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Products

- ▶ Cellular Products
- ▶ IOT Products
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- ▶ Sample Application

DVB-S/S2 satellite tuner

The current position is: Home - Products - DVB-S/S2 satellite tuner

RDA5815S



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General Description

The RDA5815s is a fully integrated direct conversion RF front end for DVB-S,DVB-S2&ABS-S,MMDS digital satellite Reception standard CMOS process. The receiving frequency range is from 250MHz to 2300MHz, and the baseband filter's bandwidth can be selected from 4MHz to 40MHz with 1MHz step.

The rda5815s consists of a variable gain LNA, quadrature downconverter, variable IF gain amplifiers, variable low-pass filters, reference oscillator, VCOs, synthesizer and output baseband amplifier to drive external ADC.

Based on RDA's some innovative technique, the rda5815s offers excellent phase noise and very low implementation loss, required for advanced modulation systems such as 8PSK and DVB-S2. This tuner RF IC does not require a balun and its fully integrated design saves valuable board space and simplifies RF layout.

Features

- 1.Single-chip RF-to-baseband Satellite receiver
- 2.CMOS Fully integrated RF front end
3. Low noise and wide dynamic range zero-IF receiver
4. Input frequency range: 250 to 2300 MHz
5. Input signal level: -100 to 5 dBm
6. More than 85dB gain control range
7. Fully integrated PLL (dividers, charge pump, phase & frequency detectors, loop filters, etc.)
8. Integrated RX VCO
9. Integrated baseband LPF with selectable cut-off frequency from 4MHz to 40MHz with 1MHz step
10. Integrated LNA with RF AGC
11. Integrated reference oscillator (27MHz is default)
12. I2C bus interface
13. Automatic gain control
14. 0.11μm RF CMOS technology
15. 3V to 3.6V operation
16. power consumption of less than 600mW
17. Lower profile packages:
 - ◆ RDA5815s 4×4 mm QFN24

Applications

1. Set-top boxes
2. Digital video recorders
3. Digital television
4. Satellite PC-TV
5. SMATV trans-modulators (Satellite Master Antenna TV)



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