

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 August 2002 (15.08.2002)

PCT

(10) International Publication Number
WO 02/063691 A3

(51) International Patent Classification⁷: **H01L 27/146**,
H04N 3/15

(21) International Application Number: PCT/CA02/00051

(22) International Filing Date: 17 January 2002 (17.01.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/265,600 2 February 2001 (02.02.2001) US

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(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.

(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).

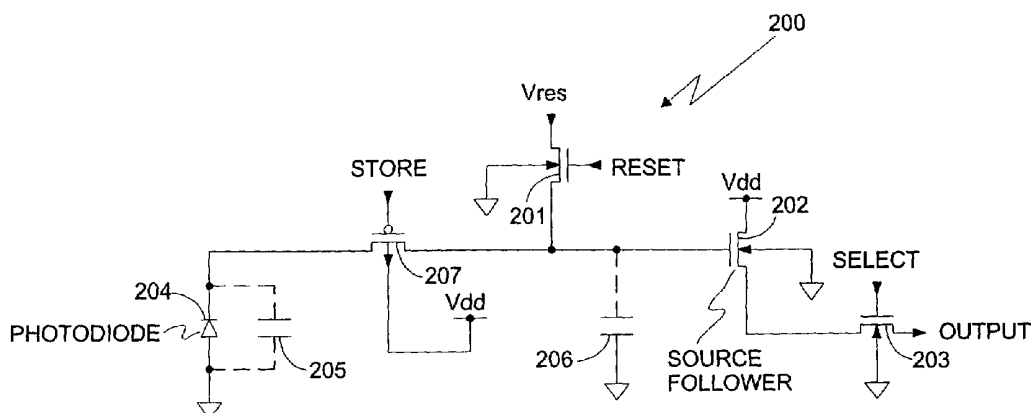
Published:

- 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:
10 October 2002

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

(54) Title: ACTIVE PIXEL CELL WITH CHARGE STORAGE



(57) Abstract: A CMOS four-transistor active pixel cell (APC) for use in an image sensor array is described. It includes an additional PMOS transistor with in a standard three-transistor pixel cell. The PMOS transistor acts as a typical switch to either connect or disconnect the photodiode capacitance and the gate capacitance of the three-transistor pixel cell source follower, and further reduces the photo-current discharging of the gate capacitance during the storage time. This time is dependent on the physical characteristics of the source follower transistor.



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INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 02/00051

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L27/146 H04N3/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 02, 29 February 2000 (2000-02-29) -& JP 11 312797 A (NATL SCIENCE COUNCIL OF ROC), 9 November 1999 (1999-11-09) abstract	1-7, 9-11,17, 18
P,X	WO 01 78150 A (CSEM CT SUISSE D ELECTRONIQUE ;ISRAEL GEORG PAUL (CH); LAUXTERMANN) 18 October 2001 (2001-10-18) figures 1,2 page 5, line 3 - line 34 -/--	1-11,17, 18



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Patent family members are listed in annex.

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Date of the actual completion of the international search

23 July 2002

Date of mailing of the international search report

30/07/2002

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 02/00051

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 2000, no. 05, 14 September 2000 (2000-09-14) -& JP 2000 050163 A (HYUNDAI ELECTRONICS IND CO LTD), 18 February 2000 (2000-02-18) abstract</p> <p>-----</p>	1, 10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 02/00051

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			WO	0178150 A1	18-10-2001
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