Ka-BAND LOW NOISE BLOCK

ACLNBDI-Ka-E84-V4

Dual Band Series Simultaneous Outputs & Input Sample Port

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 20.2 GHz
Input Ka-Band VSWR (50 Ω)	< 1.5:1
Output frequency	950 to 2450 MHz
Output L-band VSWR (50 Ω)	< 1.3:1
Spectrum inversion	None
Max. input level without damage	0 dBm
Gain	55 dB min / 60 dB max
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

	@ 25 °C	@ 50 °C
Noise figure	≤ 1.6 dB	≤ 1.9 dB
Noise temperature	≤ 130 K	≤ 160 K
Image rejection	> 45 dB	
Output P1dB	> +15 dBm	
In-band spurious	< -60 dBc @ POUT = 0 dBm	
Input sample port gain	40 dB min / 50 dB max	

LOCAL OSCILLATOR

Output phase noise	Max.	Typ.
10 Hz	-50 dBc/HZ	-55 dBc/HZ
100 Hz	-70 dBc/HZ	-75 dBc/HZ
1 kHz	-85 dBc/HZ	-90 dBc/HZ
10 kHz	-95 dBc/HZ	-100 dBc/HZ
100 kHz	-100 dBc/HZ	-105 dBc/HZ
1 MHz	-120 dBc/HZ	-125 dBc/HZ

External reference	10 MHz (Auto external on presence)
External reference level	0 dBm ± 5 dB
Internal reference stability	±2 ppb/day

POWER SUPPLY

DC input voltage	15-24 VDC
Consumption	11 W typ steady state 13 W typ warm-up

MECHANICAL SPECIFICATIONS

Size (LxWxH)	150 x 100 x 40 mm 5.9 x 3.9 x 1.6 in
Weight	900 g 2.0 lbs
Finish	RAL 9003 (White)

ENVIRONMENTAL SPECIFICATIONS

Storage temperature	-40 °C to +85 °C
Operating temperature	-30 °C to +60 °C
Relative humidity	up to 100%
Operating altitude	up to 4500 m

INTERFACES

RX input (Ka-Band)	WR42 grooved (PBR 220)
Input sample (Ka-band)	Type K(F) 50 Ω
RX outputs (L-Band)	Type N(F) 50 Ω
External reference	Type SMA(F) 50 Ω
Power supply & alarm	62IN12E8-4S-4-622

All mating connectors provided

OPTIONS

Ka-band input	L-band output
17.7 to 19.2 GHz 18.7 to 20.2 GHz	950 to 2450 MHz 950 to 2450 MHz

LO freq.	Standard freq. option
16.750 GHz @ Path 1 17.750 GHz @ Path 2	ACLNBDI-Ka-E84-V4

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