

ACLNB DI-Ka-E84-V4

Dual Ka-band LNB Hermes Series
simultaneous reception & input sample port

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.

- ↘ Input sample port
- ↘ Dual L-band ports for simultaneous reception
- ↘ Internal high stability reference with automatic external selection on presence
- ↘ Extended temperature range -30 °C to +60 °C
- ↘ M&C interface with alarm status
- ↘ 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 | 17.7 to 20.2 GHz |
| Input Ka-band VSWR (50 Ω) | < 1.5:1 |
| Output frequency | 950 to 2450 MHz |
| Output L-band VSWR (50 Ω) | < 1.3:1 |
| Spectrum inversion | None |
| Max. input level without damage | 0 dBm |
| Gain | > 55 dB < 60 dB |
| Gain flatness | ±2.0 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 |
| Noise figure @ 25 °C | ≤ 1.6 dB |
| Noise temperatura @ 25 °C | ≤ 130 K |
| Noise figure @ 50 °C | ≤ 1.9 dB |
| Noise temperatura @ 50 °C | ≤ 160 K |
| Image rejection | > 45 dB |
| Output PldB | > +15 dBm |
| In-band spurious @ P _{OUT} = 0 dBm | < -60 dBc |
| Input sample port gain | > 40 dB < 50 dB |

Local Oscillator

| Output phase noise | Maximum | Typical |
|---|--------------|-------------|
| 10 Hz | -50 dBc/Hz | -55 dBc/Hz |
| 100 Hz | -70 dBc/Hz | -75 dBc/Hz |
| 1 kHz | -85 dBc/Hz | -90 dBc/Hz |
| 10 kHz | -95 dBc/Hz | -100 dBc/Hz |
| 100 kHz | -100 dBc/Hz | -105 dBc/Hz |
| 1 MHz | -120 dBc/Hz | -125 dBc/Hz |
| External reference (Auto selection on presence) | 10 MHz | |
| External reference level | 0 dBm ± 5 dB | |
| Internal reference stability | ±2 ppb/day | |

Enviromental

| | |
|-----------------------|------------------|
| Storage temperature | -40 °C to +85 °C |
| Operating temperature | -30 °C to +60 °C |
| Relative humidity | up to 100% |
| Operating altitude | up to 4500 m |

Mechanical

| | |
|--------------|---|
| Size (LxWxH) | 150 x 100 x 40 mm 5.9 x 3.9 x 1.6 in |
| Weight | 900 g 2.0 lbs |
| Finish | RAL 9003 (White) |

Interfaces

All mating connectors provided

| | |
|------------------------|------------------------|
| RX input (Ka-band) | WR42 grooved (PBR 220) |
| Input sample (Ka-band) | Type K(F) 50 Ω |
| RX outputs (L-band) | Type N(F) 50 Ω |
| External reference | Type SMA(F) 50 Ω |
| Power supply & alarm | 62IN12E8-4S-4-622 |

Power Supply

| | |
|------------------|---------------------------------------|
| DC input voltage | 15-24 V _{DC} |
| Consumption | 11 W @ steady state 13 W @ warm-up |

Order information

| Part-number | Input | Output | LO frequency |
|-------------------|--------------------------------|------------------------------|--|
| ACLNBDI-Ka-E84-V4 | 17.7-19.2 GHz 18.7-20.2 GHz | 950-2450 MHz 950-2450 MHz | 16.75 GHz @ Output 1 17.75 GHz @ Output 2 |

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

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