The ACLNB-Ka family of LNBs 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 ACLNB-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

- Input frequency: 17.7 to 22.2 GHz
- Input Ka-Band VSWR (50 Ω): < 1.5:1
- Output frequency: 1000 to 2000 MHz
- Output L-band VSWR (50 Ω): < 2.0:1
- Spectrum inversion: None
- Max. input level without damage: 0 dBm
- Gain: 60 dB min
- Gain flatness: ±2.0 dB over whole BW ±0.5 dB over 40 MHz
- Gain stability (24 hours): ±0.25 dB @ const. temp.
- Gain variation over temperature: ±1.5 dB (±2.0 dB option LN2)
- Noise figure @ 25 °C: ≤ 1.8 dB
- Noise temperature @ 25 °C: ≤ 150 K
- Image rejection: > 40 dB
- Output P1dB: > +10 dBm
- In-band spurious: < -60 dBc @ POUT = 0 dBm

LOCAL OSCILLATOR

- Output phase noise (IEEE-308/309 – 5 dB): 100 Hz: -65 dBc/Hz
  1 kHz: -75 dBc/Hz
  10 kHz: -85 dBc/Hz
  100 kHz: -95 dBc/Hz
- External reference: 10 MHz
- External reference level: 0 dBm ± 5 dB
- Internal reference stability: ±1 ppm (option LN3)

POWER SUPPLY

- DC input voltage: 13-18 Vdc
- Consumption @ 13 Vdc: 250 mA typ

MECHANICAL SPECIFICATIONS

- Size (LxWxH): 120 x 60 x 40 mm
- Weight: 450 g
- Finish: RAL 9003 (White)

ENVIRONMENTAL SPECIFICATIONS

- Storage temperature: -40 °C to +85 °C
- Operating temperature: -20 °C to +60 °C
- Relative humidity: up to 100%
- Operating altitude: up to 4500 m

INTERFACES

- RX input (Ka-Band): WR42 grooved (PBR 220)
- RX output (L-Band+DC+Ext.Ref.): Type N(F) 50 Ω
- M&C (RS485): 62IN12E8-4S-4-622
  All mating connectors provided

OPTIONS

- Ka-band input
- L-band output
- LO freq.
- Standard freq. option

<table>
<thead>
<tr>
<th>Ka-band input</th>
<th>L-band output</th>
<th>LO freq.</th>
<th>Standard freq. option</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.7 to 18.7 GHz</td>
<td>1000 to 2000 MHz</td>
<td>16.700 GHz</td>
<td>ACLNBW-Ka-E45-V2</td>
</tr>
<tr>
<td>18.7 to 19.7 GHz</td>
<td>1000 to 2000 MHz</td>
<td>17.700 GHz</td>
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</tr>
<tr>
<td>19.7 to 20.7 GHz</td>
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<td></td>
</tr>
<tr>
<td>20.7 to 21.7 GHz</td>
<td>1000 to 2000 MHz</td>
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</tr>
<tr>
<td>21.7 to 22.2 GHz</td>
<td>1500 to 2000 MHz</td>
<td>20.200 GHz</td>
<td></td>
</tr>
</tbody>
</table>

LN1: RX output connector type SMA(F) 50 Ω
LN2: Operating temperature -40 °C to +60 °C
LN3: Internal reference ACLNBW-Ka-E45-V2

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

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