

DIELECTRIC RESONATOR OSCILLATOR

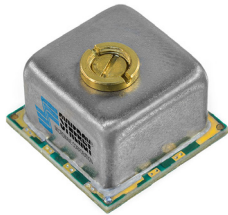
SURFACE MOUNT MODEL: SDRO800-8

FREQUENCY

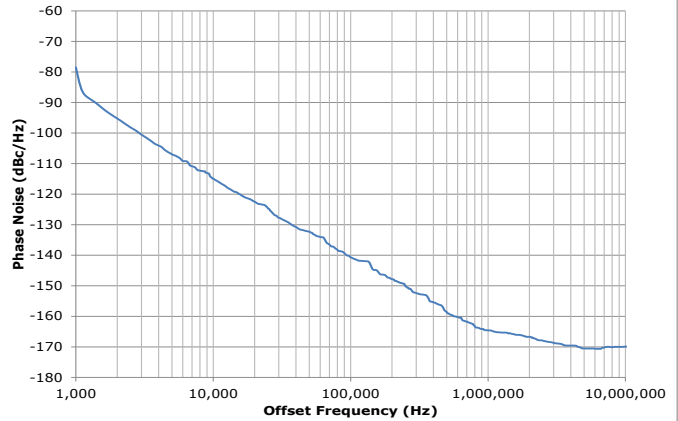
8 GHz

FEATURES:

- ▶ Exceptional Phase Noise Performance
- ▶ Small Size Surface Mount
- ▶ Lead Free RoHS Compliant



Phase Noise



SPECIFICATIONS

Frequency	8 GHz										
Tuning Voltage	1 - 10 VDC										
Bias Voltage	+8 VDC @ 25 mA (Max.)										
Output Power	+1 dBm (Min.)										
Tuning Sensitivity	1.5 MHz/V (Typ.)										
Thermal Drift	2 ppm / °C (Typ.)										
Output Impedance	50 Ohms (Nom.)										
Harmonic Suppression	34 dBc (Typ.)										
Frequency Pulling	500 kHz (Typ. @ 1.75:1 VSWR)										
Frequency Pushing	400 kHz/V (Typ.)										
Tuning Port Capacitance	10 pF (Typ.)										
Modulation Bandwidth	> 20 MHz										
Phase Noise	<table border="1"> <thead> <tr> <th>Offset</th> <th>dBc/Hz (Typ.)</th> </tr> </thead> <tbody> <tr> <td>10 kHz</td> <td>-114</td> </tr> <tr> <td>100 kHz</td> <td>-140</td> </tr> <tr> <td>1 MHz</td> <td>-160</td> </tr> <tr> <td>10 MHz</td> <td>-170</td> </tr> </tbody> </table>	Offset	dBc/Hz (Typ.)	10 kHz	-114	100 kHz	-140	1 MHz	-160	10 MHz	-170
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	10 kHz	-114									
	100 kHz	-140									
	1 MHz	-160									
10 MHz	-170										
Jitter	90 fs (@ 1 kHz to 30 MHz) (Typ.)										
Operating Temperature Range	-15 to +75 °C										

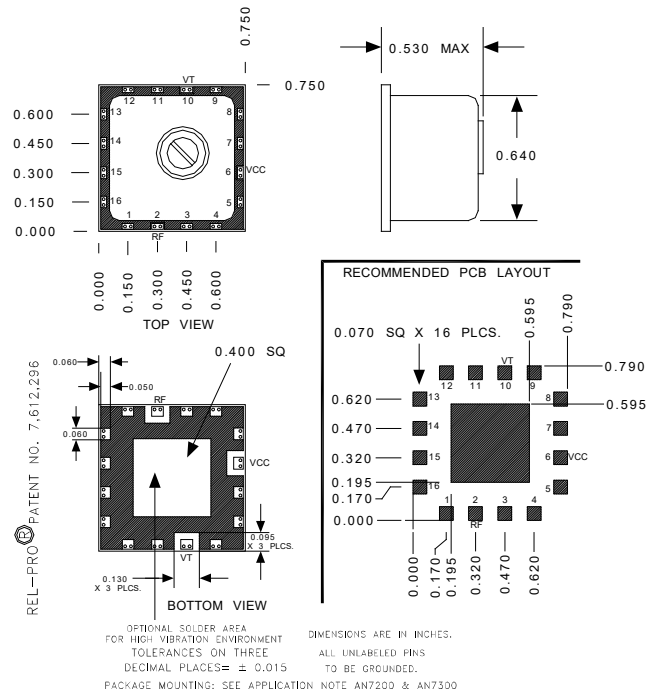
Absolute Maximum Ratings

Storage Temp. Range	-30 to +85 °C
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 8 GHz.

