

SELECTABLE FREQUENCY SYNTHESIZER

SURFACE MOUNT MODEL: FCPH243250-100

WIDE BANDWIDTH

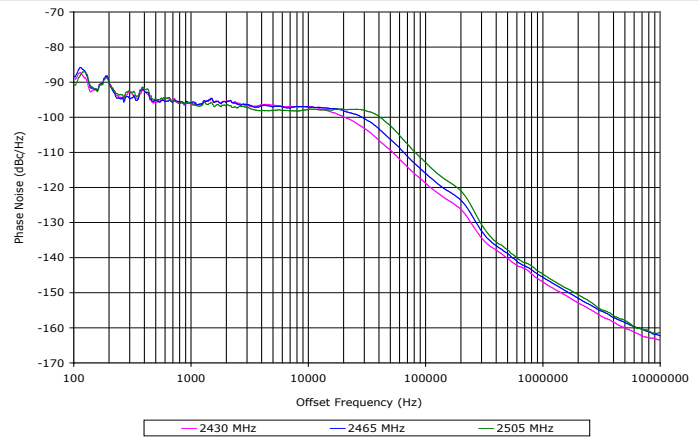
2430 - 2505 MHz

FEATURES:

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



Phase Noise



SPECIFICATIONS (Rev. F 01/02/12)

Frequency	2430 - 2505 MHz		
Reference Input Frequency	100 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)	+5	10
	Vcc 3 (VCO)	+5	45
Lock Detect Indicator	CMOS 3.3 V		
Output Power	-1 dBm (Min.)		
Spurious Suppression	100 dB (Typ.)		
Harmonic Suppression	30 dB (Typ.)		
Power Up Time	90 mSec (Typ.) ¹		
Output Impedance	50 Ohms (Nom.)		
Typical Phase Noise	Offset	Phase Noise	
	@ 1 kHz	-95 dBc/Hz	
	@ 10 kHz	-97 dBc/Hz	
	@ 100 kHz	-116 dBc/Hz	
Operating Temperature Range	-40 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	2430
0	0	0	1	2435
0	0	1	0	2440
0	0	1	1	2445
0	1	0	0	2450
0	1	0	1	2455
0	1	1	0	2460
0	1	1	1	2465
1	0	0	0	2470
1	0	0	1	2475
1	0	1	0	2480
1	0	1	1	2485
1	1	0	0	2490
1	1	0	1	2495
1	1	1	0	2500
1	1	1	1	2505

* 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)	+15 V
Bias Voltage (VCO)	+5.5 V
DC Voltage Applied to RF Out	± 25 V

This product is manufactured under one or more of the following patents. Approved: 5,160,810; 5,122,621; 5,390,349; 5,416,449; 5,650,754; 5,805,431; 6,525,623; 6,850,575; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113; 7,365,612; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 7,580,693; 7,886,381; 7,605,670; 7,636,021; 2,533,623 | Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; EV31369834; 11/259766; 60/622485 & 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 2,563,174; 7,580,693; 7,612,296; 2,524,751

