

# VOLTAGE CONTROLLED OSCILLATOR

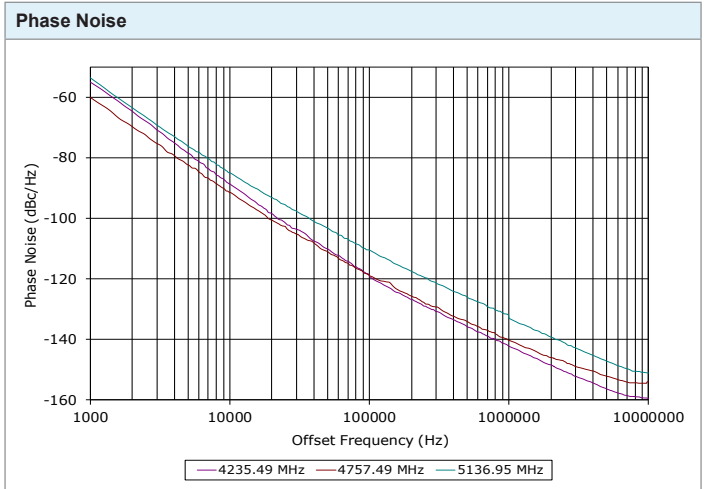
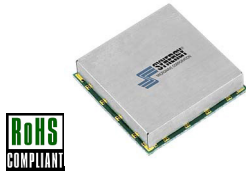
## SURFACE MOUNT MODEL: DCRO425514-10

OPTIMIZED BANDWIDTH

4255 - 5145 MHz

**FEATURES:**

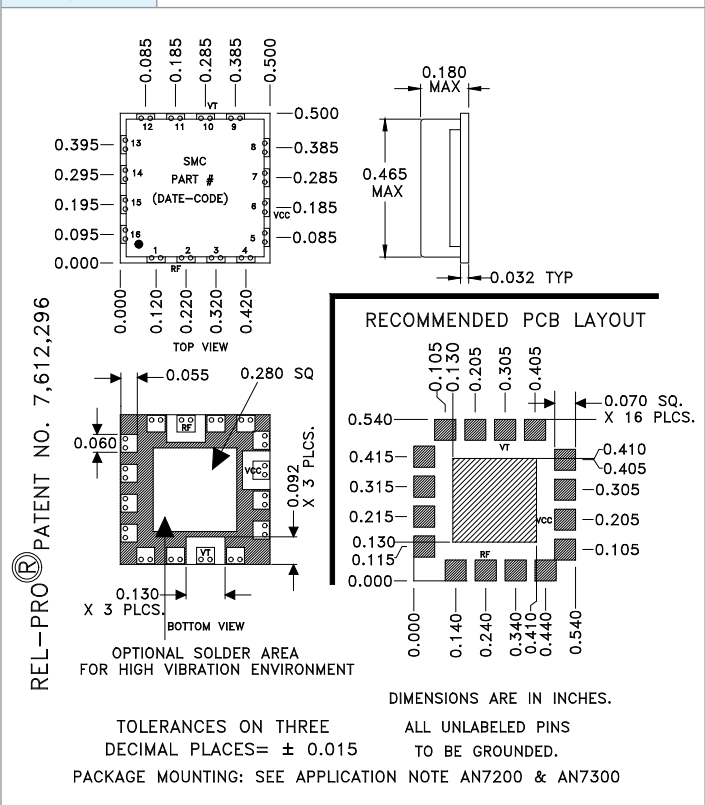
- ▶ Exceptional Phase Noise Performance
- ▶ Small Size, Surface Mount
- ▶ Lead Free Patented REL-PRO® Technology
- ▶ Planar Resonator Construction



**SPECIFICATIONS (Rev. B 12/22/21)**

|                             |                            |
|-----------------------------|----------------------------|
| Frequency                   | 4255 - 5145 MHz            |
| Tuning Voltage              | See table below.           |
| Bias Voltage                | +10 VDC @ 40 mA (Max.)     |
| Output Power                | +1 dBm (Min.)              |
| Tuning Sensitivity          | 13 - 67 MHz/V (Typ.)       |
| Output Impedance            | 50 Ohms (Nom.)             |
| Harmonic Suppression        | 18 dB (Typ.)               |
| Frequency Pulling           | 5 MHz (Typ. @ 1.75:1 VSWR) |
| Frequency Pushing           | 3 MHz/V (Typ.)             |
| Tuning Port Capacitance     | 24 pF (Typ.)               |
| Phase Noise @ 10 kHz        | -88 dBc/Hz (Typ.)          |
| Operating Temperature Range | -40 to +85 °C              |

