

08-29-2005



EET

103069890

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)/Execution Date(s):**

- 1. Charles M. Branch                      1. July 15, 2005
- 2. Steven C. Bartling                      2. July 15, 2005
- 3. Dharin N. Shah                              3. July 19, 2005

Execution Date(s) \_\_\_\_\_

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

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

Name: Texas Instruments Incorporated

Internal Address: MS 3999

Street Address: P.O. Box 655474

City: Dallas

State: Texas

Country: US                                      Zip: 75265

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

**3. Nature of conveyance:**

- Assignment                                       Merger
- Security Agreement                                       Change of Name
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other \_\_\_\_\_

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

This document is being filed together with a new application.

A. Patent Application No.(s)

11/172,534

B. Patent No.(s)

Additional numbers attached?  Yes  No

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

Name: Alan Stewart

Internal Address: Texas Instruments Incorporated

MS 3999

Street Address: P.O. Box 655474

City: Dallas

State: Texas                                      Zip: 75265

Phone Number: (972) 917-5466

Fax Number: (972) 917-4418

Email Address: a-stewart@ti.com

**6. Total number of applications and patents involved:**

1

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40**

- Authorized to be charged by credit card
- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

**8. Payment Information**

a. Credit Card Last 4 Numbers \_\_\_\_\_  
Expiration Date \_\_\_\_\_

b. Deposit Account Number 20-0668

Authorized User Name Alan Stewart

**9. Signature:**

Jonathan M. Harris  
Signature

August 23, 2005  
Date

Jonathan M. Harris  
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents 3

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

**PATENT**  
**REEL: 016912 FRAME: 0084**

08/26/2005 11:12:00  
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**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

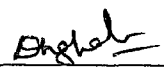
WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with its principal office at P.O. Box 655474, MS 3999, Dallas, Texas 75265, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said 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 Ass't Commissioner for Patents 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 my hand and seal this day and year;

TITLE OF INVENTION	DIGITAL STORAGE ELEMENT ARCHITECTURE COMPRISING INTEGRATED 2-TO-1 MULTIPLEXER FUNCTIONALITY		
SIGNATURE OF INVENTOR AND NAME	(1) _____ Charles M. Branch	(2) _____ Steven C. Bartling	(3)  _____ Dharin N. Shah
DATE			19/ July /2005
RESIDENCE (City, County, State)	9208 Middle Glen Drive Dallas, Dallas Texas 75248	2705 Chambers Lane Plano, Collin Texas 75098	02, SnehSarita Aparts; Pushpkunj Soc; Ahmedabad, Gujarat, India 380028
DATE APPLICATION EXECUTED			

After recordation, please return Assignment to:

Alan Stewart  
Texas Instruments Incorporated  
P.O. Box 655474, MS 3999  
Dallas, TX 75265

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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

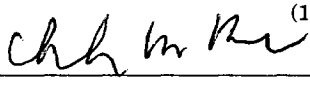


WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with its principal office at P.O. Box 655474, MS 3999, Dallas, Texas 75265, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said 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 Ass't Commissioner for Patents 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.

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SIGNATURE OF INVENTOR AND NAME	 (1) Charles M. Branch	 (2) Steven C. Bartling	 (3) Dharin N. Shah
DATE	7/15/2005	7/15/2005	
RESIDENCE (City, County, State)	9208 Middle Glen Drive Dallas, Dallas Texas 75243	2705 Chambers Lane Plano, Collin Texas 75093	02, SnehSarita Aparts; Pushpkunj Soc; Ahmedabad, Gujarat, India 380028
DATE APPLICATION EXECUTED			

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