

ACLNB-DI-Ka-Ex-V5

Dual Ka-band LNB Hermes Series
switchable LO for simultaneous X/Ka systems

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
- ✘ Direct LO synthesis specially intended for simultaneous X/Ka systems
- ✘ Internal high stability reference with automatic external selection on presence
- ✘ Extended temperature range -40 °C to +60 °C
- ✘ Low profile M&C interface with serial port RS-485
- ✘ 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	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)	< 1.5:1
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
Noise figure @ 25 °C	≤ 1.5 dB
Noise temperatura @ 25 °C	≤ 120 K
Image rejection	> 45 dB
Output PIdB	> +15 dBm
In-band spurious @ P _{OUT} = 0 dBm	< -60 dBc

Local Oscillator

Output phase noise (IESS-308/309 – 10 dB)	100 Hz	-70 dBc/Hz
	1 kHz	-80 dBc/Hz
	10 kHz	-90 dBc/Hz
	100 kHz	-100 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	-40 °C to +60 °C
Relative humidity	up to 100%
Operating altitude	up to 3000 m

Mechanical

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

RX input (Ka-band)	WR42 grooved (PBR 220)
RX output (L-band + Ext. Ref. + DC)	Type N(F) 50 Ω
M&C (RS-485)	DEUI02A056-130E

Power Supply

DC input voltage	12-24 V _{DC}
Consumption	7 W @ steady state 9 W @ warm-up

Order information

Part-number	Input	Output	LO frequency
ACLNBDI-Ka-E11-V5	19.2 to 20.2 GHz 20.2 to 21.2 GHz	1000 to 2000 MHz 1000 to 2000 MHz	18.20 GHz @ 13 V _{DC} 19.20 GHz @ 18 V _{DC}
ACLNBDI-Ka-E12-V5	19.2 to 20.2 GHz 20.2 to 21.2 GHz	950 to 1950 MHz 950 to 1950 MHz	18.25 GHz @ 13 V _{DC} 19.25 GHz @ 18 V _{DC}

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

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