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FORM PTO-1595

9/22/00

REC'D

Packet Number: TI- 28221



U.S. Department of Commerce  
Patent and Trademark Office

101506797

To the Ass't Commissioner for Patents. Please record.

1. Name of conveying party(ies):

Yaqi Cheng  
Adam M. Chellali

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

Name: Texas Instruments Inc.  
Address: P.O. Box 655474 M/S 3999  
City: Dallas, Texas 75265  
Country: United States of America

Additional names(s) attached? \_\_\_\_\_ Yes  No

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

3. Nature of Conveyance:

Assignment \_\_\_\_\_ Merger  
\_\_\_\_\_ Security Agreement \_\_\_\_\_ Change of Name  
\_\_\_\_\_ Other \_\_\_\_\_

09/16/00

Execution Date August 16, 2000 and September 7, 2000

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

This document is being filed together with a new application.

Execution date of the application: September 26, 2000

Title: **Multi-Line ADSL Modem**

A. Patent Application No.(s)

S.N  
Additional number attached? \_\_\_\_\_ Yes  No

B. Patent No.(s)

Additional numbers attached? \_\_\_\_\_ Yes  No

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

Dennis Moore  
Texas Instruments Incorporated  
P.O. Box 655474, M/S 3999  
Dallas, TX 75265  
972-917-4259

6. Number of applications and patents involved: \_\_\_(1)\_\_\_

7. Amount of fee enclosed or authorized to be charged: \$40

8. Deposit Account No: 20-0668

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.

September 26, 2000  
Date

Robert C. Klinger, Reg. No. 34,265

Total Number of Pages Including Cover Sheet, Attachments and Document: 3

2529598.1

10093 U.S. PTO  
09/26/00



## ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and


WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with its principal office at 7839 Churchill Way, M. S. 3999, Dallas, Texas 75251, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, title and interest in and to the said invention and in and to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of my entire right, title and interest.

I also hereby sell and assign to TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TEXAS INSTRUMENTS INCORPORATED, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set hand and seal this day and year;

TITLE OF INVENTION	<b>MULTI-LINE ADSL MODEM</b>		
SIGNATURE OF INVENTOR(S)	(1)  Yaqi Cheng	(2) Adam M. Chellali	(3)
DATE	8/16/2000		
RESIDENCE (City, County, State)	Atlanta, Georgia	Richardson, Texas	

After recording return Assignment to:

Ron Neerings  
Texas Instruments Incorporated  
P.O. Box 655474, M/S 3999  
Dallas, TX 75265

## ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and


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NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, title and interest in and to the said invention and in and to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of my entire right, title and interest.

I also hereby sell and assign to TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TEXAS INSTRUMENTS INCORPORATED, or to its successors, assigns, and legal representatives, any facts known to my respecting said invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set hand and seal this day and year;

TITLE OF INVENTION	<b>MULTI-LINE ADSL MODEM</b>		
SIGNATURE OF INVENTOR(S)	(1) Yaqi Cheng	(2)  Adam M. Chellali	(3)
DATE		9/7/00	
RESIDENCE (City, County, State)	Atlanta, Georgia	Richardson, Texas	

After recording return Assignment to:

Ron Neerings  
Texas Instruments Incorporated  
P.O. Box 655474, M/S 3999  
Dallas, TX 75265