

ACLNBP-Ka-Ex-V5

Single Ka-band LNB Premium Hermes Series

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
- ✗ High phase noise performance
- ✗ High linearity and dynamic range
- ✗ Extended temperature range -40 °C to +60 °C
- ✗ 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

Input frequency	20.2 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)	< 1.5:1
Spectrum inversion	None
Max. input level without damage	0 dBm
Gain	> 50 dB < 55 dB
Gain flatness	± 1.5 dB over whole BW ± 1.0 dB over 120 MHz ± 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	≤ 1.3 dB
Noise temperatura @ 25 °C	≤ 100 K
Noise figure @ 60 °C	≤ 1.8 dB
Noise temperatura @ 60 °C	≤ 150 K
Image rejection	> 45 dB
Output PldB	> +15 dBm
Output IP3	> +25 dBm
In-band spurious @ $P_{OUT} = 0$ dBm	< -65 dBc
Desensitization (TX band 30-31 GHz)	> -30 dBm

Local Oscillator

Output phase noise (IESS-308/309 – 2 dB)	
10 Hz	-40 dBc/Hz
100 Hz	-62 dBc/Hz
1 kHz	-72 dBc/Hz
10 kHz	-82 dBc/Hz
100 kHz	-95 dBc/Hz
1 MHz	-105 dBc/Hz
10 MHz	-115 dBc/Hz
External reference (Auto selection on presence)	10 MHz
External reference level	-5 to +2 dBm

Enviromental

Storage temperature	-40 °C to +85 °C
Operating temperature	-40 °C to +60 °C
Relative humidity	up to 100%
Operating altitude	up to 4500 m
Solar radiation	1120 W/m ²
Ingress protection code	IP65

Mechanical

Size (LxWxH)	114 x 58 x 36 mm 4.5 x 2.3 x 1.4 in
Weight	350 g 0.8 lbs
Finish	RAL 1019 (Sand Color)

Interfaces

All mating connectors provided

RX input (Ka-band)	WR42 grooved (PBR 220)
RX output (L-band + Ext. Ref. + DC)	Type N(F) 50 Ω
DC input voltage	9-15 V _{DC}
Consumption	370 mA

Power Supply

Order information

Part-number	Input	Output	LO frequency
ACLNBP-Ka-E2-V5	20.2 - 21.2 GHz	1000 - 2000 MHz	19.200 GHz
ACLNBP-Ka-E22-V5	20.2 - 21.2 GHz	950 - 1950 MHz	19.250 GHz

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

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