The **ACLNA-Ka family** of LNAs is designed for the most challenging Ka-band **professional & military** satellite communication systems (ground, SOTP, SOTM, maritime, etc.). Latest technology is applied to obtain the best noise figure, phase noise, gain stability and return losses according to **MIL-STD-188-164C**. The ACLNA-Ka family is a **high reliability** solution designed for **harsh environmental conditions**, with every single production unit **fully tested** in an environmental chamber and delivered with a complete factory acceptance test report.

### RECEIVER SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF frequency</td>
<td>17.7 to 21.2 GHz</td>
</tr>
<tr>
<td>Input Ka-Band VSWR (50 Ω)</td>
<td>&lt; 1.5:1</td>
</tr>
<tr>
<td>Output Ka-band VSWR (50 Ω)</td>
<td>&lt; 1.8:1 (&lt; 1.3:1 option LN3)</td>
</tr>
<tr>
<td>Max. input level without damage</td>
<td>0 dBm</td>
</tr>
<tr>
<td>Gain</td>
<td>50 dB min (60 dB min option LN1)</td>
</tr>
<tr>
<td>Gain flatness</td>
<td>±1.25 dB over whole BW</td>
</tr>
<tr>
<td></td>
<td>±0.5 dB over 500 MHz</td>
</tr>
<tr>
<td></td>
<td>±0.15 dB over 40 MHz</td>
</tr>
<tr>
<td>Gain stability (24 hours)</td>
<td>±0.2 dB @ const. temp.</td>
</tr>
<tr>
<td>Gain variation over temperature</td>
<td>±2.5 dB (±1.5 dB option LN4)</td>
</tr>
<tr>
<td>Noise figure @ 25 °C</td>
<td>≤ 1.6 dB</td>
</tr>
<tr>
<td>Noise temperature @ 25 °C</td>
<td>≤ 130 K</td>
</tr>
<tr>
<td>Output P1dB</td>
<td>&gt; +10 dBm (+20 dBm option LN2)</td>
</tr>
<tr>
<td>Output IP3</td>
<td>&gt; +20 dBm (+30 dBm option LN2)</td>
</tr>
<tr>
<td>Spurious</td>
<td>&lt; -70 dBc @ ( P_{\text{OUT}} = 0 ) dBm</td>
</tr>
<tr>
<td>AM/PM conversion</td>
<td>&gt; 0.1 dB/deg @ ( P_{\text{OUT}} = -10 ) dBm</td>
</tr>
<tr>
<td>Group delay over any 40 MHz</td>
<td>0.02 ns/MHz</td>
</tr>
<tr>
<td>Linear</td>
<td>0.001 ns/MHz²</td>
</tr>
<tr>
<td>Parabolic</td>
<td>0.1 ns pp</td>
</tr>
</tbody>
</table>

### POWER SUPPLY

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC input voltage</td>
<td>12-28 Vdc</td>
</tr>
<tr>
<td>Consumption @ 15 Vdc</td>
<td>140 mA (200 mA option LN2)</td>
</tr>
</tbody>
</table>

### MECHANICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (LxWxH)</td>
<td>95 x 50 x 32 mm</td>
</tr>
<tr>
<td></td>
<td>3.7 x 2.0 x 1.3 in</td>
</tr>
<tr>
<td>Weight</td>
<td>270 g</td>
</tr>
<tr>
<td></td>
<td>0.6 lbs</td>
</tr>
<tr>
<td>Finish</td>
<td>RAL 9003 (White)</td>
</tr>
</tbody>
</table>

### ENVIRONMENTAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage temperature</td>
<td>-40 °C to +85 °C</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-40 °C to +60 °C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>up to 100%</td>
</tr>
<tr>
<td>Operating altitude</td>
<td>up to 4500 m</td>
</tr>
</tbody>
</table>

### INTERFACES

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RX input (Ka-Band)</td>
<td>WR42 grooved (PBR 220)</td>
</tr>
<tr>
<td>RX output (Ka-Band)</td>
<td>Type SMA(F) 50 Ω</td>
</tr>
<tr>
<td>Supply &amp; Alarm contact closure</td>
<td>NORCOMP M8/5 pins</td>
</tr>
</tbody>
</table>

*All mating connectors provided*

### OPTIONS

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN1</td>
<td>High gain configuration</td>
</tr>
<tr>
<td>LN2</td>
<td>High linearity configuration</td>
</tr>
<tr>
<td>LN3</td>
<td>Coaxial output isolator</td>
</tr>
<tr>
<td>LN4</td>
<td>Increased gain stability</td>
</tr>
<tr>
<td>LN5</td>
<td>M&amp;C through serial port RS485</td>
</tr>
</tbody>
</table>

---

Any other frequency band or custom specification available under request. Please, contact factory. Specifications are subject to change without notice.