# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

<table>
<thead>
<tr>
<th>Applicant’s or agent’s file reference</th>
<th>FOR FURTHER ACTION</th>
<th>See item 4 below</th>
</tr>
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<td>P20228-PCT</td>
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<tr>
<th>International application No.</th>
<th>International filing date (\text{day/month/year})</th>
<th>Priority date (\text{day/month/year})</th>
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International Patent Classification (8th edition unless older edition indicated)
See relevant information in Form PCT/ISA/237

Applicant
SAMSUNG ELECTRONICS CO., LTD.

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1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44bis.1(a).

2. This REPORT consists of a total of 6 sheets, including this cover sheet.
   In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

   - [X] Box No. I Basis of the report
   - [ ] Box No. II Priority
   - [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - [ ] Box No. IV Lack of unity of invention
   - [X] Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - [ ] Box No. VI Certain documents cited
   - [ ] Box No. VII Certain defects in the international application
   - [ ] Box No. VIII Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

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Date of issuance of this report
24 November 2015 (24.11.2015)

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Form PCT/IB/373 (January 2004)
PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
LEE, Keon-Joo

Mihwa Bldg., 16 Daehak-ro 9-gil Chongro-gu Seoul 110-524
Republic of Korea

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 26 May 2014 (26.05.2014)

FOR FURTHER ACTION
See paragraph 2 below

Applicant's or agent's file reference
P20228-PCT

International application No.
PCT/KR2014/001531

International filing date (day/month/year) 25 February 2014 (25.02.2014)

Priority date (day/month/year) 22 May 2013 (22.05.2013)

International Patent Classification (IPC) or both national classification and IPC
G06F 3/01(2006.01)i, G06F 3/14(2006.01)i, G06F 15/16(2006.01)i

Applicant
SAMSUNG ELECTRONICS CO., LTD.

1. This opinion contains indications relating to the following items:

- Box No. I  Basis of the opinion
- Box No. II  Priority
- Box No. III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV  Lack of unity of invention
- Box No. V  Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI  Certain documents cited
- Box No. VII  Certain defects in the international application
- Box No. VIII  Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/KR
International Application Division
Korean Intellectual Property Office
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Metropolitan City, 305-701, Republic of Korea
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Date of completion of this opinion
26 May 2014 (26.05.2014)

Authorized officer
BYUN, Sung Cheal

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Form PCT/ISA/237 (cover sheet) (July 2011)
1. With regard to the language, this opinion has been established 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))

2. ☐ This opinion has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

a. (means)

☐ on paper

☐ in electronic form

b. (time)

☐ in the international application as filed.

☐ together with the international application in electronic form.

☐ subsequently to this Authority for the purposes of search.

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:
1. Statement

<table>
<thead>
<tr>
<th>Novelty (N)</th>
<th>Claims</th>
<th>1-15</th>
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<tr>
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<td>Inventive step (IS)</td>
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<td>Industrial applicability (IA)</td>
<td>Claims</td>
<td>1-15</td>
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<td>NONE</td>
<td>NO</td>
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2. Citations and explanations:

Reference is made to the following documents:

D1: US 6809724 B1 (ATSUSHI SHIRAISHI et al.) 26 October 2004
D5: WO 2012-061440 A2 (NIKE INTERNATIONAL LTD.) 10 May 2012

2.1 Novelty and Inventive Step (PCT Article 33(2) and (3))

2.1.1 Claims 1-11

D1, which is considered to be the closest prior art to the subject matter of independent claim 1, discloses a method comprising: synchronizing with a PC so as to form a system together with the PC (see column 10, lines 65-67); operating a tab switch by a user (see column 14, line 7); and displaying a schedule display mode as a main screen (see column 14, lines 8-9) wherein portions of a time axis correspond to schedule icons (see column 14, lines 33-36).

