

SELECTABLE FREQUENCY SYNTHESIZER

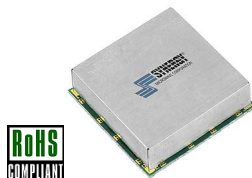
SURFACE MOUNT MODEL: FCPH110175-10

WIDE BANDWIDTH

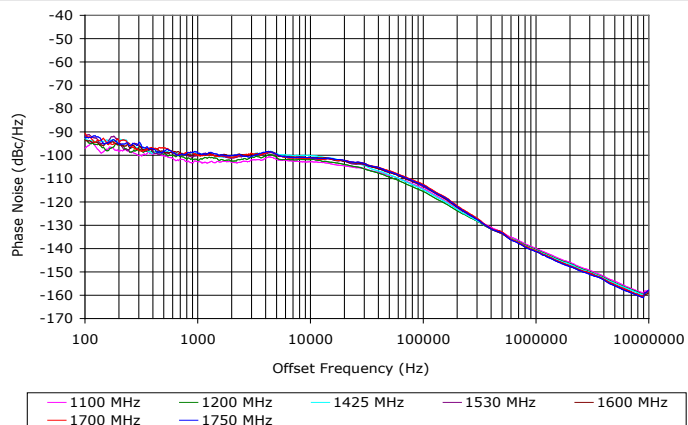
1100 - 1750 MHz

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. J 04/23/25)

Frequency	1100 - 1750 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	15
	Tune	+12	10
	VCO	+5	55
Lock Detect Indicator	CMOS 3.3 V		
Output Power	+5 dBm (Min.)		
Spurious Suppression	82 dB (Typ.)		
Harmonic Suppression	15 dB (Typ.)		
Power Up Time	90 mSec (Typ.) ¹		
Output Impedance	50 Ohms (Nom.)		
Typical Phase Noise	Offset	Phase Noise	
	@ 10 kHz	-101 dBc/Hz	
	@ 100 kHz	-112 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 (Tune)	+16 V
Bias Voltage (VCO)	+5.5 V
DC Voltage Applied to RF Out	± 25 V

Binary Frequency Selection Table

D3 *	D2 *	D1 *	D0 *	Freq. (MHz)
0	0	0	0	1530
0	0	0	1	1600
0	0	1	0	1770
0	0	1	1	1750
0	1	0	0	1160
0	1	0	1	1400
0	1	1	0	1500
0	1	1	1	1700
1	0	0	0	1640
1	0	0	1	1480
1	0	1	0	--
1	0	1	1	--
1	1	0	0	--
1	1	0	1	--
1	1	1	0	--
1	1	1	1	1250

-- Reserved for future use.

