Description

The F0472 is an integrated dual-path RF front-end consisting of an RF switch and two gain stages with 6dB gain control used in the analog front-end receiver of an Active Antenna System (AAS). The F0472 supports frequencies from 2.3GHz to 2.7GHz.

The F0472 provides 34dB gain with +15dBm OP1dB, and 1.2dB noise figure (NF). Gain is reduced 6dB in a single step with a maximum settling time of 35ns. The device uses a single 3.3V supply and 130mA of I_{DD}.

The F0472 is offered in a 5 × 5 × 0.8 mm, 32-pin package with 50Ω input and output amplifier impedances for ease of integration into the signal path.
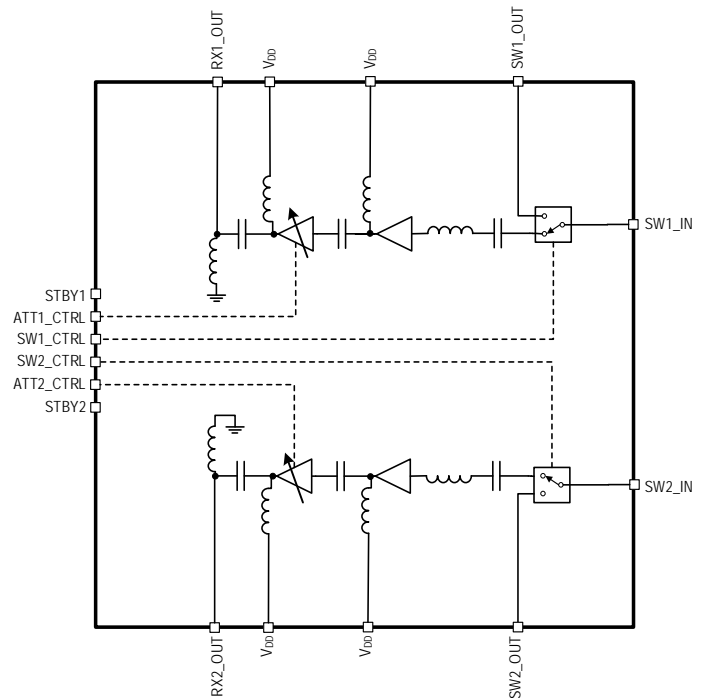
Typical Applications

- Multi-mode, multi-carrier receivers
- 4.5G (LTE Advanced)
- 5G NR bands n38, n40, n41

Features

- Gain
  - 34dB typical in High Gain Mode
  - 28dB typical in Low Gain Mode
- 1.2dB typical NF
- OP1dB
  - +15dBm typical in High Gain Mode
  - +14dBm typical in Low Gain Mode
- 50Ω single-ended input / output amplifier impedances
- I_{DD} = 130mA
- Independent Standby Mode for power savings
- Supply voltage: +3.15V to +3.45V
- 5 × 5 mm, 32-VFQFPN package
- -40°C to +105°C exposed pad operating temperature range

Block Diagram

Ordering Information

Orderable Part Number	Package	MSL Rating	Shipping Packaging	Temperature
RA81F0472STGNH#KB0	5 × 5 × 0.8 mm 32-VFQFPN	TBD	Tray	-40° to +105°C
RA81F0472STGNH#BB0	5 × 5 × 0.8 mm 32- VFQFPN	TBD	Tape and Reel	-40° to +105°C
RTKA81F0472ST000RU	Evaluation Board			

Revision History

Revision Date	Description of Change
May 19, 2020	Initial release.

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