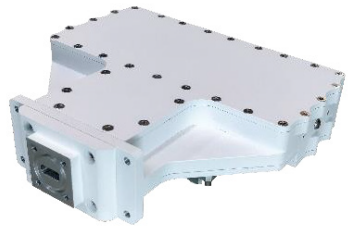
Ka-BAND LOW NOISE BLOCK

ACLNBW-Ka-E33-V3

Wideband Series Simultaneous Outputs

EUROSATCOM
VSATECH ASSOCIÉ

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 voltag	12-24 VDC
Consumption @ 24 VDC	560 mA typ (140 mA typ per output port)

MECHANICAL SPECIFICATIONS

Size (LxWxH)	140 x 155 x 40 mm 5.6 x 6.1 x 1.6 in
Weight	950 g 2.1 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
RX output 3 (L-Band+DC+Ext.Ref.)	Type N(F) 50 Ω
RX output 4 (L-Band+DC+Ext.Ref.)	Type N(F) 50 Ω

OPTIONS

Ka-band input	L-band output
17.7 to 18.2 GHz	1000 to 1500 MHz
18.2 to 19.2 GHz	1000 to 2000 MHz
19.2 to 20.2 GHz	1000 to 2000 MHz
20.2 to 21.2 GHz	1000 to 2000 MHz

LO freq.	Output port	Standard freq. option
16.7 GHz	1	ACLNBW-Ka-E33-V3
17.2 GHz	2	
18.2 GHz	3	
19.2 GHz	4	

LN1	RX output connector type SMA(F) 50 Ω
LN2	Operating temperature -40 °C to +60 °C
LN3	Internal reference ACLNBWI-Ka-E33-V3
LN4	Supply and ext. ref. over single port

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