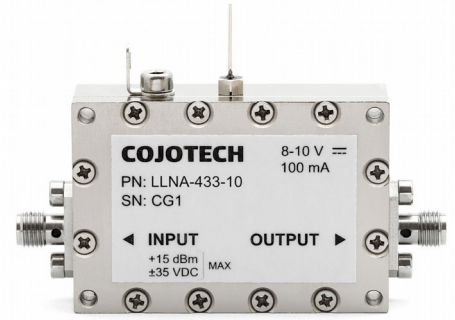


## 433 MHz Limiting Low Noise Amplifier.



## Features

- 433.92 MHz center frequency.
- High gain (36 dB gain).
- Very low noise (0.73 dB NF).
- FM band suppression (> 30 dB).
- +10 dBm maximum output power ( $P_{\text{OMAX}}$ ).
- Reverse bias protection.
- Bias tee option available (LLNA-433-10-T).

## Description

The Cojotech LLNA-433-10 is a limiting low noise amplifier, specifically designed for the reception of signals in the 433 MHz ISM band. It provides high gain, FM band suppression, low noise figure and output power limiting, with a maximum output power of only +10 dBm, making it an ideal LNA for receivers with very sensitive frontends, such as SDR receivers.

The LLNA-433-10-T variant, differs from the base LLNA-433-10 by also including a bias tee, which allows it to be mounted close to the antenna, further lowering the noise floor by greatly diminishing the contribution of the cable to the overall noise figure of the system.

## Warranty

This product benefits from a 2-year warranty against defects in materials and workmanship.

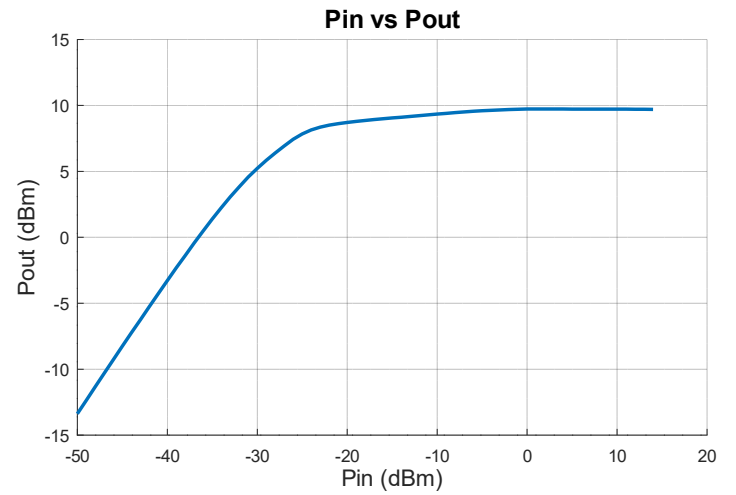
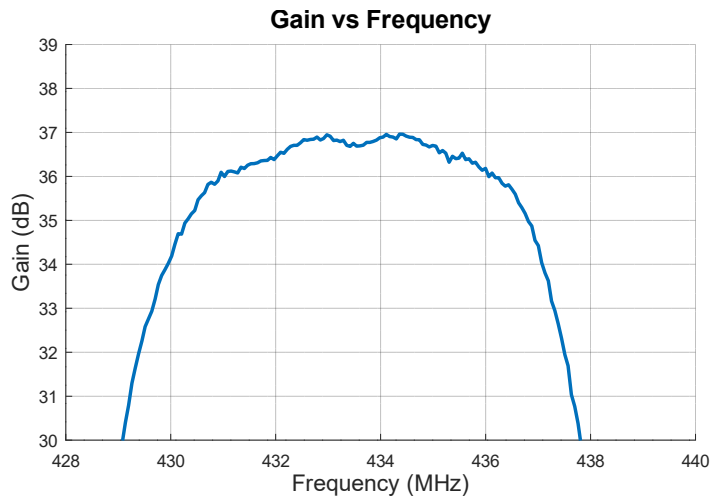
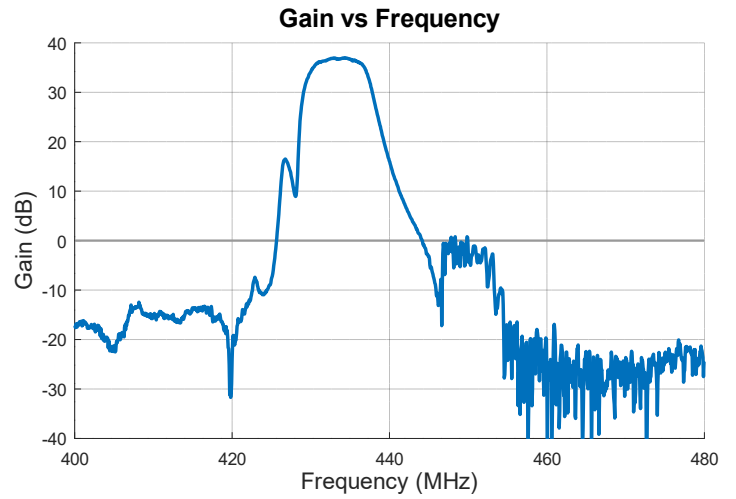
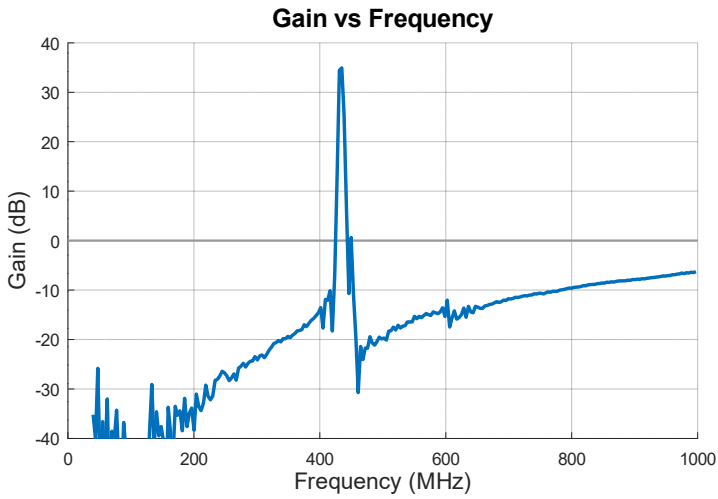
## Absolute Maximums