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

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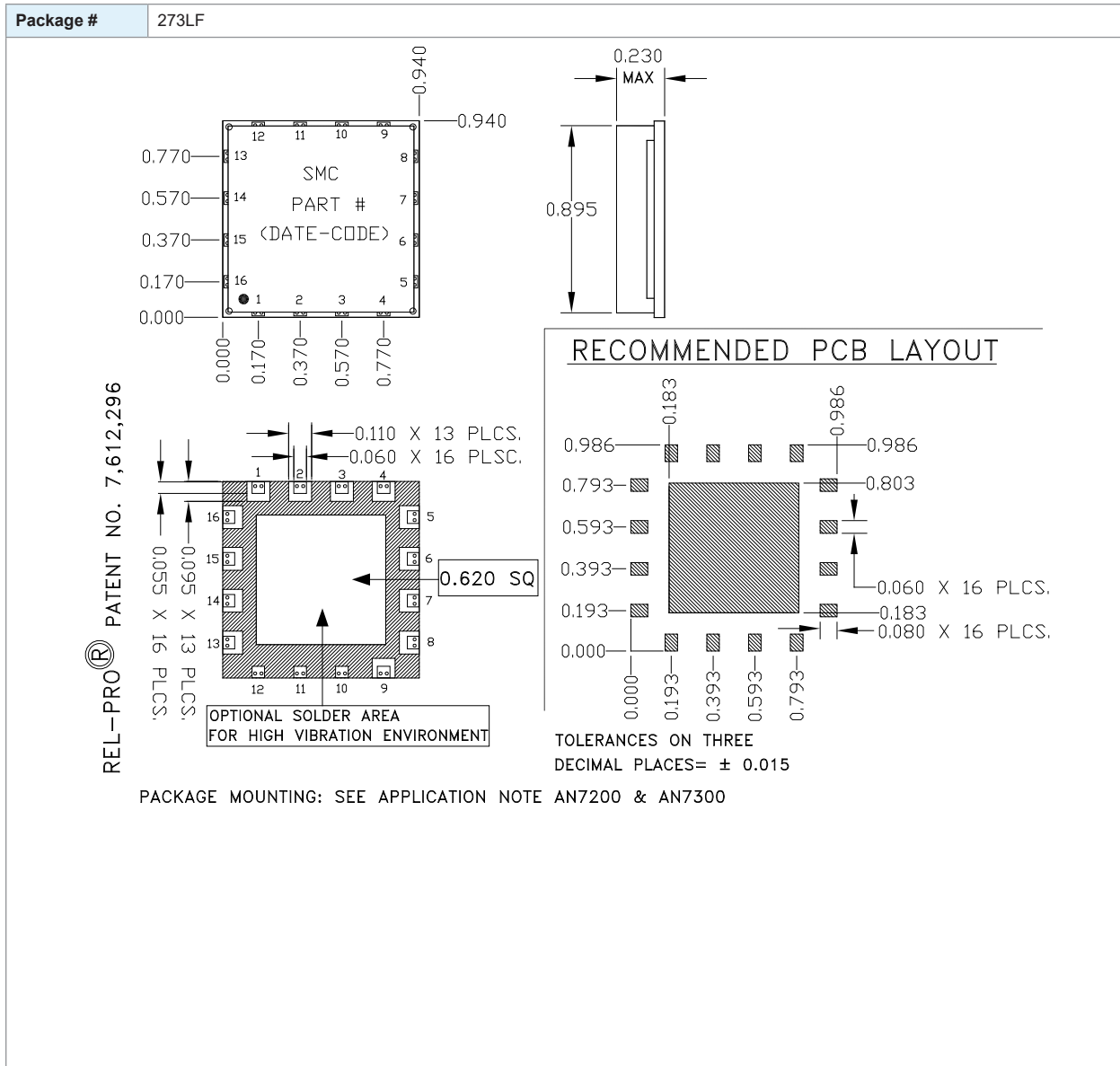
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PERFORMANCE PLOTS



PORT CONFIGURATION

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

