501991515 07/17/2012

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 |
|------------------------------------|----------------|
| BINGZHOU CHEN | 11/23/2011 |
| GUOPING ZHANG | 11/22/2011 |
| MARTIJN HENRI RICHARD LANKHORST | 03/08/2012 |
| ROGER HENRI DENKER | 03/29/2012 |
| JEROEN SNELTEN | 11/22/2011 |
| DENNIS JOHANNES ANTONIUS CLAESSENS | 06/28/2012 |
| LUDO HAENEN | 03/30/2012 |
| JACOBUS HUBERTUS ANNA SELEN | 11/23/2011 |
| PATRICK VAN KOOTEN | 11/23/2011 |

RECEIVING PARTY DATA

| Name: | Koninklijke Philips Electronics N V | |
|-----------------|-------------------------------------|--|
| Street Address: | Groenewoudseweg 1 | |
| City: | Eindhoven | |
| State/Country: | NETHERLANDS | |
| Postal Code: | 5621 BA | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13376294 |

CORRESPONDENCE DATA

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PATENT REEL: 028567 FRAME: 0045 :H \$40.00 1337629

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| Address Line 4: BRIARCLIFF N | INR., NEW YORK 10510-8001 | |
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| ATTORNEY DOCKET NUMBER: | 2009P00658WOUS | |
| NAME OF SUBMITTER: | MARK L. BELOBORODOV | |
| Total Attachments: 17 | | |
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| and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke F N.V., having a place of business at Groenewoudseweg 1, 5621 BA Eindhoven, the Netherlands, its succeeding legal representatives, including any nominees (collectively "the Assignee") my/our invention for which is | cessors, assigns, and |
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| is executed concurrently herewith is executed by me/us on | |
| and all rights in and to said application, and all other United States, foreign and international patent application, based thereon, or claiming priority therefrom including, but not limited to, any and all provisi provisionals divisions, continuations, continuations-in-part, re-examinations, reissues, and extensions the claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents gapplications. | sionals, non- nereof, and the right to |
| I/We authorize and request that the Patent Office officials in the United States and in any and all foreign any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its success legal representatives. | |
| I/We will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interestent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful or legal proceedings including patent prosecution actions and infringement actions, and do all other such accessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for the thereto in the Assignee. | eaths, testify in all acts which may be |
| I/We certify that I/we have the full right to convey the above rights. | |
| 23 Nov. 20 // (sign name here) , Ass Date (print name here) Bingzhou CHEN | ssignor |
| Date (print name here) Guoping ZHANG | |
| Date (print name here) Martijn Henri Richard LANKHORST | |

Roger Henri DENKER

(print name here)

Date

| Date | (print name here) | Jeroen SNELTEN | |
|------|-------------------|---------------------------------------|--|
| Date | (print name here) | Dennis Johannes Antonius CLAESSENS | |
| Date | (print name here) | Ludo HAENEN | |
| Date | (print name here) | JACOBUS HUBERTUS ANNA SELEN | |
| Date | (print name here) | Patrick VAN KOOTEN | |

| and assign, and trans | sfer the entire and exclusive r | ight, title, and interest in the following to K | oninklijke Philips Electronics |
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| N.V., having a place | of business at Groenewouds | eweg 1, 5621 BA Eindhoven, the Netherlan | ds, its successors, assigns, and |
| legal representatives | s, including any nominees (co | llectively "the Assignee") my/our invention | for which an application: |
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| is executed conc | • | | |
| • | me/us on | | |
| | | ving a Serial No. | |
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| and all rights in and | to said application, and all of | her United States, foreign and international | patent applications associated |
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| claim priority theret | o, and the entire and exclusiv | e right, title, and interest in and to any and a | ill patents granted on these |
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| iogai representative: |). | | |
| I/We will provide m | y/our cooperation to enable t | he Assignee to enjoy the foregoing right, titl | le, and interest to the fullest |
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Roger Henri DENKER

(print name here)

