

# DIELECTRIC RESONATOR OSCILLATOR

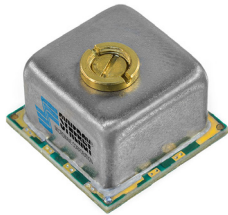
## SURFACE MOUNT MODEL: SDRO1024-8

### FREQUENCY

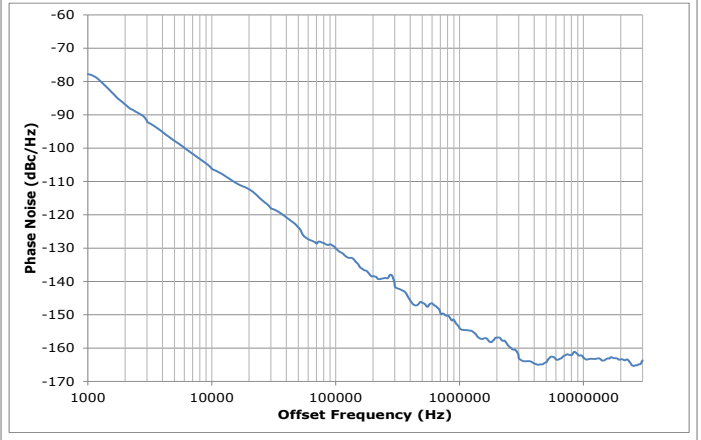
### 10.24 GHz

#### FEATURES:

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

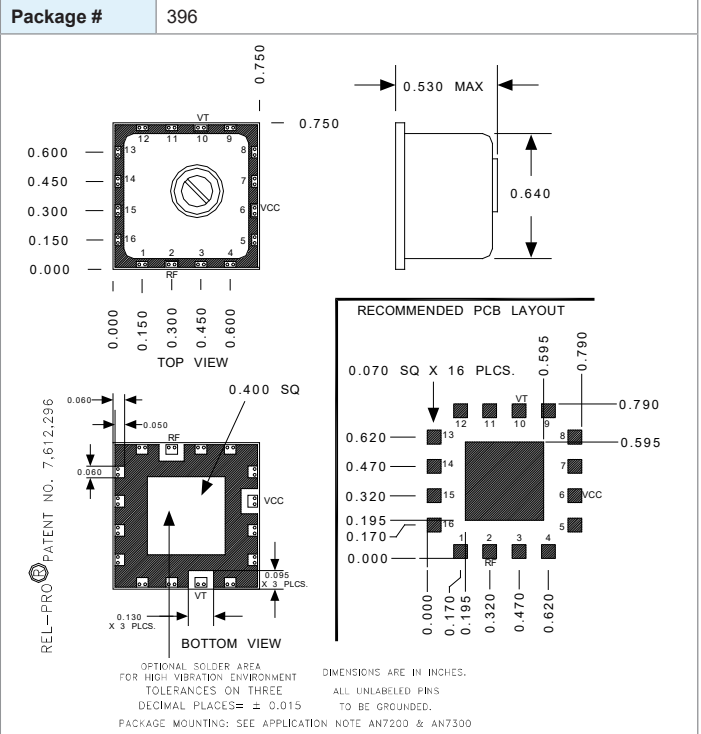


#### Phase Noise



#### SPECIFICATIONS (Rev. D 07/08/19)

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										



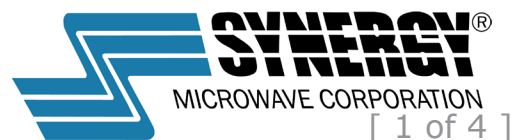
#### Absolute Maximum Ratings

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 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 10.24 GHz.

Copyright © Synergy Microwave Corporation  
 201 McLean Boulevard • Paterson, New Jersey 07504 USA  
 Tel: (973) 881-8800 • Fax: (973) 881-8361  
 E-Mail: sales@synergymwave.com • Website: <http://www.synergymwave.com>  
 Patents : <http://www.synergymwave.com/patents>

