VOLTAGE CONTROLLED SAW OSCILLATOR
SURFACE MOUNT MODEL: HFSO1200-5

1200 MHz

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

SPECIFICATIONS

Frequency
1200 MHz
Tuning Voltage
0.5 - 12 VDC
Bias Voltage
+5 VDC @ 100 mA (Max.)
Output Power
+11 dBm (±2 dB)
Tuning Sensitivity
50 kHz/V (Typ.)
Thermal Drift
200 kHz (Typ.)
Output Impedance
50 Ohms (Nom.)

Harmonic Suppression
<table>
<thead>
<tr>
<th></th>
<th>2nd</th>
<th>3rd</th>
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</thead>
<tbody>
<tr>
<td>dBc</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

Sub-harmonic Suppression
20 dBc (Typ.)

Frequency Pulling
10 kHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing
15 kHz/V (Typ.) Vcc ±5%

Tuning Port Capacitance
140 pF (Typ.)

Phase Noise @ 25 ºC
<table>
<thead>
<tr>
<th>Offset</th>
<th>dBC/Hz (Typ.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 kHz</td>
<td>-142</td>
</tr>
<tr>
<td>100 kHz</td>
<td>-164</td>
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Operating Temperature Range
-20 to +70 ºC

Absolute Maximum Ratings

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<table>
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<tbody>
<tr>
<td>Storage Temp. Range</td>
<td>-40 to +85 ºC</td>
</tr>
<tr>
<td>Bias Voltage</td>
<td>+5.5 V</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>+15 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>± 25 V</td>
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</tbody>
</table>
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PERFORMANCE PLOTS

Frequency (MHz)

Control Voltage (Vdc)

+25ºC   +70ºC   -20ºC

Output Power (dBm)

Control Voltage (Vdc)

+25ºC   +70ºC   -20ºC
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PERFORMANCE PLOTS

Control Voltage (Vdc)

3rd Harmonic Suppression (dB)

+25ºC
+70ºC
-20ºC