

VOLTAGE CONTROLLED OSCILLATOR

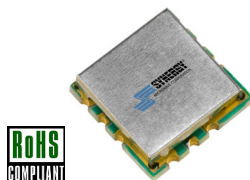
SURFACE MOUNT MODEL: DCO450820-5

WIDE BANDWIDTH

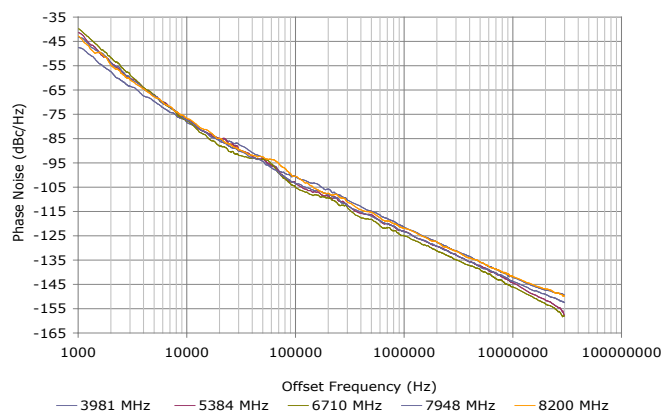
4500 - 8200 MHz

FEATURES:

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



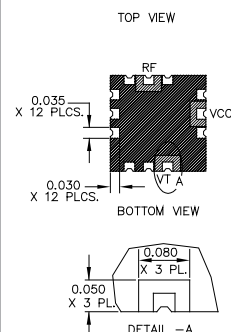
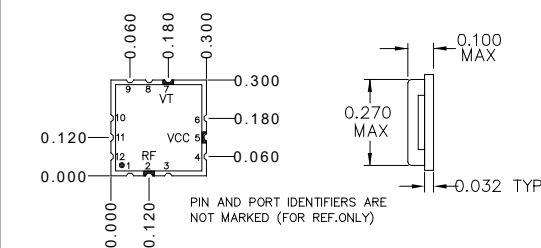
Phase Noise



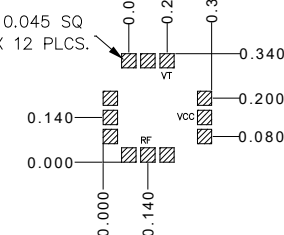
SPECIFICATIONS (Rev C 04/02/10)

Frequency	4500 - 8200 MHz	
Tuning Voltage	See table below.	
Bias Voltage	+5 VDC @ 22 mA (Max.)	
Output Power	+0 dBm (Min.)	
Tuning Sensitivity	135 - 620 MHz/V (Typ.)	
Output Impedance	50 Ohms (Nom.)	
Harmonic Suppression	14 dB (Typ.)	
Frequency Pulling	25 MHz (Typ. @ 1.75:1 VSWR)	
Frequency Pushing	25 MHz/V (Typ.)	
Tuning Port Capacitance	37 pF (Typ.)	
Typical Phase Noise	Offset	dBc/Hz
	10 kHz	-77
	100 kHz	-100
Operating Temperature Range	-40 to +85 °C	

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 GROUND.

Guaranteed Tuning Specifications

Tuning Voltage (V)	Frequency (MHz)
0.5	4500 (Max.)
5	5800 (Min.)
8	6800 (Min.)
12	7500 (Min.)
14	8200 (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

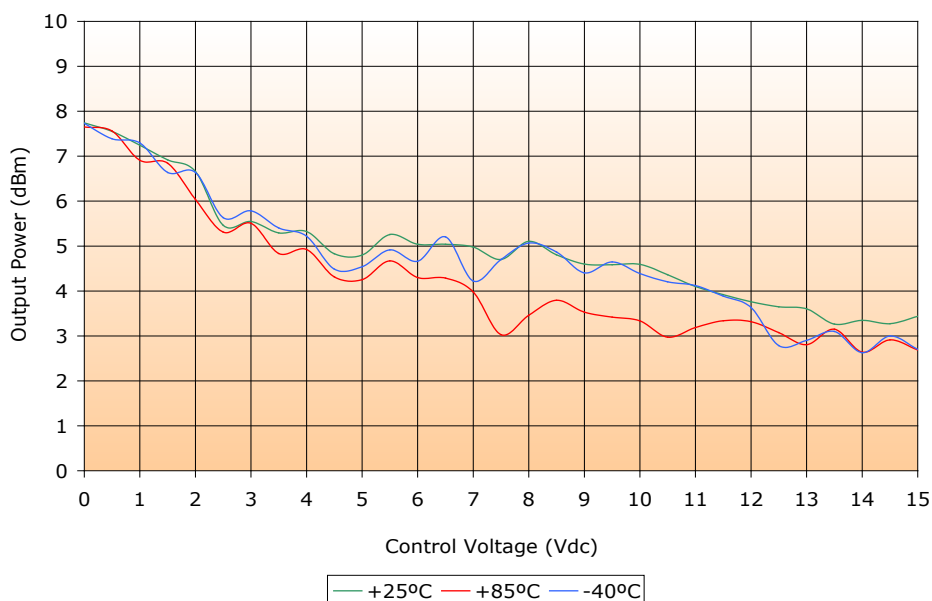
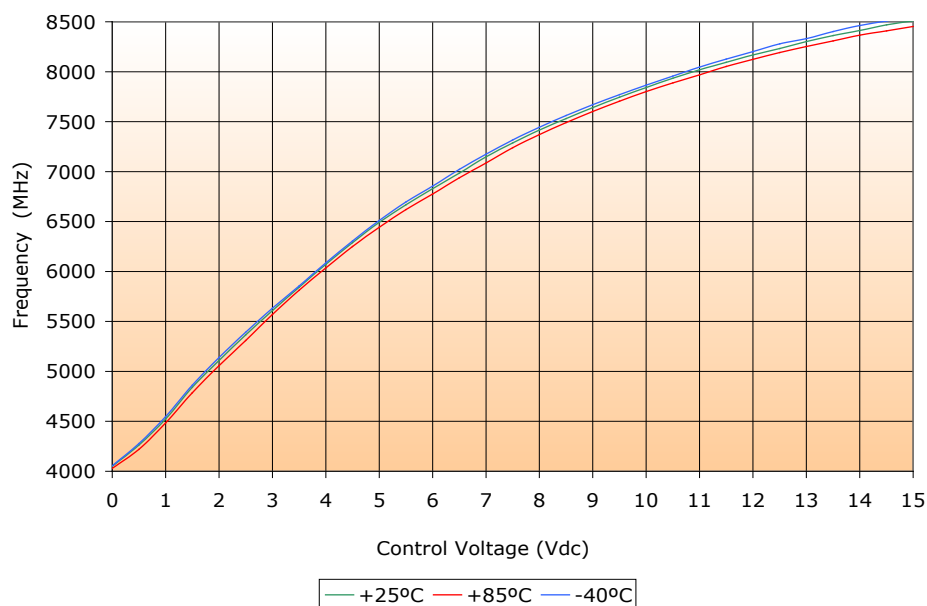
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WIDE BANDWIDTH

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PERFORMANCE PLOTS



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