

1. General Description

The RDA1845 is a single-chip transceiver for Walkie Talkie with fully integrated synthesizer, IF selectivity and base-band signal processing. The transceiver uses the CMOS process, support digital volume control and require the least external component. The package size is 6X6mm and is completely adjustment-free.

The RDA1845 has a powerful low-IF digital audio processor, this make it have optimum sound quality with varying reception conditions.

The RDA1845 can be tuned to the worldwide frequency band for Walkie Talkie.

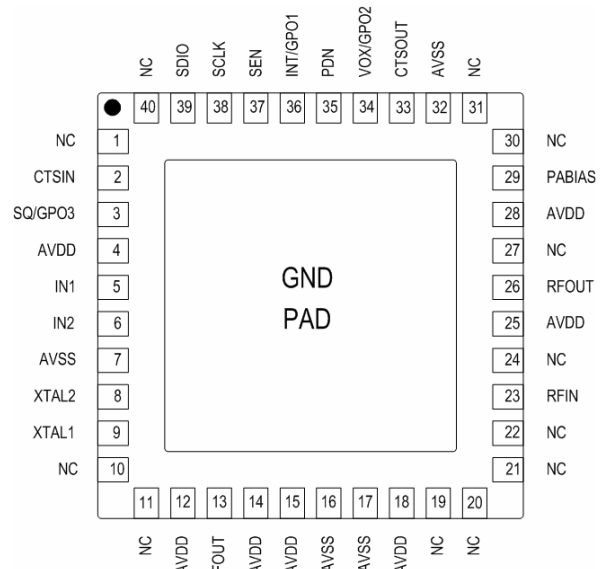


Figure 1. RDA1845 Top View

1.1 Features

- CMOS single-chip fully-integrated transceiver
- Support worldwide frequency band
 - 300Mhz-500 MHz
 - 12.5Khz,25Khz channels
- 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
- Auto DC offset calibration
- Digital auto frequency control (AFC)
- Digital auto gain control (AGC)
- Support multi-reference clocks
 - 12.8/25.6Mhz
 - 13/26Mhz
- Selectable pre/de-emphasis
- Support CTCSS and CDCSS
- Receive signal strength indicator (RSSI)
- Provide programmable VOX and Squelch indicator
- Analog and digital volume control
- Reference clock drift compensation
- 3-wire serial control bus interface
- Directly support 32Ω resistance loading
- Integrated LDO regulator
 - 2.7 to 3.3 V operation voltage
- 6X6mm 40 pin QFN package

1.2 Applications

- Cellular handsets
- Family radio services
- Walkie Talkies

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