

# DIELECTRIC RESONATOR OSCILLATOR

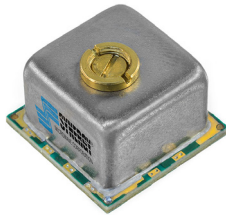
## SURFACE MOUNT MODEL: SDRO1024-8

### FREQUENCY

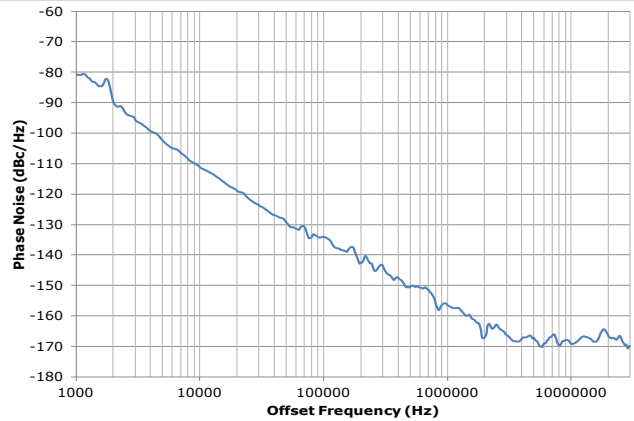
### 10.24 GHz

#### FEATURES:

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



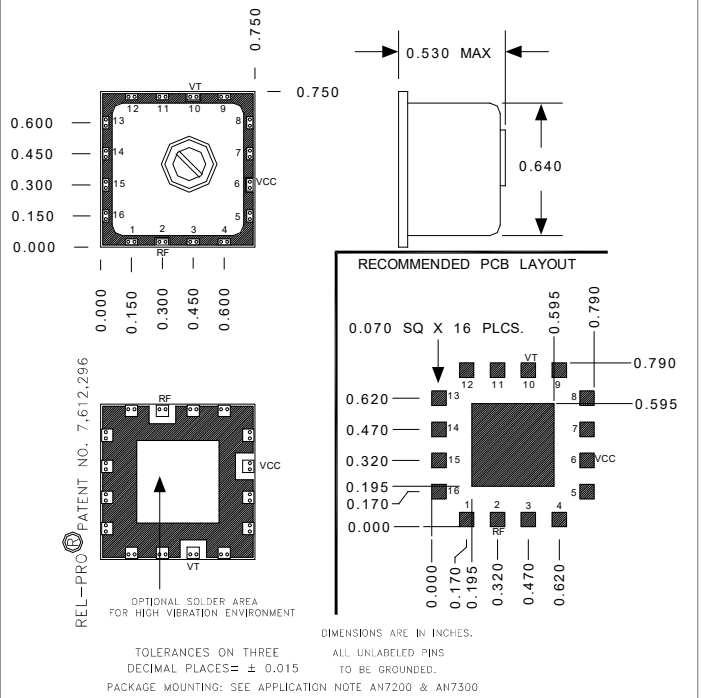
#### Phase Noise



#### SPECIFICATIONS (Rev. B 01/25/18)

Frequency	10.24 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	28 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>-105</td> </tr> <tr> <td>100 kHz</td> <td>-125</td> </tr> <tr> <td>1 MHz</td> <td>-145</td> </tr> <tr> <td>10 MHz</td> <td>-165</td> </tr> </tbody> </table>	Offset	dBc/Hz (Typ.)	10 kHz	-105	100 kHz	-125	1 MHz	-145	10 MHz	-165
	Offset	dBc/Hz (Typ.)									
	10 kHz	-105									
	100 kHz	-125									
1 MHz	-145										
10 MHz	-165										
Jitter	50 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 °C
Bias Voltage	+8.5 V
Tuning Voltage	+16 V
DC Voltage Applied to RF Out	±25 V

