Title: SURFACE AND CORDLESS TRANSDUCER SYSTEM

Abstract: A smart surface is disclosed that can stand alone or be contained within a portable computer or other system, for powering and communicating with single or multiple cordless transducers. Operating or charging power is transmitted by the surface using a carrier signal that is on/off keyed or amplitude modulated with synchronization clock, enable, address, modes, commands and other pulse width, encoded or digital data. The signal is transmitted to single or multiple cordless smart transducers located on or above the surface, such as pens with multiple pressure sensing and switch capability, pointers, stylus, cursors, pucks, mouse, pawns, implements and similar items. Overlapping resonant inductive circuits are used in the surface to transmit operating power and communicate data to the transducer(s).
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : G09G 5/00; G05K 11/06.
US CL. : 345/173, 179; 178/18.01.
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)
U.S.: 345/173-178, 179; 178/18.01, 18.02, 18.09.

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 practicable, search terms used)
EAST search. JAP search.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 6,556,190 B2 (FLECK et al.) 29 April 2003, column 9, line 29 to col. 10, line 26.</td>
<td>1, 5, 6, 12, and 19</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,028,745 (YAMANAMI et al.) 2 July 1991, column 4, lines 29-49, col. 5, line 52 to</td>
<td>2-4, 7-11, 13-18</td>
</tr>
<tr>
<td></td>
<td>column 6, line 26.</td>
<td></td>
</tr>
</tbody>
</table>

☐ 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 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

"I" 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: 16 November 2005 (16.11.2005)

Date of mailing of the international search report: 23 Dec 2005

Authorized officer
Jennifer Nguyen
Telephone No. 571-232-1864

Form PCT/ISA/210 (second sheet) (April 2005)