

03-24-1999

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U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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

## 1. Name of conveying party(ies):

(a) Hemant K. Thapar

(b) Shih-Ming Shih

(c) Kwok W. Yeung

Additional name(s) of conveying party(ies) attached?

☐ Yes☒ No

## 2. Name and address of receiving party(ies):

Name: NEC Electronics, Inc.

Internal Address: \_\_\_\_\_

Street Address: 2880 Scott BoulevardCity Santa Clara State California ZIP 95050

Additional name(s) &amp; address(es) attached?

☐ Yes☒ No

## 3. Nature of Conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other \_\_\_\_\_Execution Date: March 15, 1999

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

## A. Patent Application No.(s) - 08/800,989

Title: PRML System With Reduced Complexity Maximum Likelihood DetectorFiled: February 18, 1997

## B. Patent No.(s)

N/A

Additional numbers attached?

☐ Yes☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Alan H. MacPhersonInternal Address: SKJERVEN, MORRILL, MacPHERSON,FRANKLIN & FRIEL LLPStreet Address: 25 METRO DRIVE, SUITE 700City SAN JOSE State CA ZIP 951106. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41): \$40.00☒ Authorized to be charged to Deposit Account 19-2386☒ Charge Deposit Account 19-2386 for any additional fees required for this conveyance and credit deposit account 19-2386 any amounts overpaid

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## 8. 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.

ALAN H. MACPHERSON

Name of Person Signing

Alan H. MacPherson

Signature

March 15, 1999

Date

Total number of pages comprising cover sheet: 3PATENT  
REEL: 9829 FRAME: 0642

**ASSIGNMENT**

For good and valuable consideration, receipt of which is hereby acknowledged, we

<u>Hemant K. Thapar</u>	of	<u>7259 Scarsdale Place, San Jose, CA 95120</u>
<u>Shih-Ming Shih</u>	of	<u>18720 Vista De Almaden, San Jose, CA 95120</u>
<u>Kwok W. Yeung</u>	of	<u>465 Paseo Refugio, Milpitas, CA 95035</u>

hereby sell, assign and transfer to NEC Electronics Inc., a California corporation, having a place of business at 2880 Scott Boulevard, Santa Clara, CA 95050, its successors and assigns, the entire right, title and interest throughout the world in our invention in

**PRML System With Reduced Complexity Maximum Likelihood Detector**

for which we filed a United States Patent Application on February 18, 1997, and now has Serial No. 08/800,989, and all patent applications and patents of every country for said invention, including divisions, reissues, continuations and extensions thereof, and all rights of priority resulting from the filing of said applications; we authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from us; we agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, their successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and we request the Commissioner of Patents and Trademarks to issue all patents granted for said invention to the above-named assignee, its successors and assigns.

Executed this 15 day of March, 1999.



Hemant K. Thapar

State of California )  
County of Santa Clara ) ss.

On 03/15/99 before me, ELEANOR GILBERT personally appeared Hemant K. Thapar personally known to me or 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 executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



WITNESS my hand and official seal.

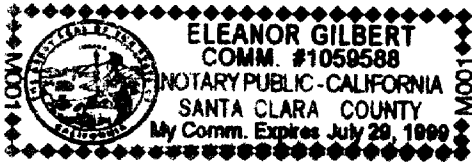
  
 SIGNATURE OF NOTARY

Executed this 15 day of March, 1999.

Shih-Ming Shih  
Shih-Ming Shih

State of California )  
County of Santa Clara ) ss.

On 03/15/99 before me, ELEANOR GILBERT personally appeared Shih-Ming Shih personally known to me or 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 executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



WITNESS my hand and official seal.

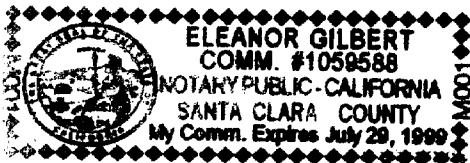
Eleanor Gilbert  
SIGNATURE OF NOTARY

Executed this 15 day of March, 1999.

Kwok W. Yeung  
Kwok W. Yeung

State of California )  
County of Santa Clara ) ss.

On 03/15/99 before me, ELEANOR GILBERT personally appeared Kwok W. Yeung personally known to me or 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 executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



WITNESS my hand and official seal.

Eleanor Gilbert  
SIGNATURE OF NOTARY