

TAT3814

5-300 MHz Variable Gain Return Path Amplifier



Applications

- Return Path Amplifier
- System Amplifier
- Line Amplifier
- DOCSIS Return Path VGA
- Bonded Channel Cable Modem Return Path

Product Features

- Integrates Attenuation and Amp Functionality
- 5-300 MHz Performance
- 75 Ohm
- Variable gain attenuator: 20 dB typical range
- Max gain setting: 36 dB typical
- 15 dB typical return loss across gain range
- 5 dB typical Noise Figure
- 40dBm typical OIP3
- +8 V Supply (Lower supply voltages possible)
- 320 mA Operating Current
- Compact 6x6 mm integrated package

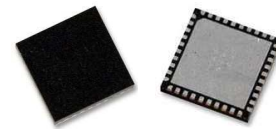
General Description

The TAT3814 is a variable gain return path amplifier designed for head-end and system amplifier infrastructure applications. The TAT3814 provides up to 37 dB gain with 20dB automatic gain control capability.

The small size, 6x6 mm and efficient power dissipation, nominal 2.5 watts, provide an ideal solution for high density head-end applications and compact system amplifiers.

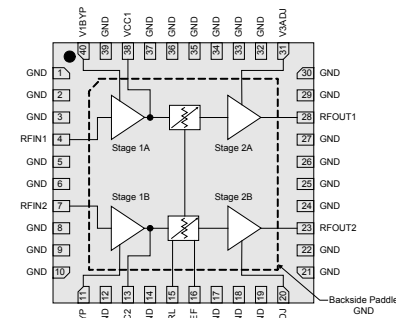
Standard supply voltage for the TAT3814 is +8V. Operation from lower supply voltages is possible. Contact TriQuint CATV applications for guidance.

The TAT3814 is fabricated using 6-inch GaAs pHEMT and HBT technologies to optimize performance and cost.



6x6 mm 40 Pin leadless SMT Package

Functional Block Diagram



Pin Configuration

Pin No.	Symbol
1-3, 5-6, 8-10, 12, 14, 17-19, 21-22, 24-27, 29-30, 32-37, 39	GND
4 / 7	RFIN1 / RFIN2
11	V2BYP
40	V1BYP
13 / 38	VCC2 / VCC1
15	VCTRL
16	VREF
20	V4ADJ
23 / 28	RFOUT2 / RFOUT1
31	V3ADJ
Backside Paddle	GND

Ordering Information

Part No.	Description
TAT3814	Return path VGA
TAT3814-PCB	5-300 MHz Evaluation Board

Standard T/R size = 1000 pieces on a 7" x 12mm reel