

## FLA-1000-12000-25-15

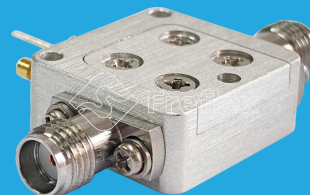
1~12GHz, 25dB, 1.5dB

### Features:

- \* Broadband
- \* Low Noise

### Applications:

- \* Wireless
- \* Receiver
- \* Laboratory Test
- \* Radar



### Description

This product series features ultra-wideband low-noise amplifiers (LNAs) operating from 1 to 12GHz. The lineup includes:

- LNA modules powered by 5-15V DC, where increasing supply voltage enhances gain and output power;
- LNA systems with integrated switching-mode power supplies (SMPS) accepting 85-265V AC input, recommended for most applications;
- LNA systems employing linear-regulated power supplies for 220V AC operation, delivering optimal performance where extreme power purity is critical.

### Electrical

|                      |                                                                                                 |
|----------------------|-------------------------------------------------------------------------------------------------|
| Frequency:           | 1~12GHz                                                                                         |
| Gain:                | 25dB typ.                                                                                       |
| Gain Flatness:       | ±1dB typ.                                                                                       |
| Output Power (P1dB): | 17dBm typ.                                                                                      |
| Output Power (Past): | 18dBm typ.                                                                                      |
| Noise Figure:        | 1.5dB typ.                                                                                      |
| Spurious:            | -60dBc max.                                                                                     |
| VSWR:                | 1.8 typ.                                                                                        |
| Reverse Isolation:   | -30dB typ.                                                                                      |
| Voltage:             | +5V DC (Outline A)<br>+6~15V DC (Outline B)<br>+85~+265V AC (Outline C)<br>+220V AC (Outline D) |
| Current:             | 76mA typ. (Outline A, B)                                                                        |
| Impedance:           | 50Ω                                                                                             |

### Absolute Maximum Ratings\*1

|                 |                                     |
|-----------------|-------------------------------------|
| RF Input Power: | +17dBm                              |
| Voltage:        | +6V (Outline A)<br>+20V (Outline B) |

[1] Permanent damage may occur if any of these limits are exceeded.

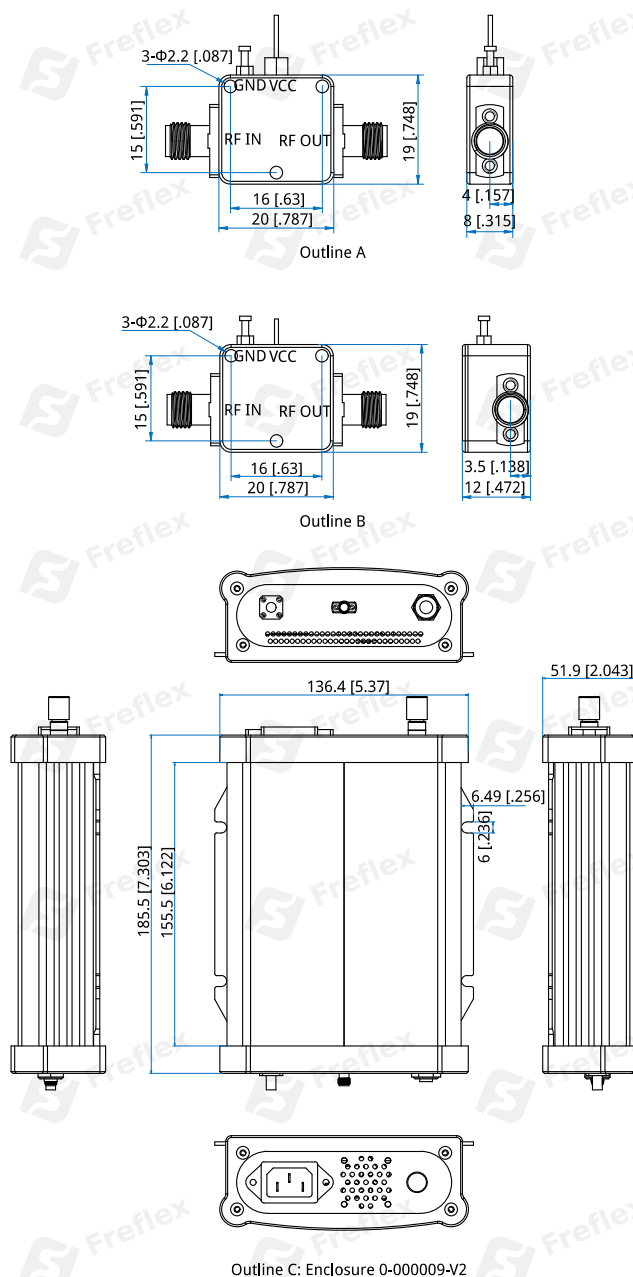
### Mechanical

RF Connectors: SMA Female (Removable)

