

# VOLTAGE CONTROLLED OSCILLATOR

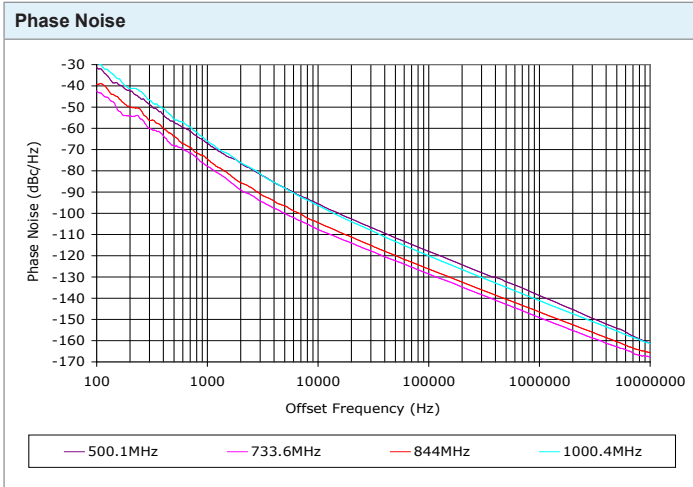
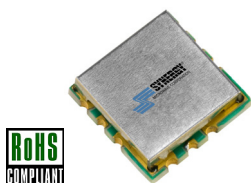
## SURFACE MOUNT MODEL: DCO50100-5

**WIDE BANDWIDTH**

**500 - 1000 MHz**

**FEATURES:**

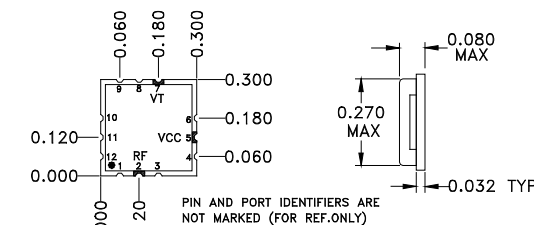
- ▶ Miniature Size, Surface Mount (0.3" x 0.3")
- ▶ Exceptional Phase Noise Performance
- ▶ Fast Tuning
- ▶ Planar Resonator Construction



**SPECIFICATIONS**

Frequency	500 - 1000 MHz	
Tuning Voltage	See table below.	
Bias Voltage	+5 VDC @ 34 mA (Max.)	
Output Power	+4 dBm (Min.)	
Tuning Sensitivity	28 - 58 MHz/V (Typ.)	
Output Impedance	50 Ohms (Nom.)	
Harmonic Suppression	10 dB (Typ.)	
Frequency Pulling	8 MHz (Typ. @ 1.75:1 VSWR)	
Frequency Pushing	4 MHz/V (Typ.)	
Tuning Port Capacitance	100 pF (Typ.)	
Typical Phase Noise	Offset	dBc/Hz
	10 kHz	-100
	100 kHz	-123
Operating Temperature Range	-40 to +85 °C	

Package # 343

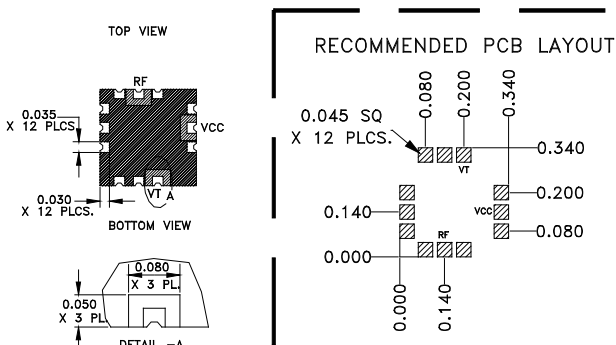


**Guaranteed Tuning Specifications**

Tuning Voltage ( V )	Frequency ( MHz )
0.5	500 (Max.)
5	580 (Min.)
8	700 (Min.)
12	880 (Min.)
15	1000 (Min.)

**Absolute Maximum Ratings**

Storage Temp. Range	-55 to +125 °C
Bias Voltage	+5.5 V
Tuning Voltage	+18 V
DC Voltage Applied to RF Out	± 25 V



PACKAGE MOUNTING: SEE APPLICATION NOTE AN7300

TOLERANCES ON THREE DECIMAL PLACES = ± 0.015  
 DIMENSIONS ARE IN INCHES.  
 ALL UNLABELED PINS TO BE GROUNDING.