* High when locked (source/sink 500 uA)

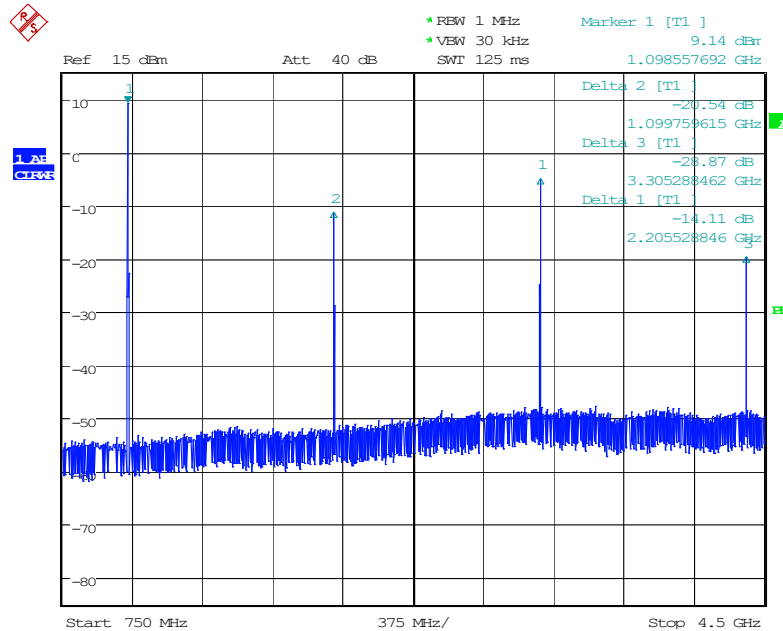
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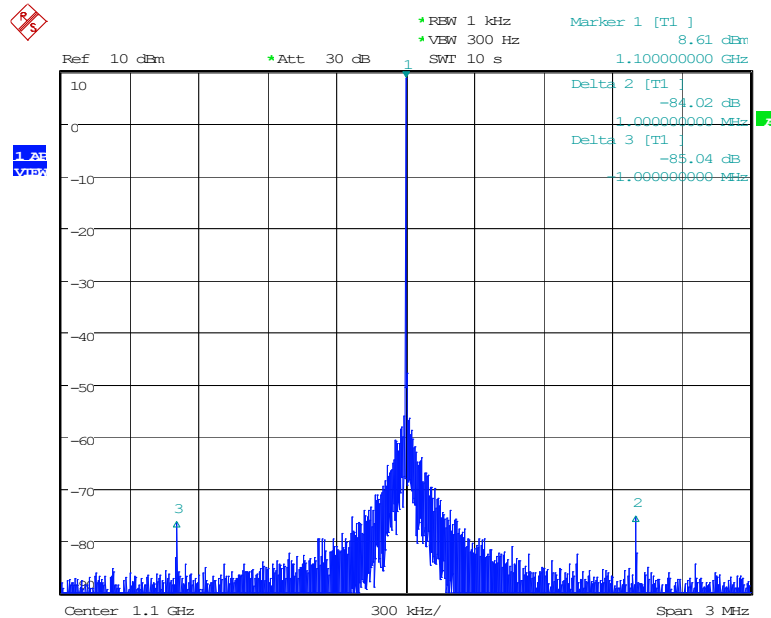
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HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



