

40 MHz to 3 GHz Limiting Low Noise Amplifier.

## PRELIMINARY DATASHEET

this is not the final version of the datasheet and the information presented here is bound to change.

### Features

- 40 MHz to 3 GHz operating range.
- Very low noise (0.9 dB NF @ 1 GHz).
- +10 dBm saturated output power ( $P_{SAT}$ ).

### Description

The Cojotech LLNA-030-10 is a limiting low noise amplifier, that operates over the band of 40 MHz to 3 GHz, and provides 10 dBm of saturated output power.

By bringing the output characteristics down in amplitude, it is able to match the input requirements of receivers with very sensitive frontends. This property, coupled with the very low noise figure, it makes it an ideal candidate for such receivers, which can be damaged by other LNAs.

### Warranty

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

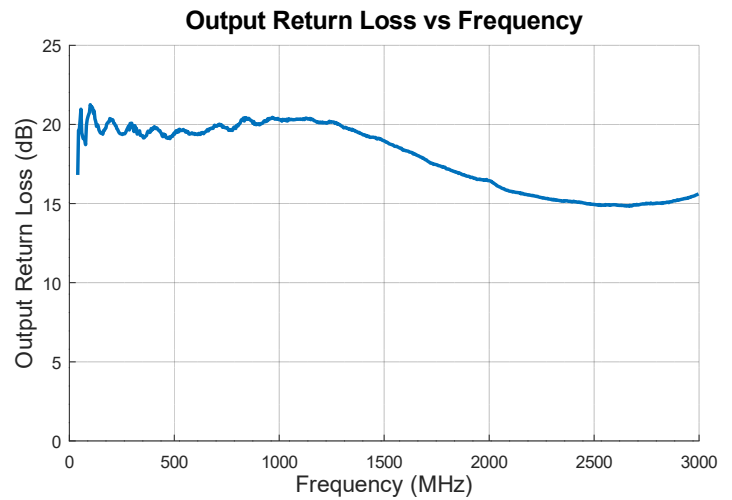
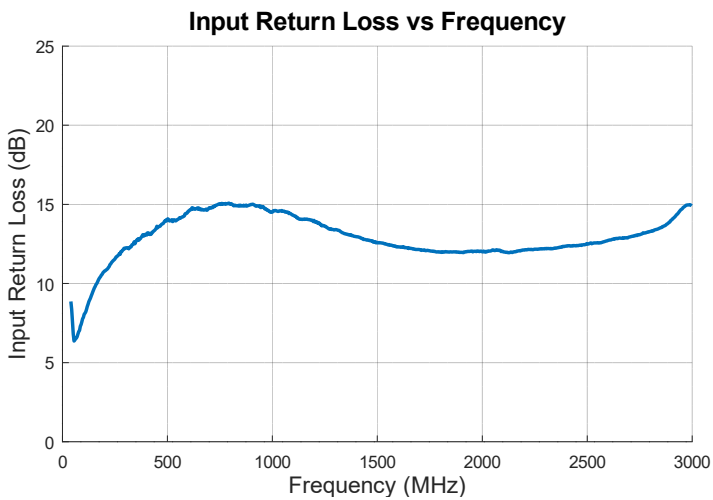
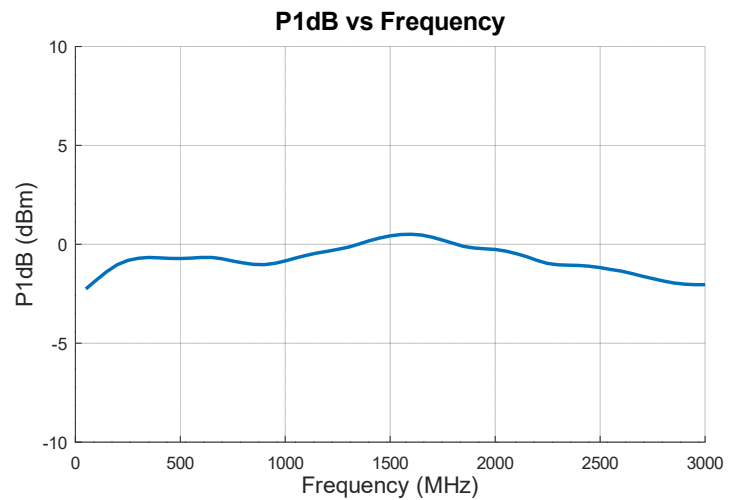
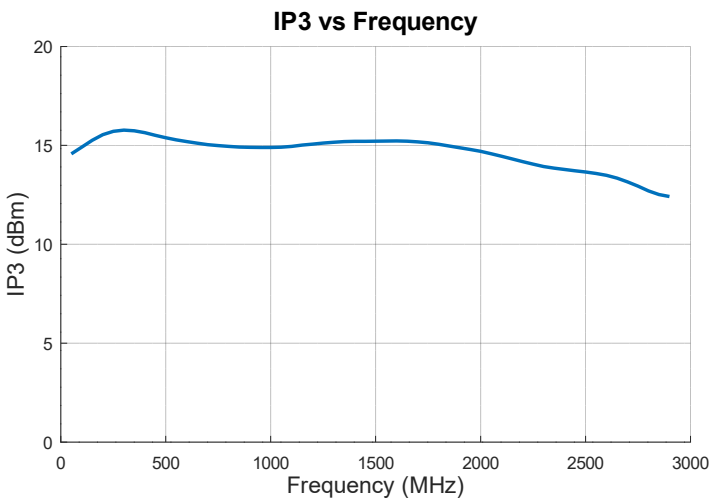
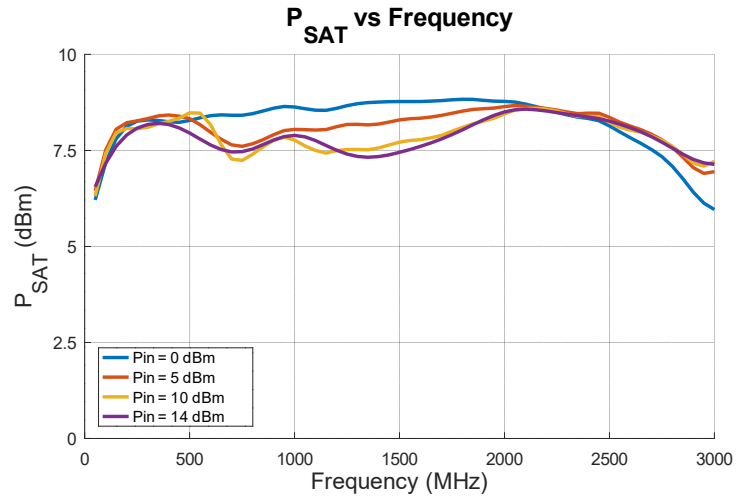
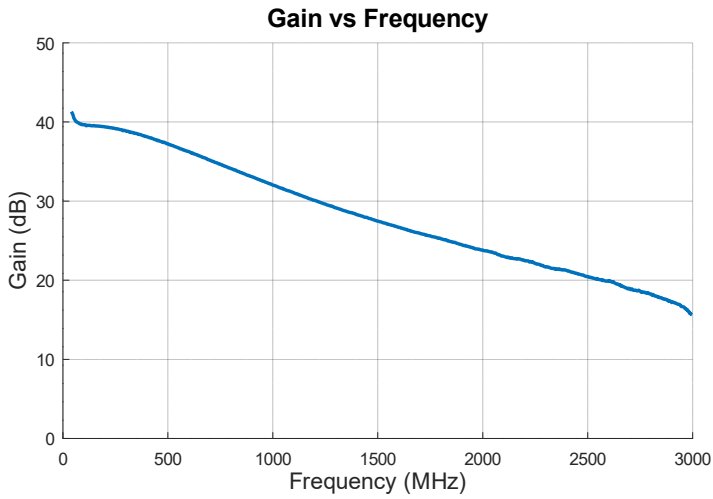
## Absolute Maximums

