

DIELECTRIC RESONATOR OSCILLATOR

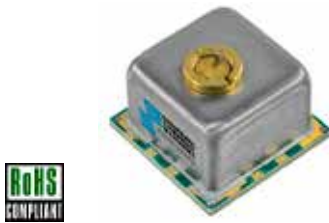
SURFACE MOUNT MODEL: SDRO1000-8

FREQUENCY

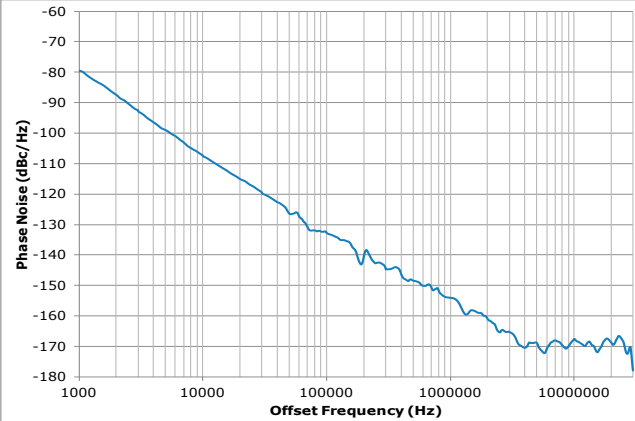
10 GHz

FEATURES:

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

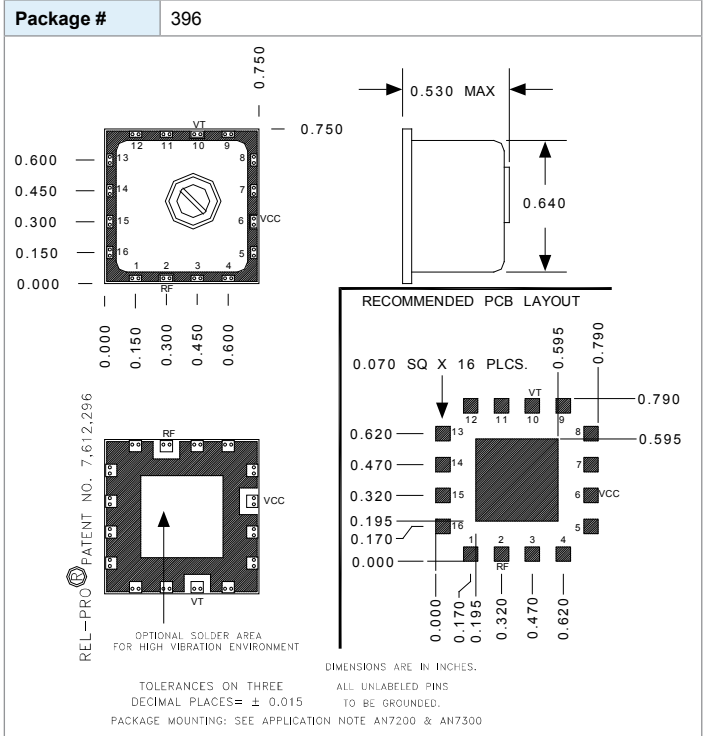


Phase Noise



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	<table border="1"> <thead> <tr><th>Offset</th><th>dBc/Hz (Typ.)</th></tr> </thead> <tbody> <tr><td>10 kHz</td><td>-107</td></tr> <tr><td>100 kHz</td><td>-132</td></tr> <tr><td>1 MHz</td><td>-154</td></tr> <tr><td>10 MHz</td><td>-170</td></tr> </tbody> </table>	Offset	dBc/Hz (Typ.)	10 kHz	-107	100 kHz	-132	1 MHz	-154	10 MHz	-170
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	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										



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 10 GHz.

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 Patents : <http://www.synergymw.com/patents>

