Dielectric Resonator Oscillators

**FEATURES**
- Internal voltage regulated
- Excellent frequency stability
- Low phase noise
- Low cost and reliable construction

**APPLICATIONS**
- Communication systems
- Radar systems
- Frequency reference
- Local oscillators

**DESCRIPTION**

**OFD** series dielectric resonator stabilized oscillators cover the frequency range of 5 to 26.5 GHz. The oscillators utilize state of the art MIC and FET devices technology to provide highly stable, reliable and clean signal sources. Each oscillator has an internal voltage regulator to provide regulated bias and over-voltage protection. An internal isolator may be integrated in to improve the anti-load pulling ability. Standard products incorporate a screw tuner with a reliable self-locking feature to provide small mechanical frequency tuning. SMA or K female coaxial connector is equipped for standard RF interface. The electrical tunable dielectric resonator oscillators are offered as non-standard units. Consult factory for technical information regarding this choice.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>8.0 to 13.0 GHz</th>
<th>13.0 to 18.0 GHz</th>
<th>18.0 to 26.5 GHz</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output Power</strong></td>
<td>13 to 23 dBm</td>
<td>13 to 23 dBm</td>
<td>13 to 23 dBm</td>
</tr>
<tr>
<td><strong>Frequency Stability</strong></td>
<td>+/-3 ppm/°C</td>
<td>+/-3 ppm/°C</td>
<td>+/-3 ppm/°C</td>
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<tr>
<td><strong>Phase Noise (Typ)</strong></td>
<td>-70 dBc/Hz @ 1KHz offset</td>
<td>-65dBc/Hz at 1KHz offset</td>
<td>-60dBc/Hz at 1KHz offset</td>
</tr>
<tr>
<td><strong>Harmonic (Max)</strong></td>
<td>-20 dBc</td>
<td>-20 dBc</td>
<td>-20 dBc</td>
</tr>
<tr>
<td><strong>Spurious (Max)</strong></td>
<td>-70 dBc</td>
<td>-60 dBc</td>
<td>-60 dBc</td>
</tr>
<tr>
<td><strong>Bias (V/mA)</strong></td>
<td>+12 Vdc / 50 to 150 mA</td>
<td>+12 Vdc / 100 to 200 mA</td>
<td>+12 Vdc / 100 to 200 mA</td>
</tr>
<tr>
<td><strong>Outline Drawing</strong></td>
<td>Consult Factory</td>
<td>Consult Factory</td>
<td>Consult Factory</td>
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<tr>
<td><strong>Temperature</strong></td>
<td>0 to +50 °C</td>
<td>0 to +50 °C</td>
<td>0 to +50 °C</td>
</tr>
</tbody>
</table>

**HOW TO ORDER**

Specify Model Number

**Example:** To order an DRO with SMA female connector, frequency output 18 GHz, mechanical tuning bandwidth 10 MHz and power output 16 dBm, specify OFD-SF181016-XX.
The flange pattern shown is for illustration purpose. Refer to Technical Reference Section for flange pattern details.
The outline drawings shown are standard versions. Contact factory for your specific package requirements.
Oscillator Outline Drawings #2

WT-G-7

WT-G-8

Dimensions are in inches

WT-G-9

WT-G-10

Dimensions are in inches

WT-G-11

WT-G-12

Dimensions are in inches

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