504297778 03/30/2017

PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| SAPNA A. SHROFF | 02/16/2012 |
| KATHRIN BERKNER | 02/16/2012 |
| LINGFEI MENG | 02/16/2012 |

RECEIVING PARTY DATA

| Name: | RICOH CO., LTD. | |
|-----------------|----------------------------------|--|
| Street Address: | 3-6, NAKAMAGOME 1-CHOME, OHTA-KU | |
| City: | TOKYO | |
| State/Country: | JAPAN | |
| Postal Code: | 143-8555 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14225397 |

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Address Line 2: ATTN MICHAEL W. FARN

Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94041

| ATTORNEY DOCKET NUMBER: | 20412-26489 | |
|--|-------------|--|
| NAME OF SUBMITTER: MICHAEL W. FARN, REG. NO. 41015 | | |
| SIGNATURE: /Michael W. Farn/ | | |
| DATE SIGNED: 03/30/2017 | | |

Total Attachments: 3

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PATENT 504297778 REEL: 041795 FRAME: 0005

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to **Ricoh Co.**, **Ltd.**, a corporation of **Japan** having a place of business at 3-6, Nakamagome 1-Chome, Ohta-ku, Tokyo, Japan 143-8555 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

- 1. The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the following provisional application filed under 35 U.S.C. § 111(b), non-provisional application filed under 35 U.S.C. § 111(a), international application filed according to the Patent Cooperation Treaty (PCT), or U.S. national phase application filed under 35 U.S.C. § 371 ("APPLICATION"):
 - Application No. <u>13/398,813</u>, entitled "Design and Optimization of Plenoptic Imaging Systems," filed on <u>February 16, 2012</u>.
 - 2. The entire worldwide right, title, and interest in and to:
- (a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all provisional, utility, divisional, continuation, substitute, renewal, reissue, and other applications related thereto which have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) which may be granted on the applications set forth in (a), (b), and (c) above; and (e) all right of priority in the APPLICATION and in any underlying provisional or foreign application, together with all rights to recover damages for infringement of provisional rights.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

| Title: Filed: Application No.: | Design and Optimization of Plenop February 16, 2012 13/398,813 | otic Imaging Systems | |
|---|--|---|--|
| | | e or more counterparts, each of which shall be together as one and the same Assignment. | |
| Name and Signature | e | Date of Signature | |
| Sapna A. Shroff | ······ | 02/16/2012 | |
| State of | } }ss. | | |
| County of | } | | |
| the person whose nan executed the same in person, or the entity u | Sapna A. Shroff, who proved to ne is subscribed to the within instable his/her authorized capacity, and to upon behalf of which the person a | , Notary Public, me on the basis of satisfactory evidence to be rument and acknowledged to me that he/she hat by his/her signature on the instrument the cted, executed the instrument. | |
| foregoing is true and | | if the laws of the State of Camornia that the | |
| WITNESS m | y hand and official seal. | | |
| | | Notary | |
| Name and Signature | e | Date of Signature | |
| Kathrin Berkner | | 02/16/2012 | |
| State of | }ss. | | |
| | } | | |
| the person whose nan executed the same in | ne is subscribed to the within instr | | |
| I certify unde foregoing is true and | | er the laws of the State of California that the | |
| WITNESS m | y hand and official seal. | | |

2 of 3

Notary

| Title: Fited: Application No.: | Design and Optimization of Plenoptic Imaging Systems February 16, 2012 13/398,813 | |
|--|---|---|
| Name and Signate Lingfei Meng | ure Mu | Date of Signature $\sigma \frac{2}{3} / \frac{16}{3} = \frac{2}{3} = \frac{2}{3}$ |
| State of | | |
| On before me,, Notary Public, personally appeared <u>Lingfei Meng</u> , who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. | | |
| I certify unconforegoing is true and | der PENALTY OF PERJURY und d correct. | ler the laws of the State of California that the |
| WITNESS 1 | ny hand and official seal. | |
| | | |

Case Docket 20412-19822

RECORDED: 03/30/2017

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20412/19822/DOCS/2598750.1

Notary

PATENT REEL: 041795 FRAME: 0008