

# DIELECTRIC RESONATOR OSCILLATOR

## CONNECTORIZED MODEL: DRO1024

**FREQUENCY**

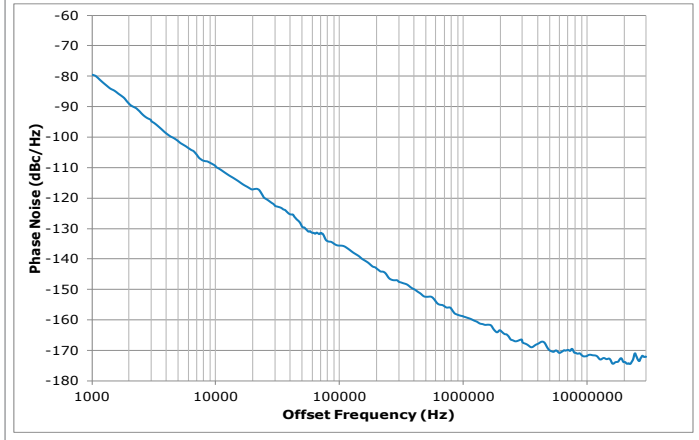
**10.24 GHz**

**FEATURES:**

- ▶ Exceptional Phase Noise Performance
- ▶ Lead Free RoHS Compliant

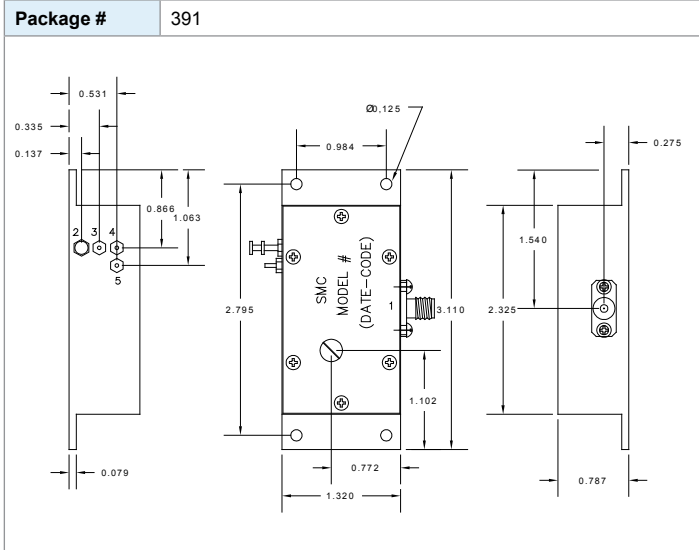


**Phase Noise**



**SPECIFICATIONS (Rev. C 06/18/14)**

Frequency	10.24 GHz	
Tuning Voltage	1 - 15 VDC	
Bias Voltage	+7 - 10 VDC @ 70 mA (Max.)	
Output Power	+7 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.)	
Tuning Port Capacitance	1 nF (Typ.)	
Modulation Bandwidth	20 MHz (Typ.)	
Phase Noise	<b>Offset</b>	<b>dBc/Hz (Typ.)</b>
	1 kHz	-79
	10 kHz	-109
	100 kHz	-136
	1 MHz	-158
10 MHz	-170	
Jitter	53 fs (@ 1 kHz to 30 MHz) (Typ.)	
Operating Temperature Range	-15 to +75 °C	



**Port Configuration**

- Pin 1 - RF Output
- Pin 2 - GND
- Pin 4 - Tuning Voltage  $V_T$
- Pin 5 - Supply Voltage  $V_S$
- Pin 3 - V Temperature

**Absolute Maximum Ratings**

Storage Temp. Range	-30 to +85 °C
Bias Voltage	+10.5 V
Tuning Voltage	+16.0 V
DC Voltage Applied to RF Out	±25 V

