

PATENT ASSIGNMENT

Electronic Version v1.1  
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Texas Instruments (India) Private Ltd.</td><td>12/14/2010</td></tr><tr><td>Frederic Noraz</td><td>12/13/2010</td></tr><tr><td>Shashank Dabral</td><td>12/13/2010</td></tr><tr><td>Stephen Busch</td><td>12/13/2010</td></tr></tbody></table>		Name	Execution Date	Texas Instruments (India) Private Ltd.	12/14/2010	Frederic Noraz	12/13/2010	Shashank Dabral	12/13/2010	Stephen Busch	12/13/2010		
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Texas Instruments (India) Private Ltd.	12/14/2010												
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Stephen Busch	12/13/2010												
RECEIVING PARTY DATA													
<table border="1"><tr><td>Name:</td><td>Texas Instruments Incorporated</td></tr><tr><td>Street Address:</td><td>P. O. Box 655474</td></tr><tr><td>Internal Address:</td><td>M/S 3999</td></tr><tr><td>City:</td><td>Dallas</td></tr><tr><td>State/Country:</td><td>TEXAS</td></tr><tr><td>Postal Code:</td><td>75265</td></tr></table>		Name:	Texas Instruments Incorporated	Street Address:	P. O. Box 655474	Internal Address:	M/S 3999	City:	Dallas	State/Country:	TEXAS	Postal Code:	75265
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PROPERTY NUMBERS Total: 1													
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>12971675</td></tr></tbody></table>		Property Type	Number	Application Number:	12971675								
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Application Number:	12971675												
CORRESPONDENCE DATA													
Fax Number: (972)917-4417 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone: 972 917 5299													
Email: e-austin@ti.com													
Correspondent Name: Ronald O. Neerings													
Address Line 1: 7839 Churchill Way, M/S 3999													
Address Line 4: Dallas, TEXAS 75251													
ATTORNEY DOCKET NUMBER:	TI-68702												
NAME OF SUBMITTER:	Ronald O. Neerings												

CH \$40.00 12971675

501404839

PATENT  
REEL: 025630 FRAME: 0734

**Total Attachments: 6**

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FORM PTO-1595

**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

 U.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):

Frederic Noraz (12/13/2010)  
 Texas Instruments (India) Pvt. Ltd. (12/14/2010)  
 Shashank Dabral (12/13/2010)  
 Stephen Busch (12/13/2010)

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

## 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 13, 2010, December 14, 2010, December 16, 2010, and December 29, 2010.**

## 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:

A. Patent Application No.(s)

B. Patent No.(s)

**12/971,675**
 Additional numbers attached? \_\_\_\_\_ Yes ☒ No

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

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

Name: **Ronald O. Neerings**  
 Address: **Texas Instruments Incorporated**  
**P. O. Box 655474, M.S. 3999**  
 City: **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. Texas Instruments Incorporated, Account Number : **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.

  
 Ronald O. Neerings

**34,227**  
 Registration Number

**01/13/2011**  
 Date

 Total number of pages including cover sheet, attachments and document: 6

ASSIGNMENT

WHEREAS, the below named inventor(s) (hereinafter INVENTOR) having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is being made, the said application having been executed on the date set forth below, and made the said invention in the course of employment by TEXAS INSTRUMENTS INDIA LIMITED, a company organized according to the laws of India, having an office at Bagmane Tech Park, No.66/3, Byrasandra, C.V.Raman Nagar Post, Bangalore - 560093 India, hereinafter (TIIN);

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, having a place of business at 7839 Churchill Way, Mail Station 3999, Dallas, Texas 75251, USA, is desirous of acquiring our entire right, title interest in and to the said invention outside of India, and in 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, by this Assignment, TIIN and INVENTOR sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, the entire right, title and interest in and to the said invention in the U.S.A. and in all other countries outside India; in and to the U.S. patent application as identified below and all patents which may be granted therefore, and all divisions, reissues, substitutions, continuations, and extensions thereof; and to file applications and obtain patents in its own name in any said other country or group of countries, and to claim priority under the terms of the Paris Convention for the Protection of Industrial Property or any other relevant convention;

TIIN and INVENTOR hereby authorize and request the Commissioner of Patents to issue all U.S. patents for said invention, or patents resulting therefrom, insofar as our interest is concerned to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of the entire right, title and interest.

TIIN and INVENTOR further agree to communicate to TEXAS INSTRUMENTS INCORPORATED or to its successors, assigns and legal representatives, any facts known to them respecting the said invention, and at the expense of TEXAS INSTRUMENTS INCORPORATED, sign any and all patent applications, assignments, affidavits and other lawful papers, execute all applications, make all lawful oaths, testify in any legal or quasi-legal proceedings and generally everything possible to said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries outside India.

