502054101 09/10/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| Yosuke IDE | 08/03/2012 |
| Masamichi SAITO | 08/03/2012 |

RECEIVING PARTY DATA

| Name: | ALPS ELECTRIC CO., LTD. | | |
|-----------------|----------------------------------|--|--|
| Street Address: | 1-7 Yukigaya-otsukamachi, Ota-ku | | |
| City: | Tokyo | | |
| State/Country: | JAPAN | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number | |
|---------------------|----------|--|
| Application Number: | 13607467 | |

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: ALPSP450

NAME OF SUBMITTER: Masako Ando

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PATENT REEL: 028928 FRAME: 0133 CH \$40,00 13607

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Total Attachments: 2

ASSIGNMENT

| TENTETENTS TO A CO. | Yosuke | 1.101. | ಹಿಣ್ಣಾ | Masamichi | SAITO |
|---------------------|--------|--------|--------|-----------|-------|
| WHEREAS, _ | | | | | |

hereinafter called the "Assignors", have made the invention described in the United States patent application entitled

magnetic sensor and magnetic balance type current sensor utilizing same

executed by Assignors on the same date as this Assignment;

WHEREAS, ALPS ELECTRIC CO., LTD., a corporation organized and existing under the laws of Japan, having a place of business at 1-7 Yukigaya-otsukamachi, Ota-ku, Tokyo, Japan, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patents which may be obtained for said invention, as set forth below:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other valuable and legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications and patents defined above; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignors hereby covenant and agree, for both the Assignors and the Assignors' legal representatives, that the Assignors will assist the Assignee in the prosecution of the patent application identified above; in the making and prosecution of any other patent applications that the Assignee may elect to make covering the invention identified above; in vesting in the Assignee like exclusive title in and to all such other patent applications and patents; and in the prosecution of any interference which may arise involving said invention, or any such patent application or patent; and that the Assignors will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Assignment.

PATENT REEL: 028928 FRAME: 0134 The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

| DATE: | August 3, 2012 | Yosuke Ste |
|-----------|----------------|---------------------------|
| WITNE | ecps. | Inventor: Yosuke IDE |
| MARKET AA | DOLLI. | |
| DATE: | August 3, 2012 | Hideak: Kowasak |
| DATE: | August 3, 2012 | kaj Mak |
| | | |
| DATE: | August 3, 2012 | Masamicki Saito |
| WITNE | SSED: | Inventor: Masamichi SAITO |
| DATE: | August 3, 2012 | youk Ob |
| DATE: | August 3, 2012 | Kurji Zeleinike |
| | | |
| DATE: | | |
| WITNES | SSED: | Inventor: |
| DATE: | | |
| DATE: | | |

PATENT REEL: 028928 FRAME: 0135

RECORDED: 09/10/2012