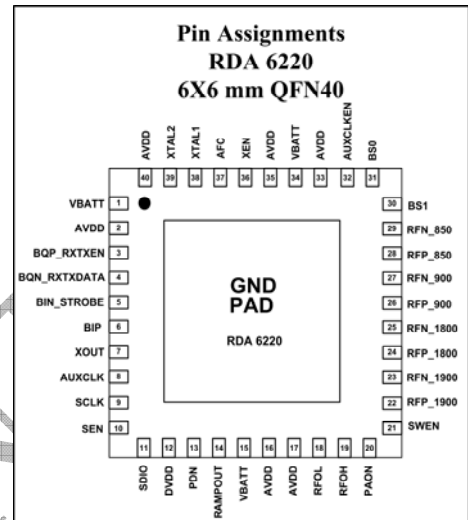


RDA6220S TRANSCEIVER FOR GSM/EDGE WIRELESS COMMUNICATION (Version 0.4)

Features

- Single chips solution: RDA6220S
- Multi-band GSM cellular systems:
 - GSM 850
 - E-GSM 900
 - DCS 1800
 - PCS 1900
- Integrated LDO
- Integrated GSM/EDGE transceiver including the following:
 - Digital low-IF receiver
 - Direct modulation transmitter
 - Frequency synthesizer
 - Integrated VCO, loop filters, etc.
- Two reference oscillator options
 - 26MHz TCXO
 - Crystal (DCXO)
- Support digital/analog AFC
- Universal analog baseband interface and DigRF V1.12 digital interface
- GPRS/EDGE multi slot up to class 33/38
- RF FEM control
- 3.3 to 4.2 V operation
- CMOS process technology
- Lead-free



Applications

- Multiband GSM/GPRS/EDGE digital cellular handsets
- Multiband GSM/GPRS/EDGE wireless data modems

Description

The RDA6220S transceiver is a complete RF front end for GSM/GPRS/EDGE wireless communication. It has an integrated power manager unit, can be directly connected to battery power supply. The receive section interfaces between the RF band-select SAW filter and the baseband IC. The RDA6220S receiver employs a digital low-IF architecture, and support both universal analog baseband interfaces and DigRF 1.12 digital interface. In GSM GMSK modulation mode, the transmit section of RDA6220S provides a direct modulation PLL transmitter path from the baseband subsystem to the power amplifier (PA). And in 8PSK mode, the AM signal directly modulation the PA driver block to rebuild the RF signal. A fast settling fractional-N synthesizer is fully integrated, including RF VCO, loop filters, and varactors, etc. The RDA6220S transceiver includes a digitally-controlled crystal (DCXO) and completely integrates the reference oscillator and frequency tuning varactors. The RDA6220S integrated four GPIO and build precise timing control for RF FEM.

Functional Block Diagram

