

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3576650

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the ASSIGNORS previously recorded on Reel 034283 Frame 0482. Assignor(s) hereby confirms the 14555209.
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SAMEER P PENDHARKAR	11/20/2014
BINGHUA HU	11/18/2014
ABBAS ALI	11/18/2014
HENRY LITZMANN EDWARDS	11/20/2014
JOHN P ERDELJAC	11/11/2014
BRITTON ROBBINS	11/11/2014
JARVIS BENJAMIN JACOBS	01/23/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TEXAS INSTRUMENTS INCORPORATED
<b>Street Address:</b>	12500 TI BOULEVARD
<b>Internal Address:</b>	MS 3999
<b>City:</b>	DALLAS
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	75243
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	14555209
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(214)567-2228
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	214-479-1243
<b>Email:</b>	uspto@ti.com
<b>Correspondent Name:</b>	TEXAS INSTRUMENTS INCORPORATED
<b>Address Line 1:</b>	12500 TI BOULEVARD
<b>Address Line 2:</b>	MS 3999
<b>Address Line 4:</b>	DALLAS, TEXAS 75243
<b>NAME OF SUBMITTER:</b>	JACKIE MCBRIDE
<b>SIGNATURE:</b>	/Jackie McBride/

**DATE SIGNED:**

10/20/2015

**Total Attachments: 9**

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**PATENT ASSIGNMENT COVER SHEET**

Electronic Version v1.1  
 Stylesheet Version v1.2

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
SAMEER P PENDHARKAR	11/20/2014
BINGHUA HU	11/18/2014
ABBAS ALI	11/18/2014
HENRY LITZMANN EDWARDS	11/20/2014
JOHN P. ERDELJAC	11/11/2014
BRITTON ROBBINS	11/11/2014

**RECEIVING PARTY DATA**

<b>Name:</b>	TEXAS INSTRUMENTS INCORPORATED
<b>Street Address:</b>	12500 TI BOULEVARD
<b>Internal Address:</b>	M/S 3999
<b>City:</b>	DALLAS
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	75243

**PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14555209

**CORRESPONDENCE DATA**

Fax Number: (214)479-1280  
 Phone: 2144791287  
 Email: uspto@ti.com, swalsh@ti.com

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

Correspondent Name: TEXAS INSTRUMENTS INCORPORATED



Address Line 1:	12500 TI BOULEVARD
Address Line 2:	M/S 3999
Address Line 4:	DALLAS, TEXAS 75243
<b>ATTORNEY DOCKET NUMBER:</b>	TI-72532
<b>NAME OF SUBMITTER:</b>	SHAWN T. WALSH
<b>Signature:</b>	/Shawn T. Walsh/
<b>Date:</b>	12/01/2014
<b>Total Attachments: 6</b> source=TI-72532_Assignment_signed#page1.tif source=TI-72532_Assignment_signed#page2.tif source=TI-72532_Assignment_signed#page3.tif source=TI-72532_Assignment_signed#page4.tif source=TI-72532_Assignment_signed#page5.tif source=TI-72532_Assignment_signed#page6.tif	
<b>RECEIPT INFORMATION</b>	
<b>EPAS ID:</b>	PAT3126263
<b>Receipt Date:</b>	12/01/2014

PATENT

### 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.

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 12500 TI Boulevard, M/S 3999, Dallas, Texas 75243, 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, as well as to U.S. Provisional Application No(s). \_\_\_\_\_, filed \_\_\_\_\_;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign unto 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(s) and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Patent and Trademark Office to issue all patents for said invention, or patents resulting therefrom, 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 corresponding rights to the invention disclosed in said application in all other countries of the world, including the right to claim priority, file applications and obtain patents under the terms of the Paris Convention for the Protection of Industrial Property, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such 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.

I authorize the later insertion of the nonprovisional application number and filing date hereinbelow.

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

TITLE	DEEP TRENCH WITH SELF-ALIGNED SINKER		
NONPROVISIONAL APPLICATION NO.		FILING DATE	

SIGNATURE OF INVENTOR			
PRINTED NAME OF INVENTOR	Sameer P Pendharkar		
DATE	11/20/14		
RESIDENCE (CITY AND STATE)	Allen, TX		

**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.

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 12500 TI Boulevard, M/S 3999, Dallas, Texas 75243, 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, as well as to U.S. Provisional Application No(s). \_\_\_\_\_, filed \_\_\_\_\_;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign unto 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(s) and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Patent and Trademark Office to issue all patents for said invention, or patents resulting therefrom, 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 corresponding rights to the invention disclosed in said application in all other countries of the world, including the right to claim priority, file applications and obtain patents under the terms of the Paris Convention for the Protection of Industrial Property, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such rights.

