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(54) Title: POLARIZATION SENSITIVE IMAGE SENSOR

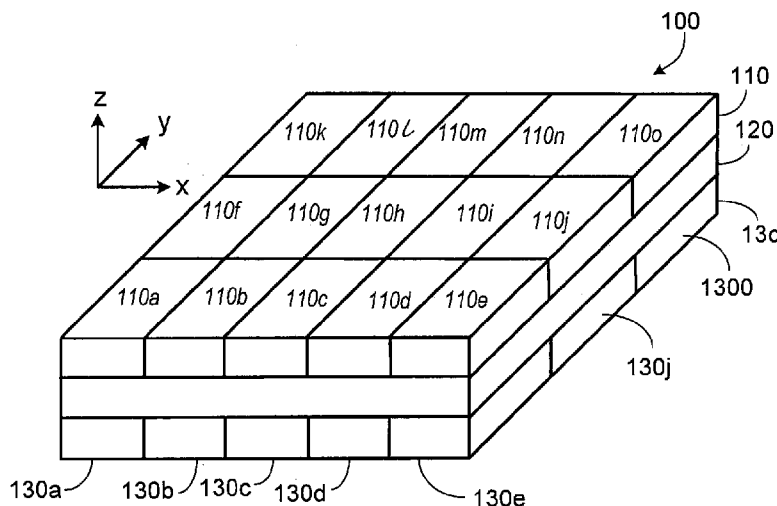


FIG. 1A

(57) Abstract: A device includes a first multi-element image sensor; a second multi-element image sensor; and a polarizing layer positioned between the first and second multi-element image sensors. A portion of light having a first polarization state incident on the device along a first direction is transmitted through the first image sensor, is transmitted through the polarizing layer, and is detected by the second image sensor, and light having a second polarization state orthogonal to the first polarization state incident on the device along the first direction is transmitted through the first image sensor, is blocked by the polarizing layer.



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A. CLASSIFICATION OF SUBJECT MATTER**H01L 27/146(2006.01)i**

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)

H01L 27/146; G01J 1/44; G01J 1/04; H04N 13/02; G02B 5/30; H04N 5/228; G06K 9/00; G01J 4/04; H04N 9/04; G02B 27/26

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: polarization, image sensor, incident, detect, orthogonal, reflect

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2016-0173834 A1 (PALO ALTO RESEARCH CENTER INCORPORATED) 16 June 2016 See paragraphs 23-29, claims 1-9 and figures 1-6.	1-23
A	US 2016-0195429 A1 (SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC) 07 July 2016 See paragraphs 31-57 and figures 4-11.	1-23
A	US 2013-0188023 A1 (JIANGTAO KUANG et al.) 25 July 2013 See the entire document.	1-23
A	US 2015-0253192 A1 (CANON KABUSHIKI KAISHA) 10 September 2015 See the entire document.	1-23
A	US 2009-0290039 A1 (KATSUHIRO KANAMORI et al.) 26 November 2009 See the entire document.	1-23

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

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"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

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2016-0173834 A1	16/06/2016	None	
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