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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,

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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
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(54) Title: CONFIGURABLE CONNECTOR FOR SYSTEM-LEVEL COMMUNICATION

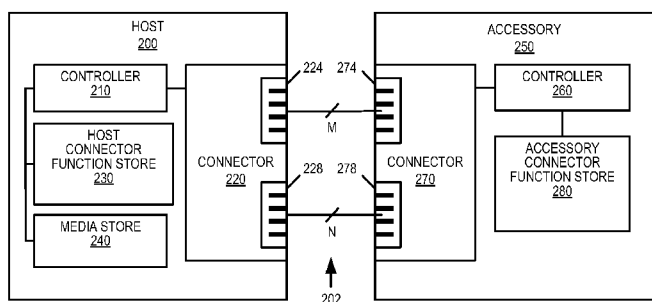


FIG. 2

(57) Abstract: A host device comprises a controller and connector. The host connector comprises fixed-function and multi-function pins. A first group of host connector pins comprises one or more of the fixed-function pins and a second group of pins comprises the remainder of fixed-function pins and multi-function pins. The host connector can be releasably attached to a connector of an accessory device. The first group of host connector pins can be used to discover the functions of the accessory connector. The host device can select functions to be enabled at the host and accessory connectors from among functions mutually supported by the two connectors. The host can enable the selected functions at the host connector and can instruct the accessory to enable the selected functions at the accessory connector. The host can reconfigure host connector functions in response to a different accessory being attached to the host.



A. CLASSIFICATION OF SUBJECT MATTER**G06F 13/14(2006.01)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 13/14; G06F 13/38; G06F 13/24; G06F 13/12; G06F 13/00

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: connector, host, accessory, fixed, multi, function, pin

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 7287112 B1 (MATTHEW A. PLEIS et al.) 23 October 2007 See col. 5, line 52 - col. 11, line 28; figures 2A-2C.	1-3,8-10
A	US 2008-0005424 A1 (MOSHE RAINES) 03 January 2008 See paragraphs [0086] - [0109]; figures 2A-4B.	1-3,8-10
A	US 2007-0073936 A1 (IVAN R. CARDENAS et al.) 29 March 2007 See paragraphs [0051] - [0067]; figures 4-5.	1-3,8-10
A	US 7536497 B2 (WOO-SEOK JANG et al.) 19 May 2009 See col. 3, line 13 - col. 4, line 65; figure 1.	1-3,8-10
A	US 2005-0005045 A1 (YONG-HYEON KIM et al.) 06 January 2005 See paragraphs [0046] - [0067]; figures 2-4C.	1-3,8-10

 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 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

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28 JULY 2011 (28.07.2011)

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/057915

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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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.: 4-7
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:

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 an additional fee, this Authority did not invite payment of any additional fee.
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.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/057915

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