07 - 11 - 2002

FORM PTO-1595		U.S. Department of Commerce Patent and Trademark Office	
TI-33850  To the Honorable Commissioner of Patents and Hausem	102150797		
To the Honorable Commissioner of Patents and Hauem	arks. Please record the attached original do	cuments or copy thereof.	
1. Name of conveying party(ies):	2. Name and Address of rec	2. Name and Address of receiving party(ies):	
1) Tuan V. Ngo (06/13/2002)	Name: TEXAS INSTRU	MENTS INCORPORATED	
	Address: P.O. Box 655474	, MS 3999	
06/2 0/0	City: Dallas		
	State: TX Zip:	75265	
•		ss(es) attached? Yes _X_ No	
3. Nature of Conveyance:	Traditional mane(s) & address	35(cs) attached: 1cs _/\N0	
_X_ Assignment Merger			
Security Agreement Change of Name	2		
Other	1100-	11	
Execution Date: June 13, 2002	10//1750	ろ/	
4. Application number(s) or patent number(s).			
X This document is being filed together with a new app	plication.		
Execution date of the application: <i>June 13, 2002</i>			
Title: Circuit And Method to Match Common Mode F	S., I.,		
Tide. Circuit And Wiethou to Mutch Common Mode F	iex impeaance ana to		
Achieve Symmetrical Switching Voltage Output	•		
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850	ts of Write Driver		
Achieve Symmetrical Switching Voltage Output	•		
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850	ts of Write Driver	d? YesX No	
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)	B. Patent No.(s)  Additional numbers attached	d?YesXNo d patents involved:(1)	
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX_ No  5. Name and address of party to whom correspondence	B. Patent No.(s)  Additional numbers attached		
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated	B. Patent No.(s)  Additional numbers attached		
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr. Texas Instruments Incorporated Address: P.O. Box 655474, MS 3999	B. Patent No.(s)  Additional numbers attached		
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas	B. Patent No.(s)  Additional numbers attached		
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr. Texas Instruments Incorporated Address: P.O. Box 655474, MS 3999	B. Patent No.(s)  Additional numbers attached		
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas	B. Patent No.(s)  Additional numbers attached concerning  6. Number of applications and		
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas	B. Patent No.(s)  Additional numbers attached concerning  6. Number of applications and	d patents involved:(1)	
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas	B. Patent No.(s)  Additional numbers attached concerning  6. Number of applications and  7. Amount of fee enclosed of	d patents involved:(1)	
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas  State: TX Zip: 75265	B. Patent No.(s)  Additional numbers attached concerning  6. Number of applications and  7. Amount of fee enclosed of	a patents involved:(1) r authorized to be charged: \$40	
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas  State: TX Zip: 75265	B. Patent No.(s) Additional numbers attached concerning  6. Number of applications and  7. Amount of fee enclosed of the second	a patents involved:(1) r authorized to be charged: \$40	
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas  State: TX Zip: 75265	B. Patent No.(s) Additional numbers attached concerning  6. Number of applications and  7. Amount of fee enclosed of the second	r authorized to be charged: \$40  0668 of Texas Instruments Incorporated	
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas  State: TX Zip: 75265	B. Patent No.(s) Additional numbers attached concerning  6. Number of applications and  7. Amount of fee enclosed of the second	r authorized to be charged: \$40  0668 of Texas Instruments Incorporated	
Achieve Symmetrical Switching Voltage Output Docket No: TI-33850  A. Patent Application No.(s)  Additional numbers attached? YesX No  5. Name and address of party to whom correspondence document should be mailed:  Name: W. Daniel Swayze, Jr.  Texas Instruments Incorporated  Address: P.O. Box 655474, MS 3999  City: Dallas  State: TX Zip: 75265	B. Patent No.(s) Additional numbers attached concerning  6. Number of applications and  7. Amount of fee enclosed of the second	r authorized to be charged: \$40  0668 of Texas Instruments Incorporated	

07/10/2002 GTON11 0

00000141 200668 10179561

01 FC:581

40.00 CH

PATENT REEL: 013060 FRAME: 0171 **ASSIGNMENT** 

Page 1 of 1

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 a place of business at 7839 Churchill Way, MS 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 therefore, 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	CIRCUIT AND METHOD TO MATCH COMMON MODE FLEX IMPEDANCE AND TO ACHIEVE SYMMETRICAL SWITCHING VOLTAGE OUTPUTS OF WRITE DRIVER	
SIGNATURE OF INVENTOR AND NAME	Auding 0 Tuan V. Ngg	
DATE	June 13, 2002	
RESIDENCE (City, County, State)	7570 Kimberly Lane Eden Prairie, MN 55346	
DATE APPLICATION EXECUTED	June 13,2002	

PATENT REEL: 013060 FRAME: 0172