



Silicon Vision
Innovative IC Solutions



ESI-TRX201

Bluetooth Low Energy
single-chip radio transceiver



www.si-vision.com

APPLICATIONS

- PC peripherals
- Metering systems
- Home automation
- Wireless PC peripherals
- Advanced remote controls
- Industrial control
- Sensor networks
- Home security & alarm
- Remote control Toys
- Tire pressure monitoring
- Health monitors
- Tag readers
- Active RFID

FEATURES

- FSK/GFSK modulation
- Frequency range: 2.400 – 2.4835 GHz
- -87 dBm sensitivity @ 1Mbps
- Transmit power range: -20 – +2dBm
- Ultra low power consumption 12.8 mA @ Received
11 mA@ 0 dBm Transmit
- 250kbps, 1 and 2Mbps Data rate
- Supply voltage range: 1.9 – 3.6V
- Ultra low power OFF/Standby modes
- Automatic Frequency Calibration (AFC)
- Antenna diversity & TR switch control
- Fully integrated VCO, PLL synthesizer and loop filter with on-chip crystal oscillator
- On-chip channel select filter with auto-tuned and programmable bandwidth
- Offset Cancellation Loop
- Temperature range: -40 – +85 °C
- Integrated SPI interface (r/w) access
- Low BOM
- 5 x 5 mm small VQFN-28 package

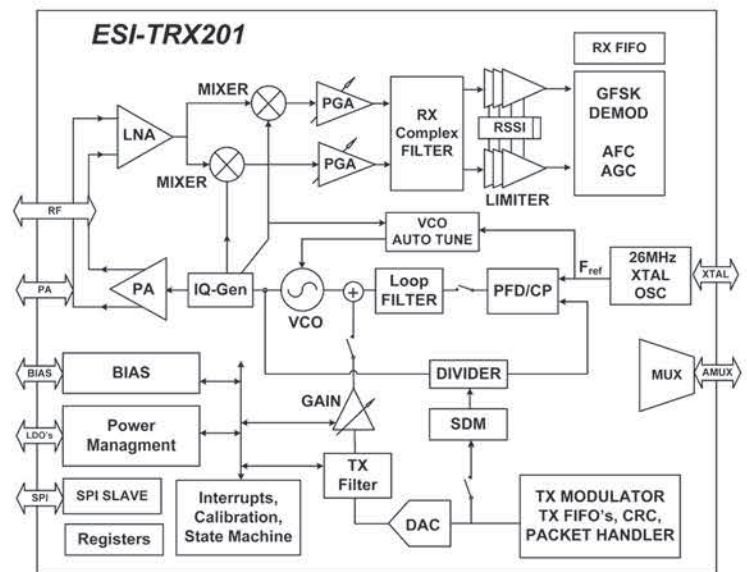


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Silicon Vision, Inc. **ESI-TRX201** is Ultra low power wireless transceiver compatible with the Bluetooth 4.0 standard with continuous frequency tuning over the specified band. The wide range of low operating voltage from 1.9V to 3.6V and low current consumption makes the ESI-TRX201 an ideal solution for battery-powered applications.



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ESI-TRX201 is a fully integrated single-chip wireless transceiver targeting ultra low power wireless applications. The **ESI-TRX201** performance is tailored for extremely low power operation to be used in sensor monitoring networks and remote control for wireless networks. Transmitter output power ranges from -20 dBm to +2 dBm, while receiver sensitivity is -87 dBm at 1.0Mbps. The frequency range allows operation in 2400 MHz band.

ESI-TRX201 includes various fast foreground and background automatic self calibration algorithms to ensure optimal performance and minimum testing time. The automatic calibration engine includes: (AFC) Automatic frequency correction, VCO Auto-Tuning, automatic RX-Filter bandwidth calibration & tuning, TX Filter auto tune, Open loop transmission auto calibration, automatic RSSI calibration algorithms in addition to offset cancellation loop.

HEADQUARTERS

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