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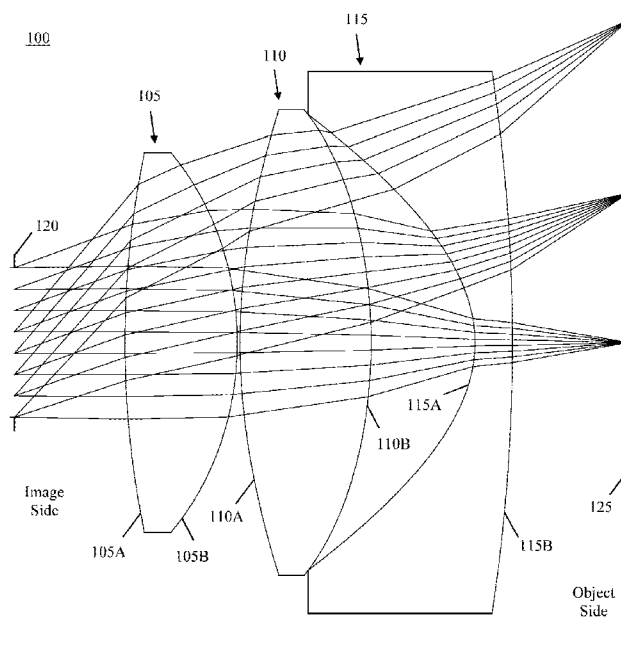
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(81) Designated States (*unless otherwise indicated, for every
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AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KH, KN, KP, KR,
KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM,
PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC,
SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
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UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,

(54) Title: ABERRATION CORRECTED OPTICAL SYSTEM FOR NEAR-EYE DISPLAYS



(57) Abstract: An optical system includes, from an image side to an object side, a first lens having a positive refractive power, a second lens having a positive refractive power, and a third lens having a negative refractive power. The first lens, the second lens, and the third lens form an optical path with the object side facing a screen and the image side adapted to provide an image from the screen to a user. In one aspect, the optical system is adapted to correct at least one of a group of aberrations including astigmatism and field curvature; or, lateral color.



MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2017/002034**A. CLASSIFICATION OF SUBJECT MATTER****G02B 27/01(2006.01)i, G02B 7/02(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)

G02B 27/01; G02B 27/06; G02B 11/04; G02B 27/02; G02B 9/10; G02B 9/12; G02B 25/00; G02B 11/08; G02B 9/00; G02B 7/02

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: head-mounted display, lens, positive refractive power, negative refractive power, aberration

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KR 10-1421199 B1 (SEKONIX CO., LTD.) 22 July 2014 See paragraphs [0019], [0032], [0043] and figures 1, 3.	11-13
Y		1-10, 14-15
Y	KR 10-1118910 B1 (KOLEN CO., LTD.) 13 March 2012 See claim 1, paragraphs [0046], [0052] and figure 1.	1-10, 14-15
A	KR 10-1590825 B1 (KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY) 02 February 2016 See claim 1 and figure 2.	1-15
A	JP 2012-510077 A (ITT MANUFACTURING ENTERPRISES INC.) 26 April 2012 See claims 1, 6 and figure 5.	1-15
A	KR 10-0141805 B1 (LG ELECTRONICS INC.) 17 August 1998 See claim 1 and figure 1.	1-15



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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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 Application Division

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/KR2017/002034

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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