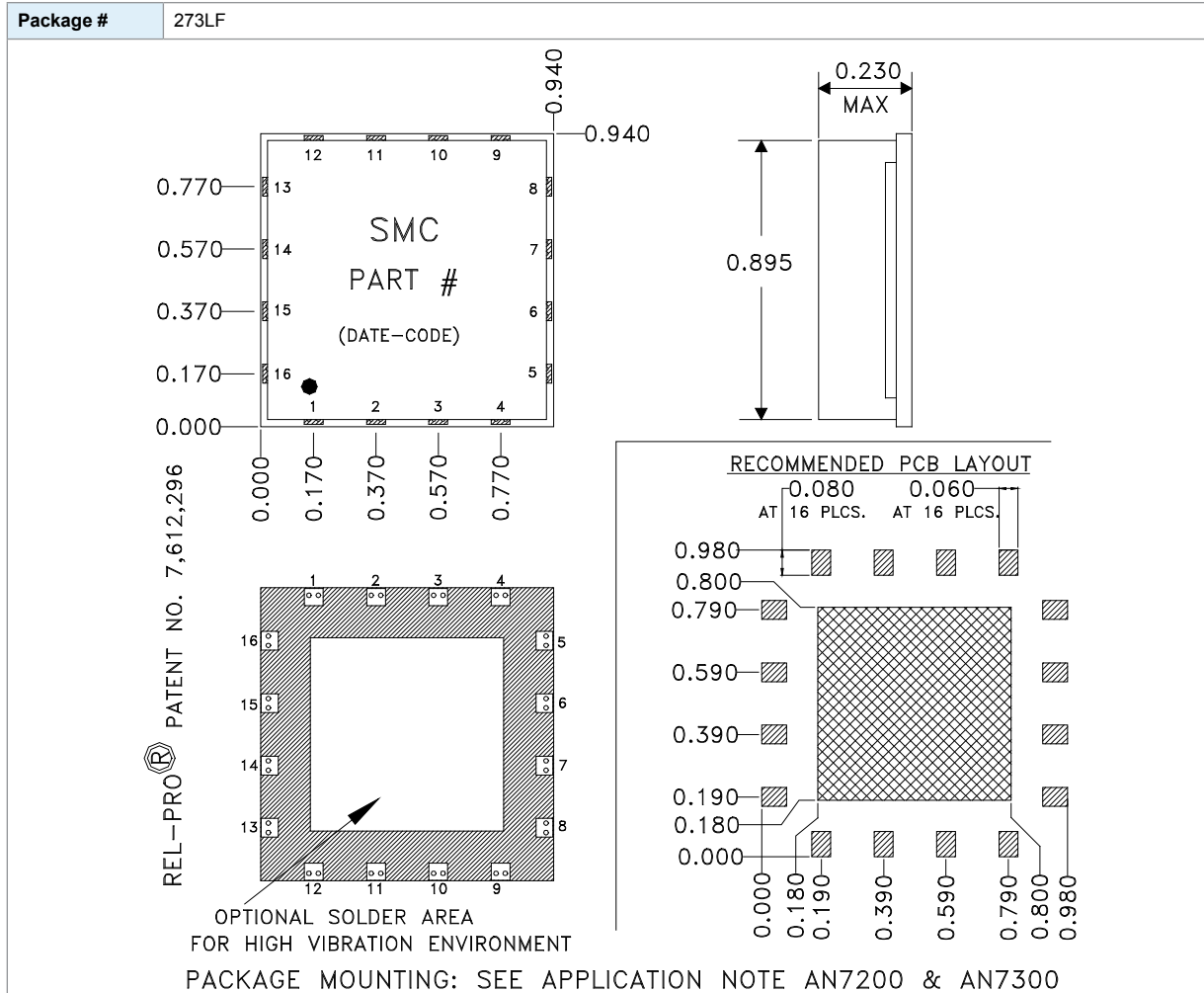
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PERFORMANCE PLOTS



PORT CONFIGURATION

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

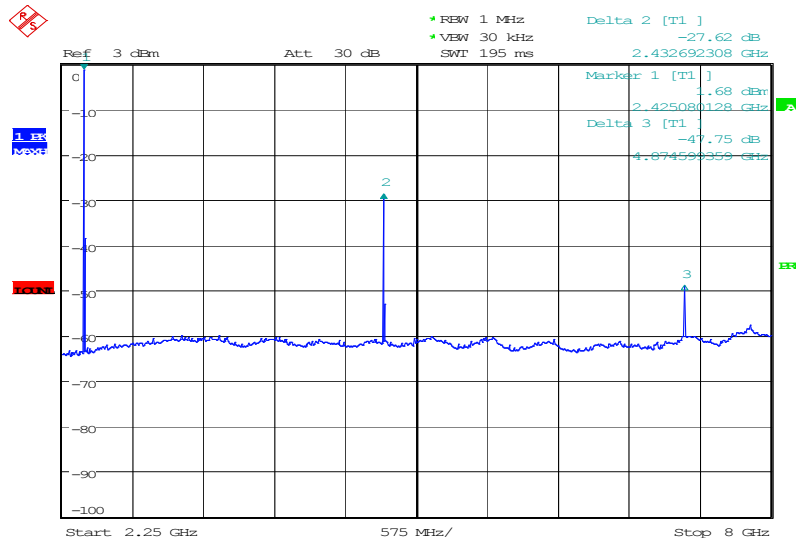
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SELECTABLE FREQUENCY SYNTHESIZER SURFACE MOUNT MODEL: FCPH243250-100