Package # 396



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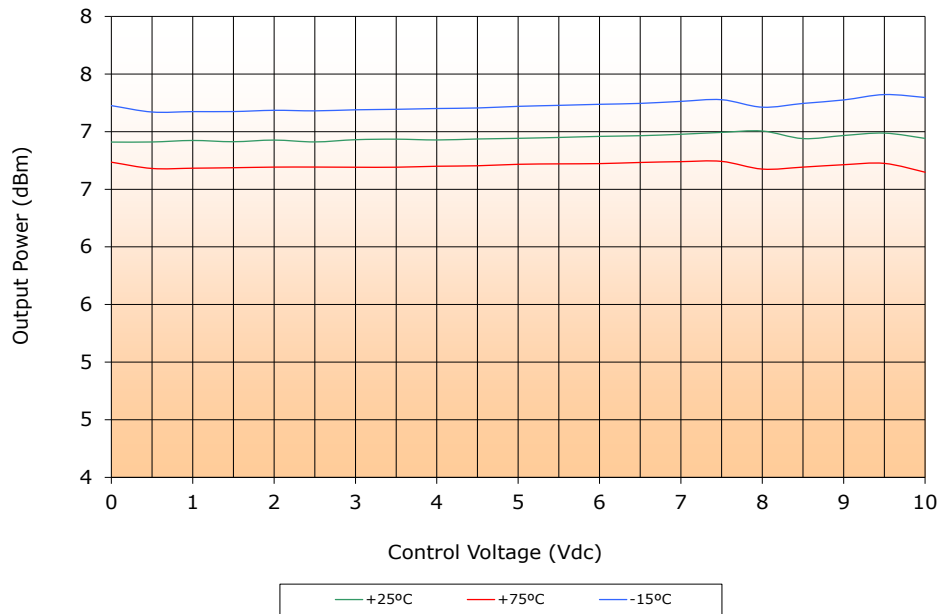
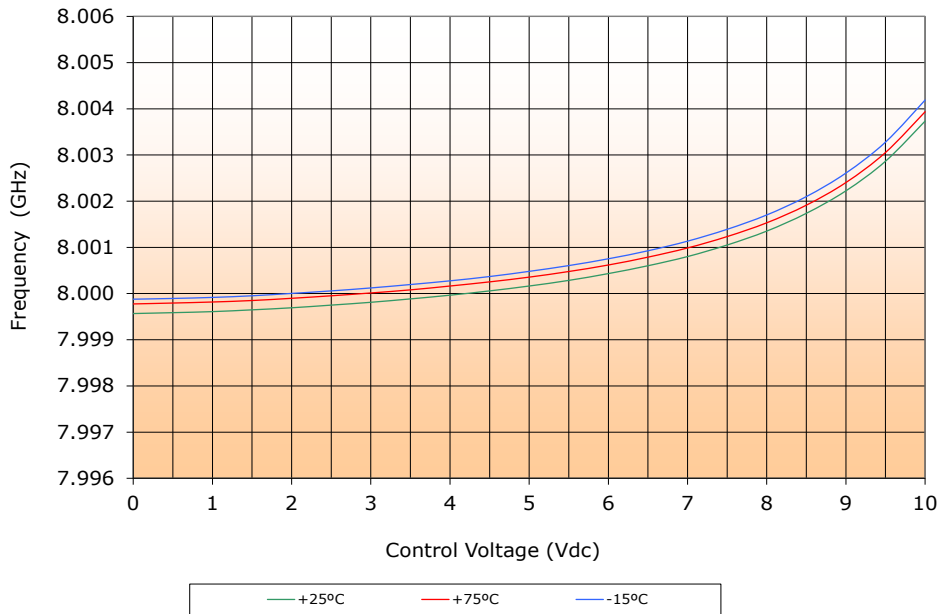


