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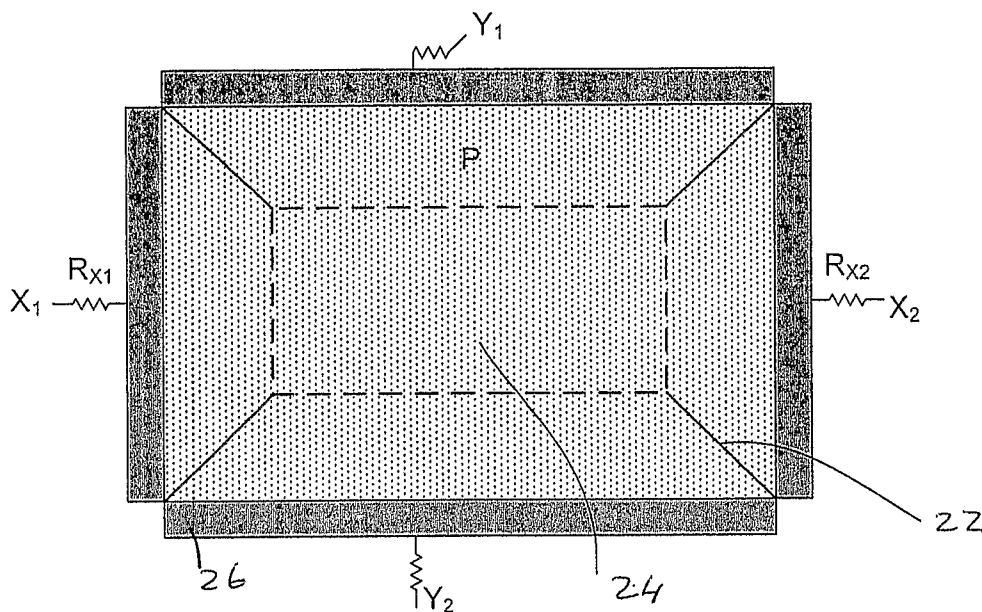


Fig. 4b -

(57) Abstract: A capacitive sensing circuit which has a uniformly resistive sense plate, a charge transfer measurement circuit connected to one side of the sense plate and a dummy load which is only connected to another side of the sense plate during some measurement cycles.

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# INTERNATIONAL SEARCH REPORT

International application No  
PCT/ZA2008/000072

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

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 H03K G01D

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.
A	US 7 148 704 B2 (PHILIPP HARALD [GB] PHILIPP HARALD [US]) 12 December 2006 (2006-12-12) the whole document	1-9, 16-25
A	US 6 466 036 B1 (PHILIPP HARALD [GB]) 15 October 2002 (2002-10-15) the whole document	

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

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09/03/2009

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/ZA2008/000072

## 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.: 10-15, 18-23 (partial)  
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:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
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:

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 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.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 10-15, 18-23 (partial)

The subject-matter of claims 10, 11, and 12 is directed to a capacitive sensing circuit according to claim 9, wherein the circuit is implemented at least in accordance with 9a, 9b, and 9c, respectively. However, the subject-matter of claim 9 recites a capacitive sensing circuit wherein the circuit is implemented in accordance with at least one of the configurations (d), (e), (f). Thus, the subject-matter of claims 10-12 is rendered unclear and no meaningful search could be made. Claims 13-15, which depend directly upon the subject-matter of claims 10-12 also could not be meaningfully searched. Claims 18-23, while containing dependency chains relying on the subject-matter of claims 10-15, have been partially searched based on their dependency chains not relying upon the subject-matter of claims 10-15.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2)PCT declaration be overcome.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/ZA2008/000072

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 7148704	B2 12-12-2006	US 2004104826 A1	03-06-2004
US 6466036	B1 15-10-2002	NONE	