

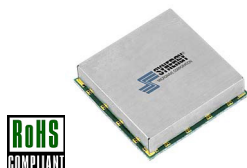
# VOLTAGE CONTROLLED SAW OSCILLATOR

## SURFACE MOUNT MODEL: HFSO1000-5H

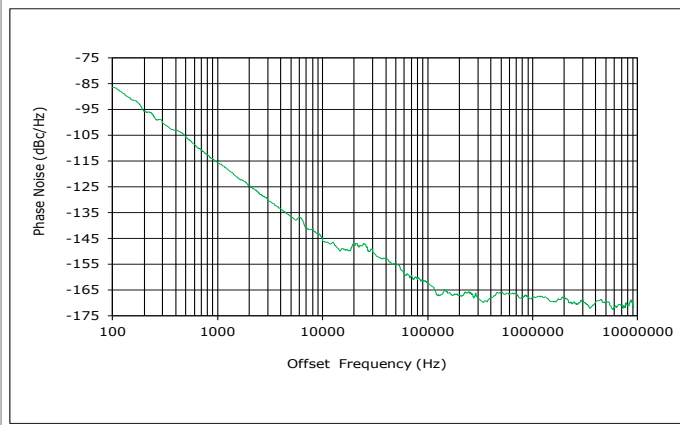
1000 MHz

### FEATURES:

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



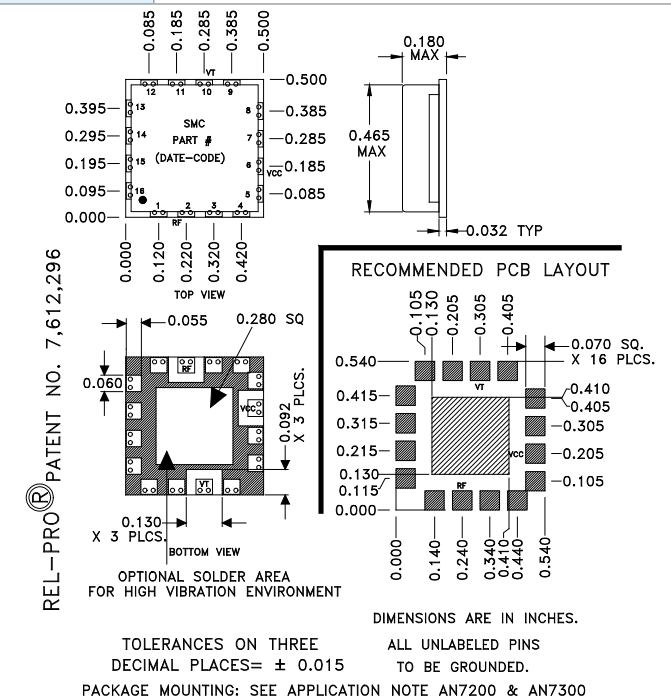
### Phase Noise



### SPECIFICATIONS (Rev. A 06/25/14)

|                             |                             |               |
|-----------------------------|-----------------------------|---------------|
| Frequency                   | 1000 MHz                    |               |
| Tuning Voltage              | 0.5 - 12 VDC                |               |
| Bias Voltage                | +5 VDC (±5%) @ 35 mA (Max.) |               |
| Output Power                | +2 dBm (Min.)               |               |
| Tuning Sensitivity          | 20 kHz/V (Typ.)             |               |
| Thermal Drift               | 110 kHz (Typ.)              |               |
| Output Impedance            | 50 Ohms (Nom.)              |               |
| Harmonic Suppression        |                             | dBc (Typ.)    |
|                             | 2nd                         | 35            |
|                             | 3rd                         | 25            |
| Frequency Pulling           | 10 kHz (Typ. @ 1.75:1 VSWR) |               |
| Frequency Pushing           | 20 kHz/V (Typ.) Vcc ±5%     |               |
| Tuning Port Capacitance     | 130 pF (Typ.)               |               |
| Phase Noise @ 25 °C         | Offset                      | dBc/Hz (Typ.) |
|                             | @ 10 kHz                    | -144          |
|                             | @ 100 kHz                   | -162          |
| Operating Temperature Range | -20 to +70 °C               |               |

Package # 278LF



### Absolute Maximum Ratings

|                              |               |
|------------------------------|---------------|
| Storage Temp. Range          | -30 to +85 °C |
| Bias Voltage                 | +5.5 V        |
| Tuning Voltage               | +15 V         |
| DC Voltage Applied to RF Out | ± 25 V        |

