RECORDATION FORM COVER SHEET PATENTS ONLY To the Director of the U.S. Patent and Trademark Office. Pleases record the attached cocaments or the new address(es) below. 1. Name of conveying parties/Execution Dates: Kwang Jin Na (06/15/2004) and Young Bae Chol (06/15/2004) Execution Dates: in parentheses after inventor name. Additional name(s) of scoreysing party(es) assaced Yes X No San 136-1, Ami-Ri, Bubal-Uep, Ichon-Shi Kyungki-Do 467-800 Republic of Korea Sarourity Agreement Change of Name Government Interest Assignment Executive Order 9424, Confirmatory Licensee Other Additional number(s): A Application or patent number(s): A Petent Application No. 10/879,386 Additional numbers attached? Yes X No 5. Name and address to whom correspondence concerning document should be mailed: Name: Randall G. Rueth Atty, Dkt.: 29936/40281 Street Address: 233 S. Wacker Drive, Suite 6300 Sears Tower Additional number of applications and patents involved to be charged to credit card Authorized to be charged to deposit account Enclosed None required (government interest not affecting little) City: Chicago State: L. 2p. 60606-6357 Phone Number: (312) 474-6300 Fax Number: (312) 474-6448 Exercal Address: 9. Signature. Street Address: San 136-1, Ami-Ri, Bubal-Uep, Ichon-Shi Kyungki-Do 467-80 Republic of Korea Street Address (es) Yes X No Additional number(s) & address(es) Yes X No 1. Total number of applications and patents involved to the charged to credit card X Authorized to be charged to deposit account Enclosed None required (government interest not affecting little) City: Chicago Street Address: San 136-1, Ami-Ri, Bubal-Uep, Ichon-Shi Kyungki-Do 467-800 Republic of Korea 1. Total number of applications and patents involved to be charged to deposit account Enclosed None required (government interest not affecting little) Executive Address to whom correspondence is being scaling to the first page including over about page including over a sheet, attachments, and documents: San 13	Form PTO-1595 (Rev. 06/ 04) OMB No. 0651-0027 (exp. 6/30/2005)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
To the Director of the U.S. Patent and Trademark Office: Please record the attached cocuments or the new address(es) below. 1. Name of conveying parties/Execution Dates: Kwang Jin Na (06/15/2004) and Young Bae Chol (06/15/2004) Name: HYNIX SEMICONDUCTOR INC. 2. Name and address of receiving partytes) Name: HYNIX SEMICONDUCTOR INC. 3. Nature of conveying partytes easies in ventor name Additional names; of conveying partytes easies of Yes X No 3. Nature of Conveyance: X Assignment Merger Security Agreement Change of Name Covernment Interest Assignment Executive Order 9424, Confirmatory License Other 4. Application or patent number(s): A Potent Application to patent number(s): A Potent Application or patent number(s): A Potent Application No. B Patent No.(s) 5. Name and address to whom correspondence concerning document should be malled: Name: Randall G. Rueth MARSHALL, GERSTEIN & BORUN LLP Atty. Dkt.: 29936/40281 Sineat Address: 233 S. Wacker Drive, Suite 6300 Sears Tower City: Chicago State: L		
1. Name of corroveying parties/Execution Dates: Kwang Jin Na (06/15/2004) and Young Bae Chol (06/15/2004) Execution Dates: in parentheses after inventor name Additional manetal of conveying partyties glashed? Security Agreement Security Agreement Change of Name Additional name(s) & address(es) In 18 document is being filed together with a new application. B. Patent No.(s) 5. Name and address to whom correspondence concerning document should be malled: Name: Randall G. Rueth Address: Authorized to be charged to deposit account Enclaved Name: City: Chicago State: IL Zip: 80608-6357 Fan Number: (312) 474-6300 Fax Number: (312) 474-6300 Fax Number: (312) 474-6300 Sears Tower Interest Name of Person Signing Interestry certify that this correspondence is being facalimie transfillate to the patent inventor of pages inducing cover above, attachment. September 16, 2004 Date Randall G. Rueth None required (government Interest not affecting title) Signature September 16, 2004 Date Randall G. Rueth Authorized User Name Randall G. Rueth Randall G. Rueth Name of Person Signing Interestry certify that this correspondence is being facalimie transfillate to the Patent and Trademark Office, facalimie no. (703) 306- Sees, on the date shown below.	PATENTS ONLY	
1. Name of corroveying parties/Execution Dates: Kwang Jin Na (06/15/2004) and Young Bae Chol (06/15/2004) Execution Dates: in parentheses after inventor name Additional manetal of conveying partyties glashed? Security Agreement Security Agreement Change of Name Additional name(s) & address(es) In 18 document is being filed together with a new application. B. Patent No.(s) 5. Name and address to whom correspondence concerning document should be malled: Name: Randall G. Rueth Address: Authorized to be charged to deposit account Enclaved Name: City: Chicago State: IL Zip: 80608-6357 Fan Number: (312) 474-6300 Fax Number: (312) 474-6300 Fax Number: (312) 474-6300 Sears Tower Interest Name of Person Signing Interestry certify that this correspondence is being facalimie transfillate to the patent inventor of pages inducing cover above, attachment. September 16, 2004 Date Randall G. Rueth None required (government Interest not affecting title) Signature September 16, 2004 Date Randall G. Rueth Authorized User Name Randall G. Rueth Randall G. Rueth Name of Person Signing Interestry certify that this correspondence is being facalimie transfillate to the Patent and Trademark Office, facalimie no. (703) 306- Sees, on the date shown below.	To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.	
Kwang Jin Na (06/15/2004) and Young Bae Chol (06/15/2004) Name: HYNIX SEMICONDUCTOR INC.		
