

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2020/012997

A. CLASSIFICATION OF SUBJECT MATTER
 G01S 7/4861(2020.01)i; G01S 7/497(2006.01)i; G01S 17/89(2020.01)i; G01S 17/931(2020.01)i
 FI: G01S17/89; G01S7/4861; G01S17/931; G01S7/497
 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)
 G01S7/48-7/51; G01S17/00-17/95; G01C3/06-3/08; G01B11/00-11/30;
 H04N5/335-5/378; H01L31/10; G01J1/42-1/44

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

Published examined utility model applications of Japan	1922-1996
Published unexamined utility model applications of Japan	1971-2020
Registered utility model specifications of Japan	1996-2020
Published registered utility model applications of Japan	1994-2020

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2017-527222 A (MICROSOFT TECHNOLOGY LICENSING, LLC) 14.09.2017 (2017-09-14) paragraphs [0015], [0023], [0036]-[0041], fig. 1A-2F	1-8
A	JP 2005-039268 A (DIALOG SEMICONDUCTOR GMBH) 10.02.2005 (2005-02-10) entire text, all drawings	1-8
A	US 2004/0095492 A1 (NOVA RESEARCH, INC.) 20.05.2004 (2004-05-20) entire text, all drawings	1-8
A	WO 2018/003502 A1 (SONY CORP.) 04.01.2018 (2018-01-04) entire text, all drawings	1-8
A	JP 2001-266128 A (NIPPON TELEGRAPH AND TELEPHONE CORP.) 28.09.2001 (2001-09-28) entire text, all drawings	1-8

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

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 09 June 2020 (09.06.2020)	Date of mailing of the international search report 30 June 2020 (30.06.2020)
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Name and mailing address of the ISA/ Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan	Authorized officer Telephone No.
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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/JP2020/012997

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
JP 2017-527222 A	14 Sep. 2017	US 2016/0073088 A1 paragraphs [0022], [0030], [0043]- [0048], fig. 1A-3 WO 2016/040219 A1 CA 2959702 A1 CN 106688099 A KR 10-2017-0053697 A	
JP 2005-039268 A	10 Feb. 2005	US 2005/0012968 A1 EP 1499112 A2 KR 10-2005-0008520 A CN 1578389 A	
US 2004/0095492 A1	20 May 2004	US 2009/0051796 A1	
WO 2018/003502 A1	04 Jan. 2018	US 2019/0158732 A1 EP 3477938 A1 CN 109314749 A	
JP 2001-266128 A	28 Sep. 2001	(Family: none)	