



Ka-BAND LOW NOISE BLOCK ACLNBW-Ka-E33-V2

Ed.12

Wideband Series

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	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 _{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}	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 _{DC}	ACLNBW-Ka-E33-V2
18.2 to 19.2 GHz	1000 to 2000 MHz	17.2 GHz	13 V _{DC} + 22 kHz	
19.2 to 20.2 GHz	1000 to 2000 MHz	18.2 GHz	18 V _{DC}	
20.2 to 21.2 GHz	1000 to 2000 MHz	19.2 GHz	18 V _{DC} + 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 _{DC} + 22 kHz