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

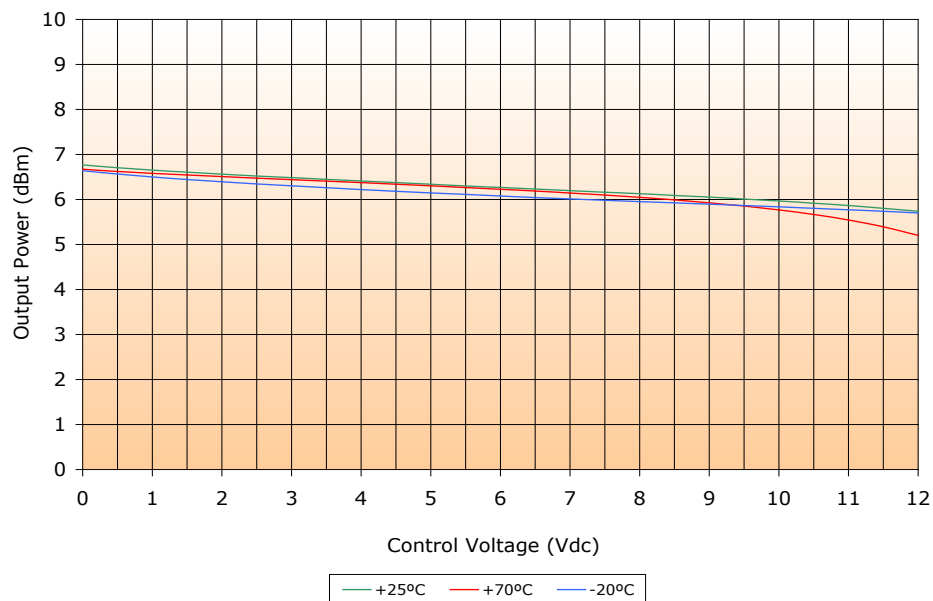
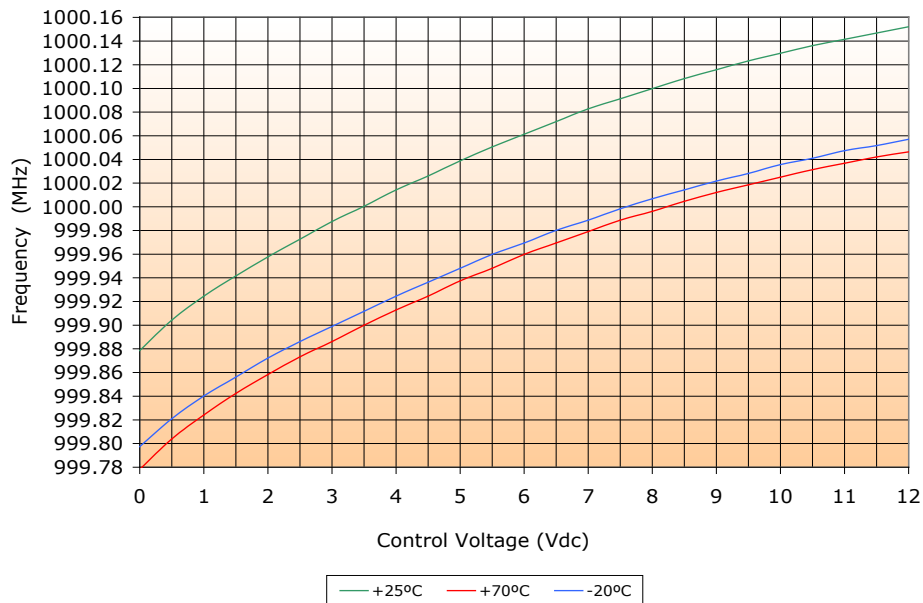
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1000 MHz

