

Applications

- 802.16, WiMAX Systems
- Proprietary Broadband Wireless Access Systems
- Wireless Local Loop

Features

- Low Noise, High Linearity Receiver
- Receive gain = 20 dB
- Receive NF = 3.0 dB (whole chain, including filter)
- Receive IP1dB = -4 dBm
- Transmit gain = 30 dB
- Transmit gain range = 25 dB
- Transmit output P1dB = 11 dBm
- 3.3 or 5 V operation
- Lead Free and RoHS Compliant
- Part of SiGe's chipset solution for 3.3 - 3.8 GHz BWA systems
- Lead Free, RoHS compliant, 6 x 6 mm, MSL3 Package

Product Description

The SE7351L is a low noise, high linearity front-end transceiver for the 3.3 - 3.8 GHz band. The receiver provides a low noise down-conversion from RF to a 200 - 600 MHz intermediate frequency. 40 dB of gain control is available prior to the down-conversion for optimization of noise and linearity. The gain control is divided between the variable gain LNA and a 3 bit digital attenuator with 4 dB step size. An off-chip filter between the LNA and mixer can be used for image rejection. The IF output has an off-chip matching network for flexible frequency planning and SAW filter selection.

The transmitter up-converts to RF from a 200 - 600 MHz IF. The up-conversion mixer output is brought off chip to allow image band and LO suppression prior to final amplification. The transmit attenuator has a three bit digital interface with 4 dB resolution and a total range of 25 dB.

Ordering Information

Type	Package	Remark
SE7351L	40 pin, 6 mm x 6 mm QFN	Samples
SE7351L-T	40 pin, 6 mm x 6 mm QFN	Tray
SE7351L-AK3	-	TDD Radio Application Board

Functional Block Diagram

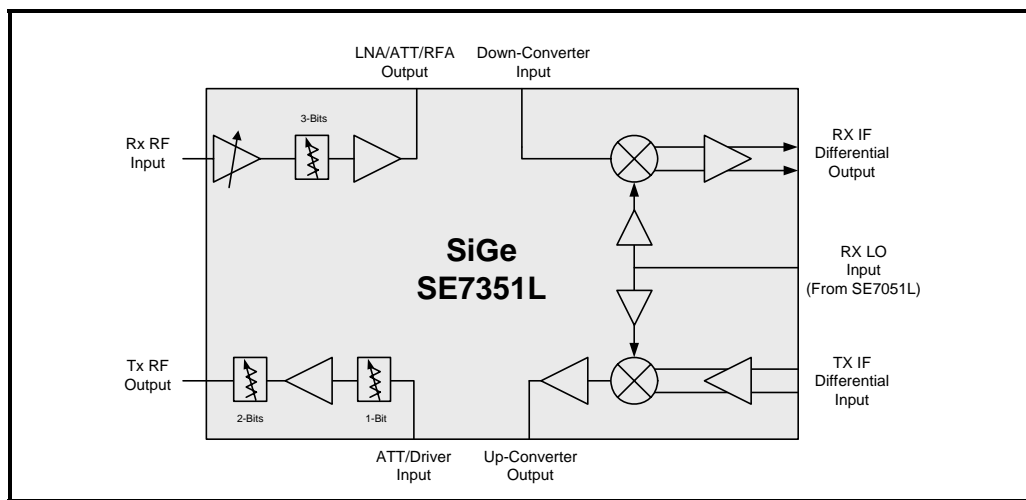


Figure 1: SE7351L Block Diagram

<http://www.sige.com>

Email: sales@sige.com

Customer Service Locations:

North America:
1050 Morrison Drive, Suite 100
Ottawa ON K2H 8K7 Canada

Phone: +1 613 820 9244
Fax: +1 613 820 4933

Hong Kong
Phone: +852 3428 7222
Fax: +852 3579 5450

San Diego
Phone: +1 858 668 3541 (ext. 226)
Fax: +1 858 668 3546

United Kingdom
Phone: +44 1279 464217
Fax: +44 1279 464201

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.

Information furnished is believed to be accurate and reliable and is provided on an "as is" basis. SiGe Semiconductor, Inc. assumes no responsibility or liability for the direct or indirect consequences of use of such information nor for any infringement of patents or other rights of third parties, which may result from its use. No license or indemnity is granted by implication or otherwise under any patent or other intellectual property rights of SiGe Semiconductor, Inc. or third parties. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SiGe Semiconductor, Inc. products are NOT authorized for use in implantation or life support applications or systems without express written approval from SiGe Semiconductor, Inc.

Copyright 2009 SiGe Semiconductor, Inc.
All Rights Reserved

