For making an electrical connection

Abstract: An integrated circuit chip (102) has one or more electrically conductive nano-fibers (106, 107) formed on one or more contact pads (104) of the integrated circuit chip. The one or more electrically conductive nano-fibers are configured to provide an adhesive force by intermolecular forces and establish an electrical connection with one or more contact pads disposed on the surface of a chip package (108).
A. CLASSIFICATION OF SUBJECT MATTER
IPC: HOIL 23/48( 2006.01);B32B 33/00( 2006.01)
USPC: 257/53,734,778;E2310,L123,12J F23,089
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (ojaal fication al followed by classification symbols)

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

Electronic data base consulted during the international search (names of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT
Category: Citation of document, with indication, where appropriate, of the relevant passages

<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 2005/0692414 A1 (Jones et al) 05 May 2005 (05.05.2005), figures 3 and 4</td>
<td>1-3</td>
</tr>
<tr>
<td>Y</td>
<td>WO 99/32005 A1 (Callbom) 01 July 1999 (01.07.1999) figures 3 and 4</td>
<td>4-13</td>
</tr>
</tbody>
</table>

I further document are listed in the continuation of Box C.

Date of the actual completion of the international search
22 September 2007 (22.09.2007)

Authorized Office
Alexander O. Whiting
Telephone No, (571) 272 1924
### 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 earned 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)

### 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. **Claims Nos**
   - As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims

2. **Claims Nos**
   - As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees

3. **Claims Nos**
   - 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 1-13

4. **Claims Nos**
   - 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 1-13

**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**

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Form PCT/ISA/210 (continuation of first sheet(2)) (April 2005)