

# CERAMIC RESONATOR OSCILLATOR SURFACE MOUNT MODEL: CSO-1000

**OPTIMIZED FREQUENCY**

**1000 MHz**

**FEATURES:**

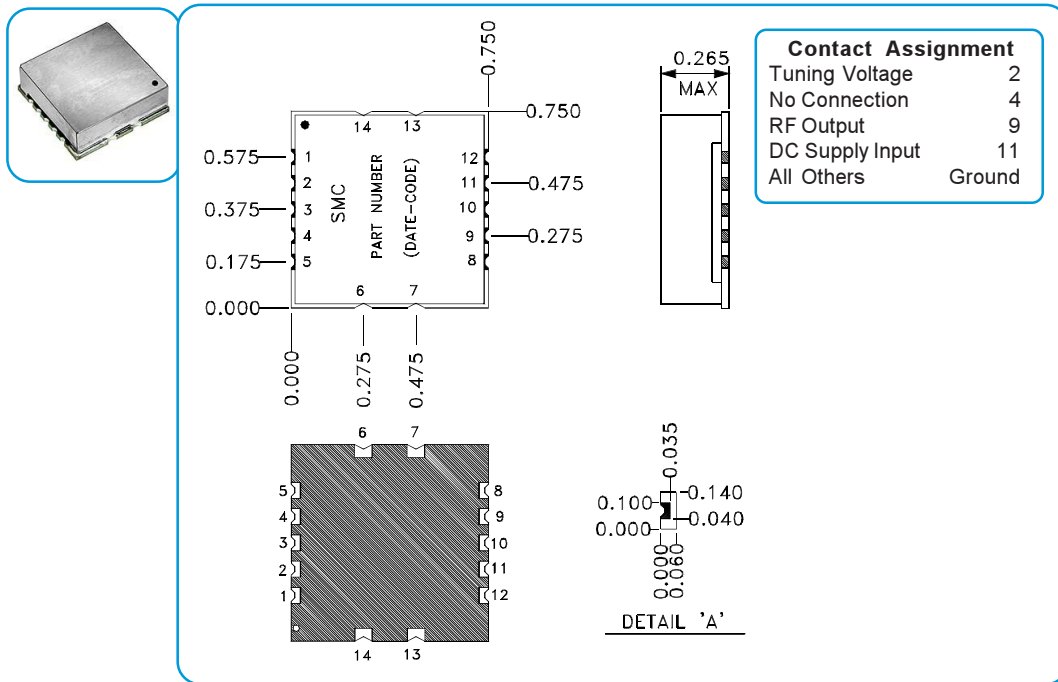
- Exceptional Phase Noise Performance
- Low / Uniform Thermal Drift
- Small Size, Surface Mount

**SPECIFICATIONS**

<b>Center Frequency Range:</b>	1000 MHz*	<b>Second Harmonic Suppression:</b>	-35 (Typ) / -25 dBc (Max)
<b>Tuning Voltage:</b>	0.5 to 4.5 VDC	<b>Frequency Pushing:</b>	50 kHz/V (Max)
<b>Bias Voltage:</b>	+8 VDC @ 35 mA (Max)	<b>Frequency Pulling:</b>	100 kHz p-p (Max) @ 1.75 VSWR
<b>Output Power:</b>	+5 to +9 dBm	<b>Tuning Port Capacitance:</b>	47 pF to 55 pF (Max)
<b>Harmonic Rejection:</b>	30 dB (Typ) / 20 dB (Min)	<b>3 dB Modulation Bandwidth:</b>	2.5 MHz/V (Typ)
<b>Typical Tuning Sensitivity:</b>	0.7 MHz/V	<b>Frequency Drift With Temperature:</b>	1 MHz (Max)
<b>Maximum Phase Noise:</b>		<b>Output Impedance:</b>	50 ohms (Nom)
@ 1 kHz offset	-100 dBc/Hz	<b>Operating Temp. Range:</b>	-40° to +85°C
@ 10 kHz offset	-125 dBc/Hz		
@ 100 kHz offset	-145 dBc/Hz		
@ 1000 kHz offset	-159 dBc/Hz		

