

# VOLTAGE CONTROLLED OSCILLATOR

## SURFACE MOUNT MODEL: DCSR4500-10

### OPTIMIZED BANDWIDTH

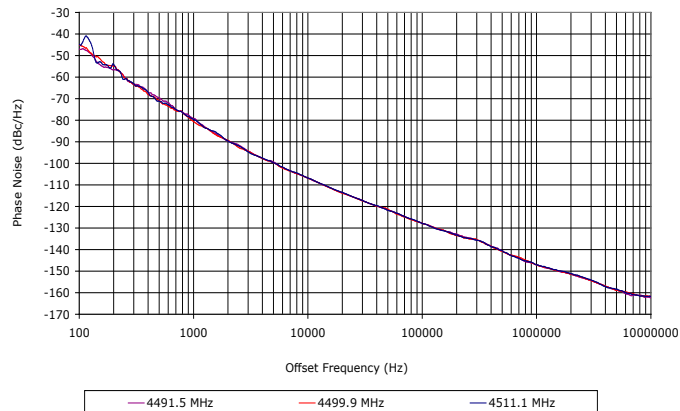
### 4500 MHz

#### FEATURES:

- ▶ Optimized Tuning Frequency Band
- ▶ Exceptional Phase Noise Performance
- ▶ Small Size, Surface Mount
- ▶ Lead Free Patented REL-PRO® Technology
- ▶ Planar Resonator Construction



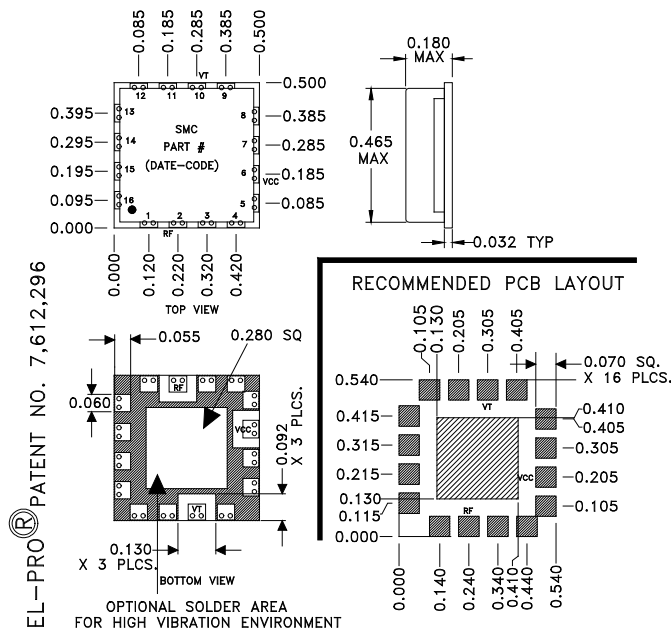
#### Phase Noise



#### SPECIFICATIONS (Rev. B 09/11/08)

|                             |                            |
|-----------------------------|----------------------------|
| Frequency                   | 4500 MHz                   |
| Tuning Voltage              | 0.5 - 10 VDC               |
| Bias Voltage                | +10 VDC @ 42 mA (Max.)     |
| Output Power                | +6 dBm (Min.)              |
| Tuning Sensitivity          | 4 - 6 MHz/V (Typ.)         |
| Output Impedance            | 50 Ohms (Nom.)             |
| Harmonic Suppression        | 17 dB (Typ.)               |
| Frequency Pulling           | 5 MHz (Typ. @ 1.75:1 VSWR) |
| Frequency Pushing           | 2 MHz/V (Typ.)             |
| Tuning Port Capacitance     | 42 pF (Typ.)               |
| Phase Noise @ 10 kHz        | -107 dBc/Hz (Typ.)         |
| Operating Temperature Range | -40 to +85 °C              |

Package # 278LF



TOLERANCES ON THREE DECIMAL PLACES= ± 0.015  
 PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200 & AN7300

