

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/075249

A. CLASSIFICATION OF SUBJECT MATTER		
<i>H04B 10/114</i> (2013.01)i; <i>H04B 10/516</i> (2013.01)i; <i>H04J 14/02</i> (2006.01)i; <i>H04B 10/116</i> (2013.01)i; <i>H03M 13/00</i> (2006.01)i; <i>H04L 1/00</i> (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) H04B; H04J; H03M; H04L		
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, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1061685 A2 (CIT ALCATEL [FR]) 20 December 2000 (2000-12-20) the whole document	1-16
X	US 2014023371 A1 (NANJO TATSUNORI [JP]) 23 January 2014 (2014-01-23) paragraph [0005] - paragraph [0006]; figures 6,2 paragraph [0010] - paragraph [0011] paragraph [0032] - paragraph [0034] paragraph [0051] - paragraph [0059]; claim 1	1-16
A	DE 10133518 A1 (SIEMENS AG [DE]) 30 January 2003 (2003-01-30) the whole document	1-16
A	EP 1039669 A2 (LUCENT TECHNOLOGIES INC [US]) 27 September 2000 (2000-09-27) paragraph [0010] - paragraph [0021]; figures 1-3	1-16
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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 "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 "&" document member of the same patent family		
Date of the actual completion of the international search 21 November 2018		Date of mailing of the international search report 29 November 2018
Name and mailing address of the ISA/EP European Patent Office p.b. 5818, Patentlaan 2, 2280 HV Rijswijk Netherlands Telephone No. (+31-70)340-2040 Facsimile No. (+31-70)340-3016		Authorized officer Gäde, Sebastian Telephone No.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

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Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
EP	1061685	A2	20 December 2000	CA	2311023	A1	16 December 2000
				DE	19927451	A1	21 December 2000
				EP	1061685	A2	20 December 2000
				JP	2001024584	A	26 January 2001

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				JP	2014023093	A	03 February 2014
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				EP	1405454	A1	07 April 2004
				US	2004185796	A1	23 September 2004
				WO	03007531	A1	23 January 2003

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				EP	1039669	A2	27 September 2000
				JP	2000278249	A	06 October 2000
				US	7272319	B1	18 September 2007
