

VOLTAGE CONTROLLED OSCILLATOR

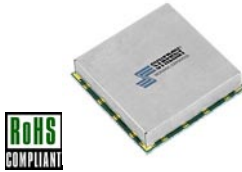
SURFACE MOUNT MODEL: DCYS100200-12

YIG Replacement Series

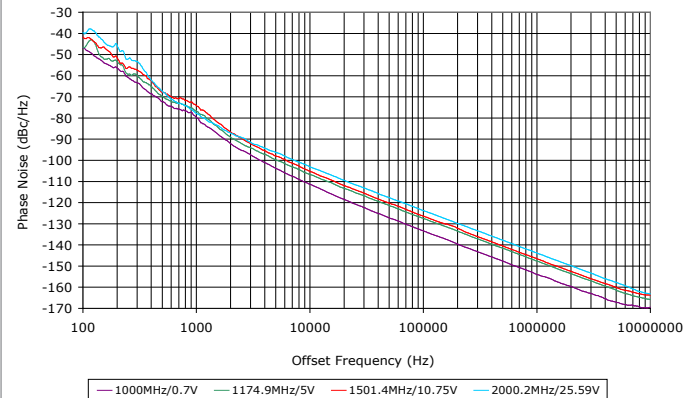
1000 - 2000 MHz

FEATURES:

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



Phase Noise



SPECIFICATIONS (Rev. B 07/03/07)

| | |
|-----------------------------|----------------------------|
| Frequency | 1000 - 2000 MHz |
| Tuning Voltage (Full Band) | See table below. |
| Bias Voltage | +12 VDC @ 40 mA (Max.) |
| Output Power | +4 dBm (Min.) |
| Tuning Sensitivity | 12 - 60 MHz/V (Typ.) |
| Output Impedance | 50 Ohms (Nom.) |
| Harmonic Suppression | 20 dB (Typ.) |
| Frequency Pulling | 5 MHz (Typ. @ 1.75:1 VSWR) |
| Frequency Pushing | 5 MHz/V (Typ.) |
| Tuning Port Capacitance | 90 pF |
| Phase Noise @ 10 kHz | -105 dBc/Hz (Typ.) |
| Operating Temperature Range | -40 to +85 °C |

Guaranteed Tuning Specifications

| Tuning Voltage (V) | Frequency (MHz) |
|----------------------|-------------------|
| 0.5 | 1000 (Max) |
| 5 | 1100 (Min) |
| 8 | 1250 (Min) |
| 12 | 1500 (Min) |
| 15 | 1650 (Min) |
| 18 | 1750 (Min) |
| 24 | 1850 (Min) |
| 28 | 2000 (Min) |

Absolute Maximum Ratings

| | |
|------------------------------|----------------|
| Storage Temp. Range | -55 to +125 °C |
| Bias Voltage | +12.5 V |
| Tuning Voltage | +30 V |
| DC Voltage Applied to RF Out | ± 25 V |

Package # 278LF

RECOMMENDED PCB LAYOUT

OPTIONAL SOLDER AREA FOR HIGH VIBRATION ENVIRONMENT DIMENSIONS ARE IN INCHES.

TOLERANCES ON THREE DECIMAL PLACES= ± 0.015 ALL UNLABELED PINS TO BE GROUNDED.

PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200

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; 7,262,870; 7,265,642; 7,292,113
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



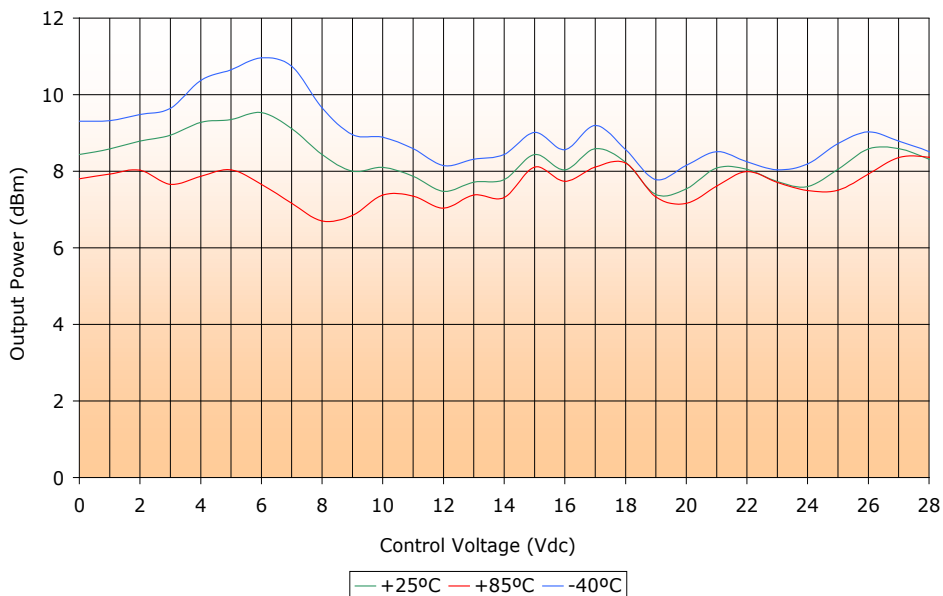
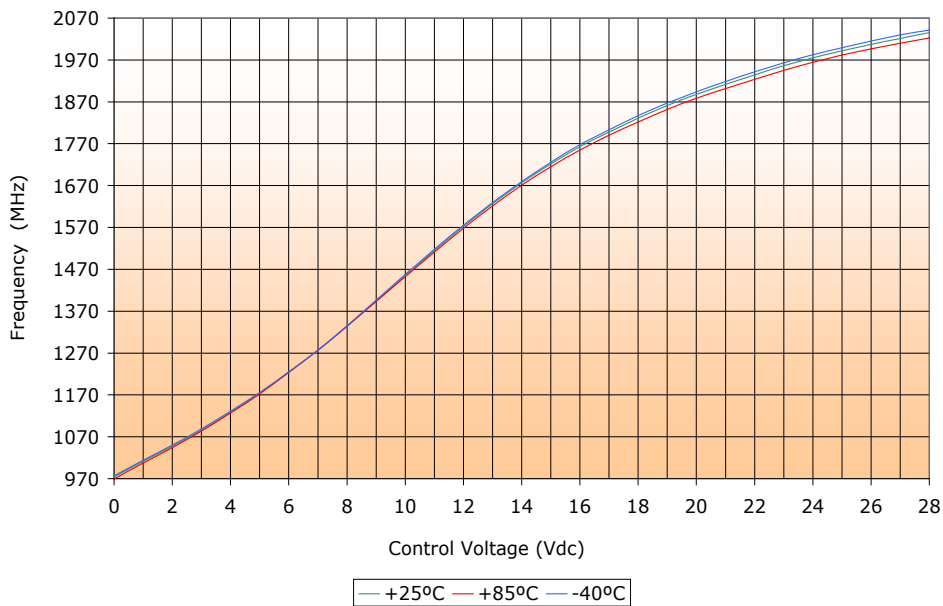
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YIG Replacement Series

