

04-15-1999



# 101014054

## PATENTS ONLY

JET

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):

Yue-Song He, Masaaki Higashitani, Hao  
Fang, Narbeh Derhacobian, Bill Cox,  
Kent Chang, Kelwin Ko, Maria Chow-ChanAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other
Execution Date: 2/10/99, 2/22/99, 2/24/99, 3/1/99, 3/2/99, 3/24/99

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

## A. Patent Application No.: Unknown

Title: BARRIER LAYER DECREASES  
NITROGEN CONTAMINATION OF PERIPHERAL  
GATE REGIONS DURING TUNNEL OXIDE  
NITRIDATIONFiled Date: HerewithAdditional numbers attached? ☐ Yes ☒ NoIf this document is being filed together with a new application, the execution date of the application is: 2/10/99, 2/22/99, 2/24/99, 3/1/99, 3/2/99, 3/24/99

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

Name: Martin C. Fliesler, Esq.Address: Fliesler, Dubb, Meyer & LovejoyFour Embarcadero Center, Suite 400San Francisco, CA 94111Telephone: (415) 362-3800

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

Name: Advanced Micro Devices, Inc.  
Address: One AMD Place  
Sunnyvale, California 94088Name: Fujitsu Limited  
Address: 1-1 Kamikodanaka 4-chome  
Nakahara-Ku, Kawasaki-shi,  
Kanagawa-ken, JAPANAdditional name(s) & address(es) attached? ☐ Yes ☒ No

## B. Patent No(s):

6. Total Number of applications and patents involved: 1 X \$40.00 each7. Total fee (37 CFR 3.41).....\$ 40.00X Check Enclosed

8. Fee Authorization. Authorization is given to charge any additional fees or credit any overpayment to Deposit Account No. 06-1325.

Copy. (A duplicate copy of this authorization is not enclosed.)

## 9. 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.*D. Benjamin Borson

Attorney (Reg. No.: 42,349)

D. Benjamin Borson  
Signature

Date

March 30, 199910. Total number of pages to be recorded: 7 (1 page cover sheet and 6 page document).

**JOINT TO CORPORATE ASSIGNMENT**

WHEREAS, the undersigned Inventors:

(1) Yue-Song He  
a resident of 1381 Heckman Way San Jose CA 95128 and

(2) Masaaki Higashitani  
a resident of 1035 Aster Ave #2119 Sunnyvale CA 94086; and

(3) Hao Fang  
a resident of \_\_\_\_\_; and

(4) Narbeh Derhacobian  
a resident of 1518 Williams Ave, Belmont, CA, 94002

(5) Bill Cox  
a resident of 570 Meadow Avenue, Santa Clara, CA 95051

(6) Kent Chang  
a resident of 10355 Norwich Ave, Cupertino CA 95014

(7) Kelwin Ko  
a resident of ~~Hwy~~ San Jose, California

(8) Maria Chow-Chan  
a resident of 3427 San Saba Dr, San Jose CA 95148

have invented certain new and useful improvements in:

**BARRIER LAYER DECREASES NITROGEN  
CONTAMINATION OF PERIPHERAL GATE  
REGIONS DURING TUNNEL OXIDE  
NITRIDATION**

and have executed a declaration or oath for an application for a United States patent disclosing and identifying the invention:

1. X On the Date of Execution of Declaration for Patent Application set forth below adjacent to my signature;

Or

2.    Said application having SC/Serial Number   /  ,    and filed on the    day of   , 19  .

WHEREAS Advanced Micro Devices, Inc. (hereinafter termed "Assignee"), a corporation of the State of Delaware, having a place of business at One AMD Place, Sunnyvale, California and Fujitsu Limited (hereinafter termed "Assignee"), a corporation of the Country of Japan, having a place of business at 1-1 Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa-ken, wish to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by each of said Inventors to have been received in full from said Assignees:

1. Said Inventors do hereby sell, assign, transfer and convey to said Assignees, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignees to enable said Assignees to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignees (a) for perfecting in said Assignees the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignees.

3. The terms and covenants of this Assignment shall inure to the benefit of said Assignees, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Inventors have executed this instrument on the date of acknowledgement before the Notary Public as given below and delivered this instrument to said Assignees.

