# VOLTAGE CONTROLLED OSCILLATOR
# SURFACE MOUNT MODEL: MFC4248-8

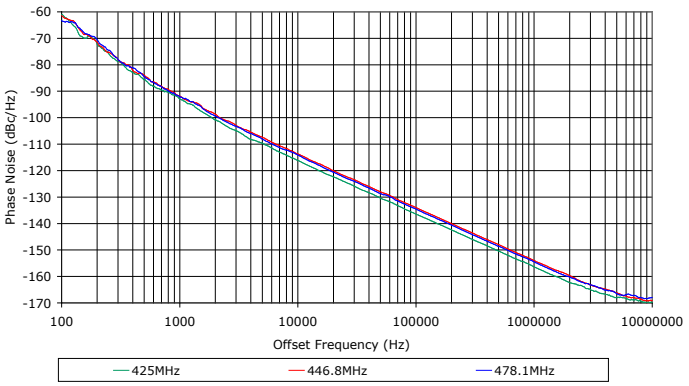
## OPTIMIZED BANDWIDTH 425 - 480 MHz

***FEATURES:***

- **Low Phase Noise Performance**
- **Fast Tuning**
- **Ideal for PLL Applications**
- **Small Size, Surface Mount**
- **Lead Free Patented REL-PRO® Technology**

RoHS COMPLIANT

### Phase Noise




## SPECIFICATIONS (Rev. B 11/04/08)

| | |
|---|---|
| **Frequency** | 425 - 480 MHz |
| **Tuning Voltage (Full Band)** | See table below. |
| **Bias Voltage** | +8 VDC @ 20 mA (Max.) |
| **Output Power** | +5 dBm (Min.) |
| **Tuning Sensitivity** | 6 - 8 MHz/V (Typ.) |
| **Output Impedance** | 50 Ohms (Nom.) |
| **Harmonic Suppression** | 18 dB (Typ.) |
| **Frequency Pulling** | 5 MHz (Typ @ 1.75:1 VSWR) |
| **Frequency Pushing** | 5 MHz/V (Typ.) |
| **Tuning Port Capacitance** | 65 pF (Typ.) |
| **Phase Noise @ 10 kHz** | -115 dBc/Hz (Typ.) |
| **Operating Temperature Range** | -40 to 85 °C |

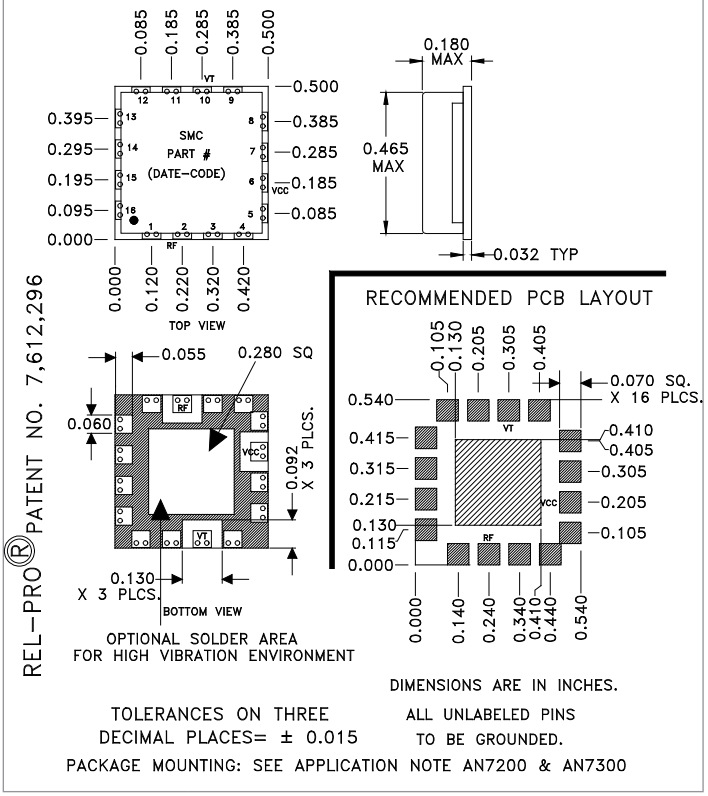
### Guaranteed Tuning Specifications

| Tuning Voltage ( V ) | Frequency ( MHz ) |
|---|---|
| 0.5 | 425 (Max) |
| 5 | 440 (Min) |
| 10 | 470 (Min) |
| 12 | 480 (Min) |

