

# VOLTAGE CONTROLLED OSCILLATOR

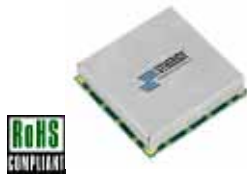
## SURFACE MOUNT MODEL: MFC4151-12

**OPTIMIZED BANDWIDTH**

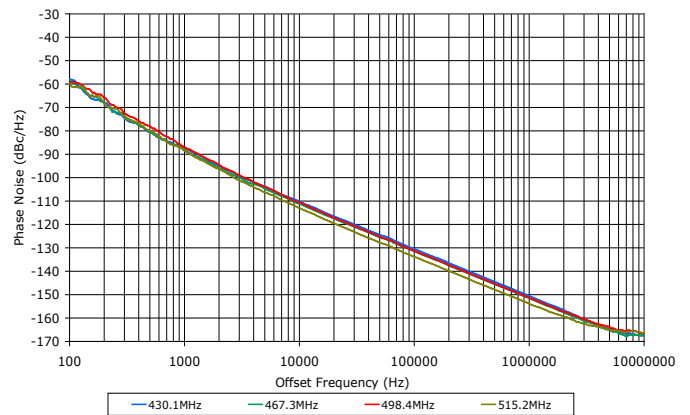
**410 - 510 MHz**

**FEATURES:**

- ▶ Low Phase Noise Performance
- ▶ Fast Tuning
- ▶ Ideal for PLL Applications
- ▶ Small Size, Surface Mount
- ▶ Lead Free Patented REL-PRO® Technology



**Phase Noise**



**SPECIFICATIONS (Rev. F 09/30/09)**

Frequency	410 - 510 MHz
Tuning Voltage	See table below.
Bias Voltage	+12 VDC @ 21 mA (Max.)
Output Power	+2 dBm (Min.)
Tuning Sensitivity	5 - 12 MHz/V (Typ.)
Output Impedance	50 Ohms (Nom.)
Harmonic Suppression	15 dB (Typ.)
Frequency Pulling	2 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing	2 MHz/V (Typ.)
Tuning Port Capacitance	33 pF (Typ.)
Phase Noise @ 10 kHz	-112 dBc/Hz (Typ.)
Operating Temperature Range	-40 to +85 °C

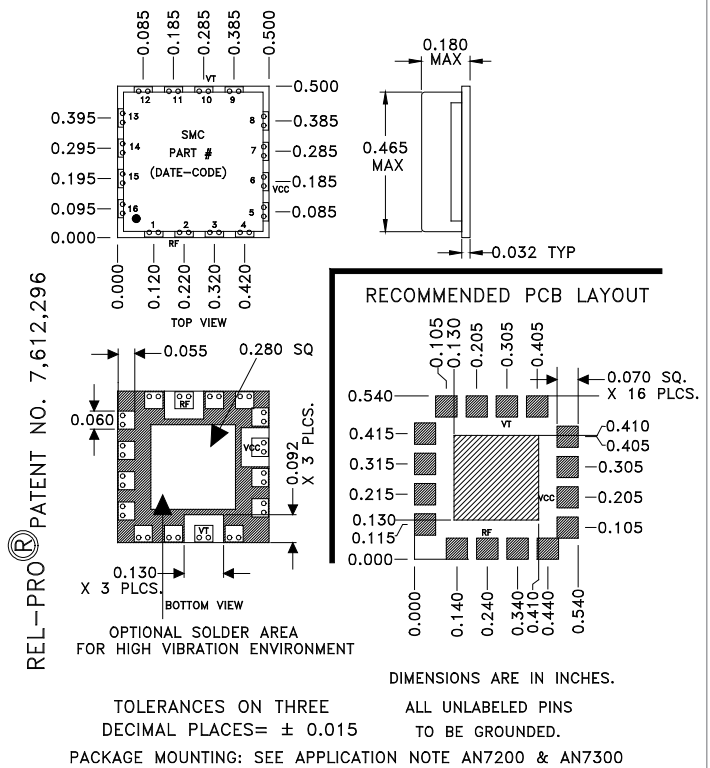
**Guaranteed Tuning Specifications**

Tuning Voltage ( V )	Frequency ( MHz )
0.5	410 (Max.)
5	435 (Min.)
8	460 (Min.)
12	495 (Min.)
15	510 (Min.)

