		50PM PTO 1505
		U.S. DEPARTMENT OF COMMERCE I
	i	©2005 Staas & Halsey LLP
	ŀ	To the Director of the U.S. Patent and Tradema 103102725
	L	10 the birector of the 0.5. Patent and Tradema 103102725
1961.07	1.	Name of conveying party(ies): Yongbeom LEE Yuan Yuan SHI Jaewon LEE
0		Yongbeom LEE
~		Yuan Yuan SHI
_		Jaewon LEE
à	_	$\tilde{\omega}_{i}^{\prime}$
ے۔	2.	Name and Address of receiving party(ies):
		SAMSUNG ELECTRONICO COLLED
		SAMSUNG ELECTRONICS CO., LTD.
		416, Maetan-Dong, Yeongtong-gu, Suwon-si, Gyeonggi-do
		Republic of Korea
		republic of Notea
	3.	Nature of conveyance:
		X Assignment Merger
		Security Agreement Change of Name
		Other:
		Execution Date(s): October 4, 2005
	_	
	4.	Application number(s) or patent number(s):
		☐ This document is being filed together with a new application.
		OR
		OR  This decument is being filed of a filip we fill a section of the section of t
		☐ This document is being filed after filing of the application:  (a) Patent Application No(s)., filed; or
		(a) Patent Application No(s). , filed ; or (b) Patent No(s). , issued .
		(b) 1 dicht (40(3)., 133ded.
	5.	Name and address of party to whom correspondence concerning document should be mailed:
		STAAS & HALSEY LLP Our Docket: 1793.1822
		Attention: Gene M. Garner, II
		1201 New York Ave., N.W., Suite 700
		Washington, D.C. 20005
	_	
	6.	Total number of applications and patents involved:1
	7	Total foo (27 OFD 2 44)
	7.	Total fee (37 CFR 3.41) (\$ 40.00 per Patent or Application in Assignment)  ⊠ Enclosed
		<ul><li>☑ Enclosed</li><li>☐ Authorized to be charged to deposit account.</li></ul>
		Additionized 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)
		1 // 1 2
	Michae	el E. Kondoudis, Reg. No. 42,758 / Madady October 12, 2005
	Name	of Person Signing Signature Date
		Total number of pages including cover sheet: 2
<i>.</i>		
10/14/2005 MBERHE 00000024 11247277		
05, FC:80	21	40.00 OP \

PATENT REEL: 017088 FRAME: 0319

U.S. ASSIGNMENT RANK IAID in GONEIDERATION of the ours of One Duller (\$1.90), and of wher godf, and valuation consummations have to the Unitelligible inventor(s) (hardinater, "ASSIGNOR") by (Insert Name(s) & Address(es) of ASSIGNEE(S)) SAMSUNG ELECTRONICS CO., LTD. 416, Mastan-Dong, Yeongtong-gu, Suwon-si, Gyeonggi-do Republic of Korea (hereinsfier, "ASSIGNEE"), the receipt of which is hereby adknowledged, the undersigned ASSIGNOR hereby eats, essigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the invention entitled (Title of invention) METHOD AND APPARATUS FOR ESTIMATING PITCH OF SIGNAL relating to international Patent Application PCT/ICR\_\_/
States was concurred on even date herowith or, if not ag executed was: and/or for which application for Letters Patent of the United (a) axecuted on : 4/October/2005 (insert date of execution of application, if not concurrent) Any registered attorney of STAAS & MALSEY ILP, 1201 New York Avenue, M.W., Suite 700 Washington, D.C. 30005 (200454-1500) is hereby authorized to insert in (b) the specified data, when known. (b) filed on . Seriel No. : and to said application and all Letters Patent(s) of the United States granted on said application and any continuation, division, renewal, substitute, relates or redeamination application based thereon, for the full term or forms for which the said Letters Patent(s) may be granted and including any extensions thereof (collectively, hereinster, "said application(s) and Letters Patent(s)"). The ASSIGNCR agree(s), when requested by said ASSIGNEE and without charge to but at the expense of said ASSIGNEE, to do all acts which the ASSIGNEE may deem necessary, desirable or expedient, for securing, maintaining and enforcing protection for said invention, including in the preparation and prosecution of said application(s) and the issuence of said Laters Patent(s), in any interference, research maintain, or public use proceeding, and in any litigation or other legal proceeding which may since or be declared in relation to same, such acts to include but not be firsted to executing all papers, including experies assignments and declarations, taking all rightful cathe, providing swom institutory, and obtaining and producing evidence. IN WITNESS WHEREOF, the undersigned inventor(s) has (have) efficied his/har/their signature(s), (Typed Name & Signature of Inventor(s)) (Date) (Typed Name & Signature of Inventor(s)) (Typed Name & Signature of Witness(es)) Your Bestiles ( 4/October/2005 Yongbeom LEE 2) <u>YWWY YWW Siri |</u> YWan Yuan Siri <u> 4/October/2005</u> Les 4/October/2005 JAS WON LEG

RECORDED: 10/12/2005

**PATENT** 

REEL: 017088 FRAME: 0320