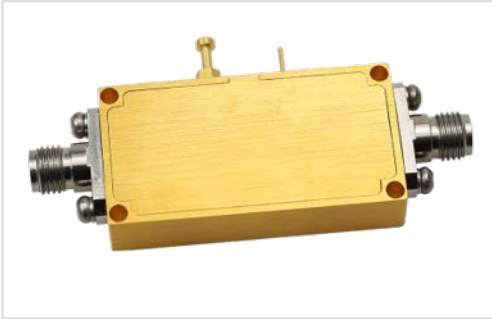


# MODEL HILNAT5043525

## 0.5-4GHz Broadband Amplifier



Note: The photo is for illustration purposes only.  
Please refer to outline drawing

### ■ Features

- Ultra Wide Band: 0.5-4GHz
- Gain: 35dB
- Output Power: 25dBm
- High Output IP3: 36dBm

### ■ Applications

- Radar Systems
- Communication Systems
- Receivers Systems

### □ Electrical Specifications

| Parameter                                  | Min.             | Typ.  | Max  | Units |
|--|------------------|-------|------|-------|
| Frequency Range                            | 0.5~4            |       |      | GHz   |
| Gain                                       | 30               | 34    | 37   | dB    |
| Gain Flatness                              |                  | ±1.25 | ±1.5 | dB    |
| Input VSWR                                 |                  | 1.4   | 2.0  |       |
| Output VSWR                                |                  | 1.3   | 1.8  |       |
| Output Power for 1 dB                      | 24               | 25    |      | dBm   |
| Saturated Output Power (P <sub>sat</sub> ) |                  | 26    |      | dBm   |
| Noise Figure                               |                  | 2.5   | 4    | dB    |
| Spurious                                   |                  |       | -65  | dBc   |
| OIP3                                       | 34               | 36    |      | dBm   |
| Input Max Power(no damage)                 |                  |       | 10   | dBm   |
| DC Current (V <sub>cc</sub> =+12~15V)      | 120              | 180   | 300  | mA    |
| Impedance                                  | 50               |       |      | Ω     |
| Input Output Connector                     | SMA-k/SMA-K      |       |      |       |
| Material                                   | Aluminium/Nickel |       |      |       |
| Weight                                     | 100g             |       |      |       |
| Size (inches)                              | 2.08X1.08X0.5    |       |      |       |

### Environmental Conditions

|                         |              |           |   |
|-------------------------|--------------|-----------|---|
| Operational Temperature | -45°C~+85°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-810G | Humidity  | 100% RH at 35c, 95%RH at 40°C                       |

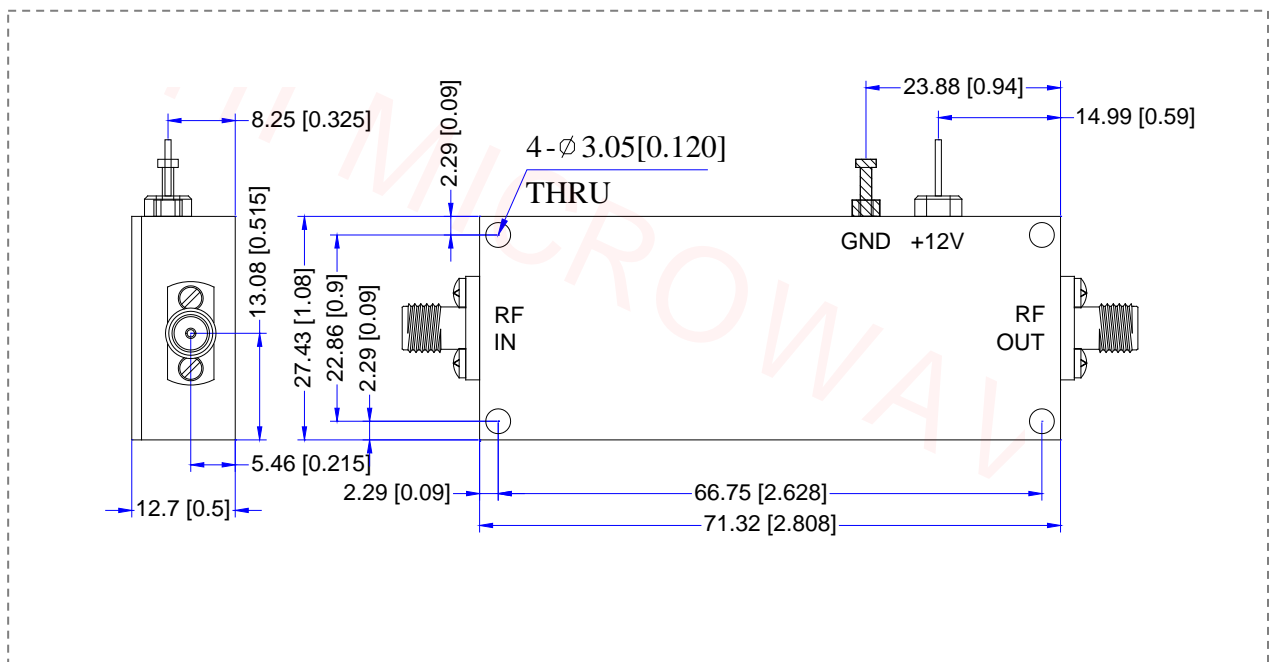
### Absolute Maximum Ratings

|                       |                      |
|-----------------------|----------------------|
| 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\*\*\***