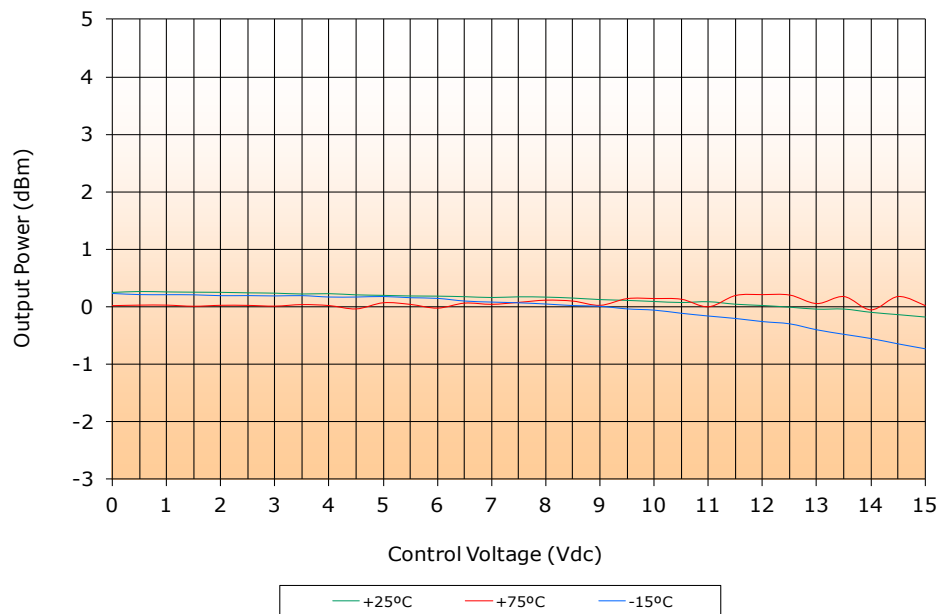
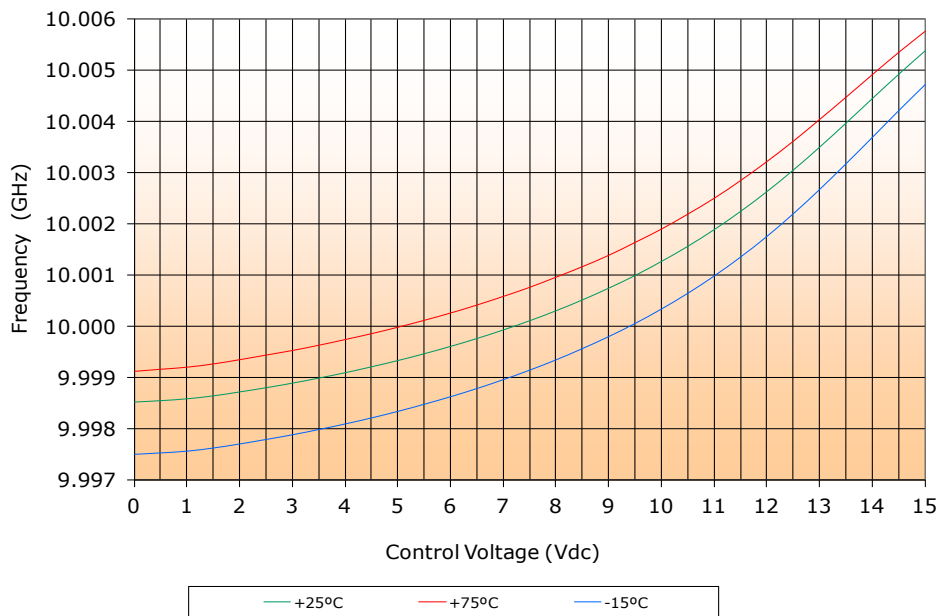


