

Description

The F1491 is a high gain, two-stage RF Amplifier designed to operate within the 3.3GHz to 5.0GHz frequency range. Using a single 5V power supply, the F1491 provides two selectable gain modes (35.5dB and 39.5dB), and 24dBm OP1dB.

The F1491 is packaged in a 3 × 3 mm 16-VFQFPN package, with matched 50Ω input and output impedances for ease of integration into the signal path.

Typical Applications

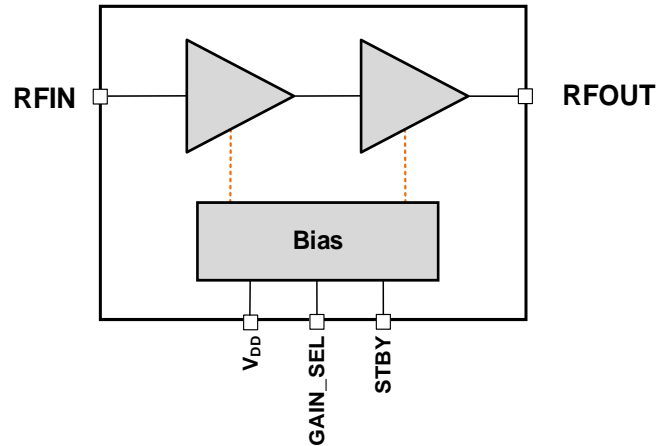
- 5G sub-6GHz massive MIMO
- Wireless infrastructure base stations
- FDD or TDD systems
- Point-to-point infrastructure
- Public safety infrastructure
- Military handhelds
- Repeaters and DAS
- General purpose RF

Features

- RF range: 3.3GHz to 5.0GHz
- 39.5dB typical gain in high gain mode
- 35.5dB typical gain in low gain mode
- 24dBm typical OP1dB
- 50Ω single-ended input and output impedances
- 5V power supply
- 75mA quiescent current consumption
- 1.8V logic compatible Standby Mode for power savings
- Operating temperature (T_{EPAD}) range: -40°C to +115°C
- 3 × 3 mm 16-VFQFPN package

Block Diagram

Figure 1. Block Diagram



Ordering Information

Orderable Part Number	Package	MSL Rating	Shipping Packaging	Temperature
RA81F1491STGNM#BD0	3 × 3 × 0.9 mm 16-VFQFPN	MSL 3	Tray	-40° to +115°C
RA81F1491STGNM#KD0	3 × 3 × 0.9 mm 16- VFQFPN	MSL 3	Tape and Reel	-40° to +115°C
RTKA81F1491ST360RU	Evaluation Board for 3.3GHz to 3.8GHz Band			
RTKA81F1491ST400RU	Evaluation Board for 3.8GHz to 4.2GHz Band			
RTKA81F1491ST470RU	Evaluation Board for 4.4GHz to 5.0GHz Band			

Revision History

Revision Date	Description of Change
May 11, 2020	Initial release.

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