**Absolute Maximum Ratings**

Storage Temp. Range	-55 to +125 °C
Bias Voltage	+12.5 V
Tuning Voltage	+15 V
DC Voltage Applied to RF Out	± 25 V

Package # 278LF



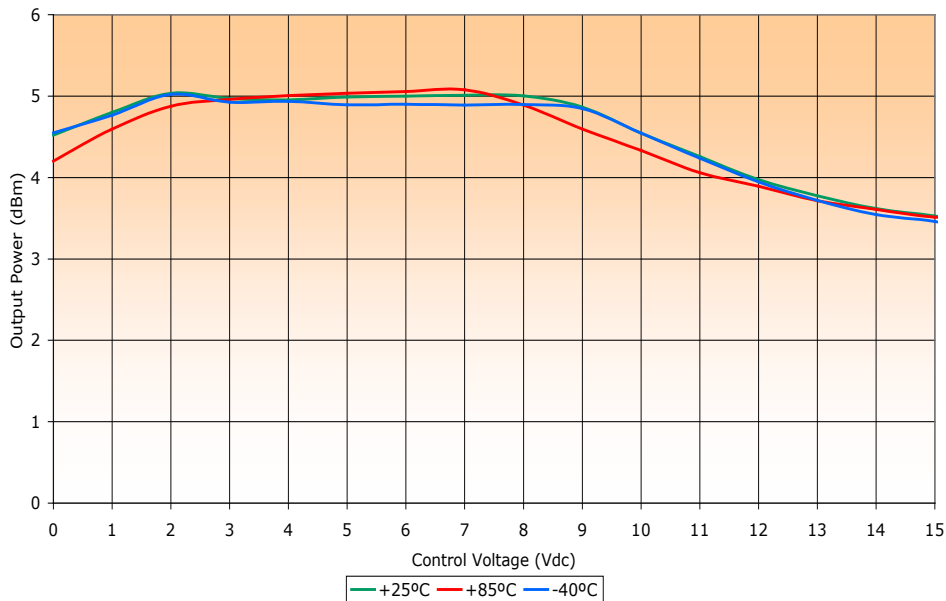
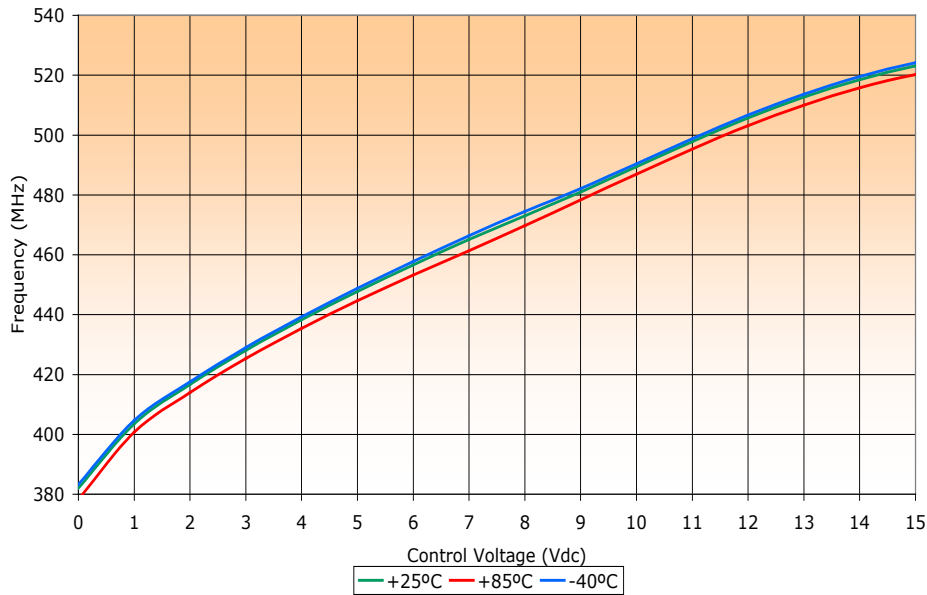
This product is manufactured under one or more of the following patents: Approved: 5,160,810; 5,122,621; 5,390,349; 5,416,449; 5,650,754; 5,805,431; 6,525,623; 6,850,575; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113; 7,365,612; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 7,580,693; 7,586,381; 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



