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

SPECIFICATIONS (Rev. C 09/01/20)

Frequency | 1600 MHz
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Tuning Voltage | 0.5 - 12 VDC
Bias Voltage (Vcc) | +5 VDC (± 5%) @ 100 mA (Max.)
Output Power | +14 dBm (Min.)
Tuning Sensitivity | 38 kHz/V (Typ.)
Thermal Drift | 170 kHz (Typ.)
Output Impedance | 50 Ohms (Nom.)

Harmonic Suppression

<table>
<thead>
<tr>
<th>Harmonic</th>
<th>dBC (Typ.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>23</td>
</tr>
<tr>
<td>3rd</td>
<td>18</td>
</tr>
</tbody>
</table>

Sub-Harmonic Suppression | 23 dBC (Typ.)
Frequency Pulling | 15 kHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing | 20 kHz/V (Typ.) Vcc ±5%
Tuning Port Capacitance | 75 pF (Typ.)

Phase Noise @ 25 °C

<table>
<thead>
<tr>
<th>Offset</th>
<th>dBC/Hz (Typ.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 kHz</td>
<td>-137</td>
</tr>
<tr>
<td>@ 100 kHz</td>
<td>-161</td>
</tr>
</tbody>
</table>

Operating Temperature Range | -20 to +70 °C

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 |

Package #: 320-2LF

VOLTAGE CONTROLLED SAW OSCILLATOR
SURFACE MOUNT MODEL: HFSO1600-5

PERFORMANCE PLOTS

Tuning Sensitivity (MHz/V) vs. Control Voltage (Vdc)

2nd Harmonic Suppression (dB) vs. Control Voltage (Vdc)
VOLTAGE CONTROLLED SAW OSCILLATOR
SURFACE MOUNT MODEL: HFSO1600-5

3rd Harmonic Suppression (dB)

Control Voltage (Vdc)

Performance plots for the HFSO1600-5 SAW Oscillator showing 3rd Harmonic Suppression over a range of control voltages and temperatures (+25ºC, +70ºC, -20ºC).