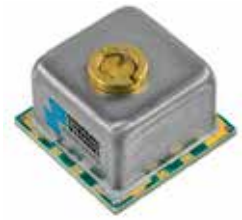
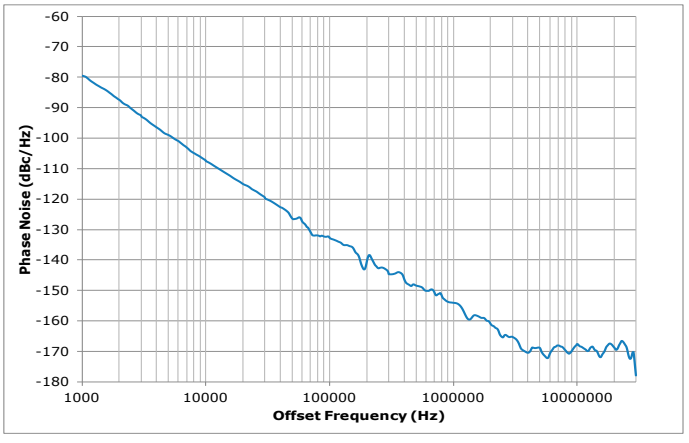
# DIELECTRIC RESONATOR OSCILLATOR
# SURFACE MOUNT MODEL: SDRO1000-8

## FREQUENCY 10 GHz

*FEATURES:*
- Exceptional Phase Noise Performance
- Small Size Surface Mount
- Lead Free RoHS Compliant



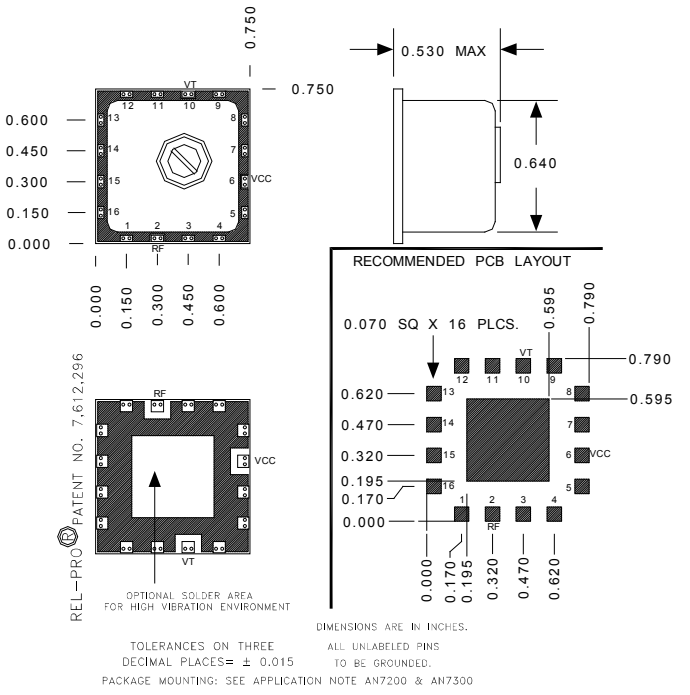
**Phase Noise**




## SPECIFICATIONS (Rev. A 10/08/14)

| | |
|---|---|
| **Frequency** | 10 GHz |
| **Tuning Voltage** | 1 - 15 VDC |
| **Bias Voltage** | +8 VDC @ 25 mA (Max.) |
| **Output Power** | -2 dBm (Min.) |
| **Tuning Sensitivity** | 0.4 MHz/V (Typ.) |
| **Thermal Drift** | 2 ppm / °C (Typ.) |
| **Output Impedance** | 50 Ohms (Nom.) |
| **Harmonic Suppression** | 40 dBc (Typ.) |
| **Frequency Pulling** | 500 kHz (Typ. @ 1.75:1 VSWR) |
| **Frequency Pushing** | 500 kHz/V (Typ.) |
| **Tuning Port Capacitance** | 35 pF (Typ.) |
| **Modulation Bandwidth** | > 20 MHz |
| **Phase Noise** | Offset / dBc/Hz (Typ.): 10 kHz: -107; 100 kHz: -132; 1 MHz: -154; 10 MHz: -170 |
| **Jitter** | 90 fs (@ 1 kHz to 30 MHz) (Typ.) |
| **Operating Temperature Range** | -15 to +75 °C |

**Package #** 396




## Absolute Maximum Ratings

| | |
|---|---|
| **Storage Temp. Range** | -30 to +85 ºC |
| **Bias Voltage** | +8.5 V |
| **Tuning Voltage** | +16 V |
| **DC Voltage Applied to RF Out** | ±25 V |

*Notes:*
*1. Tuning screws are factory locked for optimum performance at the center frequency. Tuning of the mechanical screw can cause significant shifts in frequency and adversely affect overall performance. Warranty is void if seal over tuning screw is damaged.*
*2. Test data measured with bias voltage at +8V.*
*3. Specifications guaranteed at 10 GHz.*

