



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-188-164B**. 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 22.2 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
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 (as option)

#### POWER SUPPLY

DC input voltage .....	12-18 V <sub>DC</sub>
Consumption @ 12 V <sub>DC</sub> .....	250 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
M&C (RS485) .....	62IN12E8-4S-4-622

*All mating connectors provided*

#### OPTIONS

Ka-band input	L-band output	LO freq.	Standard freq. option
17.7 to 18.7 GHz	1000 to 2000 MHz	16.700 GHz	ACLNBW-Ka-E45-V2
18.7 to 19.7 GHz	1000 to 2000 MHz	17.700 GHz	
19.7 to 20.7 GHz	1000 to 2000 MHz	18.700 GHz	
20.7 to 21.7 GHz	1000 to 2000 MHz	19.700 GHz	
21.7 to 22.2 GHz	1500 to 2000 MHz	20.200 GHz	

LN1 .....	RX output connector type SMA(F) 50 Ω
LN2 .....	Operating temperature -40 °C to +60 °C
LN3 .....	Internal reference ACLNBWI-Ka-E45-V2