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TITLE	DEEP TRENCH WITH SELF-ALIGNED SINKER		
NONPROVISIONAL APPLICATION NO.		FILING DATE	

SIGNATURE OF INVENTOR	<i>Binghua Hu</i>
PRINTED NAME OF INVENTOR	Binghua Hu
DATE	11-18-2014
RESIDENCE (CITY AND STATE)	

**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.

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 12500 TI Boulevard, M/S 3999, Dallas, Texas 75243, 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, as well as to U.S. Provisional Application No(s). \_\_\_\_\_, filed \_\_\_\_\_;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign unto 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(s) and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Patent and Trademark Office to issue all patents for said invention, or patents resulting therefrom, 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 corresponding rights to the invention disclosed in said application in all other countries of the world, including the right to claim priority, file applications and obtain patents under the terms of the Paris Convention for the Protection of Industrial Property, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such rights.

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TITLE	DEEP TRENCH WITH SELF-ALIGNED SINKER		
NONPROVISIONAL APPLICATION NO.		FILING DATE	

SIGNATURE OF INVENTOR	
PRINTED NAME OF INVENTOR	Abbas Ali
DATE	11-18-14
RESIDENCE (CITY AND STATE)	

**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.

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 12500 TI Boulevard, M/S 3999, Dallas, Texas 75243, 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, as well as to U.S. Provisional Application No(s). \_\_\_\_\_, filed \_\_\_\_\_;

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

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TITLE	DEEP TRENCH WITH SELF-ALIGNED SINKER		
NONPROVISIONAL APPLICATION NO.		FILING DATE	

SIGNATURE OF INVENTOR	<i>Henry Litzmann Edwards</i>
PRINTED NAME OF INVENTOR	Henry Litzmann Edwards
DATE	<i>November 20, 2014</i>
RESIDENCE (CITY AND STATE)	<i>Garland, TX</i>



**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.

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 12500 TI Boulevard, M/S 3999, Dallas, Texas 75243, 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, as well as to U.S. Provisional Application No(s). \_\_\_\_\_, filed \_\_\_\_\_;

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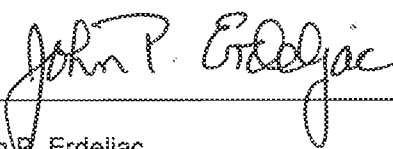
I also hereby sell and assign to TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my corresponding rights to the invention disclosed in said application in all other countries of the world, including the right to claim priority, file applications and obtain patents under the terms of the Paris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

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TITLE	DEEP TRENCH WITH SELF-ALIGNED SINKER		
NONPROVISIONAL APPLICATION NO.		FILING DATE	

SIGNATURE OF INVENTOR			
PRINTED NAME OF INVENTOR	John P. Erdeljac		
DATE	Nov 11, 2014		
RESIDENCE (CITY AND STATE)	3700 GLASGOW DRIVE PLANO, TEXAS 75025		

### 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.

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TITLE	DEEP TRENCH WITH SELF-ALIGNED SINKER		
NONPROVISIONAL APPLICATION NO.		FILING DATE	

SIGNATURE OF INVENTOR	<i>Britton Robbins</i>		
PRINTED NAME OF INVENTOR	Britton Robbins		
DATE	11-11-2014		
RESIDENCE (CITY AND STATE)	4502 Green Meadow Dr, McKinney, Texas 75070		

**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.

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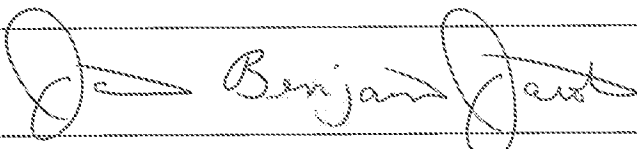
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TITLE	DEEP TRENCH WITH SELF-ALIGNED SINKER		
NONPROVISIONAL APPLICATION NO.	14/555,209	FILING DATE	11/26/2014

SIGNATURE OF INVENTOR			
PRINTED NAME OF INVENTOR	Jarvis Benjamin Jacobs		
DATE	23 JAN 2015		
RESIDENCE (CITY AND STATE)	Murphy, TX		