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| Date | (print name here) | Jeroen SNELTEN | |
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| Date | (print name here) | Dennis Johannes Antonius CLAESSENS | |
| Date | (print name here) | Ludo HAENEN | |
| Date | (print name here) | JACOBUS HUBERTUS ANNA SELEN | |
| Date | (noint name here) | Patrick VAN KOOTEN | |

| and assign, and transf | er the entire and exclusive r | ight, title, and interest in the following to Koni | nklijke Philips Electronics |
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| N.V., having a place | of business at Groenewouds | eweg 1, 5621 BA Eindhoven, the Netherlands, | its successors, assigns, and |
| legal representatives, | including any nominees (co | llectively "the Assignee") my/our invention for | r which an application: |
| is executed concur | rrently herewith | | |
| was executed by n | ne/us on | | |
| was filed on | , ha | ving a Scrial No. | \$100 C |
| was filed on. 2010 | -Jun-04, having an Interna | tional Application No. IB2010/052491, | |
| and all rights in and to | o said application, and all ot | her United States, foreign and international par | tent applications associated |
| therewith, based there | on, or claiming priority the | refrom including, but not limited to, any and al | l provisionals, non- |
| provisionals divisions | s, continuations, continuatio | ns-in-part, re-examinations, reissues, and exter | nsions thereof, and the right to |
| claim priority thereto, | and the entire and exclusiv | e right, title, and interest in and to any and all p | patents granted on these |
| applications. | | | |
| | | officials in the United States and in any and al the Assignee(s), for its sole use, and that of its | - |
| extent. Upon request legal proceedings incl | at the expense of the Assign luding patent prosecution ac or convenient for securing a | he Assignee to enjoy the foregoing right, title, nee, I/we agree to execute all papers, take all ritions and infringement actions, and do all other and maintaining patents on the foregoing invent | ghtful oaths, testify in all r such acts which may be |
| I/We certify that I/we | have the full right to conve | y the above rights. | |
| | (sign name here) | | , Assignor |
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| Poto | (print name here) | Guoping ZHANG | |
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| Date | (print name here) | JACOBUS HUBERTUS ANNA SELEN | <u></u> |
| Date | (print name here) | Patrick VAN KOOTEN | |

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For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips Electronics

| | | eweg 1, 5621 BA Eindhoven, the Netherlands llectively "the Assignee") my/our invention f | |
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| | /us on | ······································ | 3X0X10 |
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| extent. Upon request at legal proceedings inclu- | the expense of the Assign fing putent prosecution ac convenient for securing a | ne Assignce to enjoy the foregoing right, title, nee, I/we agree to execute all papers, take all rations and infringement actions, and do all other maintaining patents on the foregoing inver | ightful caths, testify in all er such acts which may be |
| I/We certify that I/we h | ave the full right to conve | y the above rights. | |
| | (sign name here) | | , Assignor |
| Date | (print name here) | Bingzhou CHEN | |
| Date | (print name here) | Guoping ZHANG | |
| Date | (print name here) | Martija Henri Richard LANKHORST | |
| 2 <u>3-3-2242</u> Nate | RHDW/CR (print name here) | Roger Houri DENKER | |

U.S.A. Sole/Joint

| • | | ight, title, and interest in the following to Ko wweg 1, 5621 BA Eindhoven, the Netherland | • |
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| legal representat | ives, including any nominees (co | llectively "the Assignee") my/our invention | for which an application: |
| | oncurrently herewith | convenience and a second | |
| | • | ving a Serial No. | 9123101 |
| was filed on. | 2010-Jun-04, having an Interna | tional Application No. IB2010/052491, | |
| and all rights in | and to said application, and all of | her United States, foreign and international p | atent applications associated |
| therewith, based | thereon, or claiming priority the | refrom including, but not limited to, any and | all provisionals, non- |
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| claim priority the applications. | ereto, and the entire and exclusiv | e right, title, and interest in and to any and al | l patents granted on these |
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| extent. Upon reclegal proceeding | quest at the expense of the Assign is including patent prosecution ac able, or convenient for securing a | he Assignee to enjoy the foregoing right, title nee, I/we agree to execute all papers, take all tions and infringement actions, and do all oth nd maintaining patents on the foregoing inve | rightful oaths, testify in all er such acts which may be |
| I/We certify that | I/we have the full right to conve | y the above rights. | |
| | (sign name here) | | , Assignor |
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| Date | (print name here) | Gnoping ZHANG | |
| Date | (print name here) | Martija Henri Richard LANKHORST | |
| Date | (nrint name here) | Rooer Henri DENKER | |

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell,

| 5 5 WOO SO !! | | | / 7/ |
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| Date | (print name here) | Jeroen SNELTEN | |
| Date | (print name here) | Dennis Johannes Antonius CLAESSENS | |
| Date | (print name here) | Ludo HAENEN | |
| Date | (print name here) | JACOBUS HUBERTUS ANNA SELEN | |
| Date | (print name here) | Patrick VAN KOOTEN | |

