

# VOLTAGE CONTROLLED OSCILLATOR

## SURFACE MOUNT MODEL: DCRO119185-12-1

**OPTIMIZED BANDWIDTH**

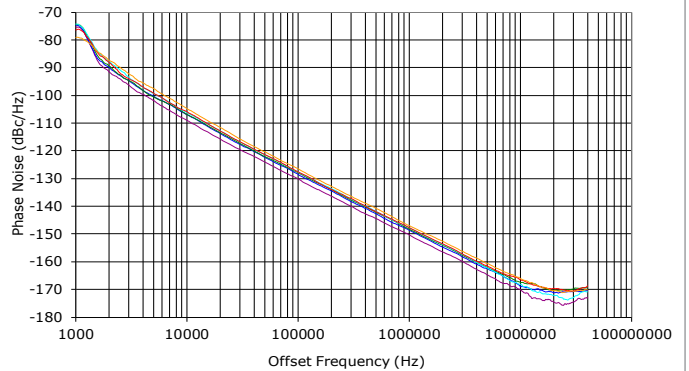
**1190 - 1850 MHz**

**FEATURES:**

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



**Phase Noise**

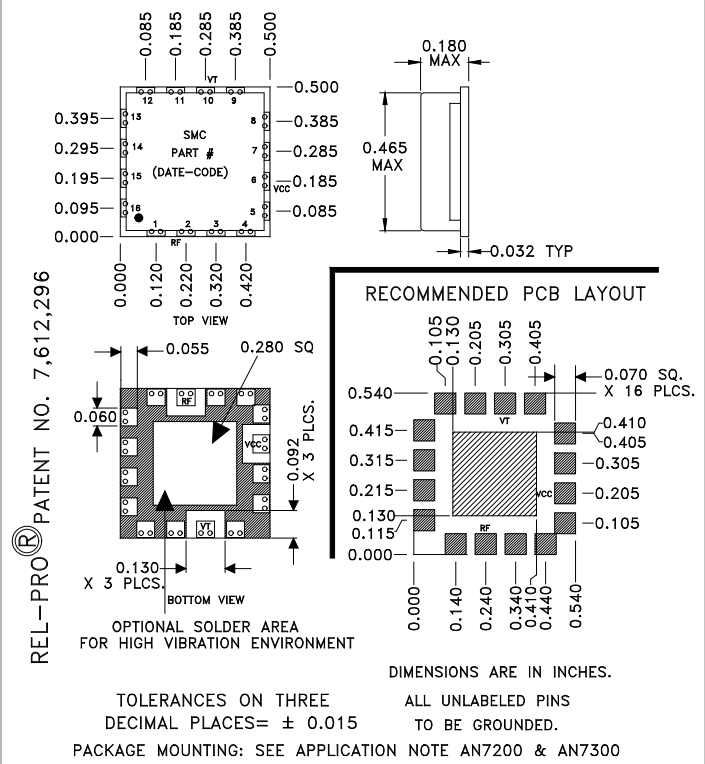


— 1193.84 MHz      — 1348.12 MHz      — 1470.58 MHz  
— 1605.83 MHz      — 1702.50 MHz      — 1853.25 MHz

**SPECIFICATIONS**

|                             |                            |
|-----------------------------|----------------------------|
| Frequency                   | 1190 - 1850 MHz            |
| Tuning Voltage              | See table below.           |
| Bias Voltage                | +12 VDC @ 30 mA (Max.)     |
| Output Power                | +3 dBm (Min.)              |
| Tuning Sensitivity          | 9 - 42 MHz/V (Typ.)        |
| Output Impedance            | 50 Ohms (Nom.)             |
| Harmonic Suppression        | 15 dB (Typ.)               |
| Frequency Pulling           | 5 MHz (Typ. @ 1.75:1 VSWR) |
| Frequency Pushing           | 5 MHz/V (Typ.)             |
| Tuning Port Capacitance     | 70 pF (Typ.)               |
| Phase Noise @ 10 kHz        | -108 dBc/Hz (Typ.)         |
| Operating Temperature Range | -40 to +85 °C              |

**Package #** 278LF



**Guaranteed Tuning Specifications**

| Tuning Voltage ( V ) | Frequency ( MHz ) |
|----------------------|-------------------|
| 0.5                  | 1190 (Max)        |
| 5                    | 1275 (Min)        |
| 8                    | 1378 (Min)        |
| 15                   | 1600 (Min)        |
| 20                   | 1720 (Min)        |
| 28                   | 1850 (Min)        |

