

SINGLE-CHIP BROADCAST FM RADIO TUNER

Rev.1.1–Aug.2010

1 General Description

The RDA5802HS is a new generation 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 3X3 mm and is completely adjustment-free. All these make it very suitable for portable devices.

The RDA5802HS has a powerful low-IF digital audio processor, this make it have optimum sound quality with varying reception conditions.

The RDA5802HS can be tuned to the worldwide frequency band, even support frequency range 50~65MHz.

1.1 Features

- CMOS single-chip fully-integrated FM tuner
- Low power consumption
 - Total current consumption lower than 21mA at 3.0V power supply when under normal situation
- Support worldwide frequency band
 - 50 -108 MHz
- Support flexible channel spacing mode
 - 100KHz, 200KHz, 50KHz and 25KHz
- 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 32.768KHz crystal oscillator
- Digital auto gain control (AGC)
- Digital adaptive noise cancellation
 - Mono/stereo switch
 - Soft mute
 - High cut
- Programmable de-emphasis (50/75 μ s)
- Receive signal strength indicator (RSSI) and SNR
- Bass boost
- Volume control and mute
- I²S digital output interface
- Line-level analog output voltage
- 32.768 KHz 12M,24M,13M,26M,19.2M,38.4MHz Reference clock
- 2-wire serial control bus interface
- Directly support 32Ω resistance loading
- Integrated LDO regulator
 - 1.8 to 5.5 V operation voltage
- 3X3mm 20 pin QFN package

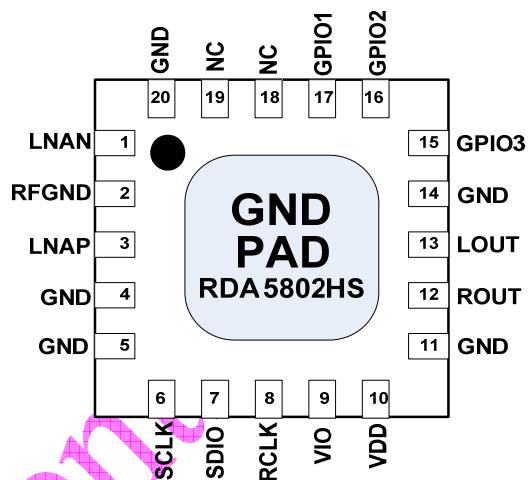


Figure 1-1. RDA5802HS Top View