

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 31718-33990/PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2016/069633	International filing date (<i>day/month/year</i>) 31 December 2016 (31.12.2016)	(Earliest) Priority Date (<i>day/month/year</i>) 27 December 2016 (27.12.2016)
Applicant OCULUS VR, LLC		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

the international application in the language in which it was filed

a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. **Certain claims were found unsearchable** (See Box No. II)

3. **Unity of invention is lacking** (See Box No. III)

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b. none of the figures is to be published with the abstract.

A. CLASSIFICATION OF SUBJECT MATTER**H01L 41/09(2006.01)i, H01L 41/193(2006.01)i, H01L 41/25(2013.01)i, H01L 41/27(2013.01)i, G06F 3/01(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 41/09; G01L 1/22; G06F 3/02; H05K 7/02; A61F 5/01; H05K 3/00; A61F 2/10; G06F 3/01; H01L 41/193; H01L 41/25; H01L 41/27

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: elastomer layer, fluid-based circuit, sensing layer, via layer, actuator layer, fluidic transistor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2014-0238153 A1 (ROBERT J. WOOD et al.) 28 August 2014 See paragraphs [0041]-[0049], [0066]-[0072]; and figures 1, 5.	1-35
Y	WO 2016-205375 A1 (THE REGENTS OF THE UNIVERSITY OF MICHIGAN) 22 December 2016 See paragraphs [0046]-[0050], [0057], [0060]-[0066]; and figures 1A, 5A-6A.	1-35
Y	US 2013-0333094 A1 (THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS) 19 December 2013 See paragraphs [0068], [0100], [0171].	13-15, 30, 31
A	US 2015-0088043 A1 (EUGENE C. GOLDFIELD et al.) 26 March 2015 See paragraphs [0055]-[0094]; and figures 1-9.	1-35
A	US 2016-0363997 A1 (SONY INTERACTIVE ENTERTAINMENT INC.) 15 December 2016 See paragraphs [0079]-[0083]; and figures 7-11.	1-35

 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 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

15 September 2017 (15.09.2017)

Date of mailing of the international search report

15 September 2017 (15.09.2017)

Name and mailing address of the ISA/KR

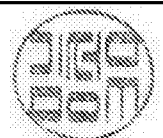
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2016/069633

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2014-0238153 A1	28/08/2014	CN 103959029 A EP 2758760 A2 JP 2014-528079 A KR 10-2014-0078704 A WO 2013-044226 A2 WO 2013-044226 A3	30/07/2014 30/07/2014 23/10/2014 25/06/2014 28/03/2013 11/07/2013
WO 2016-205375 A1	22/12/2016	None	
US 2013-0333094 A1	19/12/2013	CN 105283122 A EP 2830492 A1 JP 2015-521303 A KR 10-2015-0004819 A US 9554484 B2 WO 2013-149181 A1	27/01/2016 04/02/2015 27/07/2015 13/01/2015 24/01/2017 03/10/2013
US 2015-0088043 A1	26/03/2015	WO 2013-033669 A2 WO 2013-033669 A3	07/03/2013 27/06/2013
US 2016-0363997 A1	15/12/2016	WO 2016-205143 A1	22/12/2016