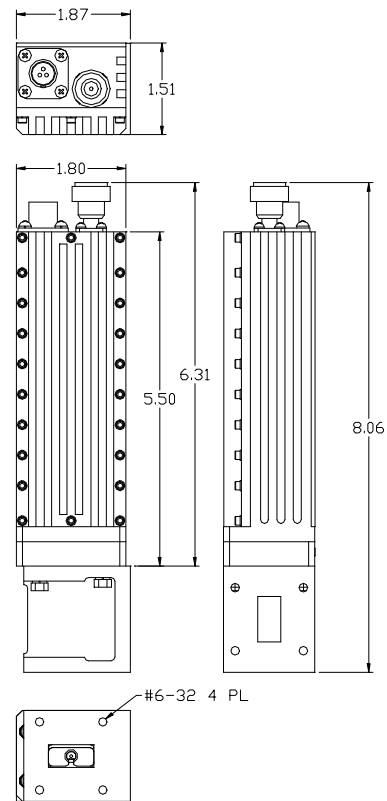


ADVANTECH LNA FEATURES

- All standard Ku-Band frequencies from 10.95 to 12.75 GHz
- GaAs/HEMT Technology
- Over 200,000 Hours MTBF
- Built-in Regulator 11-24 VDC operation
- Built-in Interstage Transmit Reject Filter
- Built-in Alarm Circuit
- Single or redundant operation
- Pressurizable W/G Input
- Power supply via RF connector or Power Connector
- Extreme operating temperature
- Weatherproof housing
- Three year warranty

OPTIONS

- External Transmit Reject Filter
- External Input Isolator



LNA with optional Input Isolator

OVERVIEW

The Advantech's Low Noise Amplifier (LNA) ALNA-K™ is a low noise, highly dynamic range amplifier suitable for use in satellite earth station receiver applications where ultra low noise and high reliability are critical, as well as in other systems operating in the frequency range from 10.95 to 12.75 GHz.

The LNA combines low noise with high linearity and wide band. The built-in Interstage Transmit Reject Filter allows the LNA to operate at the input power of -35 dBm in the TX band of 13.75 – 14.5 GHz.

The Ku-band LNA is available with Noise Temperature ranging from 53° K to 80° K. With weather proved packaging, the LNA can meet the demands of the installations in severe environmental conditions.

The 1:1 and 1:2 redundant system configurations can be provided. They require special Redundancy Kit.

The Advantech's LNA provides an industry leading MTBF of over 200,000 hours.

K-BAND LNA 53°K to 80°K
ALNA-K® series



Low Noise Amplifier ALNA-K

Technical Specifications	
Electrical Characteristics	
Frequency range	10.95 – 12.75 GHz, (10.7-12.75 option)
Noise Temperature @ 23° C	63° K to 80° K (with Input Isolator); 53° K to 70° K (without Input Isolator)
Gain	60 dB min (50 dB option)
Gain flatness	2.0 dB p.p. full bandwidth
Gain slope	±0.1 dB per 10 MHz
Gain variation over operating temperature range	2 dB p.p. max
Gain stability @ constant ambient temperature	±0.1dB / hour ±0.2dB / 24 hours
Output power at 1dB of compression	+13 dBm min
Spurious	-55 dBc max
Max input power	0 dBm
Input VSWR	1.25:1 max (with Input Isolator); 1.70:1 max (without Input Isolator)
Output VSWR	1.50:1 max
Operating voltage	15 VDC nominal (11 - 24 VDC option)
Current consumption	120 - 150 mA
Mechanical Characteristics	
Dimensions (L x W x H)	6.3" x 1.87 x 1.5" (160 x 47.5 x 38 mm) (without Input Isolator)
Weight	1 lb (450 g) (without Input Isolator)
Input waveguide flange	WR75 Cover, Flat
Output connector	N Type female (SMA female option)
Power connector	MS3116F8-4S (MS3112E8-3P option)
Environmental Conditions	
Operating temperature	-40°C to +55°C -50°C to +60°C (Optional)
Humidity	100%, condensing (2" rain/hour)
Altitude	10,000' AMSL, de-rated 2°C/1,000' from AMSL

To order, please select model number from the following list:

- ALNA-K53™
- ALNA-K60™
- ALNA-K63™
- ALNA-K70™
- ALNA-K75™
- ALNA-K80™

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