501870431 03/29/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------|----------------|
| Toshiki FURUTANI | 02/14/2012 |
| Daiki KOMATSU | 03/21/2012 |
| Masatoshi KUNIEDA | 03/01/2012 |
| Naomi FUJITA | 02/14/2012 |
| Nobuya TAKAHASHI | 03/21/2012 |

RECEIVING PARTY DATA

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| State/Country: | JAPAN |
| Postal Code: | 503-0917 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13249838 |

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| ATTORNEY DOCKET NUMBER: | 386365US53 |
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| NAME OF SUBMITTER: | Mesfin Kassaye |

Total Attachments: 2

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PATENT REEL: 027951 FRAME: 0649 OP \$40.00 13249838

Assignment of Application

| SERT NAMES | WHEREAS, I (WE) | Toshiki FURUTANI | | - ~ | | | |
|--|---------------------|----------------------------|--------------------|--------|---|-----------------------|-----------|
| NO RESIDENCE NO RESIDENCE DDRESS OF HE INVENTORS. | • | Daiki KOMATSU | | | | | |
| | | Masatoshi KUNIEDA | | | | | |
| | | Naomi FUJITA | | | | | |
| | | Nobuya TAKAHASHI | all of Ogaki-sl | hi, Gi | fu, Japan | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| | | | | | | , resp | ectively, |
| INSERT TITLE OF INVENTION | have invented certa | in new and useful impro | vements in: S | UBST | TRATE FOR MOUNTING | SEMICONDUCTO | R, |
| | SEMICONDUCTO | OR DEVICE AND MET | HOD FOR MA | NUF | ACTURING SEMICOND | UCTOR DEVICE | |
| | (Application No | 13/249,838 | , f | iled | September 30, 2011 | | _), and |
| INSERT NAME | WHEREAS, _ | Ibiden Co., Ltd. | | | | | |
| AND ADDRESS OF COMPANY OR OTHER ASSIGNEE | 0917 Japan is desi | rous of acquiring the enti | ire right, title a | and in | usiness at: 1, Kandacho 2- iterest in and to said invent d its territorial possession | ion and in and to any | Letters |

countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

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Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

| | • | | シをこん |
|-------|------------|---|---------|
| Date: | 2/14/2012 | Toshiki Furutani | |
| - | | (Signature of Inventor) Toshiki FURUTANI | |
| Date: | 3/1 /2012 | Daiki komatsu | 小松: |
| | | (Signature of Inventor) Daiki KOMATSU | |
| Date: | 3/1 /2012 | Masaroshi Kuniedon | 图起 1) |
| | | (Signature of Inventor) Masatoshi KUNIEDA | |
| Date: | 2/14/2012 | Naomi FUJITA | 施里式 |
| | | (Signature of Inventor) Naomi FUJITA | |
| Date: | 3/21 /2012 | Nobuya Takafashi | 高雅! |
| | | (Signature of Inventor) Nobuya TAKAHASH! | |

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RECORDED: 03/29/2012