Abstract: Bi-directional data center architectures employing a jacketless trunk cable are disclosed. The bi-directional data center architecture includes first and second coupling panels respectively operably connected to first and second trunk cables, wherein the first and second coupling panels respectively have first adapters and second adapters. The architecture also includes a plurality of sub-racks having sub-rack adapters, and a jacketless trunk cable that includes a plurality of sub-units, with each sub-unit carrying one or more optical fibers. The plurality of sub-units are configured to optically connect corresponding first and second adapters of the first and second coupling panels to the sub-rack adapters such that every optical fiber in each sub-unit is used to establish an optical connection.
INTERNATIONAL SEARCH REPORT

A.  CLASSIFICATION OF SUBJECT MATTER

IPC(8)  -  G02B 6/40, 6/42, 6/24 (2015.01 )
CPC  -  G02B 6/4246, 6/4249, 6/4473

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)

IPC(8) Classification(s): G02B 6/04, 6/24, 6/36, 6/40, 6/42, 6/44 (2015.01 )
CPC Classification(s): G02B 6/24, 6/3612, 36/24, 6/4219, 6/4246, 6/4249, 6/4473, 6/4475, 6/4476

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)

PatSeer (US, EP, WO, JP, DE, GB, CN, FR, KR, ES, AU, IN, CA, INPADOC Data); ProQuest; IEEE; Google Scholar; EBSCO

Keywords searched: trunk cables, sub-racks, bidirectional data center, optical fibers, N adapters, wound configuration, connectorized sections, securing members, connectorized sections

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>Y</td>
<td>US 5,655,036 A (WEBB, S.) August 05, 1997; figures 1-5; abstract; paragraphs [0033-0039], [0047]: claim 1</td>
<td>33</td>
</tr>
<tr>
<td>A</td>
<td>US 2011/01 76779 A 1 (KOLESAK, P.) July 21, 2011: figures 1,7: abstract; column 1, lines 45-60: column 2, lines 15-30; column 4, lines 40-50</td>
<td>1-33</td>
</tr>
<tr>
<td>E/Y</td>
<td>US 2015/0331192 A 1 (CORNING OPTICAL COMMUNICATIONS LLC) November 19, 2015; figures 1, 28, 68; paragraphs [0030-0044]</td>
<td>1-33</td>
</tr>
</tbody>
</table>

Further documents in the family of the invention:

* 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** published prior to the international filing date but later than the priority date claimed
  **V** 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 combined with one or more other such documents, such combination being obvious to a person skilled in the art
  **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

Date of the actual completion of the international search: 28 December 2015 (28.12.2015)

Date of mailing of the international search report: 17 MAY 2016

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