	-30 to +85 °C		

¹ From stable power on to stable lock detect.

Binary Frequency Selection Table

D3*	D2*	D1*	D0*	Freq. (MHz)
0	0	0	0	540
0	0	0	1	545
0	0	1	0	550
0	0	1	1	555
0	1	0	0	560
0	1	0	1	565
0	1	1	0	570
0	1	1	1	575
1	0	0	0	580
1	0	0	1	585
1	0	1	0	590
1	0	1	1	595
1	1	0	0	600
1	1	0	1	605

-- Reserved for future use.

* Voltage levels: 0V or gnd. / +5V or open.

** Due to limit of VCO

Absolute Maximum Ratings

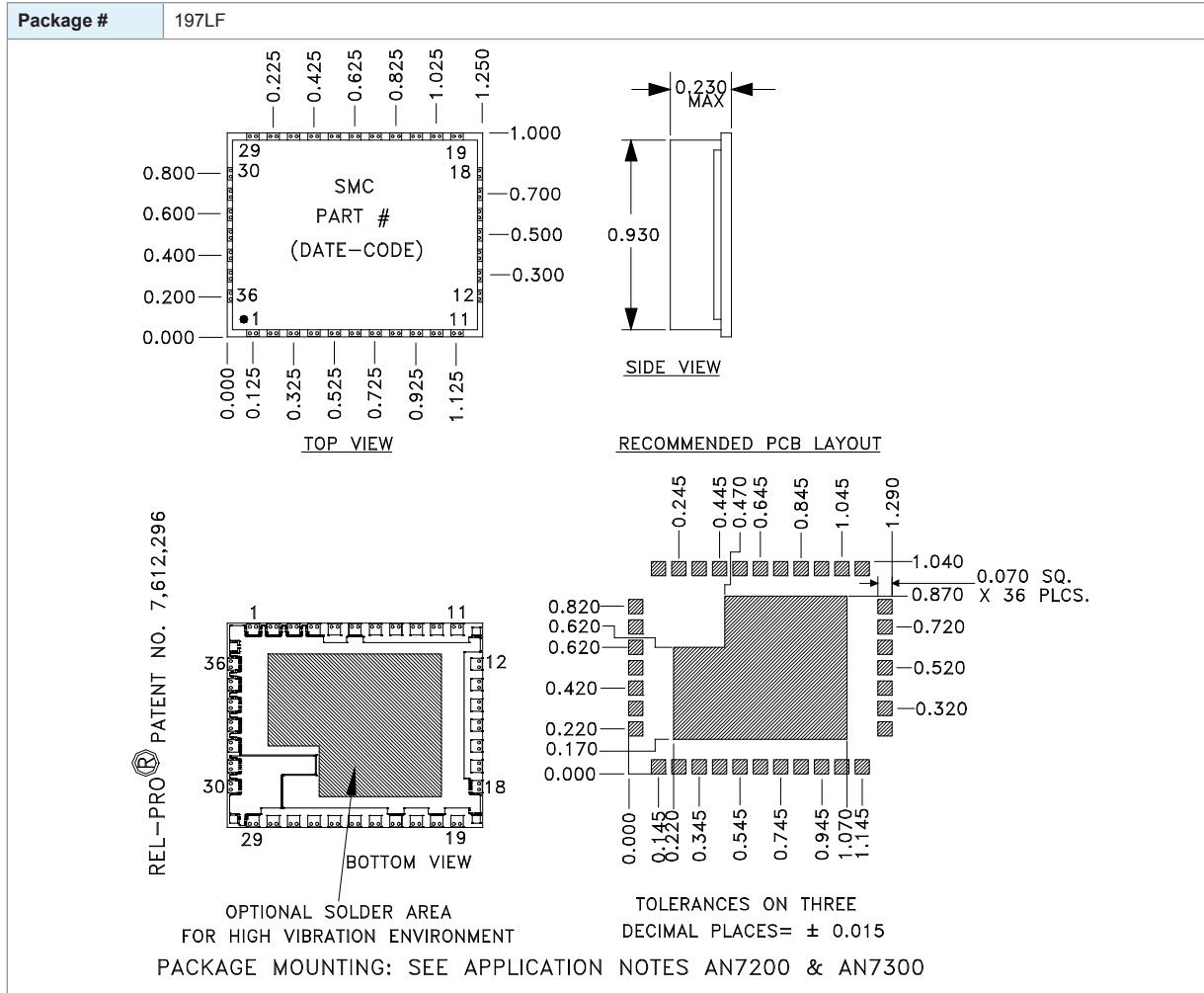
Storage Temp. Range	-55 to +125 °C
Bias Voltage (Digital)	+5.25 V
Bias Voltage (Tune)	+10 V
Bias Voltage (VCO)	+5.25 V
DC Voltage Applied to RF Out	± 25 V

