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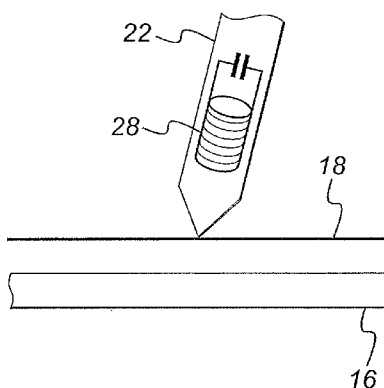
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3 July 2008

(54) Title: NAVIGATION ARRANGEMENT FOR AN ELECTRONIC DEVICE



(57) Abstract: A navigation arrangement for an electronic device that includes a screen, comprises: (i) a substantially transparent two dimensional capacitive position sensor that can be located over a screen of the device, and which can detect the position of an object with respect to the screen, and (ii) a two dimensional inductive position sensor for detecting the position of an intermediate coupler for example in the form of a pen or stylus with respect to the screen. The inductive position sensor comprises a transmit aerial for transmitting a signal, and a receive aerial for receiving the signal via the intermediate coupler so that the position of the intermediate coupler can be determined- The wiring of the inductive position sensor may be formed from a transparent conductor, or it may be arranged around the edge of the screen or behind the screen to enable the user to view the screen. Further forms of inductive position sensor, with or without capacitive position sensors, can enable a user to view a screen, for example by placing the inductive sensor tracks around the screen, or by connecting transparent conductors in parallel using low resistance busbars at the edge of the screen. Inductive position sensors may also be arranged to determine the position of the intermediate coupler in three directions, optionally in combination with other forms of sensor, and also to determine its orientation.



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INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2007/001680

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F3/044 G06F3/046

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

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 250 931 A (IBM [US]) 7 January 1988 (1988-01-07) claim 1; figures 3,8,9,19 -----	1-11
A	US 2004/105040 A1 (OH EUI YEOL [KR] ET AL) 3 June 2004 (2004-06-03) page 4, paragraph 63 - page 5, paragraph 64; figures 3,5,6 -----	1-11
A	US 6 417 846 B1 (LEE SI-KEN [TW]) 9 July 2002 (2002-07-09) claim 1; figures 1C,8,9 -----	1-11
A	US 2003/098858 A1 (PERSKI HAIM [IL] ET AL) 29 May 2003 (2003-05-29) claim 1; figures 1,3 ----- -/-	1-11

☒ 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 document 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

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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2 374 424 A (GENTECH INVEST GROUP AG [CH]) 16 October 2002 (2002-10-16) cited in the application figures 2,3	1-11

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2007/001680

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:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an 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 reportcovers 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.:

1-11

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11

Arrangement with capacitive sensor and inductive sensor.

2. claims: 12-31

Two dimensional inductive position sensor with screen not obstructed.

3. claims: 32-36

Three dimensional inductive position sensor.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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