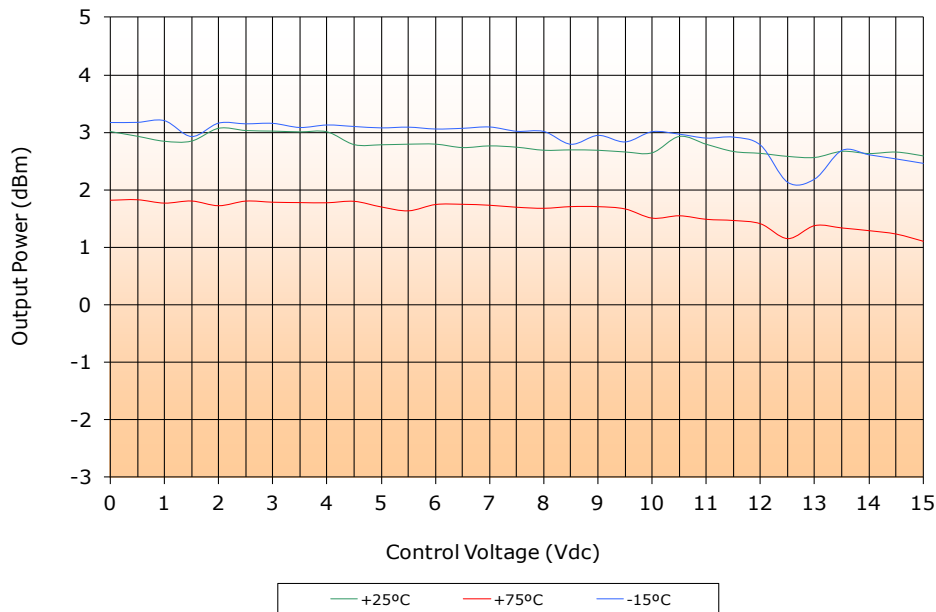
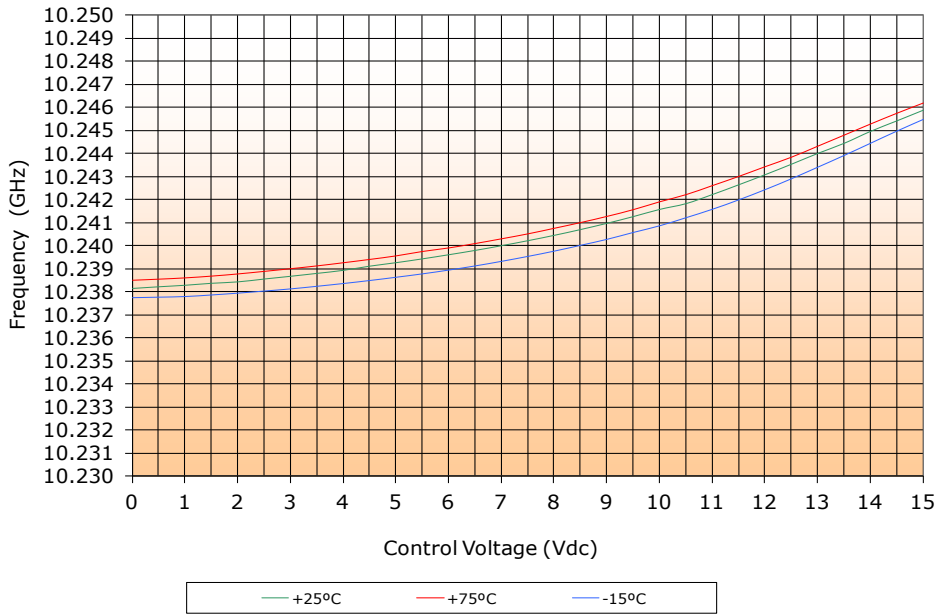


