

Ka-BAND LOW NOISE BLOCK (LNB)

ACLNBW-Ka-E45-V2

Ultra-Wideband Series



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ACLNBW-Ka Ultra-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.

ACLNBW-Ka Ultra-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 22.2 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 (1.6 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 _{DC}
DC current consumption @ 12 V _{DC}	250 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)	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	Standard frequency option
17.7 to 18.7 GHz	1000 to 2000 MHz	16.700 GHz	ACLNBW-Ka-E45-V2
18.7 to 19.7 GHz	1000 to 2000 MHz	17.700 GHz	
19.7 to 20.7 GHz	1000 to 2000 MHz	18.700 GHz	
20.7 to 21.7 GHz	1000 to 2000 MHz	19.700 GHz	
21.7 to 22.2 GHz	1500 to 2000 MHz	20.200 GHz	

LN1:	RX output connector type SMA(F) 50 Ω
LN2:	Operating temperature -40 to +60°C
LN3:	Internal reference (ACLNBW-Ka-E45-V2 freq. stability ±1 ppm)

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