

DIELECTRIC RESONATOR OSCILLATOR

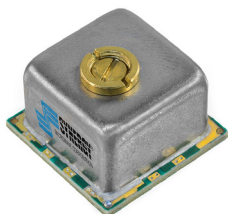
SURFACE MOUNT MODEL: GSDRO1000-8XT

FREQUENCY

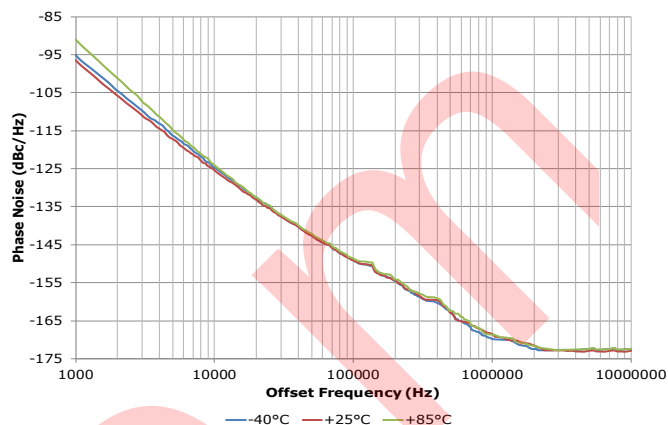
10 GHz

FEATURES:

- ▶ Gold Standard Series
- ▶ Extended Operating Temperature Range
- ▶ Exceptional Phase Noise Performance
- ▶ Small Size Surface Mount
- ▶ Lead Free RoHS Compliant



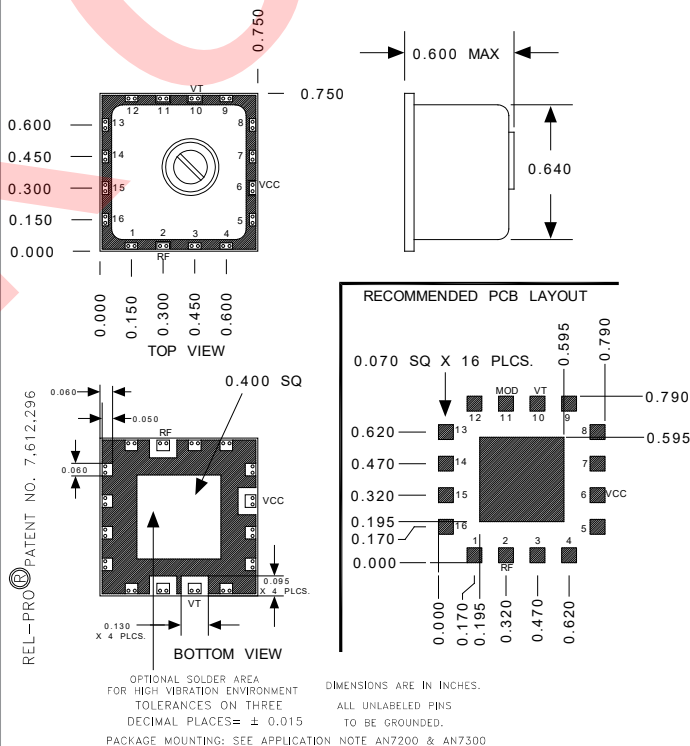
Phase Noise



SPECIFICATIONS (Rev. D 11/16/23)

Frequency	10 GHz										
Tuning Voltage	1 - 15 VDC										
Bias Voltage	+8 VDC @ 25 mA (Max.)										
Output Power	+3 dBm (Min.)										
Tuning Sensitivity	0.35 MHz/V (Typ.)										
Thermal Drift	0.5 ppm / °C (Typ.)										
Output Impedance	50 Ohms (Nom.)										
Harmonic Suppression	28 dBc (Typ.)										
Frequency Pulling	100 kHz (Typ. @ 1.75:1 VSWR)										
Frequency Pushing	100 kHz/V (Typ.)										
Tuning Port Capacitance	35 pF (Typ.)										
Phase Noise @ 25°C	<table><tr><th>Offset</th><th>dBc/Hz (Typ.)</th></tr><tr><td>10 kHz</td><td>-124</td></tr><tr><td>100 kHz</td><td>-149</td></tr><tr><td>1 MHz</td><td>-166</td></tr><tr><td>10 MHz</td><td>-168</td></tr></table>	Offset	dBc/Hz (Typ.)	10 kHz	-124	100 kHz	-149	1 MHz	-166	10 MHz	-168
	Offset	dBc/Hz (Typ.)									
	10 kHz	-124									
	100 kHz	-149									
	1 MHz	-166									
10 MHz	-168										
Operating Temperature Range	-40 to +85 °C										

Package # 396-5



Absolute Maximum Ratings

Storage Temp. Range	-45 to +90 °C
Bias Voltage	+8.5 V
Tuning Voltage	+17 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 GHz.

