

1 General Description

The RDA5807P is a single-chip broadcast FM stereo radio tuner with fully integrated synthesizer, IF selectivity and MPX decoder. The tuner uses the CMOS process, support multi-interface and require the least external component. The package size is 4X4mm² and is completely adjustment-free. All these make it very suitable for portable devices.

The RDA5807P has a powerful low-IF digital audio processor, this make it have optimum sound quality with varying reception conditions.

The RDA5807P can be tuned to the worldwide frequency band.

The RDA5807P is pin-to-pin compatible to RDA5800, RDA5800C and RDA5802.

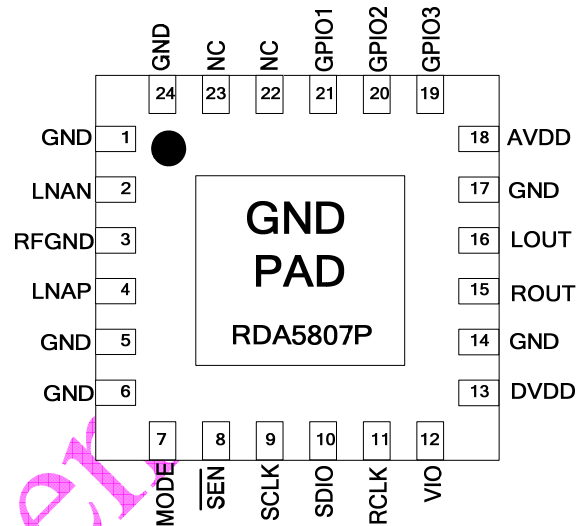


Figure 1-1. RDA5807P Top View

1.1 Features

- CMOS single-chip fully-integrated FM tuner
- Low power consumption
 - Total current consumption lower than 17.5mA at 3.3V power supply
- Support worldwide frequency band
 - 76 -108 MHz
- Digital low-IF tuner
 - Image-reject down-converter
 - High performance A/D converter
 - IF selectivity performed internally
- Fully integrated digital frequency synthesizer
 - Fully integrated on-chip RF and IF VCO
 - Fully integrated on-chip loop filter
- Autonomous search tuning
- Support crystal oscillator
- 32.768 KHz 12M,24M,13M,26M,19.2M,38.4MHz Reference clock
- 2-wire and 3-wire serial control bus interface
- Digital auto gain control (AGC)
 - Mono/stereo switch
 - Soft mute
 - High cut
- Signal dependent mono to stereo blend [Stereo Noise Cancelling (SNC)]
- Adjustment-free stereo decoder
- Autonomous search tuning function
- Bass boost
- Standby mode
- Programmable de-emphasis (50/75 μs)
- Directly support 32Ω resistance loading
- Integrated LDO regulator
 - 2.7 to 5.5 V operation voltage
- 4X4mm 24 pin QFN package