## FEATURES:

- **1 MHz ~ 600 MHz;**
- **37.0 dB Gain;**
- **1.2 dB Noise Figure;**
- **30.0 dBm $P_{1dB}$;**
- **40.0dB Output $IP_3$;**
- **1.5:1 VSWR;**
- **Unconditional Stable;**
- **RoHS Compliant.**

## APPLICATIONS:

- **Mobile Infrastructure;**
- **GPS;**
- **CATV/DBS;**
- **Security System;**
- **Fixed Wireless;**
- **Measurement.**


# LPA00010600B, 1 MHz ~ 600 MHz WIDE BAND POWER AMPLIFIER

## ELECTRICAL SPECIFICATIONS @ 21 °C

| Symbol | Parameters/Conditions | Unit | Min | Typical | Max |
|---|---|---|---|---|---|
| G | Gain | dB | | 37 | |
| ΔG | Gain Flatness | dB | | ±0.5 | ±0.75 |
| $VSWR_1$ | Input VSWR | Ratio | | 1.35:1 | 1.5:1 |
| $VSWR_2$ | Output VSWR | Ratio | | 1.35:1 | 1.8:1 |
| $S_{12}$ | Reverse Isolation | dB | | 45 | |
| NF | Noise Figure | dB | | 1.2 | 1.5 |
| $OIP_3$ | Output 3rd Order Intercept | dBm | 38 | 40 | |
| $P_{1dB}$ | Output 1dB Gain Compression | dBm | 28 | 30 | |
| $I_{dd}$ | Device Current ($V_{dd}$=+12V) | mA | | 270 | |
| $V_{dd}$ | Positive Power Supply Voltage | V | +11.5 | +12.0 | +12.5 |
| $Z_0$ | Impedance | Ohm | | 50 | |

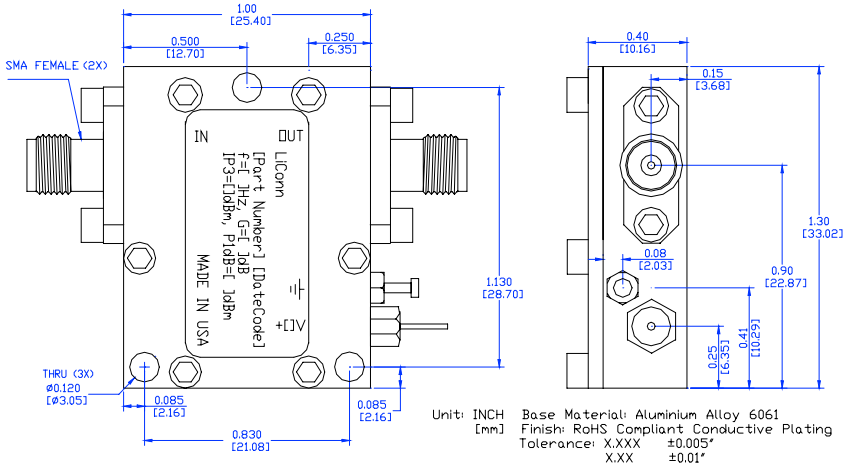
## ABSOLUTE MAXIMUM RATINGS[1]

| Parameters/Conditions | Unit | Maximum |
|---|---|---|
| Channel Temperature | °C | 150 |
| CW RF Input Power | dBm | 10 |
| DC Supply Voltage | V | 13 |
| Drain Current | mA | 300 |
| Thermal Resistance | °C/W | 30 |
| Total Power Dissipation | W | 6 |
| Storage Temperature | °C | -55 ~ +125 |
| Operating Temperature | °C | -40 ~ +85 |

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

Preliminary

## MECHANICAL OUTLINE




## ORDERING INFORMATION

| Model Number | Input | Output |
|---|---|---|
| LPA00010600B-1 | SMA Female | SMA Female |
| LPA00010600B-2 | SMA Female | SMA Male |
| LPA00010600B-3 | SMA Male | SMA Female |
| LPA00010600B-4 | SMA Male | SMA Male |

**Additional Heat Sink Required!**

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