PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| Seung Wook Park | 09/09/2013 |
| Jae Hyun Lim | 09/09/2013 |
| JUNG SUN KIM | 09/23/2013 |
| Joon Young PARK | 09/10/2013 |
| Young Hee CHOI | 09/23/2013 |
| Byeong Moon Jeon | 09/09/2013 |
| Yong Joon JEON | 09/09/2013 |

RECEIVING PARTY DATA

| Name: | LG ELECTRONICS INC. |
|-----------------|-----------------------------------|
| Street Address: | 20, YEOUIDO-DONG, YEONGDEUNGPO-GU |
| City: | SEOUL |
| State/Country: | KOREA, REPUBLIC OF |
| Postal Code: | 150-721 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14129216 |

CORRESPONDENCE DATA

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 (202) 783-5070

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 apsi@fr.com

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Correspondent Name: JEREMY J. MONALDO
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ATTORNEY DOCKET NUMBER: 21613-0101US1 PATENT

502613685 REEL: 031846 FRAME: 0778

| NAME OF SUBMITTER: | SHARON M. ALLEN |
|--|-------------------|
| Signature: | /Sharon M. Allen/ |
| Date: | 12/25/2013 |
| Total Attachments: 6 source=21613-0101US1 assgn#page1.tif source=21613-0101US1 assgn#page2.tif source=21613-0101US1 assgn#page3.tif source=21613-0101US1 assgn#page4.tif source=21613-0101US1 assgn#page5.tif source=21613-0101US1 assgn#page6.tif | |

ASSIGNMENT

For valuable consideration, we, <u>PARK</u>, <u>Seungwook</u> of <u>LG Electronics Inc.</u>, <u>Convergence R&D</u> Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 Republic of Korea, LIM, Jaehyun of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 Republic of Korea, KIM, Jungsun of LG Electronics Inc., Convergence R&D Lab., 221 Yangiaedong, Seocho-gu Seoul 137-130 Republic of Korea, PARK, Joonyoung of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 Republic of Korea, CHOI, Younghee of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seochogu Seoul 137-130 Republic of Korea, JEON, Byeongmoon of of LG Electronics Inc., Convergence R&D Lab., 221 Yangiae-dong, Seocho-gu Seoul 137-130 Republic of Korea and JEON, Yongjoon of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seochogu Seoul 137-130 Republic of Korea, hereby assign to: LG ELECTRONICS INC., a corporation of Republic of Korea having a place of business at: 20, Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-721 Republic of Korea; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled **IMAGE INFORMATION ENCODING AND DECODING** METHOD, filed on December 24, 2013, and assigned U.S. Serial Number 14/129,216 , and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment

PARK, Seungwook

Date: 2013, 9,9

| Lower | Date: | 2013.9.9 |
|-----------------------------|---------|-----------------------|
| LIM, Jaehyun | | |
| KIM, Jungsun | Date: | 2013. 9.23 |
| PARK, Joonyoung | Date: | |
| CHOI, Younghee | Date: | |
| JEON, Byeongmoon | Date: _ | 2013. 9. 9 |
| JEON Yong joon | Date: _ | ج. في المحر |
| Witnessed by: | | |
| Name: Myo-RTyn. PARK | Date: | Dec. 23, 20/3 |
| 40614328.doc Hyo-RTyn. PARK | _ | |