### Absolute Maximum Ratings

| | |
|---|---|
| **Storage Temp. Range** | -55 to +125 ºC |
| **Bias Voltage** | +8.5 V |
| **Tuning Voltage** | +15 V |
| **DC Voltage Applied to RF Out** | ± 25 V |

**Package #** 278LF



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SYNERGY® MICROWAVE CORPORATION

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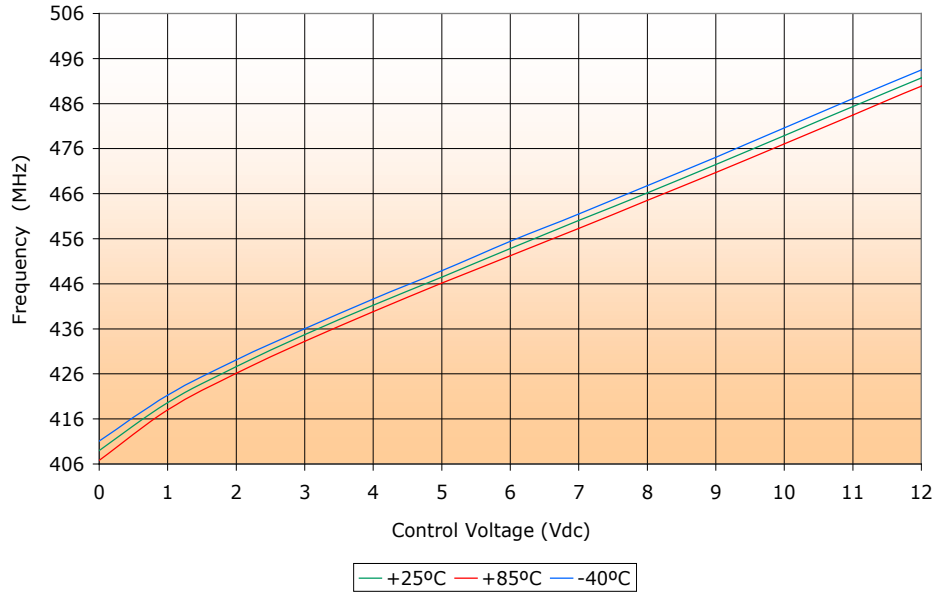
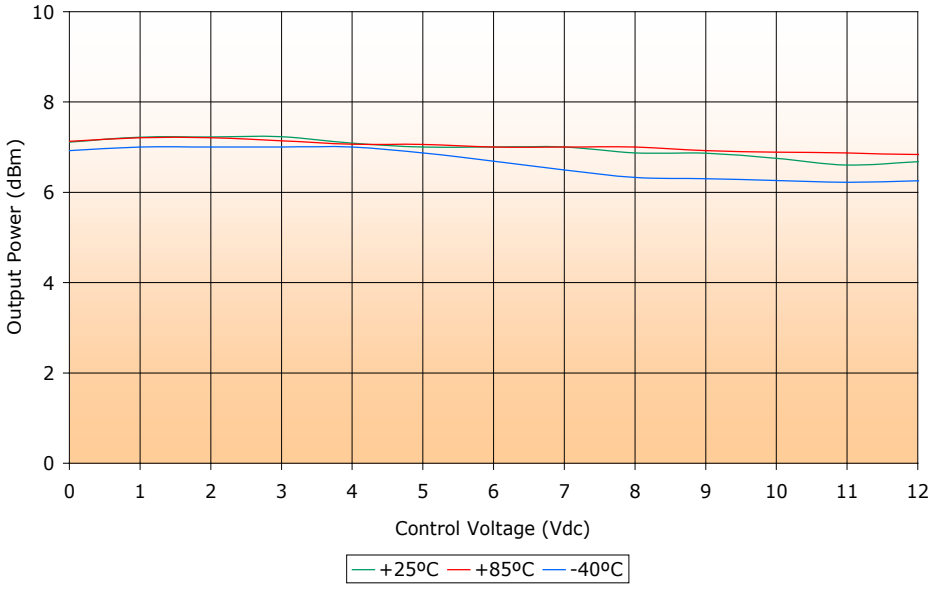
PERFORMANCE PLOTS



