PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| Hyoung-Rae Kim | 12/08/2009 |
| Yong-Joon Jeon | 12/16/2009 |
| Gyu-Hyeong Cho | 12/16/2009 |
| Sung-Woo Lee | 12/16/2009 |
| Hyung-Min Lee | 12/16/2009 |
| Yoon-Kyung Choi | 12/08/2009 |

RECEIVING PARTY DATA

| Name: | AMSUNG ELECTRONICS CO., LTD. | | |
|-----------------|---------------------------------|--|--|
| Street Address: | 416, Maetan-dong, Yeongtong-gu, | | |
| City: | Suwon-si, Gyeonggi-do, | | |
| State/Country: | REPUBLIC OF KOREA | | |
| Postal Code: | Gode: 442-742 | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12639117 |

CORRESPONDENCE DATA

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|-------------------------|-------------------|
| NAME OF SUBMITTER: | ADAM C. VOLENTINE |

PATENT 501042550 **REEL: 023661 FRAME: 0240**

Total Attachments: 3
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ASSIGNMENT

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

| Insert | | | | | |
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| Name(s) of Inventor(s) | I. Hyoung-Rac Kin | ne - | 7. | | |
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| | 4. Sung-Woo Lee | 19 (10 m) 19 (10 m) 19 (10 m) | 10 | | |
| | 5 Hyung-Min Lee | | 11. | | |
| | 6. Yoon-Kyung Che | oi. | 12. | en e | |
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| Assignee(s) & | | | | | erangementer and anti-encouragement and additional and a second and a |
| Address(cs) | | Sung-Woo Lee 10. Hyung-Min Lee 11. Yoon-Kyung Choi 12: Idersigned hereby sell(s) and assign(s) to SAMSUNG ELECTRONICS CO. LTD. 416, Maetan-doing, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-742, Republic of Korea inafter designated as the Assignes) the entire right, title and interest for the United as defined in 35 USC 100, in the invention known as TAL-TG-ANALOG CONVERTER, SOURCE DRIVING CIRCUIT AND ELAY DEVICE HAVING THE SAME high an application for patent in the United States of America has been executed by | | | |
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| | (hereinafter designated as | he Assignes) the | entire nghi, estira kasar | inle and imercsi n | ir the United |
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| Date of | for which an application for | er patent in the U | nited States (| of America has bee | n executed by |
| Signing of Application | the undersigned on | December 8, | 2009 and | December 16, | 2009 |
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| <u>.</u> | application and any contin | o execute an par uina divisional a | era necessar or reissue aor | y in connection with | nd also to |
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| * West (1) | The undersigned agree(s) | o execute all par | ers Becessar | v in connection wi | h anv |
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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 agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

The undersigned hereby grant(s) the practitioners associated with the <u>CUSTOMER NUMBER 20987</u> 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.

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

| Date _ | Dec 8, 2009 | Signature of Inventor | Hydery Rae Tri |
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| _ | • | | Hyoring-Rae-Kim |
| Date | | Signature of Inventor | |
| | , | | Yong-Joon Jeon |
| Dete | | Signature of Inventor | |
| Date _ | | ACCOUNT TO THE TOTAL OF THE PARTY OF THE PAR | Gyu-Hyeong Cho |
| Data | | Signature of Inventor | |
| Date _ | | Signature of the Action | Sung-Woo Les |
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| Date | | Signature of Inventor | Byung-Min Lee |
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PATENT REEL: 023661 FRAME: 0243

RECORDED: 12/16/2009

The undersigned hereby grant(s) the practitioners associated with the <u>CUSTOMER NUMBER 20987</u> 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.

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| | | | fyring-Ras Kia | • | |
| Date / | 6. Dec song | Signature of Inventor | 195 | · · · · · · · · · · · · · · · · · · · | |
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| Date | | Signature of Inventor | Youn-Ryung Choi | | |
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