

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 P06778	FOR FURTHER ACTION		See item 4 below
International application No. PCT/EP2017/072617	International filing date (<i>day/month/year</i>) 08 September 2017 (08.09.2017)	Priority date (<i>day/month/year</i>) 12 September 2016 (12.09.2016)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant HELLA GMBH & CO. KGAA			

<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 7 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 border="0"> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input checked="" 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 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 checked="" 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 type="checkbox"/>	Box No. II	Priority	<input checked="" 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 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 checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
<input checked="" type="checkbox"/>	Box No. I	Basis of the report																						
<input type="checkbox"/>	Box No. II	Priority																						
<input checked="" 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 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 checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																						

<p align="center">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 12 March 2019 (12.03.2019)</p>
	<p>Authorized officer</p> <p align="center">Nora Lindner</p> <p>e-mail: pct.team5@wipo.int</p>

From the INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing <i>(day/month/year)</i> 04 January 2018	
Applicant's or agent's file reference P06778	FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/EP2017/072617	International filing date <i>(day/month/year)</i> 08 September 2017
Priority date <i>(day/month/year)</i> 12 September 2016	
International Patent Classification (IPC) or both national classification and IPC G06F 9/445(2018.01)i; G06F 21/64(2013.01)i; G06F 11/08(2006.01)i	
Applicant HELLA KGAA HUECK & CO	

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
--------------------------------------	------------------------------------	--------------------

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2017/072617

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:
 - 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 13*ter*.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 13*ter*.1(a)).
 - on paper or in the form of an image file (Rule 13*ter*.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:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2017/072617

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- the entire international application.
 claims Nos. 1-10

because:

- the said international application, or the said claims Nos. _____ relate to the following subject matter which does not require an international search (*specify*):

- the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 1-10 are so unclear that no meaningful opinion could be formed (*specify*):

See Supplemental Box

- the claims, or said claims Nos. _____ are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):

- no international search report has been established for said claims Nos. _____

- a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:
- furnish a sequence listing in the form of an Annex C/ST.25 text file, and such listing was not available to the International Searching Authority in the form and manner acceptable to it; or the sequence listing furnished did not comply with the standard provided for in Annex C of the Administrative Instructions.
 - furnish a sequence listing on paper or in the form of an image file complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in the form and manner acceptable to it; or the sequence listing furnished did not comply with the standard provided for in Annex C of the Administrative Instructions.
 - pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rule 13ter.1(a) or (b).

- See Supplemental Box for further details.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2017/072617**Box No. VIII Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

See Supplemental Box

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: **Box No. III**

See Supplemental Box for further details.

Box III**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

- [1] As stated in detail under Box VIII, the present application fails to comply with the requirements of PCT Article 6 and/or 5.
- [2] The independent claims contain, in addition to well-known features [redundant storage of useful data in non-volatile memory; examination of read-out data for correctness, according to claims 3 and 6 for example using checksums such as CRC; further processing of correctly read-out redundant data], only unclear and/or insufficiently disclosed features [in particular: "version features", "defined version dependency", "version checking"] for which, in the remaining application documents [in particular in the description and in dependent claim 8] merely in the style of a specification sheet, a plurality of desired properties are required, for the technical achievement of which it is not possible to find any sufficient disclosure in the form of clear technical features or a specific embodiment.
- [3] A person skilled in the art would therefore have to himself exercise inventive skill in order to achieve the above-named unclear and/or insufficiently disclosed features, consistent with the multiplicity of desired properties required in the description.
- [4] In view of the difficulties of the above-named objections, and in view of the fact that said objections cannot be clarified on the basis of the description and drawings, a *reasonable* comparison of the present - unclear - independent claims with the prior art named in the search report [documents D1 and D2, named in the search report, disclose different teaching for recognising, preventing and/or removing unauthorised manipulations of data in non-volatile memories] therefore appears impossible.
- [5] For the above-named reasons, it is not possible to establish an opinion with regard to novelty, inventive step and industrial applicability.

