**DESCRIPTION**

The C28LNC Series is a low noise converter developed for full waveguide band up and down conversion applications in WR10 (26.5-40 GHz). The design leverages our fundamental mixer technology to satisfy the needs for optimized performance criteria. Our converters involve optimizing performance for size, output power, conversion loss, stability, group delay, noise figure, and bandwidth. Contact OML to discuss your specific requirements.

**HIGHLIGHTS**

- Full waveguide band coverage
- Low conversion loss performance

**APPLICATIONS**

- Versatility to satisfy multiple applications
- Noise figure measurements

**ELECTRICAL AND PERFORMANCE SPECIFICATIONS (+25°C)**

After a one hour warm-up period, the C28LNC satisfies the following specifications.

<table>
<thead>
<tr>
<th>Electrical Characteristics</th>
<th>TYPICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Input Frequency Range (GHz)</td>
<td>26 to 40</td>
</tr>
<tr>
<td>LO Input Frequency Range (GHz)</td>
<td>13 to 20</td>
</tr>
<tr>
<td>IF Output Frequency Range (MHz)</td>
<td>10 to 300</td>
</tr>
<tr>
<td>RF Input Compression (P_{1dB}) (typ.)</td>
<td>TBD</td>
</tr>
<tr>
<td>Conversion Loss (typ.)</td>
<td>11 dB</td>
</tr>
<tr>
<td>LO Input Power</td>
<td>+7 to +10 dBm</td>
</tr>
<tr>
<td>VSWR (typ.)</td>
<td>1.5:1</td>
</tr>
<tr>
<td>RF Input</td>
<td></td>
</tr>
<tr>
<td>LO Input</td>
<td>1.6:1</td>
</tr>
<tr>
<td>IF Output</td>
<td>2.0:1</td>
</tr>
<tr>
<td>Interface</td>
<td>WR-28³</td>
</tr>
<tr>
<td>RF Input</td>
<td>SMA(f)</td>
</tr>
<tr>
<td>LO Input</td>
<td></td>
</tr>
<tr>
<td>IF Output</td>
<td></td>
</tr>
<tr>
<td>DC Input</td>
<td>7 Pin Circular Bayonet Plug</td>
</tr>
<tr>
<td>DC (+12 VDC) Power Requirements</td>
<td>1.5 A, typ.</td>
</tr>
<tr>
<td>Operating Temperature Range (°C)</td>
<td>20° - 30°</td>
</tr>
</tbody>
</table>

1) Specifications subject to change without notice
2) With IF amplifier
3) Test Port Flange Configuration is compatible with MIL-DTL-3922/54 and MIL-DTL-3922/67D

**SIMPLIFIED BLOCK DIAGRAM**

![Simplified Block Diagram](image-url)