

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>Shigeru Nakajima</td><td>01/16/2009</td></tr><tr><td>Kazuhide Hasebe</td><td>01/16/2009</td></tr><tr><td>Pao-Hwa Chou</td><td>01/16/2009</td></tr><tr><td>Mitsuaki Iwashita</td><td>01/16/2009</td></tr><tr><td>Reiji Niino</td><td>01/16/2009</td></tr></tbody></table>	Name	Execution Date	Shigeru Nakajima	01/16/2009	Kazuhide Hasebe	01/16/2009	Pao-Hwa Chou	01/16/2009	Mitsuaki Iwashita	01/16/2009	Reiji Niino	01/16/2009	
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Reiji Niino	01/16/2009												
RECEIVING PARTY DATA													
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Street Address:	3-1 Akasaka 5-chome, Minato-ku												
City:	Tokyo												
State/Country:	JAPAN												
Postal Code:	107-6325												
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>12441007</td></tr></tbody></table>	Property Type	Number	Application Number:	12441007									
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CORRESPONDENCE DATA													
Fax Number: (216)579-6073 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
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NAME OF SUBMITTER:	Michael W. Garvey												

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PATENT
REEL: 022388 FRAME: 0514

Total Attachments: 3

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PATENT

REEL: 022388 FRAME: 0515

ASSIGNMENT

WHEREAS, new and useful improvements have been made by the undersigned in

PATTERNING METHOD

- ☒ and are the subject of a patent application prepared for filing in the United States Patent and Trademark Office.
- ☐ for which an application for Letters Patent of the United States was filed on _____, which application is identified by Serial No. _____.

WHEREAS, **TOKYO ELECTRON LIMITED**, a corporation of **Japan**, having a place of business at **3-1, Akasaka 5-chome, Minato-ku, Tokyo 107-6325 Japan**, hereinafter referred to as "assignees", are desirous of acquiring all right, title, and interest throughout the world in, to, and under said improvements and inventions and patent rights therefor.

NOW, THEREFORE, be it known that, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all right, title, and interest, in the United States and throughout the world, in, to and under said improvements and inventions and all patents, patent applications, patent rights, and inventor's certificates thereof, therefor, and therein, including without limitation said application for patent in the United States, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all right to sue for past infringement thereunder, all patents which may be granted for said improvements and inventions by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefor, have been and are hereby sold, assigned, transferred, and delivered unto assignees, its successors and assigns; and it is covenanted and agreed by the undersigned, and for executors, administrators, and legal representatives of the undersigned, that at assignees' request any and all applications, affidavits,

assignments, and other instruments will be made, executed, and delivered as may be necessary, or desirable to secure for or vest in assignees, its successors or assigns, any improvement, inventions, right, title, interest, application, patent, patent right or other right or property covered by this assignment, and the United States Commissioner of Patents and Trademarks is hereby requested and authorized to issue any and all United States patents granted on any of said applications to assignees as owners of the entire right, title, and interest in, to, and under the same, and appropriately empowered officials of foreign countries are hereby authorized to issue any letters patent granted on any of said applications to assignees as owners of the entire right, title and interest in, to, and under the same.

The undersigned hereby grants the firm of Pearne & Gordon LLP the power to insert on this assignment any further identification 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.

IN WITNESS WHEREOF, this assignment has been executed below by the undersigned:

(1) Inventor Name: Shigeru NAKAJIMA

Signature: Shigeru Nakajima

Today's Date: January 16, 2009

Witness: _____

Witness: _____

(2) Inventor Name: Kazuhide HASEBE

Signature: Kazuhide Hasebe

Today's Date: January 16, 2009

Witness: _____

Witness: _____

(3) Inventor Name: Pao-Hwa CHOU

Signature: Pao-Hwa CHOU

Today's Date: January 16, 2009

Witness: _____

Witness: _____

(4) Inventor Name: Mitsuaki IWASHITA

Signature: Mitsuaki Iwashita

Today's Date: January 16, 2009

Witness: _____

Witness: _____

(5) Inventor Name: Reiji NIINO

Signature: Reiji Niino

Today's Date: January 16, 2009

Witness: _____

Witness: _____

**Last Page of Document