SVI-TRX201

Low Energy Bluetooth Radio

Silicon Vision, Bluetooth Smart Radio (Single Mode)

MAIN FEATURES

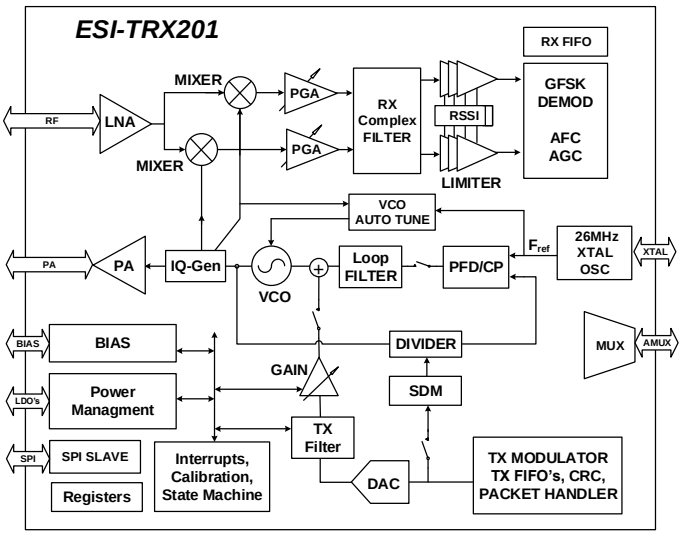
- Process: TSMC-RF 180nm (1P6M)
- Compatible with *BLE* specification (part of Bluetooth 4.0)
- Frequency range: 2.400–2.4835 GHz
- FSK/GFSK modulation
- Sensitivity = -87 dBm @ 1.0Mbps
- Output power range: -20 – +4 dBm
- Ultra low power consumption
  - 13 mA @ Receive
  - 11 mA @ 0 dBm Transmit
  - 14 mA @ +2 dBm Transmit
- Data Rate: 1 Mbps
- -40 – +85 °C temperature range
- Ultra low power OFF/Standby modes
- Automatic Frequency Correction (AFC)
- Single ended & Differential PA options
- Offset Cancellation Loop
- Frequency hopping capability
- Programmable Channel Filter Bandwidth
- Integrated PLL loop filter
- Efficient SPI interface (read/write) access
- Automatic VCO & RX filter tuning
- Single ended & Differential PA options
- Can fit in 20L-QFN package in case of standalone IC
- Silicon Verified

IP DESCRIPTION

The *SVITRX201* Radio is a highly integrated and ultra-low power Bluetooth Smart CMOS radio IP that is compliant with Bluetooth low energy specification ***(part of Bluetooth 4.0)***. The SVI-TRX201 Radio covers the Bluetooth low energy specifications with support of GFSK modulation. RF and digital modem are included in the design. When combined with the Bluetooth Smart baseband controller, it forms a complete Bluetooth Smart solution. The *SVITRX201* Radio connects to the baseband through a fully digital interface containing TX/RX data, real time control interface and register programming interface.

APPLICATIONS

- Smart Cities
- Metering systems
- VoIP headsets
- Keyboard video mouse (KVM)
- Remote keyless entry
- Industrial control
- Sensor networks



Block Diagram for SVI-TRX201

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