This product is manufactured under one or more of the following patents: Approved: 5,160,810; 5,122,621; 5,390,349; 5,416,449; 5,650,754; 5,805,431; 6,525,623; 6,850,575; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113; 7,365,612; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 7,580,693; 7,586,381; 7,605,670; 7,636,021; 2,533,623 | Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; EV31369834; 11/259766; 60/622485 & 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 2,563,174; 7,580,693; 7,612,296; 2,524,751

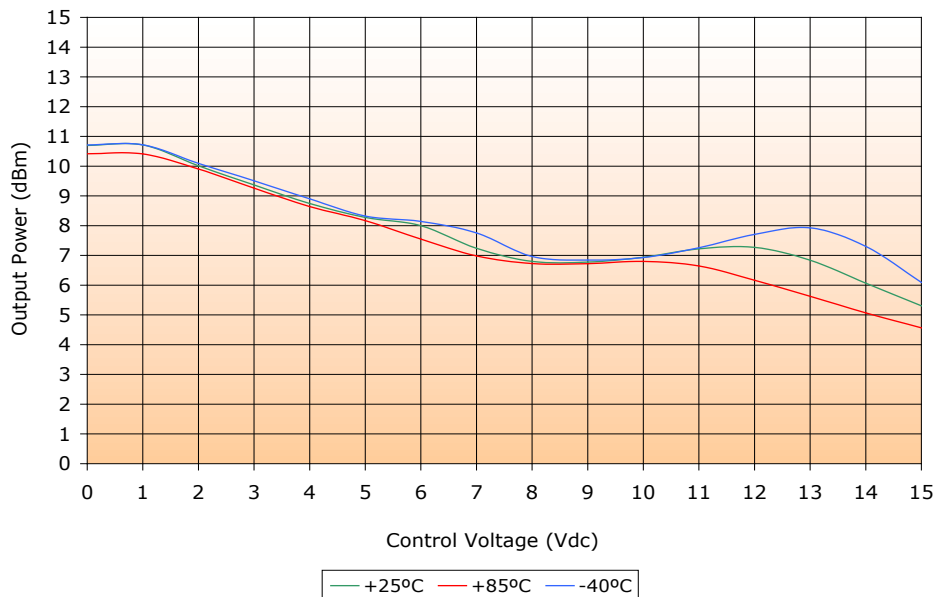
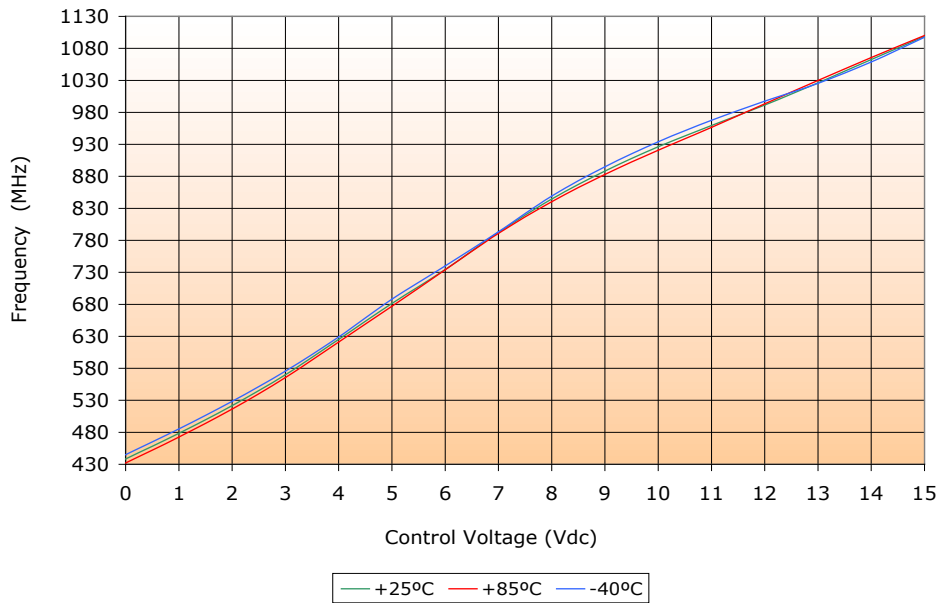
# VOLTAGE CONTROLLED OSCILLATOR

