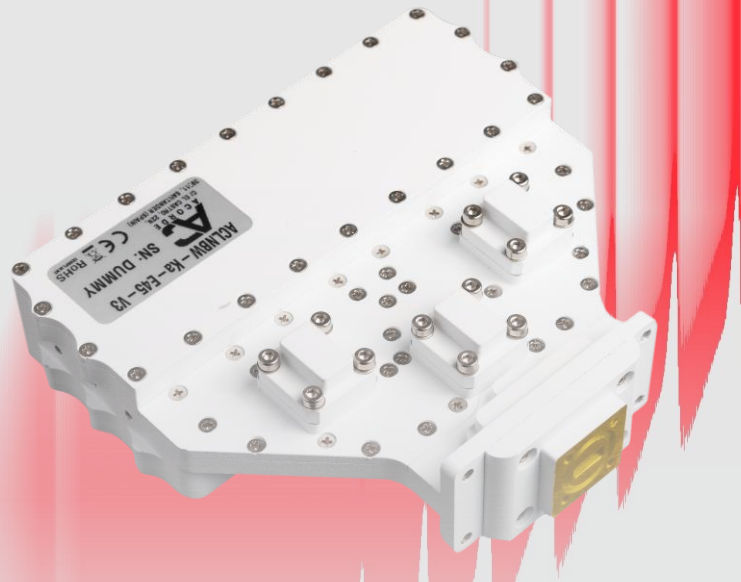
ACORDE Space & Defence RF EXPERTS

ACLNBW-Ka-Ex-V3

Ultra wide Ka-band LNB Hermes Series simultaneous reception



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
- Quad port simultaneous L-band reception
- External reference 10 MHz multiplexed at each L-band port
- Extended temperature range -40 ºC to +60 ºC 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

Input frequency	17.7 to 22.2 GHz
Input Ka-band VSWR (50 Ω)	< 1.5:1
Output frequency	1000 to 2150 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	±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 ±2.0 dB @ option T
Noise figure @ 25 °C	≤ 1.8 dB
Noise temperatura @ 25 °C	≤ 150 K
Image rejection	> 40 dB
Output P1dB	> +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 ± 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

Size (LxWxH)	120 x 60 x 40 mm 4.7 x 2.4 x 1.6 in
Weight	450 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)	62IN12E8-4S-4-622

Power Supply

DC input voltage	12-24 V_{DC}
Consumption	< 14 W 3.5 W per port

Order information

Part-number	Input	Output	LO frequency
ACLNBW-Ka-E33-V3	17.70-18.20 GHz 18.20-19.20 GHz 19.20-20.20 GHz 20.20-21.20 GHz	1000-1500 MHz 1000-2000 MHz 1000-2000 MHz 1000-2000 MHz	16.70 GHz @ port 1 17.20 GHz @ port 2 18.20 GHz @ port 3 19.20 GHz @ port 4
ACLNBW-Ka-E45-V3	17.70-18.85 GHz 18.85-20.00 GHz 20.00-21.15 GHz 21.15-22.20 GHz	1000-2150 MHz 1000-2150 MHz 1000-2150 MHz 1000-2050 MHz	16.70 GHz @ port 1 17.85 GHz @ port 2 19.00 GHz @ port 3 20.15 GHz @ port 4

Options

Option C	RX output connector SMA(F) 50 Ω
Option T	Operating temperature -40 °C to +60 °C
Option P	Supply and external refrence over single port

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