

# VOLTAGE CONTROLLED OSCILLATOR

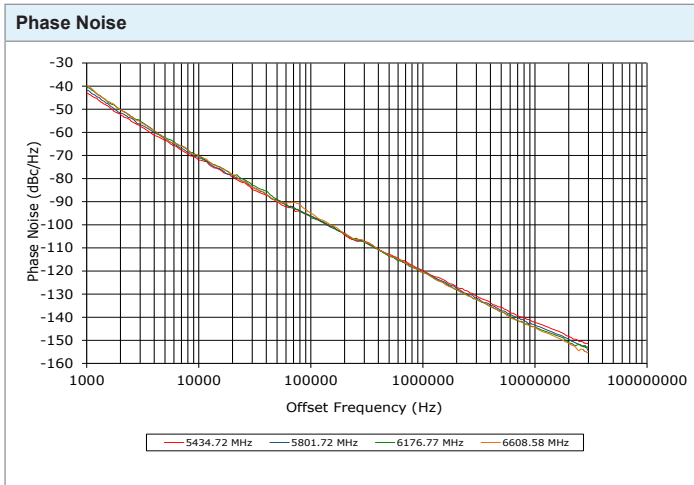
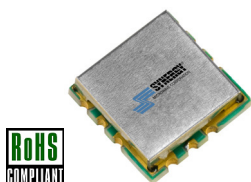
## SURFACE MOUNT MODEL: DCO535645-5

OPTIMIZED BANDWIDTH

5350 - 6450 MHz

**FEATURES:**

- ▶ Fast Tuning
- ▶ Ideal for PLL applications
- ▶ Small Size, Surface Mount



**SPECIFICATIONS**

Frequency	5350 - 6450 MHz	
Tuning Voltage	0.5 - 15 V	
Bias Voltage	+5 VDC @ 30 mA (Max.)	
Output Power	-3 dBm (Min.)	
Tuning Sensitivity	120 - 220 MHz/V (Typ.)	
Output Impedance	50 Ohms (Nom.)	
Harmonic Suppression	20 dB (Typ.)	
Frequency Pulling	15 MHz/V (Typ.)	
Frequency Pushing	10 MHz/V (Typ. @ 1.75:1 VSWR)	
Tuning Port Capacitance	30 pF (Typ.)	
Typical Phase Noise	Offset	dBc/Hz
	1 kHz	-42
	10 kHz	-72
	100 kHz	-98
	1 MHz	-120
10 MHz	-142	
Operating Temperature Range	-40 to +85 °C	

**Package #** 343

The package drawings show a square component with various pins and dimensions. The top view labels pins 1 through 12, with dimensions such as 0.060, 0.180, 0.300, 0.120, 0.000, 0.120, 0.060, 0.270 MAX, and 0.020 TYP. The bottom view shows the RF and VTA pins. Detail -A shows a specific pin detail with dimensions 0.080, 0.050, and 0.035. The recommended PCB layout shows dimensions for the pads and spacing, including 0.045 SQ, 0.080, 0.200, 0.340, 0.230, 0.140, 0.110, 0.000, 0.110, 0.140, 0.230, and 0.080.

PIN AND PORT IDENTIFIERS ARE NOT MARKED (FOR REF. ONLY)

RECOMMENDED PCB LAYOUT

DIMENSIONS ARE IN INCHES.

TOLERANCES ON THREE DECIMAL PLACES = ± 0.015

ALL UNLABELED PINS TO BE GROUNDED.

