

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference WO40079	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/CN2016/097166	International filing date ( <i>day/month/year</i> ) 29 August 2016 (29.08.2016)	Priority date ( <i>day/month/year</i> ) 05 February 2016 (05.02.2016)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant YULONG COMPUTER TELECOMMUNICATION SCIENTIFIC (SHENZHEN) CO., LTD.			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input checked="" type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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	Date of issuance of this report 07 August 2018 (07.08.2018)
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From the INTERNATIONAL SEARCHING AUTHORITY

To:

**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference <p style="text-align: center;"><b>WO40079</b></p>		Date of mailing <i>(day/month/year)</i> <b>28 October 2016</b>	
International application No. <p style="text-align: center;"><b>PCT/CN2016/097166</b></p>		International filing date <i>(day/month/year)</i> <p style="text-align: center;"><b>29 August 2016</b></p>	
International Patent Classification (IPC) or both national classification and IPC <p style="text-align: center;">H04W 72/12(2009.01)i</p>		Priority date <i>(day/month/year)</i> <p style="text-align: center;"><b>05 February 2016</b></p>	
Applicant <p style="text-align: center;"><b>YULONG COMPUTER TELECOMMUNICATION SCIENTIFIC (SHENZHEN) CO., LTD.</b></p>			

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/	Date of completion of this opinion	Authorized officer
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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/CN2016/097166

## Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established 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)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a)).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
  - a. (means)
    - on paper
    - in electronic form
  - b. (time)
    - in the international application as filed
    - together with the international application in electronic form
    - subsequently to this Authority for the purposes of search
4.  In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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**Box No. II**      **Priority**

1.  The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2.  This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:
  - [1] Upon verification, the priority claim of the present application is valid.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>2-10, 12</u>	YES
	Claims	<u>1, 11</u>	NO
Inventive step (IS)	Claims	<u>None</u>	YES
	Claims	<u>1-12</u>	NO
Industrial applicability (IA)	Claims	<u>1-12</u>	YES
	Claims	<u>None</u>	NO
2. Citations and explanations :			
	[1]	D1: CN101277529A, (01.10.2008) (description, page 7, lines 18-19, page 12, lines 12-22, and figures 2 and 4)	
	[2]	D1 discloses a method for indicating an uplink sub-frame corresponding to an uplink resource indication signaling, wherein figure 2 is a specific implementation flowchart of the method provided in the present invention, when a base station side transmits the uplink resource indication signaling in a downlink sub-frame, the base station side transmits an uplink sub-frame indication signaling corresponding to the uplink resource indication signaling at the same time; after a user side receives the the uplink resource indication signaling, in the uplink sub-frame indicated by the uplink sub-frame indication signaling corresponding to the uplink resource indication signaling, the user side sends data on a corresponding position according to the instruction of the uplink resource indication signaling. Suppose the user side receives uplink resource indication signaling on an nth sub-frame, the nth sub-frame is a downlink sub-frame, the uplink sub-frame indication signaling is 2 bits, wherein 00 indicates sending data on a first uplink sub-frame after the n +3th sub-frame, as shown in figure 4, namely sending the data on an uplink sub-frame a2 in figure 4; 01 indicates sending the data on a second uplink sub-frame after the n+3th sub-frame, namely sending the data on an uplink sub-frame b2 in figure 4; 10 indicates sending the data on the first and second uplink sub-frames after the n+3th sub-frame, namely sending the data on the uplink sub-frames a2 and b2 in figure 4; and 11 indicates sending the data on the first and second uplink sub-frames and a third uplink sub-frame after the n+3th sub-frame, namely sending the data on the uplink sub-frames a2, b2 and c2 in figure 4.	
	[3]	All of the features of claims 1 and 11 are disclosed by D1, and thus, claims 1 and 11 do not comply with PCT Article 33(2) and PCT Article 33(3).	
	[4]	In the additional technical features of claim 2, “the length of a position identifier is at least one bit and the length is fixed” is disclosed by D1, “the position identifier is located in the information field at the start or end position of the scheduling instruction” is not disclosed by D1, but it is a customary means in the art, and thus, claim 2 complies with PCT Article 33(2), but does not comply with PCT Article 33(3).	
	[5]	The additional technical features of claims 3-5 and 12 are not disclosed by the prior art, but they are customary means in the art, and thus, claims 3-5 and 12 comply with PCT Article 33(2), but do not comply with PCT Article 33(3).	
	[6]	Claim 6 corresponds to claim 1, D1 does not disclose setting corresponding functional units, but the feature is a customary means in the art, and thus, claim 6 complies with PCT Article 33(2), but does not comply with PCT Article 33(3); claims 7-10 correspond to claims 2-5 respectively, and thus comply with PCT Article 33(2), but do not comply with PCT Article 33(3).	
	[7]	Claims 1-12 are industrially applicable, and thus comply with PCT Article 33(4).	