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PERFORMANCE PLOTS



Port Configuration

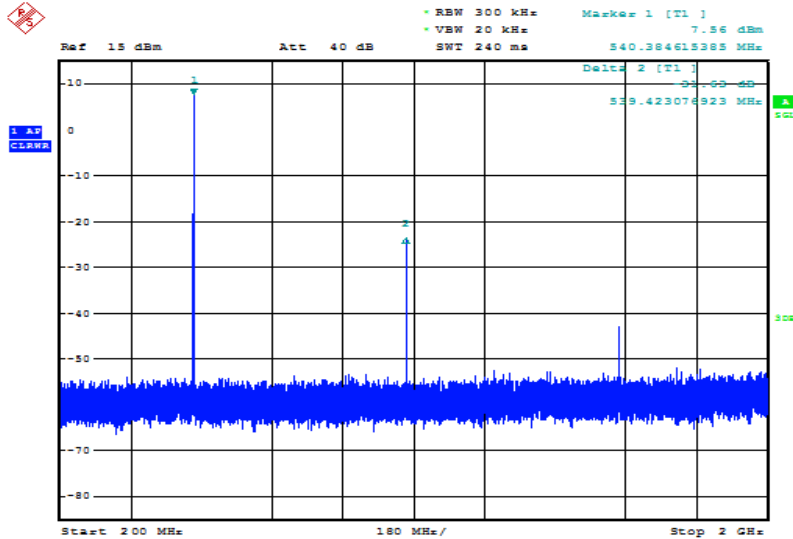
Pin 5 - RF Out	Pin 13,14 - NC	Pin 21 - Ref In	Pin 27 - Vcc (Tune)
Pin 7 - Lock Detect Out	Pin 15 - D1	Pin 23 - Vcc (Digital)	Pin 28 - NC
Pin 8 - D0	Pin 16 - NC	Pin 24 - NC	All Others - Ground
Pin 9,10,11 - NC	Pin 17 - D2	Pin 25 - Vcc (VCO)	
Pin 12 - D3	Pin 19 - NC	Pin 26 - NC	NC - No Connection

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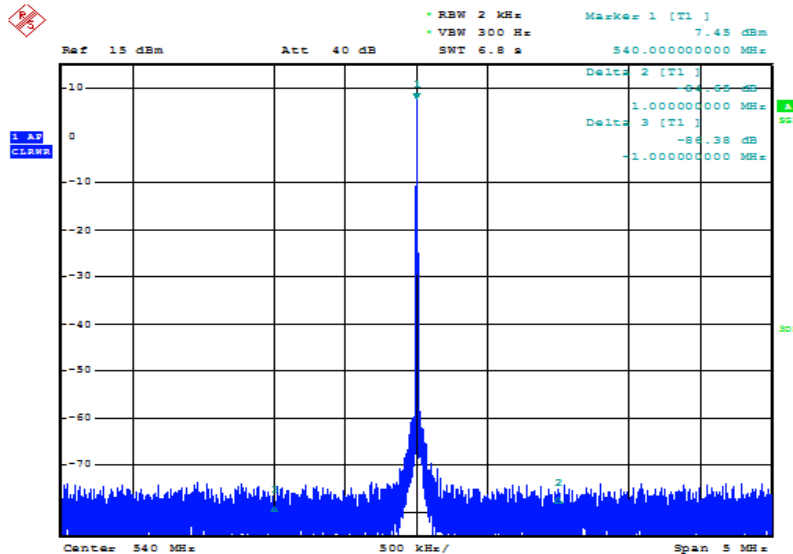
540 - 605 MHz

PERFORMANCE PLOTS

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



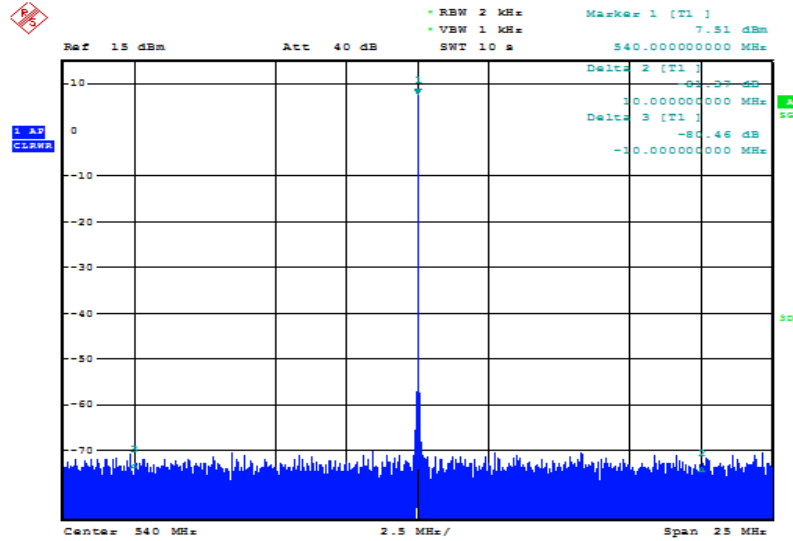
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SELECTABLE FREQUENCY SYNTHESIZER SURFACE MOUNT MODEL: FCPL5460-10

