FORM PTO-1595 (Rev. 6-93) OMB No. 0651-0011 M&G- 50019.35US01.

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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

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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): 2. Name and address of receiving party(ies): NATIONAL SEMICONDUCTOR CORPORATION VUONG KIM LE HAI THANH NGUYEN 2900 SEMICONDUCTOR DRIVE SUSHMA CHANDRASEKARAN SANTA CLARA, CALIFORNIA 95051-8090 3/30/01 YU-SHENG YANG Additional name(s) of conveying party(ies) attached? 

Yes 

No Nature of conveyance: Assignment Merger Security Agreement Change of Name Other: Execution Date: March 29, 2001 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 29, 2001 B. Patent No.(s) A. Patent Application No.(s) 19823583 Additional numbers attached? 
Yes 
No 5. Name and address of party to whom correspondence concerning 6. Total number of applications and patents involved: 1 document should be mailed: 7. Total fee (37 CFR 3.41): \$40.00 Name: Brett A. Hertzberg Enclosed Address: Merchant & Gould P.C. Authorized to be charged to deposit account P.O. Box 2903 Minneapolis, MN 55402-0903 8. Please charge any additional fees or credit any overpayments to our Deposit account number: 13-2725 PATENT TRADEMARK OFFICE 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. Brett A. Hertzberg March 30, 2001 Name of Person Signing Signature Date umber of pages including cover sheet, attachments, and document: 4 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. 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-0011), Washington, D.C. 20503. 04/16/2001 GTON11 00000208 09823583 01 F0:581 40.00 OP

> PATENT REEL: 011676 FRAME: 0305

## ASSIGNMENT

WHEREAS, we, VUONG KIM LE, residing at 218 Pacifica Way, Milpitas, California 95035; HAI THANH NGUYEN, residing at 1187 Formosa Ridge Drive, San Jose, California 95127; SUSHMA CHANDRASEKARAN, residing at 118 Meadowland Drive, Milpitas, California 95035; and YU-SHENG YANG, residing at 19316 Greenwood Drive, Cupertino, California 95014, 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 APPARATUS AND AVERAGING METHOD FOR EQUALIZING SIGNALS.

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 and in consideration of the sum of One Dollar and other 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

PATENT REEL: 011676 FRAME: 0306 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 27 day of
March , 2001.	(1000) =
	VOONG KIM LE
STATE OF <u>California</u> ) ss. county of <u>SantaClain</u> ) ss.	KAREN L METZ Commission # 12239 Notary Public - Califo Sante Clara Count My Comm. Express Jun 11
On this 29th day of Mau	2001, before me personally appeared
VUONG KIM LE to me known and known to	me to be the person described in and who executed
the foregoing instrument, and he duly acknowled	lged to me that he executed the same for the uses and
purposes therein set forth.  [SEAL]	Karen L met
	Notary Public
IN TESTIMONY WHEREOF, MARCH, 2001.	I have hereunto set my hand this 29 day of  HAI THANH NOUVEN
STATE OF California ) ss.	HAI THANH NŒUYŒN
On this 291hday of Mu	2001, before me personally appeared
HAI THANH NGUYEN to me known and k	known to me to be the person described in and who
executed the foregoing instrument, and he duly a uses and purposes therein set forth.	acknowledged to me that he executed the same for the
[SEAL]	- Maren Z. They
KAREN L METZ Commission # 1223997 Notary Public - California Santa Clara County My Commissions Jun 11, 2003	2

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## Notary Public

IN TESTIMONY WHEREOF, I have hereunto set my hand this 29 day of	
Harch , 2001. Sustaine Chandraschare	
SUSHMA CHANDRASEKARAN	•
STATE OF California	
COUNTY OF Santa Claux) ss.	
On this 29th day of March, 2001, before me personally appeared	
SUSHMA CHANDRASEKARAN 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.	
RAPEN L. METZ  PSE Fighmission # 1223997  Series County  Notary Public  Notary Public	1
IN TESTIMONY WHEREOF, I have hereunto set my hand this day of	
March 2001.	
Ju-phay Jy	
STATE OF California	
,	
COUNTY OF Santa Claum) ss.	
On this 39th day of	
YU-SHENG YANG 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] Notary Public L. Metaly Public	
KARIN L. MEIZ  Commission # 1223997  Notray Purcha Conformia	

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**RECORDED: 03/30/2001**