**Notes:**

1. Access to the tuning screw is underneath the label. 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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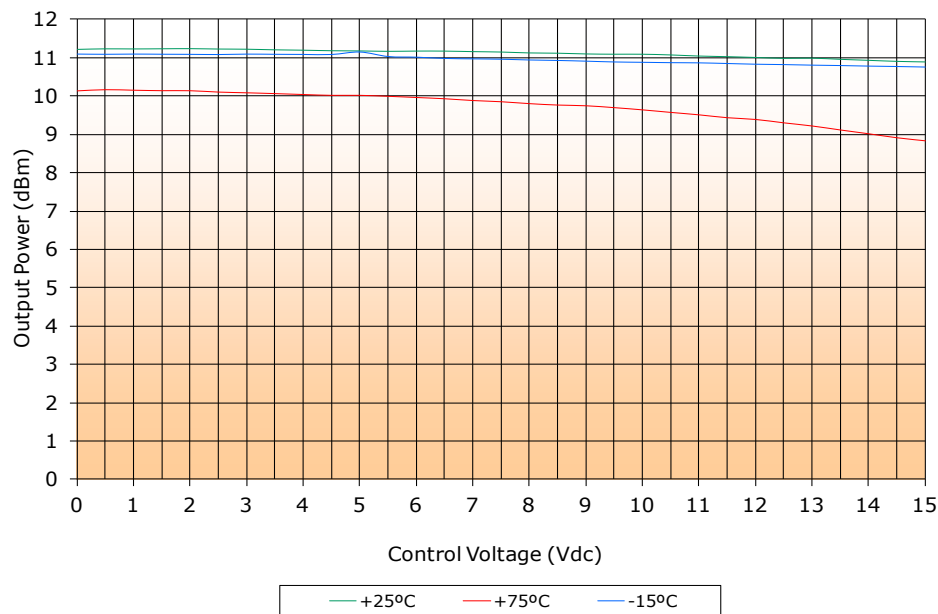
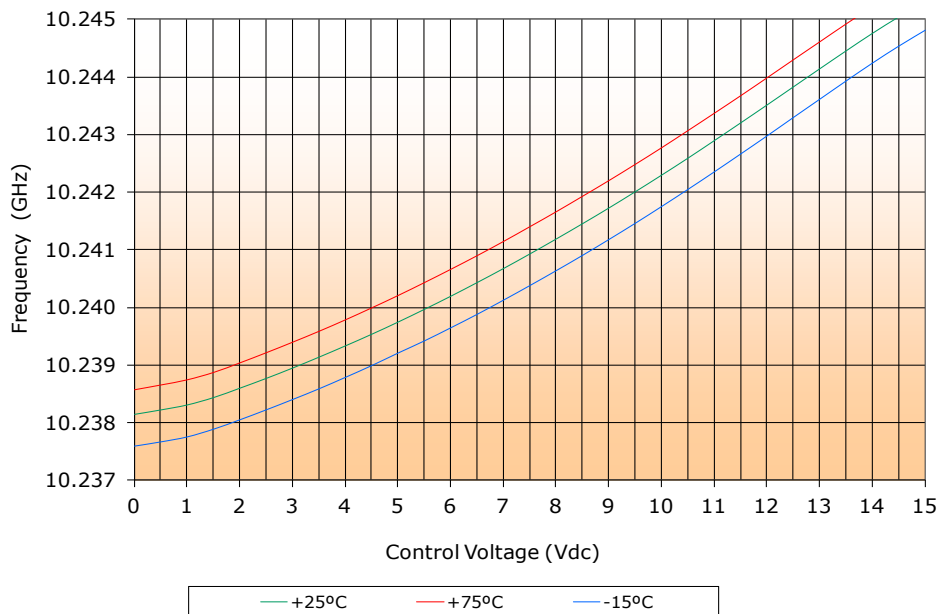


