

VOLTAGE CONTROLLED OSCILLATOR

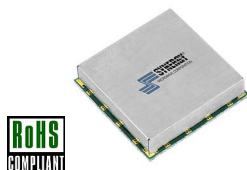
SURFACE MOUNT MODEL: DCYS10002000-5

X to K BAND

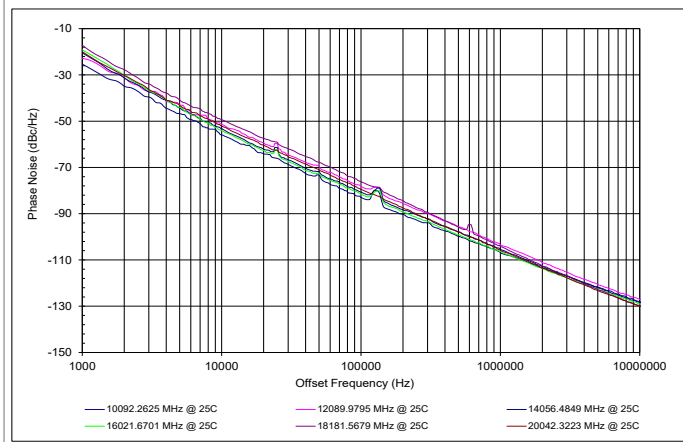
10000 - 20000 MHz

FEATURES:

- ▶ Exceptional Phase Noise Performance
- ▶ Small Size, Surface Mount
- ▶ Lead Free Patented REL-PRO® Technology
- ▶ Buffered Output



Phase Noise



SPECIFICATIONS (Rev. D 03/06/23)

Frequency	10000 - 20000 MHz	
Tuning Voltage	0.5 to 15 VDC	
Bias Voltage (Vcc 1)*	-1.7 VDC @ 5 mA (Typ.)	
Bias Voltage (Vcc 2)*	+5 VDC @ 190 mA (Max.)	
Output Power	-4 dBm (Min.)	
Tuning Sensitivity	300 - 1700 MHz/V (Typ.)	
Output Impedance	50 Ohms (Nom.)	
Harmonic Suppression	10 dB (Typ.)	
Sub-Harmonic	7 dB (Typ.)	
Frequency Pulling	144 MHz (Typ. @ 1.75:1 VSWR)	
Frequency Pushing	140 MHz/V (Typ.)	
Tuning Port Capacitance	15 pF (Typ.)	
Typical Phase Noise	Offset	dBc/Hz
	10 kHz	-53
	100 kHz	-79

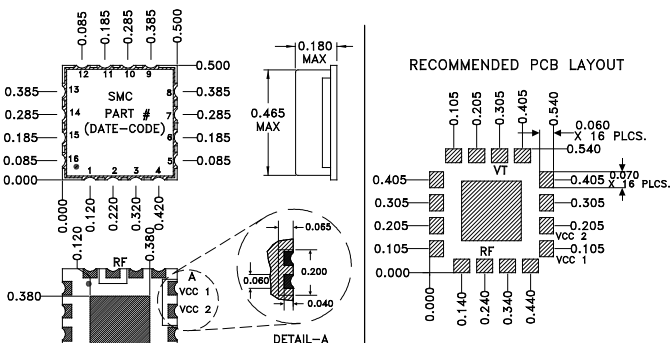
Operating Temperature Range -40 to +85 °C

Notes:
 * Follow bias voltage sequencing
 1) Set Vcc1 & Vcc2 to zero volts.
 2) Set Vcc1 (gate voltage) as specified above.
 3) Set Vcc2 (drain voltage) as specified above.
 Typical plots are not indicative of actual performance.

