

# VOLTAGE CONTROLLED OSCILLATOR

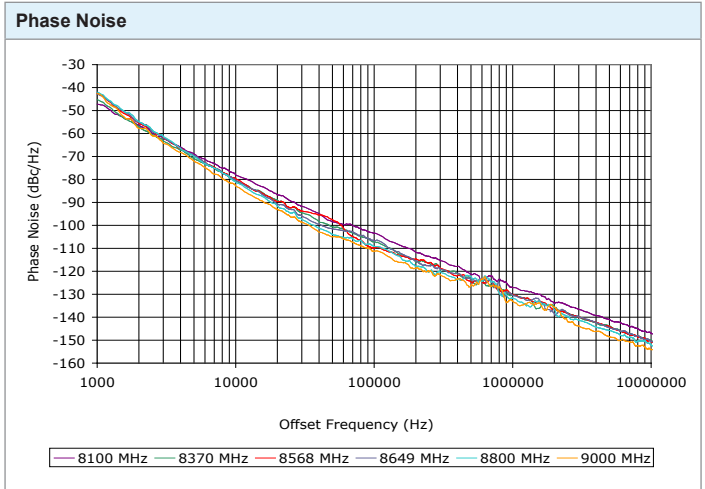
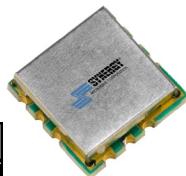
## SURFACE MOUNT MODEL: DXO810900-5

**X-BAND OPTIMIZED BANDWIDTH**

**8100 - 8925 MHz**

**FEATURES:**

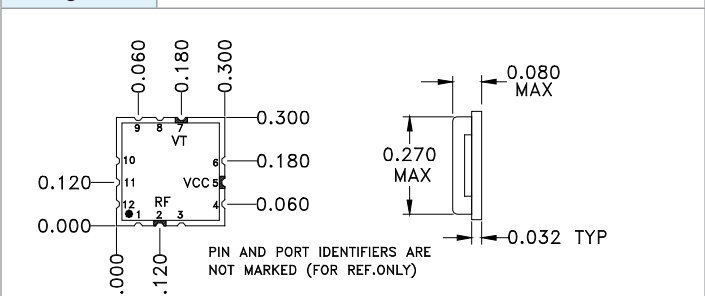
- ▶ Miniature Size, Surface Mount (0.3" x 0.3")
- ▶ Low Phase Noise Performance
- ▶ Fast Tuning
- ▶ Planar Resonator Construction



**SPECIFICATIONS (Rev. A 01/08/09)**

Frequency	8100 - 8925 MHz
Tuning Voltage	See table below.
Bias Voltage	+5 VDC @ 32 mA (Max.)
Output Power	-1 dBm (Min.)
Tuning Sensitivity	50 - 100 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	15 pF (Typ.)
Phase Noise @ 10 kHz	-82 dBc/Hz (Typ.)
Operating Temperature Range	-40 to +85 °C

Package #	364
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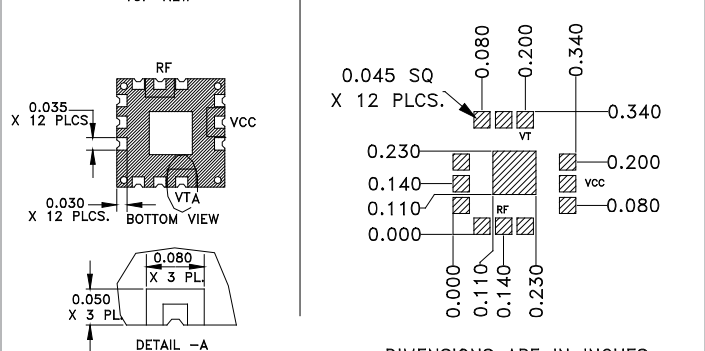
**Guaranteed Tuning Specifications**

Tuning Voltage ( V )	Frequency ( MHz )
0.5	8100 (Max.)
5	8150 (Min.)
8	8425 (Min.)
12	8700 (Min.)
15	8925 (Min.)