PACKAGE MOUNTING: SEE APPLICATION NOTE AN7300 & AN7302

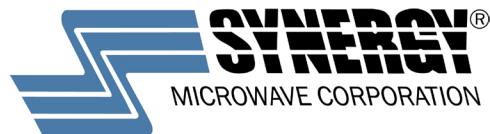
**Guaranteed Tuning Specifications**

Tuning Voltage ( V )	Frequency ( MHz )
0.5	5350 (Max.)
15	6450 (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

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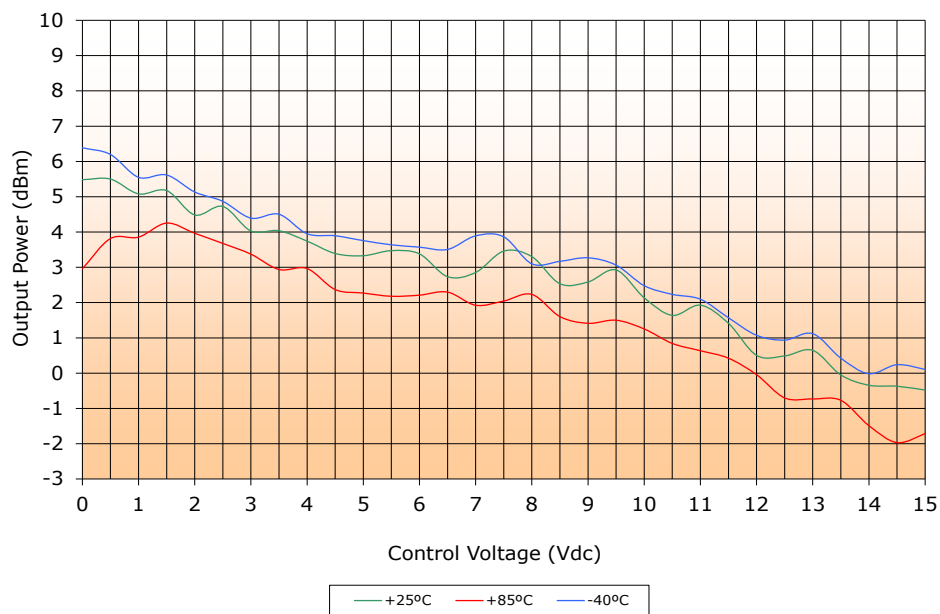
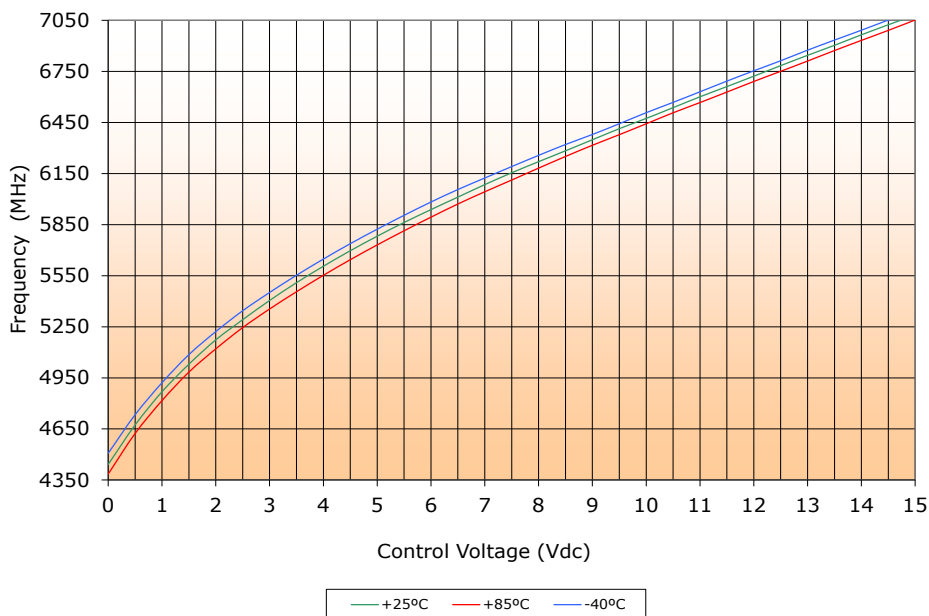
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