503569956 11/16/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3616583

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| HIROAKI FURUKAWA | 10/13/2015 |

RECEIVING PARTY DATA

| Name: | SHARP KABUSHIKI KAISHA | |
|------------------------------|------------------------------------|--|
| Street Address: | Street Address: 22-22, NAGAIKE-CHO | |
| City: | ABENO-KU, OSAKA-SHI, OSAKA | |
| State/Country: | tate/Country: JAPAN | |
| Postal Code: 545-8522 | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14786650 |

CORRESPONDENCE DATA

Fax Number:

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.

Email:cgastoukian@kbiplaw.comCorrespondent Name:KEATING & BENNETT, LLPAddress Line 1:1800 ALEXANDER BELL DRIVE

Address Line 2: SUITE 200

Address Line 4: RESTON, VIRGINIA 20191

| ATTORNEY DOCKET NUMBER: | TORNEY DOCKET NUMBER: 70404.2808/OK | |
|--|--|--|
| NAME OF SUBMITTER: COURTNEY GASTOUKIAN | | |
| SIGNATURE: | /AMD/cg/ | |
| DATE SIGNED: | 11/16/2015 | |
| | This document serves as an Oath/Declaration (37 CFR 1.63). | |

Total Attachments: 2

source=70404-2808-PTO-20151113-Signed-Declaration-Assignment#page1.tif source=70404-2808-PTO-20151113-Signed-Declaration-Assignment#page2.tif

PATENT 503569956 REEL: 037043 FRAME: 0217

Attorney Docket No.:

ASSIGNMENT AND DECLARATION FOR PATENT APPLICATION (37 CFR 1.63)

特許出願宣言付き譲渡書(37 CFR 1.63)

Japanese Language Assignment and Declaration

| 私は下記に記載の発明者/譲渡人として以下の通り宣言しま す。 | As a below named INVENTOR/ASSIGNOR, I hereby declare that: |
|---|--|
| 本宣言付き譲渡書は以下に関します。 | This assignment and declaration is directed to: |
| □ 添付の出願、または | The attached application, or |
| □年_月_日に出願された米国出願あるいは | United States Application or PCT International Application |
| PCT 国際出願番号 | Number PCT/JP2014/055378 filed on March A, 2014. |
| 本出願の名称は以下の通りです。 | The application is titled: |
| | SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD FOR SEMICONDUCTOR DEVICE |
| 上記に明示された出願は私が作成した、または作成を許可し たものです。 | The above identified application was made or was authorized to be made by me. |
| 私は、私が本出願内で請求されている発明の最初の発明者、 または最初の共間発明者であると信じます。 | I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. |
| 私は本宣言付き譲渡書の提出に関わる出願の内容を検討し、 理解しています。 | I have reviewed and understand the contents of the application for which this assignment with declaration is being submitted. |
| 私は37 CFR 1.56 に定義される特許性に肝要な私の知るすべての情報について当局に開示する義務があることを認識しています。 | I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56. |
| 本書以降で譲渡人と呼ばれる上記に署名した発明者である私 は、上記で特定される本出願に記載する特定の発明をしてい るため、また、 | Whereas, I/We, the undersigned inventor(s) hereinafter called ASSIGNOR(S), have invented certain inventions described in the application identified above; and |
| の(譲受人)は本出顧および本発明に対する全ての権利、権原。および利益、ならびに当該出顧および発明に対して得られる米国内、およびすべての外国で交付される特許証の取得を希望しているため、 | Whereas, Sharp Kabushiki Kaisha of 22-22, Nagaike-cho, Abeno- ku, Osaka-shi, Osaka 545-8522 Japan, (ASSiGNEE(S)), desires to acquire the entire right, title, and interest in the application and invention, and any Letters Patent that may be granted therefore in the United States and in any and all foreign countries; |
| それゆえ、藤受人から譲渡人への1ドル(\$1.00)の支払いおよびその他の有価約因に基づき、その受領をここに確認した | Now therefore, in consideration of the payment by ASSIGNEE(S) to ASSIGNOR(S) of the sum of One Dollar (\$1.00) and for other valuable consideration, receipt whereof is hereby acknowledged, |

譲渡人は、本書により、譲受人、その後継者および継承人に 対して、すべての分割出願および継続出願を含めて、アメリ カ合衆国の本出願およびそこに開示された発明に対する全て の権利、権原および利益(その後の改正を含むパリ国際協定 (1883)の下、又はその他の関係する国際条約および国際協 定の下でのすべての権利を含む)、ならびに同出願および発 明に対して交付された米国特許証およびその全ての再発行を 完却、譲渡および移転します。

譲渡人は、本書により、本譲渡書および販売に抵触する譲渡、販売、契約および債務の成立および締結が行われないことを契約します。

譲渡人は、本書により、譲受人から依頼があった場合、譲渡 人が知り縦覧できる、当該出願、発明、および特許証にかか わる適切な事実および資料を譲受人に提供し、譲受人が必要 とみなすすべての資料に追加の対価を得ることなく署名し、 これに関連するいかなる干渉および訴訟において証言するこ とに同意します。

私は本宣言付き譲渡審において故意になされた一切の虚偽の 陳述が 18 USC 1001 に基づき罰金あるいは 5 年以下の拘禁ま たは両方による処罰にあたることに同意します。 ASSIGNOR(S) hereby sell, assign, and transfer to ASSIGNEE(S), its successors and assigns, the entire right, title, and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including all rights under the International Convention of Paris (1883) as amended, or other relevant international Treaties and Arrangements.

ASSIGNOR(S) hereby covenant(s) that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

ASSIGNOR(5) hereby agree(s), when called upon to do so by the ASSIGNEE(S), to provide ASSIGNEE(S) with all pertinent facts and documents relating to said application, said invention, and said Letters Patent as may be known and accessible to ASSIGNOR(S); to sign without further consideration all papers deemed necessary by the ASSIGNEE(S); and to testify as to the same in any interference or litigation related thereto.

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

The assignment and declaration is an accurate translation of the corresponding English language assignment and declaration.

| | OF FIRST INVENTOR/ASSIGNOR | |
|------------|----------------------------|----------------------|
| 第1の発明者 | 打籐渡人の正式氏名 | |
| Inventor: | | Date: |
| 発明者: | Hiroaki FURUKAWA | 目付: October 13, 2015 |
| Signature: | 71 7 W A | |
| 署名: | Miroaki Furukawa | |