

FORM PTO-1595  
1-31-92

09-08-1998



EET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

To the Commissioner of Patents and Tra

100822740

inal documents or copy thereof.

1. Name of conveying party(ies):  
Duncan James Bremner  
Ray Allen Reed

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

Name: NATIONAL SEMICONDUCTOR CORPORATIONInternal Address: M/S D3-579Street Address: 2900 Semiconductor DriveCity, State and Zip: Santa Clara, CA 95051-8090

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

☐ Yes☒ No

3. Nature of Conveyance:

☒

Assignment-Two

☐

Merger

☐

Security Agreement

☐

Change of Name

☐

Other

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

☐ Yes☒ NoExecution Date: 08/21/98 and 08/13/98

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:  
08/21/98 & 08/13/98A. Patent Application No.(s)  
NEW

B. Patent No.(s)

Additional Numbers attached? ☐ Yes ☒ No

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

Name: Mark A. Dalla ValleInternal Address: Limbach & Limbach L.L.P.  
Street Address: 2001 Ferry Building  
City, State, ZIP: San Francisco, California 94111  
Telephone: (415) 433-4150  
Facsimile: (415) 433-8716Attorney Docket No. NSC1-E3900 [P04025]6. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41):.....\$ 40.00☒

Enclosed

☒ Charge any deficiencies in the enclosed fee toDeposit Account No. 12-1420☐

Authorized to be charged to deposit account

8. Deposit account number: 12-1420

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

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.

Mark A. Dalla Valle, Reg. No. 34,147  
Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments and document: 6

Do not detach this portion

Mail documents to be recorded with required cover sheet information to

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20213, and to the Office of Management and Budget, Paperwork Reduction Project, (0651-0011), Washington, D.C. 20503

PATENT

REEL: 9418 FRAME: 0642

ASSIGNMENT

WHEREAS, WE, Duncan James Bremner and Ray Allen Reed, hereinafter referred to as "ASSIGNORS", have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: TRANSIENT SIGNAL DETECTOR WITH TEMPORAL HYSTERESIS

Application Execution Date: 08/21/98

Filing Date: HEREWITH

Application No.: NEW

WHEREAS, NATIONAL SEMICONDUCTOR CORPORATION, a corporation of the State of Delaware, 2900 Semiconductor Drive, M/S D3-579, Santa Clara, California 95051-8090, hereinafter referred to as "ASSIGNEE", is desirous of acquiring the entire right, title and interest in the said invention and application and in any Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: be it known that, for and in consideration of the sum of One Dollar (\$1.00) lawful money paid to Assignors by Assignee, receipt of which is hereby acknowledged, Assignors has sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee, and Assignee's successors and assigns, all right, title and interest in and to the said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, prolongations or extensions thereof, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignors had this assignment and transfer not been made, to the full end and term of any Letters Patent.

Assignors further agree that they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title therein in said Assignee, or Assignee's successors and assigns.

We hereby authorize and request our attorney, Mark A. Dalla Valle, of Limbach & Limbach P.C., 2001 Ferry Building, San Francisco, California 94111-4202, to insert here in parentheses (application number \_\_\_\_\_, filed \_\_\_\_\_) the filing date and application number of said application when known.

IN TESTIMONY WHEREOF, Assignor has hereunto signed his/her name to this assignment on the dates indicated below:

Dated: 21/AUG/98

DJ Bremner  
Duncan James Bremner

State of SCOTLAND

County of RENDER

on 21/AUG/98 before me, Kenneth Earl Joseph & Aleksandra

personally appeared Duncan James Bremner, 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.

Kenneth Earl Joseph & Aleksandra  
Signature of Notary

SEAL

PATENT

IN TESTIMONY WHEREOF, Assignor has hereunto signed his/her name to this assignment on the dates indicated below.

Dated: \_\_\_\_\_  
Ray Allen Reed

State of \_\_\_\_\_

County of \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_,

personally appeared \_\_\_\_\_, 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 of Notary

SEAL.

ASSIGNMENT

WHEREAS, WB, Duncan James Brenner and Ray Allen Reed, hereinafter referred to as "ASSIGNORS", have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: TRANSIENT SIGNAL DETECTOR WITH TEMPORAL HYSTERESIS

Application Execution Date: 08/13/98

Filing Date: HEREWITH

Application No.: NEW :

WHEREAS, NATIONAL SEMICONDUCTOR CORPORATION, a corporation of the State of Delaware, 2900 Semiconductor Drive, M/S D3-579, Santa Clara, California 95051-8090, hereinafter referred to as "ASSIGNEE", is desirous of acquiring the entire right, title and interest in the said invention and application and in any Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for and in consideration of the sum of One Dollar (\$1.00) lawful money paid to Assignors by Assignee, receipt of which is hereby acknowledged, Assignors has sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee, and Assignee's successors and assigns, all right, title and interest in and to the said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, prolongations or extensions thereof, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignors had this assignment and transfer not been made, to the full end and term of any Letters Patent.

Assignors further agree that they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

We hereby authorize and request our attorney, Mark A. Lalla Valle, of Limbach & Limbach P.C., 2001 Ferry Building, San Francisco, California 94111-4262, to insert here in parentheses (application number \_\_\_\_\_, filed \_\_\_\_\_) the filing date and application number of said application when known.

IN TESTIMONY WHEREOF, Assignor has hereunto signed his/her name to this assignment on the dates indicated below.

Dated: \_\_\_\_\_

Duncan James Brenner

State of \_\_\_\_\_

County of \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_

personally appeared \_\_\_\_\_, 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

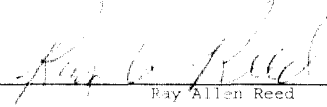
Signature of Notary

SEAL

PATENT

IN TESTIMONY WHEREOF, Assignor has hereunto signed his/her name to this assignment on the dates indicated below.

Dated: \_\_\_\_\_

  
Ray Allen Reed

State of \_\_\_\_\_

County of \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_

personally appeared \_\_\_\_\_, 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 of Notary

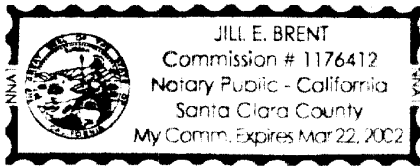
SEAL

PATENT

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of CALIFORNIA  
County of SANTA CLARA  
On AUGUST 13<sup>th</sup> 1998 before me, JILL E. BRENT  
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")  
personally appeared RAY A. REED  
Name(s) of Signer(s)

☒ personally known to me – OR – ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) X 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) X on the instrument the person(s), or the entity upon behalf of which the person(s) X acted, executed the instrument.



WITNESS my hand and official seal.

Jill E. Brent  
Signature of Notary Public

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: NEW U.S. PATENT APPLICATION  
Document Date: 8-6-98 Number of Pages: 08  
Signer(s) Other Than Named Above: NONE

### Capacity(ies) Claimed by Signer(s)

Signer's Name: RAY A. REED

- ☐ Individual  
☐ Corporate Officer  
Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney-in-Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

Signer's Name: \_\_\_\_\_

- ☐ Individual  
☐ Corporate Officer  
Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney-in-Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
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