Additional name(s) of conveying partyles) statehed? Yes X No 3. Nature of Conveyance: X Assignment Merger Security Agreement Change of Name Government Interest Assignment Executive Order 9424, Confirmatory License Other 4. Application or patent number(s): A Petent Application no patent number(s): A Petent Application No. 10/879,366 Additional numbers attached? This document is being filed together with a new application. 8. Patent No.(s) 5. Name and address to whom correspondence concerning document should be malled: Name: Randall G. Rueth MARSHALL, GERSTEIN & BORUN LLP Atty. Dkt.: 29936/40281 Street Address: 233 S. Wacker Drive, Suita 6300 Sears Tower Chicago City: Chicago City: Chicago City: Chicago City: Chicago City: Chicago City: Chicago State: (312) 474-6300 Fax Number: (312) 474-648 Famil Address: 9. Signature. September: 13-2855 Authorized User Name Randall G. Rueth Date Randall G. Rueth - 45,887 Name of Person Signing Total number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cover sheet, strachments, and documents: 1 Potent number of pages including cove	Kwang Jin Na (06/15/2004) and Young Bae Choi	
attached: 4. Application or patent number(s): A. Patent Application No. 10/879,386 Additional numbers attached? Additional numbers attached? S. Name and address to whom correspondence concerning document should be malled: Name: Rendall G. Rueth MARSHALL, GERSTEIN & BORUN LLP Atty, Dkt.: 29936/40281 Sireet Address: 233 S. Wacker Drive, Suite 6300 Sears Tower City: Chicago State: L Zip: 60606-6357 Phone Number: (312) 474-6300 Fax Number: (312) 474-6340 Signature. Signature. Signature Rendall G. Rueth - 45,887 Name of Person Signing I hereby certify that this correspondence is being facsimile transfitted to the Patent and Trademark Office, facsimile no. (703) 306-5996, on the date shown below.	Additional name(s) of conveying party(les) attached? Yes X No 3. Nature of Conveyance: X Assignment Security Agreement Government Interest Assignment	San 136-1, Ami-Ri, Bubal-Uep, Ichon-Shi Kyungki-Do 467-860 Republic of Korea
A. Patent Application No. 10/879,366 Additional numbers attached? Yes X No 5. Name and address to whom correspondence concerning document should be malled: Name: Randali G. Ruetth MARSHALL, GERSTEIN & BORUN LLP Atty. Dkt.: 29936/40281 Street Address: 233 S. Wacker Drive, Suite 6300 Sears Tower City: Chicago State: IL Zip: 60606-6357 Phone Number: (312) 474-6300 Fax Number: (312) 474-6300 Fax Number: (312) 474-0448 Email Address: Phone Number: (312) 474-0448 Email Address: Deposit Account Number 13-2855 Authorized User Name Randali G. Rueth Signature Randali G. Rueth - 45,887 Name of Person Signing Thereby certify that this correspondence is being facsimile transfilted to the Patent and Trademark Office, facsimile no. (703) 306-5995, on the date shown below.	Other	
5. Name and address to whom correspondence concerning document should be malled: Name: Randall G. Rueth MARSHALL, GERSTEIN & BORUN LLP Atty. Dkt.: 29936/40281 Street Address: 233 S. Wacker Drive, Suite 6300 Sears Tower City: Chicago State: IL Zip: 60606-6357 Phone Number: (312) 474-6300 Fax Number: (312) 474-0448 Email Address: 9. Signature. Signature Randall G. Rueth - 45,887 Name of Person Signing I hereby certify that this correspondence is being facsimile transfilited to the Patent and Trademark Office, facsimile no. (703) 306-5995, on the date shown below.	A. Patent Application No.	•
concerning document should be mailed: Name: Randall G. Rueth MARSHALL, GERSTEIN & BORUN LLP Atty. Dkt.: 29936/40281 Street Address: 233 S. Wacker Drive, Suite 6300 Sears Tower City: Chicago State: IL Zip: 60606-6357 Phone Number: (312) 474-6300 Fax Number: (312) 474-0448 Email Address: 9. Signature. Signature. September 16, 2004 Signature Randall G. Rueth - 45,887 Name of Person Signing I patents involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00 Authorized to be charged to deposit account	Additional numbers attached?	Yes X No
City: Chicago State: IL Zip: 60606-6357 Phone Number: (312) 474-6300 Fax Number: (312) 474-0448 Email Address: Deposit Account Number 13-2855 Email Address: Signature. 9. Signature. September 16, 2004 Signature Randall G. Rueth - 45,887 Name of Person Signing I hereby certify that this correspondence is being facsimile transfitted to the Patent and Trademark Office, facsimile no. (703) 306-5995, on the date shown below.	concerning document should be malled: Name: Randall G. Rueth MARSHALL, GERSTEIN & BORUN LLP Arty. Dkt.: 29936/40281 Street Address: 233 S. Wacker Drive, Suite 6300	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00 Authorized to be charged to deposit account Enclosed
State:		I rouge reclaimed (government interest not site congluing)
9. Signature. September 16, 2004 Signature Randall G. Rueth - 45,887 Name of Person Signing Total number of pages including cover sheet, attachments, and documents: 1 hereby certify that this correspondence is being facsimile transflitted to the latent and Trademark Office, facsimile no. (703) 306-5995, on the date shown below.	State: IL Zip: 60606-6357 Phone Number: (312) 474-6300 Fax Number: (312) 474-0448	a. Credit Card Last 4 Numbers Expiration Date b. Deposit Account Number 13-2855
September 16, 2004 Signature Date Randall G. Rueth - 45,887 Name of Person Signing Total number of pages including cover sheet, attachments, and documents: Thereby certify that this correspondence is being facsimile transfilited to the Patent and Trademark Office, facsimile no. (703) 306-5995, on the date shown below.		, Wilder C. (Wall)
I hereby certify that this correspondence is being facsimile transfiltted to the Patent and Trademark Office, facsimile no. (703) 306-5995, on the date shown below.	Signature Randall G. Rueth - 45,887	Date Total number of pages including cover
5995, on the date shown below.		
	5995, on the date shown below.	

