01-20-1999

FORM PTO-1595		U.S. Department of Commerce Patent and Trademark Office
To the Assistant Commissioner for Patents. Please reco	100945980 ————————————————————————————————————	Q **
Name of conveying party(ies): Akitoshi Nishimura Katsuhiro Aoki	2. Name and Address of receiving part Name Texas Instruments Inco Address: PO Box 655474, M/S City: Dallas	39-99 110 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Additional name(s) attached? Yes _X_ No	State: Texas Z Additional name(s) & address(es) attack	ip:75265 nec: Yes X No
3. Nature of Conveyance: X Assignment Security Agreement Other Execution Date: 01/12/98 & 01/21/98 4. Application number(s) or patent number(s). X This document is being filed together Execution date of the application: 01/12/98 & 01/2 Title: Ferroelectric Memory with Bipolar Drive Docket: TI-26607	r with a new application.	
Fding Date: 12/31/98 A. Patent Application No.(s)	B. Patent No.(s)	
Additional numbers attached? Yes	•	l?Yes XN c
Name and address of party to whom correspondence document should be mailed: Name: Carlton H. Hoel Texas Instruments Incorporated Address: PO Box 655474, M/S 3999 City: Dallas	6. Number of applications and patents i	nvolved: 1
State: Texas Zip: 75265	Amount of fee enclosed or authorize Deposit account number (Attach to deposit account): 20-0668	d to be charged: \$40
9. Statement and signature	DO NOT USE THIS SPACE	
-	Carlton H. Hoel, Registration No. 29,934	py of the original document. Page 1 of

REEL: 9697 FRAME: 0631

ATTORNEY'S DOCKET NO. 1-26607P

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors) of residence as fisted, 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 13500 North Central Expressway, 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 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 paths, 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: Ferroelectric Memory with Bipolar Drive Pulses;				
Inventor: Akitoshi N	ishimura	_ ,	<u> </u>	
Date:		Signature:	7	
Dat	te Application Execu	uted:		
Residence and Mailing Address: 6900 Preston Road #2521, Plano, TX 75024 (Hizenship: Japan				
Inventor: Katsuhiro	Aoki			
Date:		Signature:	_	
Dat	te Application Execu	uted:		
	na Address: 2-9-1-2	08 Kohoku, Tsuchiura, Ibaraki, 300, Japa	n Citizenshin Janar	
Residence and Mailir	ig Addicos, 2-0-1-2	, , , , , , , , , , , , , , , , , , , ,	ii canzonorip. oupui	

PATENT REEL: 9697 FRAME: 0632

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 13500 North Central Expressway, 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 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 colleverything possible to aid said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nomineds 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	on: Ferroelectric Memory with Bipolar Drive Pulses;		
Inventor: Akito	shi Nishimura		
Date:	Signature:		
	Date Application Executed:		
Residence and Mailing Address: 6900 Preston Road #2521, Plano, TX 75024 Citizenship: Japan			
Inventor: Katsu Date:	Signature: Kathhiro Hor	<u> </u>	
Date Application Executed: <u>Jan 12 1998</u> Residence and Mailing Address: 2-9-1-208 Kohoku, Tsuchiura, Ibaraki, 300, Japan Citizenship: Japan			

PATENT REEL: 9697 FRAME: 0633

	U.S. Department of Commerce ON FORM COVER SHEET Patent and Trademark Office TENTS ONLY
To the Assistant Commissioner for Patents. Please record the attached of	original documents or copy thereof.
Name of conveying party(ies): Akitoshi Nishimura Katsuhiro Aoki	2. Name and Address of receiving part / (ies): Name: Texas Instruments Incorporated Address: PO Box 655474, M/S 4999 City Dallas State Texas Zio: 75265
Additional name(s) attached? Yes _X_ No	Additional name(s) & address(es) attached? Yes _X_ No
3. Nature of Conveyance:	
X Assignment Merger Security Agreement Change of Na Other Execution Date: 01/12/98 & 01/21/98	ате
4. Application number(s) or patent number(s). X This document is being filed together with a new appl Execution date of the application: 01/12/98 & 01/21/98 Title: Ferroelectric Memory with Bipolar Drive Pulses Docket: TI-26607 Filing Date: 12/31/98	lication.
A. Patent Application No.(s) 60/070,224 Additional numbers attached? YesX_ No	B. Patent No.(s) Additional numbers attached: Yes X No
Name and address of party to whom correspondence concerning document should be mailed:	6. Number of applications and patents involved:1
Name: Carlton H. Hoel Texas Instruments Incorporated Address: PO Box 655474, M/S 3999 City: Dallas	
State: Texas Zip: 75265	7. Amount of fee enclosed or authorized to be charged: \$40
	8. Deposit account number (Attach two copies of this form if paying by deposit account): 20-0668
DO NOT I	USE THIS SPACE
9. Statement and signature.	
To the best of my knowledge and belief, the foregoing information is true a $12/29/48$	and correct and any attached copy is a true copy of the original document. loel, Registration No. 29,934 Page 1 of 3

PATENT REEL: 9697 FRAME: 0634

RECORDED: 12/31/1998