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PATENTS ONLY TO			PATENT	Our File No.	9281-5503
Please r	103431191	I	. or copy the	ereof.	
Name of Party(ies) conveying an interest Kunio Yamanaka Jun Takahashi Akira Takahashi Additional name(s) of conveying party(ies) a		Name International Street City: State/	ame and Addresterest: : ALP al Address: Address: Zip:	es of Party(ies) receives of Party(ies) recei	nka-c µo 0.9 8.∪ 0.1 8.07
3. Description of the interest conveyed: ☐ Assignment ☐ Security Agreement ☐ Execution Date: July 3, 2007 Application number(s) or patent numbe	Change of Name Merger r(s). Additional shee	t attache	Other:	No	
If this document is being filed together v Patent Application No.(s)	July 3, 200 Date	<u>07</u> Pa	atent No.(s)	the application is:	
5. Name and address of party to whom coconcerning document should be mailed BRINKS HOFER GILSON P.O. BOX 10395 CHICAGO, IL 60610 (312)321-4200	: & LIONE	6. Nun	nber of applicati al fee (37 CFR 3 Enclosed Authorized to b No. 23-1925 Please charge	ons and patents involved and patents involved and patents in the control of the c	.00 sit Account fee or credit
Statement and signature.	DO NOT USE THI	S SPAC	CE		
To the best of my knowledge and belief, the	foregoing information	n is true	e and correct-an	nd any attached copy	y is a true

copy of the original document.

Gustavo Siller, Jr. (Reg. No. 32,305) Name of Person Signing

Signature

July 24, 2007

Total number of pages including cover sheet, attachments, and document: 3

Rev. Oct-97

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ASSIGNMENT

WHEREAS, Kunio Yamanaka, Jun Takahashi and Akira Takahashi

hereinafter called the "Assignors", have made the invention described in the United States patent application entitled PERPENDICULAR MAGNETIC RECORDING HEAD INCLUDING HEATING ELEMENT

executed by Assignors on the same date as, or on a date prior to, 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, Otsuka-cho, Ota-ku, in 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; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; 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: 019625 FRAME: 0897

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:	July 3, 2007	Hurio Yamanaba
		Inventor: Kun18 Yamanaka
WITNESSED:		
DATE:	July 3, 2007	Othushi Fahanashi Kjaname Miki
DATE:	July 3, 2007	- Leanaine Miki
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DATE:	July 3, 2007	In Takahashi
		Inventor Jun Takahashi
WITNESSED:		
DATE:	July 3, 2007	atsushi Jakanshi
DATE:	July 3, 2007	- Asushi Fakanski Kjanane Miki
DATE:	July 3, 2007	Akira Takahashi Inventor: Akira Takahashi
		Inventor: Akira Takahashi
WITNESSED:		
DATE:	July 3, 2007	(trushi Jokanadi
DATE:	July 3, 2007	Kamana Miki
DATE:		
		Inventor:
WITNESSED:		
DATE:		
DATE:		

RECORDED: 07/24/2007

PATENT REEL: 019625 FRAME: 0898