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PERFORMANCE PLOTS

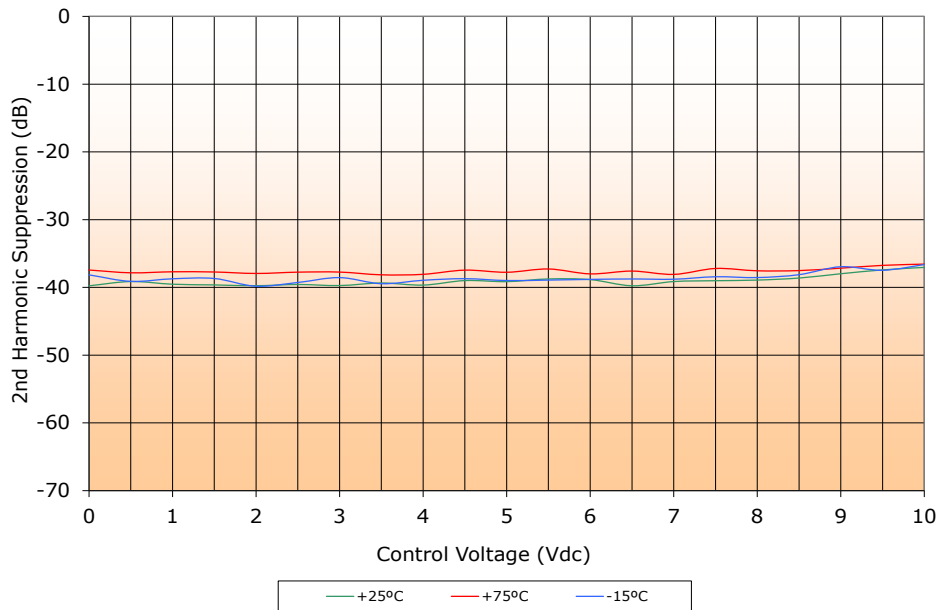
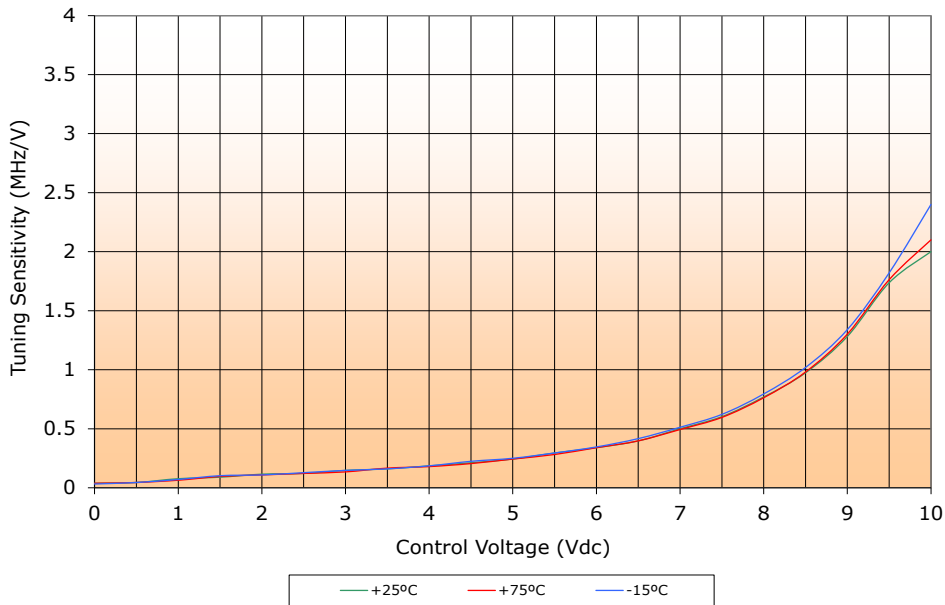


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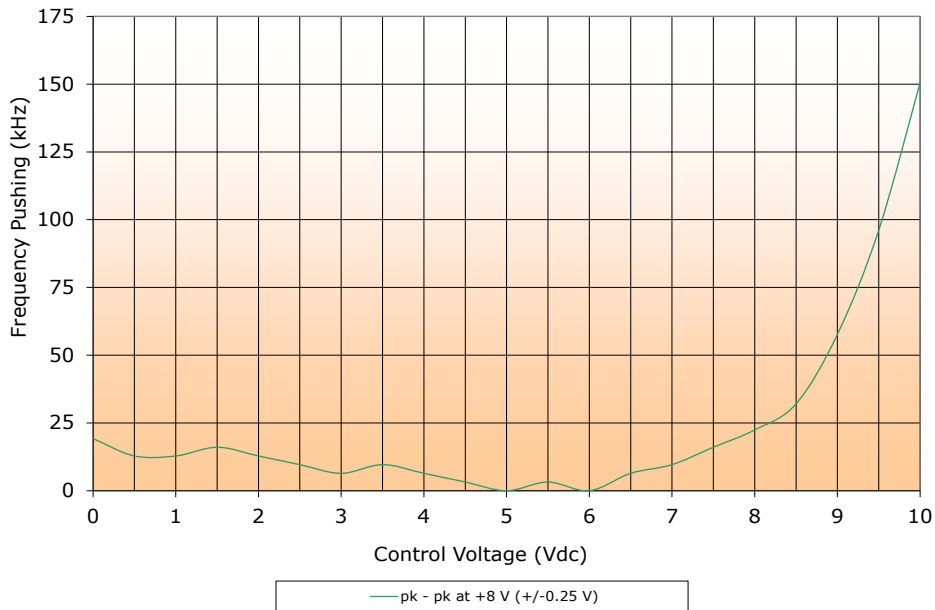
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