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PERFORMANCE PLOTS

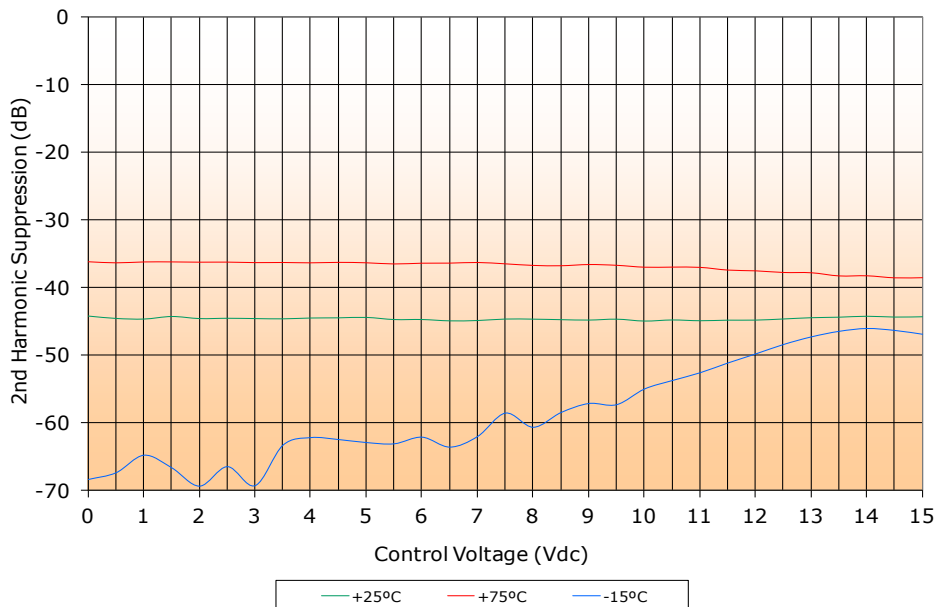
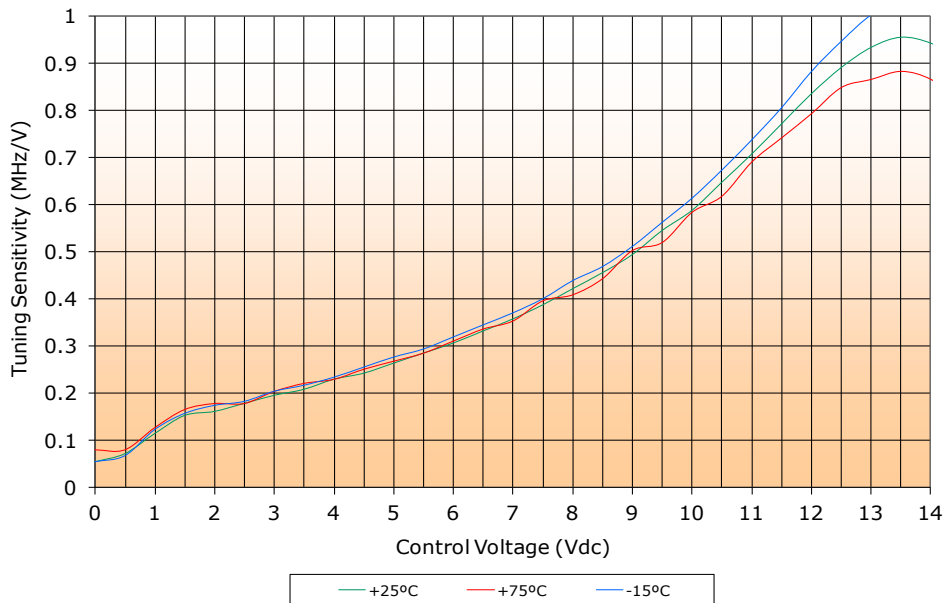


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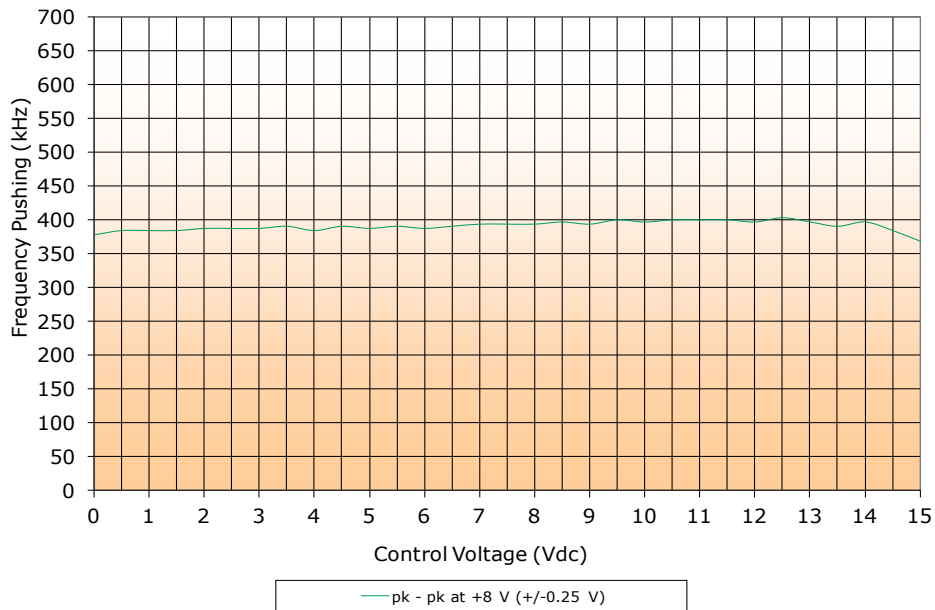
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