

### Applications

- IEEE802.11b DSSS WLAN
- IEEE802.11g,n OFDM WLAN
- Embedded applications with Bluetooth (Mobile)

### Features

- Dual Mode IEEE802.11b & IEEE802.11g
- Integrated PA, Harmonic Filter, LNA and BT port
- Integrated Positive Slope Power Detector
- 19 dBm @ 4.0 % EVM, 802.11g, 54 Mbps
- Simultaneous WLAN and Bluetooth receive mode
- Direct connection to battery with 3.3 V nominal supply
- Lead free, Halogen free and RoHS compliant
- Compact package, 3 x 3 x 0.5 mm, MSL 1

### Ordering Information

Part No.	Package	Remark
SE2579U	20 pin QFN	Samples
SE2579U-R	20 pin QFN	Tape and Reel
SE2579U-EK1	N/A	Evaluation kit

### Product Description

The SE2579U is a complete 802.11 b/g/n WLAN RF front-end module with a Bluetooth port. The device provides all the functionality of the power amplifier, power detector, filter, Switch, Low Noise Amplifier, 2170 MHz notch filtering and associated matching. The SE2579U provides a complete 2.4 GHz WLAN RF solution from the output of the transceiver to the antennas, and from the antennas to the input of the transceiver, in an ultra compact form factor.

The SE2579U is designed for ease of use, with all the critical matching and harmonic filtering integrated, also offering a simple 50 Ω interface to the antenna.

The SE2579U includes a low noise amplifier to increase the receive sensitivity of embedded solutions to improve range or to overcome the insertion loss of cellular filters often included for mobile applications. It offers simultaneous WLAN and Bluetooth receive mode.

The SE2579U also includes a transmitter power detector with 20 dB of dynamic range and a digital enable control for transmitter power ramp on/off control. The power ramp rise/fall time is 0.5 μs typical.

### Functional Block Diagram

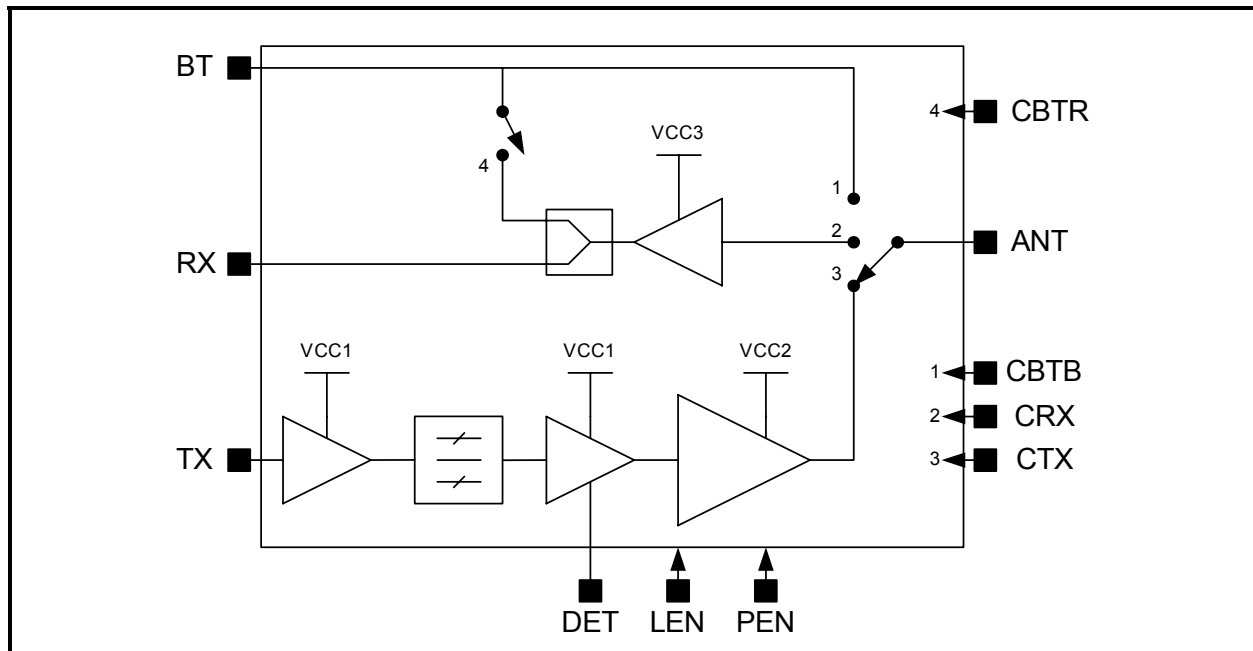


Figure 1: Functional Block Diagram

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Product Preview

The datasheet contains information from the product concept specification. SiGe Semiconductor, Inc. reserves the right to change information at any time without notification.

Preliminary Information

The datasheet contains information from the design target specification. SiGe Semiconductor, Inc. reserves the right to change information at any time without notification.

Production testing may not include testing of all parameters.

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