

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------------|---------------|--------------------------|---------------------|-----------------------|------------|------------------|----------------|------------|----------------|------------|-------------------|------------|-------------------|------------|---------------|------------|---------|------------|-------------|------------|------------------|------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | | | | | | | | | | | | | | | | | |
| CONVEYING PARTY DATA | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Hidekazu HAYASHI</td> <td>07/20/2012</td> </tr> <tr> <td>Yohei SATO</td> <td>08/03/2012</td> </tr> <tr> <td>Hisashi OKUCHI</td> <td>07/31/2012</td> </tr> <tr> <td>Hiroshi TOMITA</td> <td>07/31/2012</td> </tr> <tr> <td>Kazuyuki MITSUOKA</td> <td>07/02/2012</td> </tr> <tr> <td>Mitsuaki IWASHITA</td> <td>07/02/2012</td> </tr> <tr> <td>Takehiko ORII</td> <td>07/02/2012</td> </tr> <tr> <td>Gen YOU</td> <td>07/02/2012</td> </tr> <tr> <td>Hiroki OHNO</td> <td>07/02/2012</td> </tr> <tr> <td>Takayuki TOSHIMA</td> <td>07/10/2012</td> </tr> </tbody> </table> | | Name | Execution Date | Hidekazu HAYASHI | 07/20/2012 | Yohei SATO | 08/03/2012 | Hisashi OKUCHI | 07/31/2012 | Hiroshi TOMITA | 07/31/2012 | Kazuyuki MITSUOKA | 07/02/2012 | Mitsuaki IWASHITA | 07/02/2012 | Takehiko ORII | 07/02/2012 | Gen YOU | 07/02/2012 | Hiroki OHNO | 07/02/2012 | Takayuki TOSHIMA | 07/10/2012 |
| Name | Execution Date | | | | | | | | | | | | | | | | | | | | | | |
| Hidekazu HAYASHI | 07/20/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Yohei SATO | 08/03/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Hisashi OKUCHI | 07/31/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Hiroshi TOMITA | 07/31/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Kazuyuki MITSUOKA | 07/02/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Mitsuaki IWASHITA | 07/02/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Takehiko ORII | 07/02/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Gen YOU | 07/02/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Hiroki OHNO | 07/02/2012 | | | | | | | | | | | | | | | | | | | | | | |
| Takayuki TOSHIMA | 07/10/2012 | | | | | | | | | | | | | | | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Name:</td> <td>Kabushiki Kaisha Toshiba</td> </tr> <tr> <td>Street Address:</td> <td>1-1, Shibaura 1-Chome</td> </tr> <tr> <td>City:</td> <td>Minato-Ku, Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> </table> | | Name: | Kabushiki Kaisha Toshiba | Street Address: | 1-1, Shibaura 1-Chome | City: | Minato-Ku, Tokyo | State/Country: | JAPAN | | | | | | | | | | | | | | |
| Name: | Kabushiki Kaisha Toshiba | | | | | | | | | | | | | | | | | | | | | | |
| Street Address: | 1-1, Shibaura 1-Chome | | | | | | | | | | | | | | | | | | | | | | |
| City: | Minato-Ku, Tokyo | | | | | | | | | | | | | | | | | | | | | | |
| State/Country: | JAPAN | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Name:</td> <td>Tokyo Electron Limited</td> </tr> <tr> <td>Street Address:</td> <td>3-1, Akasaka 5-Chome</td> </tr> <tr> <td>City:</td> <td>Minato-Ku, Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> </table> | | Name: | Tokyo Electron Limited | Street Address: | 3-1, Akasaka 5-Chome | City: | Minato-Ku, Tokyo | State/Country: | JAPAN | | | | | | | | | | | | | | |
| Name: | Tokyo Electron Limited | | | | | | | | | | | | | | | | | | | | | | |
| Street Address: | 3-1, Akasaka 5-Chome | | | | | | | | | | | | | | | | | | | | | | |
| City: | Minato-Ku, Tokyo | | | | | | | | | | | | | | | | | | | | | | |
| State/Country: | JAPAN | | | | | | | | | | | | | | | | | | | | | | |
| PROPERTY NUMBERS Total: 1 | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13482318</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 13482318 | | | | | | | | | | | | | | | | | | |
| Property Type | Number | | | | | | | | | | | | | | | | | | | | | | |
| Application Number: | 13482318 | | | | | | | | | | | | | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | | | | | | | | | | | | | |
| Fax Number: | 3152338320 | | | | | | | | | | | | | | | | | | | | | | |

CH \$40.00 13482318

Phone: 315-233-8300
Email: tpreston@burrandbrown.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.