The subject matter of claim 1 differs from that of D1 in that a method of claim 1 comprises that each of sector areas has an area proportional to a time of a corresponding schedule item from among a total time of schedule data which can be displayed on the display screen of a wearable additional device. However, this feature is virtually suggested by the same document considering that a day view displays the schedule on a daily basis (see column 46, lines 66-67) and the schedule icons are colored to indicate the presence of schedules events or actions, i.e., to indicate that the schedule has been occupied (see column 14, lines 33-36).

Therefore, a person skilled in the art would easily conceive the idea of employing the feature of each of the sector areas. Accordingly, claim 1 would have been obvious over D1. Therefore,

Continued on Supplemental Box
In case the space in any of the preceding boxes is not sufficient.
Continuation of: Box No. V

claim 1 lacks an inventive step under PCT Article 33(3).

The additional features of claims 2, 4-5, and 8-11 are not disclosed in any of the prior art documents, nor are they obvious to a person skilled in the art by the documents, taken alone or in combination. Accordingly, claims 2, 4-5, and 8-11 are novel and involve an inventive step under PCT Article 33(2) and (3).

Claim 3, dependent on claim 1, specifies a user input. The additional feature is known from D1 (the user operates the tab switch; see column 14, line 7). Therefore, claim 3 lacks an inventive step under PCT Article 33(3).

Claim 6, dependent on claim 1, specifies each of the sector areas. The additional feature is known from D1 (it is possible to display the title of the scheduled event and the scheduled time; see column 24, lines 27-29). Therefore, claim 6 lacks an inventive step under PCT Article 33(3).

Claim 7, dependent on claim 1, specifies sector items. The additional feature is known from D1 (changing the color of the background of a certain period of time in which an event is scheduled; see column 24, lines 16-18). Therefore, claim 7 lacks an inventive step under PCT Article 33(3).

2.1.2 Claim 12
Claim 12 relates to a wearable additional device in accordance with one of claims 1 to 11 relating to a method. The features of claim 12 essentially correspond to one of claims 1 to 11 except for the category of invention. Thus, the same reasoning as in claim 1 applies to claim 12. Therefore, independent claim 12 lacks an inventive step under PCT Article 33(3).

2.1.3 Claims 13-14
D1, which is considered to be the closest prior art to the subject matter of independent claim 13, discloses a method comprising: performing updating and synchronization of data (see column 11, line 7); and displaying a schedule display mode as a main screen (see column 14, lines 8-9) wherein portions of a time axis correspond to schedule icons (see column 14, lines 33-36).

The subject matter of claim 13 differs from that of D1 in that a method of claim 13
comprises that each of sector areas has an area proportional to a time of a corresponding schedule time from among a total display time of schedule data which can be displayed on the display screen of a wearable additional device. However, this feature is virtually suggested by the same document considering that a day view displays the schedule on a daily basis (see column 46, lines 66-67) and the schedule icons are colored to indicate the presence of schedules events or actions, i.e., to indicate that the schedule has been occupied (see column 14, lines 33-36). Therefore, a person skilled in the art would easily conceive the idea of employing the feature of each of the sector areas. Accordingly, claim 13 would have been obvious over D1. Therefore, claim 13 lacks an inventive step under PCT Article 33(3).

The additional feature of claim 14 is not disclosed in any of the prior art documents, nor is it obvious to a person skilled in the art by the documents, taken alone or in combination. Accordingly, claim 14 is novel and involves an inventive step under PCT Article 33(2) and (3).

2.1.4 Claim 15

Claim 15 relates to a portable electronic device in accordance with one of claims 13 and 14 relating to a method. The features of claim 15 essentially correspond to one of claims 13 and 14 except for the category of invention. Thus, the same reasoning as in claim 13 applies to claim 15. Therefore, independent claim 15 lacks an inventive step under PCT Article 33(3).

2.2 Industrial Applicability (PCT Article 33(4))

Claims 1-15 are industrially applicable under PCT Article 33(4).