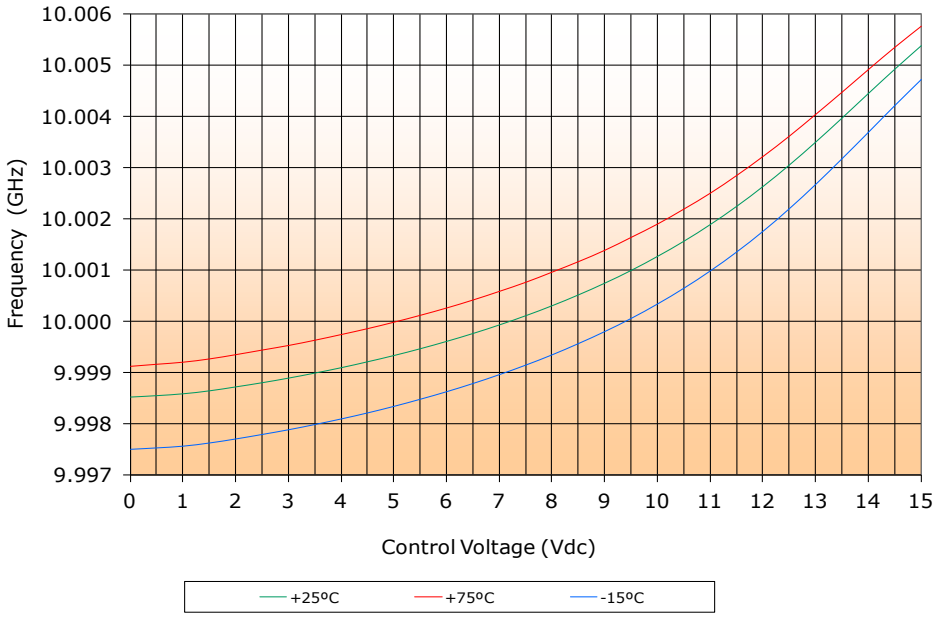

**orporation**
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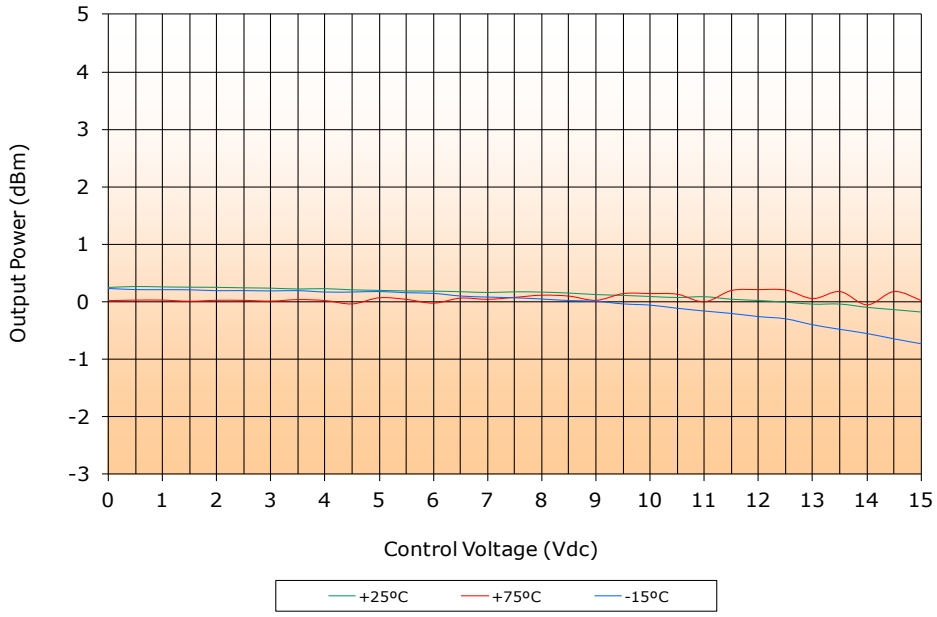

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# SURFACE MOUNT MODEL: SDRO1000-8

