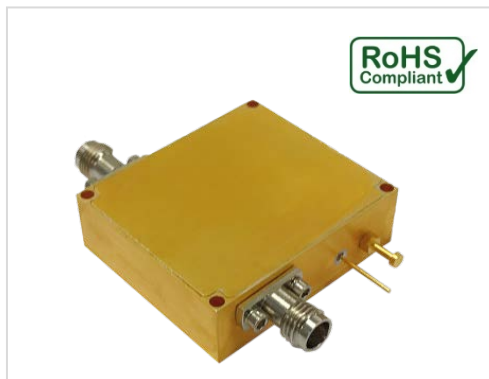


# MODEL HILNAT1402850

## 0.1-40GHz Low Noise Amplifier



### ■ Features

- Ultra Broadband: 0.1-40GHz
- High Gain: 28dB
- P1dB Output Power: 15dBm
- High Output IP3: 27dBm

### ■ Applications

- Radar Systems
- Communication Systems
- Receiving Systems

### □ Electrical Specifications

| Parameter                                | Min.                       | Typ. | Max. | Units |
|--|----------------------------|------|------|-------|
| Frequency Range                          | 0.1-40                     |      |      | GHz   |
| Gain                                     | 26                         | 30   |      | dB    |
| Gain Flatness                            |                            |      | ±3.0 | dB    |
| Input VSWR                               |                            |      | 2.5  | -     |
| Output VSWR                              |                            |      | 2.5  | -     |
| Output Power for 1 dB Compression (P1dB) | 15                         |      |      | dBm   |
| Saturated Output Power (Psat)            | 18                         | 22   |      | dBm   |
| Noise Figure                             |                            | 5    | 6.5  | dB    |
| OIP3                                     |                            | 27   |      | dBm   |
| Input Max Power(no damage)               |                            |      | 5    | dBm   |
| DC Current (VDC=+12V~+12.6V)             |                            | 400  |      | mA    |
| Weight                                   | 41                         |      |      | g     |
| Impedance                                | 50                         |      |      | Ω     |
| Input Connector                          | 2.92mm Female              |      |      |       |
| Output Connector                         | 2.92mm Female              |      |      |       |
| Material /Finishing                      | Aluminium/Gold Plated      |      |      |       |
| Package Sealing                          | General Sealing (Standard) |      |      |       |

### Environmental Conditions

|                         |              |           |   |
|-------------------------|--------------|-----------|---|
| Operational Temperature | -40°C~+75°C  | Vibration | 25g rms (15 degree 2KHz) endurance, 1 hour per axis |
| Storage Temperature     | -55°C~+125°C | Shock     | 20G for 11msc half sin wave,3 axis both directions  |
| Executive Standard      | MIL-STD-202F | Humidity  | 100% RH at 35c, 95%RH at 40°C                       |

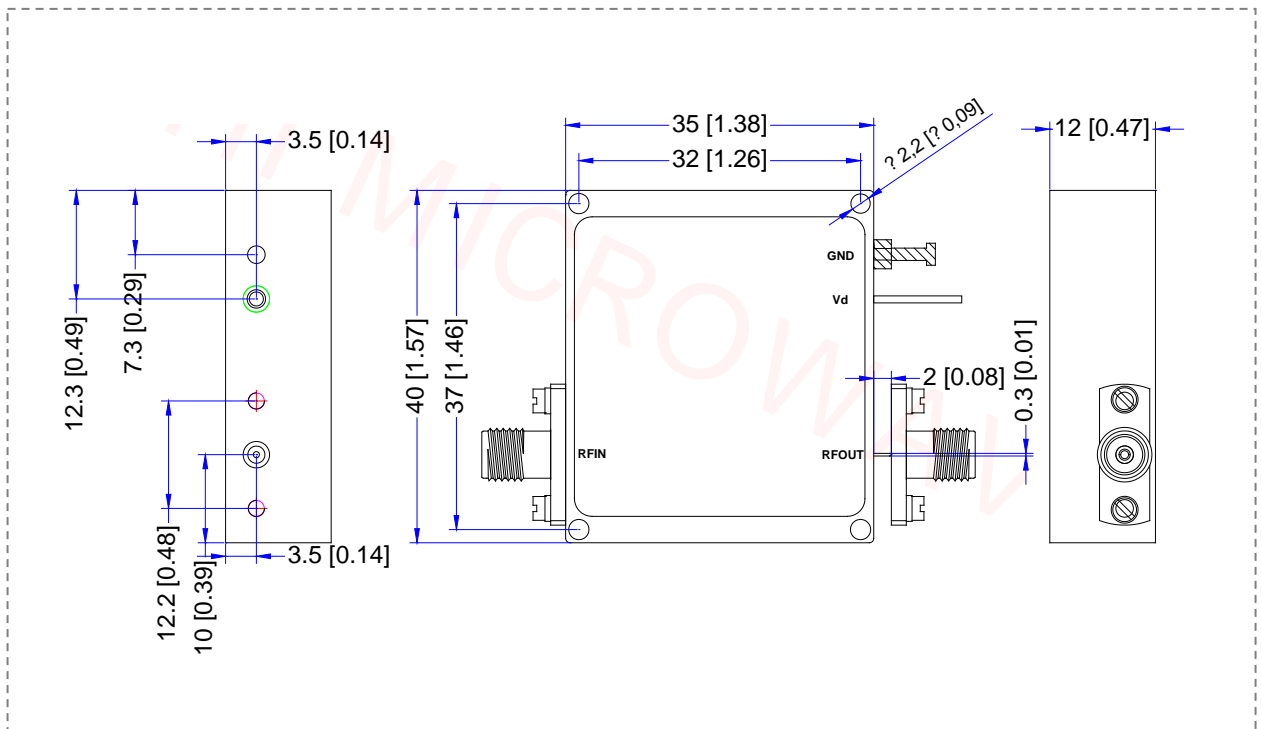
### Absolute Maximum Ratings

|                       |                      |
|-----------------------|----------------------|
| Supply Bias Voltage   | +15V                 |
| RF INPUT POWER        | 10dBm                |
| ESD sensitivity (HBm) | Class 0, passed 150V |



### Outline Drawing

All Dimensions in mm ( inches ) Tolerance  $\pm 0.25$  ( 0.01 )



\*\*\*Heat Sink required during operation\*\*\*