502165719 12/17/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Chae Kyu Jang	12/17/2012

RECEIVING PARTY DATA

Name:	SK HYNIX INC.
Street Address:	2091, Gyeongchungdae-ro, Bubal-eub
City:	Icheon-si, Gyeonggi-do
State/Country:	KOREA, REPUBLIC OF
Postal Code:	467-734

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13717160

CORRESPONDENCE DATA

Fax Number: 2142000853

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Address Line 4: Dallas, TEXAS 75219

ATTORNEY DOCKET NUMBER: 45856.10

NAME OF SUBMITTER: Henry L. Welch

Total Attachments: 2

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PATENT

REEL: 029483 FRAME: 0786

OF \$40.00 13/1/160

COMBINED DECLARATION UNDER 37 CFR 1.63 AND ASSIGNMENT

Title of Invention: ADDRESS DECODER, SEMICONDUCTOR MEMORY DEVICE INCLUDING THE SAME, METHOD OF OPERATING THE SAME

DECLARATION

As a below named inventor (hereinafter, "the undersigned"), I hereby declare that:
This declaration is directed to:
The application attached hereto, or
United States application or PCT international application number <u>Insert</u>
Application Number, if applicable filed on Insert Application Filing Date, if
applicable.
The above-identified application was made or authorized to be made by me.
I believe that I am the original inventor or an original joint inventor of a claimed
invention in the application.

ASSIGNMENT

WHEREAS, the undersigned has made certain new and useful inventions and improvements described in the application identified.

WHEREAS, I hereby authorize and request attorneys at HAYNES AND BOONE LLP, located at 2323 Victory Avenue, Suite 700, Dallas, TX 75219, to whom Power of Attorney has been or will be given to with respect to the application identified, to insert here in parentheses (Serial Number: 13/717,160; Filing Date: December 17, 2012) the filing date and application number of said application when known.

AND WHEREAS, <u>SK hynix Inc.</u>, a corporation organized and existing under and by virtue of the laws of the Republic of Korea, and having an office and place of business at <u>2091</u> <u>Gyeongchungdae-ro</u>, <u>Bubal-eup Icheon-si</u>, <u>Gyeonggi-do Republic of Korea</u> (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

PATENT REEL: 029483 FRAME: 0787 NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and I do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, I do hereby agree that I and my executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, I covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

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

IN TESTIMONY WHEREOF, I have hereunto set my hand this 17 day of Dec., 2012.

First Inventor: Chae Kyu Jang

Jang drag Cyn

PATENT REEL: 029483 FRAME: 0788

RECORDED: 12/17/2012