**Absolute Maximum Ratings**

|                              |                |
|------------------------------|----------------|
| Storage Temp. Range          | -55 to +125 °C |
| Bias Voltage                 | +12.5 V        |
| Tuning Voltage               | +30 V          |
| DC Voltage Applied to RF Out | ± 25 V         |

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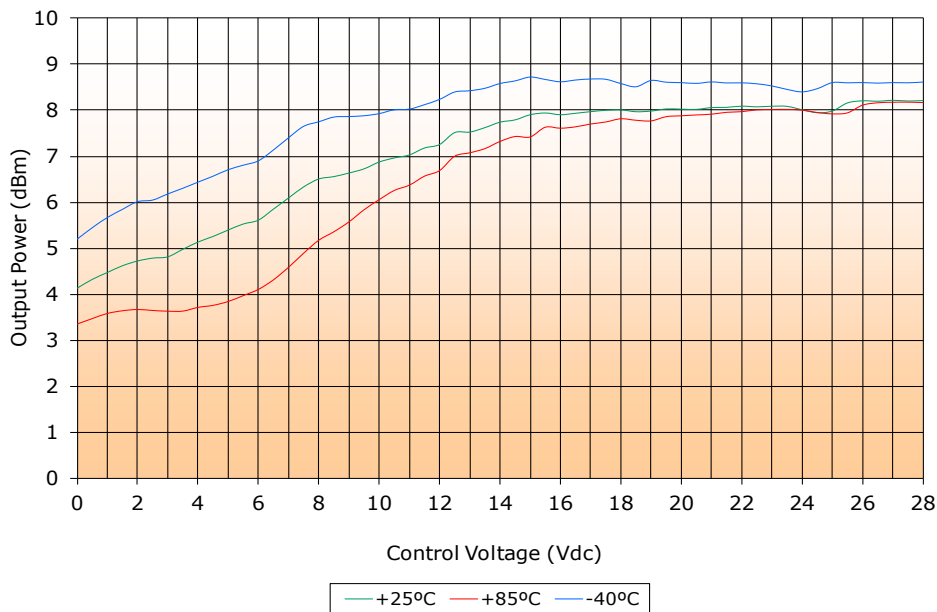
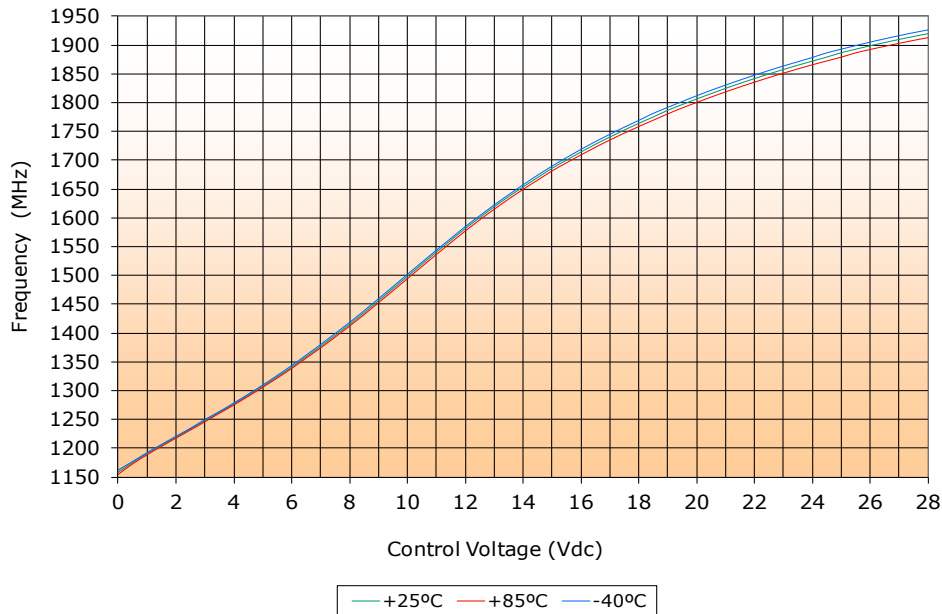
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PERFORMANCE PLOTS



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