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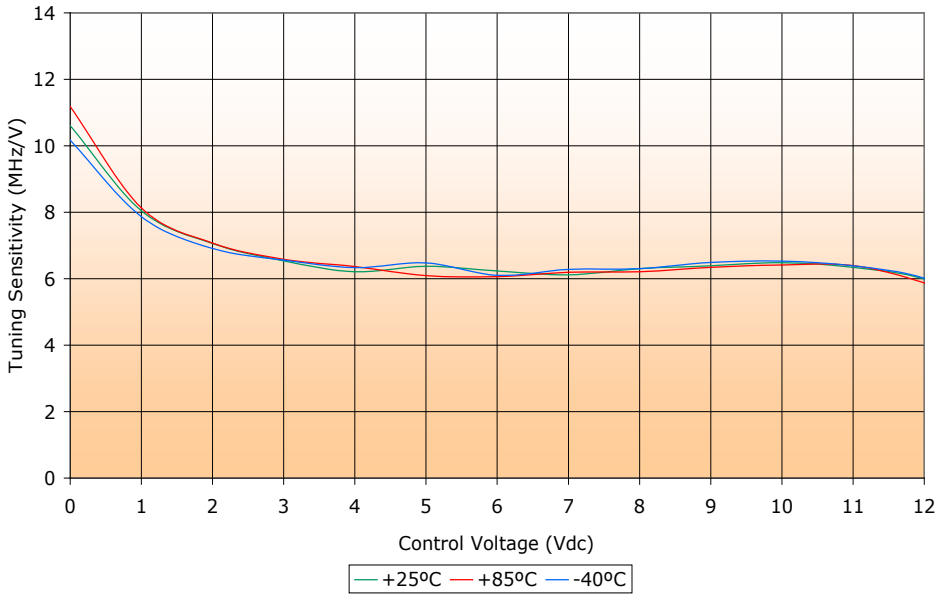


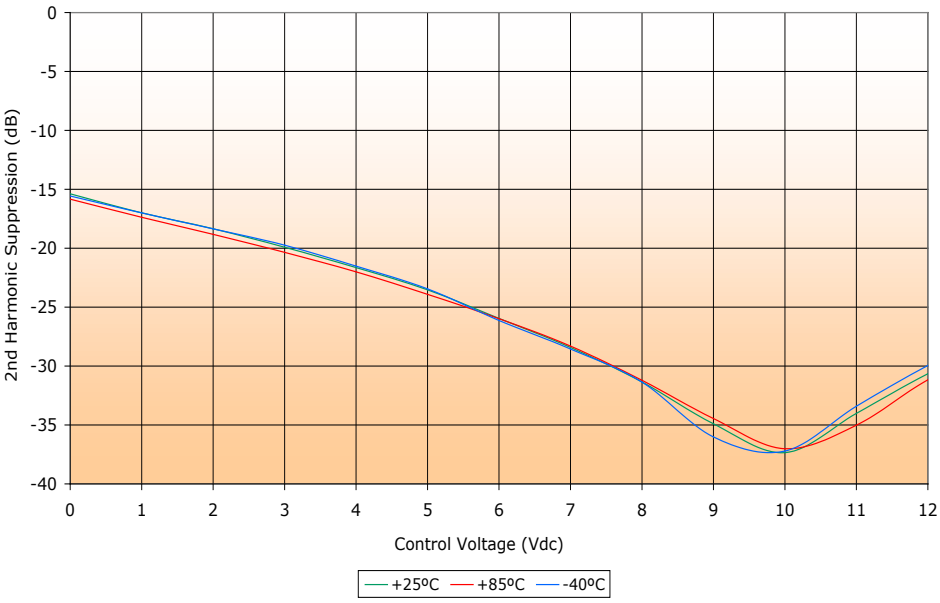




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