SUPPLYING HIGH PERFORMANCE, INNOVATIVE AND SOPHISTICATED RF, MICROWAVE, MILLIMETER WAVE COMPONENTS AND INTEGRATED ASSEMBLIES WORLDWIDE.

FEATURES
- Frequencies from 3 GHz to 45 GHz
- Wide operating temperature
- Ultra low phase noise
- Low power consumption
- Field adjustable tuning

OPTIONS
- Electronic tuning
- Mechanical tuning

TYPICAL PHASE NOISE
External reference models

<table>
<thead>
<tr>
<th>Offset kHz</th>
<th>10 GHz</th>
<th>26 GHz</th>
<th>40 GHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>-80</td>
<td>-70</td>
<td>-65</td>
</tr>
<tr>
<td>100</td>
<td>-115</td>
<td>-100</td>
<td>-95</td>
</tr>
<tr>
<td>1000</td>
<td>-140</td>
<td>-120</td>
<td>-117</td>
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DESCRIPTION
The Ultra Electronics Herley series DRO of free running dielectric resonator oscillators cover the frequency range of 3 GHz to 45 GHz. The DRO series has been designed for use in commercial and military systems where demanding performance, high reliability and cost are critical. This family of products takes advantage of small size, low phase noise transistors and a high Q dielectric resonator. In addition, the series DRO can be customized and screened to meet the demanding electrical performance and environmental requirements for military airborne, radar and communications applications. The ultra low phase noise, high output power and low cost make the Ultra Electronics Herley DRO product line the best value on the market today.
Typical performance specifications

- Fixed frequencies from 3 GHz to 45 GHz
- Output power +13 dBm
- Electronic tuning up to 0.25%
- Mechanical tuning up to 2%
- Output impedance 50 ohms
- Load VSWR 1.5:1
- Spurious -80 dBc
- Harmonics -25 dBc
- Frequency pulling
  - ±3 MHz 3 to 8 GHz
  - ±5 MHz 8 to 12 GHz
  - ±7 MHz 12 to 18 GHz
  - ±10 MHz 18 to 45 GHz
- Frequency pushing
  - ±20 kHz/volt 3 to 8 GHz
  - ±30 kHz/volt 8 to 12 GHz
  - ±40 kHz/volt 12 to 18 GHz
  - ±50 kHz/volt 18 to 45 GHz
- Tuning voltage range +1 Vdc to +12 Vdc
- Maximum tuning rate 12 MHz
- Frequency stability 5 ppm / °C

Connectors

- RF output SMA-F, for frequencies above 26 GHz 2.92 mm
- Electronic tuning feed-thru
- Mechanical tuning screw driver adjustment
- Supply voltage Feed-thru
- Ground solder lug

Power and environmental

- Supply voltage +12 to +15 VDC
- Current 125 mA
- Operating temperature -40° to +75° centigrade

Making a difference

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Ultra Electronics reserves the right to vary these specifications without notice.
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