SE2566U
2.4 GHz Dual Channel Wireless LAN Power Amplifier
Preliminary

Applications

- IEEE802.11n OFDM WLAN
- Access Points, PCMCIA, PC cards

Features

- Dual Transmit Stream IEEE802.11g, IEEE802.11n
- Two Integrated PAs with Harmonic Filter, 3.2GHz Notch Filter and Reference Voltage Generator
- Integrated Positive Slope Power Detector
- 21 dBm, 802.11b, 11 Mbits, ACPR <-30 dBc
- 19 dBm @ 3.0 % EVM, 802.11g, 54 Mbits
- Single supply voltage: 3.3 V ± 10 %
- Lead free and RoHS compliant
- Small lead free plated package, 3 mm x 3 mm x 0.5 mm, MSL 1

Ordering Information

Part No.	Package	Remark
SE2566U	20 pin QFN	Samples
SE2566U-R	20 pin QFN	Tape & Reel
SE2566U-EK1	N/A	Evaluation kit

Product Description

The SE2566U is the smallest dual stream 2.5GHz power amplifier module for 802.11n MIMO applications. The module includes two power amplifier streams, an integrated reference voltage generator, a separate detector for each stream, harmonic filters and 3.2GHz notch filters.

The integrated transmit power detector offers 20dB of dynamic range, and is temperature compensated for consistent performance from 0 degC to 85 degC. The integrated reference voltage generator offers digital enable control, and eliminates the need for analog bias controls from the baseband while drawing less than 1uA.

The small 3mm x 3mm footprint of the SE2566U, together with the integrated 50 ohm match, detector, harmonic filter and 3.2-3.3 GHz trap filter, result in the industry's smallest 2-stream MIMO front end solution for today's very small half-minicard form factors.

An integrated receive path is located between the two transmit paths to offer the designer maximum layout flexibility in 2x2 or 2x3 architectures.

Functional Block Diagram

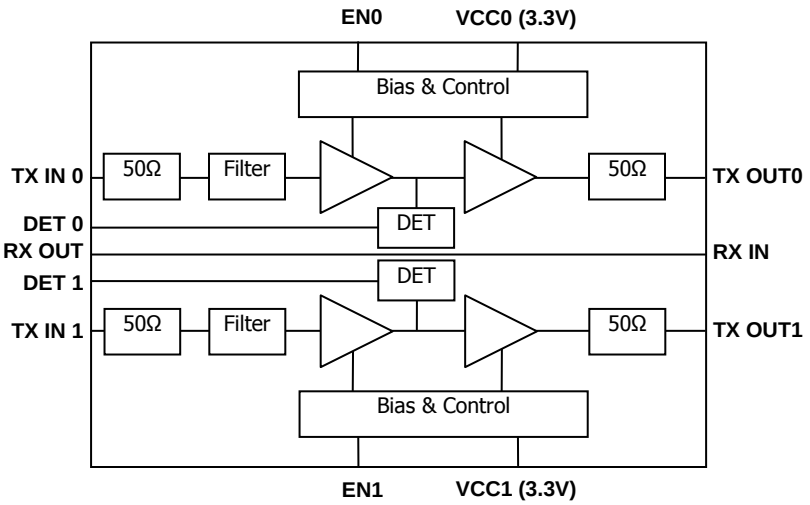

Figure 1: Functional Block Diagram

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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.

ISO 9001 BUREAU VERITAS Certification