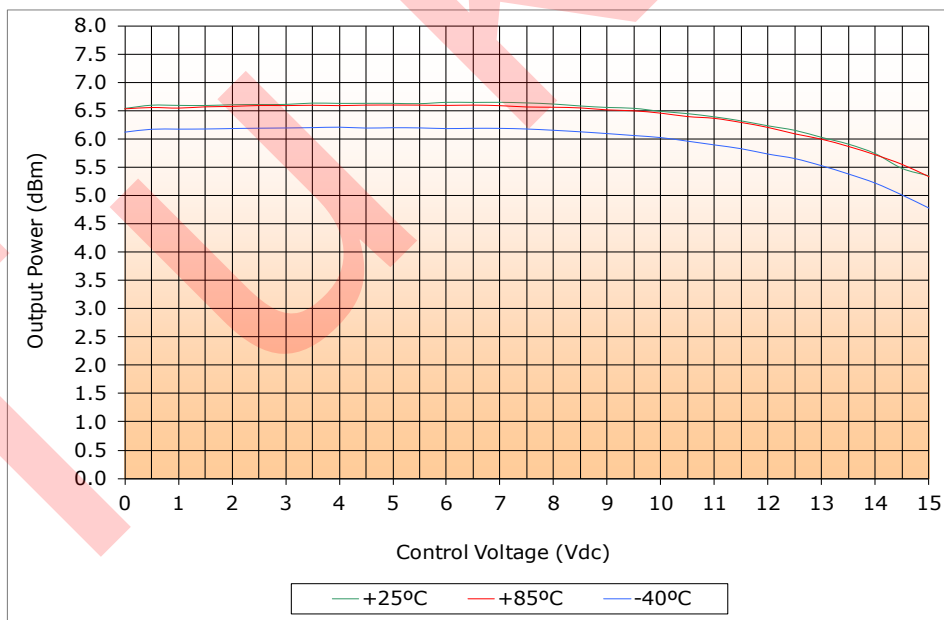
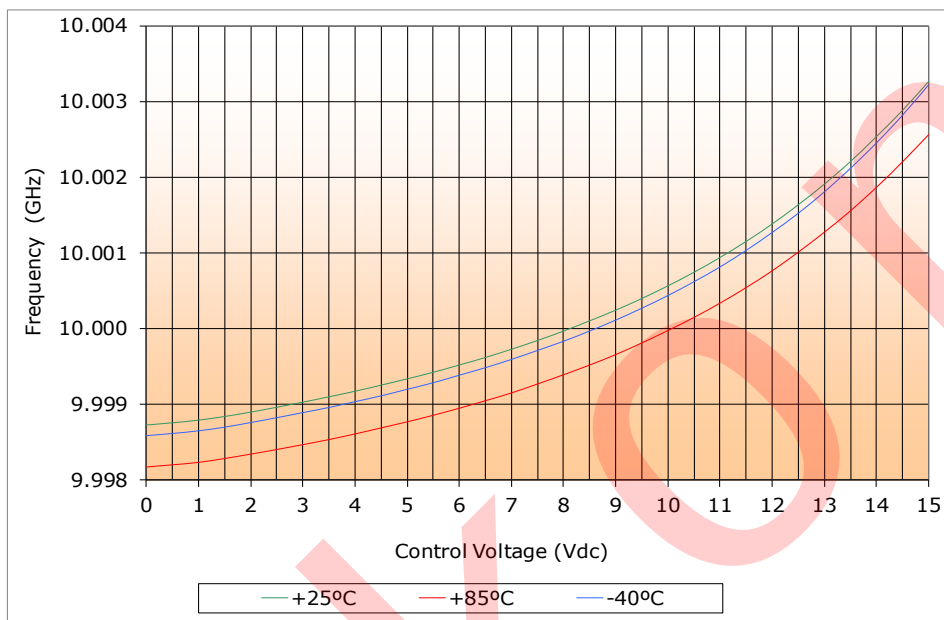
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PERFORMANCE PLOTS

