



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 an environmental chamber and delivered with a complete factory acceptance test report.

### RECEIVER SPECIFICATIONS

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 min / 60 dB max	
Gain flatness .....	±2.0 dB over whole BW ±0.5 dB over 40 MHz	
Gain stability (24 hours).....	±0.25 dB @ const. temp.	
Gain variation over temperature .....	±1.5 dB	
	@ 25 °C	@ 50 °C
Noise figure .....	≤ 1.6 dB	≤ 1.9 dB
Noise temperature .....	≤ 130 K	≤ 160 K
Image rejection .....	> 45 dB	
Output P1dB .....	> +15 dBm	
In-band spurious .....	< -60 dBc @ P <sub>OUT</sub> = 0 dBm	
Input sample port gain .....	40 dB min / 50 dB max	

### LOCAL OSCILLATOR

Output phase noise	Max.	Typ.
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 .....	10 MHz (Auto external on presence)	
External reference level .....	0 dBm ± 5 dB	
Internal reference stability .....	±2 ppb/day	

### POWER SUPPLY

DC input voltage .....	15-24 V <sub>DC</sub>
Consumption .....	11 W typ steady state 13 W typ warm-up

### MECHANICAL SPECIFICATIONS

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)

### ENVIRONMENTAL SPECIFICATIONS

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

### INTERFACES

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

*All mating connectors provided*

### OPTIONS

Ka-band input	L-band output	LO freq.	Standard freq. option
17.7 to 19.2 GHz	950 to 2450 MHz	16.750 GHz @ Path 1	ACLNBDI-Ka-E84-V4
18.7 to 20.2 GHz	950 to 2450 MHz	17.750 GHz @ Path 2	