INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2019/046054

A. CLASSIFICATION OF SUBJECT MATTER
Int. Cl. H04H20/28(2008.01)i, H04H20/44(2008.01)i, H04H40/18(2008.01)i, H04N21/2383(2011.01)i, H04N21/438(2011.01)i, H04N21/6332(2011.01)i, H04L27/26(2006.01)i, H04B7/0413(2017.01)i
FI: H04H20/28, H04N21/2383, H04L27/26 113, H04B7/0413 320, H04H20/44, H04H40/18, H04N21/438, H04N21/6332

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)
Int. Cl. H04H20/28, H04H20/44, H04H40/18, H04N21/2383, H04N21/438, H04N21/6332, H04L27/26, H04B7/0413

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.
Y X	関西テレビ放送，放送の高度化に関する研究開発，2.「地上テレビジョン放送の高度化技術の検討」，放送を巡る諸課題に関する検討会―放送サービスの未来像を見据えた周波数有効活用に関する検討分科会（第4回）資料，Material 4-2, Broadcasting Policy Division, 16 March 2018, pp. 9-18 [retrieved: 29 January 2020], Internet: <URL: https://www.soumu.go.jp/main_content/000539299.pdf >, pp. 9-18, non-official translation (MINISTRY OF INTERNAL AFFAIRS AND COMMUNICATIONS INFORMATION AND COMMUNICATIONS BUREAU, NHK, KANSAI TELECASTING CO. LTD., TOKYO BROADCASTING SYSTEM TELEVISION. R&D Concerning Enhancement of Broadcasting. 2. "Study of Terrestrial Television Broadcasting Enhancement Technologies", Study Group on Problems Related to Broadcasting, Subgroup on Effective	1-18, 20 19

☒ 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	Date of mailing of the international search report
29.01.2020	10.02.2020
Name and mailing address of the ISA/ Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan	Authorized officer Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2019/046054

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	Frequency Utilization in Consideration of Future of Broadcast Services (4th Meeting Material).)	
Y	津持純他, ミリ波帯 4K・8K-FPU の開発, NHK 技研 R&D, NHK Science & Technology Research Laboratories, 28 September 2017, pp. 28-38 (TSUMOCHI, Jun et al. Development of Millimeter-wave Link for 8K Super Hi-Vision Program Contribution. NHK STRL R&D.)	1-18, 20
A	WO 2014/057924 A1 (NIPPON HOSO KYOKAI) 17 April 2014, paragraphs [0014]-[0039], fig. 1-4	1-20
A	WO 2016/038954 A1 (TOSHIBA CORP.) 17 March 2016, entire text, all drawings	1-20
A	JP 2005-260342 A (NIPPON HOSO KYOKAI) 22 September 2005, entire text, all drawings	1-20
A	JP 2017-192052 A (NIPPON HOSO KYOKAI) 19 October 2017, entire text, all drawings	1-20
P, A	JP 2019-012876 A (NIPPON HOSO KYOKAI) 24 January 2019, entire text, all drawings	1-20
P, A	JP 2019-201404 A (NIPPON HOSO KYOKAI) 21 November 2019, entire text, all drawings	1-20

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/JP2019/046054

Patent Documents referred to in the Report	Publication Date	Patent Family	Publication Date
WO 2014/057924 A1	17.04.2014	(Family: none)	
WO 2016/038954 A1	17.03.2016	(Family: none)	
JP 2005-260342 A	22.09.2005	(Family: none)	
JP 2017-192052 A	19.10.2017	(Family: none)	
JP 2019-012876 A	24.01.2019	(Family: none)	
JP 2019-201404 A	21.11.2019	(Family: none)	