

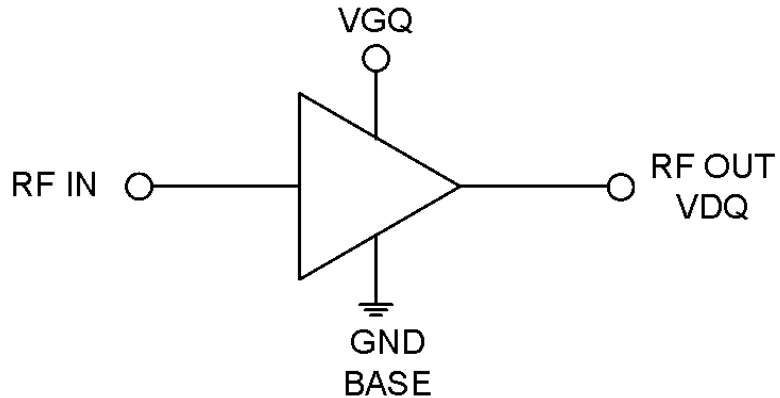


**Features**

- Advanced GaN HEMT Technology
- Output Power of 25W
- Advanced Heat-Sink Technology
- 30–2000 MHz Instantaneous bandwidth
- Input Internally Matched to 50Ω
- 48V Operation Typical Performance
  - P<sub>OUT</sub> 43dBm
  - Gain 13dB
  - Power Added Efficiency 45% (30MHz to 2000MHz)
  - Power Added Efficiency 55% (200MHz to 1800MHz)
- -40 °C to 85 °C Operating Temperature
- Large signal models available

**Applications**

- Class AB Operation for Public Mobile Radio
- Power Amplifier Stage for Commercial Wireless Infrastructure
- General Purpose Tx Amplification
- Test and Instrumentation
- Civilian and Military Radar



Functional Block Diagram

**Product Description**

The RF3833 is a wideband power amplifier designed for CW and pulsed applications such as wireless infrastructure, RADAR, two way radios and general purpose amplification. Using an advanced high power density gallium nitride (GaN) semiconductor process, these high-performance amplifiers achieve high efficiency, flat gain and large instantaneous bandwidth in a single amplifier design. The RF3833 is an input matched GaN transistor packaged in an air cavity copper package which provides excellent thermal stability through the use of advanced heat sink and power dissipation technologies. Ease of integration is accomplished through the incorporation of optimized input matching network within the package that provides wide-band gain and power performance in a single amplifier. An external output match offers the flexibility of further optimizing power and efficiency for any sub-band within the overall bandwidth.

**Ordering Information**

RF3833	GaN Wide-Band Power Amplifier
RF3833PCBA-410	Fully Assembled Evaluation Board: 30MHz to 2000MHz; 48V operation
RF3833PCBA-411	Fully Assembled Evaluation Board: 200MHz to 1800MHz; 48V operation

**Optimum Technology Matching® Applied**

- |                                      |                                      |                                     |  |
|--------------------------------------|--------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> GaAs HBT    | <input type="checkbox"/> SiGe BiCMOS | <input type="checkbox"/> GaAs pHEMT | <input checked="" type="checkbox"/> GaN HEMT |
| <input type="checkbox"/> GaAs MESFET | <input type="checkbox"/> Si BiCMOS   | <input type="checkbox"/> Si CMOS    | <input type="checkbox"/> BiFET HBT           |
| <input type="checkbox"/> InGaP HBT   | <input type="checkbox"/> SiGe HBT    | <input type="checkbox"/> Si BJT     |  |

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**RF3833**

*Proposed*

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**Please contact  
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for more information.**