Correspondent Name: BURR & BROWN
Address Line 1: PO BOX 7068
Address Line 4: SYRACUSE, NEW YORK 13261-7068

| | |
|-------------------------|---------|
| ATTORNEY DOCKET NUMBER: | 620_127 |
|-------------------------|---------|

| | |
|--------------------|-----------------|
| NAME OF SUBMITTER: | Stephen P. Burr |
|--------------------|-----------------|

Total Attachments: 6
source=Assignment#page1.tif
source=Assignment#page2.tif
source=Assignment#page3.tif
source=Assignment#page4.tif
source=Assignment#page5.tif
source=Assignment#page6.tif

譲渡証 (Translation/日本語訳)

下記に署名した私/私達、
は、

ある発明を創出し、これについて合衆国特許出願は

- ここに私/私達により署名され、
 _____に私/私達により(それぞれ)署名され、
 に出願され、出願番号が交付され、
 PCT 国際出願 としてに出願され、

その発明は

という名称である。そして、ここにその受領を認める対価で：私/私達は、当該発明/出願について、合衆国とその属領及び全ての外国に於ける全面的かつ独占的な権利；合衆国とその属領及び全ての外国に於いて発行される特許証に関わる全ての権利、所有権、利益；一部継続出願、継続出願、分割出願、差替え出願、再発行出願、特許期間延長等、合衆国とその属領及び全ての外国に於いて既に出願されたか若しくは今後出願される特許に関わる全ての権利；そして、国際条約、同盟、契約、法令、協定（将来制定されるものを含む）に基づく全ての優先権を伴う一切の権利；を、日本国東京都港区芝浦一丁目1番1号 及び日本国東京都港区赤坂五丁目3番1号に住所を有する株式会社 東、芝）及び東京エレクトロン株式会社、その後継者、譲受人及び法定代理人に対して、売却、譲渡、移転するものとする。

Assignment

For good and valuable consideration, the receipt of which is hereby acknowledged, I/WE, the undersigned,

Hidekazu HAYASHI, Yohei SATO, Hisashi OKUCHI,
Hiroshi TOMITA, Kazuyuki MITSUOKA, Mitsuaki
IWASHITA, Takehiko ORII, Gen YOU, Hiroki OHNO
and Takayuki TOSHIMA

who have created a certain invention for which an application for United States Letters Patent

- executed by ME/US on even date herewith,
 executed by ME/US on _____,
(respectively),
 filed on May 29, 2012
and assigned Serial No. 13/482,318,
 filed as International Application No.
filed on _____,

and entitled:

SUBSTRATE PROCESSING METHOD, SUBSTRATE PROCESSING
APPARATUS, AND STORAGE MEDIUM

Do hereby sell, assign and transfer to KABUSHIKI KAISHA TOSHIBA and TOKYO ELECTRON LIMITED, corporations of Japan, having a place of business at 1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, Japan and 3-1, Akasaka 5-Chome, Minato-Ku, Tokyo, Japan, their successors, assigns, and legal representatives, the full and exclusive right to said invention and said application and to any and all inventions described in said application for the United States, their territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, their territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, and all other applications for Letters Patent relating thereto which have been or shall be filed in the United States, their territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions, agreements, acts, and treaties;