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PERFORMANCE PLOTS

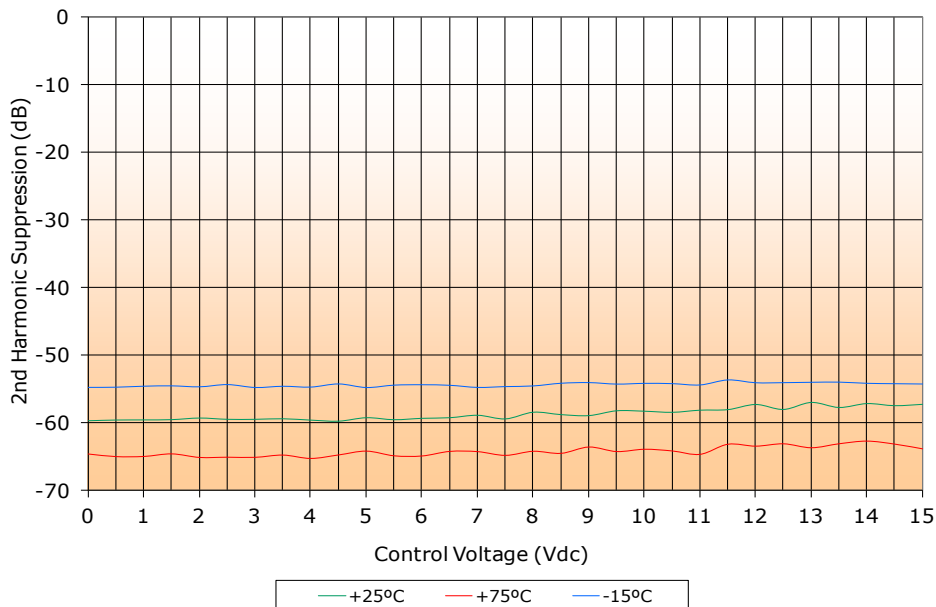
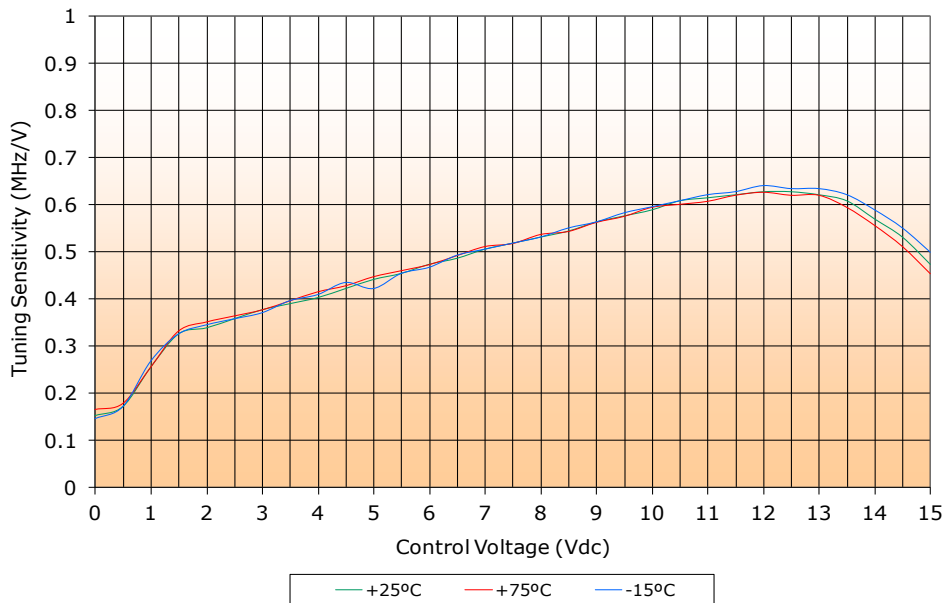


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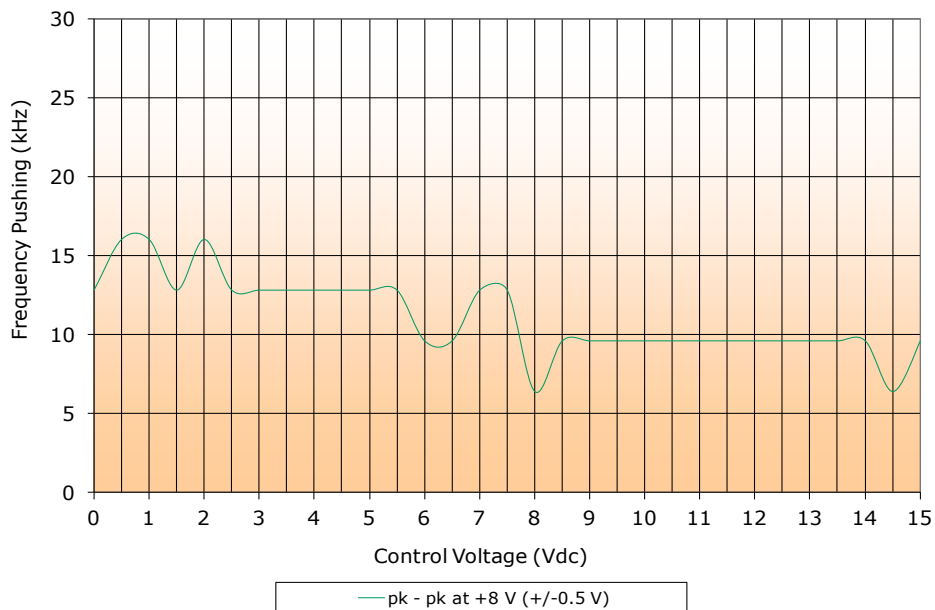
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