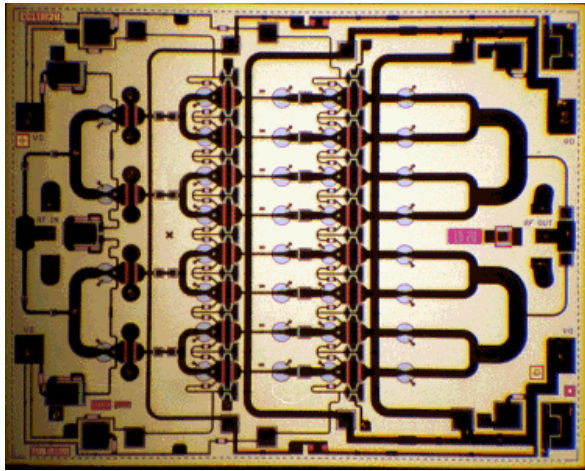


27- 32 GHz 1.5 Watt Power Amplifier

TGA1082B

Prototype Part #, Production Part # TBD



The TriQuint TGA1082B-EPU is a three stage HPA MMIC design using TriQuint's proven 0.25 um Power pHEMT process. The TGA1082B is designed to support a variety of millimeter wave applications including point-to-point digital radio and LMDS/LMCS and Ka band satellite ground terminals.

The TGA1082B provides 30 dBm nominal output power at 1dB compression across 27-32GHz. Typical small signal gain is 22 dB at 30GHz.

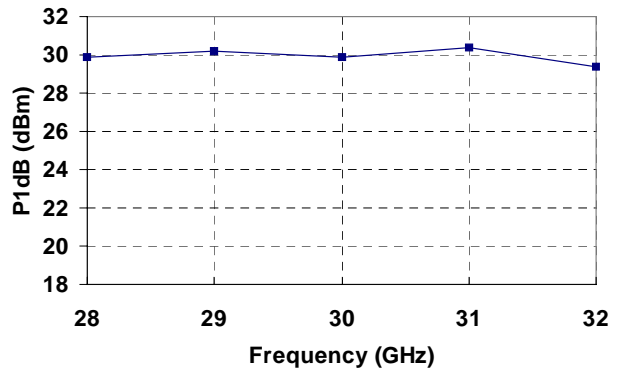
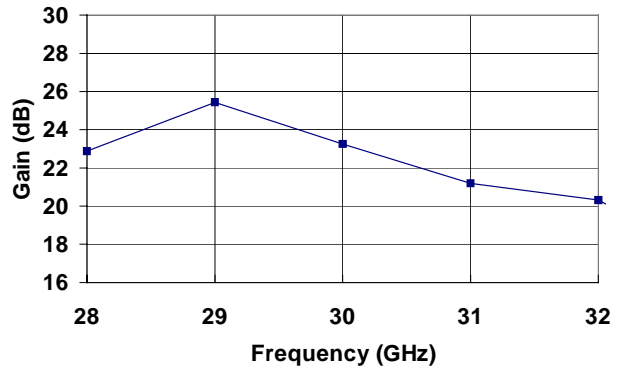
The TGA1082B requires minimum off-chip components. Each device is 100% DC and RF tested on-wafer to ensure performance compliance. The device is available in chip form.