**Absolute Maximum Ratings**

Storage Temp. Range	-55 to +125 °C
Bias Voltage	+5.5 V
Tuning Voltage	+16 V
DC Voltage Applied to RF Out	± 25 V

**RECOMMENDED PCB LAYOUT**



TOLERANCES ON THREE DECIMAL PLACES = ± 0.015  
 PACKAGE MOUNTING: SEE APPLICATION NOTE AN7300

This product is manufactured under one or more of the following patents. Approved: 5,160,810; 5,122,621; 5,390,349; 5,416,449; 5,650,754; 5,805,431; 6,525,623; 6,850,575; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113; 7,365,612; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 7,580,693; 7,886,381; 7,605,670; 7,536,021; 2,533,623  
 Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/563481; 60/564173; 60/588090; 60/601823; 60/605791; EV/31369834; 11/259766; 60/622485 & 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 2,563,174; 7,580,693; 7,612,296; 2,524,751

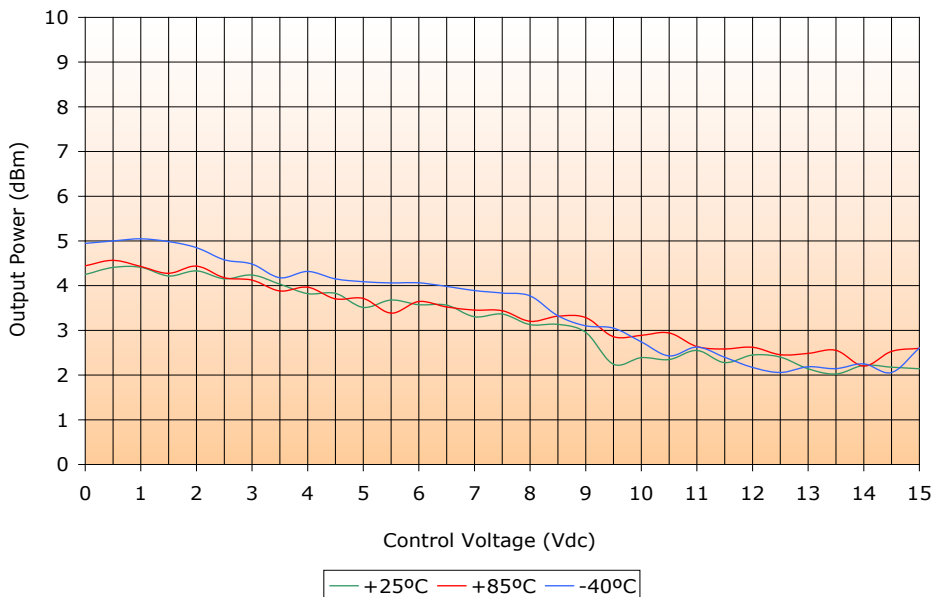
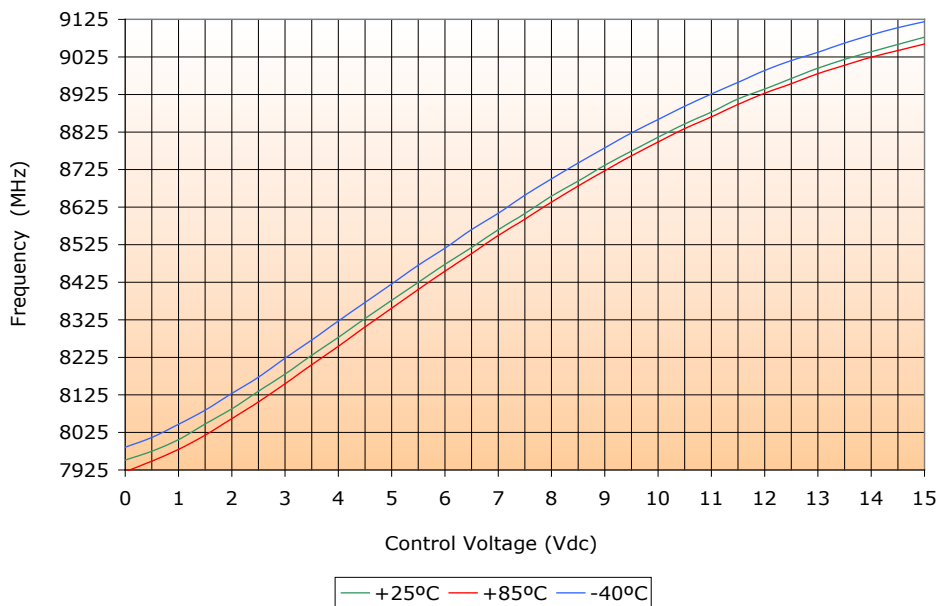
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 201 McLean Boulevard • Paterson, New Jersey 07504 USA • Tel: (973) 881-8800 • Fax: (973) 881-8361  
 E-Mail: sales@synergymwave.com • World Wide Web: <http://www.synergymwave.com>



