

# 6-13 GHz Low Noise Amplifier TGA8399B-EPU

## Key Features and Performance

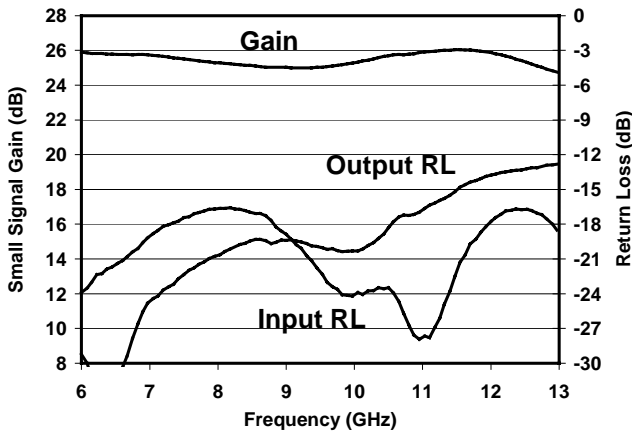
- 3 Stage LNA 0.25um pHEMT Technology
- 6-13 GHz Frequency Range
- 1.75 dB Typical Noise Figure Midband
- 25 dB Nominal Gain
- High Input Power Handling: ~ 20dBm
- Balanced Input for Low VSWR
- 5V @ 65mA Self Bias

## Primary Applications

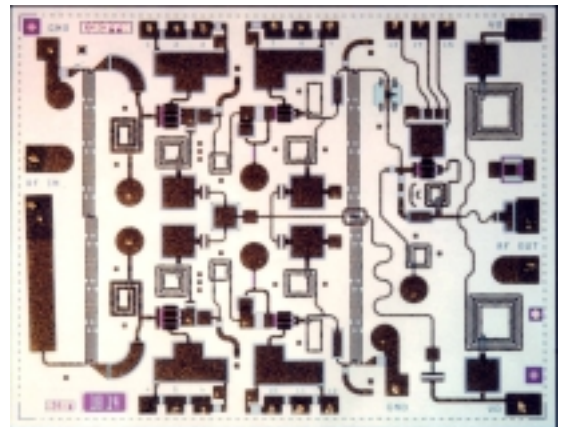
- Point-to-Point Radio

## Release Status

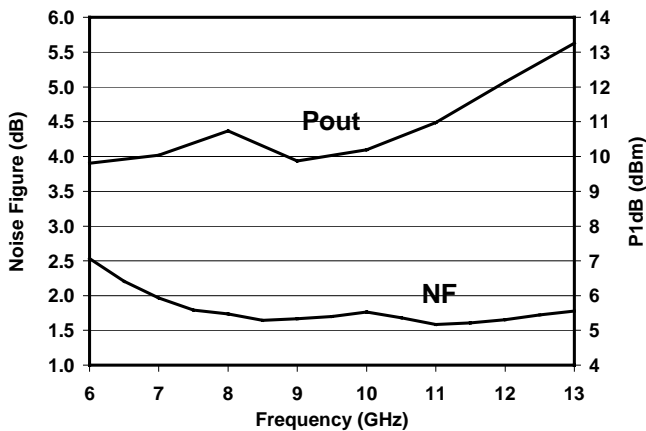
- Engineering Prototype Unit (EPU) samples available



