

10/12/99

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Docket No.: 503.37673X00

RP/PTG-1595  
31-92

RE



HEET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

101188309

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  
Hiroyuki HASEGAWA, Toshiki KUROSU, Shigeru UGAYAMA

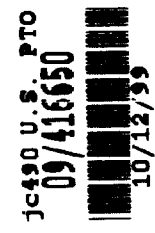
Additional name(s) of conveying party(ies) attached?  Yes  No

Nature of conveyance:  
 Assignment  Merger  
 Security Agreement  Change of Name  
 Other \_\_\_\_\_

Execution Date: September 13, 1999

2. Name and address of receiving party(ies):  
Name: Hitachi, Ltd.  
Street Address: 6, Kanda Surugadai 4-chome, Chiyoda-ku  
City: Tokyo  
Country: Japan

Additional name(s) & address(es) attached?  Yes  No



3. Application number(s) or patent number(s): 09/416650

If this document is being filed together with a new application, the execution date of the application is: September 13, 1999

A. Patent Application No.(s)  
022/1999 PALLEN 00000099 09416650  
FC:501

B. Patent No.(s)

Additional numbers attached?  Yes  No

40.00 DP

4. Name and address of party to whom correspondence concerning document should be mailed:  
Name: ANTONELLI, TERRY, STOUT & KRAUS, LLP  
Internal Address:  
Street Address: 1300 North Seventeenth Street  
Suite 1800  
City: Arlington State: VA Zip: 22209

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) .....\$40.00  
 Enclosed  
 Any deficiencies may be charged to deposit account  
 Authorized to be charged to deposit account

8. Deposit account number: 01-2135  
(Attach duplicate copy of this page if paying by deposit account)

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5. 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.*

Gregory E. Montone \_\_\_\_\_  
Name of Person Signing  
Attorney Registration No. 28,141  
Total number of pages including cover sheet, attachments, and document: 3

Signature

October 12, 1999  
Date

OMB No. 0651-0011 (exp. 4/94)

Hitachi Haramachi Electronics Co., Ltd.

ss: 10-2, Benten-cho 3-chome, Hitachi-shi, Ibaraki 317-0072, Japan

ASSIGNMENT

For good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, as a below named inventor, I hereby sell and assign to Hitachi, Ltd. & Hitachi Haramachi Electronics Co., Ltd., 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 101-8010, Japan of ~~& 10-2, Benten-cho 3-chome, Hitachi-shi, Ibaraki 317-0072, Japan~~ its successors and assigns or other legal representatives all my rights, title and interest, in and for the United States of America, in and to

TEMPERATURE SENSING CIRCUIT FOR VOLTAGE DRIVE TYPE SEMICONDUCTOR DEVICE AND TEMPERATURE SENSING METHOD THEREFOR, AND DRIVE DEVICE AND VOLTAGE DRIVE TYPE SEMICONDUCTOR DEVICE USING THE SAME

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, ~~Serial No. xxxxxxxxxxxxxxx filed xxxxxxxxxxxxxxx~~ executed by us even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Hitachi, Ltd. & Hitachi Haramachi Electronics Co., Ltd. its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd. & Hitachi Haramachi Electronics Co., Ltd.

- |  | (Full Name) | (Signature)              |
|--|-------------|--------------------------|
| 1) Date <u>September 13, 1999</u> Inventor <u>Hiroyuki Hasegawa</u>                      |             | <u>Hiroyuki Hasegawa</u> |
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| 2) Date <u>September 13, 1999</u> Inventor <u>Toshiki Kurosu</u>                         |             | <u>Toshiki Kurosu</u>    |
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| 3) Date <u>September 13, 1999</u> Inventor <u>Shigeru Sugayama</u>                       |             | <u>Shigeru Sugayama</u>  |
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| 4) Date _____ Inventor _____   |             |                          |
| Residence _____ Citizenship _____  |             |                          |
| Post Office Address _____  |             |                          |
| 5) Date _____ Inventor _____   |             |                          |
| Residence _____ Citizenship _____  |             |                          |
| Post Office Address _____  |             |                          |

Witness(es)  
All) Mari Yamagata 2) \_\_\_\_\_ 4) \_\_\_\_\_  
1) \_\_\_\_\_ 3) \_\_\_\_\_ 5) \_\_\_\_\_