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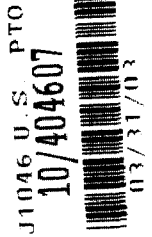
To the Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Christopher A. Ludden
Jeffrey A. Small

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

National Semiconductor Corporation
2900 Semiconductor Drive
Santa Clara, CA 95051-8090



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

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

3. Nature of conveyance:

- Assignment
- Security Agreement
- Other:
- Merger
- Change of Name

Execution Date: March 31, 2003

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: March 31, 2003

A. Patent Application No.(s)

10 404607

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 R. Hennings
Address: Merchant & Gould P.C.
P.O. Box 2903
Minneapolis, MN 55402-0903



6. Total number of applications and patents involved: 1
7. Total fee (37 CFR 3.41): \$40.00
 Enclosed
 Authorized to be charged to deposit account

8. Please charge any additional fees or credit any overpayments to our Deposit account number: 13-2725

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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 R. Hennings
Name of Person Signing

March 31, 2003
Date

Total number of pages including cover sheet, attachments, and document: 3

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Box Assignments
Director - U.S. Patent and Trademark Office
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ASSIGNMENT

WHEREAS, we, Christopher A. Ludden, residing at 30 Widewaters Lane, Pittsford, New York 14534 and Jeffrey A. Small, residing at 12 Emerald Point, Rochester, New York 14624, made certain new and useful inventions and improvements as described and claimed in the specification forming part of an application for Letters Patent of the United States executed herewith, which is entitled DISPLAY SYSTEM WITH FRAMESTORE AND STOCHASTIC DITHERING.

AND WHEREAS, National Semiconductor Corporation, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 2900 Semiconductor Drive, Santa Clara, California 95051-8090 (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable considerations, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 31 day of March, 2003.
Christopher A. Ludden
Christopher A. Ludden

STATE OF New York)
) ss.
COUNTY OF Monroe)

On this 31st day of March, 2003, before me personally appeared Christopher A. Ludden to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL] JULIE M. MCDONALD
Notary Public, State of New York
No. 01MC8076701
Qualified in Ontario County
Commission Expires July 1, 2006
Julie M. McDonald
Notary Public

IN TESTIMONY WHEREOF, I have hereunto set my hand this 31 day of March, 2003.
Jeffrey A. Small
Jeffrey A. Small

STATE OF New York)
) ss.
COUNTY OF Monroe)

On this 31st day of March, 2003, before me personally appeared Jeffrey A. Small to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL] Julie M. McDonald
Notary Public

JULIE M. MCDONALD
Notary Public, State of New York
No. 01MC8076701
Qualified in Ontario County
Commission Expires July 1, 2006