Package # 278LF



**Guaranteed Tuning Specifications**

| Tuning Voltage ( V ) | Frequency ( MHz ) |
|----------------------|-------------------|
| 0.5                  | 4255 (Max.)       |
| 5                    | 4300 (Min.)       |
| 10                   | 4450 (Min.)       |
| 15                   | 4700 (Min.)       |
| 20                   | 4950 (Min.)       |
| 24                   | 5145 (Min.)       |

**Absolute Maximum Ratings**

|                              |                |
|------------------------------|----------------|
| Storage Temp. Range          | -55 to +125 °C |
| Bias Voltage                 | +10.5 V        |
| Tuning Voltage               | +28 V          |
| DC Voltage Applied to RF Out | ±25 V          |

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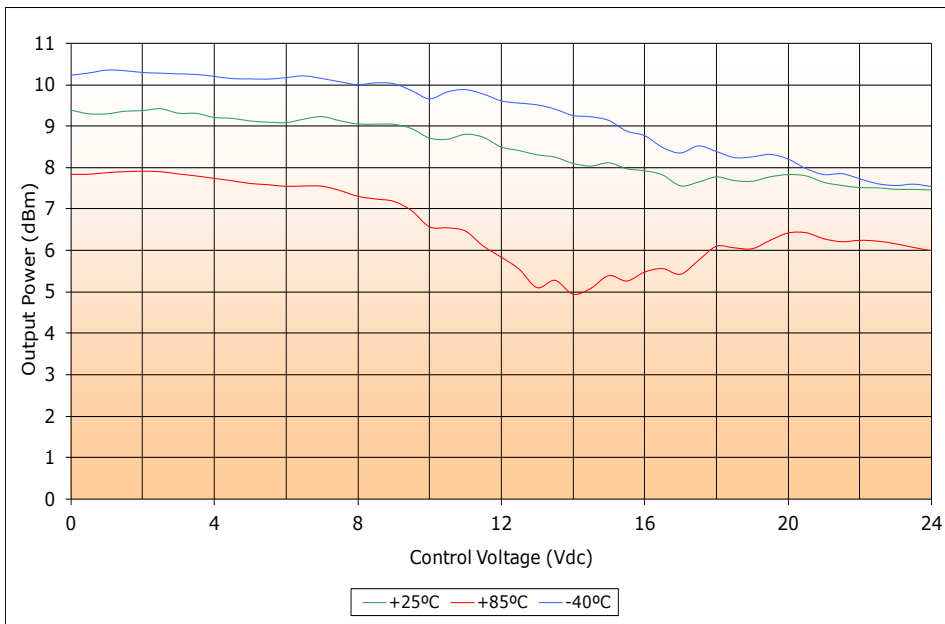
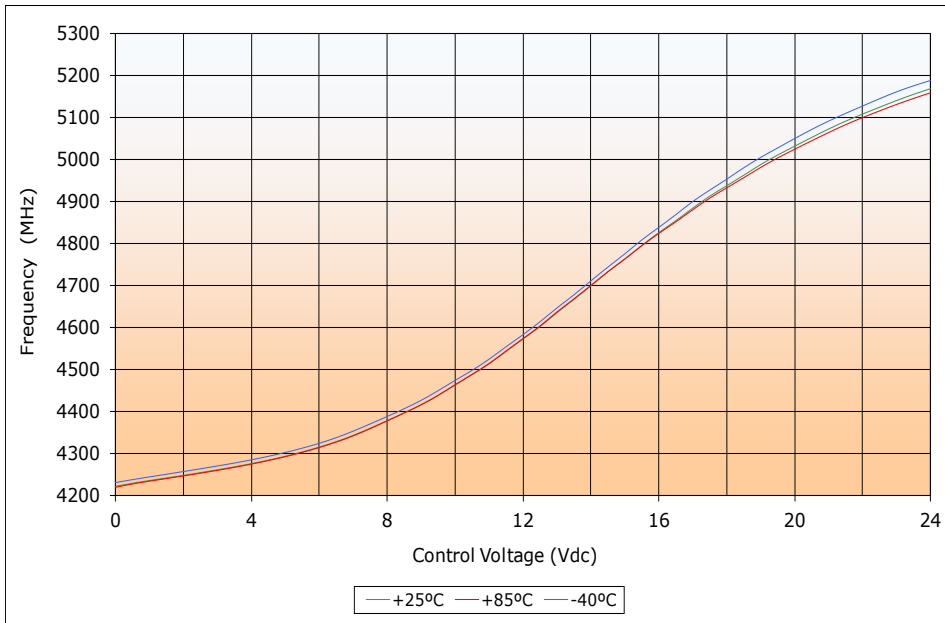
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PERFORMANCE PLOTS



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