Key Features

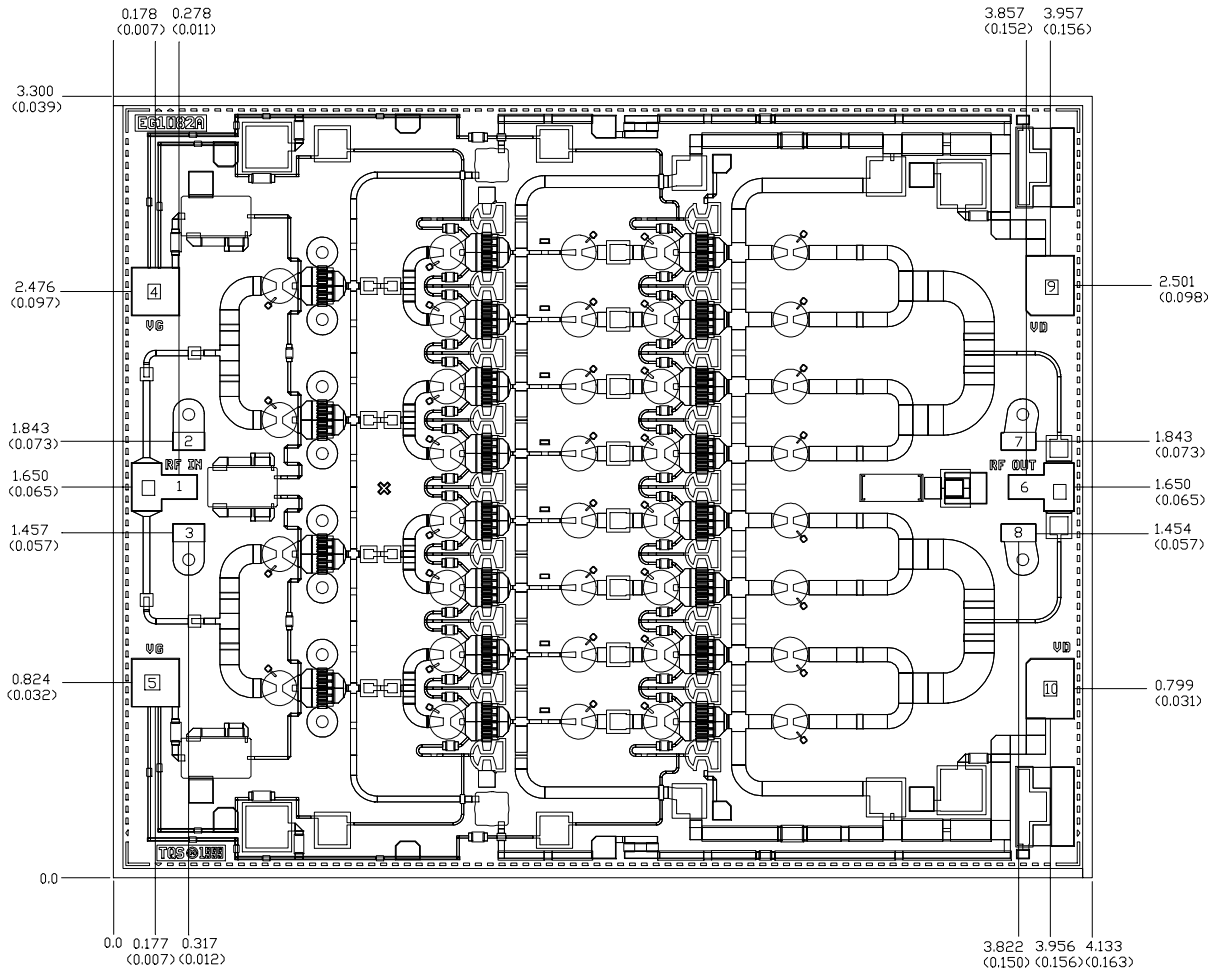
- 0.25 um pHEMT Technology
- 22 dB Nominal Gain at 30GHz
- 1W Nominal Pout @ P1dB
- 1.5W Psat at 30GHz
- Bias 6 - 7V @ 960 mA
- Chip Dimensions 4.13mm x 3.3mm

Primary Applications

- Point-to-Point Radio
- Point-to-Multipoint Communications
- Ka Band Sat-Com



Note: Devices designated as EPU are typically early in their characterization process prior to finalizing all electrical and process specifications. Specifications are subject to change without notice



Units: millimeters (inches)

Thickness: 0.1016 (0.004)

