

SELECTABLE FREQUENCY SYNTHESIZER

SURFACE MOUNT MODEL: FCPH243290-10

OPTIMIZED BANDWIDTH

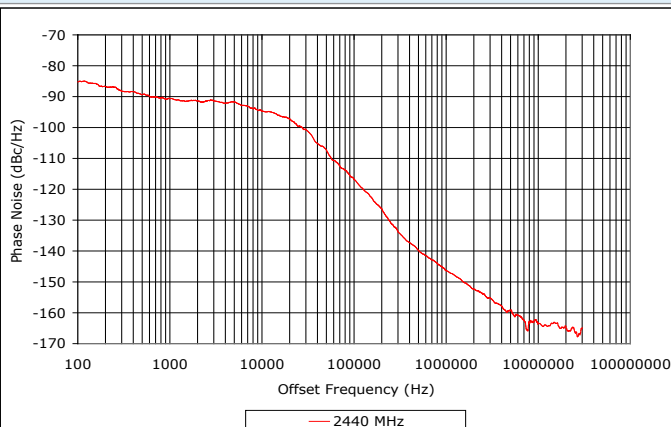
2430 - 2900 MHz

FEATURES:

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



Phase Noise



SPECIFICATIONS (Rev. D 10/31/11)

Frequency	2430 - 2900 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	15
	Vcc 2 (Vtune)	+15	10
	Vcc 3 (VCO)	+5	60
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		-90 dBc/Hz
	@ 10 kHz		-95 dBc/Hz
	@ 100 kHz		-115 dBc/Hz
Operating Temperature Range	-40 to +85 °C		

¹ From stable power on to stable lock detect.

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Binary Frequency Selection Table

D3	D2	D1	D0	Freq. (MHz)
0	0	0	0	2440
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	--
1	0	0	0	--
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	--

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

Absolute Maximum Ratings

Storage Temp. Range	-55 to +125 °C
Bias Voltage (Digital)	+5.25 V
Bias Voltage (Tune)	+16 V
Bias Voltage (VCO)	+5.5 V
DC Voltage Applied to RF Out	± 25 V

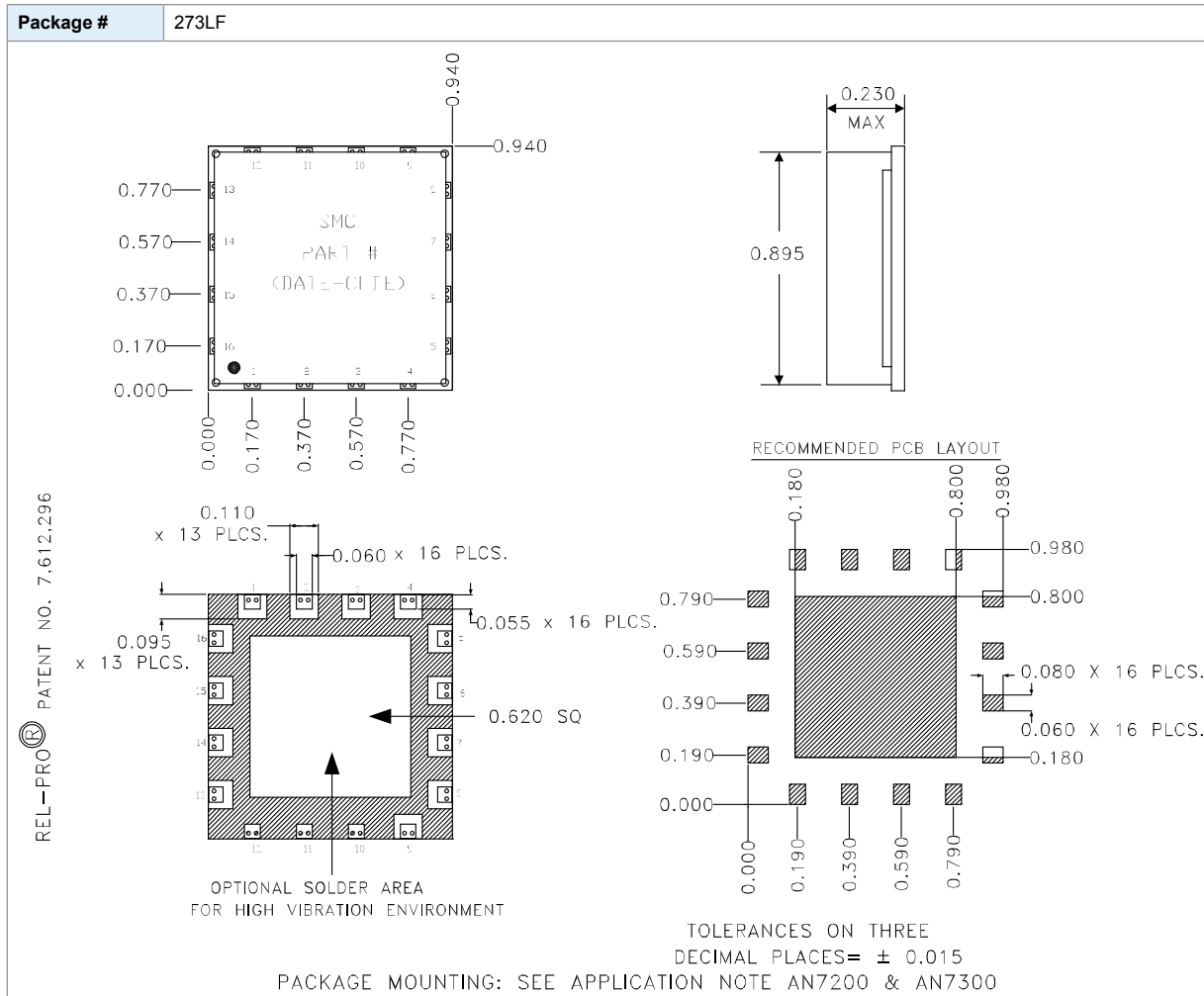
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PERFORMANCE PLOTS