さらに、私/私達は、株式会社 東 芝 及び東京エレクトロン株式会社（以下譲受人と言う）が単独ないしは複数の当該発明（以下当該発明という）に関わる特許権を、自己の名により、合衆国とその属領及び全ての外国に於いて出願し、特許を受けること；またこの譲渡証の意図と目的を誠実に実行することを求められた場合、下記に署名した私/私達が、当該譲受人、その後継者、その被譲渡者、及び法定代理人の費用負担にて、一部継続出願、継続出願、分割出願、差替え出願、再発行出願、特許期間延長等を行い、合法的宣誓書、譲渡証、委任状等の書類を作成し、あらゆる法的または準法的訴訟手続に於いて証言を行うこと；当該発明とその経緯に関連して、下記に署名した私/私達が知り得た全ての事実を、当該譲受人、後継者、被譲渡者、及び法定代理人に連絡すること；そして当該譲受人、後継者、被譲渡者、及び法定代理人が、当該発明の特許権の適切な保護、維持、権利行使するために望ましいと考慮すること、また、当該発明に関わる特許出願に際し、当該譲受人、後継者、被譲渡者、及び法定代理人に対して法的権限を付与することが望ましいと考慮することについて、可能な限り行うことを承諾する。

Agree that KABUSHIKI KAISHA TOSHIBA and TOKYO ELECTRON LIMITED, hereinafter referred to as Assignees, may apply for and receive Letters Patent for said invention and said inventions, hereinafter referred to as said invention, in their own name, in the United States, their territorial possessions, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said Assignee, their successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, their successors, assigns, or legal representatives all facts known to the undersigned relating to said invention and the history thereof; and generally do everything possible which said Assignee, their successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, their successors, assigns, or legal representatives; and

そして、私/私達は、この書面により譲渡された権利や財産に影響する、如何なる譲渡、授権、抵当権、ライセンス等その他の協定も他の第三者との間で行っていないこと；下記に署名した私/私達によって、この書面に記載されている権利が所有されていることを、当該譲受人、後継者、被譲渡者、及び法定代理人に対して誓約するものである。

Covenant with said Assignee, their successors, assigns, or legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

さらに、下記に署名した私/私達はこの譲渡書は英語の部分の表現によってのみ解釈されることに同意する。

I/WE, the undersigned do further agree that this Assignment is to be construed solely according to the terms of the English language portions thereof.

上記を証明するため、私/私達は下記日付で署名する。

IN TESTIMONY WHEREOF I/WE have hereunto set MY/OUR signature seal on the date indicated below.

| | |
|---------------|---|
| 唯一または第一発明者名 | Full name of sole or first inventor Hidekazu HAYASHI |
| 発明者の署名 日付 | Inventor's signature Date <i>Hidekazu Hayashi</i> July 29, 2012 |
| 第二共同発明者（いる場合） | Full name of second joint inventor, if any Yohei SATO |
| 第二共同発明者の署名 日付 | Second Inventor's signature Date <i>Yohei sato</i> Aug. 3, 2012 |
| 第三共同発明者（いる場合） | Full name of third joint inventor, if any Hisashi OKUCHI |
| 第三共同発明者の署名 日付 | Third Inventor's signature Date <i>Hisashi Okuchi</i> July 31, 2012 |
| 第四共同発明者（いる場合） | Full name of fourth joint inventor, if any Hiroshi TOMITA |
| 第四共同発明者の署名 日付 | Fourth Inventor's signature Date <i>Hiroshi Tomita</i> July 31, 2012 |

| | | | |
|----------------|----|--|------|
| 第五共同発明者 (いる場合) | | Full name of fifth joint inventor, if any Kazuyuki MITSUOKA | |
| 第五共同発明者の署名 | 日付 | Fifth Inventor's signature | Date |
| 第六共同発明者 (いる場合) | | Full name of sixth joint inventor, if any Mitsuaki IWASHITA | |
| 第六共同発明者の署名 | 日付 | Sixth Inventor's signature | Date |
| 第七共同発明者 (いる場合) | | Full name of seventh joint inventor, if any Takehiko ORII | |
| 第七共同発明者の署名 | 日付 | Seventh Inventor's signature | Date |
| 第八共同発明者 (いる場合) | | Full name of eighth joint inventor, if any Gen YOU | |
| 第八共同発明者の署名 | 日付 | Eighth Inventor's signature | Date |
| 第九共同発明者 (いる場合) | | Full name of ninth joint inventor, if any Hiroki OHNO | |
| 第九共同発明者の署名 | 日付 | Ninth Inventor's signature | Date |
| 第十共同発明者 (いる場合) | | Full name of tenth joint inventor, if any Takayuki TOSHIMA | |
| 第十共同発明者の署名 | 日付 | Tenth Inventor's signature | Date |

