

DIELECTRIC RESONATOR OSCILLATOR

CONNECTORIZED MODEL: DRO100

FREQUENCY

10 GHz

FEATURES:

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



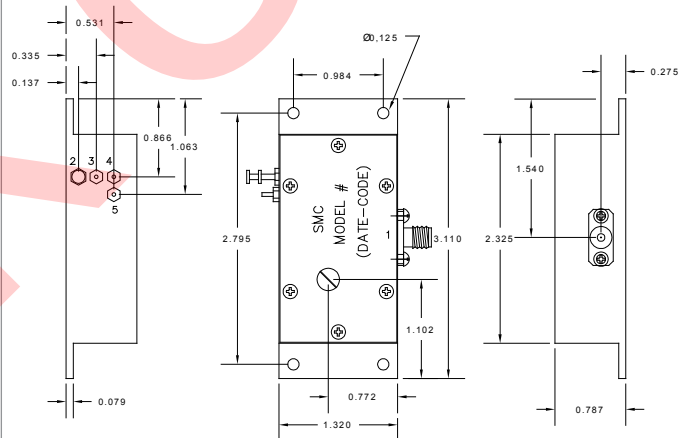
Phase Noise



SPECIFICATIONS (Rev. E 09/25/14)

Frequency	10 GHz												
Tuning Voltage	1 - 15 VDC												
Bias Voltage	+7 - 10 VDC @ 70 mA (Max.)												
Output Power	+8 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	300 pF (Typ.)												
Modulation Bandwidth	20 MHz (Typ.)												
Phase Noise	<table><tr><th>Offset</th><th>dBc/Hz (Typ.)</th></tr><tr><td>1 kHz</td><td>-81</td></tr><tr><td>10 kHz</td><td>-111</td></tr><tr><td>100 kHz</td><td>-137</td></tr><tr><td>1 MHz</td><td>-158</td></tr><tr><td>10 MHz</td><td>-166</td></tr></table>	Offset	dBc/Hz (Typ.)	1 kHz	-81	10 kHz	-111	100 kHz	-137	1 MHz	-158	10 MHz	-166
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1 kHz	-81												
10 kHz	-111												
100 kHz	-137												
1 MHz	-158												
10 MHz	-166												
Jitter	35 fs (@ 1 kHz to 30 MHz) (Typ.)												
Operating Temperature Range	-15 to +75 °C												

Package # 391



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 GHz.

