



Technology by RDA
connects you **anytime, anywhere...**

Products

Cellular Products

- IOT Products
- Broadcast Products
- Sample Application

TD-SCDMA/GSM dual-mode transceiver

The current position is: Home - Products - TD-SCDMA/GSM dual-mode

RDA8208 Fully integrated TD-SCDMA/EDGE dual-mode radio frequency transceiver

Download: For Datasheet

The RDA8208 RF transceiver is a fully integrated single-chip CMOS RF transceiver, fabricated in proven CMOS technology, for the Third Generation Partnership Project (3GPP) specification for the Universal Mobile Telecommunication System (UMTS). The chip is specifically designed for UMTS Time Division Duplex (TDD) mode or TD-SCDMA standard that operates in the dual-band range of 1880 to 1920 MHz and 2010 to 2025 MHz (1.28 Mcps option) and for GSM/EDGE mode that operates in the quad-band range of 850MHz, 900MHz, 1800MHz and 1900MHz..

This RF chip provides a complete solution connecting antenna to baseband for TD-SCDMA/EDGE standard, eliminating the expensive IF SAW filter. All bulky components, such as RF VCO, loop filters, and tuning inductors, are completely integrated on chip.

Features

- Fully integrated single-chip TD/EDGE RF transceiver:
 - ◆ 3GPP TD-SCDMA 1900MHz/2010MHz band
 - ◆ GSM 850MHz band
 - ◆ E-GSM 900MHz band
 - ◆ DCS 1800MHz band
 - ◆ PCS1900MHz band
 - ◆ Support 3GPP Release 5 TD-HSDPA
 - ◆ Support 3GPP Release 6 TD-HSUPA
- Digital zero-IF receiver for TD/EDGE:
 - ◆ Low noise RF front-end
 - ◆ Image-reject down-converter
 - ◆ High performance A/D converter
 - ◆ On-chip DC offset cancellation
- Direct up-conversion transmitter for TD/EDGE:
 - ◆ Highly linear I/Q modulator
 - ◆ RF VGA with over 80 dB APC control
 - ◆ Minimum Carrier Leakage
- Direct fractional-N PLL modulation transmitter for GSM
- Integrate on-chip analog baseband function, support 10 ~ 12 bit parallel digital I/O data interface
- $\Sigma\Delta$ Fractional-N Frequency Synthesizer:
 - ◆ Fully integrated on-chip VCO & loop filter
 - ◆ Low phase noise
 - ◆ Fast locking (<30 μ s)
- Support 26MHz TC-VCXO or DCXO, Can output two (13MHz or 26MHz) system clocks to baseband externally
- SPI 3-wire or 4-wire serial interface bus

9. Support both analog I/Q baseband data interface and digital I/Q baseband data interface
10. 1.8V/2.8V interface voltage level option
11. Integrate on-chip DC-DC converter and on-chip LDO, support 3.3V ~ 4.2V external battery
12. 60-PIN 7mm × 7mm QFN package
13. 0.11μm CMOS technology process

Applications

1. UMTS(TDD)/TD-SCDMA cellular handsets
2. GSM/GPRS cellular handsets for 850MHz, 900MHz, 1800MHz and 1900MHz bands
3. Wireless data modems and terminals



Download: For Datasheet