

# SVI-TRX25X

## Bluetooth Low Energy Radio

Silicon Vision, Bluetooth Smart Radio (Single Mode)

### MAIN FEATURES

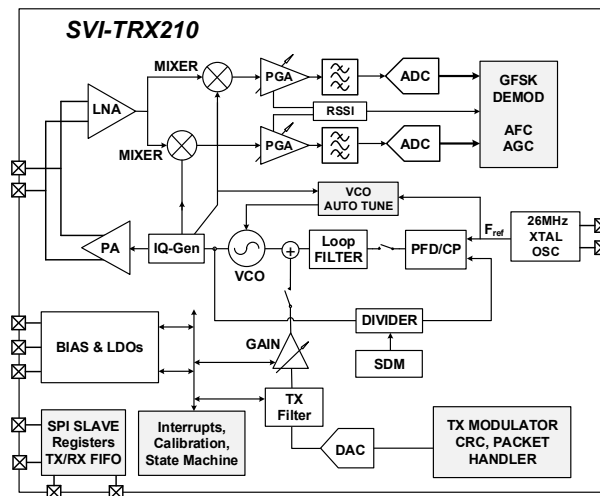
- Process: SMIC 55nm/TSMC-55 (1P6M)
- Compatible with BLE specification (part of Bluetooth 4.0 & 4.1)
- Frequency range: 2.400–2.4835 GHz
- FSK/GFSK modulation
- Sensitivity: -95 dBm @ 1.0Mbps
- Output power range: -20 – +4 dBm
- Ultra low power consumption (@ 1.0V)
  - 8.5 mA; Peak Receive
  - 7.8 mA @ 0 dBm; Peak Transmit
  - Core Supply: 1.0 Volts
- Data Rate: 1 Mbps (2Mbps Optional)
- -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
- GDSII: Sep-14
- EVB: Dec-14

### IP DESCRIPTION

The *SVI-TRX25X* 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-TRX25X* 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 *SVI-TRX25X* radio connects to the baseband through a fully digital interface containing TX/RX data, real time control interface and register programming interface.

### APPLICATIONS

- Wearable's
- Metering systems
- VoIP headsets
- Human Interface Devices (HID)
- Remote keyless entry
- Sensor networks



Block Diagram for SVI-TRX25X

