

(PE)		
PATENTS PNEY (2) 10216261	Our File No. 9281-4269	
JUL 1 5 2002 TO THE COMINISSICIAL FOR FATENTS		
Spase record the attached original document or copy thereof.		
Name of the ty conveying an interest:	Name and Address of Party receiving an interest:	
Takashi Shirakawa Satoru Sasaki Hirotoshi Terao	Name: ALPS Electric Co., Ltd. Internal Address: Street Address: 1-7 Yukigaya, Otsuka-cho City: Ota-ku, Tokyo State/Zip: Japan	
Additional name(s) of conveying party(ies) attached?	Additional name(s) and addresses attached?  Yes No	
3. Description of the interest conveyed:  ☐ Change of Name	Other:	
☐ Security Agreement ☐ Merger		
Execution Date: June 3, 2002	t attached? \ \ Yes \ \ No	
Application number(s) or patent number(s). Additional sheet attached?  Yes No		
If this document is being filed together with a new application, the execution date of the application is:		
Date	Potent No (c)	
Patent Application No.(s) 10/058,815	Patent No.(s)	
Additional numbers attached? ☐ Yes ☐ No		
concerning document should be mailed: BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610 (312)321-4200	<ul> <li>Number of applications and patents involved: 1</li> <li>Total fee (37 CFR 3.41) \$40</li> <li>☐ Enclosed</li> <li>☐ Authorized to be charged to Deposit Account No. 23-1925</li> <li>Please charge any deficiencies in fee or credit any overpayment to Deposit Account No. 23-1925.</li> </ul>	
DO NOT USE THIS SPACE		
2/2002 LMUELLER 00000073 10058815		
E:581 40.00 OP		
Statement and signature.  To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.		
Gustavo Siller, Jr. Name of Person Signing	nature $\frac{7/10/6\lambda}{Date}$	
Total number of pages including cover sheet, attachments, and document: $ extstyle  e$		

Rev. Oct-97

F:\COMMON\ALPS\PTO BLANK FORMS\9281 ALPS Assignment Recordal.doc

**PATENT** 

**REEL: 013096 FRAME: 0852** 

## **ASSIGNMENT**

WHEREAS, Takashi Shirakawa, Satoru Sasaki and Hirotoshi Terao, hereinafter called the "Assignors," have made the invention described in the United States patent application entitled POWER-SAVING THERMAL HEAD, for a full description of which reference is here made to an application for Letters Patent of the United States filed on January 28, 2002, and assigned Application Serial No 10/058815;

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 exchange for 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, its territories and possessions, 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, continuations-in-part, divisions, renewals, extensions or reissues 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

PATENT REEL: 013096 FRAME: 0853

Case No. 9281-4269 Alps Reference No. M US00183

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.

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	June 3, 2002	TAKASHI SHIRAKAWA Inventor: Takashi Shirakawa
WITNE	SSED	
DATE	June 3, 2002	Moichi Umeki
DATE	June 3, 2002	Fisonobio Ma Pany be
DATE	June 3, 2002	SATORU SASAKI Inventor: Satoru Sasaki
WITNESSED		
DATE	June 3, 2002	Kočché Umoki
DATE	Iuno 3 - 2002	Office to

PATENT REEL: 013096 FRAME: 0854

## Case No. 9281-4269 Alps Reference No. M US00183

**RECORDED: 07/15/2002** 

nventor: Hirotoshi Terao

**WITNESSED** 

DATE June 3, 2002

Koichi Umeki

**DATE** June 3, 2002

Trion obe Hortimate

PATENT REEL: 013096 FRAME: 0855