



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	20.2 to 21.2 GHz
Input Ka-Band VSWR (50 Ω)	< 1.3:1
Output frequency	950 to 2000 MHz (See options)
Output L-band VSWR (50 Ω)	< 1.5:1
Spectrum inversion	None
Max. input level without damage	0 dBm
Gain	50 dB min / 60 dB max
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 @ const. temp.
Gain variation over temperature	±1.5 dB
Noise figure @ 25 °C	≤ 1.3 dB
Noise temperature @ 25 °C	≤ 100 K
Image rejection	> 45 dB
Output P1dB	> +15 dBm
Output IP3	> +25 dBm
In-band spurious	< -60 dBc @ P _{OUT} = 0 dBm
Desensitization	> -30 dBm (TX Band 30-31 GHz)

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
Reference mode	Internal (Auto external on presence)
External reference	10 MHz
External reference level	0 dBm ± 5 dB
Internal reference stability	± 30 ppb over temperature range

POWER SUPPLY

DC input voltage	9-15 V _{DC}
Consumption	370 mA

MECHANICAL SPECIFICATIONS

Size (LxWxH)	114 x 58 x 36 mm
	4.5 x 2.3 x 1.4 in
Weight	350 g
	0.8 lbs
Coating	CARC
Finish	Dark Green (#34082) MIL-DTL-64159B

ENVIRONMENTAL SPECIFICATIONS

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

INTERFACES

RX input (Ka-Band)	WR42 grooved (PBR 220)
RX output (L-Band+DC+Ext.Ref.)	Type N(F) 50 Ω

OPTIONS

Ka-band input	L-band output	LO freq.	Standard freq. option
20.2 to 21.2 GHz	950 to 1950 MHz	19.250 GHz	ACLNBPI-Ka-E22-V5
20.2 to 21.2 GHz	1000 to 2000 MHz	19.200 GHz	ACLNBPI-Ka-E2-V5