

# VOLTAGE CONTROLLED OSCILLATOR

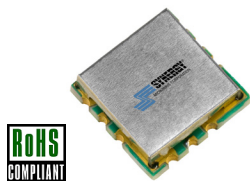
## SURFACE MOUNT MODEL: DXO10021022-5

**X-BAND OPTIMIZED BANDWIDTH**

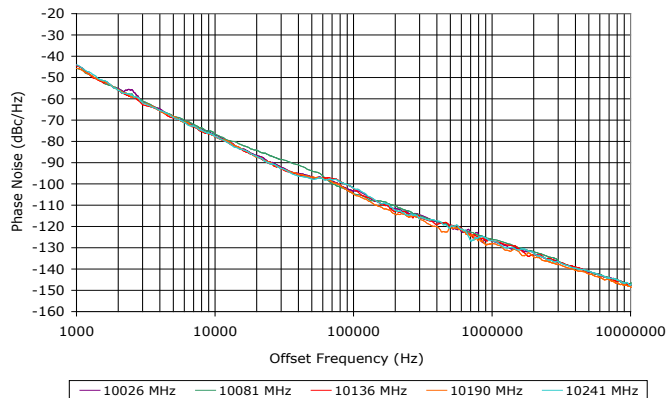
**9700 - 10225 MHz**

**FEATURES:**

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



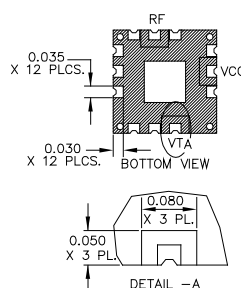
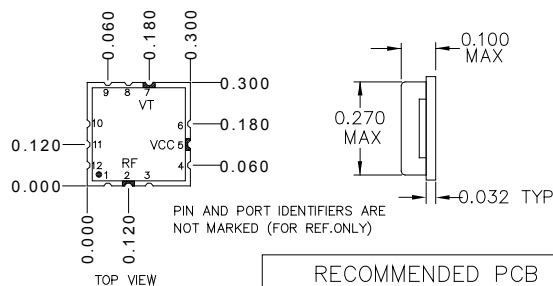
**Phase Noise**



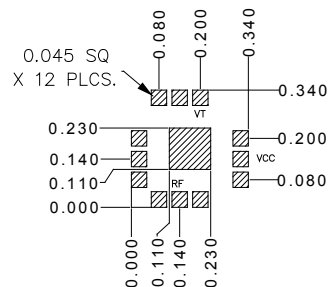
**SPECIFICATIONS**

Frequency	9700 - 10225 MHz
Tuning Voltage	See table below.
Bias Voltage	+5 VDC @ 25 mA (Max.)
Output Power	+0 dBm (Min.)
Tuning Sensitivity	30 - 120 MHz/V (Typ.)
Output Impedance	50 Ohms (Nom.)
Harmonic Suppression	20 dB (Typ.)
Frequency Pulling	25 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing	10 MHz/V (Typ.)
Tuning Port Capacitance	2 pF (Typ.)
Phase Noise @ 10 kHz	-78 dBc/Hz (Typ.)
Operating Temperature Range	-40 to +85 °C

Package # 364



**RECOMMENDED PCB LAYOUT**



TOLERANCES ON THREE DECIMAL PLACES = ± 0.015  
 ALL UNLABELED PINS TO BE GROUNDED.  
 PACKAGE MOUNTING: SEE APPLICATION NOTE AN7300 & AN7302

**Guaranteed Tuning Specifications**

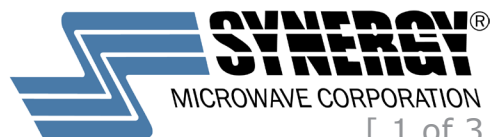
Tuning Voltage ( V )	Frequency ( MHz )
0.5	9700 (Max.)
15	10225 (Min.)

