

PATENT COOPERATION TREATY

From the RECEIVING OFFICE

PCT

NOTIFICATION REGARDING CERTAIN
CORRECTIONS MADE EX OFFICIO

(PCT Administrative Instructions, Sections 319 and 327)

To:

TENNANT, David M.
White & Case LLP
701 Thirteenth Street, NW
Washington, DC 20005-3807
ÉTATS-UNIS D'AMÉRIQUE

Facsimile No.: +1 202 639 9355

| | | |
|---|---|------------------------------------|
| Date of mailing (day/month/year) 17 September 2018 (17.09.2018) | REPLY DUE | NONE |
| Applicant's or agent's file reference 1283810-0165-029 | However, see paragraph 3 below | |
| International application No. PCT/IB2018/001039 | International filing date (day/month/year) | 06 August 2018 (06.08.2018) |
| Applicant TOSHIBA MEMORY CORPORATION | | |

1. The applicant is hereby notified that this receiving Office has corrected formal defects in the international application *ex officio*, as shown on the attached copy of:

the request, sheet No.: 1, 4, 5, 6

the description, sheet No.: _____

the claims, sheet No.: _____

the drawings, sheet No.: _____

other (*specify*): _____

2. If the applicant agrees with these corrections, no further action is required in this regard.

3. **In case of disagreement** with these corrections, the applicant should promptly inform this receiving Office accordingly.

| | |
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| Name and mailing address of the receiving Office The International Bureau of WIPO PCT RO/IB Team 34, chemin des Colombettes, 1211 Geneva 20, Switzerland | Authorized officer TCHOUGANG-PALUMBO, Lucia |
| Facsimile No. +41 22 910 06 10 | Telephone No. +4122 338 8671 Email: ro.ib@wipo.int |

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

PCT/IB2018/001039

International Application No.

06 August 2018 (06.08.18)

International Filing Date

INTERNATIONAL BUREAU OF WIPO

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference (if desired) (12 characters maximum) 1283810-0165-029

| | |
|--|--|
| Box No. I TITLE OF INVENTION | |
| SSD ARCHITECTURE SUPPORTING LOW LATENCY OPERATION | |
| Box No. II APPLICANT <input type="checkbox"/> This person is also inventor | |
| Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) | Telephone No. |
| Toshiba Memory Corporation 1-1, Shibaura 1-chome Minato-ku, Tokyo 105-0023 JAPAN | Facsimile No. |
| | Applicant's registration No. with the Office |
| E-mail authorization: Marking one of the check-boxes below authorizes the receiving Office, the International Searching Authority, the International Bureau and the International Preliminary Examining Authority to use the e-mail address indicated in this Box to send, notifications issued in respect of this international application to that e-mail address if those offices are willing to do so. <input type="checkbox"/> as advance copies followed by paper notifications; or <input type="checkbox"/> exclusively in electronic form (no paper notifications will be sent). E-mail address: | |
| State (that is, country) of nationality: JP | State (that is, country) of residence: JP |
| This person is applicant for the purposes of: <input checked="" type="checkbox"/> all designated States <input type="checkbox"/> the States indicated in the Supplemental Box | |
| Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S) | |
| <input type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet. | |
| Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE | |
| The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: <input type="checkbox"/> agent <input type="checkbox"/> common representative | |
| Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) | Telephone No. |
| TENNANT, David M. White & Case LLP 701 Thirteenth Street, NW Washington, DC 20005-3807 UNITED STATES OF AMERICA | 202-626-3684 |
| | Facsimile No. |
| | 202-639-9355 |
| | Agent's registration No. with the Office 48,362 |
| E-mail authorization: Marking one of the check-boxes below authorizes the receiving Office, the International Searching Authority, the International Bureau and the International Preliminary Examining Authority to use the e-mail address indicated in this Box to send, notifications issued in respect of this international application to that e-mail address if those offices are willing to do so. <input type="checkbox"/> as advance copies followed by paper notifications; or <input checked="" type="checkbox"/> exclusively in electronic form (no paper notifications will be sent). E-mail address: wcpct@whitecase.com | |
| <input checked="" type="checkbox"/> Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent. | |

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Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

If none of the following sub-boxes is used, this sheet should not be included in the request.

