

01-13-2004

U.S. PTO
10748998

122903

FORM PTO-1595

102643829
PATENTS ONLYU.S. Department of Commerce
Patent and Trademark Office

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

1. Name of conveying party(ies):

Udayan Dasgupta
Fernando A. Mujica
Murtaza Ali

Additional name(s) & address(es)

attached? ☐ Yes ☒ No

12-2483

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

Name: **Texas Instruments Incorporated**Address: **P.O. Box 655474, M/S 3999**City: **Dallas**State: **Texas** Zip: **75265**

Additional name(s) & address(es)

attached? ☐ Yes ☒ No

3. Nature of Conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

Execution Date: December 22, 2003 (U.D. & F.M.) & December 29, 2003 (M.A.)

10/748998

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 December 22, 2003 (U.D. & F.M.) & December 29, 2003 (M.A.).

A. Patent Application No.(s)

N/A

B. Patent No.(s)

N/A

Additional numbers attached? ☐ Yes ☐ NoAdditional numbers attached? ☐ Yes ☐ No

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

Name: **Jim Brady**Address: **Texas Instruments Incorporated**
P.O. Box 655474, M/S 3999City: **Dallas**State: **Texas** Zip: **75265**6. Number of applications and patents involved: 17. Amount of fee enclosed or authorized to be charged: \$ **40.00**8. Deposit account number: **20-0668**

01/12/2004 DBYRNE 00000031 200668 10748998

01 FC:8021 40.00 DA

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.

Signature

Ira S. Matsil, Reg. No. 35,272
Name of Person SigningDecember 29, 2003
DateTotal number of pages including cover sheet, attachments and document: 4

Attorney Docket No.
TI-35831**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

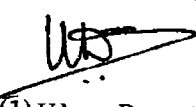

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with its principal office at 7839 Churchill Way, M.S. 3999, Dallas, Texas 75251, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the 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 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	Algorithm for Computing Distances to a Received Point in an ADSL System		
SIGNATURE OF INVENTOR AND NAME	 (1) Udayan Dasgupta	(2) Fernando A. Mujica	(3) Murtaza Ali
DATE	12/22/2003		
RESIDENCE (CITY AND STATE)	Irving, TX	Allen, TX	Plano, TX
DATE APPLICATION EXECUTED			

After recording, return Assignment to:

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

Attorney Docket No.
TI-35831

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 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	Algorithm for Computing Distances to a Received Point in an ADSL System		
SIGNATURE OF INVENTOR AND NAME	(1) Udayan Dasgupta	(2) Fernando A. Mujica	(3) Murtaza Ali
DATE		Dec 22, 2003	
RESIDENCE (CITY AND STATE)	Irving, TX	Allen, TX	Plano, TX
DATE APPLICATION EXECUTED			

After recording, return Assignment to:

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

TOTAL P.05

Attorney Docket No.
TI-35831

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 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	Algorithm for Computing Distances to a Received Point in an ADSL System		
SIGNATURE OF INVENTOR AND NAME	(1) Udayan Dasgupta	(2) Fernando A. Mujica	(3) Murtaza Ali
DATE			<i>Murtaza Ali</i>
RESIDENCE (CITY AND STATE)	Irving, TX	Allen, TX	Plano, TX
DATE APPLICATION EXECUTED			<i>Dec. 29, 2003</i>

After recording, return Assignment to:

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