

# ACLNBPI-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
- ↘ Internal High stability reference with external selection on presence
- ↘ 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	> 55 dB < 60 dB
Gain flatness	±1.5 dB over whole BW ±1.0 dB over 120 MHz ±0.5 dB over 10 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
Image rejection	> 45 dB
Output PldB	> +15 dBm
Output IP3	> +25 dBm
In-band spurious @ P <sub>OUT</sub> = 0 dBm	< -65 dBc
Desensitization (TX band 30-31 GHz)	> -30 dBm

## Local Oscillator

Output phase noise (IESS-308/309 – 2 dB)		
	100 Hz	-62 dBc/Hz
	1 kHz	-72 dBc/Hz
	10 kHz	-82 dBc/Hz
	100 kHz	-92 dBc/Hz
	1 MHz	-102 dBc/Hz
	10 MHz	-112 dBc/Hz
External reference (Auto selection on presence)	10 MHz	
External reference level	0 dBm ± 5 dB	
Internal reference stability over T	±30 ppb	

## 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 <sup>2</sup>
Ingress protection code	IP65

## Mechanical

Size (LxWxH)	114 x 58 x 36 mm 4.5 x 2.3 x 1.4 in
Weight	400 g 0.9 lbs
Finish	RAL 1019 (Sand Color) Dark green CARC (#34082 MIL-DTL-64159B)

## 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

## Power Supply

DC input voltage	9-15 V <sub>DC</sub>
Consumption	< 5 W

## Order information

Part-number	Input	Output	LO frequency
ACLNBPI-Ka-E2-V5	20.2 - 21.2 GHz	1000 - 2000 MHz	19.200 GHz
ACLNBPI-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.

C/ El Castro 22N, 39011, Santander, Spain		
+34 942 766 44 00	www.acorde.com	sales@acorde.com