譲渡証 (Translation/日本語訳)

下記に署名した私/私達、
は、

ある発明を創出し、これについて合衆国特許出願は

- ここに私/私達により署名され、
 _____に私/私達により (それぞれ) 署名され、
 に出願され、出願番号が交付され、
 PCT 国際出願 としてに出願され、

その発明は

という名称である。そして、ここにその受領を認める対価で：私/私達は、当該発明/出願について、合衆国とその属領及び全ての外国に於ける全面的かつ独占的な権利；合衆国とその属領及び全ての外国に於いて発行される特許証に関わる全ての権利、所有権、利益；一部継続出願、継続出願、分割出願、差替え出願、再発行出願、特許期間延長等、合衆国とその属領及び全ての外国に於いて既に出願されたか若しくは今後出願される特許に関わる全ての権利；そして、国際条約、同盟、契約、法令、協定 (将来制定されるものを含む) に基づく全ての優先権を伴う一切の権利；を、日本国東京都港区芝浦一丁目 1 番 1 号 及び日本国東京都港区赤坂五丁目 3 番 1 号に住所を有する株式会社 東芝 及び東京エレクトロン株式会社、その後継者、譲受人及び法定代理人に対して、売却、譲渡、移転するものとする。

Assignment

For good and valuable consideration, the receipt of which is hereby acknowledged, I/WE, the undersigned,

Hidekazu HAYASHI, Yohei SATO, Hisashi OKUCHI,
Hiroshi TOMITA, Kazuyuki MITSUOKA, Mitsuaki
IWASHITA, Takehiko ORII, Gen YOU, Hiroki OHNO
and Takayuki TOSHIMA

who have created a certain invention for which an application for United States Letters Patent

- executed by ME/US on even date herewith,
 executed by ME/US on _____,
(respectively),
 filed on May 29, 2012
and assigned Serial No. 13/482,318,
 filed as International Application No.
filed on _____

and entitled:

SUBSTRATE PROCESSING METHOD, SUBSTRATE PROCESSING
APPARATUS, AND STORAGE MEDIUM

Do hereby sell, assign and transfer to KABUSHIKI KAISHA TOSHIBA and TOKYO ELECTRON LIMITED, corporations of Japan, having a place of business at 1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, Japan and 3-1, Akasaka 5-Chome, Minato-Ku, Tokyo, Japan, their successors, assigns, and legal representatives, the full and exclusive right to said invention and said application and to any and all inventions described in said application for the United States, their territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, their territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, and all other applications for Letters Patent relating thereto which have been or shall be filed in the United States, their territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions, agreements, acts, and treaties:

さらに、私/私達は、株式会社 東 芝 及び東京エレクトロン株式会社（以下譲受人と言う）が単独ないしは複数の当該発明（以下当該発明という）に関わる特許権を、自己の名により、合衆国とその属領及び全ての外国に於いて出願し、特許を受けること；またこの譲渡証の意図と目的を誠実に実行することを求められた場合、下記に署名した私/私達が、当該譲受人、その後継者、その被譲渡者、及び法定代理人の費用負担にて、一部継続出願、継続出願、分割出願、差替え出願、再発行出願、特許期間延長等を行い、合法的宣誓書、譲渡証、委任状等の書類を作成し、あらゆる法的または準法的訴訟手続に於いて証言を行うこと；当該発明とその経緯に関連して、下記に署名した私/私達が知り得た全ての事実を、当該譲受人、後継者、被譲渡者、及び法定代理人に連絡すること；そして当該譲受人、後継者、被譲渡者、及び法定代理人が、当該発明の特許権の適切な保護、維持、権利行使するために望ましいと考慮すること、また、当該発明に関わる特許出願に際し、当該譲受人、後継者、被譲渡者、及び法定代理人に対して法的権限を付与することが望ましいと考慮することについて、可能な限り行うことを承諾する。