#### Notes:

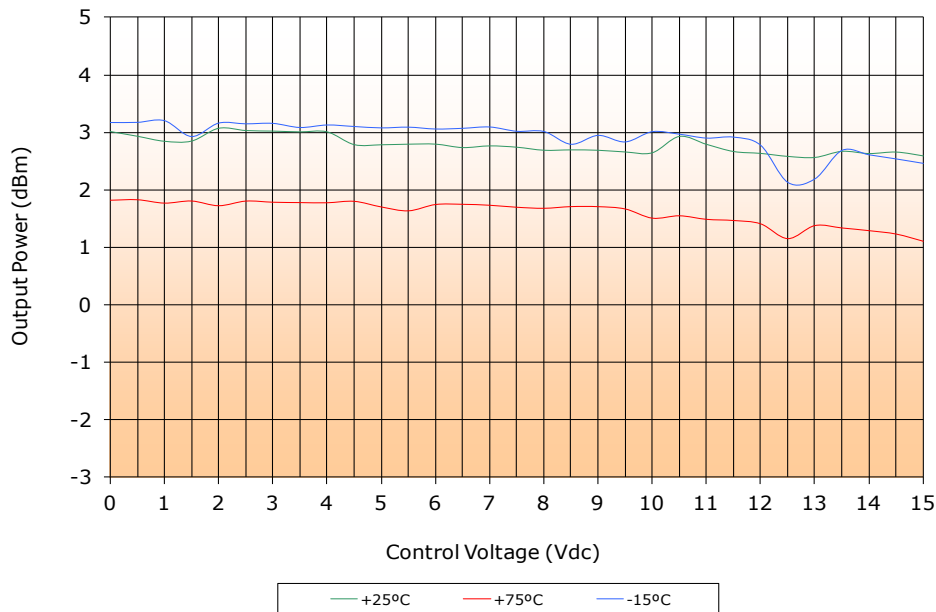
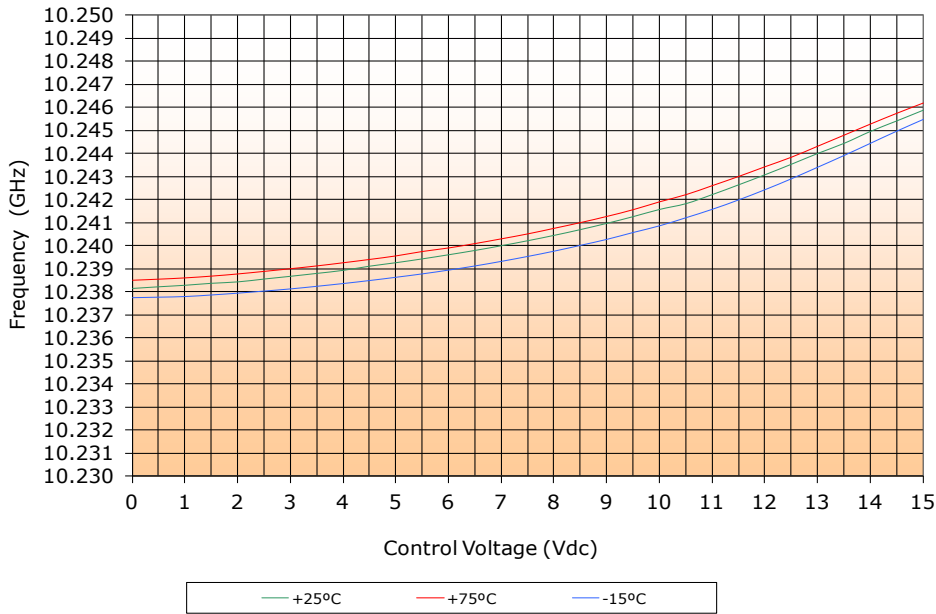
1. Tuning screws are factory locked for optimum performance at the center frequency. Tuning of the mechanical screw can cause significant shifts in frequency and adversely affect overall performance. Warranty is void if seal over tuning screw is damaged.
2. Test data measured with bias voltage at +8V.
3. Specifications guaranteed at 10.24 GHz.