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

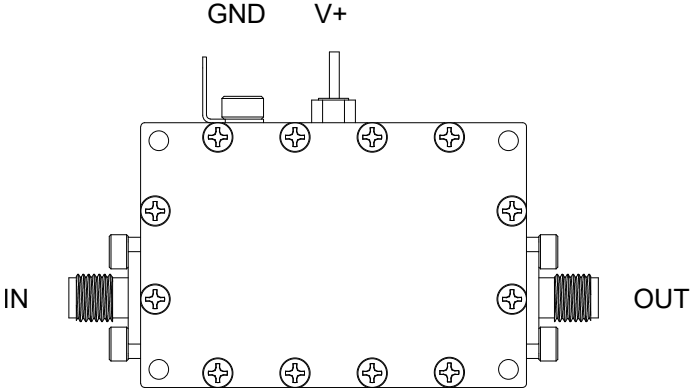
## Electrical Specifications at 25°C

| Parameter                              |          | Min. | Typ. | Max. | Unit |
|--|----------|------|------|------|------|
| Frequency Range                        |          | 40   |      | 3000 | MHz  |
| Small Signal Gain                      | 0.04 GHz |      | 40   |      | dB   |
|  | 0.1 GHz  |      | 39   |      |      |
|  | 0.5 GHz  |      | 37   |      |      |
|  | 1 GHz    |      | 32   |      |      |
|  | 1.5 GHz  |      | 27   |      |      |
|  | 2 GHz    |      | 23   |      |      |
|  | 2.5 GHz  |      | 20   |      |      |
|  | 3 GHz    |      | 15   |      |      |
| Noise Figure                           | 0.1 GHz  |      | 0.7  |      | dB   |
|  | 1 GHz    |      | 0.9  |      |      |
|  | 2 GHz    |      | 1.4  |      |      |
| Input Return Loss                      | 0.1 GHz  |      | 8    |      | dB   |
|  | 1 GHz    |      | 14   |      |      |
|  | 2 GHz    |      | 12   |      |      |
|  | 3 GHz    |      | 14   |      |      |
| Output Return Loss                     | 0.1 GHz  |      | 21   |      | dB   |
|  | 1 GHz    |      | 20   |      |      |
|  | 2 GHz    |      | 16   |      |      |
|  | 3 GHz    |      | 15   |      |      |
| Saturated Output Power ( $P_{SAT}$ )   |          |      |      | 10   | dBm  |
| 1 dB Compression Point ( $P_{1dB}$ )   |          |      | 0    |      | dBm  |
| Third Order Intercept Point ( $IP_3$ ) |          |      | 14   |      | dBm  |
| Supply Voltage                         |          | 8    | 9    | 10   | V    |
| Supply Current                         |          |      | 61   |      | mA   |

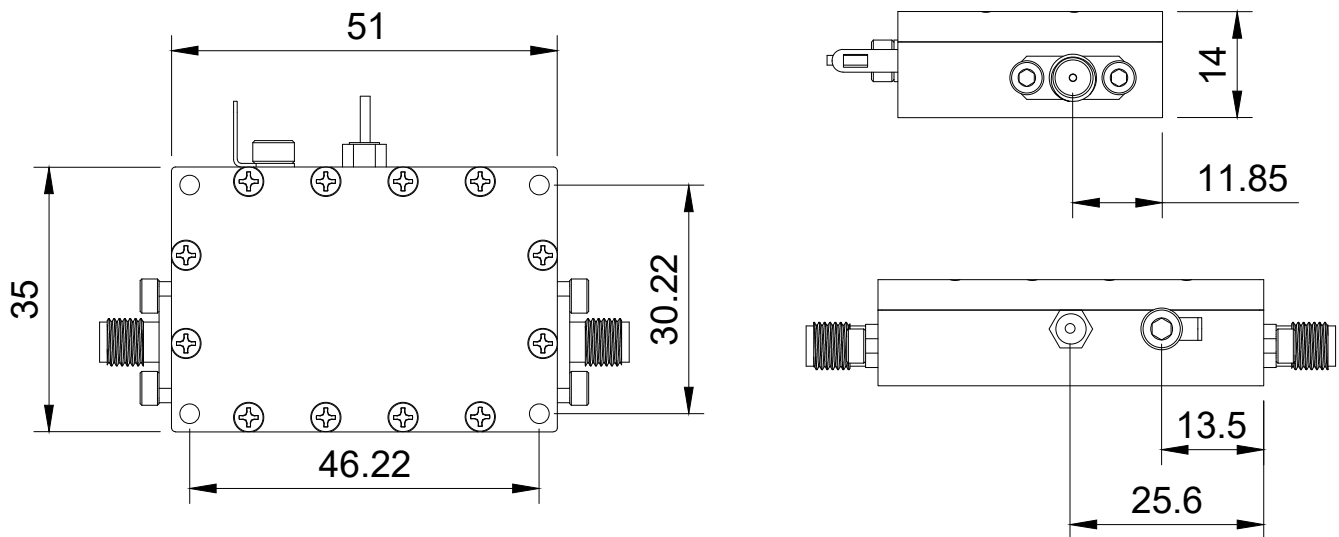
# Typical Performance Characteristics



# Pin Configuration



## Outline Dimensions



Dimensions are in mm.

Mounting holes are 2.6 mm in diameter, not threaded.

## Mechanical Properties

| Description | Material         | Finish        |
|-------------|------------------|---------------|
| Body        | Brass            | 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.