Date of Execution of Declaration for Patent Application: 3/2/99

(1) Yuesong He  
(Inventor's Signature)

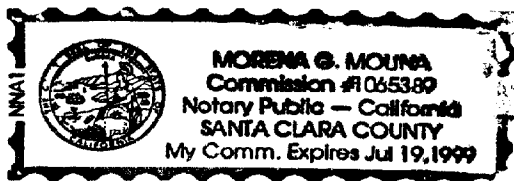
State of California  
County of Santa Clara

On March 2, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Yuesong He, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Morena G. Molina



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 3/24/99

(2) M. Higashitani  
(Inventor's Signature)

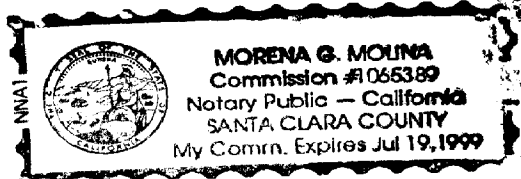
State of California  
County of Santa Clara

On March 24, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Masaaki Higashitani, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Morena G. Molina



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 3/24/99

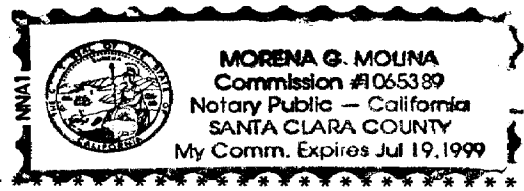
(3) [Signature]  
(Inventor's Signature)

State of California  
County of Santa Clara

On March 24, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Hao Fang, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.  
Signature [Signature]



Date of Execution of Declaration for Patent Application: 3/24/99

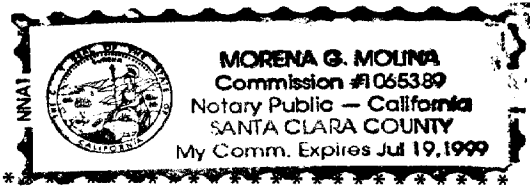
(4) [Signature]  
(Inventor's Signature)

State of California  
County of San Mateo Santa Clara

On March 24, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Narbeh Derhachobian personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.  
Signature [Signature]



Date of Execution of Declaration for Patent Application: 2-22-99

(5) William P. Cox  
(Inventor's Signature)

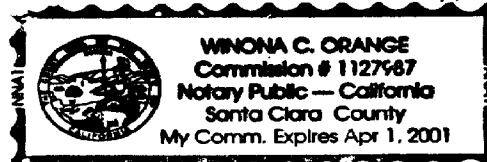
State of California  
County of Santa Clara

On February 22, 1999 before me, WINONA C. ORANGE Notary Public  
(name and title of officer)

personally appeared William P. Cox, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Winona C. Orange



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 2-24-99

(6) Kent Chang  
(Inventor's Signature)

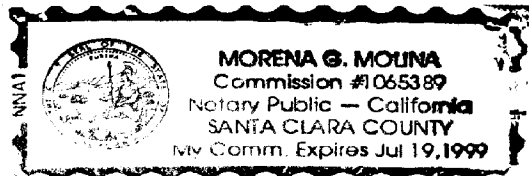
State of California  
County of Santa Clara

On February 24, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Kent Chang, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Morena G. Molina



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 2/10/99

(7) [Signature]  
(Inventor's Signature)

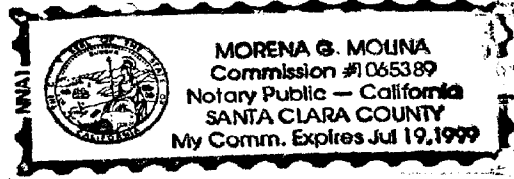
State of California  
County of Santa Clara

On February 10, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Kelwin Ko, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 3/1/99

(8) Ding Chan  
(Inventor's Signature)

State of

California

County of

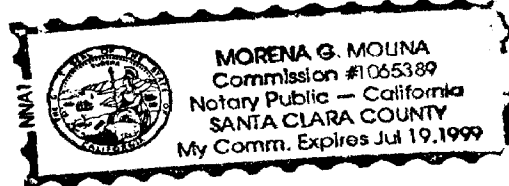
Santa Clara

On March 1, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Maria Chow-Chan, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature



\*\*\*\*\*

**JOINT TO CORPORATE ASSIGNMENT**

WHEREAS, the undersigned Inventors:

(1) Yue-Song He  
a resident of 1381 Heckman Way San Jose CA 95128 and

(2) Masaaki Higashitani  
a resident of 1035 Aster Ave. #2119 Sunnyvale CA 94086; and

(3) Hao Fang  
a resident of \_\_\_\_\_; and

(4) Narbeh Derhacobian  
a resident of 1518 Williams Ave, Belmont, CA, 94002

(5) Bill Cox  
a resident of 570 Meadow Avenue, Santa Clara, CA 95051

(6) Kent Chang  
a resident of 10355 Norwich Ave, Cupertino, CA 95014

(7) Kelwin Ko  
a resident of ~~House~~ San Jose, California

(8) Maria Chow-Chan  
a resident of 3427 San Saba Dr, San Jose CA 95148

have invented certain new and useful improvements in:

**BARRIER LAYER DECREASES NITROGEN  
CONTAMINATION OF PERIPHERAL GATE  
REGIONS DURING TUNNEL OXIDE  
NITRIDATION**

and have executed a declaration or oath for an application for a United States patent disclosing and identifying the invention:

1. X On the Date of Execution of Declaration for Patent Application set forth below adjacent to my signature;

Or

2. — Said application having SC/Serial Number —/—, — and filed on the — day of —, 19—.



