

ACLNA-Ka-Ex-V1

Wide Ka-band LNA Horus Series



The ACLNA-Ka family of LNAs 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, linearity, gain stability and return losses according to MIL-STD-188-164C. The ACLNA-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.

- ✘ Low noise figure in the whole frequency range
- ✘ High linearity performance
- ✘ Extended temperature range -40 °C to +60 °C
- ✘ High spur rejection in the whole output band
- ✘ Input in-built waveguide isolator

HORUS

God of silence who identifies himself with the low noise of our LNAs, able to distinguish even the slightest whisper of the gods, however low and far away it may be.

Receiver

RF frequency	17.7 to 21.2 GHz
Input Ka-band VSWR (50 Ω)	< 1.5:1
Output Ka-band VSWR (50 Ω)	< 1.8:1
Max. input level without damage	0 dBm
Gain	> 50 dB
Gain flatness	±1.25 dB over whole BW ±0.50 dB over 500 MHz ±0.15 dB over 40 MHz
Gain stability (24 hours)	±0.2 dB @ constant T
Gain variation over temperature	±1.5 dB
Noise figure @ 25 °C	≤ 1.6 dB
Noise temperatura @ 25 °C	≤ 130 K
Output PldB	> +20 dBm
Output IP3	> +30 dBm
Spurious @ P _{OUT} = 0 dBm	< -70 dBc
AM/PM conversion @ P _{OUT} = -10 dBm	> 0.1 °/dB
Group delay over 40 MHz	Linear 0.02 ns/MHz Parabolic 0.001 ns/MHz ² Ripple 0.1 ns pp

Enviromental

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

Mechanical

Size (LxWxH)	95 x 50 x 32 mm 3.7 x 2.0 x 1.3 in
Weight	270 g 0.6 lbs
Finish	RAL 9003 (White)

Interfaces

All mating connectors provided

RX input (Ka-band)	WR42 grooved (PBR 220)
RX output (Ka-band)	Type N(F) 50 Ω
Supply & alarm contact closure	NORCOMP M8/5 pins

Power Supply

DC input voltage	12-28 V _{DC}
Consumption	3 W

Order information

Part-number	Input	Output
ACLNA-Ka-E11-VI	19.2 - 21.2 GHz	19.2 - 21.2 GHz
ACLNA-Ka-E84-VI	17.7 - 20.2 GHz	17.7 - 20.2 GHz
ACLNA-Ka-E33-VI	17.7 - 21.2 GHz	17.7 - 21.2 GHz

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

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