U.S. DEPARTMENT OF COMMERCE

	o the Honorable Commissioner of Pa 101955229 To the Honorable Commissioner of Pa 101955229 To the Honorable Commissioner of Pa 101955229 To the Honorable Commissioner of Pa 101955229		
1.	Name of conveying party(ies): Jae-seong SHIM; Jung-wan KO; Ki-hyun KIM; Hyun-soo PARK; and Kyung-geun LEE		
2.	Name and Address of receiving party(ies):		
	Name and Address of receiving party(ies): SAMSUNG ELECTRONICS CO., LTD. 416 Maetan-3dong, Paldal-gu Suwon City, Kyungki-do Republic of Korea		
	∀ 2.		
3.	Nature of conveyance: X Assignment Merger		
	Security Agreement Change of Name Other:		
	Execution Date(s): November 12, 2001		
4.	Application number(s) or patent number(s): This document is being filed together with a new application: (a) The execution date(s) of the application is/are: (b) The title is: OR		
	 This document is being filed after filing of the application: (a) Patent Application No(s). 09/985,162, filed November 1, 2001; or (b) Patent No(s)., issued. 		
5.	Name and address of party to whom correspondence concerning document should be mailed: STAAS & HALSEY LLP Our Docket: 1293.1265 Attention: Michael D. Stein 700 Eleventh Street, N.W., Suite 500 Washington, D.C. 20001		
6.	Total number of applications and patents involved:1		
7.	Total fee (37 CFR 3.41)(\$ 40.00 per Assignment) ☑ Enclosed ☐ Authorized to be charged to deposit account.		
8.	Deposit Account No.: 19-3935 (Any underpayment is authorized to be charged to this Deposit Account) (Attach duplicate copy of this page if paying by deposit account)		
9.	Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.		
Jan	nes G. McEwen, Reg. No. 41,983 Signature Date		
Nan	ne of Person Signing Total number of pages including cover sheet: 2		
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U.S. ASSIGNMENT

S&H #:94

IN CONSIDERATION of the sum of One Doundersigned inventor(s) (hereinafter, "ASSIGNOF		good and valuable consideration paid to the
(Insert Name(s) & Address(es) of ASSIGNEE(S))		
SAMSUNG ELECTRONICS CO.,	LID.	
416 Maetan-dong, Paldal-g	u, Suwon-city, Kyungki-	-do,
Republic of Korea		
(hereinafter, "ASSIGNEE"), the receipt of which	is hereby neknowledged, the	undersigned ASSIGNOR hereby solls, assigns
and transfers to ASSIGNEE the entire and exclus	ive right, title and interest to	the invention entitled
(Title of Invention)		
DATA MODULATION METHOD, AND RECO	RDING AND REPRODUCING A	APPARATUSES AND METHODS ADOPTING
THE DATA MODULATION METHOD		
relating to International Patent Application PCT/JP States was executed on even date herewith or, i	and/or for what not so executed, was:	nich application for Letters Patent of the United
(a) executed on	; (Insert date of execu	tion of application, if not concurrent)
(b) filed as 1 November 2001	. Any registered attorn	ney of STAAS & HALSEY, 700 Eleventh
(b) filed on 1 November 2001 Serial No. 09 / 985,162 :	Street N.W. Washi	ngton, D.C. 20001 (202/434-1500) is insert in (b) the specified data, when
Serial No	known.	ansert in joy die openie
and to said application and all Letters Patent(s) of renewal, substitute, reissue or reexamination appratent(s) may be granted and including any extent(s)").	ensions thereof (collectively,	hereinafter, "said application(s) and Letters
The ASSIGNOR agree(s), when requested by a to do all acts which the ASSIGNEE may deem a protection for said invention, including in the preparent(s), in any interference, reissue, reexamina which may arise or be declared in relation to same separate assignments and declarations, taking a evidence.	eration and prosecution of said tion, or public use proceeding, ne, such acts to include but no all rightful oaths, providing sy	application(s) and the issuance of a proceeding, and in any litigation or other legal proceeding of be limited to executing all papers, including worn testimony, and obtaining and producing
IN WITNESS WHEREOF, the undersigned inve	entor(s) has (nave) arrived the	(Typed Name & Signature of Witness(es))
(Typed Name & Signature of Inventor(s))	1.	
To- Seona Shim	12 Nov. 2001	
Jae-seong Shim	12 Nov. 2001	
Just Anllo		
Jung-yan Ko	12 Nov. 2001	_
Ri-tryun Kim) avic	12 Nov. 2001	
Hyun-soo Park	12 Nov. 2001	
5) Kylung-geun Lee		

RECORDED: 01/15/2002

PATENT REEL: 012474 FRAME: 0234