

02-05-2002



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HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS WASHINGTON, D.C. 20231

SIR:

PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENT(S) OR COPY(IES) THEREOF.

JAN 23 1997 U.S. PTO 10/055447 01/23/02

1. NAME OF CONVEYING PARTY(IES)

Fabian Lis

01/23/02

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

2. NAME(S) AND ADDRESS(ES) OF RECEIVING PARTY(IES)

Analog Devices Inc. One Technology Way P.O. Box 9106 Norwood, MA 02062-9106

Additional name(s) of receiving party(ies) attached? No

3. NATURE OF CONVEYANCE

- x Assignment
Security Agreement
Merger
Change of Name
Other

Execution Date:

January 22, 2002

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: January 23, 2002

- A. Patent Application No(s):
B. Patent No(s):
C. Issue Batch No.:
D. Issue Date:

Additional numbers attached? No.

5. NAME AND ADDRESS OF PARTY TO WHOM CORRESPONDENCE CONCERNING DOCUMENT SHOULD BE DIRECTED:

Patrick J. O'Shea Samuels, Gauthier & Stevens LLP 225 Franklin Street, Suite 3300 Boston, Massachusetts 02110 (617) 426-9180, Extension 121

6. TOTAL NUMBER OF APPLICATIONS AND PATENTS INVOLVED: 1

7. TOTAL FEE DUE: \$40.00 (Enclosed)

If any additional fee(s) are due, the Commissioner is hereby authorized to charge the Deposit Order Account noted in item 8.

8. DEPOSIT ACCOUNT NUMBER: 19-0079

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.

Signature of William E. Hilton

Signature

Date 1/23/02

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below in an envelope as "Express Mail Post Office to Addressee" Mailing Label No. EL818452731US addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

02/04/2002 LMUELLER 00000304 10055447

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Signature of Christie A. Mims

Christie A. Mims

Date: 1-23-02

PATENT REEL: 012533 FRAME: 0102

**ASSIGNMENT**

Know all men by these presents

THAT WHEREAS I, Fabian Lis,

of 103 Ripley Street, Newton, Massachusetts, have made an invention for

**ECHO CANCELLER HAVING AN ADAPTIVE FILTER  
WITH A DYNAMICALLY ADJUSTABLE STEP SIZE**

described in an application and executed by me on even date herewith and about to be filed in the United States Patent Office; and

WHEREAS Analog Devices Inc., a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts and having a place of business at One Technology Way, P.O. Box 9106, Norwood, Massachusetts 02062-9106, for the benefit of itself, its successors and assigns, all inclusively hereinafter referred to as the Assignee, is desirous of acquiring the entire right, title and interest in and to the said invention, the said application, all inventions disclosed in said application and any and all Letters Patent of the United States and of all other countries which may be granted for the said invention or inventions, or any of them;

NOW, THEREFORE, for good and valuable consideration provided by said Assignee, the receipt whereof is hereby acknowledged, I do hereby sell, assign and transfer to the said Assignee the entire right, title and interest in and to the said invention, inventions and application, including all priority rights arising therefrom, all inventions disclosed in said application, and any and all Letters Patent of the United States, and of all other countries, together with the right to apply for such Letters Patent, which may be granted for the said invention, inventions or any of them,

TO HAVE, HOLD AND ENJOY the said invention, the said application, and the said Letters Patent, to said

**ANALOG DEVICES, INC.**

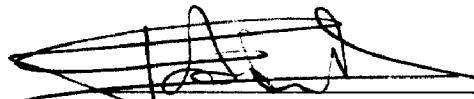
its successors and assigns, to its and their own use and behoof to the full end of the term or terms for which the said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

AND I hereby authorize and request the Commissioner of Patents of the United States and the appropriate officers of all foreign patent offices to issue any and all Letters Patent which may be granted on the said application or applications above referred to, or for the said invention, or any of them, to the said Assignee in accordance with the terms or this instrument.

AND I hereby agree to execute and sign without further consideration any other legal document and any other assignments and any divisional, continuing, renewal, reissue or other application in and for all patents that may be appropriate and may be deemed necessary by the Assignee fully to secure to said Assignee its interests as aforesaid in and to the said invention or any part thereof and in and to the said patents or any of them.

AND I further covenant and agree that I will at any time upon request communicate to the said Assignee, its successors, assigns or other legal representatives, any facts known to me relating to the said invention and any patent that may be granted thereon, and will testify as to the same in any interference or litigation when requested to do so.

AND I do hereby covenant for myself and my legal representatives that I have not hitherto assigned or granted any license to make, use or sell said invention, and that I will not henceforth purport to assign, license or execute any instrument to that effect in conflict with this assignment.

  
FABIAN LIS

Date: 01/22/02