

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number
WO 2005/034179 A3

(51) International Patent Classification⁷: **H01L 29/24**

(21) International Application Number:
PCT/US2004/028755

(22) International Filing Date:
3 September 2004 (03.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/503,010 15 September 2003 (15.09.2003) US
10/691,212 21 October 2003 (21.10.2003) US

(71) Applicant (for all designated States except US): **SILICON LABORATORIES, INC.** [US/US]; 4635 Boston Lane, Austin, TX 78735 (US).

(72) Inventors: **DORNBUSCH, Andrew, W.**; 4628 Walsall Loop, Austin, TX 78749 (US). **THOMPSON, Charles, D.**; 800 Elliott Ranch Road, Buda, TX 78610 (US).

(74) Agent: **POLANSKY, Paul, J.**; Toler, Larson & Abel, LLP, 5000 Plaza on The Lake, Suite 265, Austin, TX 78746 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

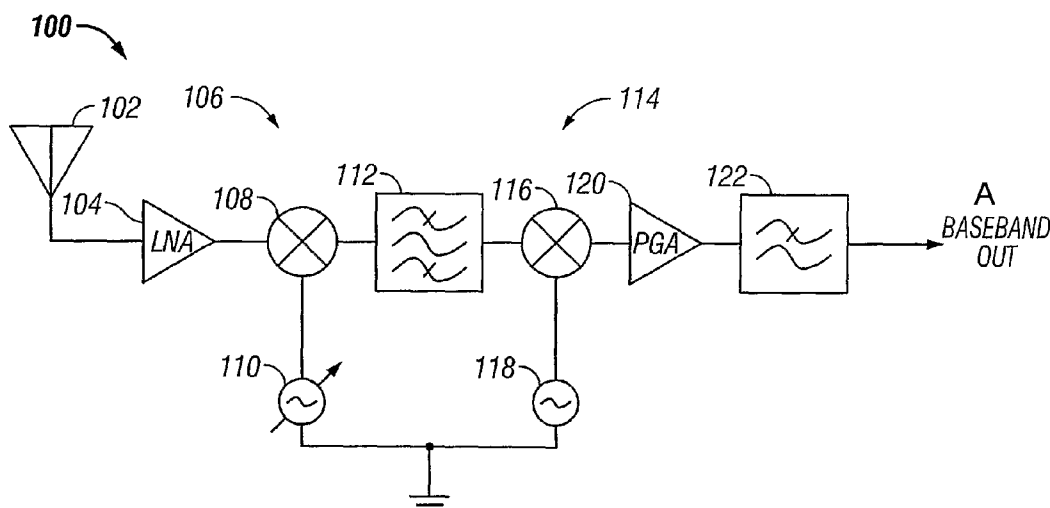
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
12 January 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INTEGRATED CIRCUIT SUITABLE FOR USE IN RADIO RECEIVERS



(57) Abstract: An integrated circuit (500) includes a semiconductor substrate (400) and an integrated circuit package (530). The semiconductor substrate (400) has a first pair of bonding pads (442, 444) conducting a differential output signal thereon and adapted to be coupled to an input of a first external filter, and a second pair of bonding pads (452, 454) conducting a differential input signal thereon and adapted to be coupled to an output of said first external filter. The integrated circuit package (530) encapsulates the semiconductor substrate (400) and has first (452, 454) and second (552, 554) terminal pairs corresponding and coupled to the first (442, 444) and second (452, 454) pairs of bonding pads, respectively. The first (452, 454) and second (552, 554) terminal pairs are separated by a first predetermined distance sufficient to maintain an input-to-output isolation therebetween of at least a first predetermined amount.

WO 2005/034179 A3