Parameter	Ratings
RF Input Power	+15 dBm
RF Input DC Voltage	±35 V
Supply Voltage	+9 V

## Electrical Specifications at 25°C

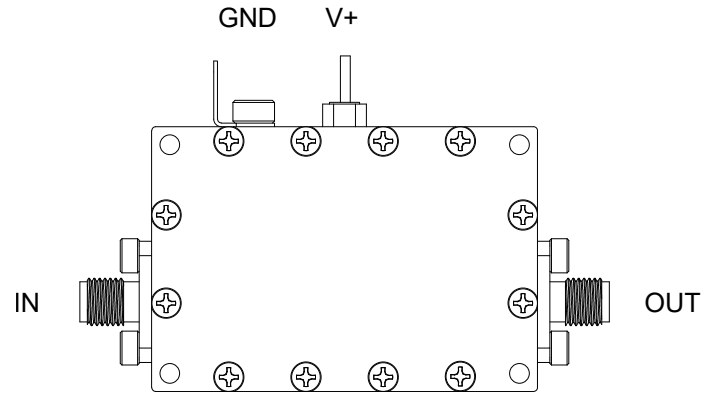
Parameter	Min.	Typ.	Max.	Unit
Frequency Range	430		437	MHz
Small Signal Gain		36		dB
Noise Figure		0.73		dB
Input Return Loss		9		dB
Output Return Loss		20		dB
Saturated Output Power ( $P_{SAT}$ )		8.5		dBm
Maximum Output Power ( $P_{OMAX}$ )			10	dBm
1 dB Compression Point (P1dB)		3		dBm
Third Order Intercept Point (IP3)		11		dBm
Supply Voltage	8	9	10	V
Supply Current		62		mA

