



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 21.2 GHz
Input Ka-Band VSWR (50 Ω) .....	< 1.5:1
Output frequency .....	1000 to 2000 MHz
Output L-band VSWR (50 Ω) .....	< 2.0:1
Spectrum inversion .....	None
Max. input level without damage .....	0 dBm
Gain .....	60 dB min
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 (±2.0 dB option LN2)
Noise figure @ 25 °C .....	≤ 1.8 dB
Noise temperature @ 25 °C .....	≤ 150 K
Image rejection .....	> 40 dB
Output P1dB .....	> +10 dBm
In-band spurious .....	< -60 dBc @ P <sub>OUT</sub> = 0 dBm

#### 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
Internal reference stability .....	±1 ppm (option LN3)

#### POWER SUPPLY

DC input voltage .....	12-18 V <sub>DC</sub>
Consumption @ 12 V <sub>DC</sub> .....	320 mA typ

#### MECHANICAL SPECIFICATIONS

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)

#### ENVIRONMENTAL SPECIFICATIONS

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

#### INTERFACES

RX input (Ka-Band) .....	WR42 grooved (PBR 220)
RX output (L-Band+DC+Ext.Ref.) .....	Type N(F) 50 Ω (+22 kHz option LN4)
M&C (RS485) .....	62IN12E8-4S-4-622

*All mating connectors provided*

#### OPTIONS

Ka-band input	L-band output	LO freq.	Option LN4	Standard freq. option
17.7 to 18.2 GHz	1000 to 1500 MHz	16.7 GHz	13 V <sub>DC</sub>	ACLNBW-Ka-E33-V2
18.2 to 19.2 GHz	1000 to 2000 MHz	17.2 GHz	13 V <sub>DC</sub> + 22 kHz	
19.2 to 20.2 GHz	1000 to 2000 MHz	18.2 GHz	18 V <sub>DC</sub>	
20.2 to 21.2 GHz	1000 to 2000 MHz	19.2 GHz	18 V <sub>DC</sub> + 22 kHz	

LN1 .....	RX output connector type SMA(F) 50 Ω
LN2 .....	Operating temperature -40 °C to +60 °C
LN3 .....	Internal reference ACLNBWI-Ka-E33-V2
LN4 .....	Band switching 13/18 V <sub>DC</sub> + 22 kHz