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

WELLS, Steven
 c/o Toshiba Memory America, Inc.
 2610 Orchard Parkway
 San Jose, California 95134
 UNITED STATES OF AMERICA

This person is:

- applicant only
- applicant and inventor
- inventor only *(If this check-box is marked, do not fill in below.)*

Applicant's registration No. with the Office

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

This person is applicant for the purposes of:

- all designated States
- the States indicated in the Supplemental Box

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

CARLSON, Mark
 c/o Toshiba Memory America, Inc.
 2610 Orchard Parkway
 San Jose, California 95134
 UNITED STATES OF AMERICA

This person is:

- applicant only
- applicant and inventor
- inventor only *(If this check-box is marked, do not fill in below.)*

Applicant's registration No. with the Office

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

This person is applicant for the purposes of:

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Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

JAIN, Amit
 c/o Toshiba Memory America, Inc.
 2610 Orchard Parkway
 San Jose, California 95134
 UNITED STATES OF AMERICA

This person is:

- applicant only
- applicant and inventor
- inventor only *(If this check-box is marked, do not fill in below.)*

Applicant's registration No. with the Office

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

This person is applicant for the purposes of:

- all designated States
- the States indicated in the Supplemental Box

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

KOTTE, Narasimhulu Dharani
 c/o Toshiba Memory America, Inc.
 2610 Orchard Parkway
 San Jose, California 95134
 UNITED STATES OF AMERICA

This person is:

- applicant only
- applicant and inventor
- inventor only *(If this check-box is marked, do not fill in below.)*

Applicant's registration No. with the Office

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

This person is applicant for the purposes of:

- all designated States
- the States indicated in the Supplemental Box

Further applicants and/or (further) inventors are indicated on another continuation sheet.

Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

If none of the following sub-boxes is used, this sheet should not be included in the request.

| | |
|--|---|
| <p>Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i></p> <p>THANGARAJ, Senthil c/o Toshiba Memory America, Inc. 2610 Orchard Parkway San Jose, California 95134 UNITED STATES OF AMERICA</p> | <p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input type="checkbox"/> applicant and inventor</p> <p><input checked="" type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i></p> <hr/> <p>Applicant's registration No. with the Office</p> |
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| | |
|---|---|
| State <i>(that is, country)</i> of nationality: | State <i>(that is, country)</i> of residence: |
|---|---|

This person is applicant for the purposes of: all designated States the States indicated in the Supplemental Box

| | |
|--|---|
| <p>Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i></p> <p>MISHRA, Barada c/o Toshiba Memory America, Inc. 2610 Orchard Parkway San Jose, California 95134 UNITED STATES OF AMERICA</p> | <p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input type="checkbox"/> applicant and inventor</p> <p><input checked="" type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i></p> <hr/> <p>Applicant's registration No. with the Office</p> |
|--|---|

| | |
|---|---|
| State <i>(that is, country)</i> of nationality: | State <i>(that is, country)</i> of residence: |
|---|---|

This person is applicant for the purposes of: all designated States the States indicated in the Supplemental Box

| | |
|---|---|
| <p>Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i></p> <p>DESAI, Girish c/o Toshiba Memory America, Inc. 2610 Orchard Parkway San Jose, California 95134 UNITED STATES OF AMERICA</p> | <p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input type="checkbox"/> applicant and inventor</p> <p><input checked="" type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i></p> <hr/> <p>Applicant's registration No. with the Office</p> |
|---|---|

| | |
|---|---|
| State <i>(that is, country)</i> of nationality: | State <i>(that is, country)</i> of residence: |
|---|---|

This person is applicant for the purposes of: all designated States the States indicated in the Supplemental Box

| | |
|---|--|
| <p>Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i></p> | <p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i></p> <hr/> <p>Applicant's registration No. with the Office</p> |
|---|--|

| | |
|---|---|
| State <i>(that is, country)</i> of nationality: | State <i>(that is, country)</i> of residence: |
|---|---|

This person is applicant for the purposes of: all designated States the States indicated in the Supplemental Box

Further applicants and/or (further) inventors are indicated on another continuation sheet.

