

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**
(PCT Rule 43*bis*.1)

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2018/026213

International filing date (day/month/year)
05.04.2018

Priority date (day/month/year)
26.09.2017

International Patent Classification (IPC) or both national classification and IPC
INV. H04W52/42 H04W52/08 H04W52/24 H04W52/36

Applicant
INTEL IP CORPORATION

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 43*bis*.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 usually 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 66.1*bis*(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:



European Patent Office
P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040
Fax: +31 70 340 - 3016


Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Ntogari, Georgia

Telephone No. +31 70 340-0



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 43bis.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:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
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 forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	<u>1-25</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-25</u>
Industrial applicability (IA)	Yes: Claims	<u>1-25</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

- D1 ZTE: "On NR PHR calculation",
3GPP DRAFT; R1-1712313 ON NR PHR CALCULATION, 3RD
GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE
COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ; F-06921
SOPHIA-ANTIPOLIS CEDEX ; FRANCE,
vol. RAN WG1, no. Prague, Czechia; 20170821 - 20170825 20 August
2017 (2017-08-20), XP051315129,
Retrieved from the Internet:
URL:http://www.3gpp.org/ftp/Meetings_3GPP_SYNC/RAN1/Docs/
[retrieved on 2017-08-20]
- D2 ERICSSON: "On the power headroom reporting",
3GPP DRAFT; R1-1714321 ON THE POWER HEADROOM
REPORTING, 3RD GENERATION PARTNERSHIP PROJECT (3GPP),
MOBILE COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ;
F-06921 SOPHIA-ANTIPOLIS CEDEX ; FRANCE,
vol. RAN WG1, no. Prague, Czech Republic; 20170821 - 20170825 20
August 2017 (2017-08-20), XP051317107,
Retrieved from the Internet:
URL:http://www.3gpp.org/ftp/Meetings_3GPP_SYNC/RAN1/Docs/
[retrieved on 2017-08-20]
- D3 WO 2017/146773 A1 (INTEL IP CORP [US]) 31 August 2017
(2017-08-31)

Independent claims

1 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of the independent claims 1, 16 and 22 is not new.

1.1 Using the wording of claim 1, D1 discloses (references in parentheses apply to D1):

One or more computer-readable media having instructions that, when executed by one or more processors, cause a user equipment "UE" to: process configuration information to determine a power control "PC" parameter set of a PC process that is beam-specific (page 3, Section 2.2, lines 1-10, "Beam specific power control ...gNB configures or re-configures one or more ULTxPara setting for a UE ... A ULTxPara set is equivalent to a power control loop"),

the PC parameter set to include a path loss scaling factor, a command to perform a closed-loop PC process, or a path loss change parameter to be used to trigger a power headroom report "PHR" (page 3, Section 2.2, lines 6-23, "PL setting ... PHR setting ... PL changing threshold"; page 5, Section 2.2, lines 1-3, "PHR trigger condition of PL changing"); and perform a PC procedure based on the PC parameter set (page 4, Section 2.2., lines 1-4, "PHR is reported per PHR process...a PHR process includes more than one ULTxPara set").

1.1.1 Claim 1 is therefore not new (Article 33(2) PCT) over the disclosure of D1.

1.2 The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claims 16 and 22, which therefore are also considered not new (Article 33(2) PCT).

1.3 The independent claims 1, 16 and 22 are also considered not new over the disclosure of D2 (Sections 2.1 and 2.3) or D3 (page 10, line 24 to page 11, line 11).

Dependent claims

2 The dependent claims 2-15, 17-21 and 23-25 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(3)). For example:

2.1 The features of claims 2 and 23 are disclosed in D1 (Section 2.2, page 3, line 15).

- 2.2 The features of claims 3, 17, 18 and 24 are disclosed in D1 (Section 2.2).
- 2.3 The features of claims 4 and 19 are disclosed in D1 (Section 1, line 8 and Section 2.2, page 3, lines 1-2).
- 2.4 The features of claims 5, 11, 12, 20 and 25 are disclosed in D1 (Figure 1; Section 2.2, page 4, lines 1-11).
- 2.5 The features of claim 13 are disclosed in D2 (Section 2.1, line 3).

Re Item VII

Certain defects in the international application

- 3 The attention of the applicant is also drawn to the following points:
- 3.1 The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art being placed in the preamble (Rule 6.3(b)(i) PCT) and the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 3.2 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- 3.3 The description is not in conformity with the claims as required by Rule 5.1(a)(iii) PCT.
- 3.4 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1 is not mentioned in the description, nor is this document identified therein.
- 3.5 The wording "is hereby incorporated by reference in its entirety" appears in page 1 lines 4-5 (Rule 4.18 PCT).
- 3.6 Claims 1, 7, 8, 9, 10, 13, 15, 16, 17, 20 and 22 contain terms in parentheses which are not reference signs (Rule 6.2(b) PCT).

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