SVI-TRX203G

Bluetooth Low Energy (BLE) Radio

Silicon Vision, Bluetooth Smart Radio (Single Mode)

MAIN FEATURES

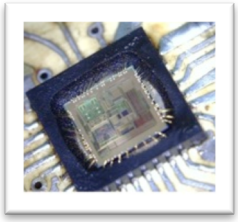
- Process: HHGrace 110nm-Logic (1P6M)
- Compatible with *BLE* specification (part of Bluetooth 4.0 & 4.1)
- Frequency range: 2.400–2.4835 GHz
- FSK/GFSK modulation
- Sensitivity = -90 dBm @ 1.0Mbps
- Output power range: -20 – +3 dBm
- Core supply voltage: 1.2V
- Ultra low power consumption
  - 5.4 mA @ Receive (at 3V with ideal DC-DC converter)
  - 4.3 mA @ 0 dBm Transmit (at 3V with ideal DC-DC converter)
- Data Rate: 1 Mbps (Optional 2Mbps)
- -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)
- Automatic VCO & RX filter tuning
- Single ended & Differential PA options
- Can fit in 20L-QFN package in case of standalone IC
- Silicon Verified
- EVB available

IP DESCRIPTION

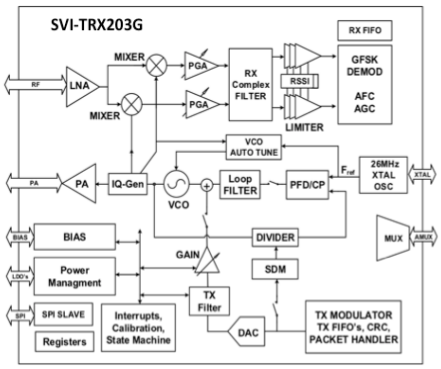
The *SVI-TRX203G* Radio is a highly integrated and ultra-low power Bluetooth Low Energy CMOS radio IP that is compliant with Bluetooth low energy specification ***(part of Bluetooth 4.0 & 4.1)***. The SVI-TRX203G Radio covers the Bluetooth low energy specifications with support of GFSK modulation. RF and digital Baseband modem are included in the design. When combined with Bluetooth Smart Baseband controller, it forms a complete Bluetooth Smart solution. The *SVI-TRX203G* radio connects to the Link-Layer through a fully digital interface containing TX/RX data, real time control interface and register programming interface.

APPLICATIONS

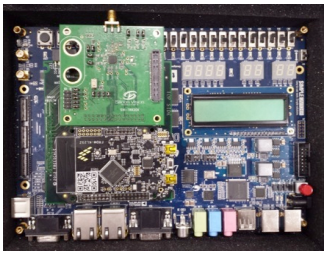
- Smart Cities & sensor networks
- Wearable's
- Metering systems
- VoIP headsets
- Human Interface Devices (HID)
- Remote keyless entry
- Industrial control



Die Photo for Test chip



Block Diagram for SVI-TRX203G



Evaluation Kit

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