Agree that KABUSHIKI KAISHA TOSHIBA and TOKYO ELECTRON LIMITED, hereinafter referred to as Assignees, may apply for and receive Letters Patent for said invention and said inventions, hereinafter referred to as said invention, in their own name, in the United States, their territorial possessions, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said Assignee, their successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, their successors, assigns or legal representatives all facts known to the undersigned relating to said invention and the history thereof; and generally do everything possible which said Assignee, their successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, their successors, assigns, or legal representatives; and

そして、私/私達は、この書面により譲渡された権利や財産に影響する、如何なる譲渡、授權、抵当権、ライセンス等その他の協定も他の第三者との間で行っていないこと；下記に署名した私/私達によって、この書面に記載されている権利が所有されていることを、当該譲受人、後継者、被譲渡者、及び法定代理人に対して誓約するものである。

Covenant with said Assignees, their successors, assigns, or legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

さらに、下記に署名した私/私達はこの譲渡書は英語の部分の表現によってのみ解釈されることに同意する。

I/WE, the undersigned do further agree that this Assignment is to be construed solely according to the terms of the English language portions thereof.

上記を証明するため、私/私達は下記日付で署名する。

IN TESTIMONY WHEREOF I/WE have hereunto set MY/OUR signature seal on the date indicated below.

| | |
|---------------|--|
| 唯一または第一発明者名 | Full name of sole or first inventor Hidekazu HAYASHI |
| 発明者の署名 | Inventor's signature |
| 日付 | Date |
| 第二共同発明者（いる場合） | Full name of second joint inventor, if any Yohei SATO |
| 第二共同発明者の署名 | Second inventor's signature |
| 日付 | Date |
| 第三共同発明者（いる場合） | Full name of third joint inventor, if any Hisashi OKUCHI |
| 第三共同発明者の署名 | Third inventor's signature |
| 日付 | Date |
| 第四共同発明者（いる場合） | Full name of fourth joint inventor, if any Hiroshi TOMITA |
| 第四共同発明者の署名 | Fourth inventor's signature |
| 日付 | Date |

| | | | |
|----------------|----|--|----------------------|
| 第五共同発明者 (いる場合) | | Full name of fifth joint inventor, if any Kazuyuki MITSUOKA | |
| 第五共同発明者の署名 | 日付 | Fifth Inventor's signature | Date |
| | | <i>Kazuyuki Mitsuoka</i> | <i>July 2, 2012</i> |
| 第六共同発明者 (いる場合) | | Full name of sixth joint inventor, if any Mitsuaki IWASHITA | |
| 第六共同発明者の署名 | 日付 | Sixth Inventor's signature | Date |
| | | <i>Mitsuaki Iwashita</i> | <i>July 2, 2012</i> |
| 第七共同発明者 (いる場合) | | Full name of seventh joint inventor, if any Takehiko ORII | |
| 第七共同発明者の署名 | 日付 | Seventh Inventor's signature | Date |
| | | <i>Takehiko Orii</i> | <i>July 2, 2012</i> |
| 第八共同発明者 (いる場合) | | Full name of eighth joint inventor, if any Gen YOU | |
| 第八共同発明者の署名 | 日付 | Eighth Inventor's signature | Date |
| | | <i>Gen You</i> | <i>July 2, 2012</i> |
| 第九共同発明者 (いる場合) | | Full name of ninth joint inventor, if any Hiroki OHNO | |
| 第九共同発明者の署名 | 日付 | Ninth Inventor's signature | Date |
| | | <i>Hiroki Ohno</i> | <i>July 2, 2012</i> |
| 第十共同発明者 (いる場合) | | Full name of tenth joint inventor, if any Takayuki TOSHIMA | |
| 第十共同発明者の署名 | 日付 | Tenth Inventor's signature | Date |
| | | <i>Takayuki Toshima</i> | <i>July 10, 2012</i> |