

**CASCADABLE BROADBAND
GaAs MMIC AMPLIFIER DC TO 6GHz**

Typical Applications

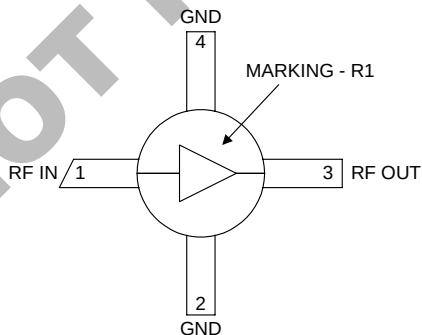
- Cellular Basestation Amplifiers and Transceivers
- Gain Stage or Driver Amplifiers for Linear and Saturated Amplifiers
- Narrow and Broadband Commercial and Military Radio Designs

Product Description

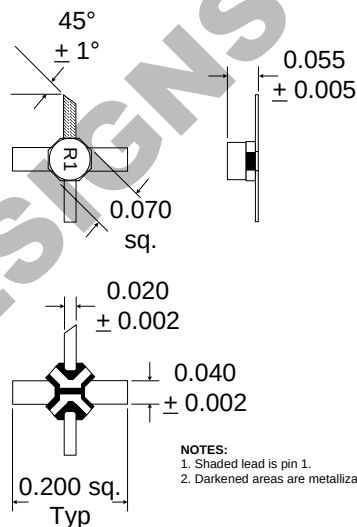
The RF3816 is a high-performance InGaP/GaAs general purpose RF and microwave gain block amplifier. This 50 Ω amplifier is based on a reliable HBT MMIC design, providing unsurpassed performance for many small-signal applications. Designed with an external bias resistor, the RF3816 provides high output power and high gain over broad frequency range. This low-cost amplifier is packaged in a thermally efficient, industry standard, ceramic Micro-X package providing excellent Θ_{JA} performance.

Optimum Technology Matching® Applied

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|---|-----------------------------------|---------------------------------------|
| ☐ Si BJT | ☐ GaAs HBT | ☐ GaAs MESFET |
| ☐ Si Bi-CMOS | ☐ SiGe HBT | ☐ Si CMOS |
| ☒ InGaP/HBT | ☐ GaN HEMT | ☐ SiGe Bi-CMOS |



Functional Block Diagram



Package Style: Micro-X, 4-Pin, Ceramic

Features

- Reliable, Low-Cost HBT Design
- 12.1dB Gain, +17.3dBm P1dB@1.0GHz
- High P1dB of +14.7dBm@6.0GHz
- Single 6V Power Supply Operation
- 50 Ω I/O Matched
- Thermally-Efficient Package

Ordering Information

RF3816	Cascadable Broadband GaAs MMIC Amplifier DC to 6GHz (Bulk: 25 piece increment)
RF3816SB	5-piece Sample Bag
RF3816SR	100-piece Reel
RF3816TR7	7" Reel (1,000 pieces)
RF3816PCBA-410	Evaluation Board
RF Micro Devices, Inc. 7628 Thorndike Road Greensboro, NC 27409, USA	
Tel (336) 664 1233 Fax (336) 664 0454 http://www.rfmd.com	

***Please contact
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NOT FOR NEW DESIGNS