Typical Measured Small Signal Gain & RL



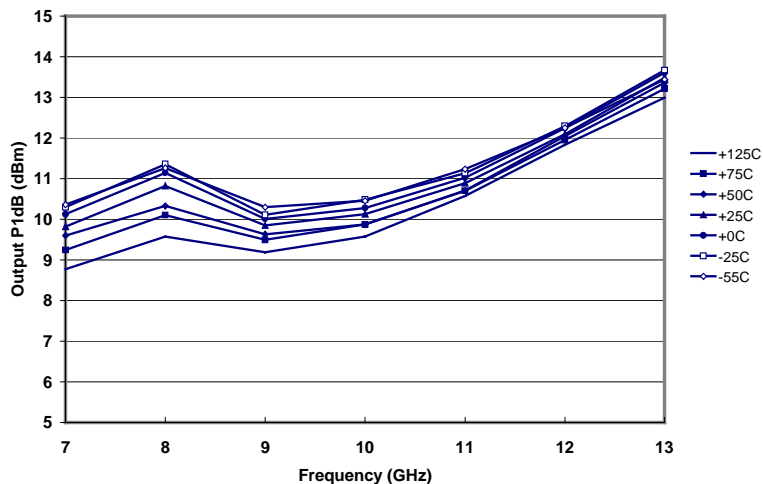
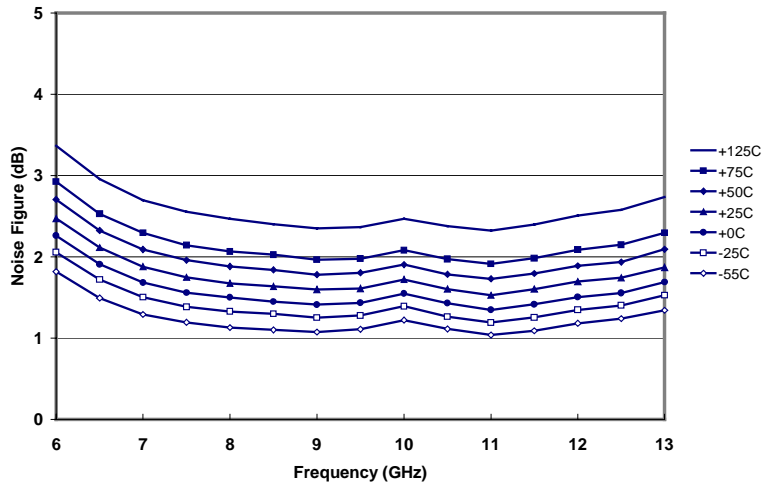
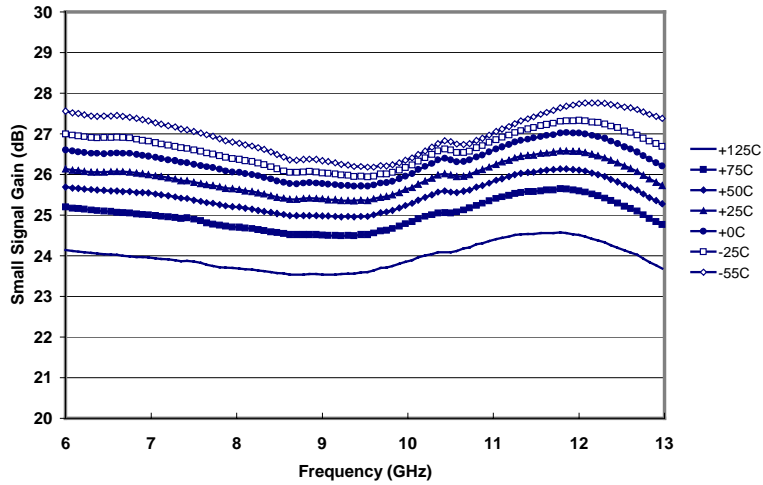
Chip Dimensions 3.07mm x 2.41mm x 0.152mm



