

# VOLTAGE CONTROLLED OSCILLATOR

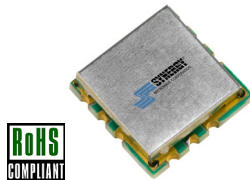
## SURFACE MOUNT MODEL: DCO8087-5

**OPTIMIZED BANDWIDTH**

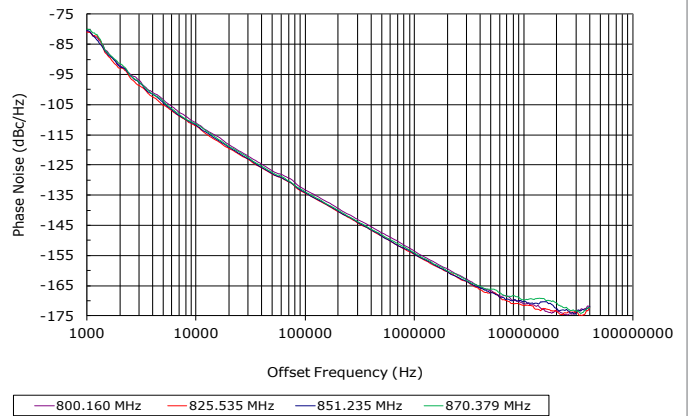
**800 - 870 MHz**

**FEATURES:**

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



**Phase Noise**



**SPECIFICATIONS**

Frequency	800 - 870 MHz	
Tuning Voltage	See table below.	
Bias Voltage	+5 VDC @ 27 mA (Max.)	
Output Power	+9 dBm (Min.)	
Tuning Sensitivity	20 - 27 MHz/V (Typ.)	
Output Impedance	50 Ohms (Nom.)	
Harmonic Suppression	15 dB (Typ.)	
Frequency Pulling	2 MHz (Typ. @ 1.75:1 VSWR)	
Frequency Pushing	1.5 MHz/V (Typ.)	
Tuning Port Capacitance	55 pF (Typ.)	
Typical Phase Noise	Offset	dBc/Hz
	10 kHz	-111
	100 kHz	-134
Operating Temperature Range	-40 to +85 °C	

**Guaranteed Tuning Specifications**

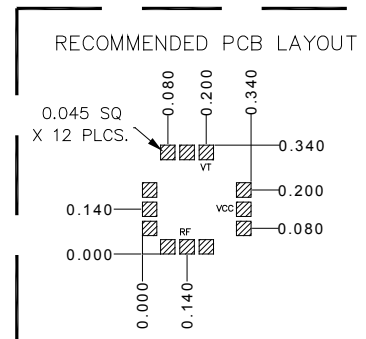
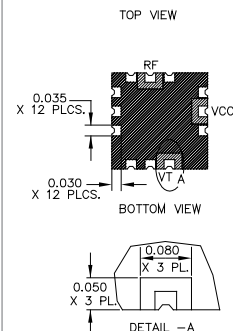
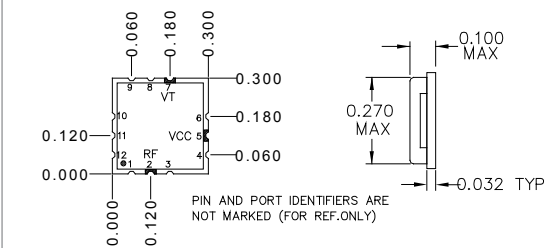
Tuning Voltage ( V )	Frequency ( MHz )
0.5	800 (Max.)
5	870 (Min.)

**Absolute Maximum Ratings**

Storage Temp. Range	-55 to +125 °C
Bias Voltage	+5.5 V
Tuning Voltage	+28 V
DC Voltage Applied to RF Out	±25 V

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

Package # 343



PACKAGE MOUNTING: SEE APPLICATION NOTE AN7300 & AN7302

TOLERANCES ON THREE DECIMAL PLACES = ± 0.015

DIMENSIONS ARE IN INCHES. ALL UNLABELED PINS TO BE GROUNDED.

