

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 February 2008 (07.02.2008)

PCT

(10) International Publication Number
WO 2008/016750 A3

(51) International Patent Classification:
G09G 3/30 (2006.01) G09G 3/12 (2006.01)
G09G 3/06 (2006.01)

(74) Agents: NICHOLS, Daniel, K. et al.; 1303 East Algonquin Road, Schaumburg, Illinois 60196 (US).

(21) International Application Number:
PCT/US2007/071179

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(22) International Filing Date: 14 June 2007 (14.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/461,056 31 July 2006 (31.07.2006) US

(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, IS, IT, LT, LU, LV, MC, MT, 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).

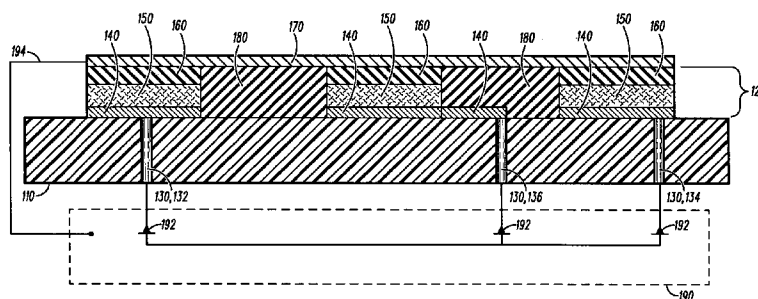
(71) Applicant (for all designated States except US): **MOTOROLA, INC.** [US/US]; 1303 East Algonquin Road, Schaumburg, Illinois 60196 (US).

Published:
— with international search report

(72) Inventors; and
(75) Inventors/Applicants (for US only): **JONNALA-GADDA, Krishna, D.** [US/US]; 2316 Barrett Drive, Algonquin, Illinois 60102 (US). **CHASON, Marc, K.** [US/US]; 1809 Fairhaven Lane, Schaumburg, Illinois 60194 (US). **GAMOTA, Daniel, R.** [US/US]; 1931 N. Meryls Terrace, Palatine, Illinois 60074 (US). **ZHANG, Jie** [US/US]; 2481 Apple Hill Lane, Buffalo Grove, Illinois 60089 (US).

(88) Date of publication of the international search report:
12 June 2008

(54) Title: ELECTROLUMINESCENT DISPLAY HAVING A PIXEL ARRAY



(57) Abstract: An electroluminescent display contains an array of dynamically addressable pixels. The pixels are arranged on one side of a carrier substrate. Conductive vias in the substrate are electrically connected to each of the pixels. Each pixel consists of a bottom electrode that is coupled to a via, an electroluminescent material, and a dielectric material. A common top electrode is disposed on the dielectric material. A driver circuit conductor or connector is situated on the other side of the substrate and is electrically coupled to each of the conductive vias and to the common top electrode, so that each pixel can be individually addressed to illuminate the electroluminescent material on individual pixels.



WO 2008/016750 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/71179

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **G09G 3/30(2006.01),3/06(2006.01),3/12(2006.01)**

USPC: **345/44,45,76-81**

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)

U.S. : 345/ 44, 45, 76-81

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 practicable, search terms used)

EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,738,031 B2 (YOUNG et al) 18 MAY 2004, col. 4, lines 13-62, col. 5, lines 7-57.	1-27
X	US 5,585,695 (KITAI) 17 DEC 1996, col. 4, lines 2-6, col. 4, lines 67-col. 5, line 44, col.-5, line 52-col. 6, line 34.	1-27
X	USPGPUB 2001/0055008 A (YOUNG et al) 27 DEC 2001, entire document.	1-27

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

16 March 2008 (16.03.2008)

Date of mailing of the international search report

25 MAR 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

SRI LAKSHMI K. KUMAR

Telephone No. 571-272-2600

