



## FEATURES:

- 0.5 GHz ~ 4.0 GHz;
- 26 dB Gain;
- 1.2 dB Noise Figure;
- 14.0 dBm  $P_{1dB}$ ;
- 27.0 dBm  $IP_3$ ;
- Unconditional Stable;
- RoHS Compliant.

## APPLICATIONS:

- Radar;
- Receiver;
- ECM System;
- WBA System;
- Point to Point;
- Test & Measurement;
- Wide Band PA Driver.



# LNA05004000A, 0.5 GHz ~ 4.0 GHz WIDE BAND LOW NOISE AMPLIFIER

## ELECTRICAL SPECIFICATIONS @ 21 °C

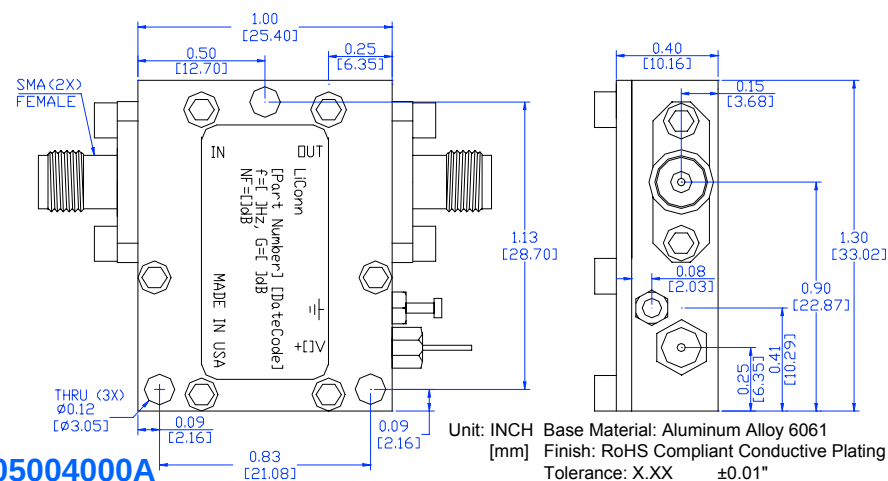
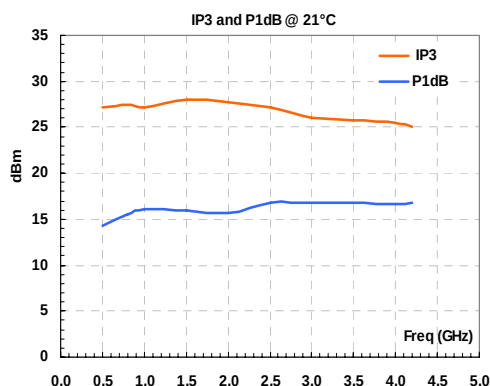
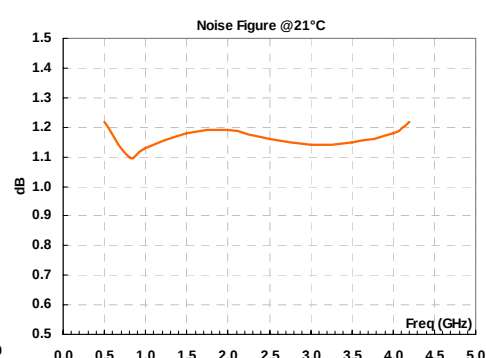
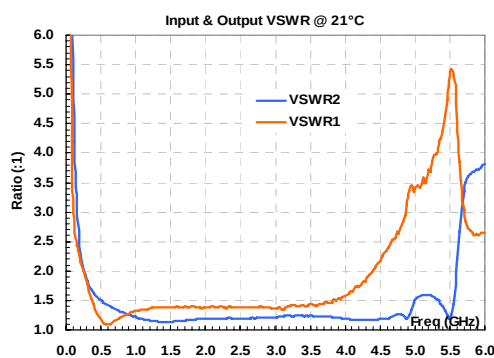
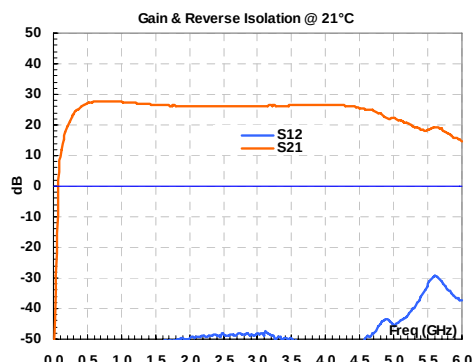
| Symbol     | Parameters/Conditions                  | Unit  | Min  | Typical   | Max       |
|------------|----------------------------------------|-------|------|-----------|-----------|
| G          | Gain                                   | dB    | 24   | 26        | 28        |
| $\Delta G$ | Gain Flatness                          | dB    |      | $\pm 1.0$ | $\pm 1.3$ |
| $VSWR_1$   | VSWR – Input                           | Ratio |      | 1.8:1     | 2:1       |
| $VSWR_2$   | VSWR – Output                          | Ratio |      | 1.5:1     | 1.8:1     |
| $S_{12}$   | Reverse Isolation                      | dB    | 45   | 50        |           |
| NF         | Noise Figure                           | dB    |      | 1.2       | 1.4       |
| $OIP_3$    | Output 3 <sup>rd</sup> Order Intercept | dBm   | 24   | 26        |           |
| $P_{1dB}$  | Output 1dB Gain Compression            | dBm   | 12   | 14        |           |
| $I_{dd}$   | Device Current ( $V_{dd}=+5V$ )        | mA    |      | 65        |           |
| $V_{dd}$   | DC Power Supply Voltage                | V     | +4.7 | +5.0      | +5.3      |
| $Z_0$      | Impedance                              | Ohm   |      | 50        |           |

## ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

| Parameters/Conditions   | Unit | Maximum    |
|-------------------------|------|------------|
| Channel Temperature     | °C   | +150       |
| CW RF Input Power       | dBm  | +10        |
| DC Supply Voltage       | V    | +7.0       |
| Drain Current           | mA   | 80         |
| Thermal Resistance      | °C/W | 215        |
| Total Power Dissipation | mW   | 400        |
| Operating Temperature   | °C   | -40 ~ +85  |
| Storage Temperature     | °C   | -55 ~ +125 |

[1] Operation beyond these limits may cause permanent damage.

## ELECTRICAL PERFORMANCE/MECHANICAL OUTLINE



## ORDERING INFORMATION: LNA05004000A