

ACLNBD-Ka-E11-V2

Dual Ka-band LNB Hermes Series switchable LO

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 climatic chamber and delivered with a complete factory acceptance test report.

- ✗ Low noise figure in the whole frequency range
- ✗ Dual band selection via input voltage level
- ✗ External reference 10 MHz multiplexed at L-band port
- ✗ Extended temperature range -40 °C to +60 °C as option
- ✗ High spur rejection in the whole output band
- ✗ Input in-built waveguide isolator



HERMES

God of frontiers and travellers. He receives the news from the gods and transmits it to the world in the same way that our LNBs receive information from the most distant satellites and transmit it to the modem without distortion, spuriousness or hardly any extra noise to the communication channel.

Receiver

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|--------------------------------------|--|
| Input frequency | 19.2 to 21.2 GHz |
| Input Ka-band VSWR (50 Ω) | < 1.3:1 |
| Output frequency | 950 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 |
| Gain flatness | ± 1.5 dB over whole BW ± 0.5 dB over 40 MHz |
| Gain stability (24 hours) | ± 0.25 dB @ constant T |
| Gain variation over temperature | ± 1.5 dB ± 2.0 dB @ option T |
| Noise figure @ 25 °C | ≤ 1.6 dB |
| Noise temperatura @ 25 °C | ≤ 130 K |
| Image rejection | > 45 dB |
| Output PIdB | > +10 dBm |
| In-band spurious @ $P_{OUT} = 0$ dBm | < -60 dBc |

Local Oscillator

| | |
|--|------------------|
| Output phase noise (IESS-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 \pm 5 dB |

Enviromental

| | |
|-----------------------|------------------|
| 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 |

Mechanical

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|--------------|--|
| Size (LxWxH) | 123 x 60 x 38 mm 4.8 x 2.3 x 1.5 in |
| Weight | 480 g 1.0 lbs |
| Finish | RAL 9003 (White) |

Interfaces

All mating connectors provided

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|-------------------------------------|------------------------|
| RX input (Ka-band) | WR42 grooved (PBR 220) |
| RX output (L-band + Ext. Ref. + DC) | Type N(F) 50 Ω |

Power Supply

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|------------------|-----------------------|
| DC input voltage | 13-18 V _{DC} |
| Consumption | < 4 W |

Order information

| Part-number | Input | Output | LO frequency |
|---------------------|--------------------------------|--------------------------------|--|
| ACLNBD-Ka-E11-V2-0A | 19.2-20.2 GHz 20.2-21.2 GHz | 1000-2000 MHz 1000-2000 MHz | 18.20 GHz @ 13 V _{DC} 19.20 GHz @ 18 V _{DC} |
| ACLNBD-Ka-E11-V2-0B | 19.2-20.2 GHz 20.2-21.2 GHz | 950-1950 MHz 950-1950 MHz | 18.25 GHz @ 13 V _{DC} 19.25 GHz @ 18 V _{DC} |

Options

| | |
|----------|--|
| Option C | RX output connector SMA(F) 50 Ω |
| Option T | Operating temperature -40 °C to +60 °C |

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

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