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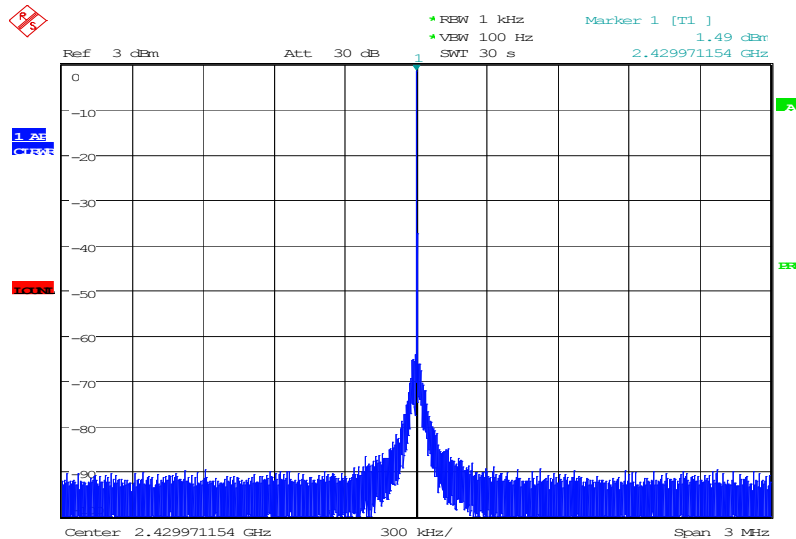
2430 - 2505 MHz

HARMONIC SUPPRESSION



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REFERENCE SIDEBAND SUPPRESSION



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PERFORMANCE PLOTS

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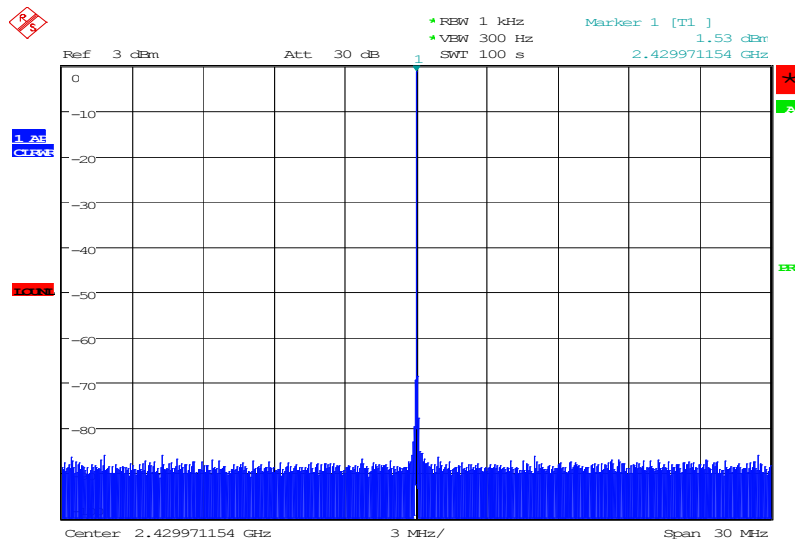


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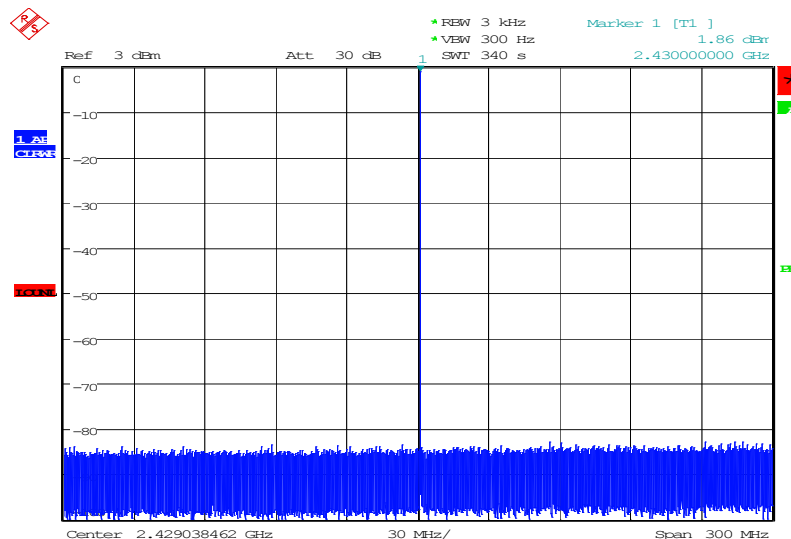
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2430 - 2505 MHz

