

### Applications

- Portable WLAN – Cell phones, PDA's
- DSSS 2.4 GHz WLAN (IEEE802.11b)
- OFDM 2.4 GHz WLAN (IEEE802.11g)

### Features

- Includes: PA, 50 ohm matching, Power detector, harmonic filter and SPDT Switch.
- 802.11g Output Power  
+ 17 dBm, EVM = 3.0 %,  $I_{CC} = 125$  mA
- 802.11b Output Power  
+ 19 dBm, ACPR = -40 dB,  $I_{CC} = 150$  mA
- 28 dB Gain
- Robust, selectable slope, power detector with ~1.5 dB variation over 2:1 mismatch
- Integrated power amplifier enable pin ( $V_{EN}$ )
- Single supply voltage: 2.7 V to 3.6 V
- Lead free and RoHs compliant
- Small, lead free package, 18 pin 4 mm x 4.5 mm x 0.6 mm QFN, MSL3

### Product Description

The SE2550BL is a 2.4 GHz front end module designed for use in the 2.4 GHz ISM band for portable wireless LAN applications. The device offers high efficiency at the required output powers to ensure longer battery life for cellphone, PDA and other portable applications.

The SE2550BL is highly integrated, allowing for a smaller footprint and simple design. The device includes a power amplifier, digital enable control for device on/off control, T/R Switch, harmonic filter and 50 ohm matching on all I/O. With the digital enable control, the device can be directly connected to a CMOS baseband or transceiver.

The SE2550BL temperature compensated power detector has two selectable power detectors slopes, positive and negative. This allows easy use with multiple chipsets. The detector is also highly immune to mismatch at its output with less than 1.5 dB of variation with a 2:1 mismatch.

### Ordering Information

Type	Package	Remark
SE2550BL	18-QFN	Samples
SE2550BL-R	18-QFN	Tape and Reel
SE2550BL-EK1	Evaluation Kit	Standard

### Functional Block Diagram

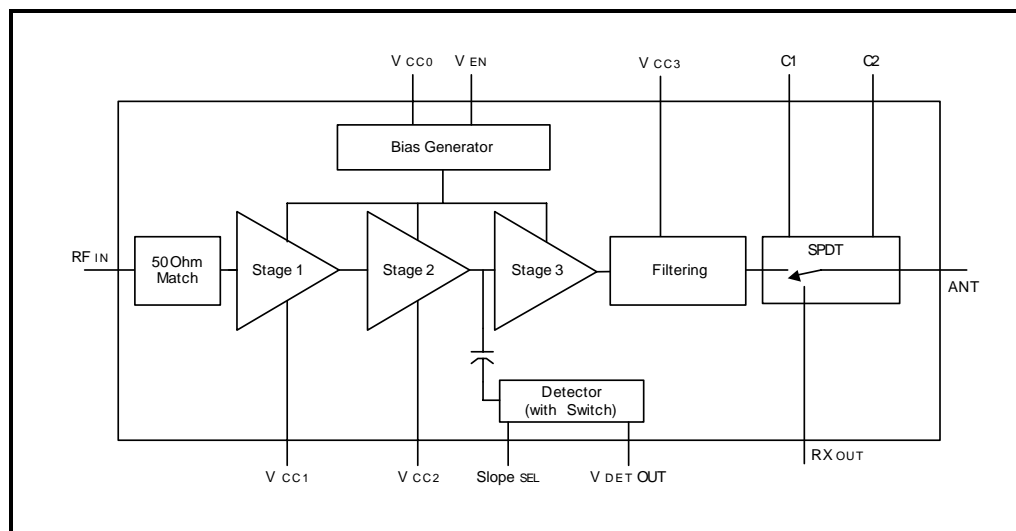


Figure 1: SE2550BL Functional Block Diagram

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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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