Absolute Maximum Ratings

Storage Temp. Range	-55 to +125 °C
Bias Voltage (VCC 1)	+5.5 V
Tuning Voltage (VCC 2)	-1.9 V
DC Voltage Applied to RF Out	±25 V

Package # 454



PACKAGE MOUNTING: SEE APPLICATION NOTE AN7300

Pin Out Config	
RF Out	Pin 1
Vcc 1	Pin 5
Vcc 2	Pin 6
Vtune	Pin 10
All Others	Case Ground

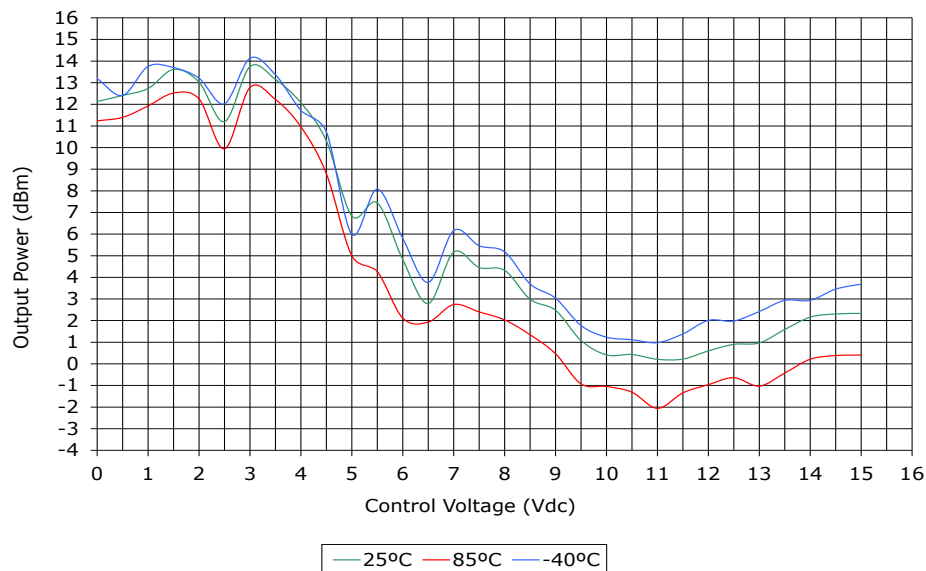
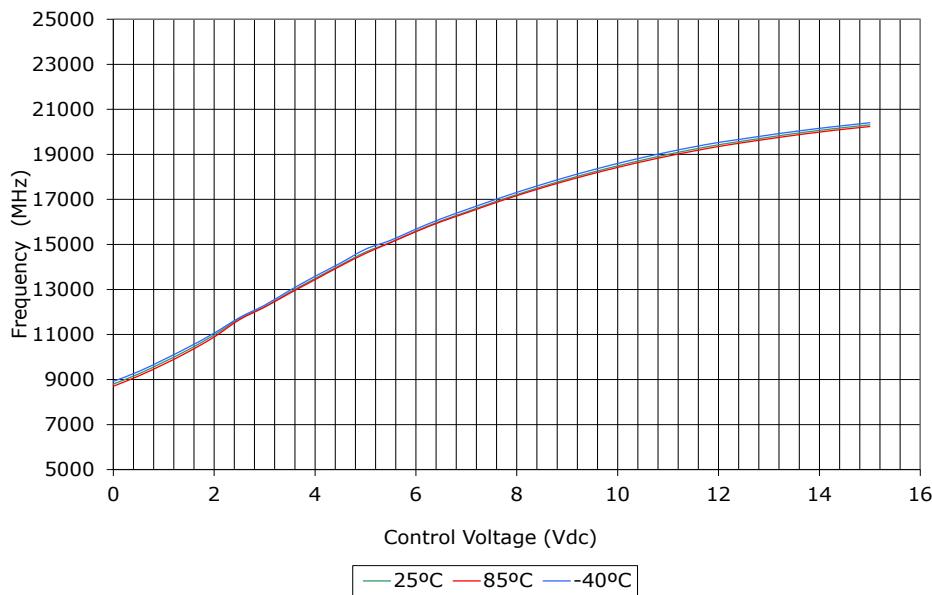
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