

# SVI-TRX201T

## Bluetooth Low Energy (BLE) Radio

Silicon Vision, Bluetooth Smart Radio (Single Mode)

### MAIN FEATURES

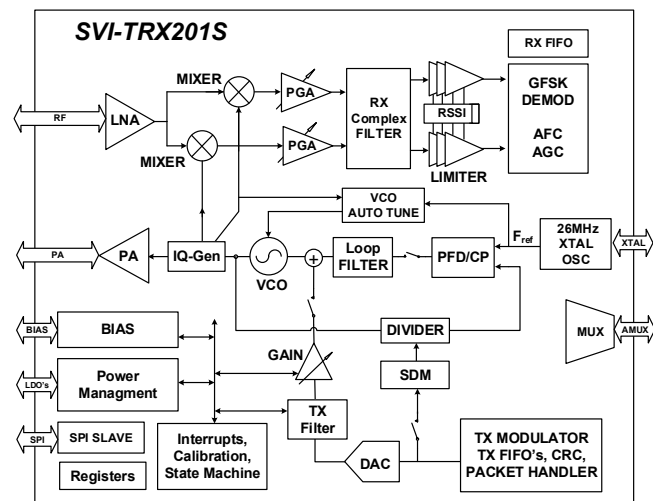
- Process: TSMC-RF 180nm (1P6M)
- Compatible with BLE specification (part of Bluetooth 4.0 & 4.1)
- Frequency range: 2.400–2.4835 GHz
- FSK/GFSK modulation
- Sensitivity = -90 dBm @ 1.0Mbps
- Output power range: -20 – +4 dBm
- Ultra low power consumption
  - Peak RX: 13.5 mA @ 1.7V
  - Peak TX: 11.2 mA @ 1.7V (0 dBm)
- Data Rate: 1 Mbps & 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) 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 *SVI-TRX201T* 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 & 4.1**). The *SVI-TRX201T* Radio qualified with the Bluetooth low energy specifications supporting IoT applications. 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 *SVI-TRX201T* radio connects to the baseband through a fully digital interface containing TX/RX data, real time control interface and register programming interface.

### APPLICATIONS

Medical  
Wearable's  
Human Interface Devices  
Remote keyless entry  
IoT Applications



Block Diagram for SVI-TRX201T



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