

# Ka-BAND LOW NOISE BLOCK (LNB)

ACLNBW-Ka-E33-V2

Wideband Series



Ed.09  
05/10/16

**ACLNBW-Ka Wideband Series has been designed to meet restrictive specifications for Ka Band communication systems. The equipment has a typical gain of 60 dB with a noise figure lower than 1.8 dB, with low weight and dimensions. Band selection is arranged by serial port dedicated connector or DC/22 kHz combination.**

**ACLNBW-Ka Wideband Series has been tested over the specified temperature range, providing good gain stability with temperature and very high reliability.**

## 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
Maximum input level without damage.....	0 dBm
Gain .....	> 60 dB
Gain flatness over the whole channel bandwidth .....	± 2.0 dB
Gain flatness over any 40 MHz.....	± 0.5 dB
Gain stability over 24 hours .....	± 0.25 dB @ constant temperature
Gain variation over temperature.....	± 1.5 dB over the whole range
Noise figure @ 25°C .....	≤ 1.8 dB (1.5 dB typ)
Image rejection.....	> 40 dB
Output P1dB .....	> +10 dBm
In-Band Spurious.....	< -60 dBc @ Pout = 0 dBm
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 (multiplexed on L-band output) .....	10 MHz / 0 dBm ± 5 dB
DC input voltage (multiplexed on L-band output) .....	12-18 V <sub>DC</sub>
DC current consumption @ 12 V <sub>DC</sub> .....	320 mA typ
Storage temperature .....	-40 to +85°C
Operating temperature.....	-20 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+External Reference+22 kHz optional) .....	Type N(F) 50 Ω
M&C (Serial port RS485) .....	MS3112E8-4S (mating connector provided)
Dimensions .....	120 x 60 x 40 mm / 4.7 x 2.4 x 1.6 inches
Weight .....	450 g / 1.0 lbs
Finish .....	RAL 9003 (White)

Ka-band input	L-band output	LO frequency	Option LN4	Standard frequency option
17.7 to 18.2 GHz	1000 to 1500 MHz	16.700 GHz	13 V <sub>DC</sub>	ACLNBW-Ka-E33-V2
18.2 to 19.2 GHz	1000 to 2000 MHz	17.200 GHz	13 V <sub>DC</sub> + 22 kHz	
19.2 to 20.2 GHz	1000 to 2000 MHz	18.200 GHz	18 V <sub>DC</sub>	
20.2 to 21.2 GHz	1000 to 2000 MHz	19.200 GHz	18 V <sub>DC</sub> + 22 kHz	

LN1: .....	RX output connector type SMA(F) 50 Ω
LN2: .....	Operating temperature -40 to +60°C
LN3: .....	Internal reference (ACLNBW-Ka-E33-V2 freq. stability ±1 ppm)
LN4: .....	Band switching 13/18 V <sub>DC</sub> + 22 kHz

Any other frequency band or custom specification available under request. Please, contact factory. Specifications are subject to change without notice.