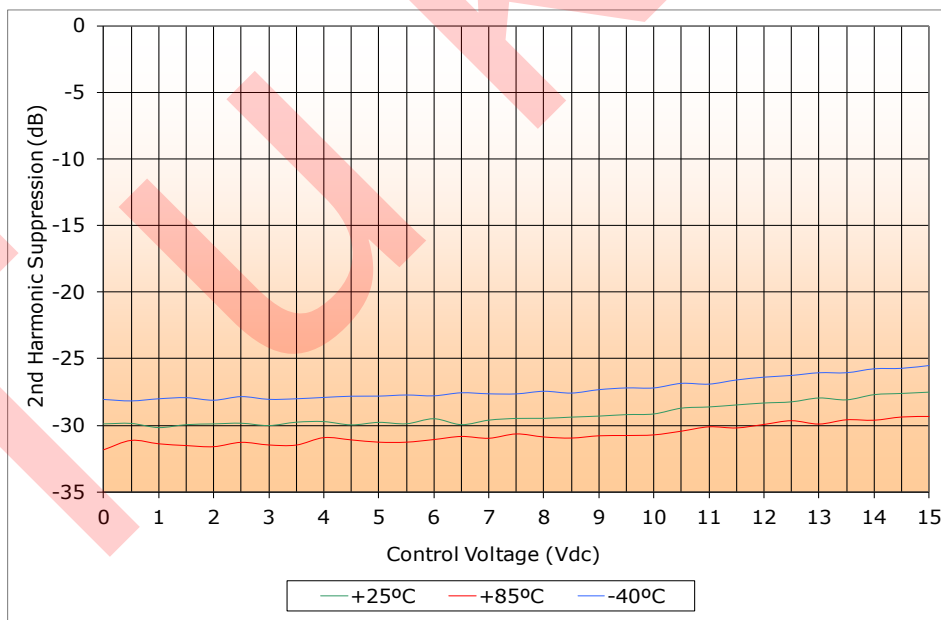
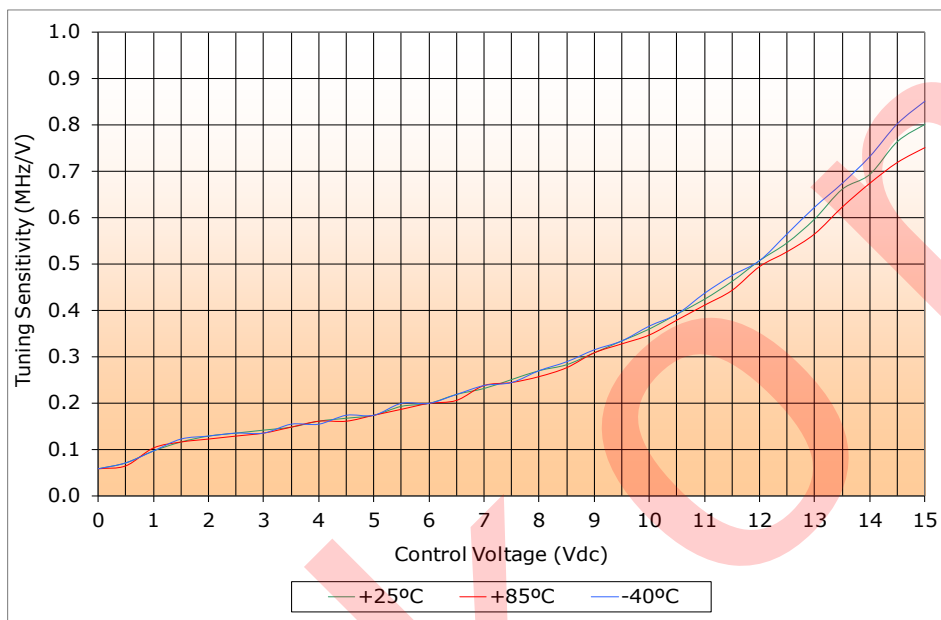


DIELECTRIC RESONATOR OSCILLATOR SURFACE MOUNT MODEL: GSDRO1000-8XT

FREQUENCY

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PERFORMANCE PLOTS

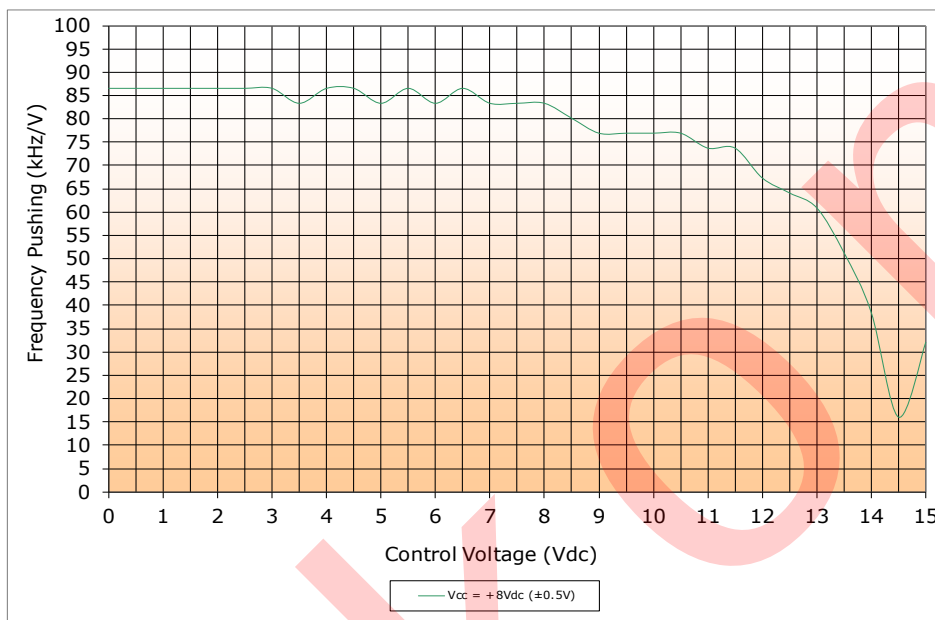


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PERFORMANCE PLOTS