Supplemental Box

If the Supplemental Box is not used, this sheet should not be included in the request.

1. *If, in any of the Boxes, except Boxes Nos. VIII(i) to (v) for which a special continuation box is provided, **the space is insufficient** to furnish all the information: in such case, write "Continuation of Box No...." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:*
 - (i) ***if more than one person is to be indicated as applicant and/or inventor** and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;*
 - (ii) *if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "**the States indicated in the Supplemental Box**" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;*
 - (iii) *if, in Box No. II or in any of the sub-boxes of Box No. III, **the inventor or the inventor/applicant is not inventor for the purposes of all designated States**: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;*
 - (iv) *if, in addition to the agent(s) indicated in Box No. IV, there are **further agents**: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;*
 - (v) *if, in Box No. VI, there are **more than three earlier applications whose priority is claimed**: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.*
2. *If the applicant intends to make an indication of the wish that the international application be treated, in certain designated States, as an application for a patent of addition, certificate of addition, inventor's certificate of addition or utility certificate of addition: in such case, write the name or two-letter code of each designated State concerned and the indication "**patent of addition**," "**certificate of addition**," "**inventor's certificate of addition**" or "**utility certificate of addition**," the number of the parent application or parent patent or other parent grant and the date of grant of the parent patent or other parent grant or the date of filing of the parent application (Rules 4.11(a)(i) and 49bis.1(a) or (b)).*
3. *If the applicant intends to make an indication of the wish that the international application be treated, in the United States of America, as a continuation or continuation-in-part of an earlier application: in such case, write "United States of America" or "US" and the indication "**continuation**" or "**continuation-in-part**" and the number and the filing date of the parent application (Rules 4.11(a)(ii) and 49bis.1(d)).*

Continuation of Box No. IV:

Practitioners associated with customer number 106224

David M. Tennant USPTO Registration No. 48,362

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Box No. V DESIGNATIONS

The filing of this request constitutes under Rule 4.9(a) the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.

However,

DE Germany is not designated for any kind of national protection

JP Japan is not designated for any kind of national protection

KR Republic of Korea is not designated for any kind of national protection

(The check-boxes above may only be used to exclude (irrevocably) the designations concerned if, at the time of filing or subsequently under Rule 26bis.1, the international application contains in Box No. VI a priority claim to an earlier national application filed in the particular State concerned, in order to avoid the ceasing of the effect, under the national law, of this earlier national application.)

Box No. VI PRIORITY CLAIM AND DOCUMENT

The priority of the following earlier application(s) is hereby claimed:

| Filing date of earlier application (day/month/year) | Number of earlier application | Where earlier application is: | | |
|--|-------------------------------|---|--|--|
| | | national application: country or Member of WTO | regional application: regional Office | international application: receiving Office |
| item (1) 07 August 2017 (07.08.2017) | 62/542,108 | US | | |
| item (2) 01 November 2017 (01.11.2017) | 15/800,742 | US | | |
| item (3) | | | | |

Further priority claims are indicated in the Supplemental Box.