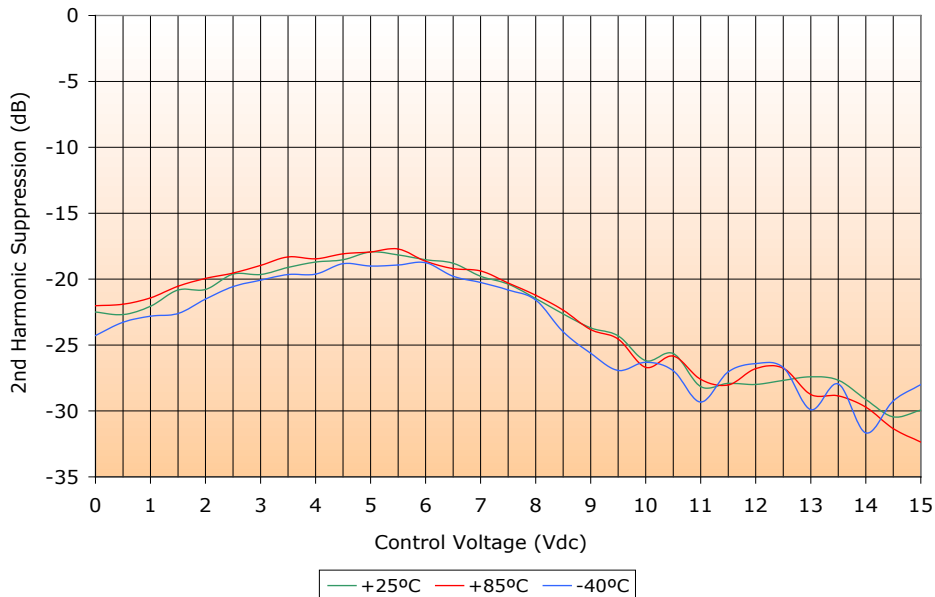
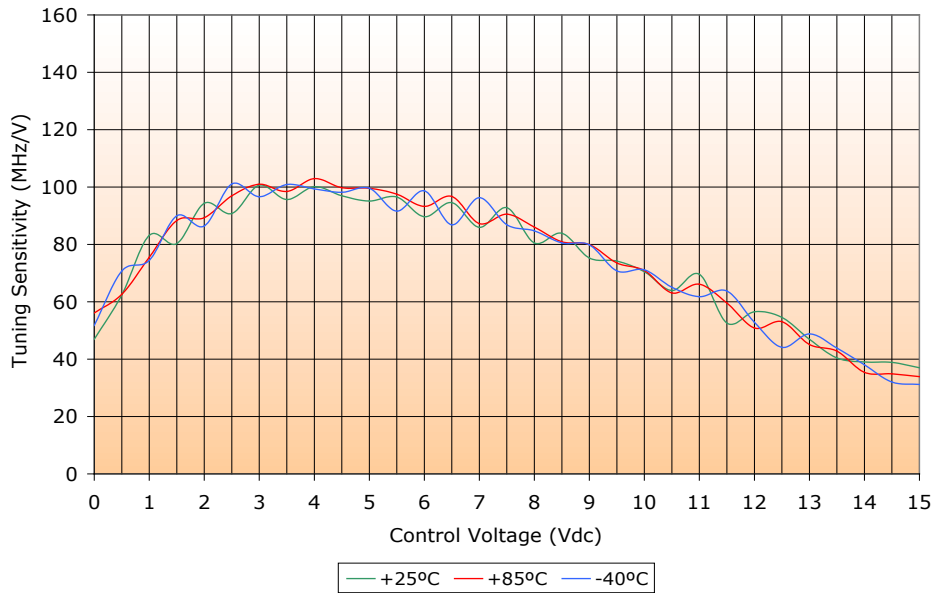
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