Driver Amplifier Chip

AASG4P0AS

Product Specification

V1.0

1. Product Features

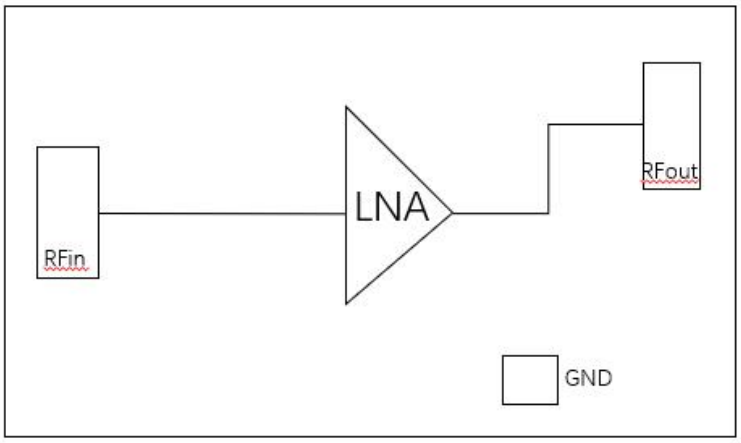
- Frequency Range: DC ~ 4 GHz
- Small-signal Gain: 18.4 dB @ 2.7 GHz, 16.5 dB @ 3.5 GHz
- Output P1dB: 18.5 dBm @ 3.5 GHz
- OIP3: 32 dBm @ 3.5 GHz
- Bias Condition: VDD = 5 V, Idq = 90 mA, Zin/Zout = 50 Ω
- Chip Dimensions: 0.4 mm × 0.7 mm × 0.10 mm

2. Functional Description

This chip is a driver amplifier operating from DC to 4 GHz with a single 5 V supply. At a bias current of 90 mA, it provides a gain of more than 22 dB and an output P1dB of 19.8 dBm at 1 GHz; at 3.5 GHz, it delivers a gain of 16.5 dB and an output P1dB of 18.5 dBm.

The chip is suitable for applications including communications and radar systems.

3. Block Diagram



4. Typical Applications

- Driver Amplifier
- PCS, GSM, UMTS
- IF Amplifier
- Wireless Communications, Radar, etc.

5. Electrical Parameters

5.1 RF Characteristics

Unless otherwise specified, all electrical characteristics are measured under the following conditions:VDD = 5 V, Idq = 90 mA, Rbias = 1.8 Ω, OIP3 Tone Spacing = 1 MHz, Pin = -20 dBm/tone, Temp = +25 ° C, de-embedded data, 50 Ω system.