

# VOLTAGE CONTROLLED OSCILLATOR

## SURFACE MOUNT MODEL: DCRO80100-12

**OPTIMIZED BANDWIDTH**

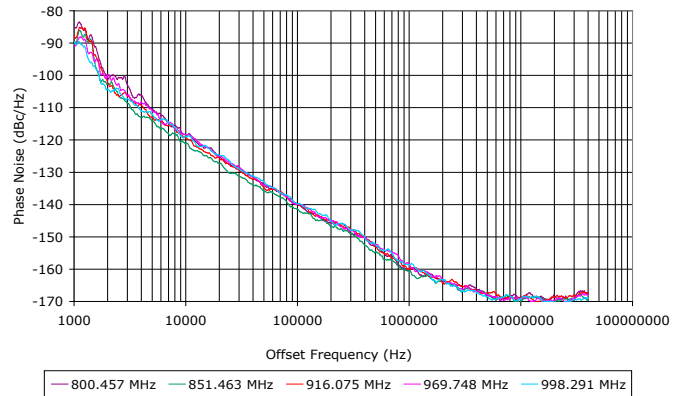
**800 - 1000 MHz**

**FEATURES:**

- ▶ Exceptional Phase Noise Performance
- ▶ Small Size, Surface Mount
- ▶ Lead Free REL-PRO® Technology
- ▶ Planar Resonator Construction



**Phase Noise**



**SPECIFICATIONS (Rev. A 11/05/08)**

|                             |                            |
|-----------------------------|----------------------------|
| Frequency                   | 800 - 1000 MHz             |
| Tuning Voltage              | See table below.           |
| Bias Voltage                | +12 VDC @ 35 mA (Max.)     |
| Output Power                | +8 dBm (Min.)              |
| Tuning Sensitivity          | 4 - 14 MHz/V (Typ.)        |
| Output Impedance            | 50 Ohms (Nom.)             |
| Harmonic Suppression        | 10 dB (Typ.)               |
| Frequency Pulling           | 3 MHz (Typ. @ 1.75:1 VSWR) |
| Frequency Pushing           | 0.2 MHz/V (Typ.)           |
| Tuning Port Capacitance     | 75 pF (Typ.)               |
| Phase Noise @ 10 kHz        | -119 dBc/Hz (Typ.)         |
| Operating Temperature Range | -40 to +85 °C              |

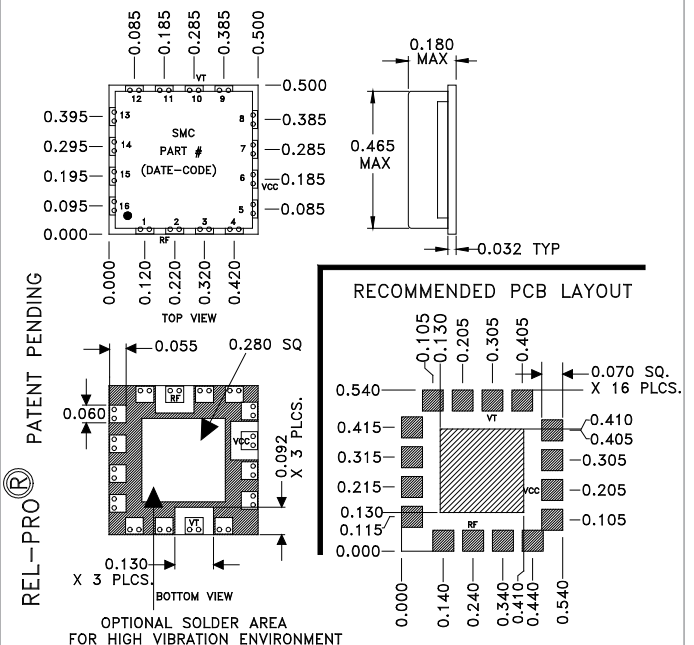
**Guaranteed Tuning Specifications**

| Tuning Voltage ( V ) | Frequency ( MHz ) |
|----------------------|-------------------|
| 0.5                  | 800 (Max.)        |
| 5                    | 835 (Min.)        |
| 8                    | 860 (Min.)        |
| 12                   | 915 (Min.)        |
| 15                   | 940 (Min.)        |
| 18                   | 960 (Min.)        |
| 24                   | 1000 (Min.)       |

