503178373 02/12/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3224987

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| JU HEON YANG | 12/16/2014 |

RECEIVING PARTY DATA

| Name: | SK HYNIX INC. |
|-----------------|------------------------------------|
| Street Address: | 2091, GYEONGCHUNG-DAERO, BUBAL-EUB |
| City: | ICHEON-SI GYEONGGI-DO |
| State/Country: | KOREA, REPUBLIC OF |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14621140 |

CORRESPONDENCE DATA

Fax Number: (630)908-7653

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.

Phone: 6309087652

Email: uspto.actions@wpapat.com

Correspondent Name: WILLIAM PARK & ASSOCIATES PATENT LTD.

Address Line 1: 930 N. YORK ROAD, SUITE 201
Address Line 4: HINSDALE, ILLINOIS 60521

| ATTORNEY DOCKET NUMBER: | PA2039-0 |
|--------------------------------|--|
| NAME OF SUBMITTER: | WOOCHOON W. PARK |
| SIGNATURE: | /Woochoon W. Park/ |
| DATE SIGNED: 02/12/2015 | |
| | This document serves as an Oath/Declaration (37 CFR 1.63). |

Total Attachments: 1

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PATENT 503178373 REEL: 034953 FRAME: 0378

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

| Title of Invention | SEMICONDUCTOR DEVICES INCLUDING THROUGH ELECTRODES, SEMICONDUCTOR PACKAGES INCLUDING THE SAME, ELECTRONIC SYSTEMS INCLUDING THE SAME, AND METHODS OF MANUFACTURING THE SAME | | |
|---------------------------|--|--|--|
| Declaration | As the below named inventor(s), I hereby declare that: The declaration is directed to: The attached application, or United States application or PCT international application number PCT/KR#################################### | | |
| Assignment | · | | |
| | Inventor Name (First Middle LAST): Ju Heon YANG | | |
| Legal Name Of Inventor | Inventor Signature: | | |
| | Date: 02 /16 / 14 | | |

RECORDED: 02/12/2015