

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3547176

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PEEYOOSH NITIN MIRAJKAR	09/28/2015
JAGDISH CHAND GOYAL	09/28/2015
SANKARAN ANIRUDDHAN	09/26/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TEXAS INSTRUMENTS INCORPORATED
<b>Street Address:</b>	12500 TI BOULEVARD, M/S 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:	14868785
<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>	P O BOX 655474, M/S 3999
<b>Address Line 4:</b>	DALLAS, TEXAS 75265
<b>ATTORNEY DOCKET NUMBER:</b>	TI-75171
<b>NAME OF SUBMITTER:</b>	ERIC HIGHMAN
<b>SIGNATURE:</b>	/Eric Highman/
<b>DATE SIGNED:</b>	09/29/2015
<b>Total Attachments: 5</b>	
source=TI-75558_assignment#page1.tif	
source=TI-75171_assignment#page1.tif	
source=TI-75171_assignment#page2.tif	
source=TI-75171_assignment#page3.tif	



**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). 62/064,066, filed October 15, 2014;

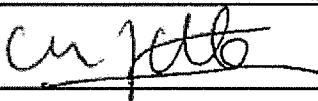
NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign unto the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, title and interest in and to the said invention and in and to the said application(s) and 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	METHOD AND APPARATUS TO RENDER LINES ON A DISPLAY SCREEN		
NONPROVISIONAL APPLICATION NO.	14/867,449	FILING DATE	September 28, 2015
SIGNATURE OF INVENTOR			
PRINTED NAME OF INVENTOR	Michel Georges Stella		
DATE	9/23/2015		
RESIDENCE (CITY AND STATE)	6032 Daven Oaks Drive Dallas, Texas, 75248 US		

After recording, return Assignment to: Texas Instruments Incorporated  
12500 TI Boulevard (M/S 3999)  
Dallas, Texas 75243

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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.


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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	PHASE FREQUENCY DETECTOR (PFD) CIRCUIT WITH IMPROVED LOCK TIME		
NONPROVISIONAL APPLICATION NO.	14/868,785	FILING DATE	September 29, 2015

SIGNATURE OF INVENTOR	
PRINTED NAME OF INVENTOR	Peeyoosh Nitin Mirajkar
DATE	28/09/2015
RESIDENCE (CITY AND STATE)	Flat No. B-2/3, Nikam Park, Devkar Panand Kolhapur, 416012, Maharashtra India

Application No. 14/868,785

Attorney Docket No. TI-75171

SIGNATURE OF INVENTOR	<i>Jagdish Chand</i>
PRINTED NAME OF INVENTOR	Jagdish Chand Goyal
DATE	
RESIDENCE (CITY AND STATE)	#301 Butterfly Apartments, Mariyappa Layout, Panathur Main Road, Kadubeesanahalli Bangalore, 560103, Karnataka India

SIGNATURE OF INVENTOR	
PRINTED NAME OF INVENTOR	Sankaran Aniruddhan
DATE	
RESIDENCE (CITY AND STATE)	New No. 46, Teachers Colony Adyar Chennai, 600020, Tamil Nadu India

Assignee agrees and accepts the assignment

TEXAS INSTRUMENTS INCORPORATED

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

After recording, return Assignment to:

Texas Instruments Incorporated  
PO Box 655474, M/S 3999  
Dallas, TX 75265

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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.

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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	PHASE FREQUENCY DETECTOR (PFD) CIRCUIT WITH IMPROVED LOCK TIME		
NONPROVISIONAL APPLICATION NO.	14/868,785	FILING DATE	September 29, 2015

SIGNATURE OF INVENTOR	
PRINTED NAME OF INVENTOR	Peeyoosh Nitin Mirajkar
DATE	
RESIDENCE (CITY AND STATE)	Flat No. B-2/3, Nikam Park, Devkar Panand Kolhapur, 416012, Maharashtra India

SIGNATURE OF INVENTOR	
PRINTED NAME OF INVENTOR	Jagdish Chand Goyal
DATE	
RESIDENCE (CITY AND STATE)	#301 Butterfly Apartments, Mariyappa Layout, Panathur Main Road, Kadubeesanahalli Bangalore, 560103, Karnataka India

SIGNATURE OF INVENTOR	
PRINTED NAME OF INVENTOR	Sankaran Aniruddhan
DATE	26 September 2015
RESIDENCE (CITY AND STATE)	New No. 46, Teachers Colony Adyar Chennai, 600020, Tamil Nadu India

Assignee agrees and accepts the assignment

TEXAS INSTRUMENTS INCORPORATED

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

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Dallas, TX 75265