

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference NC103284WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/FI2018/050570	International filing date (<i>day/month/year</i>) 02 August 2018 (02.08.2018)	(Earliest) Priority date (<i>day/month/year</i>) 11 August 2017 (11.08.2017)
Applicant NOKIA TECHNOLOGIES OY		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 20 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II).

3. ☐ **Unity of invention is lacking** (See Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 3

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

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A. CLASSIFICATION OF SUBJECT MATTER

See extra sheet

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: G06F, H04W

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

FI, SE, NO, DK

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

EPODOC, EPO-Internal full-text databases, Full-text translation databases from Asian languages, WPIAP, XP3GPP, XPAIP, XPESP, XPETSI, XPI3E, XPIEE, XPIETF, XPIOP, XPIPCOM, XPJPEG, XPMISC, XPOAC, XPRD, XPTK, COMPDX, INSPEC, NPL, Internet, ESPACENET.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2017119844 A1 (ERICSSON TELEFON AB L M (PUBL) [SE]) 13 July 2017 (13.07.2017) Abstract, paragraphs [004], [009]-[0016], [0018], [0036], [0045]-[0049], [0055]-[0081], [0084]-[0089], [00101]-[00110], figures 5, 7-9, 13, 16	1-24
A	HUAWEI; HISILICON Update of Solution #1 for Key issue #1. 3GPP (3rd Generation Partnership Project) SA WG2 Meeting #114,, [online], 2016-04-05, [retrieved on 2018-10-12]. Retrieved from <http://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_114_Sophia_Antipolis/Docs/S2-161503.zip>, The whole document.	1-24
A	US 2017141973 A1 (VRZIC SOPHIE [CA]) 18 May 2017 (18.05.2017) The whole document.	1-24

☒ Further documents are listed in the continuation of Box C.
☒ See patent family annex.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search

16 October 2018 (16.10.2018)

Date of mailing of the international search report

17 October 2018 (17.10.2018)

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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A	WO 2016006948 A1 (LG ELECTRONICS INC [KR]) 14 January 2016 (14.01.2016) The whole document.	1-24
A	US 2017041854 A1 (KIM JAEHYUN [KR] et al.) 09 February 2017 (09.02.2017) The whole document.	1-24
A	WO 2013112410 A1 (INTEL CORP [US]) 01 August 2013 (01.08.2013) The whole document.	1-24

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