Furnishing the priority document(s):

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application(s) was filed with the receiving Office which, for the purposes of this international application, is the receiving Office) identified above as:

▲ all items item (1) item (2) item (3) other, see Supplemental Box

The International Bureau is requested to obtain from a digital library a certified copy of the earlier application(s) identified above, using, where applicable, the access code(s) indicated below (if the earlier application(s) is available to it from a digital library):

item (1) item (2) item (3) other, see Supplemental Box

access code _____ access code _____ access code _____

Restore the right of priority: the receiving Office is requested to restore the right of priority for the earlier application(s) identified above or in the Supplemental Box as item(s) (_____). (See also the Notes to Box No. VI; further information *must* be provided to support a request to restore the right of priority.)

Incorporation by reference: where an element of the international application referred to in Article 11(1)(ii)(d) or (e) or a part of the description, claims or drawings referred to in Rule 20.5(a) is not otherwise contained in this international application but is completely contained in an earlier application whose priority is claimed on the date on which one or more elements referred to in Article 11(1)(iii) were first received by the receiving Office, that element or part is, subject to confirmation under Rule 20.6, incorporated by reference in this international application for the purposes of Rule 20.6.

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (if more than one International Searching Authority is competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA/ EP

▲ RO

Box No. IX CHECKLIST for EFS-Web filings - this sheet is only to be used when filing an international application with RO/US via EFS-Web

| This international application contains the following: | Number of sheets | This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item): | Number of items |
|--|------------------|--|-----------------|
| (a) request form PCT/RO/101 (including any declarations and supplemental sheets) | 6 | 1. <input checked="" type="checkbox"/> fee calculation sheet | 1 |
| (b) description (excluding any sequence listing part of the description, see (f), below) | 33 | 2. <input type="checkbox"/> original separate power of attorney | |
| (c) claims | 7 | 3. <input type="checkbox"/> original general power of attorney | |
| (d) abstract | 1 | 4. <input type="checkbox"/> copy of general power of attorney; reference number: | |
| (e) drawings (if any) | 15 | 5. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s) | |
| (f) sequence listing part of the description in the form of an image file (e.g. PDF) | | 6. <input type="checkbox"/> Translation of international application into (language): | |
| Total number of sheets (including the sequence listing part of the description if filed as an image file) | 62 | 7. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material | |
| (g) sequence listing part of the description | | 8. <input type="checkbox"/> (only where item (f) is marked in the left column) copy of the sequence listing in electronic form (Annex C/ST.25 text file) not forming part of the international application but furnished only for the purposes of international search under Rule 13ter | |
| <input type="checkbox"/> filed in the form of an Annex C/ST.25 text file | | 9. <input type="checkbox"/> (only where item (f) (in the left column) and item 8 (above) are marked) a statement confirming that "the information recorded in electronic form submitted under Rule 13ter is identical to the sequence listing as contained in the international application" as filed via EFS-Web: | |
| <input type="checkbox"/> WILL BE filed separately on physical data carrier(s), on the same day and in the form of an Annex C/ST.25 text file | | 10. <input type="checkbox"/> copy of results of earlier search(es) (Rule 12bis.1(a)) | |
| Indicate type and number of physical data carrier(s) | | 11. <input checked="" type="checkbox"/> other (specify): Transmittal Letter | 1 |
| Figure of the drawings which should accompany the abstract: | 7 | Language of filing of the international application: | English |

Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE
 Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

| | |
|--|---|
| <p>/David M. Tennant/ _____ David M. Tennant, Agent for Application(s) WHITE & CASE LLP</p> | <p>Attorney Reg. No. 48,362 (when applicable) Registration No.: 48,362</p> |
|--|---|

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| For receiving Office use only | |
|---|--|
| 1. Date of actual receipt of the purported international application: | 06-08-2018 |
| 3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application: | |
| 4. Date of timely receipt of the required corrections under PCT Article 11(2): | |
| 5. International Searching Authority (if two or more are competent): ISA / EP | 6. <input checked="" type="checkbox"/> Transmittal of search copy delayed until search fee is paid |

| For International Bureau use only |
|---|
| Date of receipt of the record copy by the International Bureau: |