

19/09/03
2003 05 2685

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



162162

(43) International Publication Date
3 October 2002 (03.10.2002)

PCT

(10) International Publication Number
WO 02/078054 A3

(51) International Patent Classification⁷: **H01L 23/64**,
H05K 1/18

Judd Place, Chandler, AZ 85226 (US). **RODRIGUEZ, Jorge, P.** [US/US]; 2566 NW Marshall Street, Unit B, Portland, OR 97210 (US).

(21) International Application Number: PCT/US02/04144

(74) Agents: **HARRIS, Scott, C.** et al.; Fish & Richardson P.C., Suite 500, 4350 La Jolla Village Drive, San Diego, CA 92122 (US).

(22) International Filing Date: 11 February 2002 (11.02.2002)

(25) Filing Language: English

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(26) Publication Language: English

(30) Priority Data:
09/816,665 23 March 2001 (23.03.2001) US

(71) Applicant (*for all designated States except US*): **INTEL CORPORATION** [US/US]; 2200 Mission College Boulevard, Santa Clara, CA 95052 (US).

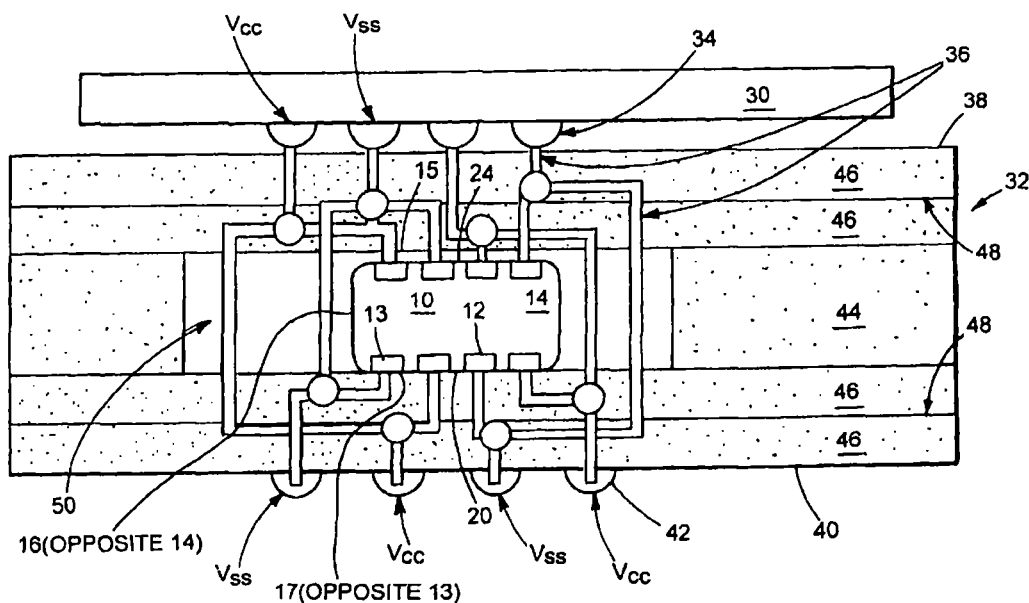
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **FIGUEROA, David, G.** [US/US]; 5025 East Hilton Avenue, Mesa, AZ 85206 (US). **MALLIK, Debendra** [IN/US]; 1210 North

[Continued on next page]

(54) Title: INTEGRATED CIRCUIT PACKAGE WITH A CAPACITOR



(57) Abstract: An apparatus includes a package (32) having a first surface (38) and a conductive contact (34) exposed at the first surface. A capacitor (10) is inside the package (32). The capacitor (10) has a first conductive contact (12) exposed at a first surface (24) of the capacitor. The first conductive contact has a first portion (15) spanning a width of the first surface of the capacitor. The first surface of the capacitor is substantially parallel to the first surface of the package. A conductive path connects the first portion (15) of the first conductive contact (12) of the capacitor to the first conductive contact (34) proximate the first surface of the package.

WO 02/078054 A3



ACTION

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*

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.

(88) Date of publication of the international search report:

18 September 2003