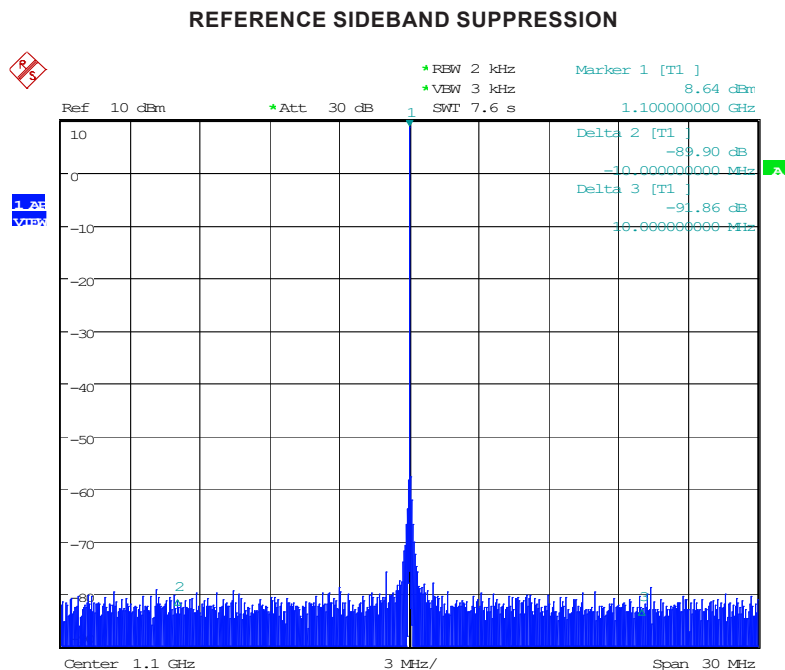
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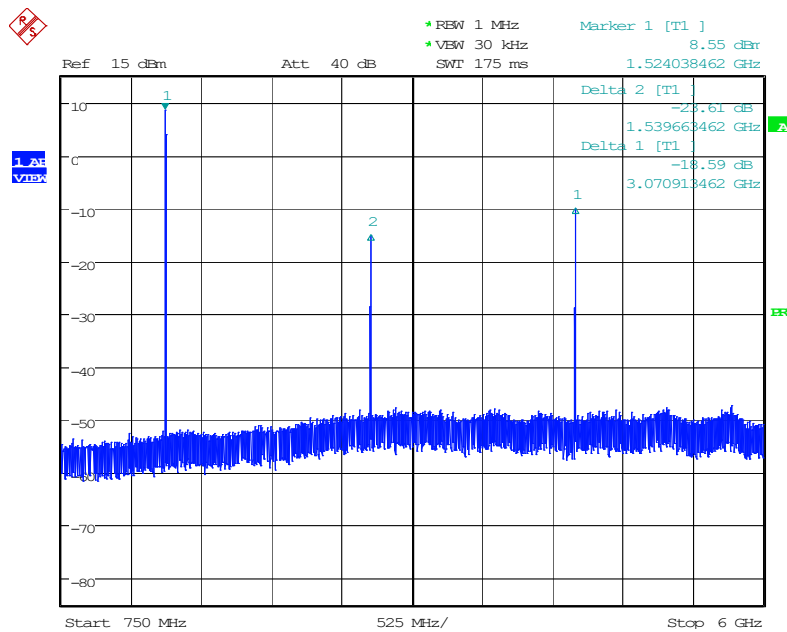
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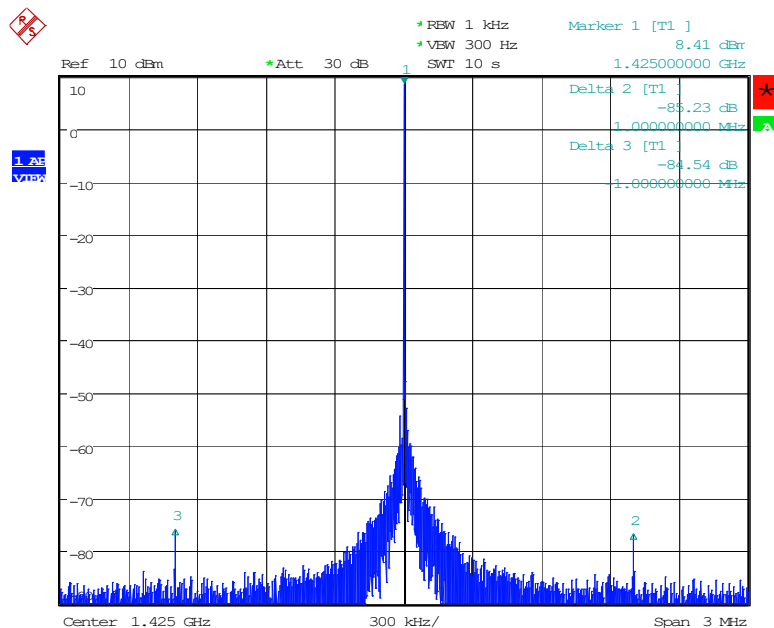
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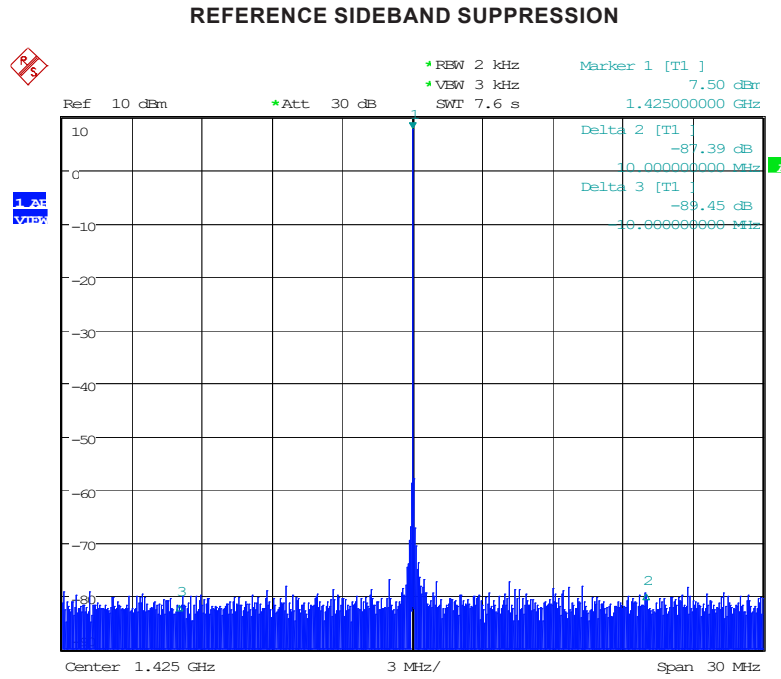


