

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/072395

A. CLASSIFICATION OF SUBJECT MATTER**B61L 3/00**(2006.01)i; **B61L 15/00**(2006.01)i; **B61L 27/00**(2006.01)i; **B61L 21/10**(2006.01)i

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)

B61L

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)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	DE 19509696 A1 (SIEMENS AG [DE]) 12 September 1996 (1996-09-12) abstract column 2, line 18 - column 3, line 17 figure 1	1-7,9 8
X	DE 102009049081 A1 (SIEMENS AG [DE]) 07 April 2011 (2011-04-07) paragraph [0005] - paragraph [0006] paragraph [0008] - paragraph [0009] paragraph [0012] figure 1	1,2,5,9
X	EP 0958987 A2 (CIT ALCATEL [FR]) 24 November 1999 (1999-11-24) paragraph [0016] - paragraph [0020] paragraph [0022] - paragraph [0024] figure 1	1,2,5,9
A	DE 102016202743 A1 (SIEMENS AG [DE]) 24 August 2017 (2017-08-24) paragraph [0026] - paragraph [0029] figures 1,2	1-9

 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

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“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

“&” document member of the same patent family

Date of the actual completion of the international search

12 November 2018

Date of mailing of the international search report

22 November 2018

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/EP2018/072395

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
DE	19509696	A1	12 September 1996	CN	1137993	A	18 December 1996
				DE	19509696	A1	12 September 1996
DE	102009049081	A1	07 April 2011	DE	102009049081	A1	07 April 2011
				WO	2011042321	A1	14 April 2011
EP	0958987	A2	24 November 1999	AT	324307	T	15 May 2006
				DE	19822803	A1	25 November 1999
				EP	0958987	A2	24 November 1999
DE	102016202743	A1	24 August 2017	DE	102016202743	A1	24 August 2017
				WO	2017144295	A1	31 August 2017
US	2011172856	A1	14 July 2011	AU	2010340289	A1	24 November 2011
				BR	PI1010174	A2	29 March 2016
				CA	2761014	A1	14 July 2011
				US	2011172856	A1	14 July 2011
				WO	2011084251	A2	14 July 2011