

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2018/006903

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

- 1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
- 2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
- 3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

The invention of group 1: claims 1-10 pertain to a sound stamp for applying a touch input and a sound signal input to a user terminal, and an information processing device using the same.

The invention of group 2: claims 11-17 pertain to an information processing device for extracting information in response to at least one beacon ID.

A sound stamp for applying a touch input and a sound signal input to a user terminal, an information processing device using the same, and an information processing device for extracting information in response to at least one beacon ID are of different technical fields, and thus do not include the same or a corresponding specific technical feature under PCT Rule 13.2.

Thus, the inventions of groups 1 and 2 lack unity of invention.

- 1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
- 2.  As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
- 3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
- 4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

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International application No.

PCT/KR2018/006903

## A. CLASSIFICATION OF SUBJECT MATTER

G06F 21/31(2013.01)i, G06F 3/041(2006.01)i, G06F 3/16(2006.01)i, H04L 9/08(2006.01)i, H04B 11/00(2006.01)i, G06Q 50/10(2012.01)i, H04W 4/80(2018.01)i, H04W 12/06(2009.01)i, G06Q 30/02(2012.01)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)

G06F 21/31; G06F 21/30; G06F 3/0488; G06Q 30/02; G06Q 30/06; G06Q 50/10; G06F 3/041; G06F 3/16; H04L 9/08; H04B 11/00; H04W 4/80; H04W 12/06

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: IPC as above  
Japanese Utility models and applications for Utility models: IPC as above

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

eKOMPASS (KIPO internal) & Keywords: security sound signal, speaker, touch pattern, password, beacon, ID, matching, mapping

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| X         | KR 10-2015-0092688 A (MOBIDOO CO., LTD.) 13 August 2015<br>See paragraphs [0046], [0051], [0056], [0088]; claims 1-2; and figure 1.                                  | 1-4                   |
| Y         |  | 5-10                  |
| Y         | JP 2014-109985 A (FUJISAWA, Kazunori) 12 June 2014<br>See paragraph [0010]; claim 1; and figure 1.   | 5-10                  |
| Y         | KR 10-2016-0015512 A (SK PLANET CO., LTD.) 15 February 2016<br>See paragraphs [0037], [0053]; and figure 5.  | 7-10                  |
| X         | KR 10-2016-0029896 A (CONNECTED 8 CO., LTD.) 16 March 2016<br>See paragraphs [0001], [0021], [0024], [0051], [0058], [0061]-[0076]; claims 1, 4; and figures 1-2, 5. | 11-14                 |
| Y         |  | 15-17                 |
| Y         | KR 10-2016-0097039 A (AHN, Ki Soon) 17 August 2016<br>See paragraphs [0050]-[0051]; claim 1; and figure 1.   | 15-17                 |
| Y         | KR 10-2017-0100822 A (GOOD NET CO., LTD.) 05 September 2017<br>See paragraph [0031]; and figure 2.   | 17                    |



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

“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

“E” earlier application or patent but published on or after the international filing date

“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

“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)

“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

“O” document referring to an oral disclosure, use, exhibition or other means

“&” document member of the same patent family

“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

Date of mailing of the international search report

14 NOVEMBER 2018 (14.11.2018)

14 NOVEMBER 2018 (14.11.2018)

Name and mailing address of the ISA/KR

 Korean Intellectual Property Office  
Government Complex Daejeon Building 4, 189, Cheongsu-ro, Seo-gu,  
Daejeon, 35208, Republic of Korea

Facsimile No. +82-42-481-8578

Authorized officer

Telephone No.

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.

**PCT/KR2018/006903**

| Patent document cited in search report | Publication date | Patent family member   | Publication date   |
|--|------------------|--|--|
| KR 10-2015-0092688 A                   | 13/08/2015       | JP 2017-513088 A<br>JP 2018-097882 A<br>KR 10-1626196 B1<br>KR 10-1793825 B1<br>KR 10-2016-0061954 A<br>WO 2015-119339 A1<br>WO 2015-119340 A1 | 25/05/2017<br>21/06/2018<br>13/06/2016<br>06/11/2017<br>01/06/2016<br>13/08/2015<br>13/08/2015 |
| JP 2014-109985 A                       | 12/06/2014       | JP 6025117 B2  | 16/11/2016   |
| KR 10-2016-0015512 A                   | 15/02/2016       | US 10007924 B2<br>US 2016-0034943 A1   | 26/06/2018<br>04/02/2016   |
| KR 10-2016-0029896 A                   | 16/03/2016       | NONE   |  |
| KR 10-2016-0097039 A                   | 17/08/2016       | KR 10-1675216 B1   | 10/11/2016   |
| KR 10-2017-0100822 A                   | 05/09/2017       | KR 10-1768143 B1   | 19/10/2017   |