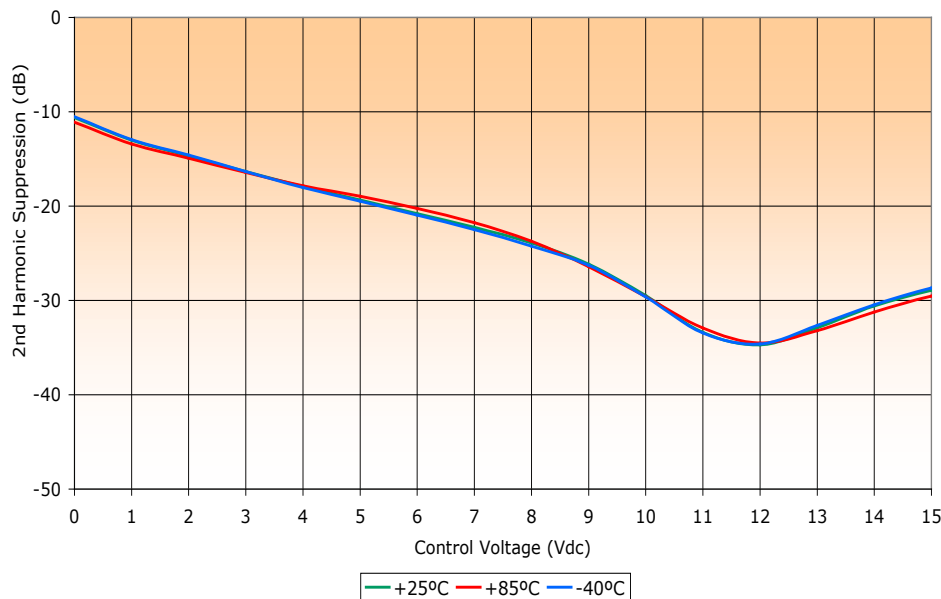
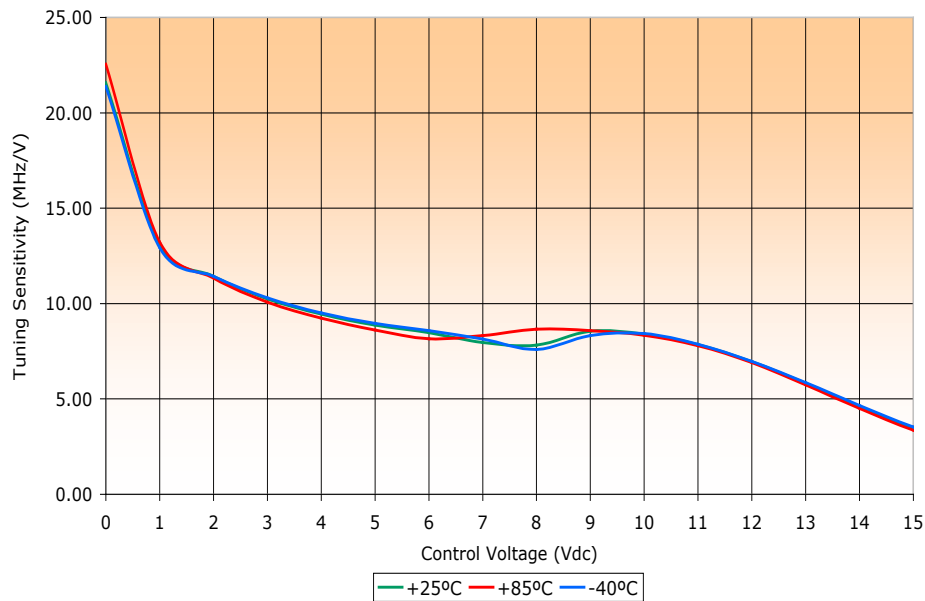
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