



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 2150 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 .....	12-24 V <sub>DC</sub>
Consumption @ 24 V <sub>DC</sub> .....	500 mA (125 mA per output port)

#### MECHANICAL SPECIFICATIONS

Size (LxWxH) .....	140 x 155 x 40 mm 5.6 x 6.1 x 1.6 in
Weight .....	950 g 2.1 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 1 (L-Band+DC+Ext.Ref.) .....	Type N(F) 50 Ω
RX output 2 (L-Band+DC+Ext.Ref.) .....	Type N(F) 50 Ω
RX output 3 (L-Band+DC+Ext.Ref.) .....	Type N(F) 50 Ω
RX output 4 (L-Band+DC+Ext.Ref.) .....	Type N(F) 50 Ω

#### OPTIONS

Ka-band input	L-band output	LO freq.	Output port	Standard freq. option
17.70 to 18.85 GHz	1000 to 2150 MHz	16.70 GHz	1	ACLNBW-Ka-E45-V3
18.85 to 20.00 GHz	1000 to 2150 MHz	17.85 GHz	2	
20.00 to 21.15 GHz	1000 to 2150 MHz	19.00 GHz	3	
21.15 to 22.20 GHz	1000 to 2050 MHz	20.15 GHz	4	

LN1 .....	RX output connector type SMA(F) 50 Ω
LN2 .....	Operating temperature -40 °C to +60 °C
LN3 .....	Internal reference ACLNBWI-Ka-E45-V3
LN4 .....	Supply and ext. ref. over single port