

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Seung hyun LIM</td> <td>06/18/2010</td> </tr> <tr> <td>Jeong hwan LEE</td> <td>06/16/2010</td> </tr> <tr> <td>Kun hee CHO</td> <td>06/16/2010</td> </tr> <tr> <td>Gun Hee HAN</td> <td>06/18/2010</td> </tr> <tr> <td>Kwi Sung YOO</td> <td>06/18/2010</td> </tr> <tr> <td>Seog heon HAM</td> <td>06/18/2010</td> </tr> </tbody> </table>		Name	Execution Date	Seung hyun LIM	06/18/2010	Jeong hwan LEE	06/16/2010	Kun hee CHO	06/16/2010	Gun Hee HAN	06/18/2010	Kwi Sung YOO	06/18/2010	Seog heon HAM	06/18/2010
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>SAMSUNG ELECTRONICS CO., LTD.</td> </tr> <tr> <td>Street Address:</td> <td>416, Maetan-dong, Yeongtong-gu</td> </tr> <tr> <td>City:</td> <td>Suwon-si, Gyeonggi-do</td> </tr> <tr> <td>State/Country:</td> <td>KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF</td> </tr> <tr> <td>Postal Code:</td> <td>442-742</td> </tr> </table>		Name:	SAMSUNG ELECTRONICS CO., LTD.	Street Address:	416, Maetan-dong, Yeongtong-gu	City:	Suwon-si, Gyeonggi-do	State/Country:	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF	Postal Code:	442-742				
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PROPERTY NUMBERS Total: 1															
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CORRESPONDENCE DATA															
<p>Fax Number: (571)283-0740</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 5712830720</p> <p>Email: rbennett@volentine.com</p> <p>Correspondent Name: Stephen R. Whitt</p>															

CH \$40.00 12828478

501222933

PATENT
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ATTORNEY DOCKET NUMBER:	SEC.2790
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NAME OF SUBMITTER:	Stephen R. Whitt
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Total Attachments: 5 source=SEC2790_Assignment#page1.tif source=SEC2790_Assignment#page2.tif source=SEC2790_Assignment#page3.tif source=SEC2790_Assignment#page4.tif source=SEC2790_Assignment#page5.tif

ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned

Insert
Name(s) of
Inventor(s)

- | | |
|--------------------------|-----------|
| 1. <u>Seung hyun LIM</u> | 7. _____ |
| 2. <u>Jeong hwan LEE</u> | 8. _____ |
| 3. <u>Kun hee CHO</u> | 9. _____ |
| 4. <u>Gun Hee HAN</u> | 10. _____ |
| 5. <u>Kwi Sung YOO</u> | 11. _____ |
| 6. <u>Seog heon HAM</u> | 12. _____ |

Insert
Name(s) of
Assignee(s) &

Address(es)

the undersigned hereby sell(s) and assign(s) to

SAMSUNG ELECTRONICS CO., LTD.
416, Maetan-dong, Yeongtong-gu,
Suwon-si, Gyeonggi-do 442-742, Republic of Korea

and

INDUSTRY-ACADEMIC COOPERATION FOUNDATION
Yonsei Univ., 134, Sinchon-dong,
Seodaemun-gu, Seoul, Republic of Korea

(hereinafter designated as the Assignee) the entire right, title and interest for the United States as defined in 35 USC 100, in the invention known as

CMOS IMAGE SENSOR AND IMAGE SIGNAL DETECTING METHOD

Title of
Invention

Date of
Signing of
Application

for which an application for patent in the United States of America has been executed by
the undersigned on June 16 and June 18, 2010

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuing, division or reissue thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned hereby grant(s) the practitioners associated with the **CUSTOMER NUMBER 20987** 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 Office for recordation of this document.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date 18 June 2010 Signature of Inventor

Seung hyun LIM

Date _____ Signature of Inventor

Jeong hwan LEE

Date _____ Signature of Inventor

Kun hee CHO

Date _____ Signature of Inventor

Gun Hee HAN

Date 2010. 06. 18 Signature of Inventor

Kwi Sung KOO

Date 2010. 06. 18 Signature of Inventor

Seog heon HAM

(Note regarding Witnessing: It is recommended that the execution by the Inventor(s) be witnessed by at least two witnesses who sign here. However, the current practice of the U.S. Patent and Trademark Office is to record an Assignment even it has not been witnessed.)

Witness _____

Witness _____

Applicant Reference No. IB-190633-US

The undersigned hereby grant(s) the practitioners associated with the **CUSTOMER NUMBER 20987** 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 Office for recordation of this document.

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date _____	Signature of Inventor _____	Seung hyun LIM
Date <u>2010.6.16</u>	Signature of Inventor _____	<u>Jeonghwan Lee</u> Jeong hwan LEE
Date _____	Signature of Inventor _____	Kun hee CHO
Date _____	Signature of Inventor _____	Gun Hee HAN
Date _____	Signature of Inventor _____	Kwi Sung YOO
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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date _____	Signature of Inventor _____	Seung hyun LIM
Date _____	Signature of Inventor _____	Jeong hwan LEE
Date <u>15/6/2016</u>	Signature of Inventor _____	<u>[Signature]</u> Kun, Hee CHO
Date _____	Signature of Inventor _____	Gun Hee HAN
Date _____	Signature of Inventor _____	Kwi Sung YOO
Date _____	Signature of Inventor _____	Seog heon HAM

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date _____	Signature of Inventor _____	Seung Hyun LEE
Date _____	Signature of Inventor _____	Seung Hyun LEE
Date _____	Signature of Inventor _____	Kun Hwa CHO
Date <u>June 18, 2010</u>	Signature of Inventor _____	Gunhee NAM
Date _____	Signature of Inventor _____	Kee Sung YOO
Date _____	Signature of Inventor _____	Seog Hoon NAM

(Note regarding Witnessing: It is recommended that the execution by the inventor(s) be witnessed by at least two witnesses who sign here. However, the current practice of the U.S. Patent and Trademark Office is to record an Assignment even it has not been witnessed.)

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Witness _____

Applicant Reference No. IA-190833-US