

VOLTAGE CONTROLLED OSCILLATOR

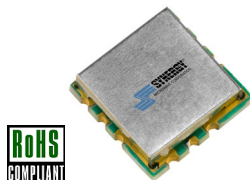
SURFACE MOUNT MODEL: DCO300600-5

OPTIMIZED BANDWIDTH

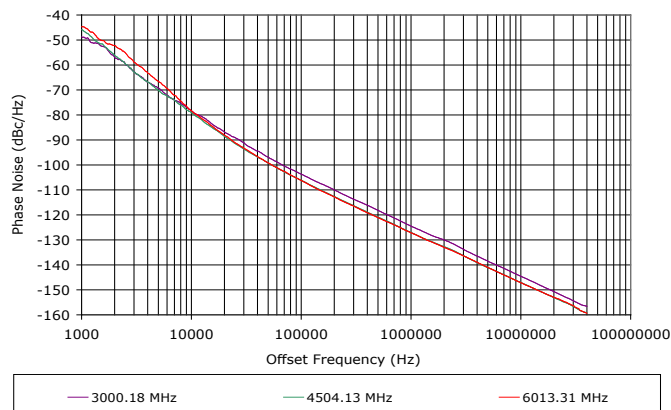
3000 - 6000 MHz

FEATURES:

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



Phase Noise



SPECIFICATIONS (Rev. B 01/09/14)

Frequency	3000 - 6000 MHz	
Tuning Voltage	See table below.	
Bias Voltage	+5 VDC @ 15 mA (Max.)	
Output Power	-3 dBm (Min.)	
Tuning Sensitivity	150 - 500 MHz/V (Typ.)	
Output Impedance	50 Ohms (Nom.)	
Harmonic Suppression	18 dB (Typ.)	
Frequency Pulling	60 MHz (Typ. @ 1.75:1 VSWR)	
Frequency Pushing	16 MHz/V (Typ.)	
Tuning Port Capacitance	62 pF (Typ.)	
Typical Phase Noise	Offset	dBc/Hz
	10 kHz	-78
	100 kHz	-104
Operating Temperature Range	-40 to +85 °C	

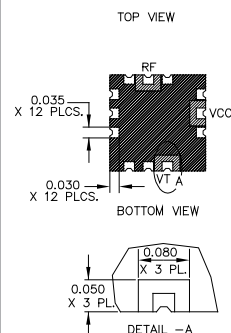
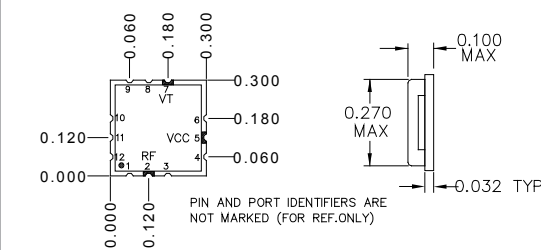
Guaranteed Tuning Specifications

Tuning Voltage (V)	Frequency (MHz)
0.3	3000 (Max.)
5	4200 (Min.)
8	4900 (Min.)
12	5600 (Min.)
16	6000 (Min.)

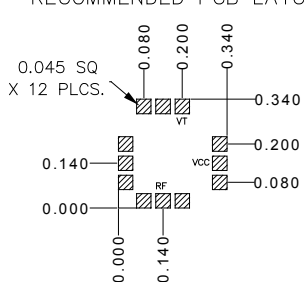
Absolute Maximum Ratings

Storage Temp. Range	-55 to +125 °C
Bias Voltage	+5.5 V
Tuning Voltage	+20 V
DC Voltage Applied to RF Out	±25 V

Package # 343



RECOMMENDED PCB LAYOUT



PACKAGE MOUNTING: SEE APPLICATION NOTE AN7300 & AN7302

TOLERANCES ON THREE
DECIMAL PLACES= ± 0.015

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

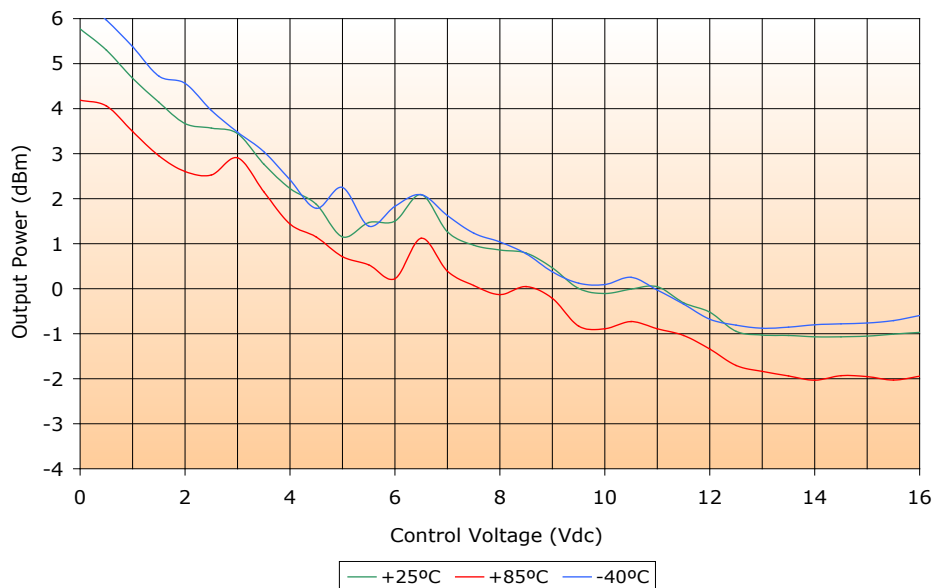
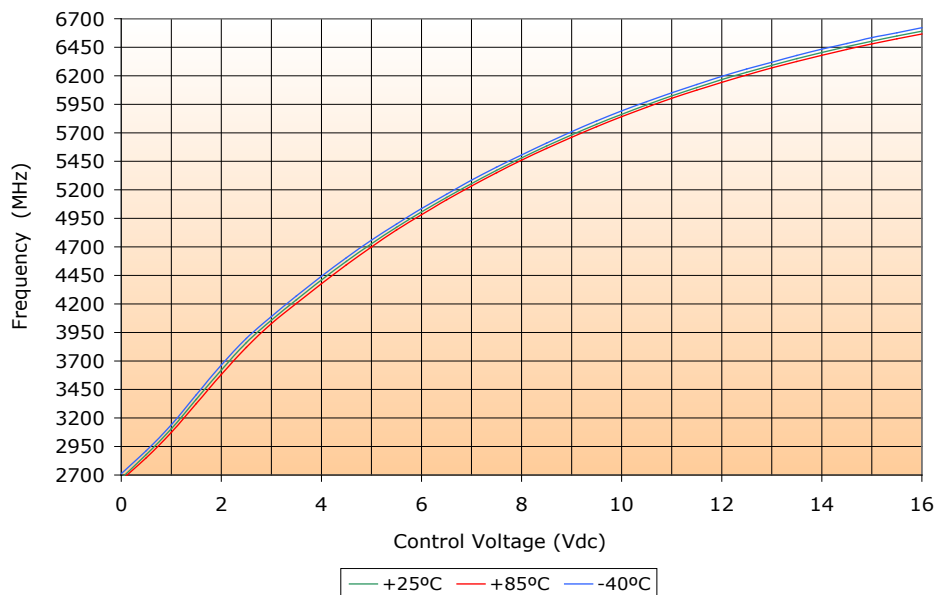
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PERFORMANCE PLOTS



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