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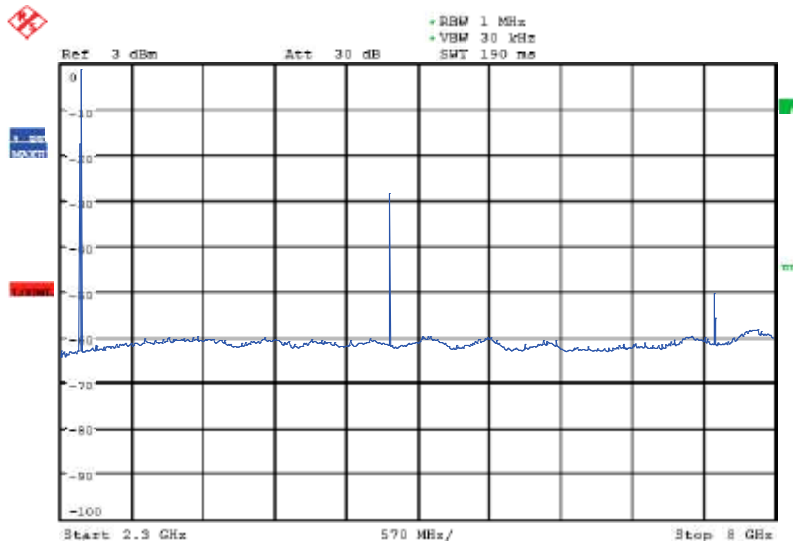
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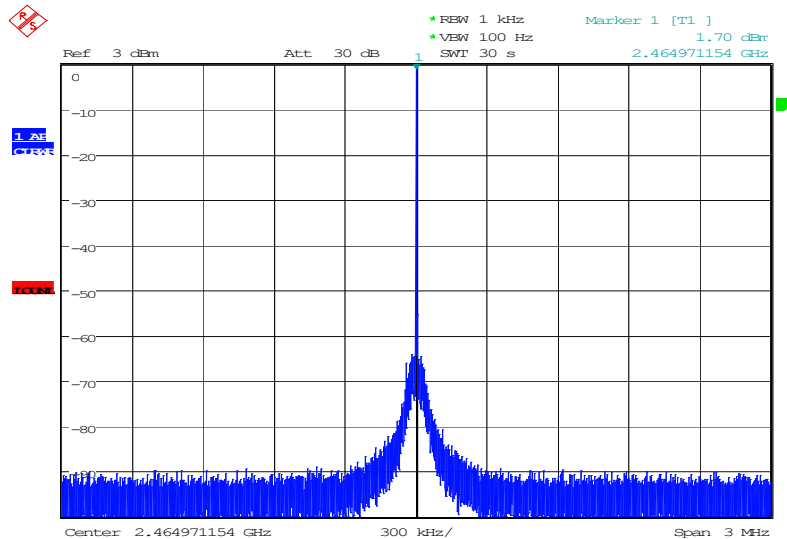
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HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



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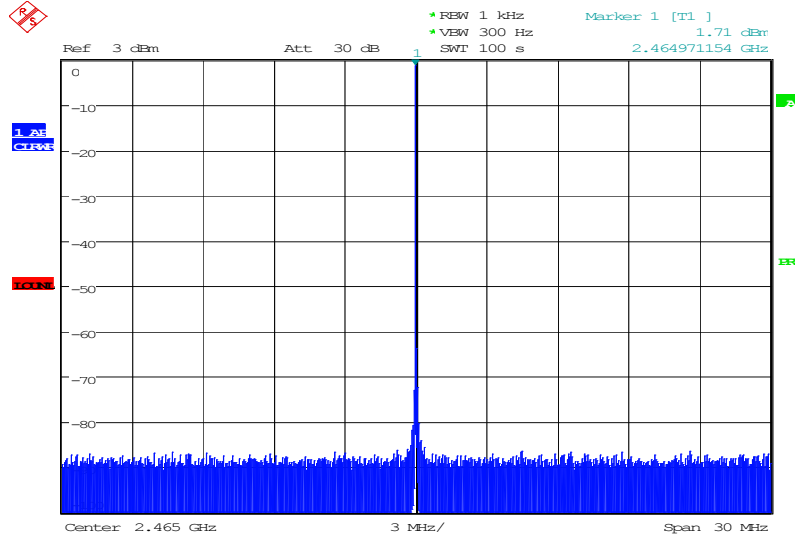


