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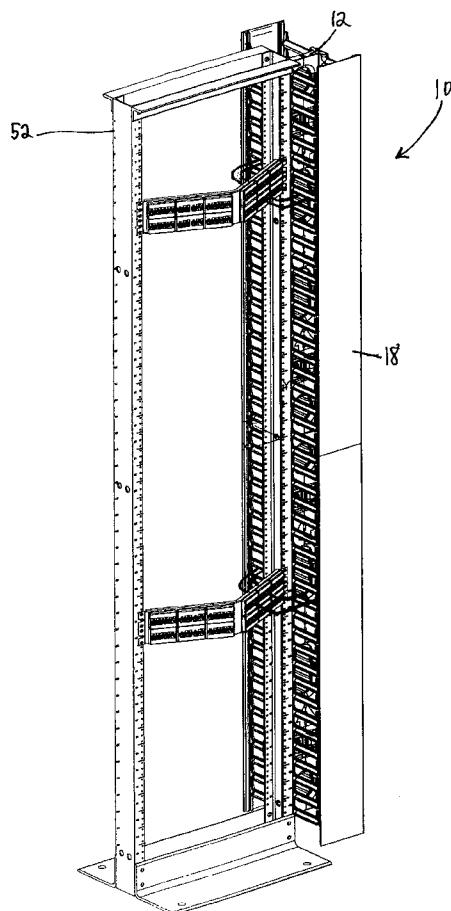
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[Continued on next page]

(54) Title: VERTICAL CABLE MANAGER



(57) Abstract: Cable managers of the present invention include a panel (12), at least two adjacent spaced-apart projections (14, 15), which define an opening (36) there between, and a tab (16) connected to at least one of the projections. The tab assists in cable routing and retention. In one embodiment, the tab extends to a distance at least midway between a top surface of the one projection and the bottom surface of the other projection. In another embodiment, a distance (d) between a top surface of the tab (16) on one projection and the bottom surface of another adjacent projection is between about 0.10 inches and about 0.30 inches. In yet another embodiment, a cable manager comprises separable portions (186, 188), and at least one spacer member (202, 204) which is adapted to be attached to each of separable first and second portions. The spacer member increases the width (w) of the manager to provide additional space to run cable within the manager.



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
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INTERNATIONAL SEARCH REPORT

International Application No

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04Q1/06 H02G3/04

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 7 H04Q G02B H02G H03G

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, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 127 631 A (GREEN ET AL) 3 October 2000 (2000-10-03) the whole document	1-8, 10-18
X	US 2004/007372 A1 (KRIETZMAN WILLIAM DREW ET AL) 15 January 2004 (2004-01-15) paragraphs [0004], [0007], [0012], [0014], [0037], [0040], [0043]	10-19
A	US 6 215 069 B1 (MARTIN DALE D ET AL) 10 April 2001 (2001-04-10) figure 17	9
X	US 3 705 949 A (IRVING F. WEISS) 12 December 1972 (1972-12-12) the whole document	20,21, 23,24, 27,30,34
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

6 October 2005

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/009515

Box 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.:
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:
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 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:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
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.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-19

Cable manager comprising a panel with projections, at least one of which has a specific tab

2. claims: 20-34

Cable manager comprising two portions which are separable and attached through at least one spacer member

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2005/009515

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 468 112 B1 (FOLLINGSTAD MICHAEL JAY ET AL) 22 October 2002 (2002-10-22) the whole document	20, 21, 23-28
A	----- WO 01/74091 A (PANDUIT CORP) 4 October 2001 (2001-10-04) the whole document -----	20-25

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2005/009515

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6127631	A	03-10-2000	NONE	
US 2004007372	A1	15-01-2004	NONE	
US 6215069	B1	10-04-2001	NONE	
US 3705949	A	12-12-1972	NONE	
US 6468112	B1	22-10-2002	AU 759139 B2	03-04-2003
			AU 2403200 A	01-08-2000
			BR 0007466 A	30-10-2001
			CA 2360798 A1	20-07-2000
			CN 1340276 A	13-03-2002
			EP 1142348 A1	10-10-2001
			HK 1045430 A1	15-07-2005
			HU 0105031 A2	29-05-2002
			JP 2002535952 T	22-10-2002
			NO 20013428 A	07-09-2001
			NZ 513326 A	20-12-2002
			TW 463439 B	11-11-2001
			WO 0042780 A1	20-07-2000
			US 2003119385 A1	26-06-2003
			US 2003008568 A1	09-01-2003
			ZA 200106241 A	27-09-2002
WO 0174091	A	04-10-2001	AU 5758801 A	08-10-2001
			CN 1442021 A	10-09-2003
			EP 1269763 A2	02-01-2003
			JP 2004500782 T	08-01-2004
			US 2001031124 A1	18-10-2001
			US 2004206532 A1	21-10-2004