502336297 05/06/2013

PATENT ASSIGNMENT

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

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| Junhyeon HWANG | 04/24/2013 |
| Hongseok CHOI | 04/24/2013 |
| Changhwan CHO | 04/24/2013 |

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: | 13887728 | |

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| ATTORNEY DOCKET NUMBER: | PBC-0383 | |
|-------------------------|-------------------|--|
| NAME OF SUBMITTER: | Carol L. Druzbick | |
| Signature: | /cld/ | |
| Date: | 05/06/2013 | |

Total Attachments: 1

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PATENT

REEL: 030355 FRAME: 0655

Docker No.:

PBC-0383

ASSIGNMENT

| In consideration of the | premises and other ! | good and valuable | consideration in | hand paid, th | e receipt and |
|------------------------------------|-----------------------|-------------------|------------------|---------------|---------------|
| sufficiency of which is hereby ack | nowledged, the unders | igned. | | | |

| (1) | Junhyeon HWANG | (4) | |
|-----|----------------|-----|--|
| (2) | Hongseok CHOI | (5) | |
| (3) | Changhwan CHO | (6) | |

who have made a certain new and useful invention, hereby sell, assign and transfer unto

LG Electronics Inc. 20 Yeouido-dong, Yeongdeungpo-gu Seoul 150 - 721Republic of Korea

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

HEAT EXCHANGER

- (a) for which an application for United States Letters Patent was filed on, and identified by United States Serial No.; or
- (b) for which an application for United States Letters Patent was executed on _____

and the undersigned hereby authorize and request the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefor and/or that claim priority thereto and any and all extensions, divisions, reissues, substitutes, renewals, continuations, or continuations-in-part thereof and/or that claim priority thereto, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agree that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agree to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

AND the undersigned hereby grants the firm of KED & ASSOCIATES, LLP the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of any issuing authority, including the United States Patent and Trademark Office, for recordation of this document.

SIGNED on the dates indicated aside our signatures:

| INVENTORS Jun hyeon HWANG | DATE SIGNED 2013. 4.24 |
|----------------------------|--|
| Name: Junhyeon HWANG | |
| Hongreak CHOI | 2013, 4.24 |
| Name:Hongscok CHOI | |
| Changham CHO | 2013 . 4,24 |
| Name:Changhwan CHO | |
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PATENT REEL: 030355 FRAME: 0656