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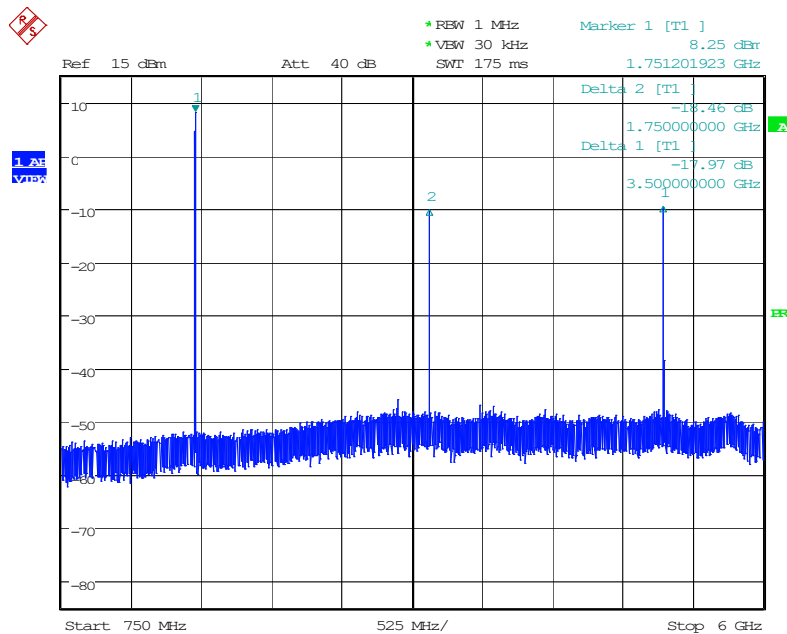
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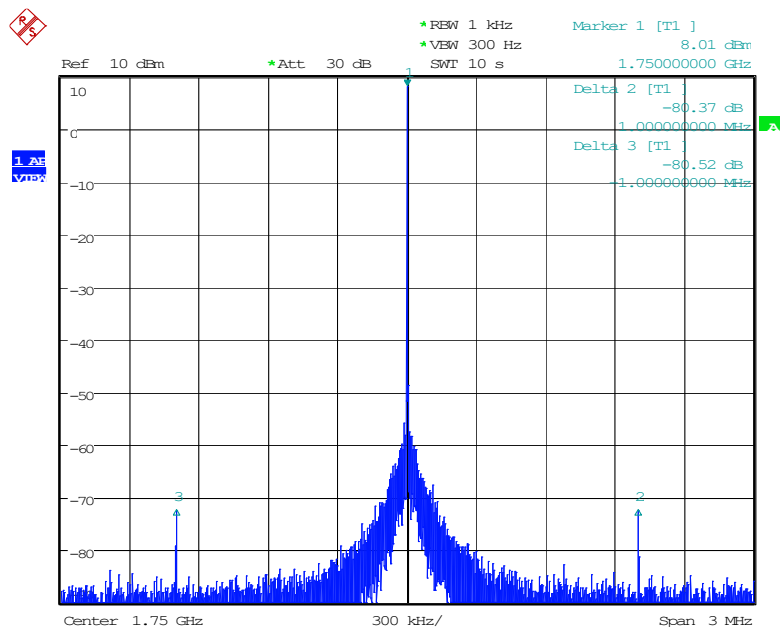
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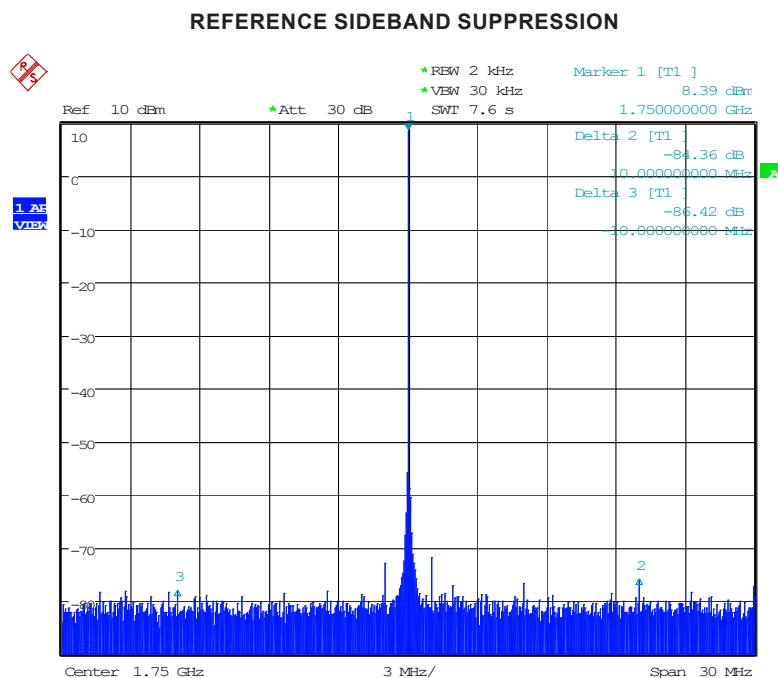


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