504216126 02/07/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4262803

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

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| CHUNG-YEH LEE | 12/30/2016 |
| CHIH-PING LIN | 01/18/2017 |

RECEIVING PARTY DATA

| Name: | VANGUARD INTERNATIONAL SEMICONDUCTOR CORPORATION | |
|-----------------|--|--|
| Street Address: | 123, PARK AVE-3RD, SCIENCE-BASED INDUSTRIAL PARK | |
| City: | HSINCHU | |
| State/Country: | TAIWAN | |
| Postal Code: | 30077 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15425673 |

CORRESPONDENCE DATA

Fax Number: (703)205-8050

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Address Line 1: P.O. BOX 747

Address Line 4: FALLS CHURCH, VIRGINIA 22040-0747

| ATTORNEY DOCKET NUMBER: | 0941-3521PUS1 | |
|-------------------------|---------------|--|
| NAME OF SUBMITTER: | TUYEN LY | |
| SIGNATURE: | /tuyen ly/ | |
| DATE SIGNED: | 02/07/2017 | |

Total Attachments: 2

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PATENT 504216126 REEL: 041191 FRAME: 0883

ASSIGNMENT

| WHEREAS, Chung-Yeh LEE and Chih | -Ping LIN |
|---|---|
| hereafter referred to as ASSIGNOR, has/have invent | |
| as described and set forth in the below identified app | |
| Title: METHOD FOR FORMING SEMICONDUCTO | |
| METHOD FOR FORMING SEMICONDUCTO | JR DEVICE STRUCTURE |
| Filed: 02/06/2017 Serial N | No. 15/425,673 |
| Executed on: 12/30/2016; 01/18/2017 | 13/123,0/3 |
| Executed on. | |
| WHEDEAC Managed Internation | |
| WHEREAS, Vanguard Internationa | |
| of 123, Park Ave-3rd, Science - Base | |
| Taiwan 30077, R.O.C. hereinafter referred to | |
| ASSIGNOR'S interest in the said invention and ap | plication and in any U.S. Letters Patent |
| which may be granted on the same; | |
| | |
| NOW, THEREFORE, TO ALL WHOM IT M | MAY CONCERN: Be it known that, for |
| good and valuable consideration, receipt of which | · · · · · · · · · · · · · · · · · · · |
| Assignor has/have sold, assigned and transferred, as | |
| and transfer unto the said Assignee, and Assignee's | |
| rights, title and interest in and to the said inv | |
| - | * * |
| improvements thereon, and in and to any Letters Pate | |
| same in the United States, the said interest to be held | |
| and exclusively as it would have been held and enjoy | |
| and transfer not been made, to the full end and ter | rm of any Letters Patent which may be |
| granted thereon, or of any division, renewal, contin | uation in whole or in part, substitution, |
| conversion, reissue, prolongation or extension thereo | f. |
| | |
| Assignor further agrees/agree that he/s | she/they will without charge to said |
| Assignee, but at Assignee's expense, cooperate wi | |
| application and/or applications, execute, verify, ac | |
| papers, including applications for Letters Patent and | |
| | |
| of assignment and transfer thereof, and will perform | |
| request, to obtain or maintain Letters Patent for said | |
| title thereto in said Assignee, or Assignee's successor | rs and assigns. |
| | |
| IN TESTIMONY WHEREOF, Assignor has/l | have signed his/her/their name(s) on the |
| date(s) indicated. | |
| | |
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| | |
| My ren de | 2016, 12, 30 |
| Muy Well Lee Chung-Yeh LEE | 2016, /2, 30 Date |
| | |
| | |
| | |
| | |
| Chih-Ping LIN | Date |

PATENT REEL: 041191 FRAME: 0884

ASSIGNMENT

| WHEREAS, Chung-Yeh LEE and Ch | ih-Ping LIN | | | | |
|---|---|--|--|--|--|
| hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements | | | | | |
| as described and set forth in the below identified application for United States Letters Patent: Title: METHOD FOR FORMING SEMICONDUCTOR DEVICE STRUCTURE | | | | | |
| | | | | | |
| Filed: 02/06/2017 Seria | Il No. 15/425,673 | | | | |
| Executed on: 12/30/2016; 01/18/2017 | 13/423,073 | | | | |
| 12/30/2010, 01/10/2017 | | | | | |
| | | | | | |
| | nal Semiconductor Corporation | | | | |
| of 123, Park Ave-3rd, Science - Ba | | | | | |
| Taiwan 30077, R.O.C. hereinafter referred | | | | | |
| ASSIGNOR'S interest in the said invention and | application and in any U.S. Letters Patent | | | | |
| which may be granted on the same; | | | | | |
| , | • | | | | |
| NOW, THEREFORE, TO ALL WHOM IT good and valuable consideration, receipt of wh Assignor has/have sold, assigned and transferred and transfer unto the said Assignee, and Assignerights, title and interest in and to the said improvements thereon, and in and to any Letters P same in the United States, the said interest to be and exclusively as it would have been held and en and transfer not been made, to the full end and granted thereon, or of any division, renewal, conconversion, reissue, prolongation or extension there | and by these presents does/do sell, assign re's successors and assigns, all his/her/their invention and application and all future atent which may hereafter be granted on the held and enjoyed by said Assignee as fully joyed by said Assignor had this Assignment term of any Letters Patent which may be attinuation in whole or in part, substitution, | | | | |
| Assignor further agrees/agree that It Assignee, but at Assignee's expense, cooperate application and/or applications, execute, verify, papers, including applications for Letters Patent a of assignment and transfer thereof, and will perfor request, to obtain or maintain Letters Patent for satitle thereto in said Assignee, or Assignee's successive the said Assignee, or Assignee's successive the said Assignee and the said Assigner has date(s) indicated. | acknowledge and deliver all such further and for the reissue thereof, and instruments in such other acts as Assignee lawfully may aid invention and improvement, and to vest isors and assigns. | | | | |
| Chung-Yeh LEE | Date | | | | |
| | | | | | |
| 21 | , , | | | | |
| Chich - Dong /Th | 01/14/2010. | | | | |
| Chih-Ping LIN | 01/18/2019. | | | | |
| CITTIL ETITA MITIN | Date / | | | | |

PATENT REEL: 041191 FRAME: 0885