# Typical Performance Characteristics

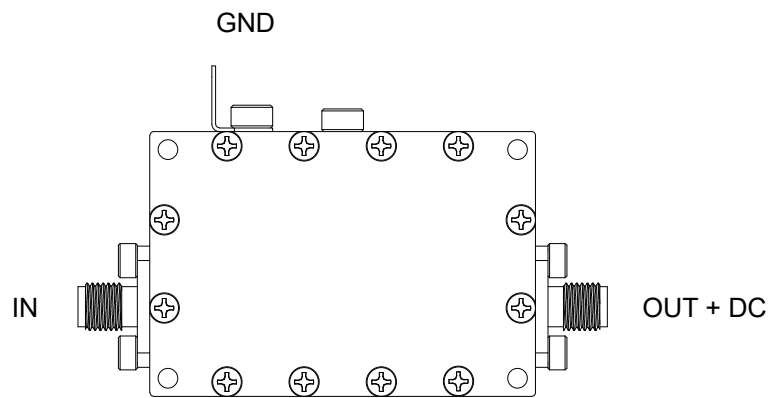


\*Includes harmonics generated by driving the amplifier in saturation mode.

# Pin Configuration

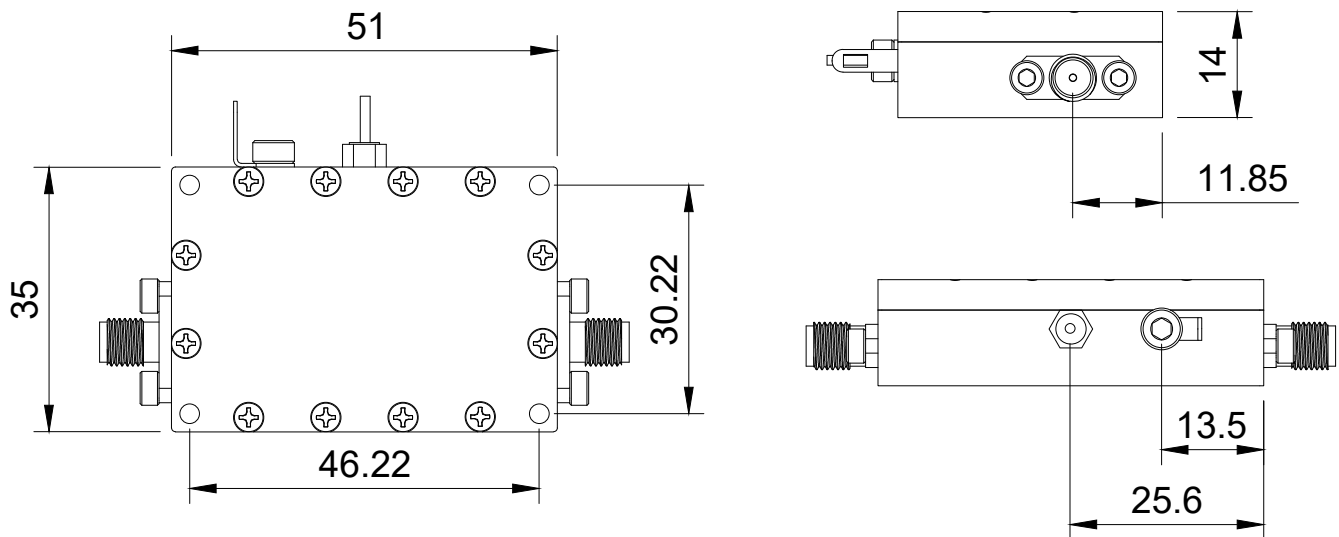


LLNA-433-10



LLNA-433-10-T  
*(bias tee variant)*

## Outline Dimensions



Dimensions are in mm.

Mounting holes are 2.6 mm in diameter, not threaded.

Weight: 57 g.

## Mechanical Properties

Description	Material	Finish
Body	Aluminium	Nickel plated
SMA Body	Stainless Steel	Passivated
SMA Contact	Beryllium copper	Gold plated
Dielectric	PTFE	

Notes:

- 1). Unless otherwise stated, all specifications are nominal.
- 2). The information contained in this document is accurate to the best of our knowledge. We reserve the right to update it, with new information or corrections, without notice.