**Absolute Maximum Ratings**

|                              |                |
|------------------------------|----------------|
| Storage Temp. Range          | -55 to +125 °C |
| Bias Voltage                 | +12.5 V        |
| Tuning Voltage               | +28 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; 5,605,431; 6,525,623; 6,850,575; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113  
 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



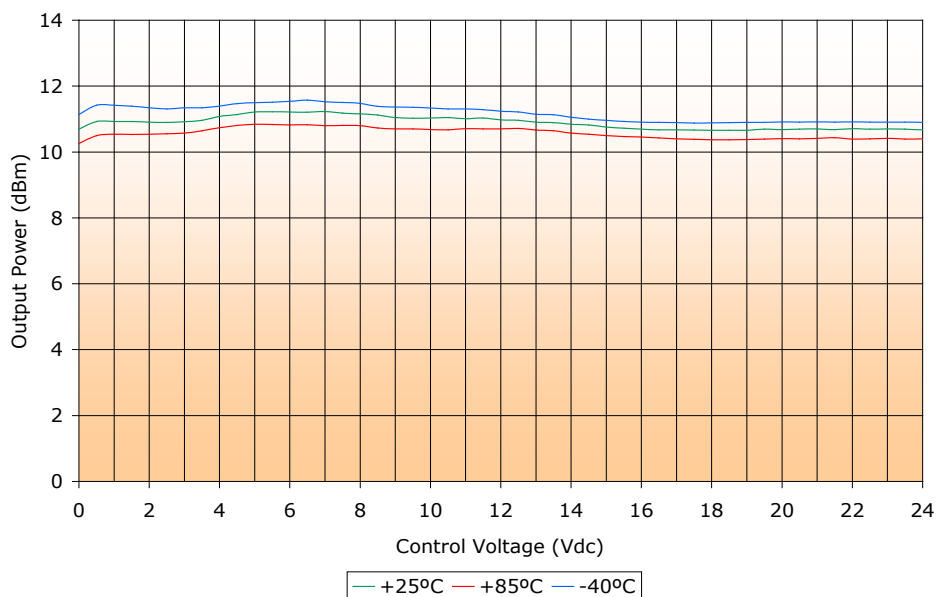
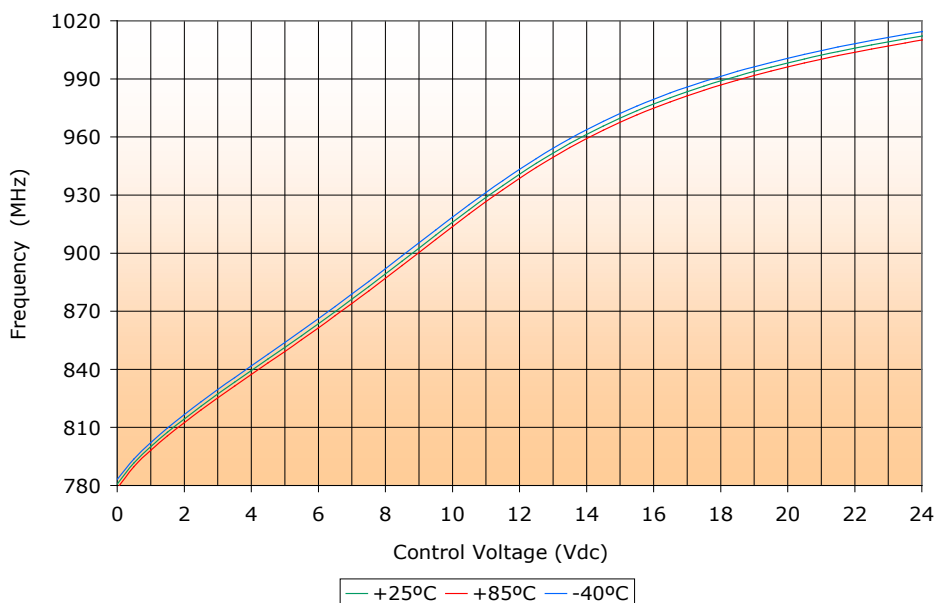
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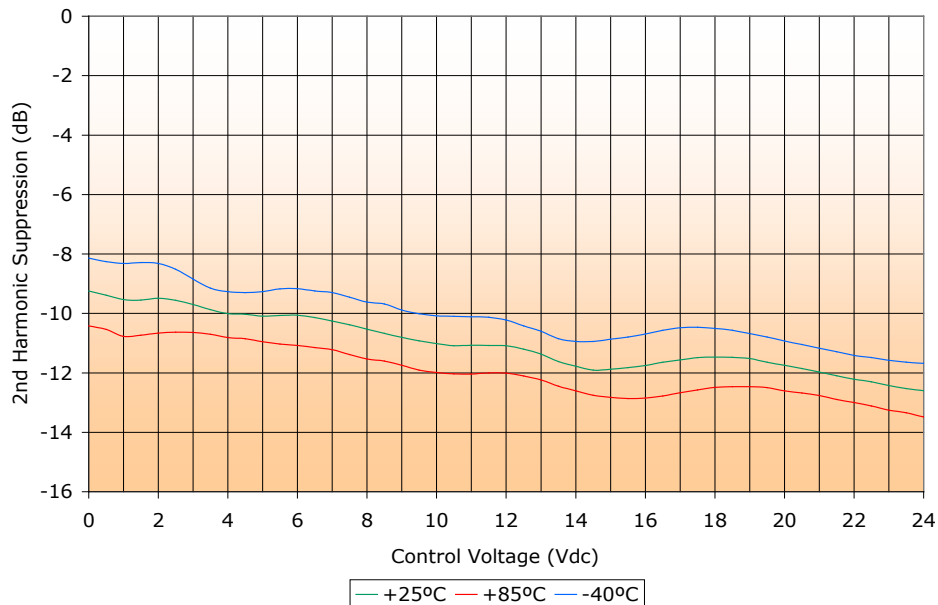
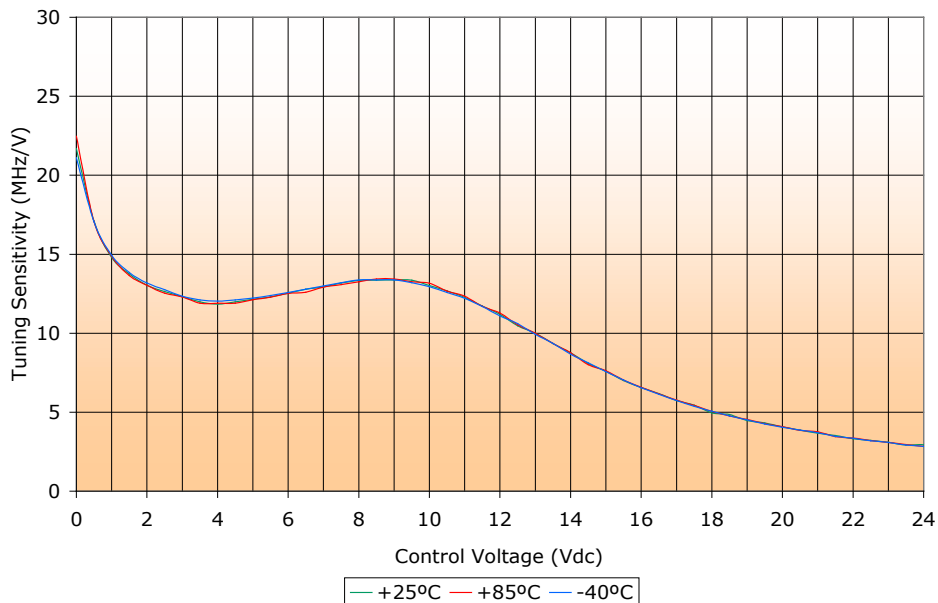
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