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[Continued on next page]

(54) Title: FOUR-COLOR 3D LCD DEVICE

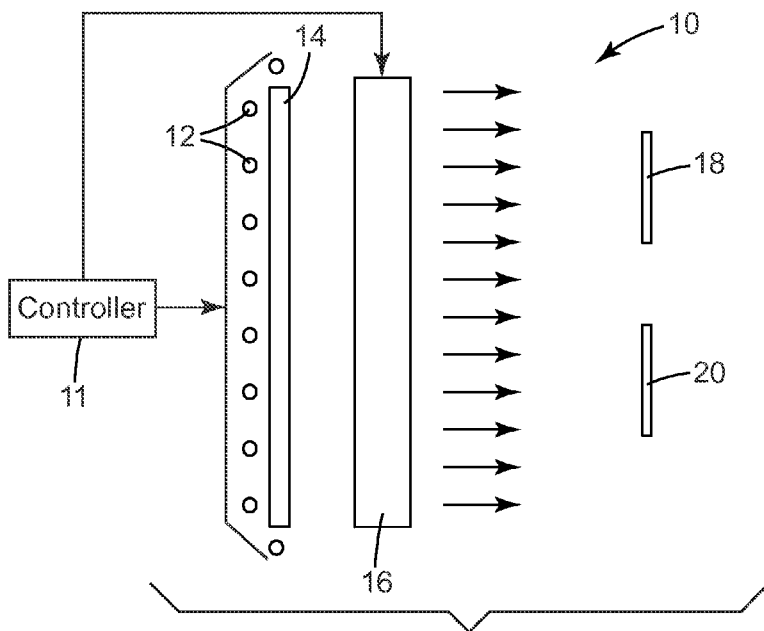


Fig. 1

(57) Abstract: 3D stereoscopic viewing enabled by the use of an LCD panel, dynamic backlight, and glasses. The system utilizes an LCD panel with an LED backlight having a 4-color red-green-blue-yellow pixel array and wavelength selective glasses to isolate each channel by color. The system is based on alternating left and right image frames on an LCD panel. One of the frames is illuminated by the red-green-blue LEDs, and the other frame is shown in gray scale and illuminated by the yellow LEDs. The viewer wears glasses where the left lens or filter passes only the spectrum of light used for the left channel of data, and the right lens or filter passes only the spectrum of light used for the right channel of data.





Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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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)

G02B 27/22; G02B 6/26; G02F 1/13357; H01L 33/00; F21V 8/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: LCD, backlight, four colores, narrow band, laser, quantum well, RGB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010-0195022 A1 (SHIKII SHINICHI et al.) 05 August 2010	19
Y	See abstract, figure 29, claim 31	20-22
Y	US 2008-0251808 A1 (KUSUSE TAKESHI et al.) 16 October 2008 See abstract, figure 13, paragraphs [0314], [0348]	20-22
A	US 2004-0240777 A1 (WOODGATE GRAHAM JOHN et al.) 02 December 2004 See abstract, paragraphs [0563], [0568] and figure 37.	1-25
A	US 2008-0151193 A1 (REDER JOHN RICHARD) 26 June 2008 See abstract, paragraphs [0027], [0029], [0042] and figures 1, 6a.	1-25

 Further documents are listed in the continuation of Box C. See patent family annex.

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

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"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

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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