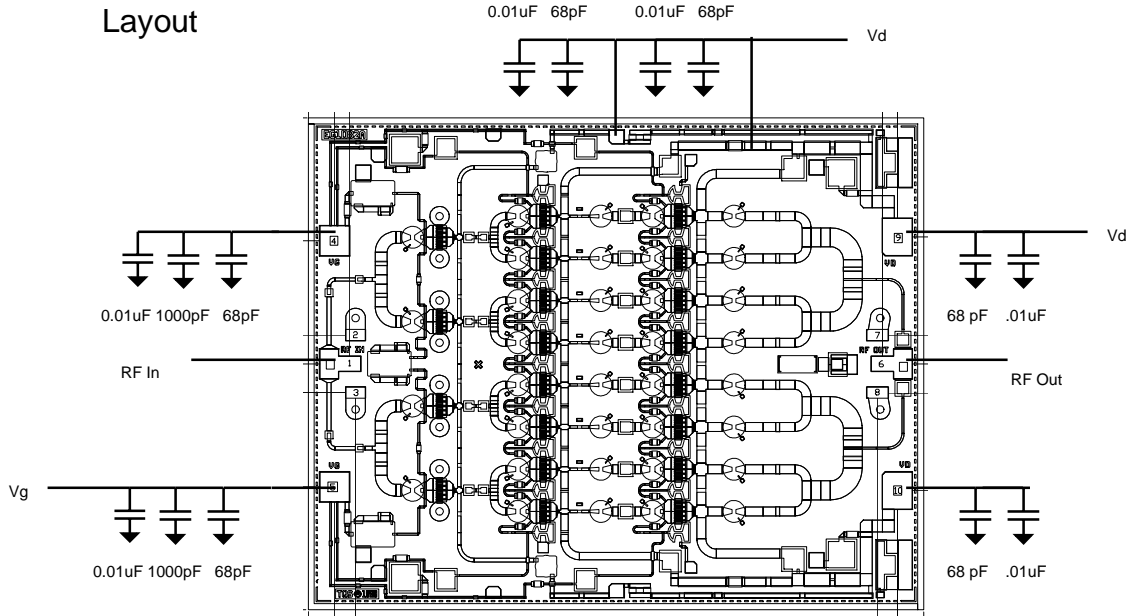
Chip edge to bond pad dimensions are shown to center of bond pad

Chip size tolerance: +/- 0.051 (0.002)

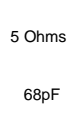
Bond Pad #1 (RF Input)	0.105 x 0.150 (0.004 x 0.006)
Bond Pad #2,#3 (GND)	0.078 x 0.136 (0.003 x 0.005)
Bond Pad #4,#5 (VG)	0.205 x 0.205 (0.008 x 0.008)
Bond Pad #6 (RF Output)	0.105 x 0.150 (0.004 x 0.006)
Bond Pad #7,#8 (GND)	0.078 x 0.150 (0.003 x 0.006)
Bond Pad #9,#10 (VD)	0.205 x 0.255 (0.008 x 0.010)

Note: Devices designated as EPU are typically early in their characterization process prior to finalizing all electrical and process specifications. Specifications are subject to change without notice

Figure 1 -- Recommended Bias Layout

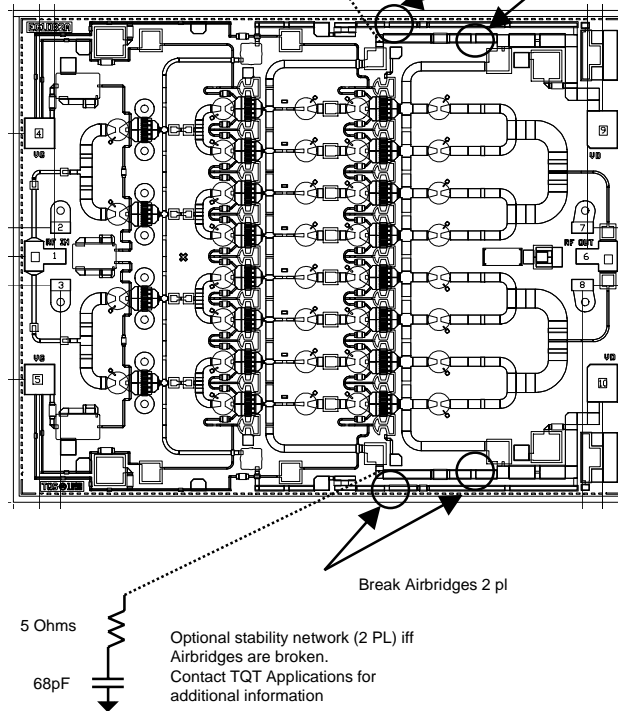


Optional stability network (2 PL) iff
Airbridges are broken.
Contact TQT Applications for
additional information



Airbridges 2 pl

Figure 2 -- Optional Bias Mode for Enhanced Stability



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