1000 - 2000 MHz

PERFORMANCE PLOTS



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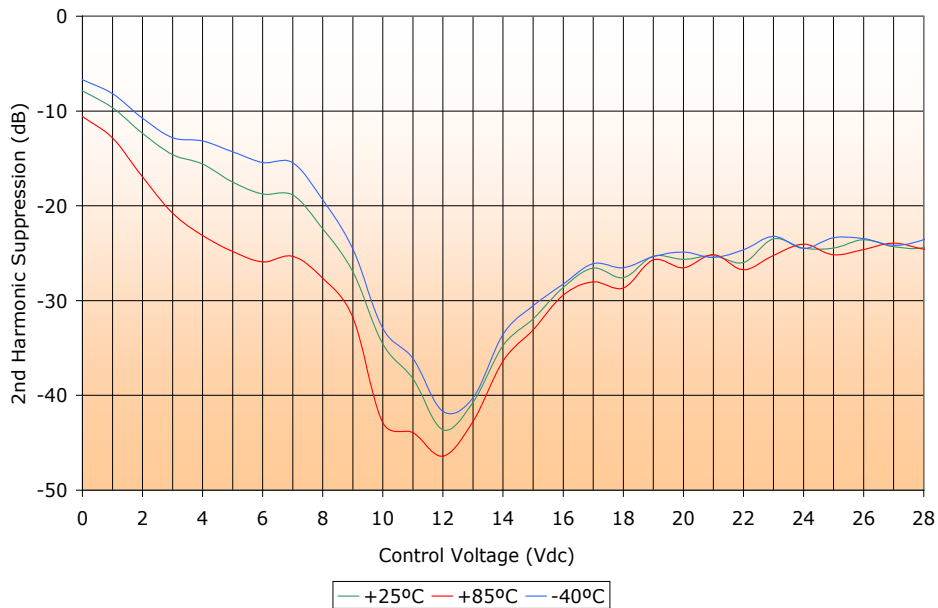
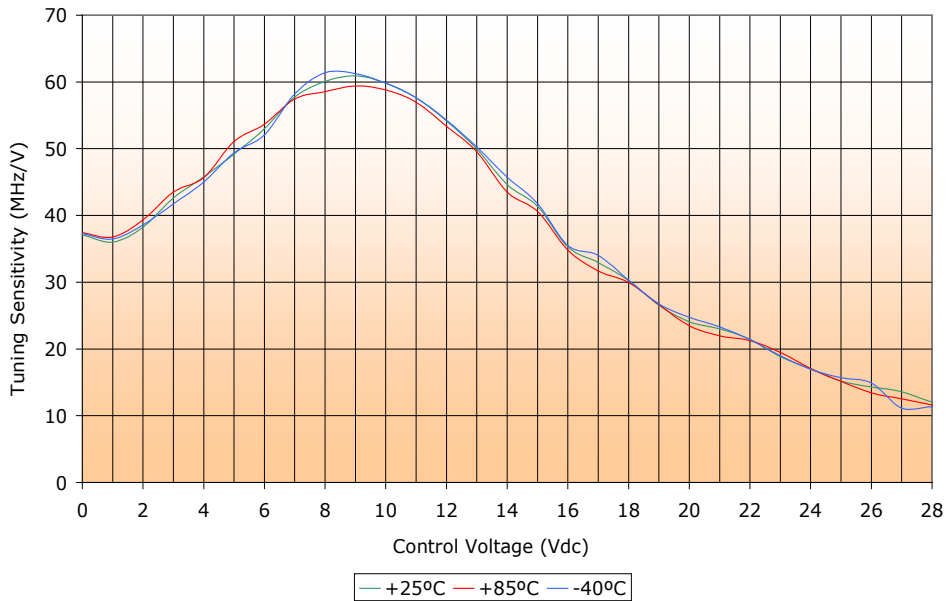


VOLTAGE CONTROLLED OSCILLATOR SURFACE MOUNT MODEL: DCYS100200-12

YIG Replacement Series

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