

SEQ7400 | Highly Integrated Single-chip, 7-band, Polar HEDGE Transceiver

The SEQ7400 is the industry's first single-chip, 7-band HEDGE (HSDPA/WCDMA and EDGE/GPRS/GSM) transceiver with an all-polar transmitter. Sequoia's patented *FullSpectra™* architecture and the highest level of integration in the industry make the SEQ7400 the smallest and lowest cost RF subsystem in its class. Sequoia Communications is the first to use an innovative polar transmitter for both EDGE and WCDMA, enabling new levels of circuit and power efficiency.

The SEQ7400's receiver uniquely integrates all seven low-noise amplifiers (LNA's) while it eliminates the need for external WCDMA Rx SAW filters. Sequoia's innovative new product drastically reduces PCB area and overall bill-of-material cost for handset manufactures. The SEQ7400 is ideal for next generation 3G handsets, Smartphones, PDA's and Broadband PC cards.

Features

General

- Tri-band HSDPA/WCDMA (3GPP Bands I, II, V or VI)
- Quad-band GSM/GPRS/EDGE
- HSDPA category 10
- Unparalleled integration
- Analog I/Q interface
- 3-wire serial control interface
- 4-wire DigRF v1.12 control interface
- 26 MHz reference clock
- On-chip regulators

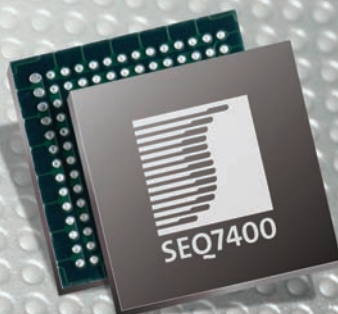
- 3 Front-end control outputs
- Low current consumption
- 7 x 7 mm (flip chip) or 8 x 8 mm (wire-bond) BGA package
- 0.18um SiGe BiCMOS (IBM process technology)

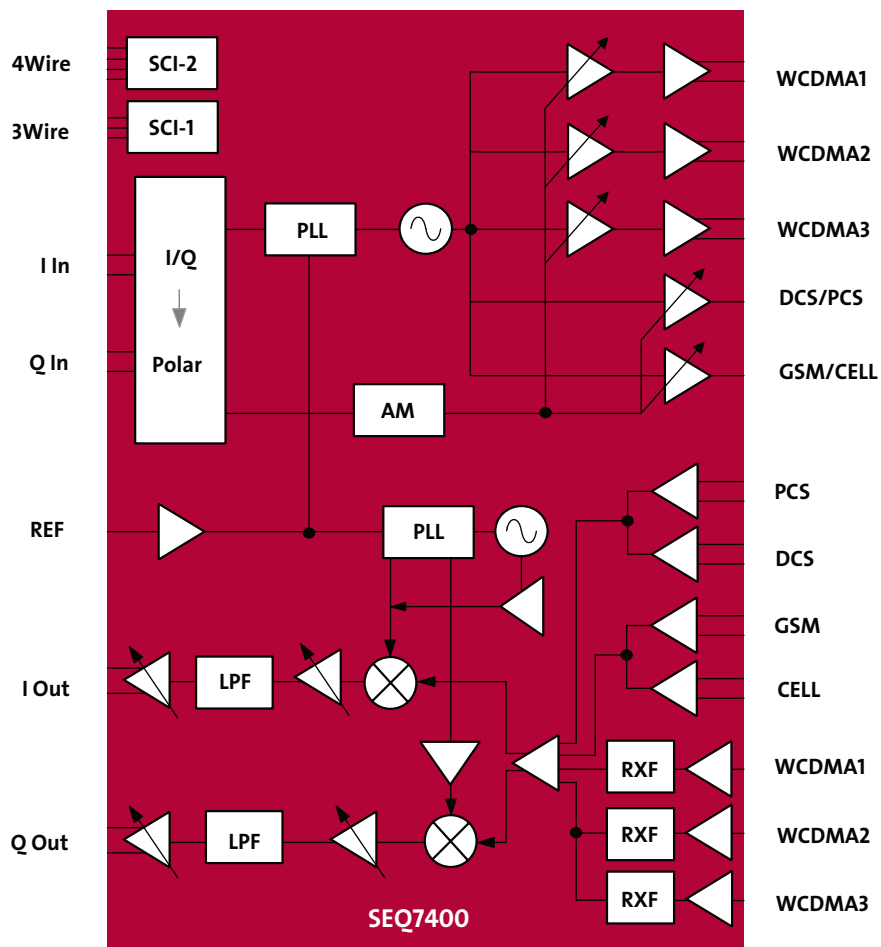
Transmitter

- Polar modulation (all modes)
- Integrated transmit VCO
- Integrated drive amplifiers (all modes)
- Eliminates filters prior to PA for GSM/GPRS/EDGE
- Integrated power ramp sequencer
- 3 separate WCDMA transmit outputs

Receiver

- Direct conversion (DCR)
- Integrated LNA's (all modes)
- Integrated PLL and VCO
- Integrated WCDMA receive filters (all bands)
- Integrated channel filtering
- On-chip DC offset correction
- On-chip IP2 calibration





About Sequoia Communications

Sequoia Communications is a fabless semiconductor company focusing on multimode RF solutions. The company uniquely integrates different modes using a common architecture on a single chip enabling effective communications across multiple wireless standards including GSM, GPRS, EDGE, WCDMA, GPS, WiMax and more. Single-chip RF transceivers developed using Sequoia Communications' innovative approach and *FullSpectra™* architecture will set new industry benchmarks in chip cost, component count, PCB size and power consumption. Sequoia Communications is headquartered in San Diego, CA

For more information, please visit us at www.sequoiacommunications.com.



Contact Information

www.sequoiacommunications.com
Telephone : +1 858 946 7400

Sequoia Communications
15050 Avenue of Science
Suite 100
San Diego, California 92128