

RFLN18S-10 is a Two-stage low-noise amplifier. It provides high gain over wide bandwidth, low Noise Figure, high isolation, and stability. The LNA is designed to operate GHz using 0.1um GaAs pHEMT process. The designed LNA, bias current, and gain can be set with the gate bias to allow the user to customize the current, gain, and NF value to fit the application. The LNA offers less than 3 dB noise figure, 17 dB of small signal gain, OP1dB of 18 dBm with low noise figure along with the flexibility of setting current and gain makes this LNA an ideal front-end amplifier in 5G, Terrestrial communication system and Radar Application. All results are shown in the datasheet with consideration of parasitic and coupling effects in layout.

Features:

- RF Frequency: 12-18GHz.
- Noise Figure of 2.2 dB.
- Small Signal Gain of 17 dB.
- OP1dB of 18 dBm.
- OIP3 of 26 dBm.
- Biasing: VDD=4V, VGG=-0.55V, ID= 92mA
- Die Size: 1.15 mm x 1.95 mm

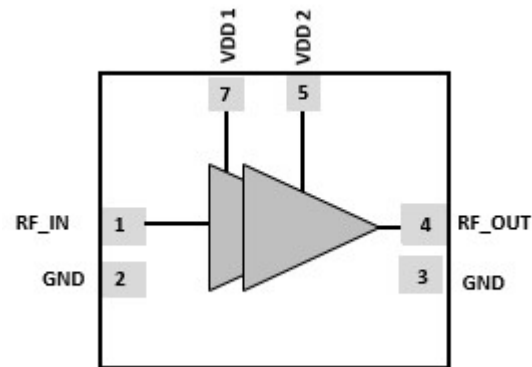
Application:

- 5G mobile system.
- Satellite Communication.
- Point-to-point communication system.
- Terrestrial communication system.
- Radar Application.

Tech Specs:

- Part Number: RFLN18S-10
- Provider: RFIC Solutions Inc.
- Foundry node: 0.1um GaAs pHEMT Win Semiconductors
- Porting: IP can be ported to 65nm Si / CMOS node
- Maturity: IC is fabricated and tested.
- Availability: Now

Functional Block Diagram:



Deliverables:

- Schematic and Netlist
- Abstract Model (.lib file)
- Layout View(Optional)
- Behavioral model (Circuit & EM simulation)
- Extracted View(Optional)
- GDSII
- DRC, LVS, Antenna report
- Test bench with configuration(Optional)
- Documentation

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