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14 May 2009

(54) Title: INTERFEROMETRIC MODULATOR DISPLAY DEVICES

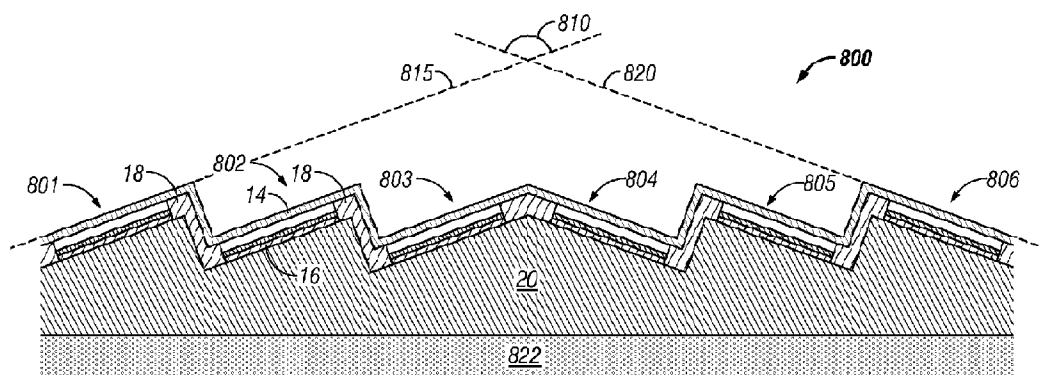


FIG. 8A

(57) Abstract: An embodiment for a pixel for a display device on a substrate (822) is disclosed. The pixel includes a first interferometric modulator (803) on the substrate. The first interferometric modulator has a first normal direction substantially perpendicular to the first interferometric modulator and a first angularly-dependent reflectivity function comprising a first reflectivity in a first direction and a second reflectivity in a second direction, with the first reflectivity being greater than the second reflectivity. The pixel also includes a second interferometric modulator (804) on the substrate. The second interferometric modulator has a second normal direction substantially perpendicular to the second interferometric modulator and a second angularly-dependent reflectivity function comprising a third reflectivity in the second direction and a fourth reflectivity in the first direction, with the third reflectivity being greater than the fourth reflectivity.

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# INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/076074

**A. CLASSIFICATION OF SUBJECT MATTER**

INV. B81B3/00 G02B26/00 G02B27/22 H04N13/00

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)

B81B G02B 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, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 640 777 A (IDC LLC [US]) 29 March 2006 (2006-03-29)  the whole document	1-6, 21, 31-37, 40, 41
A	US 2003/128175 A1 (BERSTIS VIKTORS [US]) 10 July 2003 (2003-07-10) abstract; figure 1	1-6

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 document but 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

10 December 2008

Date of mailing of the international search report

25/03/2009

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2008/076074

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-6, 21, 31-37, 40, 41

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6, 21, 31-37, 40, 41

A pixel as in claim 1 with tilted interferometric modulators.

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2. claims: 7-13, 25-30, 38, 39

A pixel as in claim 1 adapted to form a colour display.

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3. claims: 14, 22-24

A pixel as in claim 1 adapted to form a display for stereoscopic images.

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4. claims: 15-20

A display formed with pixels as in claim 1 having particular driving means.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/076074

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1640777	A	29-03-2006	AU 2005209700 A1
			BR PI0503885 A
			CA 2520325 A1
			JP 2006099111 A
			KR 20060092924 A
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<hr style="border-top: 1px dashed black;"/>			
US 2003128175	A1	10-07-2003	NONE
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