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PERFORMANCE PLOTS

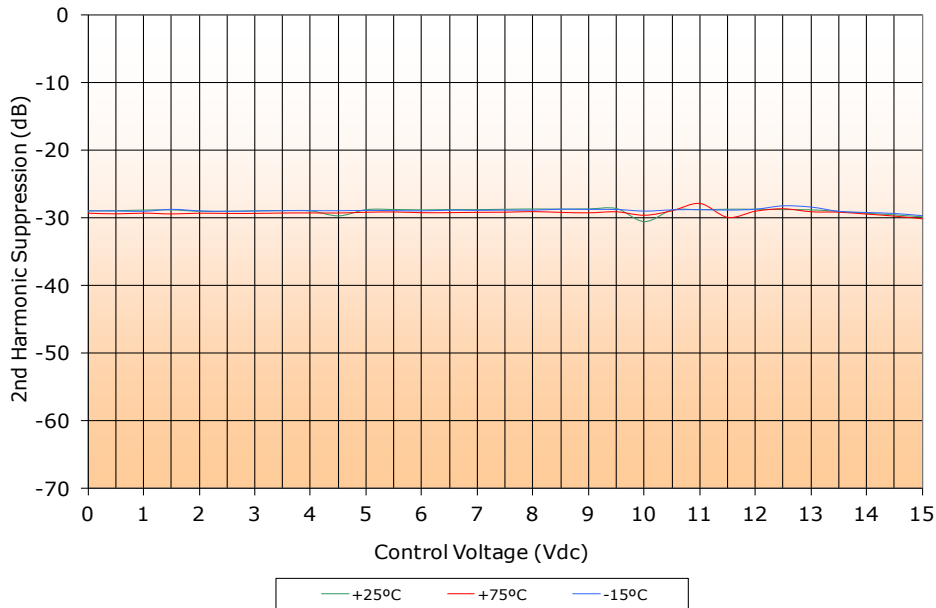
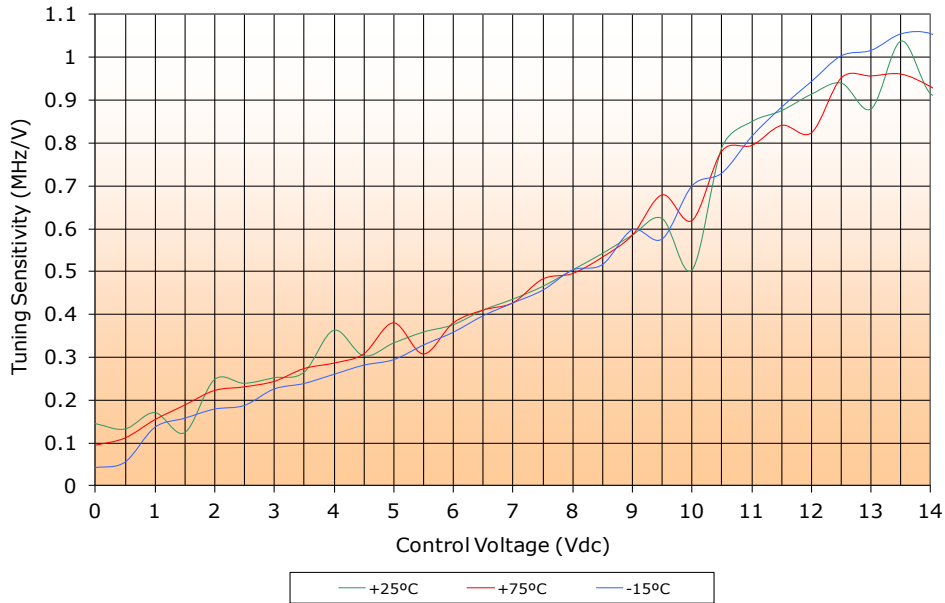


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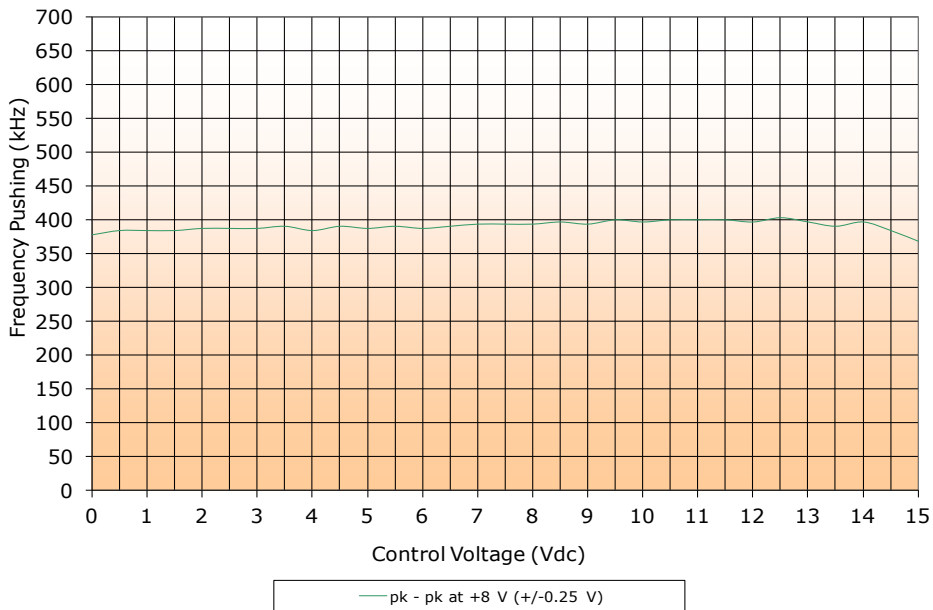
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