

## 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>Huicai ZHONG</td> <td>03/05/2012</td> </tr> <tr> <td>Jun LUO</td> <td>03/05/2012</td> </tr> <tr> <td>Chao ZHAO</td> <td>03/05/2012</td> </tr> <tr> <td>Qingqing LIANG</td> <td>03/05/2012</td> </tr> </tbody> </table>                                                                             |                                                            | Name          | Execution Date                                             | Huicai ZHONG        | 03/05/2012                                    | Jun LUO | 03/05/2012 | Chao ZHAO      | 03/05/2012 | Qingqing LIANG | 03/05/2012 |
| Name                                                                                                                                                                                                                                                                                                                                                                                                     | Execution Date                                             |               |                                                            |                     |                                               |         |            |                |            |                |            |
| Huicai ZHONG                                                                                                                                                                                                                                                                                                                                                                                             | 03/05/2012                                                 |               |                                                            |                     |                                               |         |            |                |            |                |            |
| Jun LUO                                                                                                                                                                                                                                                                                                                                                                                                  | 03/05/2012                                                 |               |                                                            |                     |                                               |         |            |                |            |                |            |
| Chao ZHAO                                                                                                                                                                                                                                                                                                                                                                                                | 03/05/2012                                                 |               |                                                            |                     |                                               |         |            |                |            |                |            |
| Qingqing LIANG                                                                                                                                                                                                                                                                                                                                                                                           | 03/05/2012                                                 |               |                                                            |                     |                                               |         |            |                |            |                |            |
| RECEIVING PARTY DATA                                                                                                                                                                                                                                                                                                                                                                                     |                                                            |               |                                                            |                     |                                               |         |            |                |            |                |            |
| <table border="1"> <tr> <td>Name:</td> <td>INSTITUTE OF MICROELECTRONICS, CHINESE ACADEMY OF SCIENCES</td> </tr> <tr> <td>Street Address:</td> <td>No. 3 Beitucheng West Road, Chaoyang District</td> </tr> <tr> <td>City:</td> <td>Beijing</td> </tr> <tr> <td>State/Country:</td> <td>CHINA</td> </tr> <tr> <td>Postal Code:</td> <td>100029</td> </tr> </table>                                       |                                                            | Name:         | INSTITUTE OF MICROELECTRONICS, CHINESE ACADEMY OF SCIENCES | Street Address:     | No. 3 Beitucheng West Road, Chaoyang District | City:   | Beijing    | State/Country: | CHINA      | Postal Code:   | 100029     |
| Name:                                                                                                                                                                                                                                                                                                                                                                                                    | INSTITUTE OF MICROELECTRONICS, CHINESE ACADEMY OF SCIENCES |               |                                                            |                     |                                               |         |            |                |            |                |            |
| Street Address:                                                                                                                                                                                                                                                                                                                                                                                          | No. 3 Beitucheng West Road, Chaoyang District              |               |                                                            |                     |                                               |         |            |                |            |                |            |
| City:                                                                                                                                                                                                                                                                                                                                                                                                    | Beijing                                                    |               |                                                            |                     |                                               |         |            |                |            |                |            |
| State/Country:                                                                                                                                                                                                                                                                                                                                                                                           | CHINA                                                      |               |                                                            |                     |                                               |         |            |                |            |                |            |
| Postal Code:                                                                                                                                                                                                                                                                                                                                                                                             | 100029                                                     |               |                                                            |                     |                                               |         |            |                |            |                |            |
| 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>13509551</td> </tr> </tbody> </table>                                                                                                                                                                                                                                |                                                            | Property Type | Number                                                     | Application Number: | 13509551                                      |         |            |                |            |                |            |
| Property Type                                                                                                                                                                                                                                                                                                                                                                                            | Number                                                     |               |                                                            |                     |                                               |         |            |                |            |                |            |
| Application Number:                                                                                                                                                                                                                                                                                                                                                                                      | 13509551                                                   |               |                                                            |                     |                                               |         |            |                |            |                |            |
| CORRESPONDENCE DATA                                                                                                                                                                                                                                                                                                                                                                                      |                                                            |               |                                                            |                     |                                               |         |            |                |            |                |            |
| <p>Fax Number: (202)346-4444</p> <p>Phone: 202-346-4000</p> <p>Email: AAlpha-Kpetewama@goodwinprocter.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: GOODWIN PROCTER LLP</p> <p>Address Line 1: 901 NEW YORK AVENUE, N.W.</p> <p>Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20001</p> |                                                            |               |                                                            |                     |                                               |         |            |                |            |                |            |
| ATTORNEY DOCKET NUMBER:                                                                                                                                                                                                                                                                                                                                                                                  | IME-023                                                    |               |                                                            |                     |                                               |         |            |                |            |                |            |
| NAME OF SUBMITTER:                                                                                                                                                                                                                                                                                                                                                                                       | CE LI                                                      |               |                                                            |                     |                                               |         |            |                |            |                |            |
| <p>Total Attachments: 4</p> <p>source=ExecutedAssignment#page1.tif</p> <p>source=ExecutedAssignment#page2.tif</p> <p>source=ExecutedAssignment#page3.tif</p> <p>source=ExecutedAssignment#page4.tif</p>                                                                                                                                                                                                  |                                                            |               |                                                            |                     |                                               |         |            |                |            |                |            |

