| | 11/16/2011 FORM PTO-1595 U.S. DEPARTMENT OF COMM | | |
|-------------|--|--|--|
| AP | | | |
| То | the Director of the U.S. Patent and Trade. 103636448 | | |
| 4 ZU1 1. | ame of conveying party(ies): | | |
| DEMARY | がtak Soo KIM ・ Keon Soo CHOI | | |
| JEN | Young Jun CHO | | |
| 2. | Name and Address of receiving party(ies): SAMSUNG ELECTRONICS CO., LTD. | | |
| | 416, Maetan-dong, Yeongtong-gu, | | |
| | Suwon-si, Gyeonggi-do | | |
| | Republic of Korea | | |
| 3. | Nature of conveyance: _X_ Assignment Merger | | |
| | Security Agreement Change of Name | | |
| | Other: Execution Date(s): November 11, 2011 | | |
| 4. | Application number(s) or patent number(s): | | |
| | This document is being filed together with a new application. OR | | |
| | ☐ This document is being filed after filing of the application: | | |
| | (a) Patent Application No(s). <u>13/320,061</u> , filed <u>November 11, 2011</u> ; or (b) Patent No(s). , issued . | | |
| 5. | Name and address of party to whom correspondence concerning document should be mailed: | | |
| J . | STAAS & HALSEY LLP Our Docket: 2294.1452 | | |
| | Attention: Gene M. Garner, II. 1201 New York Ave., N.W., 7th Floor | | |
| | Washington, D.C. 20005 | | |
| 6. | Total number of applications and patents involved:1 | | |
| 7. | Total fee (37 CFR 3.41) (\$ 40.00 per Patent or Application in Assignment) | | |
| | ☑ Enclosed☐ Authorized to be charged to credit card. | | |
| | Authorized to be charged to deposit account. | | |
| 8. | Deposit Account No.: 19-3935 (Any underpayment is authorized to be charged to this Deposit | | |
| | Account) (Attach duplicate copy of this page if paying by deposit account) | | |
| | | | |
| | NAA A | | |
| | e M. Garner, II, Reg. No. 34,172 November 11, 2 | | |
| Nam | e of Person Signing Signature 1/16/2011 TLEE11 Date: 13326061 | | |
| | Total number of pages including cover sheet: | | |

PATENT

REEL: 027328 FRAME: 0241

U.S. ASSIGNMENT

IN CONSIDERATION of the sum of One Dollar (\$1.00), and of other good and valuable consideration paid to the undersigned inventor(s) (hereinatter, "ASSIGNOR") by

(Insert Namo(s) & Address(os) of ASSIGNEF(S))

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

theroinafter, "ASSIGNEE"), the receipt of which is hereby acknowledged, the undersigned ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, little and interest to the invention entitled (Title of Invention)

| (Title of Invantion) | • · · · · · · · · · · · · · · · · · · · |
|---|---|
| DUST-COLLECTING APPAR | ATUS WITH A PACKING MEMBER |
| rolating to Intérnational Patent Applicatio States was executed on even date herev | n PCT/JP/and/or for which application for Letters Patent of the United with or, if not so exocuted, was. |
| (a) exocuted on . | (Insert date of execution of application, if not concurrent) |
| (b) filed on | Any registered alterney of STAAS & HALSEY LLP, 1201 New York |
| Sorial No. ; | Avenue, N.W., Sulte 700 Washington, D.C. 20005 (202/434-1500) is hereby authorized to insert in (b) the specified data, when known. |
| | |
| and to said application and all Lettors Pat | ent(s) of the United States granted on said application and any continuation, division, sonewo |

and to said application and all Lettors Patern(s) of the United States granted on said application and any continuation, division, nonewal substitute, foliable or reexamination application based thereon, for the full term or forms for which the said Letters Patern(s) may be granted and including any extensions thereof (collectively, horomafter, "said application(s) and Letters Patern(s).")

The ASSIGNOR agree(s), when requested by said ASSIGNEE and without charge to but at the expense of said ASSIGNEE, to do all acts which the ASSIGNEE may deem necessary, doctrable or expedient, for securing, maintaining and enforcing protection for said invention, including in the preparation and prosocution of said application(s) and the Issuance of said Leiters Patent(s) in any interference, reissure, reexamination, or public use proceeding, and in any fitigation or other logal proceeding which may know or be declared in relation to same, such acts to include but not be finited to executing all papers, including coparate assignments and challenging, taking all rightful reaths, providing every testimony, and obtaining and producing evidence.

| IN WITNESS WHITREOF, the undersigned in (Typed Name & Signature of Inventor(s)) | (Date) | eritheir signature(s) (Typed Name & Signature of Wilness(os)) |
|--|--|--|
| Tak Soo KIM | Nov. 11. 2011 | |
| 2) Keon Soo CHOI | Nov. 11. 2011 | |
| 3) Young Jun Cho Young Jun CHO | Nov. 11.2011 | |
| a) | The state of the s | · · · · · · · · · · · · · · · · · · · |
| 5) | - | |
| 6) | | manufacture of the second of t |
| 7) | | |

PATENT REEL: 027328 FRAME: 0242

RECORDED: 11/14/2011