PORT CONFIGURATION

Pin 2 - D0	Pin 8 - Vcc 2 (Tune)	NC - No Connection
Pin 3 - D1	Pin 9 - Vcc 3 (VCO)	*High when locked (source/sink 500 uA)
Pin 4 - D2	Pin 13 - RF Out	
Pin 5 - D3	Pin 14 - Lock Detect *	
Pin 6 - Ref. In	Pin 1, 15, 16 - NC	
Pin 7 - Vcc 1 (Digital)	Pin 10, 11, 12 - Ground	

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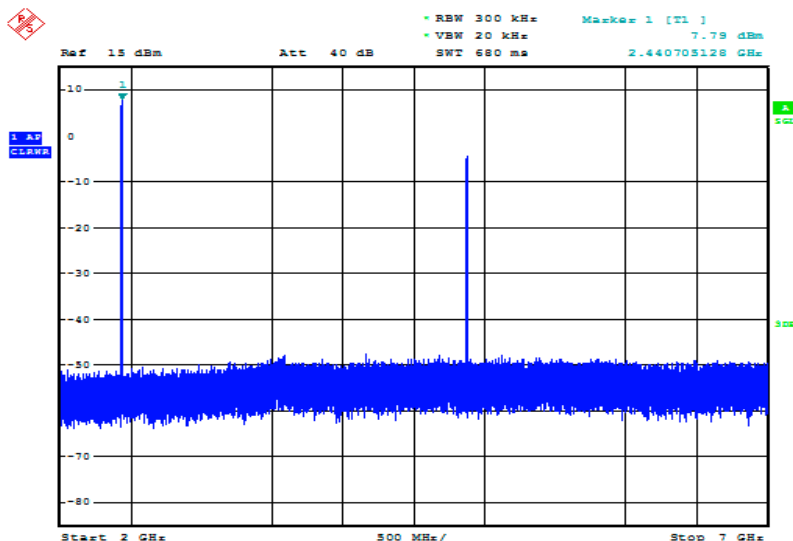
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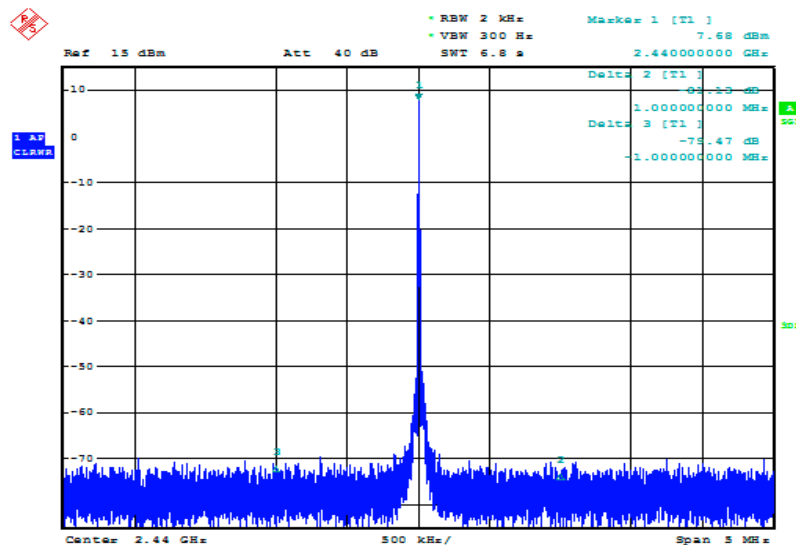
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PERFORMANCE PLOTS

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



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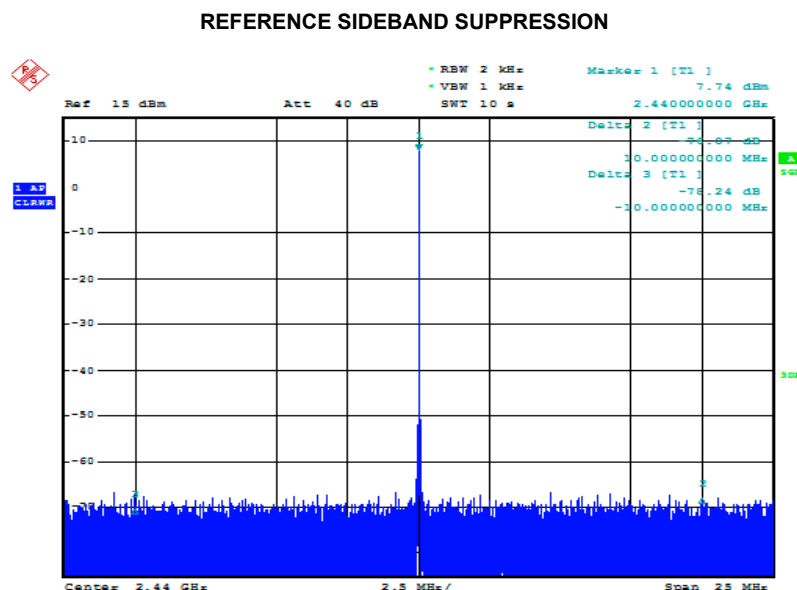


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