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VOLENTINE WHITT PLLC

#1840 P.002 /004

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Additional name(s) & address(es)	🖵 Yes 🖾 No
6. Total number of application	ons and patents involved: 1
7. Total fee (37 CFR 3:41):	\$ 40.00
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## PATENT REEL: 020524 FRAME: 0480

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ASSI	GNN	<b>IENT</b>
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	In consideration of the sum of Or consideration paid to each of the unc	e Dollar (\$1.00) and other good and valuable dersigned			
Insert Name(s) of	l Sang-beom KANG	5			
Inventor(s)					
	3. Hyung-rok OH	9			
	4. Joon-min PARK	10			
	5.	11			
	6.	12			
Insert Name(s) of	the undersigned hereby sell(s) and a	ssign(s) to			
Assignee(s) &	SAMSUNG : 416, Maetan-dong,	ELECTRONICS CO., LTD.			
Address(es)	of Suwon-si, Gyeongg	i-do 442-742, Republic of Korea			
		nee) the entire right, title and interest for the United			
Title of	States as defined in 35 USC 100, in the invention known as				
Invention	NONVOLATILE MEMORY DEVICE HAVING MEMORY AND REFERENCE CELLS				
Date of Signing of Application	for which an application for patent in the United States of America has been executed by the undersigned on				
	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 a grant of a valid United States pater	all affirmative acts which may be necessary to obtain nt to the Assignee.			
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	Pa	ige 1 of 2			

PATENT REEL: 020524 FRAME: 0481

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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).

Date <u>2009, 69, 13</u>	Signature of Inventor	Strippeon (tay sang-béom KANG
Date <u>2007</u> , 09,13	Signature of Inventor	WOOYEONGT CHO
Date 2007. 09. 13	Signature of Inventor	Hyung-rok OM
Date 2007.09.13	Signature of Inventor	Hyung-rok OH Hyung-rok OH PARK Joon MM. Joon-min PARK
Date	Signature of Inventor	
Date	Signature of Inventor	
Patent and Tradema Witness	ark Office is to record an Assign	
Applicant Reference No.	SIP060268US	
	Page 2 of <b>2</b>	

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**RECORDED: 02/15/2008**