PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Sangyong Yoon	08/14/2010
Jinman Han	08/14/2010
Kitae Park	08/14/2010
Joon Young Kwak	08/18/2010

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City:	Suwon-si, Gyeonggi-do,
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Postal Code:	442-742

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12882378

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NAME OF SUBMITTER: ADAM C. VOLENTINE

Total Attachments: 4

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Insert Name(s) of	1.	Sangyong YOON	7.		
Inventor(s)	2.	Jinman HAN	8.		_
	3.	Kitae PARK	9.		_
	4	Joon Young Kwak	10.	THE PARTY OF THE P	_
d	5.		11.		
	6.		12		
Insert Name(s) of	the u	ndersigned hereby sell(s) and a	ussign(s) to		-
Assignee(s) &		SAMSUNG	ELECTRONICS	CO. LAD.	
	:	416, Maetan-dong,	Yeongtong-g	u,	
Address(es)	of	Suwon-si, Gyeongg	i-do 442-742	, Republic of Korea	
Title of Invention	NON'	s as defined in 35 USC 100, in YOLATILE MEMORY DEVIC SRAMMING A NONVOLATIL	E AND SYSTEM E MEMORY DEV	, AND METHOD OF	
Date of Signing of Application		hich an application for patent indersigned on August 14, 20		of America has been executed by	
	applice executed deem The uninterfet	necessary or expedient, indersigned agree(s) to execute erence which may be declared	sional or reissue ap nection with such a all papers necessa concerning this ap	oplications thereof and also to applications as the Assignee may be in connection with any plication or continuing, division or	
	evide	e thereof and to cooperate with nce and going forward with suc	the Assignee in e ch interference.	very way possible in obtaining	
	may b	ndersigned agree(s) to execute be necessary in connection with otection of Industrial Property	claims or provision	uments and perform any act which ons of the International Convention ents.	
1	The una gran	ndersigned agree(s) to perform it of a valid United States paten	all affirmative act to the Assignee.	s which may be necessary to obtain	

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The undersigned hereby grant(s) the practitioners associated with the <u>CUSTOMER NUMBER 20987</u> the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

· . I	Date	<u> 2010</u>	8.14	_ Signat	ure of Invente	sangyong Yo	MACON SON	
. E)ate	20/0	8.14	Signat	ure of Invente	r Jinga HAN	Man Han	
. 10)ate	~010 B	!	Signat	ure of Invento	r Kitas PARK	ym	
, D	ate_	:	4.7	_ Signat	ure of Invento			
Ď	ate _			_ Signat	ure of Invento	Joon Young	KWAK	
D	ate				ure of Envento	· · · · · · · · · · · · · · · · · · ·		
		witnessed	by at least tw	o witness	es who sign he	re. However, the	tion by the Invente current practice of has not been witne	f the U.S.
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ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned Insert I. Sangyong Yook 7. Name(s) of Inventor(s) 2. Jinman HAN 3. Kitae PARK 9. 4. John Young Kwak 5. o.
the undersigned hereby sell(s) and assign(a) to Insert Name(s) of SAMSUNG ELECTRONICS CO., LTD. Assignec(s) & 416, Maetan-dong, Yeongtong-gu, of Suwon-si, Gyeonggi-do 442-742, Republic of Korea Address(cs) (hereinafter designated as the Assignee) the entire right, title and interest for the United States as defined in 35 USC 100, in the invention known as Title of NONVOLATILE MEMORY DEVICE AND SYSTEM. AND METHOD OF Invention PROGRAMMING A MONVOLATILE MEMORY DEVICE Date of for which an application for patent in the United States of America has been executed by Signing of the undersigned on August 18, 2010 Application

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuing, division or reissue thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

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PATENT

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The undersigned hereby grant(s) the practitioners associated with the CUSTOMER NUMBER 20987 the power to issert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patonis to issue any and all Lotters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

	######################################	Signature of Inventor	
	1810		Sangyong Your
Date		Signature of Inventor	
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