Typical Measured NF and Pout

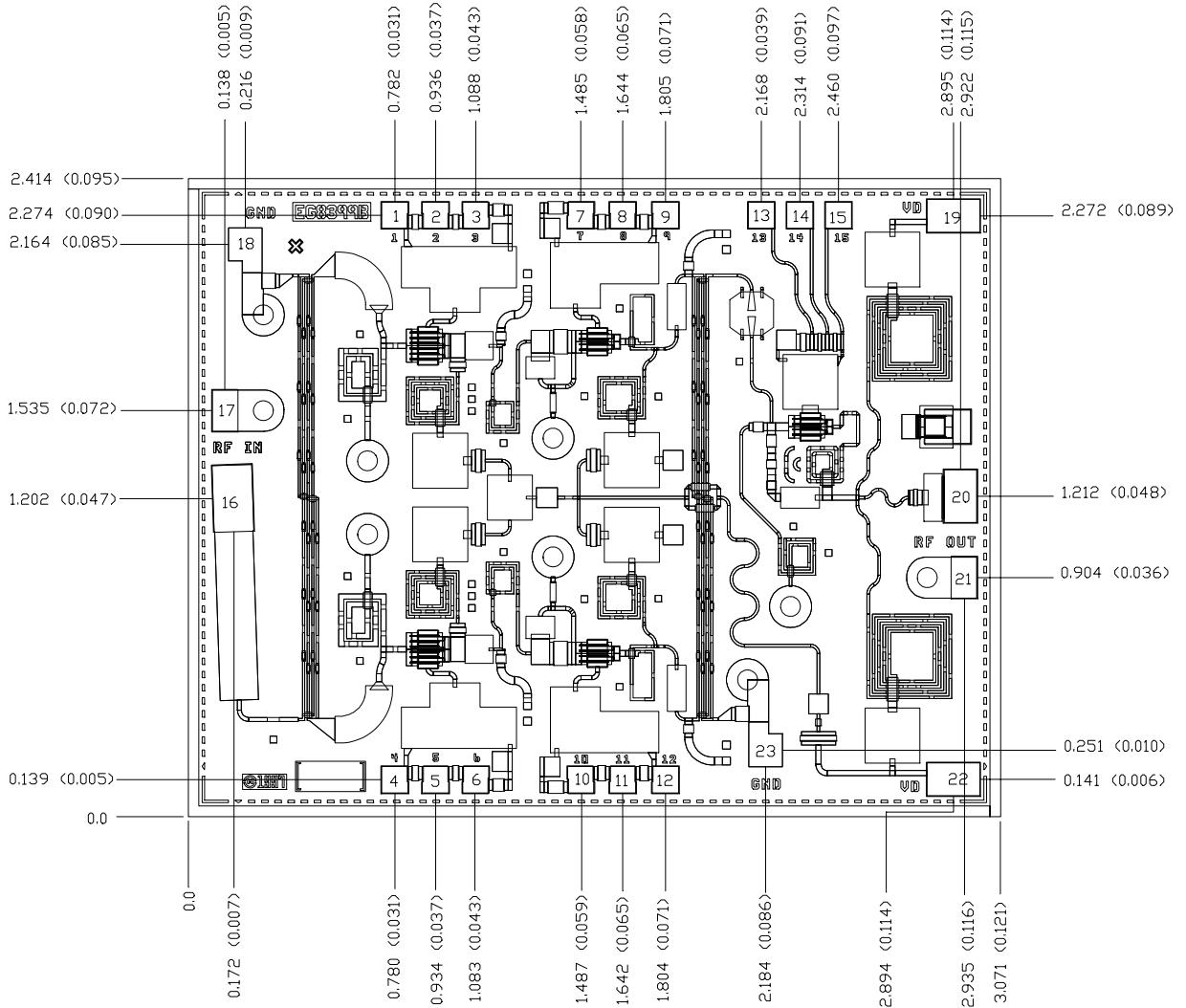
Note: Devices designated as EPU are typically early in their characterization process prior to finalizing all electrical and process specifications.

**TA8399B Performance vs Temperature**



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Units: millimeters (inches)

Thickness: 0.1524 (0.006) (reference only)

