FORM PTO-1595 E 03 - 24 - 2004 Atty. Docket: BHT-3111-441					
-	.To the Commissioner of Patents and 7		nal documents or copy thereof.		
1.	Name of conveying party(ies):		of receiving party(ies):		
	Der-Zheng LIU; Tai-Cheng LIU; Song-Nien	03067 Name: <u>Realtek Semic</u>			
	TUNG; Kuang-Yu YEN				
	Additional name(s) of conveying party(ies) attached?	Foreign Address: No.	2, Industry E. Rd., IX, Science-Based		
	Yes X No	<u>Industrial Park, Hsi</u>	nchu, Taiwan, R.O.C.		
			S.P. 047		
3.	Nature of conveyance: X Assignment	Domestic Address:			
	Security Agreement Change of Name	Domestic Address:			
	Other		X =		
	Execution Date: March 3, 2004	City:	State ZIP		
	I	Additional name(s) &	address(es) attached? Yes X No		
4.	Application number(s) or patent number(s):				
	If this document is being filed together with a new application, the execution date of the application is: March 3, 2004				
	A. Patent Application No.(s)	B. Patent Registra	ation No.(s)		
			3/18/04		
			No. 1. 0 . 0 -		
	Additional numbers attached?	☐ Yes X	NO 10803047		
5.	Name and address of party to whom correspondence concerning document should be mailed:	6. Number of applica One (1)	tions and patents involved:		
	Name: TROXELL LAW OFFICE PLLC				
	5205 Leesburg Pike	7. Total fee (37 CFR	3.41): \$40.00		
	Suite 1404	X Enclosed			
	Falls Church, Virginia 22041-3401	Authorized to b	pe charged to deposit account		
	Telephone No.: (703) 575-2711	8. Deposit account nu	ımber <u>501874</u>		
	Facsimile No.: (703) 575-2707	(Attach duplicate co	py of this page if paying by deposit account):		
	DO NOT USE THIS SPACE				
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.					
	ongma accument.				
	Bruce H. Troxell	Innell	March 18, 2004		
	Name of Person Signing Signature My (1) Date				
Registration No.26,592					
	Total number of	pages including cover sl	heet, attachments, and documents:		
	03/19/2004 HLE333 00000047 10803047 04 FC:8021 40.00 0P				

PATENT REEL: 015113 FRAME: 0257

ASSIGNMENT

WHEREAS, I (we), Liu, Der-Zheng; Liu, Tai-Cheng; Tung, Song-Nien; Yen, Kuang-Yu

whose post office address(es) appear below, hereinafter referred to as ASSIGNOR, is (are) the owner(s) of certain new and useful improvements in

Apparatus and Method for Sampling Timing Compensation in Multi-carrier System

(Hereinafter referred to as the INVENTION) for which an application for United States Letters Patent was

9 executed on even date herewith

9 executed on:

9 filed on:

Serial No.:

9 established by PCT International Patent Application No.:

WHEREAS, Realtek Semiconductor Corp.

whose post office address is No.2, Industry E. Rd., IX, Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.

hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States and throughout the world;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I (we), ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all United States Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application; and the entire right, title and interest in and to the said INVENTION throughout the world, including the right to apply for patents and inventor certificates in respect thereof and to claim priority pursuant to rights accorded ASSIGNOR under the terms of the Paris International Convention and all other available international conventions and treaties; and the entire right, title and interest in and to any and all patents, patents of addition, utility models, patents of importation, revalidation patents and inventor certificates which may be granted throughout the world in respect of said INVENTION.

ALSO, ASSIGNOR hereby agrees to executed any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) or inventor certificate(s) in the United States and in foreign countries for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE is and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE s expense, to identify and communicate to ASSIGNEE at ASSIGNEE s request documents and information concerning the INVENTION that are within ASSIGNOR s possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR s obligations under this instrument shall extend to ASSIGNOR s heirs, executors, administrators and other legal representatives.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE is sole use and behoof; and for the use and behoof of ASSIGNEE is legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

ASSIGNOR authorizes any member of the firm of Troxell Law Office Pllc to insert or complete any information in this document needed to effect its

Assignor Name Liu, Der-Zheng	Address No.123, Sec.5, ChangJung Road, Tainan, Taiwan, R.O.C.
Where Signed	
Date 4 Mar. 3, 200 4	Signature Der-Zheng WU
(Notarization preferred but not required)	Ss.
Before me personally appeared said	
And acknowledged this instrument to be his (her) free act and deed this of	day

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PATENT REEL: 015113 FRAME: 0258

ASSIGNMENT		
Page:		

Assignor Name Liu, Tai-Cheng	Address No.29, HsinHsing Rd., HsinHsing District, KaoHsiung, Taiwan, R.O.C.				
Where Signed					
Date 2004, 3, 3	Signature Liu, Fai-Cheng				
(Notarization preferred but not required)					
Before me personally appeared said					
And acknowledged this instrument to be his (her) free act and deed this of	day, 2000.				
Notary Public					
My Commission Expires:					
My Commission Expires.					
Assignor Name Tung, Song-Nien	Address No.246, TzuChu Hsin Tsun, TsoYing, KaoHsiung, Taiwan, R.O.C.				
Where Signed					
Date 2 2 3 5	Signature Tang Song - Nien				
SS. (Notarization preferred but not required)					
Before me personally appeared said					
Notary Public					
My Commission Expires:					
Assignor Name Yen, Kuang-Yu	Address No.46, Lane 88, Aikuo Street, TaiChung, Taiwan, R.O.C.				
Where Signed					
Date rooy, h.h	Signature Yen Knang-Yn				
SS.					
(Notarization preferred but not required)					
Before me personally appeared said	day, 2000.				
Notary Public					

JOINT ASSIGNMENT - NOTARIZATION

RECORDED: 03/18/2004

My Commission Expires:

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