

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference C23W7813Z		FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IB2023/000640	International filing date (<i>day/month/year</i>) 20 October 2023	(Earliest) Priority Date (<i>day/month/year</i>) 21 October 2022	
Applicant HYTTO PTE. LTD. et al.			

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 4 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. _____
☐ 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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2023/000640

A. CLASSIFICATION OF SUBJECT MATTER H04N 21/4782(2011.01)i; H04N 21/2187(2011.01)i; H04N 21/478(2011.01)i; H04N 21/442(2011.01)i; H04N 21/422(2011.01)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) H04N 21/4782(2011.01); G06Q 10/06(2012.01); G06Q 30/06(2012.01); H04N 21/2187(2011.01); H04N 21/274(2011.01); H04N 21/44(2011.01); H04N 21/4788(2011.01); H04N 21/61(2011.01); H04N 21/854(2011.01) 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: user, participate, live broadcast, control, interactive element																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>KR 10-2316072 B1 (JUNG, GYU YONG) 21 October 2021 (2021-10-21) paragraphs [0055]-[0062], [0079]-[0080], [0090]-[0095]; and figures 2, 4, 6</td> <td>15-21</td> </tr> <tr> <td>Y</td> <td></td> <td>1-14</td> </tr> <tr> <td>Y</td> <td>US 2020-0099960 A1 (GUANGZHOU HUYA INFORMATION TECHNOLOGY CO., LTD.) 26 March 2020 (2020-03-26) paragraph [0081]; claim 1; and figure 4</td> <td>1-14</td> </tr> <tr> <td>A</td> <td>US 2019-0124400 A1 (TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED) 25 April 2019 (2019-04-25) paragraphs [0050]-[0071]; and figure 2</td> <td>1-21</td> </tr> <tr> <td>A</td> <td>US 2016-0086108 A1 (DANIEL H. ABELOW) 24 March 2016 (2016-03-24) claim 504</td> <td>1-21</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	KR 10-2316072 B1 (JUNG, GYU YONG) 21 October 2021 (2021-10-21) paragraphs [0055]-[0062], [0079]-[0080], [0090]-[0095]; and figures 2, 4, 6	15-21	Y		1-14	Y	US 2020-0099960 A1 (GUANGZHOU HUYA INFORMATION TECHNOLOGY CO., LTD.) 26 March 2020 (2020-03-26) paragraph [0081]; claim 1; and figure 4	1-14	A	US 2019-0124400 A1 (TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED) 25 April 2019 (2019-04-25) paragraphs [0050]-[0071]; and figure 2	1-21	A	US 2016-0086108 A1 (DANIEL H. ABELOW) 24 March 2016 (2016-03-24) claim 504	1-21
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☒ 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 "D" document cited by the applicant in the international application "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 22 March 2024		Date of mailing of the international search report 22 March 2024																		
Name and mailing address of the ISA/KR Korean Intellectual Property Office 189 Cheongsa-ro, Seo-gu, Daejeon 35208, Republic of Korea Facsimile No. +82-42-481-8578		Authorized officer YANG, JEONG ROK Telephone No. +82-42-481-5709																		

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International application No.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-2019-0087230 A (SAMSUNG ELECTRONICS CO., LTD.) 24 July 2019 (2019-07-24) paragraphs [0068]-[0070]; and figure 5	1-21

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/IB2023/000640

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
KR	10-2316072	B1	21 October 2021	None			
US	2020-0099960	A1	26 March 2020	CN	106658038	A	10 May 2017
				CN	111405299	A	10 July 2020
				CN	111405299	B	01 March 2022
				WO	2018-113405	A1	28 June 2018
US	2019-0124400	A1	25 April 2019	CN	106341695	A	18 January 2017
				CN	106341695	B	11 August 2020
				US	10841661	B2	17 November 2020
				WO	2018-040823	A1	08 March 2018
US	2016-0086108	A1	24 March 2016	US	11222298	B2	11 January 2022
				US	2012-0069131	A1	22 March 2012
				US	2022-0156653	A1	19 May 2022
				US	9183560	B2	10 November 2015
				WO	2011-149558	A2	01 December 2011
				WO	2011-149558	A3	22 March 2012
KR	10-2019-0087230	A	24 July 2019	KR	10-2449670	B1	30 September 2022
				US	11245933	B2	08 February 2022
				US	2021-0076080	A1	11 March 2021
				WO	2019-143095	A1	25 July 2019