A strap band including a flexible wire bus having electrodes and wires coupled with the electrodes is described. The wire bus may be include in a strap band formed by molding an inner strap, mounting the wire bus in the inner strap, and injection molding an outer strap over the inner strap and wire bus to form a strap band. The electrodes may be positioned on the inner strap to accommodate a target range of a body portion the strap band may be worn on. A material of the strap band and a material the wire bus may be selected to allow a low coefficient of friction between the wire bus and strap band so that loads applied to the strap band may not be coupled with the wire bus or cause damage to wires due to pull and/or torsional load forces applied to the strap band.
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))
**INTERNATIONAL SEARCH REPORT**

**International application No.**
PCT/US 15/49037

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(8) - H05K 3/30 (2016.01)
CPC - A61B 5/6831; A61B 5/684; A61B 5/7271; G06F 1/18; H05K 3/30

According to International Patent Classification (IPC) or to both national classification and IPC documentation

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)
USPC - 361/679.01 , 679.03,29/832,29/831 .29/829,29/828

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - A61B 5/6831; A61B 5/684; A61B 5/7271; G06F 1/18; H05K 3/30
IPC(8) - H05K 3/30 (2016.01 ) ;USPC - 361/679.01 , 679.03,29/832,29/831 .29/829,29/828

Electronic data base consulted during the international, search (name of data base and, where practicable, search terms used)
Google Patents,Google Web,PatentBase

Search Terms Used:wire bus, pads, electrodes, skirts, shot channel, substrate, encapsulated, antenna, nfc or near field, conductor layer, thermoplastic, elastomer, polycarbonate, pressure sensitive adhesive, strap band

**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>A</td>
<td>WO 2012/150528 A1 (Koninklijke Philips Electronics N.V.) 08 November 2012 (08.1.2012); entire document, especially; Abstract, FIG 2.</td>
<td>1-20</td>
</tr>
<tr>
<td>A</td>
<td>US 2009/01 18805 A1 (Greenberg et al.) 07 May 2009 (07.05.2009); entire document; especially; para [0103], [0107].</td>
<td>1-20</td>
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<tr>
<td>A</td>
<td>US 2014/0088397 A1 (Chon et al.) 27 March 2014 (27.03.2014); entire document.</td>
<td>1-20</td>
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<tr>
<td>A</td>
<td>US 8,731,633 B2 (Asjes et al.) 20 May 2014 (20.05.2014); entire document.</td>
<td>1-20</td>
</tr>
<tr>
<td>A</td>
<td>US 2014/0144694 A1 (Shah et al.) 29 May 2014 (29.05.2014); entire document.</td>
<td>1-20</td>
</tr>
<tr>
<td>A</td>
<td>US 2012/0283794 A1 (Kailb et al.) 08 November 2012 (08.1.2012); entire document.</td>
<td>1-20</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

- 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 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
  - "Z" document member of the same patent family

**Date of the actual completion of the international search**
22 March 2016 (22.03.2016)

**Date of mailing of the international search report**
08 APR 2016

**Name and mailing address of the ISA/US**
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450
Facsimile No. 571-273-8300

**Authorized officer:**
Lee W. Young
PCT Helpdesk: 571-272-4300
PCT DSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (January 2015)