\* With +2.5 VDC at tuning port

**MECHANICAL OUTLINE: 249-1**

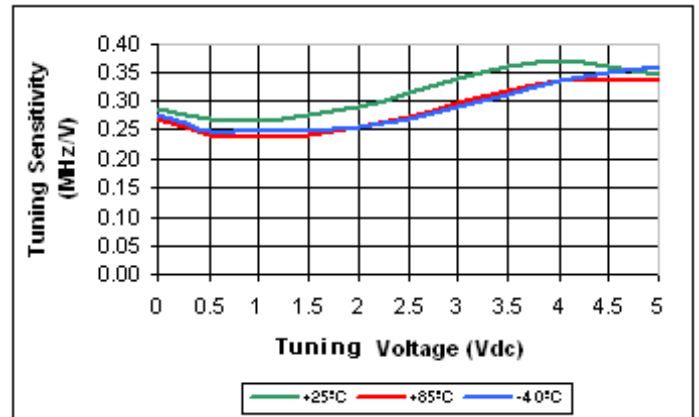
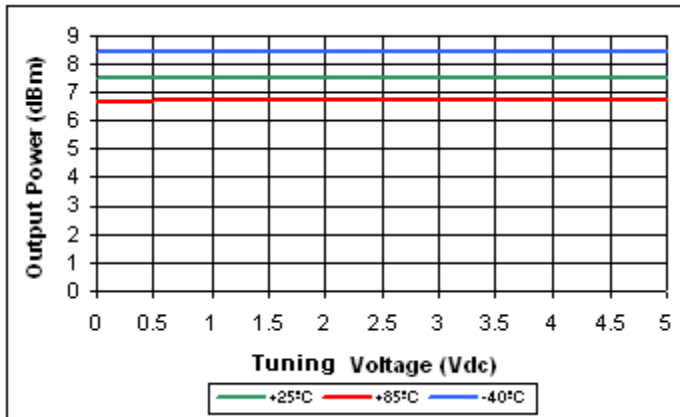
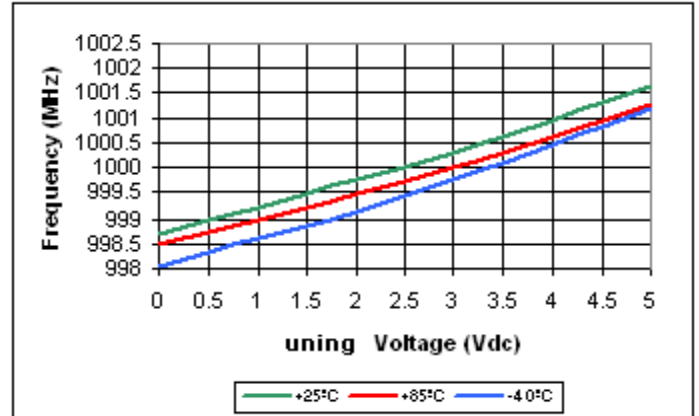
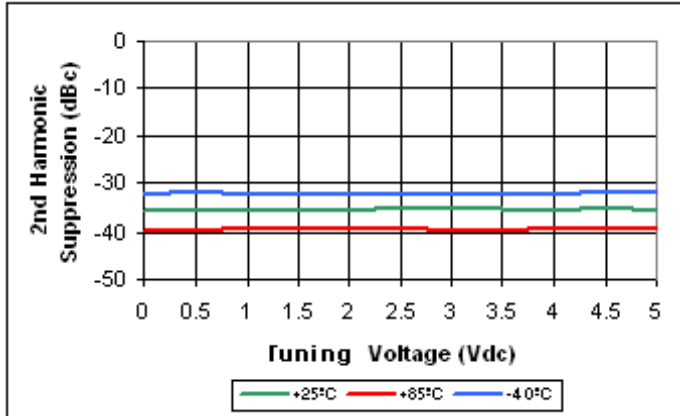