Box VIII**Certain observations on the international application**

- [6] The application does not meet the requirements of PCT Article 6 because claims 1-10 are unclear. Additionally, it appears that said objections in respect of clarity cannot be overcome with the help of the description and the drawings, and therefore the requirements of PCT Article 5 are not met.
- [7] The subsequently underlined features of **claim 1** are unclear, as they possess neither a generally recognised technical meaning, nor are they specified in the wording of the claim by means of clear technical features.
 - *Determining respectively at least one version feature (220) from each of the data structures (200)*
 - *Carrying out a version check (110) in the data structures (200) using the determined version features (220), and therefore a defined version dependency between the data structures (200) is confirmed .*

In respect of PCT Article 5, the examiner establishes that neither the description nor drawings disclose a specific embodiment for "version feature (220)" or "defined version dependency between the data structures (200)". In respect of the at least two "data structures" it is possible to see from the application documents merely that they comprise in each case the same "user data information" (for the purpose of redundancy), said unclear "version feature" and "checking information" (e.g. checksum or cyclical redundancy check/CRC) for the "complete data structure".
- [8] As a consequence of the unclear features identified in section **77** it is likewise unclear in **claim 1**
 - how an unclear "version feature" could be "determined" from a data structure not specified in more detail, and
 - how the "version check (110)" could be implemented to "confirm" a "version dependency" not specified in more detail.

Supplemental Box

- [9] The above-named objections in respect of clarity to independent claim 1 likewise relate, *mutatis mutandis*, to corresponding independent **claim 10**, and to dependent **claims 2-9**.
- [10] The objections in respect of clarity given in sections **77** to **88** above likewise relate to the features *version check, first version feature (221) of a first data structure (201), second version feature (222) of a second data structure (202), version dependency and dependency specification* of **independent claim 4**.
- [11] The objections in respect of clarity given in sections **77** to **88** above likewise relate to **dependent claim 8**, in particular the subsequent features which involve said unclear features and/or claim merely the result to be achieved:
- *Generating a first version feature (221) for the first data structure (201) and a second version feature (222) for the second data structure (202), in particular by a dependency algorithm, and therefore a defined dependency is produced, wherein the first version feature (221) differs from the second version feature (222).*
 - *Generating first check information for the first data structure (201), and therefore the first check information is specific to the data, in particular the first useful data information (211) with the first version feature (221) of the first data structure (201) .*
 - *Generating second check information for the second data structure (202), and therefore the second check information is specific to the data, in particular the second useful data information (212) with the second version feature (222) of the second data structure (202) .*
 - *wherein preferably the version features (220) are generated such that they are unambiguous for a predetermined number of writing processes, in particular depending on a writing counter, and wherein preferably the check information and/or the data of the data structure (200) differ from one another .*
- In respect of PCT Article 5, the examiner establishes that the above-named objections in respect of clarity also cannot be overcome by changes, as the **single relevant passage of the description (page 8 §2 to page 9 §1)** merely repeats the wording of claim 8 but does not disclose any further technical details.
- [12] The specifications
- "that with any of the error checks (100), a data evaluation of the particular data structure (200) takes place preferably as transmission error checks (100), wherein the data evaluation comprises in each case one of the following steps" and
 - "that at least one of the following steps is carried out for storage of the useful data information (210) in the non-volatile data store (11)"
- in **dependent claims 3 and 8** are unclear, since it appears that in each case all subsequently named steps are necessary to actually achieve the claimed technical effect "error checks ..." or "storage ...".
- [13] **Dependent claims 4, 5, 7 and 8** contain, each at the end of the claim, purely optional features which are introduced with the term "preferably". However, it appears that said features are essential to the definition of the claimed subject matter: by way of example reference is made to claim 4, in which for the first time the optional portion (last three lines of the claim) produces the result of version checking, whereas the non-optional comparison alone does not display any recognisable technical effect (first five lines of the claim). However, should said purely optional features not actually be essential to the definition of the claimed subject matter, then the above-named claims are not concise.
- [14] The feature "wherein... the electronics component (10) is transferred into a secure state" in **dependent claim 7** is vague and unclear, as "secure state" does not possess any generally recognised meaning for any electronics components.
- [15] The features "writing processes", "write counter" and "storage..." in **dependent claims 8 and 9** do not have any preceding features in any of the superordinate claims, all of which are directed to reading-out, checking and providing already stored information, but not to writing/storing.
- [16] Contrary to the requirements of PCT Rule 6.4(a), **dependent claims 3-9** are phrased as claims having several dependencies.