



Ka-BAND LOW NOISE BLOCK ACLNBD-Ka-E11-V3

Dual Band Series Simultaneous Outputs

Ed.04

11/07/19

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	19.2 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)	< 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	≤ 1.6 dB
Noise temperature @ 25 °C	≤ 130 K
Image rejection	> 45 dB
Output P1dB	> +10 dBm
In-band spurious	< -60 dBc @ P _{OUT} = 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 _{DC}
Consumption @ 12 V _{DC}	260 mA (130 mA per output port)

MECHANICAL SPECIFICATIONS

Size (LxWxH)	130 x 70 x 40 mm 5.1 x 2.7 x 1.6 in
Weight	550 g 1.2 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

OPTIONS

Ka-band input	L-band output	LO freq.	Standard freq. option
19.2 to 20.2 GHz 20.2 to 21.2 GHz	1000 to 2000 MHz 1000 to 2000 MHz	18.200 GHz @ Path 1 19.200 GHz @ Path 2	ACLNBD-Ka-E11-V3-0A
19.2 to 20.2 GHz 20.2 to 21.2 GHz	950 to 1950 MHz 950 to 1950 MHz	18.250 GHz @ Path 1 19.250 GHz @ Path 2	ACLNBD-Ka-E11-V3-0B

LN1	RX output connector type SMA(F) 50 Ω
LN2	Operating temperature -40 °C to +60 °C
LN3	Internal reference ACLNBDI-Ka-E11-V3-0x
LN4	Supply and ext. ref. over single port