

VOLTAGE CONTROLLED OSCILLATOR

SURFACE MOUNT MODEL: DCO170340-5

OPTIMIZED BANDWIDTH

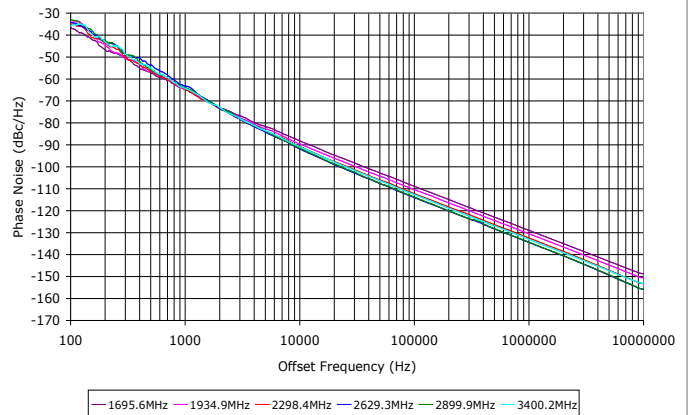
1700 - 3400 MHz

FEATURES:

- ▶ Exceptional Phase Noise Performance
- ▶ Fast Tuning
- ▶ Small Size, Surface Mount



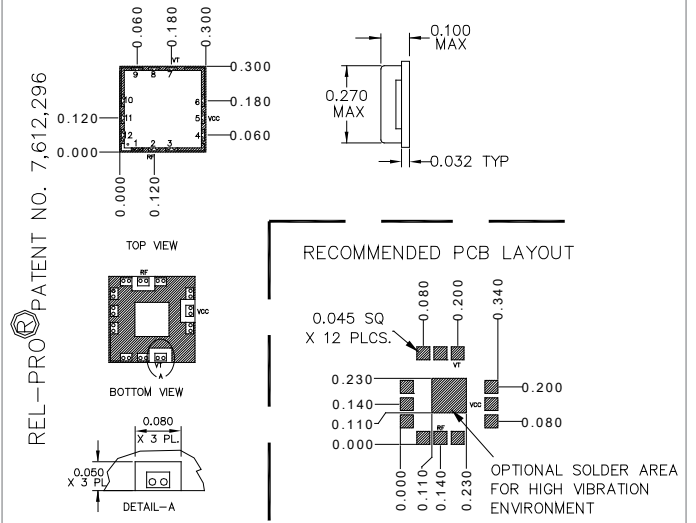
Phase Noise



SPECIFICATIONS (Rev D 03/04/20)

| Frequency | 1700 - 3400 MHz | | | | | | |
|-----------------------------|--|--------|--------|--------|-----|---------|------|
| Tuning Voltage | See table below. | | | | | | |
| Bias Voltage | +5 VDC @ 35 mA (Max.) | | | | | | |
| Output Power | 3.5 dBm (Min.) | | | | | | |
| Tuning Sensitivity | 45 - 130 MHz/V (Typ.) | | | | | | |
| Output Impedance | 50 Ohms (Nom.) | | | | | | |
| Harmonic Suppression | 15 dB (Typ.) | | | | | | |
| Frequency Pulling | 15 MHz (Typ. @ 1.75:1 VSWR) | | | | | | |
| Frequency Pushing | 8 MHz/V (Typ.) | | | | | | |
| Tuning Port Capacitance | 72 pF (Typ.) | | | | | | |
| Typical Phase Noise | <table border="1"> <tr> <th>Offset</th> <th>dBc/Hz</th> </tr> <tr> <td>10 kHz</td> <td>-90</td> </tr> <tr> <td>100 kHz</td> <td>-112</td> </tr> </table> | Offset | dBc/Hz | 10 kHz | -90 | 100 kHz | -112 |
| | Offset | dBc/Hz | | | | | |
| | 10 kHz | -90 | | | | | |
| 100 kHz | -112 | | | | | | |
| Operating Temperature Range | -40 to +85 °C | | | | | | |

Package # 364LF



PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200 AND AN7302
 TOLERANCES ON THREE DECIMAL PLACES= ± 0.015
 DIMENSIONS ARE IN INCHES.
 ALL UNLABELED PINS TO BE GROUNDING.