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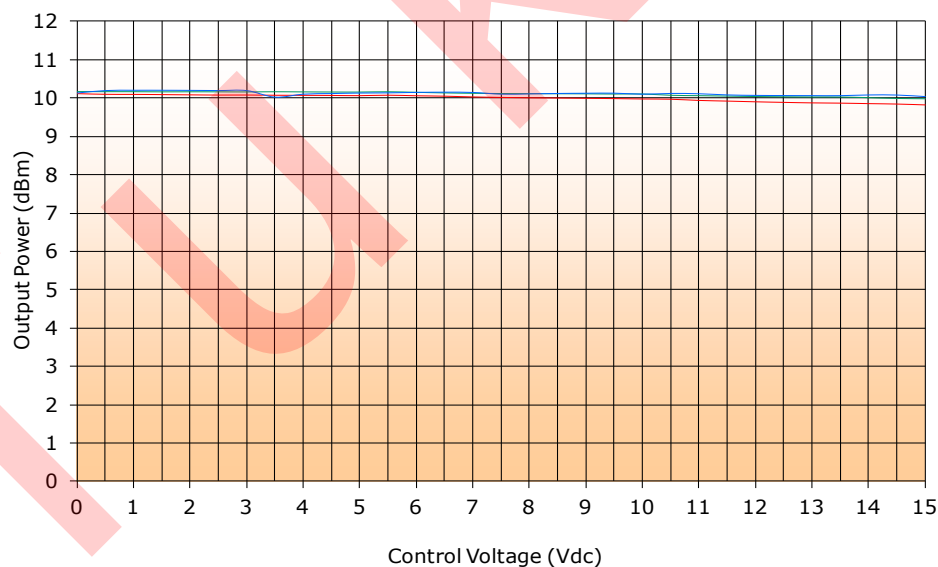
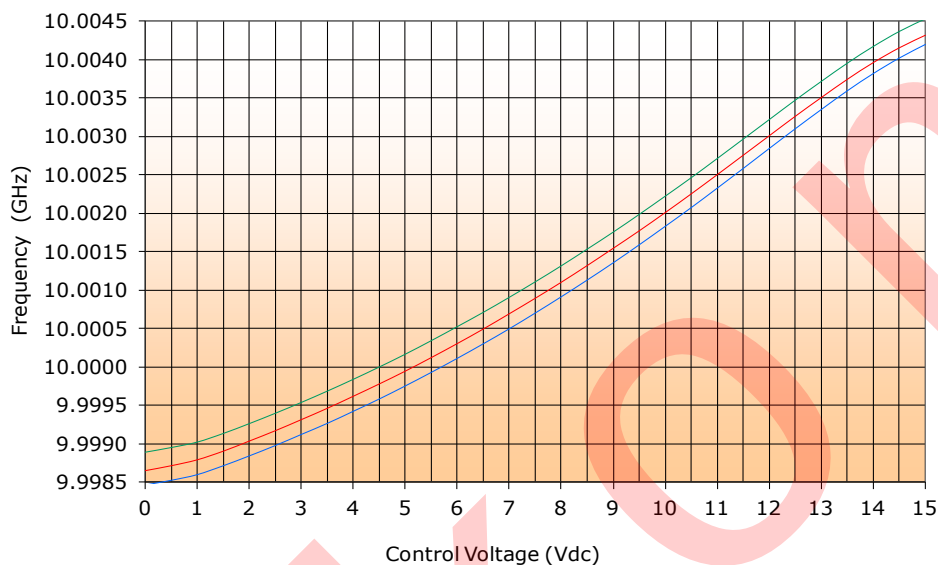
Patents : <http://www.synergymwave.com/patents>