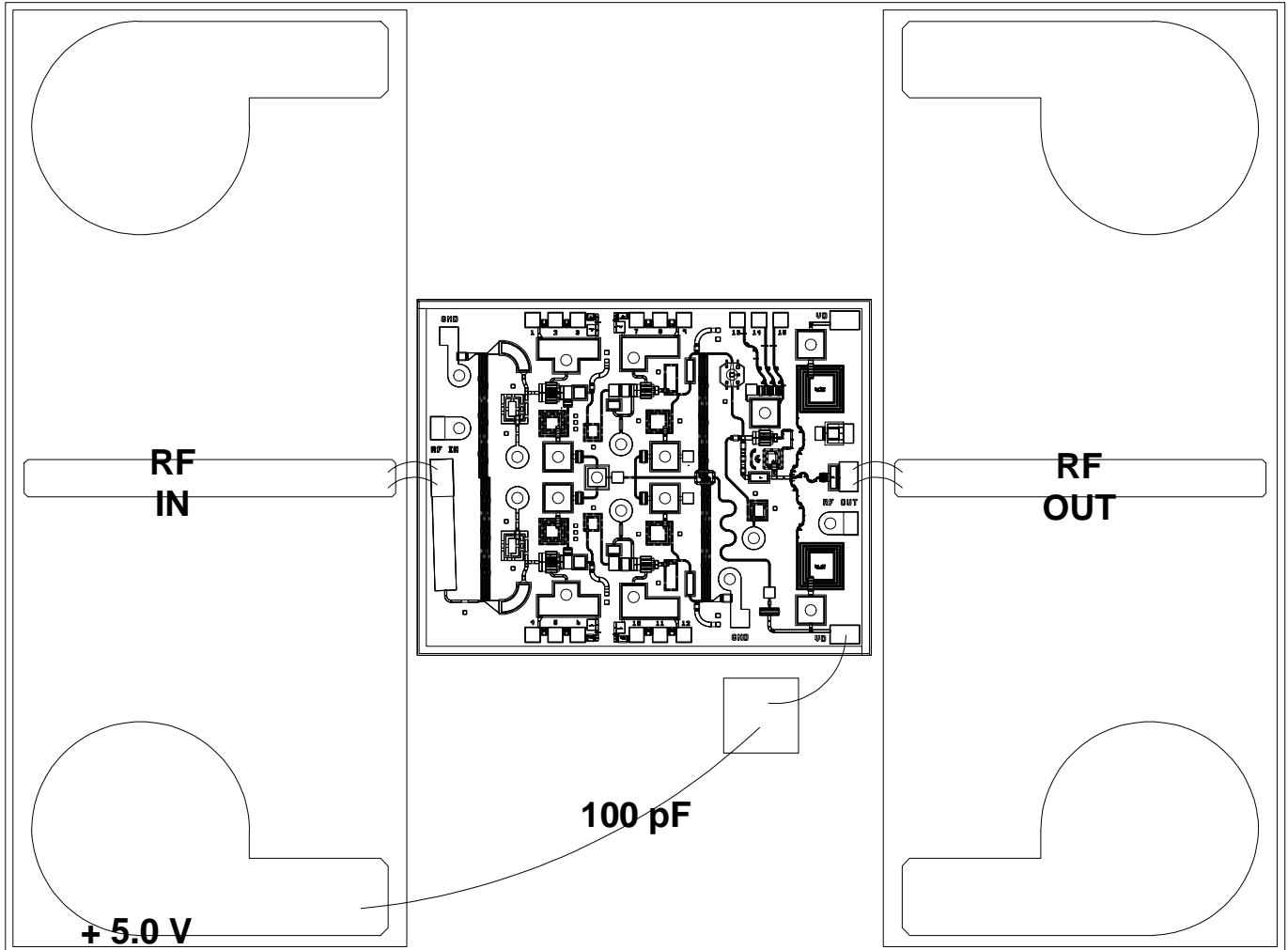
Chip edge to bond pad dimensions are shown to center of bond pad

Chip size tolerance: +/- 0.051 (0.002)

|                          |                               |
|--------------------------|-------------------------------|
| Bond Pad #1~#15 (R1~R15) | 0.100 x 0.100 (0.004 x 0.004) |
| Bond Pad #16 (RF Input)  | 0.152 x 0.252 (0.006 x 0.010) |
| Bond Pad #17 (GND)       | 0.100 x 0.161 (0.004 x 0.006) |
| Bond Pad #18 (GND)       | 0.125 x 0.128 (0.005 x 0.005) |
| Bond Pad #19 (VDD)       | 0.125 x 0.200 (0.005 x 0.008) |
| Bond Pad #20 (RF Output) | 0.125 x 0.200 (0.005 x 0.008) |
| Bond Pad #21 (GND)       | 0.100 x 0.161 (0.004 x 0.006) |
| Bond Pad #22 (VDD)       | 0.125 x 0.200 (0.005 x 0.008) |
| Bond Pad #23 (GND)       | 0.125 x 0.128 (0.005 x 0.005) |

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**Recommended Assembly Layout**



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