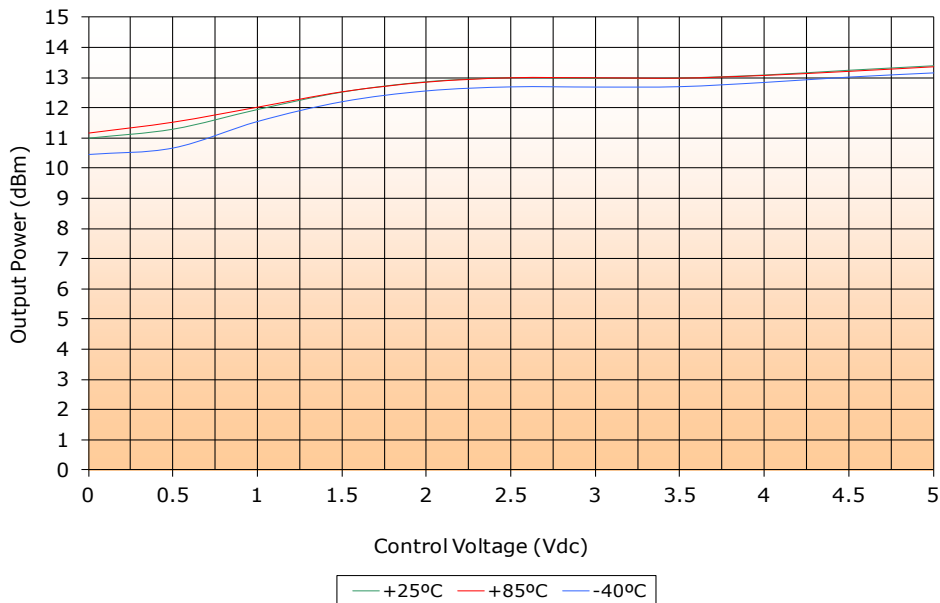
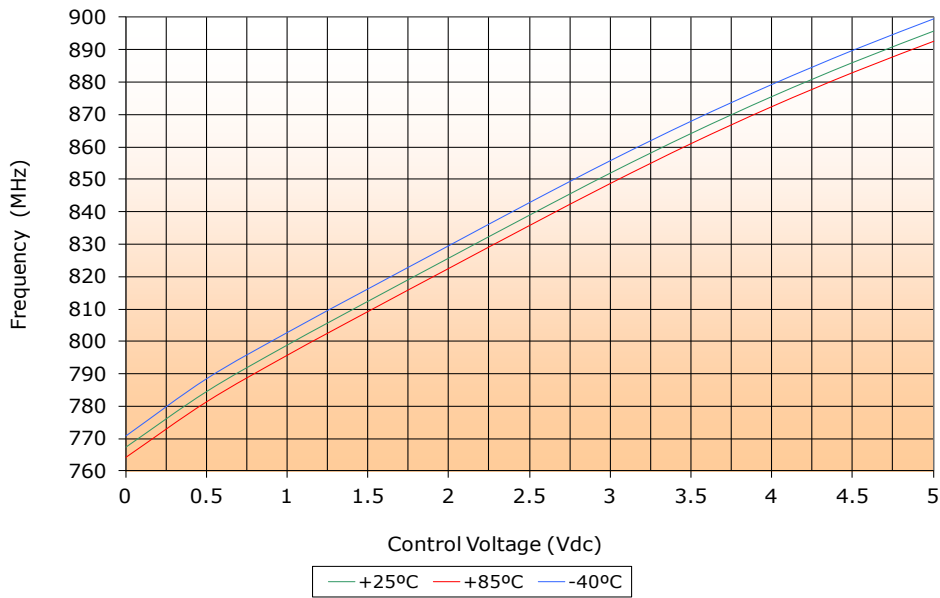
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PERFORMANCE PLOTS



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