WHEREAS Advanced Micro Devices, Inc. (hereinafter termed "Assignee"), a corporation of the State of Delaware, having a place of business at One AMD Place, Sunnyvale, California and Fujitsu Limited (hereinafter termed "Assignee"), a corporation of the Country of Japan, having a place of business at 1-1 Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa-ken, wish to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by each of said Inventors to have been received in full from said Assignees:

1. Said Inventors do hereby sell, assign, transfer and convey to said Assignees, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignees to enable said Assignees to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignees (a) for perfecting in said Assignees the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignees.

3. The terms and covenants of this Assignment shall inure to the benefit of said Assignees, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Inventors have executed this instrument on the date of acknowledgement before the Notary Public as given below and delivered this instrument to said Assignees.

Date of Execution of Declaration for Patent Application: 3/2/99

(1) Yue Song He  
(Inventor's Signature)

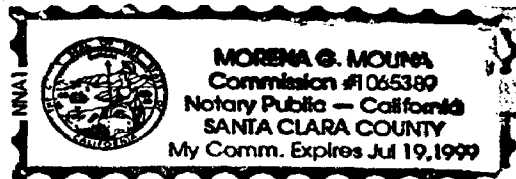
State of California  
County of Santa Clara

On March 2, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Yue Song He, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Morena G. Molina



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 3/24/99

(2) M. Higashitani  
(Inventor's Signature)

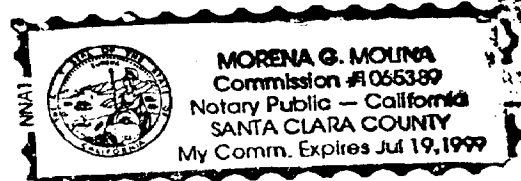
State of California  
County of Santa Clara

On March 24, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Masaaki Higashitani, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Morena G. Molina



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 3/24/99

(3) [Signature]  
(Inventor's Signature)

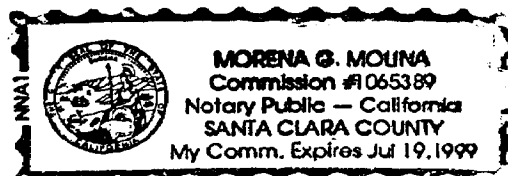
State of California  
County of Santa Clara

On March 24, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Hao Fang, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature [Signature]



Date of Execution of Declaration for Patent Application: 3/24/99

(4) [Signature]  
(Inventor's Signature)

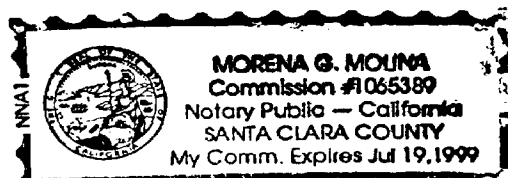
State of California  
County of San Mateo Santa Clara

On March 24, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Narbeh Derhachian, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature [Signature]



Date of Execution of Declaration for Patent Application: 2-22-99

(5) William P. Cox  
(Inventor's Signature)

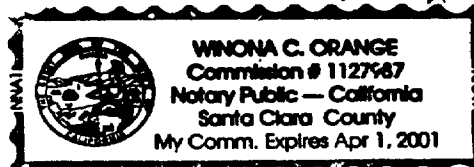
State of California  
County of Santa Clara

On February 22, 1999 before me, WINONA C. ORANGE Notary Public  
(name and title of officer)

personally appeared William P. Cox, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Winona C. Orange



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 2-24-99

(6) Kent Chang  
(Inventor's Signature)

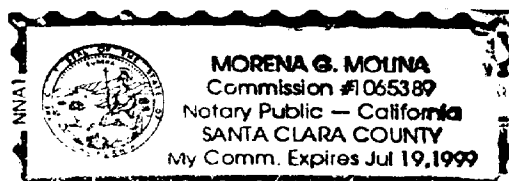
State of California  
County of Santa Clara

On February 24, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Kent Chang, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Morena G. Molina



\*\*\*\*\*

Date of Execution of Declaration for Patent Application: 2/10/99

(7) [Signature]  
(Inventor's Signature)

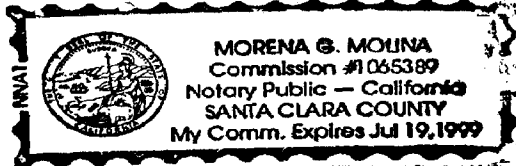
State of California  
County of Santa Clara

On February 10, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Kelwin Ko, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature



\*\*\*\*\*  
Date of Execution of Declaration for Patent Application: 3/1/99

(8) Die Chan  
(Inventor's Signature)

State of

California

County of

Santa Clara

On March 4, 1999 before me, Morena G. Molina, Notary Public  
(name and title of officer)

personally appeared Maria Chow Chan, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature

