**K Band Doppler Sensor Head**

**Features**
- High sensitivity
- Low 1/f noise
- Circular polarized waveform
- Low harmonic and spurious emission
- Compact size
- Low cost and volume production
- Temperature and vibration qualified

**Applications**
- Automotive radar
- Directional sensor
- Traffic enforcement radar
- Long range motion detection

**Sensor**

**Electrical Specifications: \( T_c = 25 \pm 5^\circ C \) (Room Ambient)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Frequency</td>
<td></td>
<td>24.15</td>
<td></td>
<td>GHz</td>
</tr>
<tr>
<td>Transmitter Output Power</td>
<td>10</td>
<td></td>
<td></td>
<td>dBm</td>
</tr>
<tr>
<td>Receiver conversion loss</td>
<td>6</td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>IF bandwidth</td>
<td>DC to 100</td>
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<td></td>
<td>MHz</td>
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<tr>
<td>Antenna 3 dB beamwidth</td>
<td>12</td>
<td></td>
<td>-20</td>
<td>degrees</td>
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<tr>
<td>Antenna side lob level</td>
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<td></td>
<td></td>
<td>dB</td>
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<tr>
<td>Polarization</td>
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<tr>
<td>DC bias</td>
<td>+5.5 v / 250 mA</td>
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<td></td>
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</tr>
<tr>
<td>Operation temperature</td>
<td></td>
<td>-40 to +85</td>
<td></td>
<td>°C</td>
</tr>
</tbody>
</table>

**Capability**
- Up to 2 km sensing distance
- Speed & direction detection