## FREQUENCY 10 GHz

PERFORMANCE PLOTS



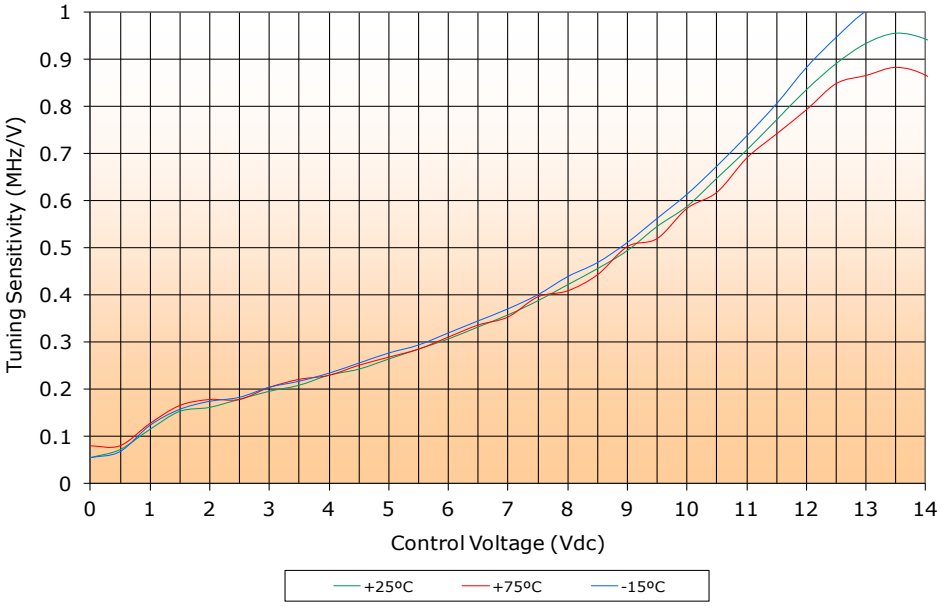

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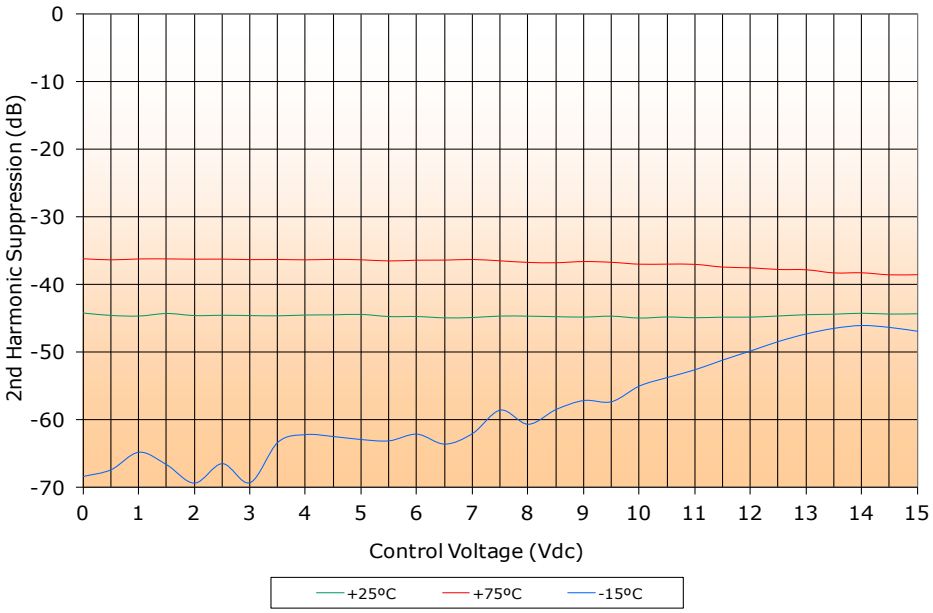
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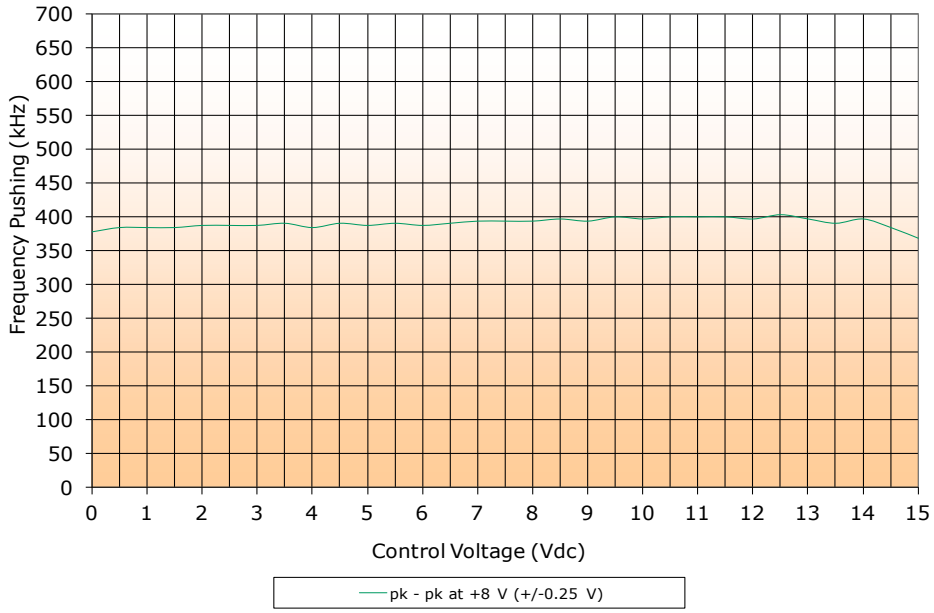




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