**Absolute Maximum Ratings**

Storage Temp. Range	-55 to +125 °C
Bias Voltage	+5.5 V
Tuning Voltage	+18
DC Voltage Applied to RF Out	± 25 V

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

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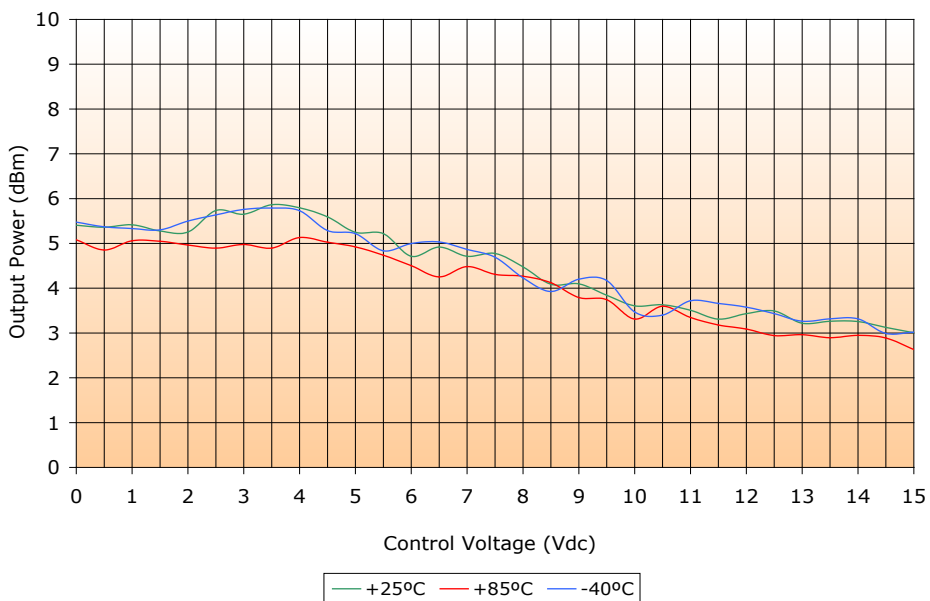
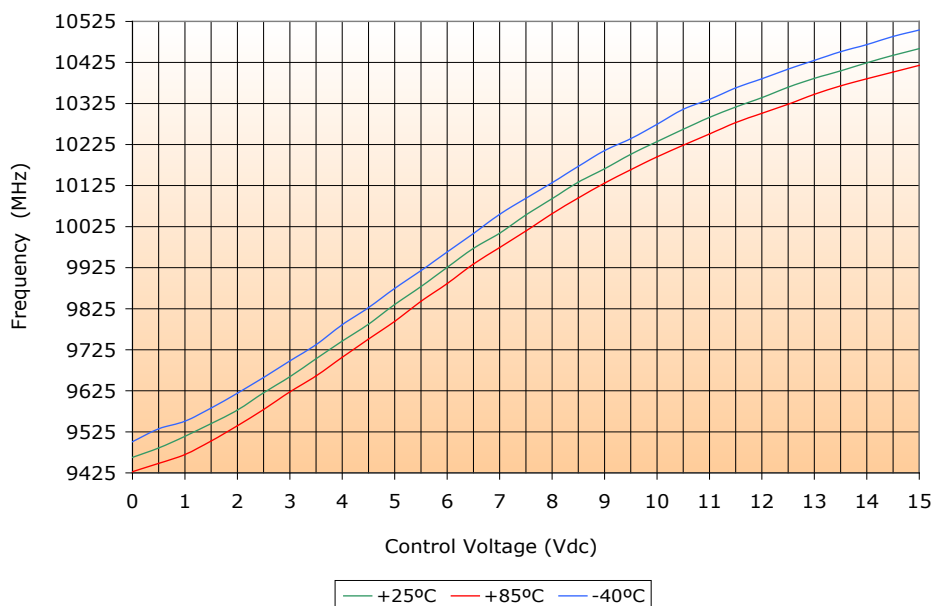
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PERFORMANCE PLOTS



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