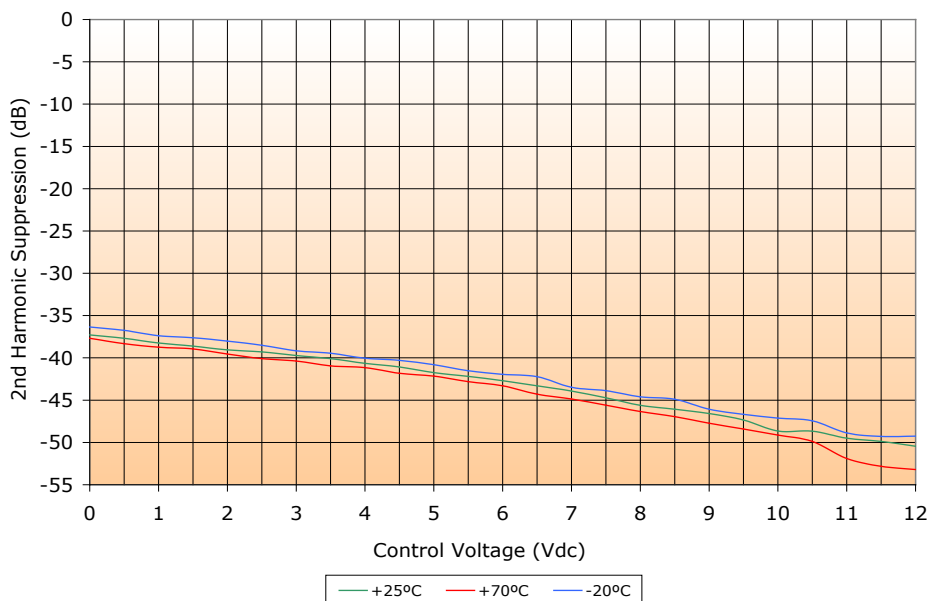
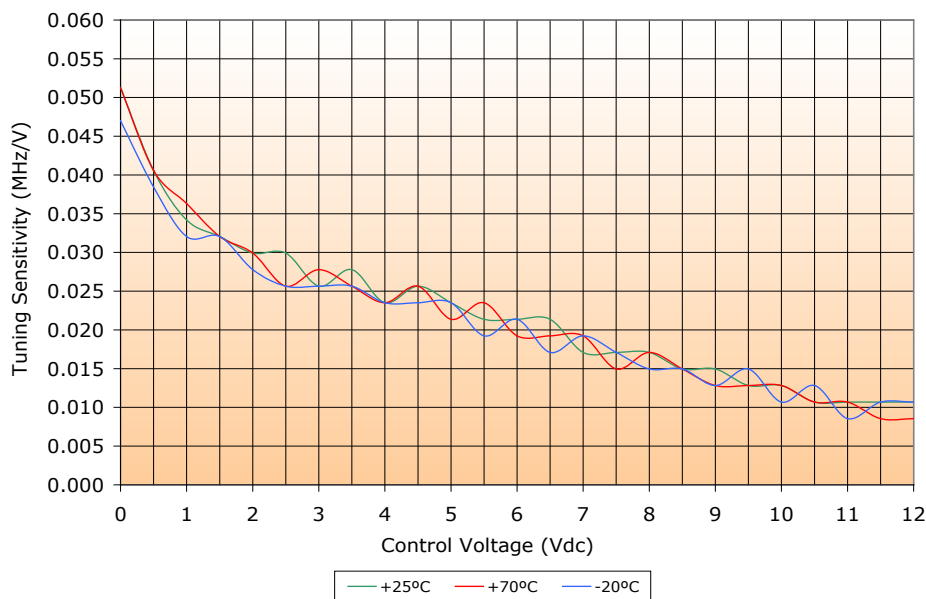
PERFORMANCE PLOTS



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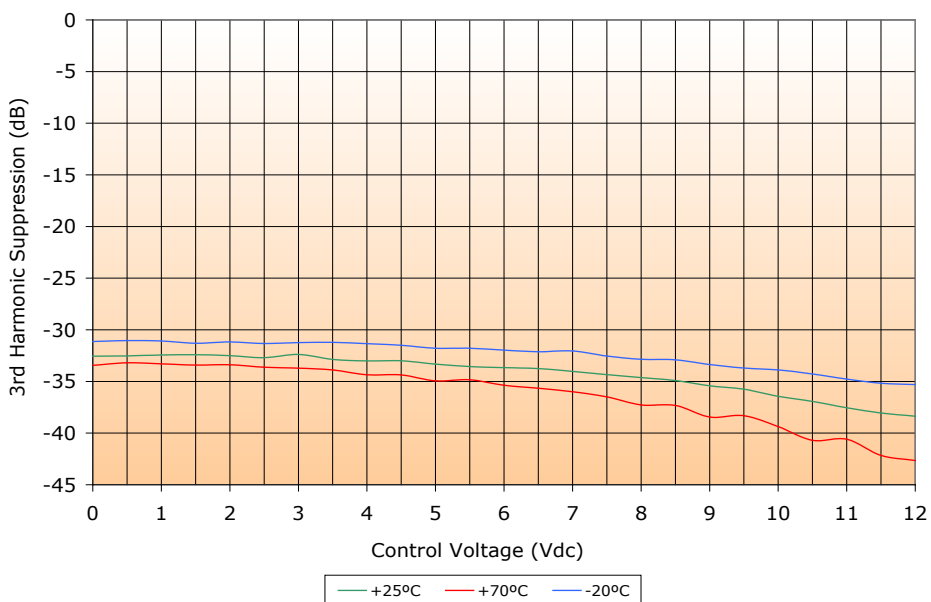
1000 MHz

PERFORMANCE PLOTS



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1000 MHz



PERFORMANCE PLOTS