

# DIELECTRIC RESONATOR OSCILLATOR

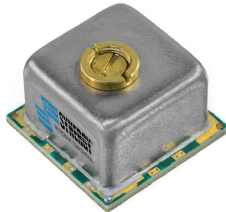
## SURFACE MOUNT MODEL: SDRO1500-8

### FREQUENCY

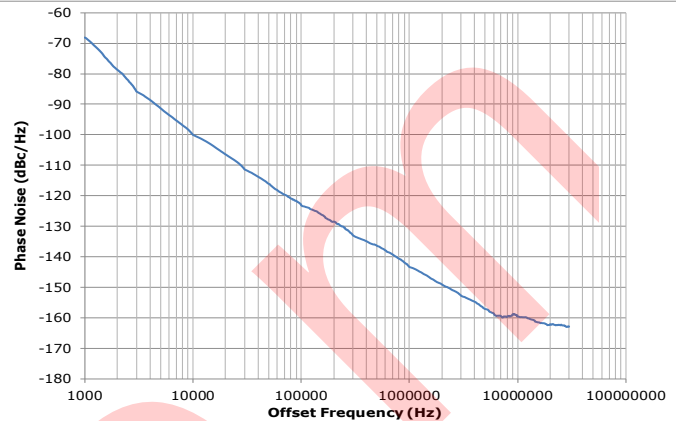
### 15 GHz

#### FEATURES:

- ▶ Extended Operating Temperature Range
- ▶ Exceptional Phase Noise Performance
- ▶ Small Size Surface Mount
- ▶ Lead Free RoHS Compliant



#### Phase Noise



#### SPECIFICATIONS

|                             |                              |               |
|-----------------------------|------------------------------|---------------|
| Frequency                   | 15 GHz                       |               |
| Tuning Voltage              | 1 - 12 VDC                   |               |
| Bias Voltage                | +8 VDC @ 26 mA (Max.)        |               |
| Output Power                | -6 dBm (Min.)                |               |
| Tuning Sensitivity          | 1 MHz/V (Typ.)               |               |
| Thermal Drift               | 4 ppm / °C (Typ.)            |               |
| Output Impedance            | 50 Ohms (Nom.)               |               |
| Harmonic Suppression        | 55 dBc (Typ.)                |               |
| Frequency Pulling           | 1.5 MHz (Typ. @ 1.75:1 VSWR) |               |
| Frequency Pushing           | 1 MHz/V (Typ.)               |               |
| Tuning Port Capacitance     | 10 pF (Typ.)                 |               |
| Phase Noise @ 25°C          | Offset                       | dBc/Hz (Typ.) |
|                             | 10 kHz                       | -99           |
|                             | 100 kHz                      | -122          |
|                             | 1 MHz                        | -142          |
|                             | 10 MHz                       | -160          |
| Operating Temperature Range | -20 to +70 °C                |               |

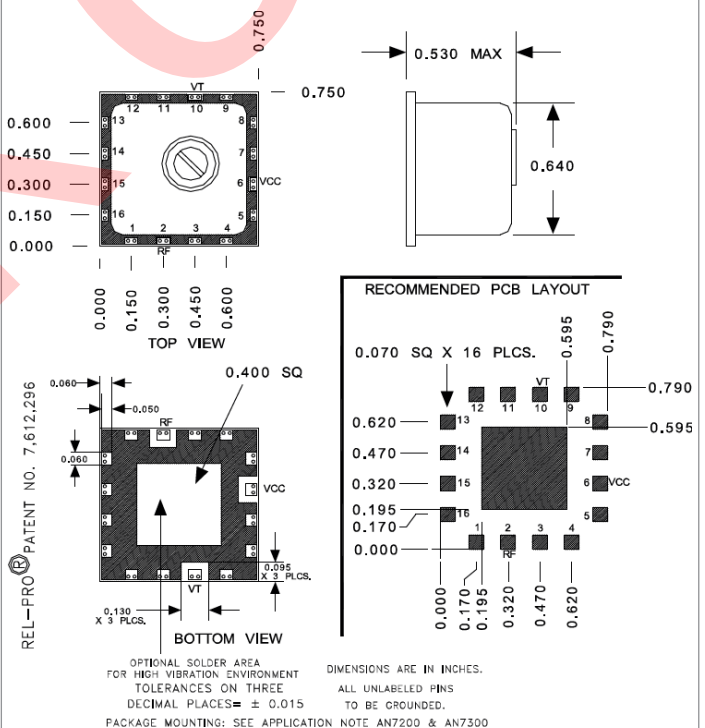
#### Absolute Maximum Ratings

|                              |               |
|------------------------------|---------------|
| Storage Temp. Range          | -45 to +90 °C |
| Bias Voltage                 | +8.5 V        |
| Tuning Voltage               | +16 V         |
| DC Voltage Applied to RF Out | ±25 V         |

#### Notes:

1. Tuning of the mechanical screw can cause significant shifts in frequency and cause irreversible damage to the product. Warranty is void if tuning screw exceeds ±0.5 turn max.
2. Test data measured with bias voltage at +8V.
3. Specifications guaranteed at 15 GHz.