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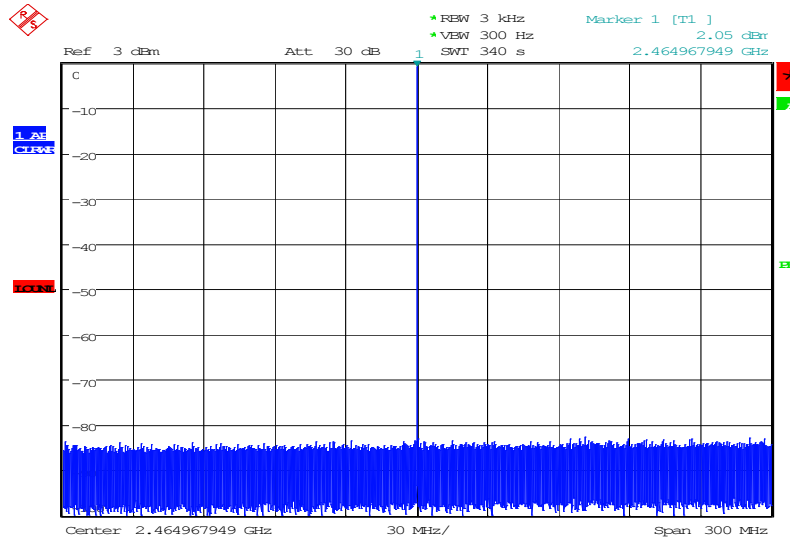
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REFERENCE SIDEBAND SUPPRESSION



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Date: 29.JAN.2007 20:08:49

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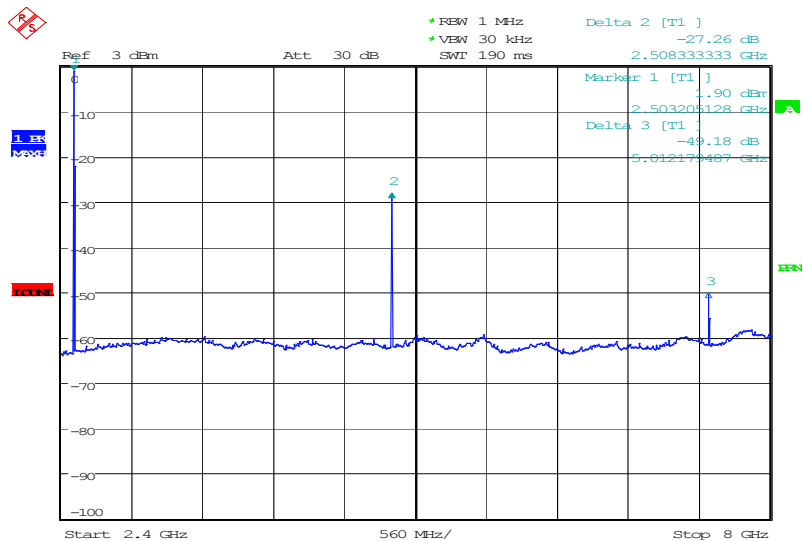
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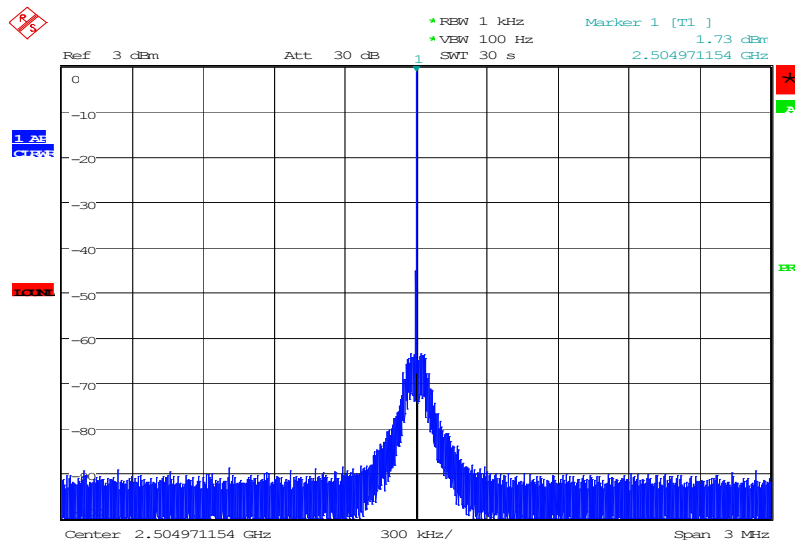
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