Low Noise Amplifier Chip

AAS2220

Product Specification

V1.0

1. Product Features

Frequency Range: 2~18 GHz

Small Signal Gain: 26.3 dB

Noise Figure: 1.25 dB

Output 1dB Compression Point: 9.2 dBm

Input 1dB Compression Point: -16.0 dBm

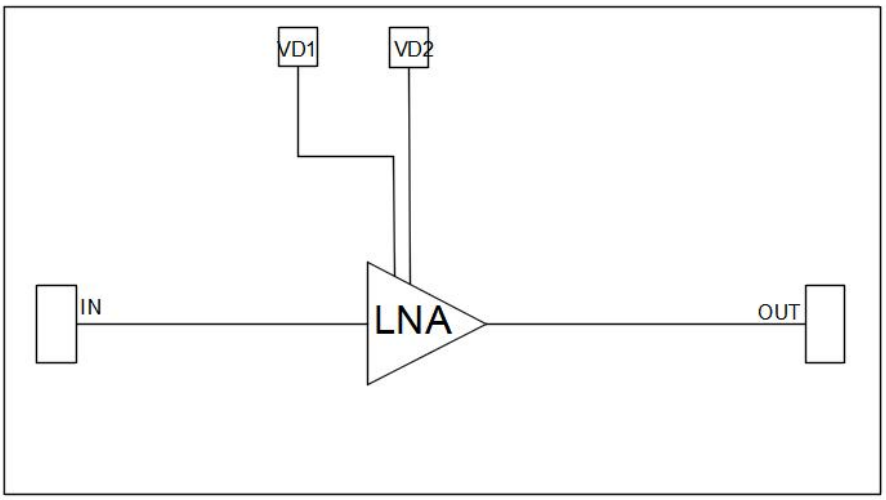
Bias Condition: VD = 5V, IDQ = 59mA

Chip Dimensions: 1.5mm×1.0mm×0.1mm

2. Functional Overview

The AAS2220 is a low noise amplifier chip operating in the 2~18 GHz frequency range. It operates at a supply voltage of +5V. At an operating current of 59mA, it provides a gain of 26.3 dB, with an output 1dB compression point of 9.2 dBm and a typical noise figure of 1.25 dB. The chip integrates DC blocking capacitors at all RF ports with a port impedance of 50Ω. Grounding is implemented via the backside metal of the chip.

3. Block Diagram



4. Typical Applications

Suitable for application fields such as communications and radar systems.

5. Electrical Performance Parameters

5.1 RF Characteristics

Unless otherwise specified, all electrical characteristics are measured under the following conditions: VD = 5.0V, IDQ = 59mA, small signal input power Pin = -35dBm, ambient temperature TA = +25° C, 50Ω system, continuous wave.