Title of Invention: System And Method For Maintaining Maximum Input Rate While Up-Scaling An Image Vertically

Date Application Executed: Herewith

Inventor(s): Shashank Dabral

U.S. Application Serial No.: \_\_\_\_\_

Filing Date: \_\_\_\_\_

France Application Serial No.: 10290435.6

Filing Date: 2010/08/02

IN WITNESS WHEREOF, this Agreement has been executed as set forth below;

Signed at: Texas Instruments (India) Pvt. Ltd., Bangalore on \_\_\_\_\_

By: \_\_\_\_\_

Name: Dr. Biswadip (Bobby) Mitra



Title: Managing Director

Date: 14 Dec, 2010

and by the INVENTOR(S):

Name: Shashank Dabral

Signature: 

C-403, Grand Edifice, Amani  
Doddakere, Kodi Hoskote, Bangalore  
Address: Bangalore, 562 114, Karnataka, India

Date: 13/Dec/2010

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## ASSIGNMENT

TI-68702

### PARTIES:

1. **TEXAS INSTRUMENTS FRANCE (ASSIGNOR)** a company organised and existing under the laws of France, with its principal place of business at 821 Avenue Jack Kilby, B.P.5, 06271 Villeneuve-Loubet, FRANCE;
2. **TEXAS INSTRUMENTS INCORPORATED (ASSIGNEE)** a company organised and existing under the laws of the State of Delaware, with a place of business at 7839 Churchill Way, Dallas, Texas 75251, United States of America;

### RECITALS:

- A. **ASSIGNOR** is jointly entitled with **ASSIGNEE** to the full and exclusive right, title and interest in and to certain inventions in respect of which at least one application for letters patent ("the Application") has been filed as set forth in the Schedule to this Assignment;
- B. **ASSIGNOR** has agreed to assign to the **ASSIGNEE** the full and exclusive right, title and interest in and to the inventions and the Application in respect of all states except FRANCE upon the terms and conditions set forth below;

### OPERATIVE PROVISIONS:

In pursuance of an earlier agreement, and in consideration of the sum payable in respect thereof (receipt of which is hereby acknowledged) the **ASSIGNOR** hereby:

- (i) **ASSIGNS** unto the **ASSIGNEE**, its successors and assigns, the full and exclusive right, title and interest in and to the inventions in all states except FRANCE, and in and to the Application in respect of all states except FRANCE, and to all letters patents that may issue from the Application or be issued in respect of the inventions, and in and to all divisions, reissues, substitutions, continuations, and extensions of the Application or any application for letters patent filed in respect of said inventions; and the right to file applications for, and obtain letters patent, and to claim priority under the terms of the International Convention for the Protection of Industrial Property or any other relevant convention;
- (ii) authorises and requests that the national authorities of each state (except FRANCE) issue the Application, and any and all letters patent issued in respect of the inventions, or any and all letters patent resulting from the Application, insofar as Assignor's interest is concerned to the said **ASSIGNEE**, as assignee of the full and exclusive right, title and interest in and to the Application and the inventions. **ASSIGNOR** further agrees to execute any and all applications for letters patent, assignments, affidavits, and any other papers in connection therewith necessary to perfect patent rights, and generally to do everything possible to aid said **ASSIGNEE**, its successors, assigns and nominees to obtain and enforce proper patent protection for said inventions in all countries.

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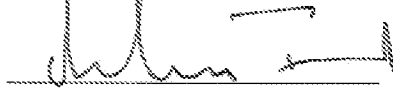
### SCHEDULE THE APPLICATION(S)

APPLICATION NUMBER	DATE FILED	TITLE
10290435.6	2010/08/02	EFFICIENT SCHEME FOR SUPPORTING THEORETICAL INPUT DATA RATE WHILE UP-SCALING AN IMAGE VERTICALLY

**IN WITNESS WHEREOF** this Assignment has been executed as set forth below:

Executed for and on behalf of **TEXAS INSTRUMENTS FRANCE**

By:



Name: **Christian Tordo**

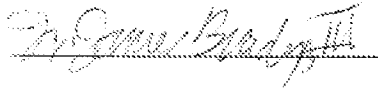
Title: **Managing Director**

Date:

Dec 16<sup>th</sup> 2010

Executed for and on behalf of **TEXAS INSTRUMENTS INCORPORATED**

By:



Name: **W. James Brady, III**

Title: **Deputy General Patent Counsel  
and Vice President**

Date:

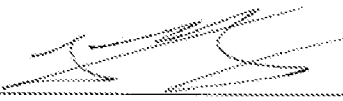
Dec. 29, 2010

#### **ACKNOWLEDGEMENT**

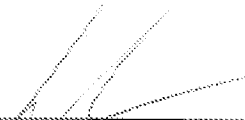
We, Frederic Jean Noraz and Stephen Busch co-inventors of certain new and useful improvements in the above entitled invention for which an application for letters patent is about to be made, acknowledge that we were each employees of **TEXAS INSTRUMENTS FRANCE** on the date on which said invention was conceived and reduced to practise, that our invention was made in the course of our normal or specifically assigned duties as employees of **TEXAS INSTRUMENTS FRANCE** and that under French National Law our invention and all rights in it belong to **TEXAS INSTRUMENTS FRANCE**.

We each hereby further agree that we will communicate to **TEXAS INSTRUMENTS FRANCE** or to its successors, assigns and legal representatives, any facts known to us respecting said invention, and at the expense of **TEXAS INSTRUMENTS FRANCE**, will 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 FRANCE**, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

**IN WITNESS WHEREOF**, the each inventor has hereto set his hand and seal;

  
\_\_\_\_\_  
**Frederic Jean Noraz**

Dec 13<sup>th</sup> 2010  
**Date**

  
\_\_\_\_\_  
**Stephen Busch**

Dec 13<sup>th</sup> 2010  
**Date**

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