OP \$40.00 13509551

## ASSIGNMENT

WHEREAS, Wei, ZHONG, Huicai, residing at 1089 Wilmington Avenue, San Jose, California 95129, United States of America; LUO, Jun, residing at No. 3 Beitucheng West Road, Chaoyang District, Beijing 100029, P.R. China; ZHAO, Chao, residing at 276 Platte Iestraat, Kessel-lo, B-3010, Belgium; and LIANG, Qingqing, residing at 28 Reggies Way, Lagrangeville, New York, New York 12540, United States of America have invented certain new and useful improvements in and to the subject matter of:

### METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE

described in an application for United States Letters Patent, filed on 11MAY2012, and accorded Application No. 13/509,551;

AND, WHEREAS, INSTITUTE OF MICROELECTRONICS, CHINESE ACADEMY OF SCIENCES, organized under the laws of China, having a place of business located at No. 3 Beitucheng West Road, Chaoyang District, Beijing 100029, P.R. China (hereinafter "ASSIGNEE"), is desirous of acquiring certain rights to the improvements and under the application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, our entire right, title and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto in and to said improvements, said United States application, any other United States applications, including provisional, divisional, renewal, substitute, continuation, reexamination and reissue applications, based in whole or in part on said United States application or in whole or in part on said improvements, any foreign applications, including international and regional applications, based in whole or in part on any of the aforesaid United States applications or in whole or in part on said improvements, and in and to any and all letters patent, including extensions thereof, of any country which have been or may be granted on any of the aforesaid applications or on said improvements or any parts thereof;

AND I hereby authorize and request our agents, Goodwin Procter LLP, whose address is 901 New York Ave., N.W., Washington, DC 20001, to insert hereon any identification necessary or desirable for recordation of this document, including the filing date and application number of said application when known.

AND I hereby agree for ourselves and our heirs, executors and administrators to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-referenced application or in the preparation or prosecution of any continuing, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents of any region or country, that may be necessary to secure to ASSIGNEE its interest and title in and to said improvements or any parts thereof, and in and to said several patents or any of them;

AND I hereby covenant for ourselves and our legal representatives, and agree with said ASSIGNEE, its successors and assigns, that we have granted no right or license to make, use, sell or offer to sell said improvements, to anyone except said ASSIGNEE, that prior to the execution of this deed, our right, title and interest in said improvements had not been otherwise encumbered, and that we have not and will not execute any instrument in conflict therewith;

AND I do hereby authorize and request the Director of the United States Patent and Trademark Office to issue any and all letters patent which may be granted upon said United States applications, or upon said improvements or any parts thereof when granted, to said ASSIGNEE.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

3/5/2012  
Date

Huicai Zhong  
ZHONG, Huicai

On this 5<sup>th</sup> day of March, 2012, before me personally appeared ZHONG, Huicai, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and acknowledged the same to be of his free act and deed.

Witnessed by YANG Fan  
(Signature)

YANG, Fan  
(Print Name)

Witnessed by FAN Zhengping  
(Signature)

FAN, Zhengping  
(Print Name)

3/5/2012  
Date

10/13  
LUO, Jun

On this 5<sup>th</sup> day of March, 2012, before me personally appeared LUO, Jun, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and acknowledged the same to be of his free act and deed.

Witnessed by Yang Fan  
(Signature)

YANG Fan  
(Print Name)

Witnessed by FAN Zhengping  
(Signature)

FAN Zhengping  
(Print Name)

3/5/2012  
Date

10/13  
ZHAO, Chao

On this 5<sup>th</sup> day of March, 2012, before me personally appeared ZHAO, Chao, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and acknowledged the same to be of his free act and deed.

Witnessed by Yang Fan  
(Signature)

YANG Fan  
(Print Name)

Witnessed by FAN Zhengping  
(Signature)

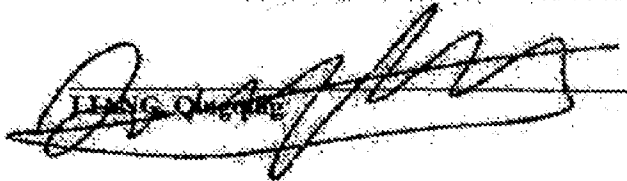
FAN Zhengping  
(Print Name)

PATENT APPLICATION

ATTORNEY DOCKET NO.:

CLIENT REFERENCE NO.: OP1111-01-1144

3/5/2012  
Date

LIANG, Qingqing  


On this 5<sup>th</sup> day of March, 2012, before me personally appeared LIANG, Qingqing, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and acknowledged the same to be of his free act and deed.

Witnessed by Yang Fan  
(Signature)

YANG, Fan  
(Print Name)

Witnessed by Fan Zhengping  
(Signature)

FAN, Zhengping  
(Print Name)