540 - 605 MHz

CLOSE IN SPURIOUS SUPPRESSION



PERFORMANCE PLOTS

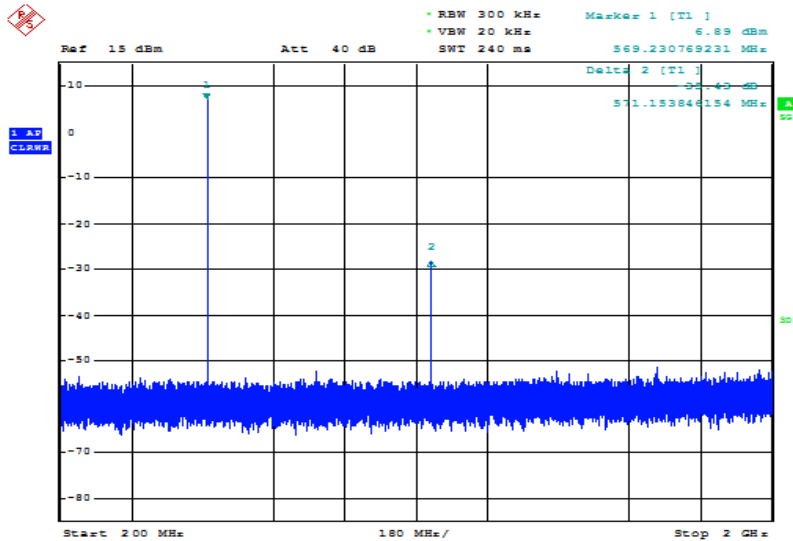
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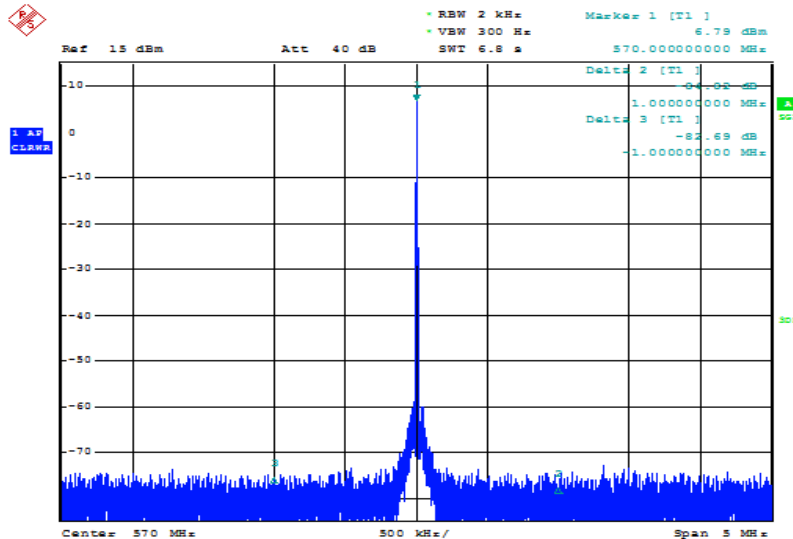
540 - 605 MHz