Guaranteed Tuning Specifications

| Tuning Voltage (V) | Frequency (MHz) |
|----------------------|-------------------|
| 0.5 | 1700 (Max.) |
| 5 | 1880 (Min.) |
| 8 | 2230 (Min.) |
| 12 | 2660 (Min.) |
| 15 | 2940 (Min.) |
| 18 | 3150 (Min.) |
| 24 | 3400 (Min.) |

Absolute Maximum Ratings

| | |
|------------------------------|----------------|
| Storage Temp. Range | -55 to +125 °C |
| Bias Voltage | +5.5 V |
| Tuning Voltage | +28 V |
| DC Voltage Applied to RF Out | ± 25 V |

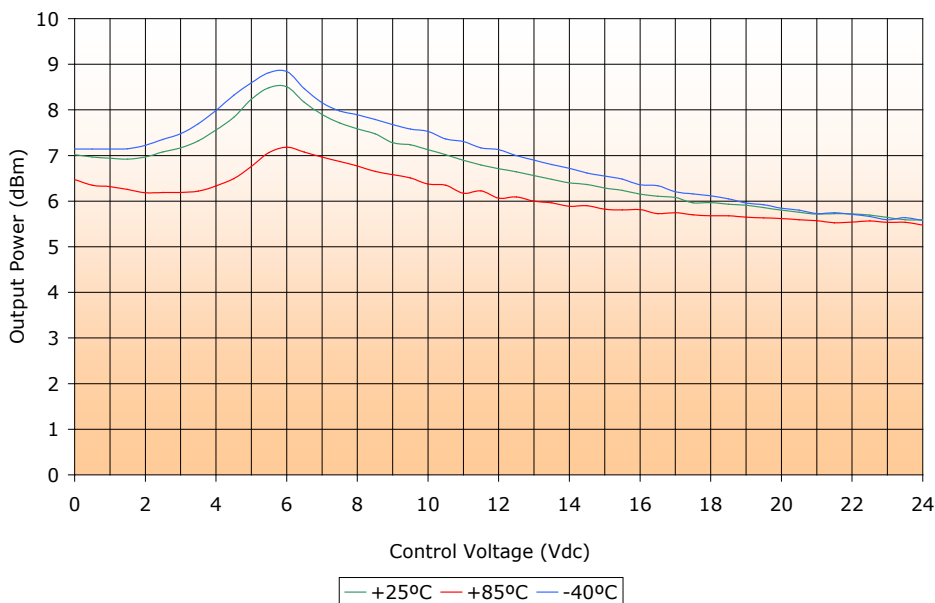
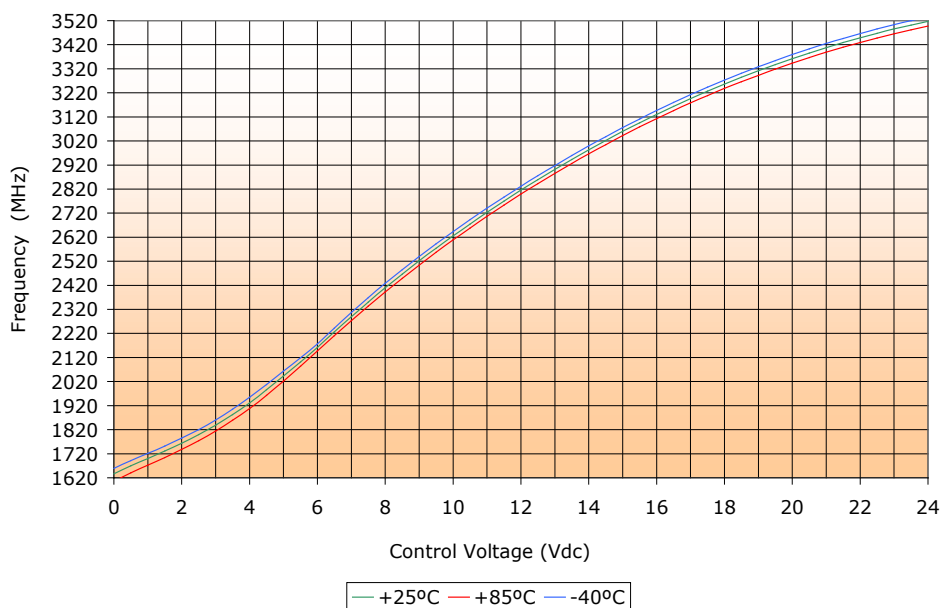
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