#### Absolute Maximum Ratings

|                              |                |
|------------------------------|----------------|
| Storage Temp. Range          | -55 to +125 °C |
| Bias Voltage                 | +10.5 V        |
| Tuning Voltage               | +12 V          |
| DC Voltage Applied to RF Out | ± 25 V         |

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; 7,586,381; 7,605,670; 7,636,021; 2,533,623 | Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; EV31369834; 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

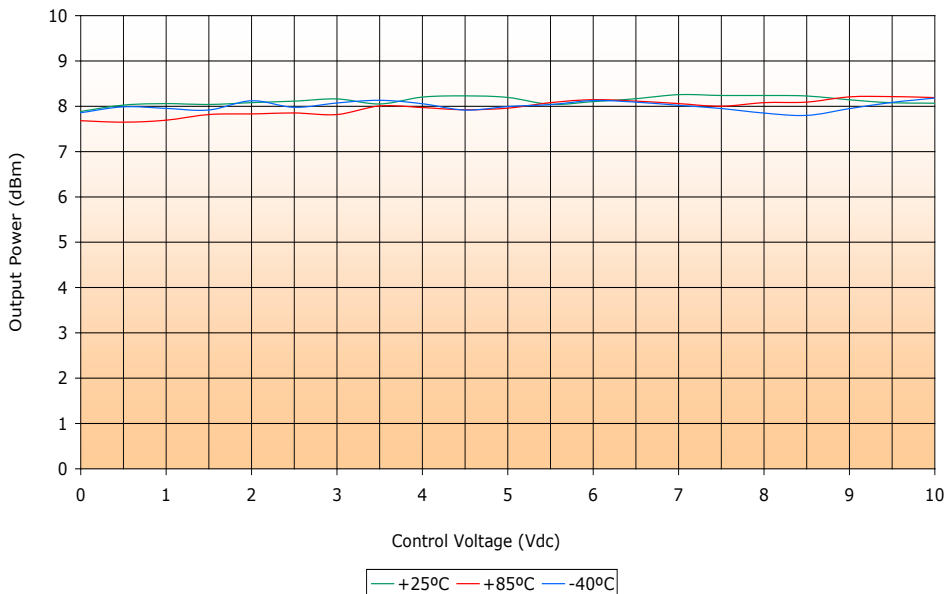
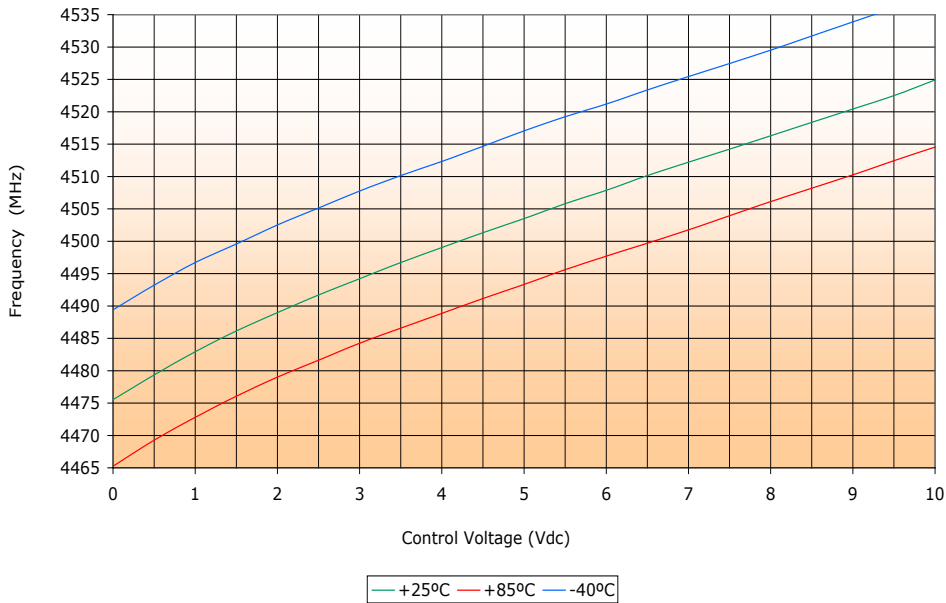
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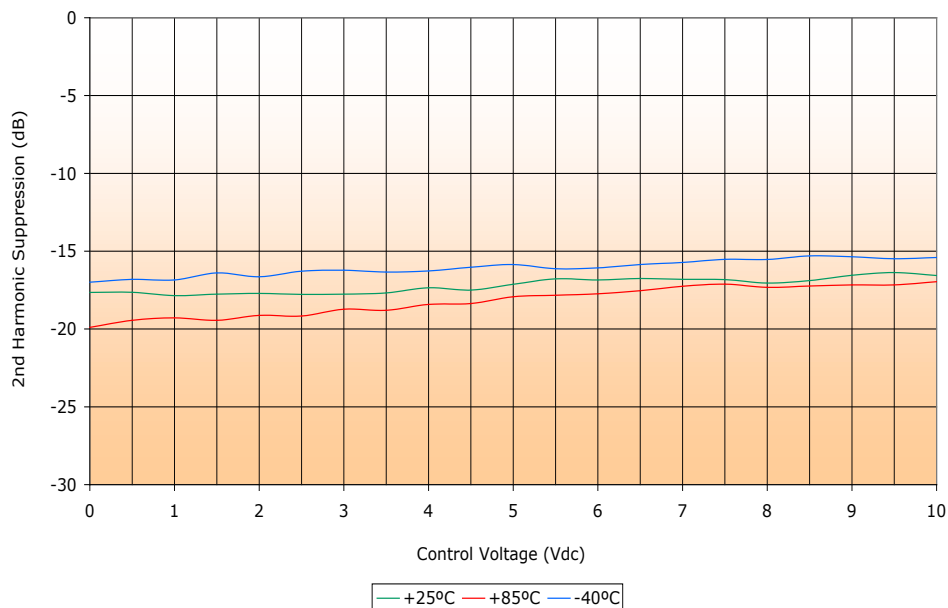
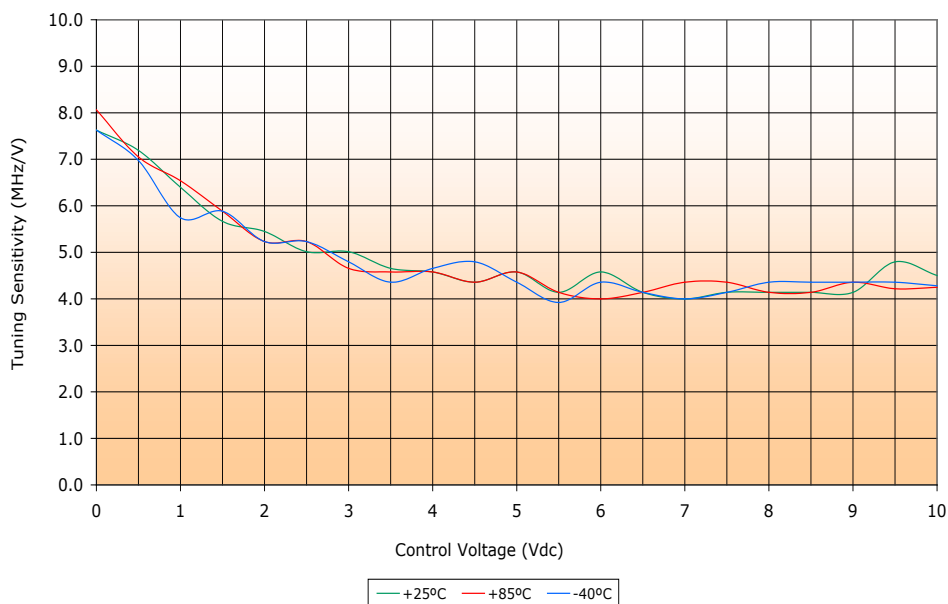
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 201 McLean Boulevard • Paterson, New Jersey 07504 USA • Tel: (973) 881-8800 • Fax: (973) 881-8361  
 E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com