PERFORMANCE PLOTS

HARMONIC SUPPRESSION



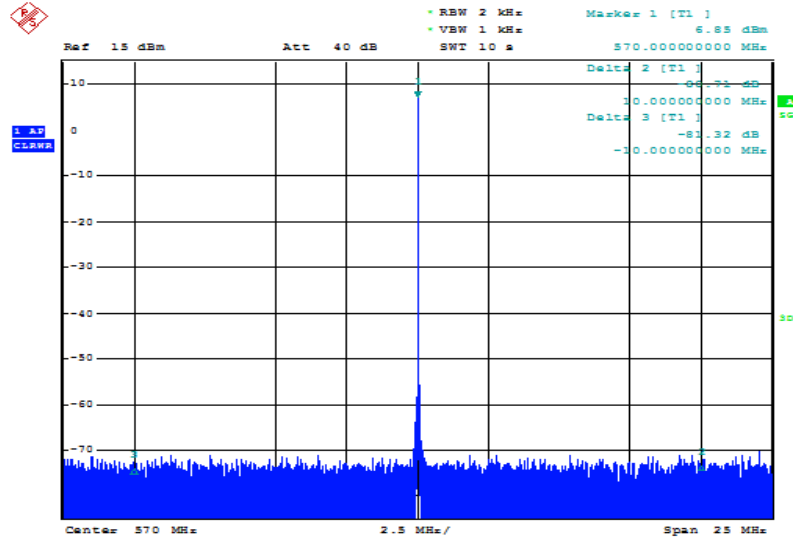
REFERENCE SIDEBAND SUPPRESSION



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540 - 605 MHz

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PERFORMANCE PLOTS

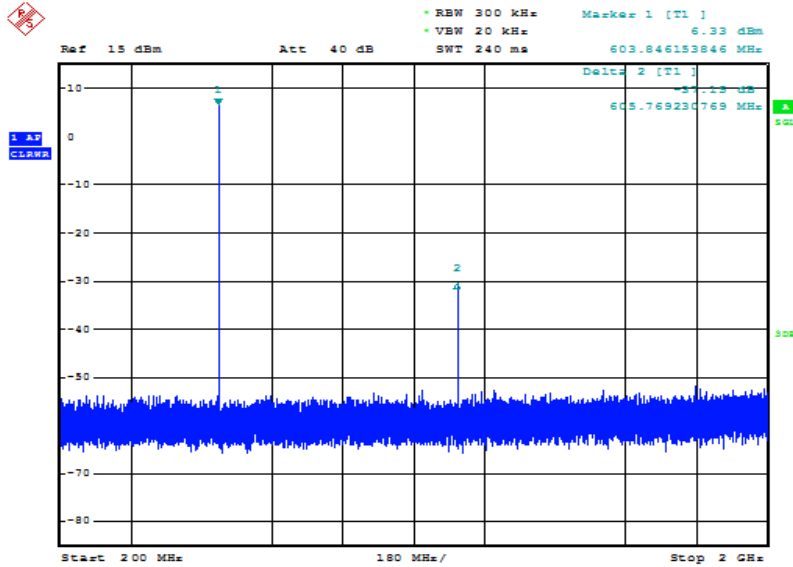
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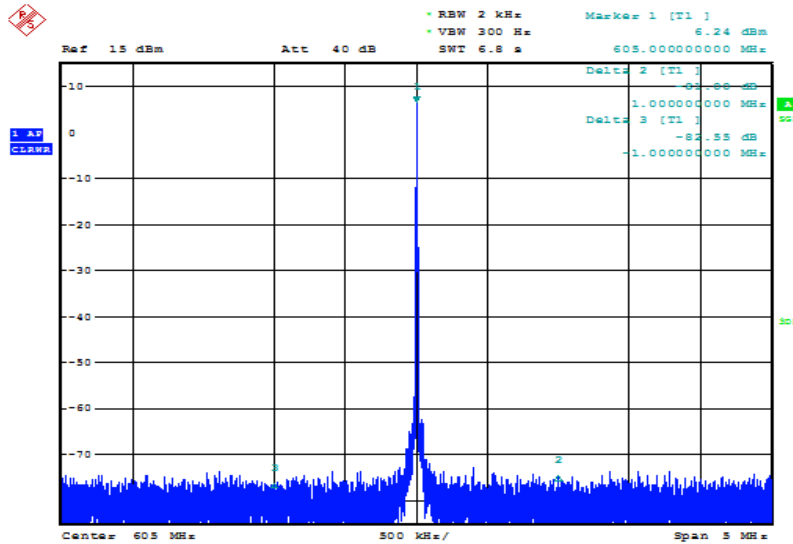
540 - 605 MHz

PERFORMANCE PLOTS

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



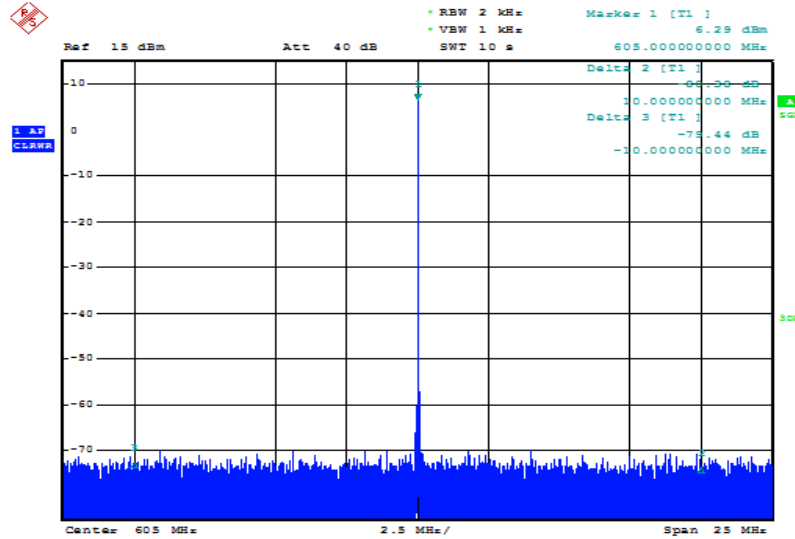
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