# DIELECTRIC RESONATOR OSCILLATOR SURFACE MOUNT MODEL: SDRO1024-8

FREQUENCY

10.24 GHz

PERFORMANCE PLOTS

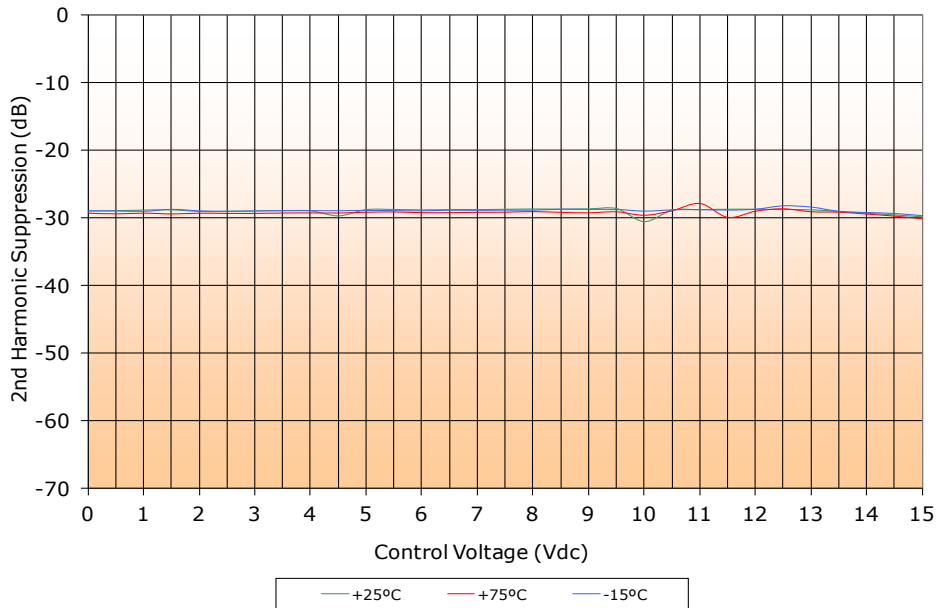
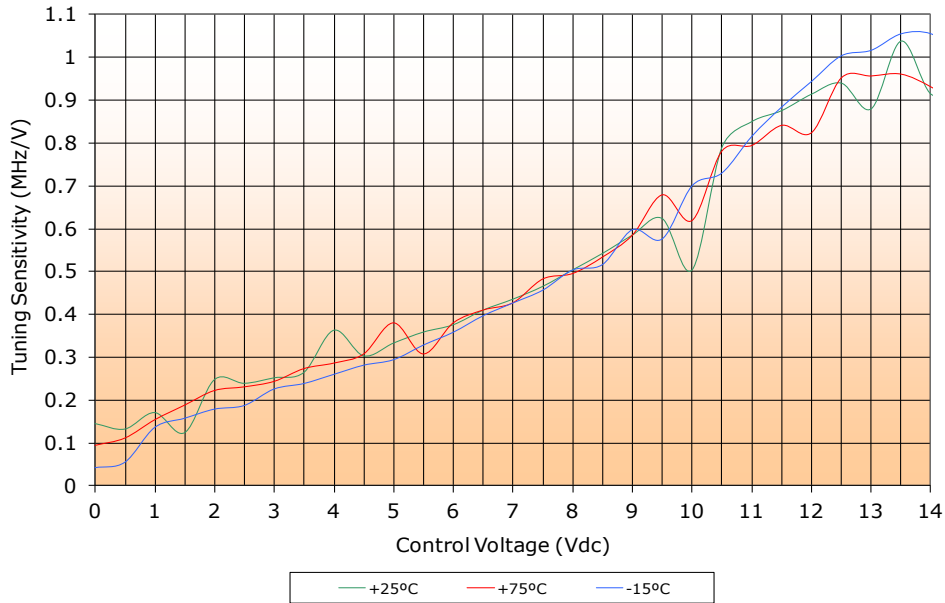


# DIELECTRIC RESONATOR OSCILLATOR SURFACE MOUNT MODEL: SDRO1024-8

FREQUENCY

10.24 GHz

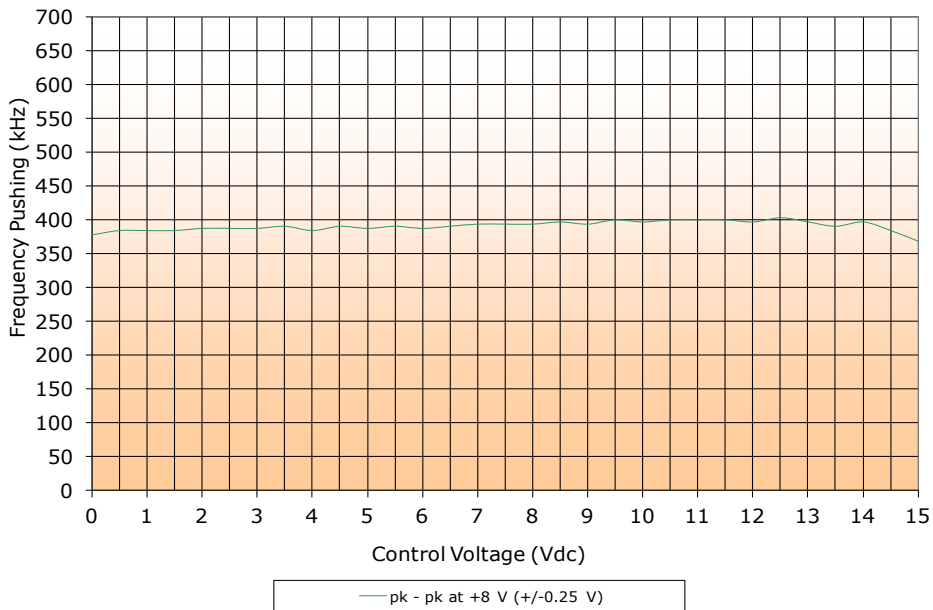
PERFORMANCE PLOTS



# DIELECTRIC RESONATOR OSCILLATOR SURFACE MOUNT MODEL: SDRO1024-8

FREQUENCY

10.24 GHz



PERFORMANCE PLOTS