## SURFACE MOUNT MODEL: DCO50100-5

WIDE BANDWIDTH

500 - 1000 MHz

PERFORMANCE PLOTS



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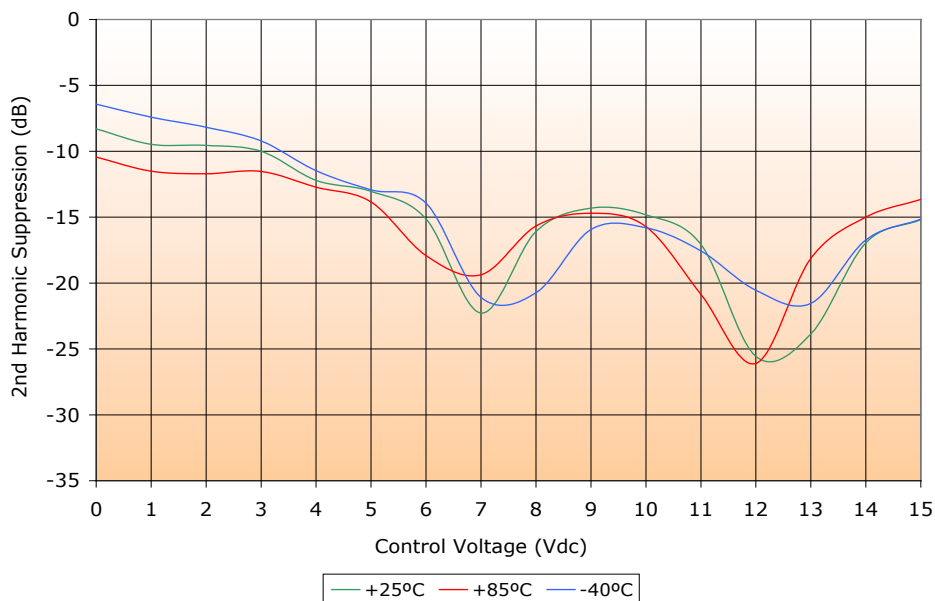
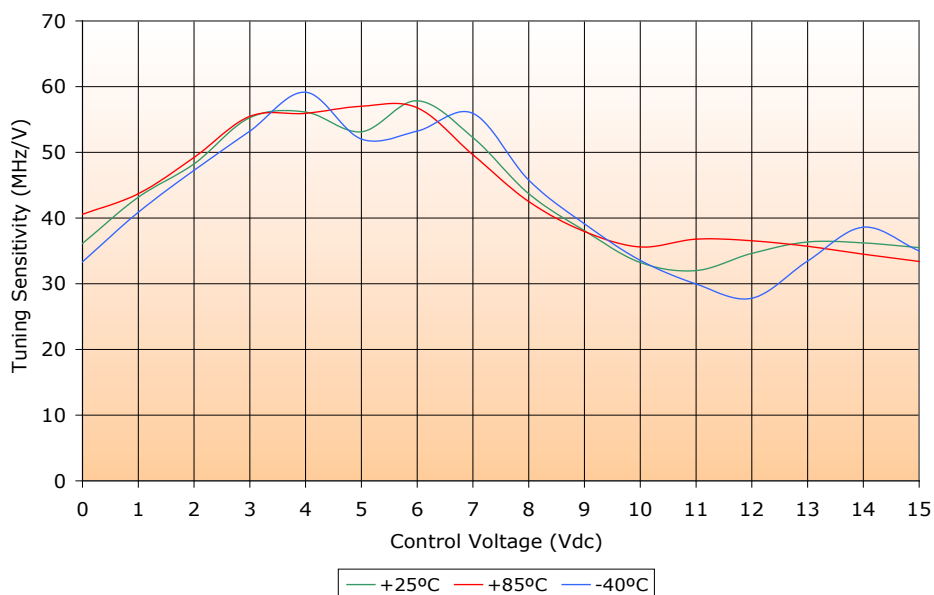
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