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## PERFORMANCE PLOTS

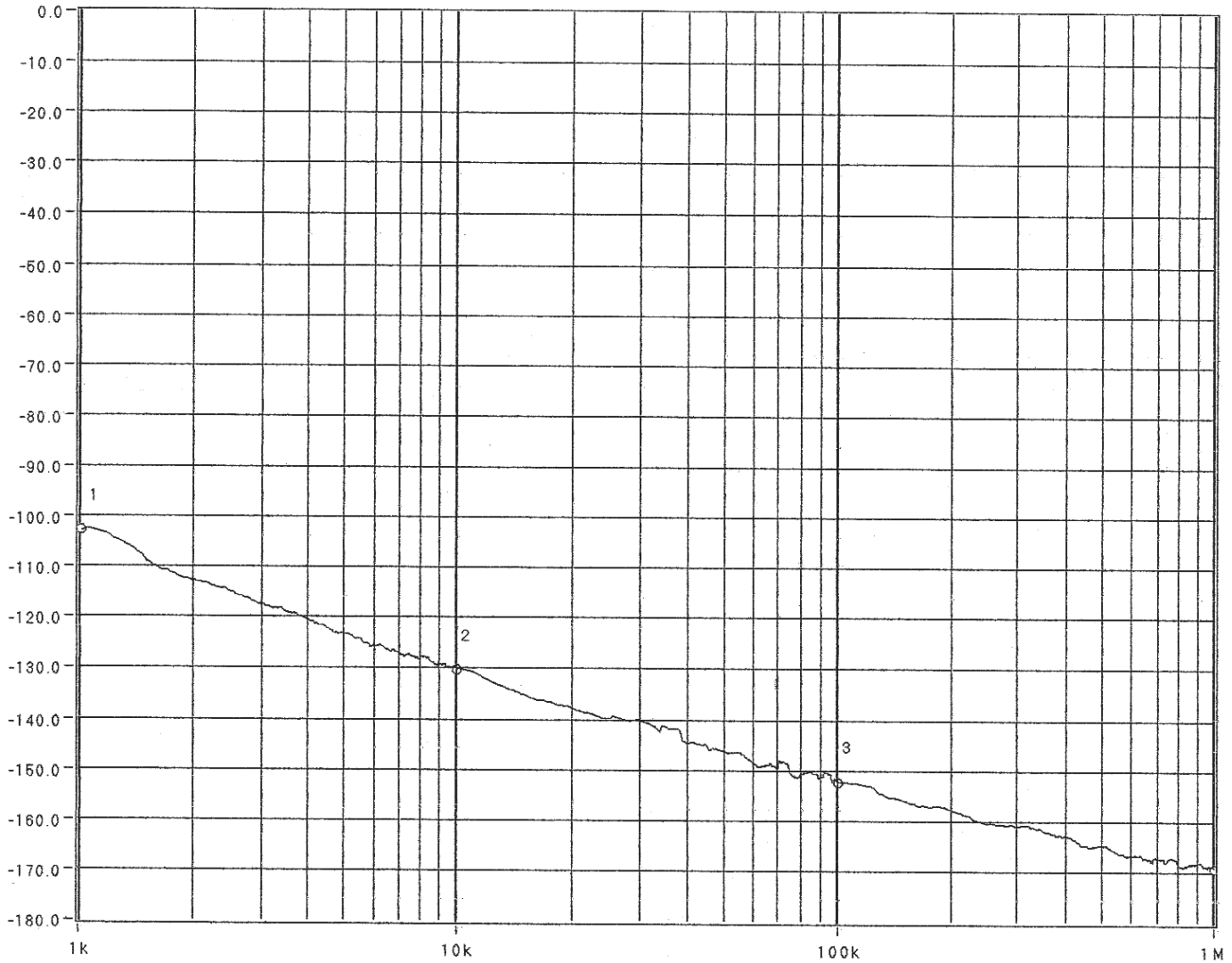


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Mrkr1 :1.0kHz -102.8dBc  
Mrkr2 :10.0kHz -130.3dBc  
Mrkr3 :100.0kHz -152.3dBc  
Mrkr4 :998.5kHz -169.1dBc

Comment :

Tuesday, October 14, 2003 11:40 AM

Configuration of : **CSO-1000**

Delay Line  
Kphi : 0.818  
DUT Freq. : 1000.025MHz  
DL Length : 103ns  
Offset Ref : 0.0dB  
Ref Spurs : 10.0dB