

ADVANTECH LNA FEATURES

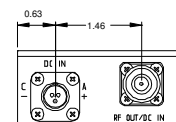
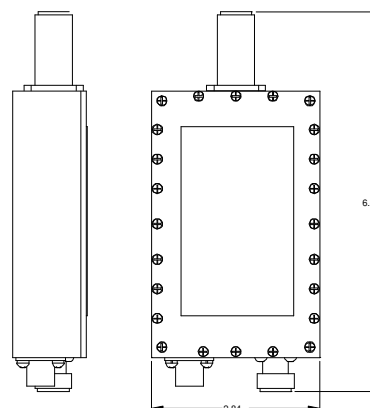
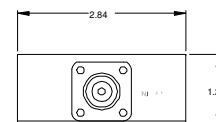
- S-Band frequency from 2.025 to 2.400 GHz (see table on the next page)
- GaAs/HEMT Technology
- Over 200,000 Hours MTBF
- Built-in Regulator 11-24 VDC operation
- Built-in Interstage Transmit Reject Filter
- Built-in Alarm Circuit
- Single or redundant operation
- Pressurizable W/G Input
- Power supply via RF connector or Power Connector
- Extreme operating temperature
- Weatherproof housing
- Three year warranty

OPTIONS

- Input Isolator

ACCESSORIES

- External Transmit Reject Filter



OVERVIEW

The Advantech's Low Noise Amplifier (LNA) ALNA-S® 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. Advantech also provides LNA's in C, X Ku and Ka bands.

The S-band LNA is available with Noise Temperature ranging from 50° K to 70° K. With weatherproof 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.

S-BAND LNA 50°K to 70°K

ALNA-S® series



Technical Specifications

Electrical Characteristics

Frequency range	Band 1 Band 2 Band 3	2025 - 2120 MHz 2100 - 2250 MHz 2200 - 2400 MHz	Model # ALNA-S1 Model # ALNA-S2 Model # ALNA-S3
Noise Temperature @ 23° C	50°K to 70°K		
Gain	50 dB min		
Gain flatness	2.0 dB p.p. full bandwidth		
Gain slope	0.5 dB per 10 MHz		
Gain variation	2 dB p.p. max over operating temperature range		
Gain stability	0.25dB / 24 hours@ constant ambient temperature		
Output power (P1dB)	+10 dBm min		
Spurious	-65 dBc max		
Max input power	0 dBm (no damage)		
Input VSWR	1.25:1 max		
Output VSWR	1.30:1 max		
Operating voltage	15 VDC nominal (11 - 24 VDC option)		
Current consumption	120 - 150 mA		

Mechanical Characteristics

Dimensions (L x W x H)	6" x 2.5" x 1" (150 x 63 x 25 mm)
Weight	0.8 lb (350 g)
Input connector	SMA Female (or TBD)
Output connector	SMA Female (or TBD)
Power connector	MS3112E8-3P (MS3116F8-4S 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-S1
- ALNA-S2
- ALNA-S3

Then add suffix:

- 50 for 50°K
- 60 for 60°K
- 70 for 70°K

Example: for a 50°K noise figure S-Band LNA operating in Band 2025 - 2120 the model # is ALNA-S1-50.

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