

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.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/US2019/063660

International filing date (day/month/year)
27.11.2019

Priority date (day/month/year)
29.11.2018

International Patent Classification (IPC) or both national classification and IPC
INV. H04B3/54

Applicant
COHERENT LOGIX, INC.

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 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 66.1bis(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:



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Date of completion of this opinion

see form
PCT/ISA/210

Authorized Officer

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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	<u>2, 5, 7, 9, 12, 14, 16, 20</u>
	No: Claims	<u>1, 3, 4, 6, 8, 10, 11, 13, 15, 17-19</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-20</u>
Industrial applicability (IA)	Yes: Claims	<u>1-20</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

1 Reference is made to the following documents:

- D1 US 2016/182252 A1 (RAZDAN PANKAJ [IN] ET AL) 23 June 2016 (2016-06-23)
- D2 US 7 852 837 B1 (AU ALAN K [US] ET AL) 14 December 2010 (2010-12-14)
- D3 CN 105 450 258 A (BEIJING SIGNTACT TECH CO LTD) 30 March 2016 (2016-03-30)
- D4 KR 2003 0028217 A (LG ELECTRONICS INC [KR]) 8 April 2003 (2003-04-08)
- D5 US 2007/002876 A1 (BERKMAN WILLIAM H [US] ET AL) 4 January 2007 (2007-01-04)
- D6 KR 2013 0022363 A (UTILLINK CO LTD [KR]) 6 March 2013 (2013-03-06)
- D7 US 2016/295628 A1 (ALLANKI NEEHARIKA [US] ET AL) 6 October 2016 (2016-10-06)
- D8 US 2008/192629 A1 (CHARI AMALAVOYAL [US]) 14 August 2008 (2008-08-14)

2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claim 1 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document) in figure 1 and in paragraphs [0002] to [0007] :

A home power distribution system (PLC Networks 1, 2 and 3), comprising: a primary power drop branching into a plurality of circuits (PLC Networks 1, 2 and 3), wherein each of the plurality of circuits powers one or more entities in a

home; and
a respective wireless access point (B1 1; B2 1; B3 1) associated with each of the plurality of circuits,
wherein each wireless access point provides wireless transport to bridge (IEEE802.15.2 Network 1) between its respective circuit (PLC Network 1) and one or more other circuits (PLC Network 2) of the plurality of circuits.

3 Independent claim 8 is a "computer readable memory medium" counterpart of independent claim 1. Hence claim 8 is also not allowable for the same reasons as claim 1.

4 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claim 15 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document) in figure 1 and in paragraphs [0002] to [0007] :

A home power distribution system, comprising:
a circuit configured to power one or more entities in a home (PLC Networks 1, 2 and 3);
a first wireless access point (B2 1) wired to the circuit;
a second wireless access point (B2 2) wired to the circuit, wherein the first wireless access point is out of wireless communication range with the second wireless access point; and
an alien bridge (PLC Network 2) comprised within the first wireless access point, wherein the alien bridge is configured to establish communication between the first wireless access point and the second wireless access point through the circuit.

5 Independent claim 1, 8 and 15 are also anticipated by document D2, see fig. 3; by document D3, see fig. 2; by document D4, see fig. 5 and by document D5, see fig. 5.

6 The provision of the features claimed in dependent claims 2 to 8, 9 to 14 and 16 to 20 are assessed in the following:

Claims 2, 9, 16: Wireless access points providing wireless communication services to wireless devices are general knowledge.

Claims 3, 10, 17: Wired domain to wireless domain bridging, see D1, fig. 2A.

Claims 4, 11, 19: Between power phases, see D1, paragraph [0003].

Claims 5, 12: Phase determination, see D6, [0003].

Claims 6, 13, 18: Wifi, see D1, [0003]; ZigBee, see D3.

Claims 7, 14, 20: Designating a master access point is known from D7, fig. 3 and [0077]; optimal routing is known from D8, fig. 2:

Hence the dependent claims do not provide subject matter which meets the requirements of novelty (Article 33(2) PCT) and inventive step (Article 33(3) PCT).

Re Item VII

Certain defects in the international application (form or content)

7 Further defects:

- The independent claims are not cast in two part form, contrary to Rule 6.3(b) PCT.
- The claims do not contain reference signs, contrary to Rule 6.2(b) PCT.
- The relevant prior art (D1) is not acknowledged in the description, contrary to Rule 5.1(a)(ii).