PATENT REEL: 015144 FRAME: 0370 4.AUG.2004 18:00

SEJONG

NO. 484 P. 3 Attorney Docket: 29936/40281

ASSIGNMENT

Serial No: 10/879,386

Filed: June 29, 2004

Title:

ON-DIE TERMINATION CONTROL CIRCUIT AND METHOD OF

GENERATING ON-DIE TERMINATION CONTROL SIGNAL

For good and valuable consideration, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign(s) to Hynix Semiconductor Inc., of San 136-1. Ami-Ri. Bubal-Uep, Ichon-Shi, Kyungki-Do, Republic of Korea, (hereinafter "Assignee"), its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, and in said application and any and all other U.S. applications which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States which may be obtained on any of said applications, and in any reissue or extension thereof.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee. The undersigned also hereby authorizes the attorneys of Marshail, Gerstein & Borun to insert the filing date and serial number of this application in the blanks above when they become known.

The undersigned warrant(s) themselves (himself/herself) to be the owners (owner) of the interest herein assigned and to have the right to make this assignment and further warrant(s) that there are no outstanding prior assignments, licenses, or other rights in the interest herein assigned.

For said consideration the undersigned hereby agree(s), upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation, continuation-in-part and substitute applications for said invention or improvements, and any necessary oath or affidavit relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application that said assignee, its successors or assigns, may deem necessary or expedient, and for the aforesaid consideration the undersigned further agree(s) upon the request of said assignee, its successors or assigns, in the event of any application or Letters Patent assigned herein becoming involved in Interference, to cooperate to the best of the ability of the undersigned with said assignee, its successors or assigns, in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, the undersigned hereby agreeing to perform, upon request, any and all affirmative acts to obtain said Letters Patent in the United States and to vest all rights therein hereby conveyed in said assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by said assignee, its successors and assigns, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment and sale had not been made.

> PATENT REEL: 015144 FRAME: 0371

09/16/2004 11:10:17 AM MARSHALL, GERSTEIN & BORUN LLP MarshallGerstein Page 5

4.AUG.2004 18:00

Attorney Docket:

29936/40281

SIGNED:

Date: JUNE 15, 2004

Name: Kwang Jin NA

Date: JUNE 15, 2004

RECORDED: 09/16/2004

Choi Young Bue Name: Young Bae CHOI

PATENT REEL: 015144 FRAME: 0372