

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5009714

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
NAVEEN KUMAR	05/16/2018
AMAN BHATIA	05/25/2018
CHENRONG XIONG	05/16/2018
YU CAI	05/16/2018
FAN ZHANG	05/16/2018
RECEIVING PARTY DATA	
Name:	SK HYNIX MEMORY SOLUTIONS INC.
Street Address:	3103 NORTH FIRST STREET
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95134
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16010026
CORRESPONDENCE DATA	
Fax Number:	(571)327-5452
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	5713275450
Email:	ipntlaw@ipntlaw.com
Correspondent Name:	IP & T GROUP LLP
Address Line 1:	8230 LEESBURG PIKE
Address Line 2:	SUITE 650
Address Line 4:	VIENNA, VIRGINIA 22182
ATTORNEY DOCKET NUMBER:	P17HS006
NAME OF SUBMITTER:	MYUNG SOO KIM
SIGNATURE:	/Myung Soo KIM/
DATE SIGNED:	06/15/2018
This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 5

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**ASSIGNMENT OF AND DECLARATION FOR APPLICATION
FOR UNITED STATES LETTERS PATENT**

WHEREAS Naveen KUMAR

hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to

MEMORY SYSTEM WITH LDPC DECODER AND METHOD OF OPERATING SUCH MEMORY SYSTEM
AND LDPC DECODER

☒ [X] said application being attached hereto;

☐ [] said application having been filed in the United States Patent and Trademark Office on

_____, as Application Serial No. _____, and was amended
on _____ (if applicable);

☐ [] the specification of which was filed under the Patent Cooperation Treaty on _____,
Serial No. _____, the United States of America being designated.

AND WHEREAS SK hynix memory solutions Inc.

hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof,

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

As an above-named inventor, I hereby declare that the above-identified application was made or authorized to be made by me, and that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNOR (INVENTOR):

Signature: _____

Date: 05/16/2018

Printed or Typed Name: Naveen KUMAR

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Aman BHATIA

hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to

MEMORY SYSTEM WITH LDPC DECODER AND METHOD OF OPERATING SUCH MEMORY SYSTEM
AND LDPC DECODER

[X] said application being attached hereto;

[] said application having been filed in the United States Patent and Trademark Office on _____, as Application Serial No. _____, and was amended on _____ (if applicable);

[] the specification of which was filed under the Patent Cooperation Treaty on _____, Serial No. _____, the United States of America being designated.

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hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

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ASSIGNOR (INVENTOR):

Signature: Aman Bhatia Date: 5/25/2018

Printed or Typed Name: Aman BHATIA

**ASSIGNMENT OF AND DECLARATION FOR APPLICATION
FOR UNITED STATES LETTERS PATENT**

WHEREAS Chenrong XIONG
hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to
MEMORY SYSTEM WITH LDPC DECODER AND METHOD OF OPERATING SUCH MEMORY SYSTEM
AND LDPC DECODER

☒ said application being attached hereto;
☐ said application having been filed in the United States Patent and Trademark Office on _____,
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on _____ (if applicable);
☐ the specification of which was filed under the Patent Cooperation Treaty on _____,
Serial No. _____, the United States of America being designated.

AND WHEREAS SK hynix memory solutions Inc.
hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interest in and to said
application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents
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any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said
assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and
all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor,
including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in
anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted,
including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said
assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and
enjoyed the same, if this assignment had not been made.


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by fine or imprisonment of not more than five (5) years, or both.

ASSIGNOR (INVENTOR):

Signature:  Date: 05/16/2018

Printed or Typed Name: Chenrong XIONG

**ASSIGNMENT OF AND DECLARATION FOR APPLICATION
FOR UNITED STATES LETTERS PATENT**

WHEREAS Yu CAI
hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to
MEMORY SYSTEM WITH LDPC DECODER AND METHOD OF OPERATING SUCH MEMORY SYSTEM
AND LDPC DECODER

☒ said application being attached hereto;
☐ said application having been filed in the United States Patent and Trademark Office on
_____, as Application Serial No. _____, and was amended
on _____ (if applicable);
☐ the specification of which was filed under the Patent Cooperation Treaty on _____,
Serial No. _____, the United States of America being designated.

AND WHEREAS SK hynix memory solutions Inc.
hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interest in and to said
application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents
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assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and
interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and
any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said
assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and
all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor,
including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in
anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted,
including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said
assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and
enjoyed the same, if this assignment had not been made.

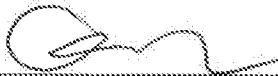
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said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and
assigns, in accordance herewith.

As an above-named inventor, I hereby declare that the above-identified application was made or authorized to be
made by me, and that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001
by fine or imprisonment of not more than five (5) years, or both.

ASSIGNOR (INVENTOR):

Signature:  Date: 5/16/2008

Printed or Typed Name: Yu CAI

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Fan ZHANG

hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to

MEMORY SYSTEM WITH LDPC DECODER AND METHOD OF OPERATING SUCH MEMORY SYSTEM
AND LDPC DECODER

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ASSIGNOR (INVENTOR):

Signature: _____

Date: _____

5/16/18

Printed or Typed Name: Fan ZHANG

Page 5 of 5

PATENT

RECORDED: 06/15/2018

Naveen Kumar/Algorithm and Advanced

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