### Environmental

|                            |            |
|----------------------------|------------|
| Operating Temperature:     | -45~+85°C  |
| Non-operating Temperature: | -55~+125°C |

### Outline Drawings



## How To Order

**FLA-1000-12000-25-15** - Outline A

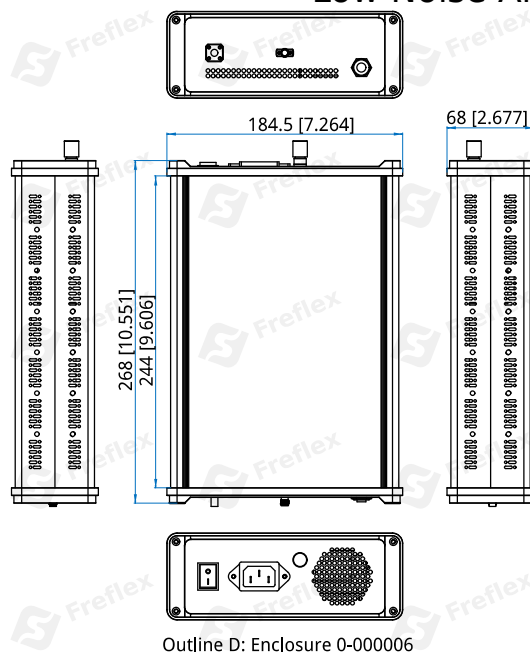
**FLA-1000-12000-25-15-1** - Outline B

**FLAS-1000-12000-25-15** - Outline C, AC-powered unit integrates a switching-mode power supply.

**FLAS-1000-12000-25-15-1** - Outline D, AC-powered unit integrates a linear-regulated power supply.

Customization is available upon request.

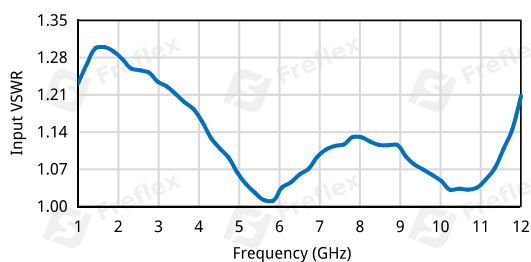
## Low Noise Amplifier



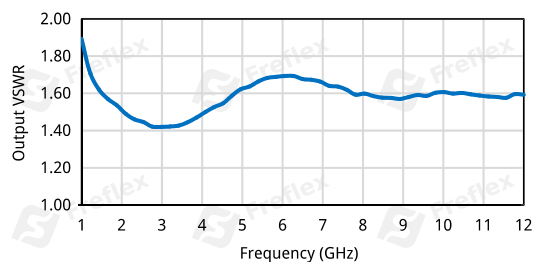
Unit: mm [in] Tolerance:  $\pm 0.5\text{mm}$  [ $\pm 0.02\text{in}$ ]

## Typical Performance Curves

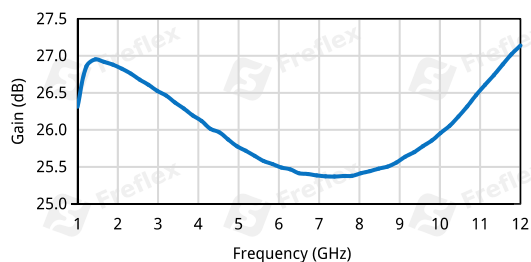
Input VSWR vs. Frequency



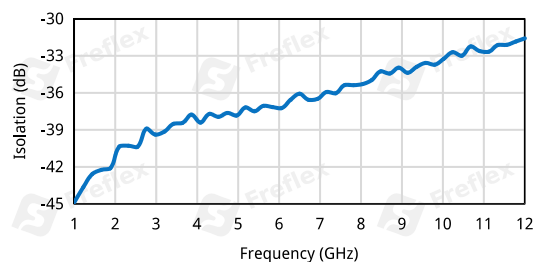
Output VSWR vs. Frequency



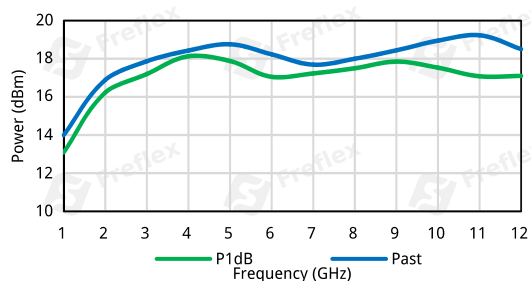
Gain vs. Frequency



Isolation vs. Frequency



Power vs. Frequency



Noise Figure vs. Frequency

