

Ka-BAND LOW NOISE BLOCK

ACLNBP-Ka-Ex-V4

Premium Series

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	60 dB min
Gain flatness	± 1.5 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 $^{\circ}\text{C}$	≤ 1.5 dB
Noise temperature @ 25 $^{\circ}\text{C}$	≤ 120 K
Image rejection	> 45 dB
Output P1dB	> +10 dBm
In-band spurious	< -60 dBc @ $P_{\text{OUT}} = 0$ dBm
Desensitization	> -30 dBm (TX Band 30-31 GHz)

LOCAL OSCILLATOR

Output phase noise (IESS-308/309 - 10 dB)

100 Hz	-63 dBc/HZ
1 kHz	-80 dBc/HZ
10 kHz	-90 dBc/HZ
100 kHz	-100 dBc/HZ
External reference	10 MHz
External reference level	0 dBm ± 5 dB
Internal reference stability	± 1 ppm (option LN3)

POWER SUPPLY

DC input voltag	9-15 VDC
Consumption	350 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
Finish	RAL 9003 (White)

ENVIRONMENTAL SPECIFICATIONS

Storage temperature	-40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
Operating temperature	-20 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$
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

OPTIONS

Ka-band input	L-band output
20.2 to 21.2 GHz	1000 to 2000 MHz
20.2 to 21.2 GHz	950 to 1950 MHz
LO freq.	Standard freq. option
19.200 GHz	ACLNBP-Ka-E2-V4
19.250 GHz	ACLNBP-Ka-E22-V4

LN1	RX output connector type SMA(F) 50 Ω
LN2	Operating temperature -40 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$
LN3	Internal reference ACLNBPI-Ka-Ex-V4