U.S.A. Sole/Joint

ASSIGNMENT

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips Electronics

| - | | eweg 1, 5621 BA Eindhoven, the Netherlands dlectively "the Assignee") my/our invention f | |
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| is executed c | concurrently herewith | | |
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| Date | (print name here) | Bingzhou CHEN | |
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| Date | (print name here) | Martijn Henri Richard LANKHORST | |
| Date | (print name here) | Roger Henri DENKER | |

| Date | (print name here) | Jeroen SNELTEN | |
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| Date 28-06-202 | (print name here) | Dennis Johannes Antonius CLAESSENS | |
| Date | (print name here) | Ludo HAENEN | |
| Date | (print name here) | JACOBUS HUBERTUS ANNA SELEN | |
| Date | (print name here) | Patrick VAN KOOTEN | |

| N.V., having a place of b | ousiness at Groenewoudse | ght, title, and interest in the following to Konix sweg 1, 5621 BA Eindhoven, the Netherlands, lectively "the Assignee") my/our invention for | its successors, assigns, and |
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| and all rights in and to sa | aid application, and all otl | ner United States, foreign and international pat | ent applications associated |
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| provisionals divisions, c | ontinuations, continuation | ns-in-part, re-examinations, reissues, and exten | sions thereof, and the right to |
| claim priority thereto, ar applications. | nd the entire and exclusive | e right, title, and interest in and to any and all p | atents granted on these |
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| I/We certify that I/we ha | eve the full right to conve | y the above rights. | |
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| LLALE | (sign name here) | NY / ANYTON | , Assignor |
| Date | (print name here) | Bingzhou CHEN | |
| Date | (print name here) | Guoping ZHANG | |
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| Date | (print name here) | Martijn Henri Richard LANKHORST | |
| Date | (print name here) | Roger Henri DENKER | |

| Date | (print name here) | Jeroen SNELTEN | |
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| Date | (print name here) | Dennis Johannes Antonius CLAESSENS | |
| <u>30-03-2012</u> Date | (print name here) | Ludo HAENEN | |
| Date | (print name here) | JACOBUS HUBERTUS ANNA SELEN | |
| Date | (print name here) | Patrick VAN KOOTEN | |

ASSIGNMENT Docket No. 2009P00658WOUS

U.S.A. Sole/Joint

Date

Date

Date

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips Electronics N.V., having a place of business at Groenewoudseweg 1, 5621 BA Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

| and all rights in and to said application, and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, non-provisionals divisions, continuations, continuations-in-part, re-examinations, reissues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications. I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issue any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its successors, assigns, and legal representatives. I/We will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest | legal proceedings | including patent prosecution a | tions and infringement actions, and do all other such acts which may be not maintaining patents on the foregoing invention or for perfecting title |
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| therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, non- provisionals divisions, continuations, continuations-in-part, re-examinations, reissues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications. I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issue any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its successors, assigns, and legal representatives. | extent. Upon requ | uest at the expense of the Assig | nee, I/we agree to execute all papers, take all rightful oaths, testify in all |
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Guoping ZHANG

Roger Henri DENKER

Martijn Henri Richard LANKHORST

(print name here)

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| Date | (print name here) | Jeroen SNELTEN | |
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| Date | (print name here) | Dennis Johannes Antonius CLAESSENS | |
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| 2.3.1/2.018 Date | (print name here) | JACOBUS HUBERTUS ANNA SELEN | |
| Date | (print name here) | Patrick VAN KOOTEN | |

U.S.A. Sole/Joint ASSIGNMENT Docket No. 2009P00658WOUS

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell,

| N.V., having a p | lace of business at Groenewouds | right, title, and interest in the following to Kon seweg 1, 5621 BA Eindhoven, the Netherlands ollectively "the Assignee") my/our invention for | , its successors, assigns, and |
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| | (sign name here) | | , Assignor |
| Date | (print name here) | Bingzhou CHEN | |
| Date | (print name here) | Guoping ZHANG | |
| Date | (print name here) | Martijn Henri Richard LANKHORST | |
| Date | (print name here) | Roger Henri DENKER | |

| Date | (print name here) | Jeroen SNELTEN | |
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| Date | (print name here) | Dennis Johannes Antonius CLAESSENS | |
| Date | (print name here) | Ludo HAENEN | |
| Date | (print name here) | JACOBUS HUBERTUS ANNA SELEN | |
| 23-11-2911 Date | (print name here) | Patrick VAN KUNTEN | *************************************** |

RECORDED: 07/17/2012