Package # 396

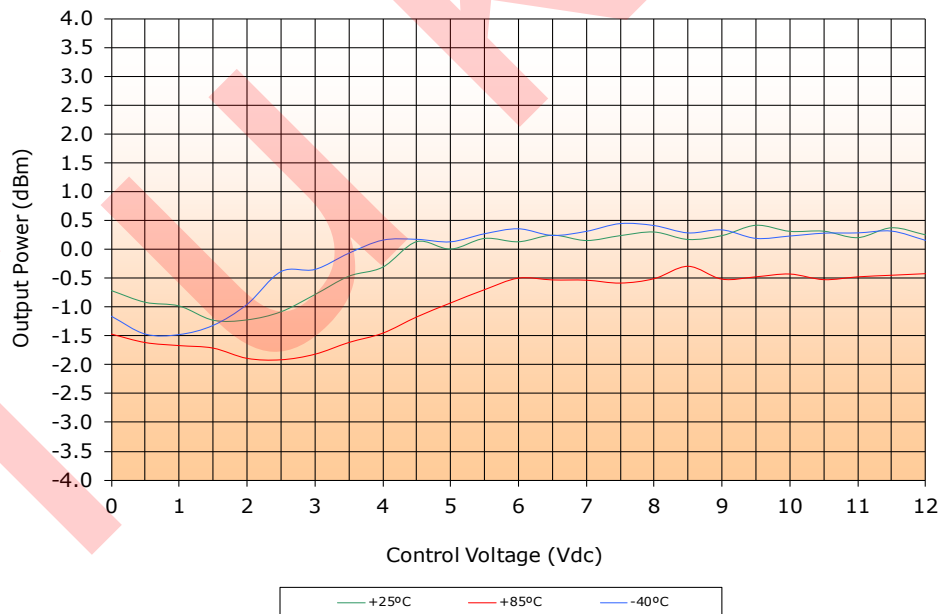
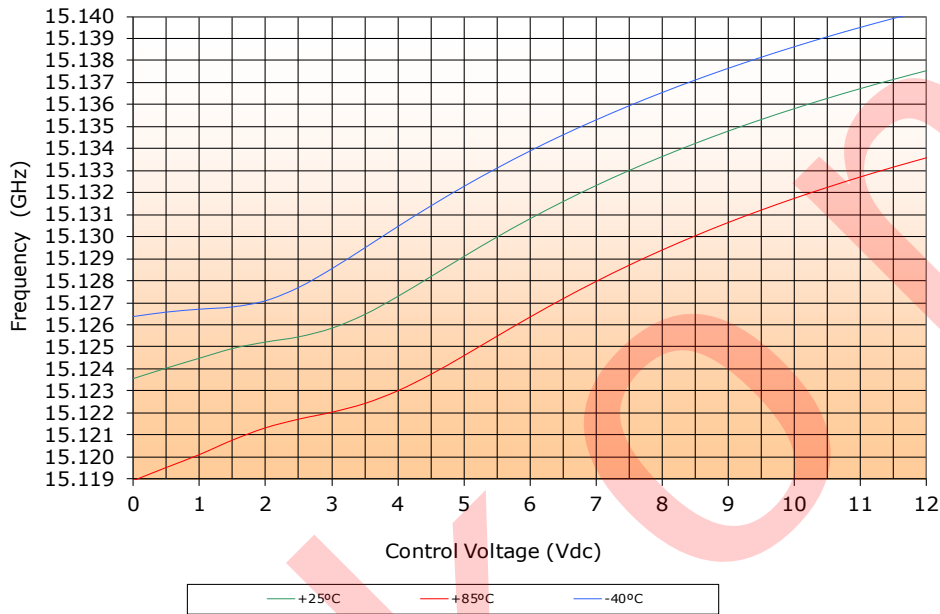


