

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference WOCN1813411	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/CN2018/099862	International filing date (<i>day/month/year</i>) 10 August 2018	(Earliest) Priority Date (<i>day/month/year</i>) 11 August 2017
Applicant JRD COMMUNICATION (SHENZHEN) LTD		

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 3 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. 5

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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2018/099862

A. CLASSIFICATION OF SUBJECT MATTER		
H04W 72/02(2009.01)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)		
H04W; H04Q		
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)		
CNKI, CNPAT, WPI, EPODOC, 3GPP: grant-free, grant free, grant, without, configuration, reconfiguration, control, RRC, LI, indication, UL, uplink		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	INTERDIGITAL,, "SPS and Grant-free operation for NR," 3GPP TSG-RAN WG2#NR AdHoc#2, R2-1706687, 29 June 2017 (2017-06-29), sections 2-4	1-15
X	CATT,, "Grant-free transmission and SPS," 3GPP TSG-RAN WG2 Meeting #NR AH2, R2-1706417, 29 June 2017 (2017-06-29), sections 1-2	1-15
A	CN 106538012 A (LG ELECTRONICS INC.) 22 March 2017 (2017-03-22) the whole document	1-15
A	CN 106507486 A (HUAWEI TECHNOLOGIES CO., LTD.) 15 March 2017 (2017-03-15) the whole document	1-15
A	WO 2017011942 A1 (HUAWEI TECHNOLOGIES CO., LTD.) 26 January 2017 (2017-01-26) the whole document	1-15
<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		Date of mailing of the international search report
15 October 2018		31 October 2018
Name and mailing address of the ISA/CN		Authorized officer
STATE INTELLECTUAL PROPERTY OFFICE OF THE P.R.CHINA 6, Xitucheng Rd., Jimen Bridge, Haidian District, Beijing 100088 China		LI, Xiaoli
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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/CN2018/099862

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
CN	106538012	A	22 March 2017	KR	20170027700	A	10 March 2017
				US	2017150424	A1	25 May 2017
				WO	2016003065	A1	07 January 2016
				JP	2017523623	A	17 August 2017
				EP	3165038	A1	10 May 2017
CN	106507486	A	15 March 2017	WO	2017041683	A1	16 March 2017
WO	2017011942	A1	26 January 2017	US	2018139656	A1	17 May 2018
				EP	3316637	A1	02 May 2018
				CN	107852704	A	27 March 2018