

1 General Description

The RDA5802ES (RDA5802S Enhanced) 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 3X3mm and is completely adjustment-free. All these make it very suitable for portable devices.

The RDA5802ES has a powerful low-IF digital audio processor, this make it have optimum sound quality with varying reception conditions.

The RDA5802ES can be tuned to the worldwide frequency band.

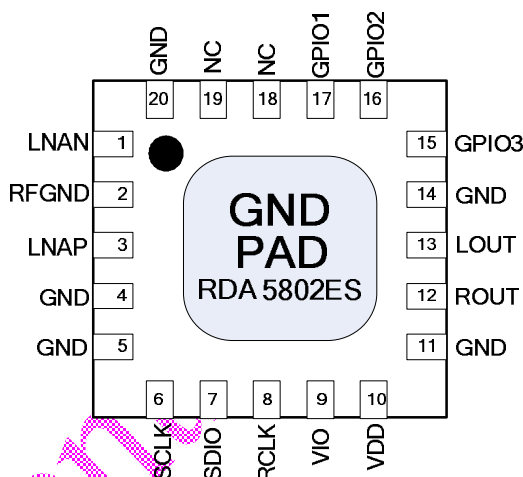


Figure 1-1. RDA5802ES Top View

1.1 Features

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|--|---|
| I CMOS single-chip fully-integrated FM tuner | Ø High cut |
| I Low power consumption | I Programmable de-emphasis (50/75 µs) |
| Ø Total current consumption lower than 22mA at 3.0V power supply | I Receive signal strength indicator (RSSI) |
| I Support worldwide frequency band | I Bass boost |
| Ø 65 -108 MHz | I Volume control |
| I Digital low-IF tuner | I I ² S digital output interface |
| Ø Image-reject down-converter | I Line-level analog output voltage |
| Ø High performance A/D converter | I 32.768 KHz 12M,24M,13M,26M,19.2M,38.4MHz |
| Ø IF selectivity performed internally | Reference clock |
| I Fully integrated digital frequency synthesizer | I 2-wire serial control bus interface |
| Ø Fully integrated on-chip RF and IF VCO | I Directly support 32Ω resistance loading |
| Ø Fully integrated on-chip loop filter | I Integrated LDO regulator |
| I Autonomous search tuning | Ø 1.8 to 5.5 V operation voltage |
| I Support 32.768KHz crystal oscillator | I 3X3mm 20 pin QFN package |
| I Digital auto gain control (AGC) | |
| I Digital adaptive noise cancellation | |
| Ø Mono/stereo switch | |
| Ø Soft mute | |

1.2 Applications

- I Cellular handsets
- I MP3, MP4 players
- I Portable radios, PDAs, Notebook