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PERFORMANCE PLOTS

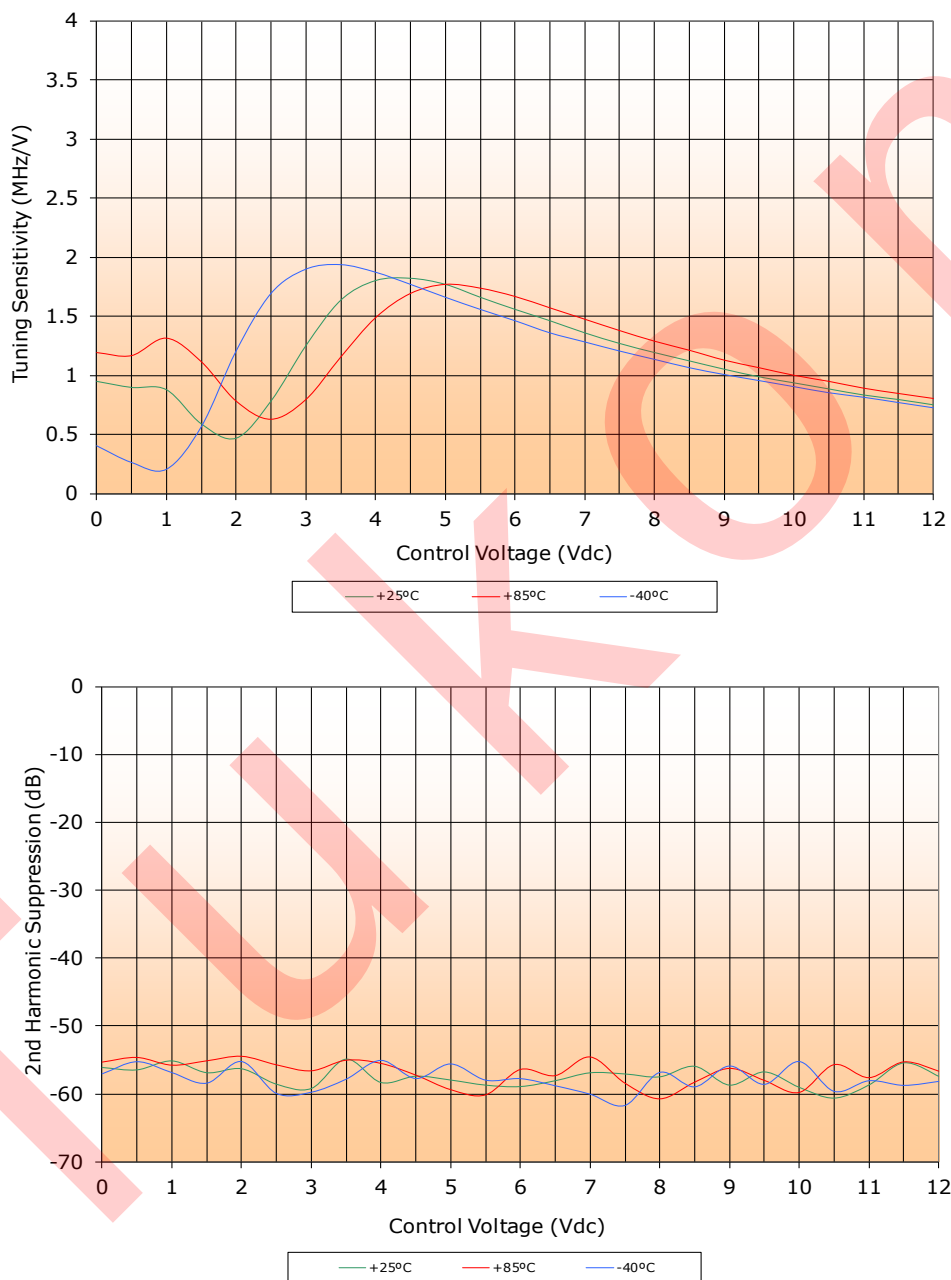


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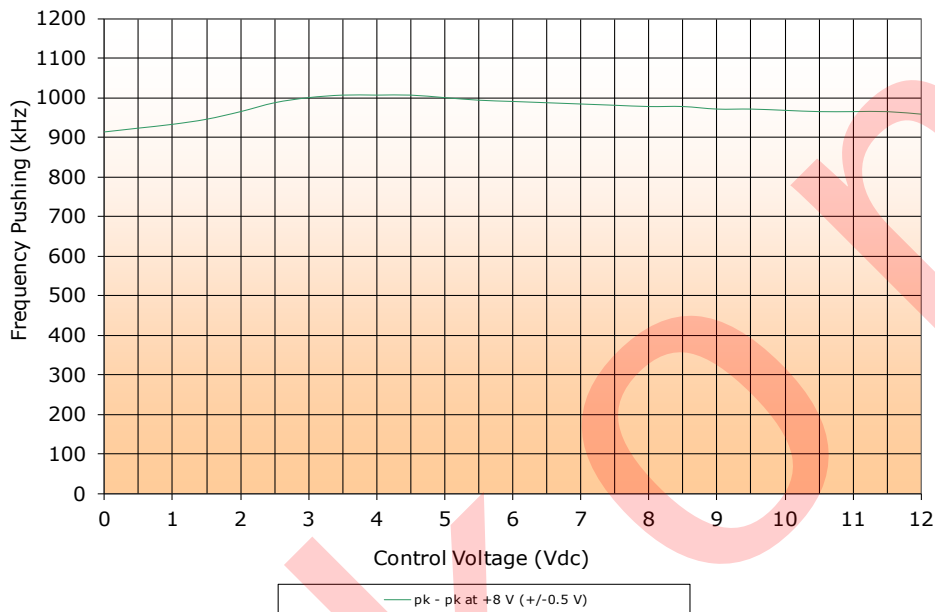
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