ASSIGNMENT

| For valuable consideration, we, PARK, Seungwook of LG Electronics Inc., Convergence R&D |
|--|
| Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 Republic of Korea, LIM, Jaehyun of LG |
| Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 |
| Republic of Korea, KIM, Jungsun of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae- |
| dong, Seocho-gu Seoul 137-130 Republic of Korea, PARK, Joonyoung of LG Electronics Inc., |
| Convergence R&D Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 Republic of Korea, |
| CHOI, Younghee of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seocho- |
| gu Seoul 137-130 Republic of Korea, JEON, Byeongmoon of of LG Electronics Inc., |
| Convergence R&D Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 Republic of Korea and |
| JEON, Yongjoon of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seocho- |
| gu Seoul 137-130 Republic of Korea, hereby assign to: LG ELECTRONICS INC., a |
| corporation of Republic of Korea having a place of business at: 20, Yeouido-dong, |
| Yeongdeungpo-gu, Seoul, 150-721 Republic of Korea; and its successors and assigns |
| (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the |
| world in the inventions and improvements which are subject of an application for United States |
| Patent signed by us, entitled IMAGE INFORMATION ENCODING AND DECODING |
| METHOD, filed on, and assigned U.S. Serial Number, and we authorize and request the attorneys appointed in said |
| Number, and we authorize and request the attorneys appointed in said |
| application to hereafter complete this assignment by inserting above the filing date and serial |
| number of said application when known; this assignment including said application, any and all |
| United States and foreign patents, utility models, and design registrations granted for any of said |
| inventions or improvements, and the right to claim priority based on the filing date of said |
| application under the International Convention for the Protection of Industrial Property, the |
| Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like |
| purposes; and we authorize the Assignee to apply in all countries in our name or in its own name |
| for patents, utility models, design registrations and like rights of exclusion and for inventors' |
| certificates for said inventions and improvements; and we agree for ourselves and our respective |
| heirs, legal representatives and assigns, without further compensation to perform such lawful acts |
| and to sign such further applications, assignments, Preliminary Statements and other lawful |
| documents as the Assignee may reasonably request to effectuate fully this assignment |
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| Date: |
| PARK, Seungwook |

| LIM, Jaehyun | Date: |
|----------------------|----------------------------|
| KIM, Jungsun | Date: |
| PARK, Joonyoung | Date: |
| CHOI, Younghee | Date: 25th Sep 2513 |
| JEON, Byeongmoon | Date: |
| JEON, Yongjoon | Date: |
| Witnessed by: Name: | Date: <u>Nec. 23, 20/3</u> |

ASSIGNMENT

| For valuable consideration, we, <u>PARK, Seungwook of LG Electronics Inc., Convergence R&D</u> |
|--|
| Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 Republic of Korea, LIM, Jaehyun of LG |
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| Republic of Korea, KIM, Jungsun of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae |
| dong, Seocho-gu Seoul 137-130 Republic of Korea, PARK, Joonyoung of LG Electronics Inc., |
| Convergence R&D Lab., 221 Yangiae-dong, Seocho-gu Seoul 137-130 Republic of Korea, |
| CHOI, Younghee of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seocho- |
| gu Seoul 137-130 Republic of Korea, JEON, Byeongmoon of of LG Electronics Inc., |
| Convergence R&D Lab., 221 Yangjae-dong, Seocho-gu Seoul 137-130 Republic of Korea and |
| JEON, Yongjoon of LG Electronics Inc., Convergence R&D Lab., 221 Yangjae-dong, Seocho- |
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| METHOD, filed on, and assigned U.S. Serial Number, and we authorize and request the attorneys appointed in said |
| Number, and we authorize and request the attorneys appointed in said |
| application to hereafter complete this assignment by inserting above the filing date and serial |
| number of said application when known; this assignment including said application, any and all |
| United States and foreign patents, utility models, and design registrations granted for any of said |
| inventions or improvements, and the right to claim priority based on the filing date of said |
| application under the International Convention for the Protection of Industrial Property, the |
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| documents as the Assignee may reasonably request to effectuate fully this assignment |
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| Date: |
| PARK, Seungwook |

| LIM, Jaehyun | Date: |
|-----------------------------------|---------------------|
| KIM, Jungsun | Date: |
| PARK, Joonyoung | Date: Sq. 15.2013. |
| CHOI, Younghee | Date: |
| JEON, Byeongmoon | Date: |
| JEON, Yongjoon | Date: |
| Witnessed by: Name: Myo-RTM PARK | Date: Dec, 23, 20/3 |

PATENT REEL: 031846 FRAME: 0785

RECORDED: 12/25/2013