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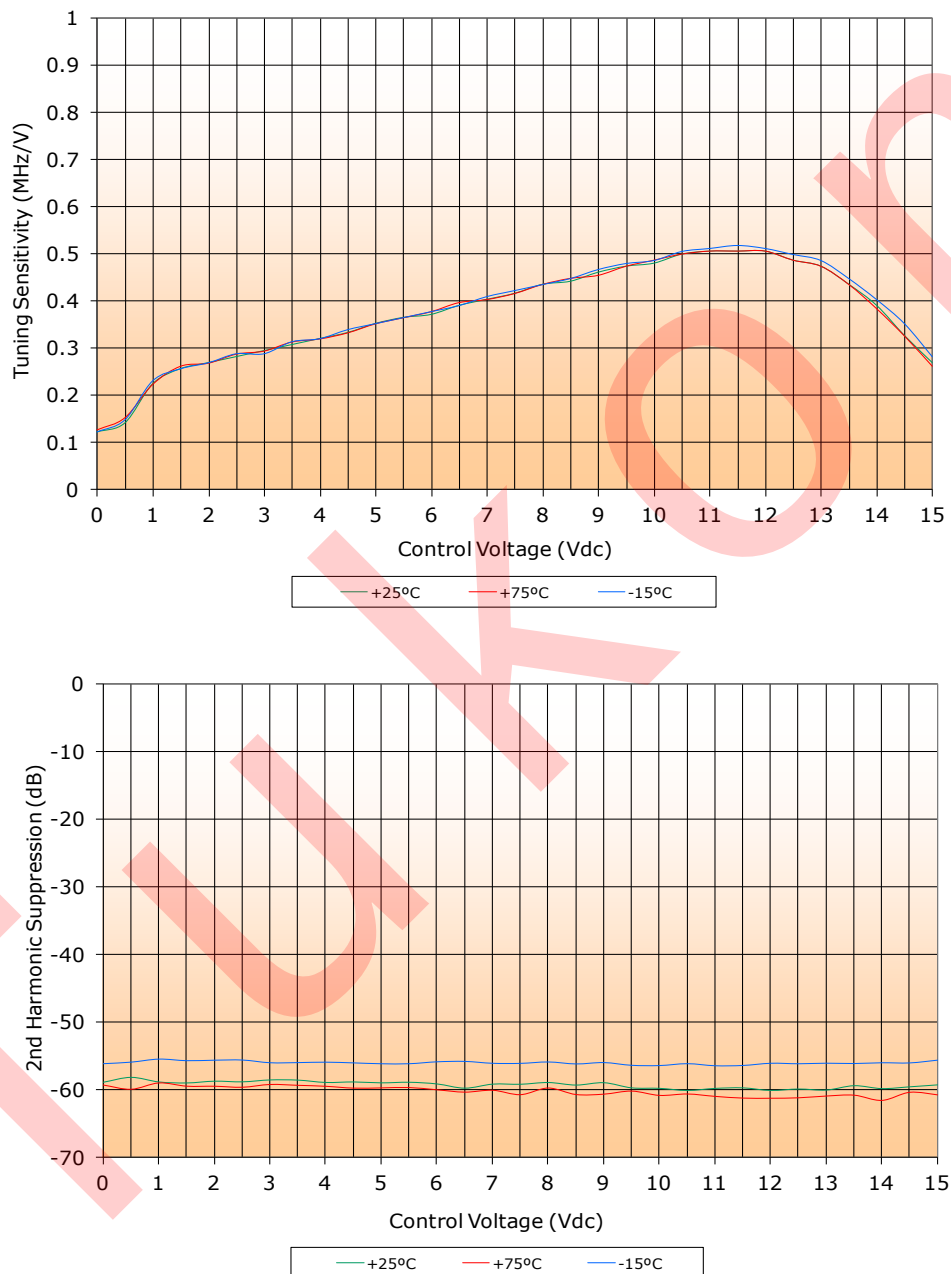


PERFORMANCE PLOTS

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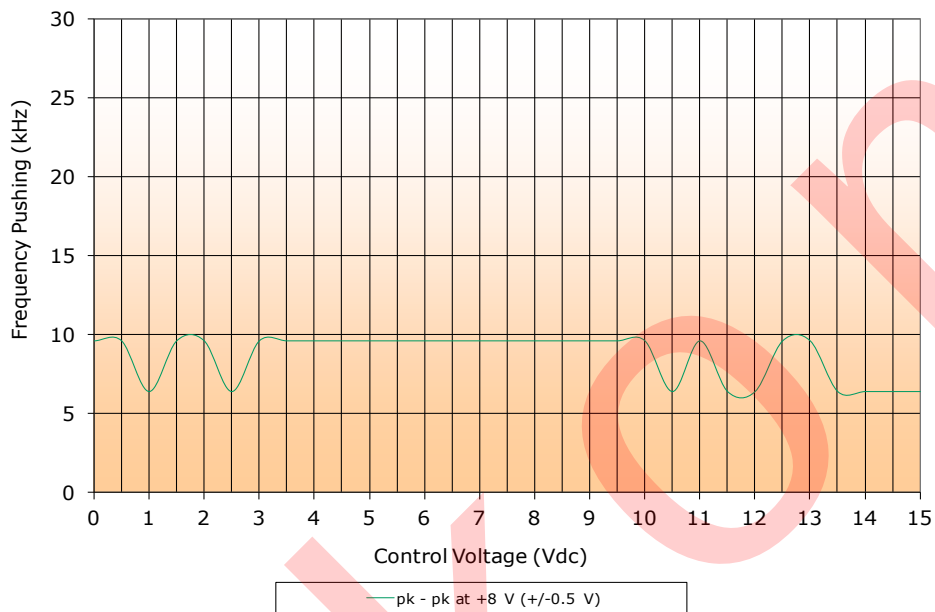


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