Switch Driver Amplifier

AASTD3P5P1A

Product Specification

V1.0

1. Product Features

Frequency Range: 2.7~3.5GHz

Gain: 14dB @ TX Mode

Output P1dB: 21 dBm @ TX Mode

Insertion Loss: 1.3dB @ RX Mode

Switching Time: ＜100ns

Bias Conditions: VDD = 5V, IDQ = 55mA @ TX Mode, IDQ = 2.5mA @ RX Mode,

Zin/Zout=50Ω

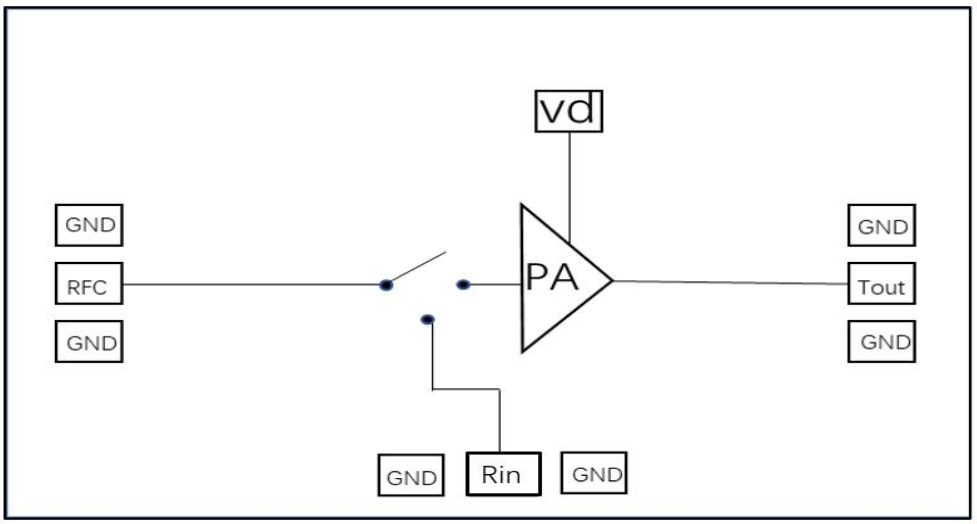
Chip Dimensions:

730μm×1100μm×100μm

2. Functional Overview

This chip is a driver amplifier with bypass mode operating in the 2.7~3.5GHz frequency band. In PA operating mode, it draws an operating current of 55mA, provides a gain of 14dB, and delivers an output P1dB power of 21 dBm; the insertion loss is 1.3dB under bypass mode. DC blocking capacitors are integrated at all RF ports of the chip with a port impedance of 50Ω, eliminating the need for additional matching circuits. The chip is suitable for applications in communications, radar and other fields.

3. Block Diagram



4. Typical Applications

- LTE / WCDMA / CDMA / GSM / Massive MIMO
- Repeaters / DAS (Distributed Antenna System)
- TDD or FDD Systems
- General-Purpose Wireless

5. Electrical Characteristics

5.1 RF Characteristics

Test Conditions: 50Ω system, Vd=TR-=TP=5V, TR+=0V, IDQ=55mA, Temperature=+25℃, TX mode (de-embedded data)