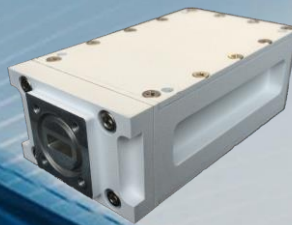


Ka-BAND LOW NOISE AMPLIFIER (LNA)

ACLNA-Ka-E45-V1

Ultra-Wide Band Series



Ed.07
01/03/17

ACLNA-Ka Ultra-Wide Band Series low noise amplifier has been designed to meet restrictive specifications for Ka Band communication systems. The equipment has a typical gain of 50 dB with a noise figure lower than 1.8 dB. With a low weight and small dimensions ACLNA-Ka is designed in waterproof housing easy to be integrated as part of Ka band redundancy system or standalone unit.

Monitoring and control is provided through RS485 serial port. ACLNA-Ka Ultra-Wide Band Series has been tested over the wide temperature range, providing very good gain stability with temperature and very high reliability with low current consumption.

LNA SPECIFICATIONS

RF frequency	17.7 to 22.2 GHz
Input VSWR (50 Ω)	< 1.5:1
Output VSWR (50 Ω).....	< 1.8:1 (< 1.3:1 with output coaxial isolator option)
Gain	50 dB min (60 dB min with high gain option)
Gain flatness over the whole bandwidth	± 1.5 dB (± 1.0 dB typ)
Gain flatness over any 500 MHz	± 0.5 dB
Gain flatness over any 40 MHz.....	± 0.2 dB
Gain stability over 24 hours	± 0.2 dB @ constant temperature
Gain variation over temperature.....	± 2.5 dB over the whole range (± 1.5 dB as option)
Noise figure @ 23°C	≤ 1.8 dB (1.6 dB typ)
Noise temperature @ 23°C	≤ 150 K (130 K typ)
Output P1dB	> +10 dBm (+20 dBm with high linearity option)
Output third order intercept point OIP3.....	> +20 dBm (+30 dBm with high linearity option)
Maximum input level without damage.....	0 dBm
Spurious	< -70 dBc @ P _{OUT} = 0 dBm
AM/PM conversion	> 0.1 dB/deg @ P _{OUT} = -10 dBm
Group delay over any 40 MHz	
Linear	0.01 ns/MHz
Parabolic	0.001 ns/MHz ²
Ripple	0.3 ns pp
DC input voltage	12-28 V _{DC}
DC current consumption	140 mA typ @ 15 V _{DC} (200 mA with high linearity option)
Operating temperature.....	-40 to +60°C
Storage temperature	-40 to +85°C
Relative humidity	up to 100%
Operating altitude.....	up to 3000 m
Interfaces	
RX input (Ka-Band)	WR42 grooved (PBR 220)
RX output (Ka-band)	Type SMA(F) 50 Ω
Power supply + Alarm contact closure.....	NORCOMP M8/5 pines (mating connector provided)
Dimensions	95 x 50 x 32 mm / 3.7 x 2.0 x 1.3 inches
Weight	270 g / 0.6 lbs
Finish	RAL 9003 (White)
Options	
LN1:	High gain configuration
LN2:	High linearity configuration
LN3:	Output coaxial isolator
LN4:	Increased gain stability (± 1.5 dB over whole temp. range)
LN5:	M&C through serial port RS485

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