FORM PTO-1595	11-04-19	99	U.S. Department of Commerce Patent and Trademark Office
To the Honorable Commissioner of Patents a	1011916	33	documents or copy thereof.
Name of conveying party(ies):	2	Name and Addre	ess of receiving party(ies):
Thomas Conway	3. 6	Name: STM	icroelectronics, Inc.
Jason Byrne) c	Address: Strav enter	wlinskylaan 1025, World Trade
Additional name(s) & address(es) attached? Yes X No	MORMANN STREET	State: The Additional name	x Amsterdam Netherlands Zip: (s) & address(es) Yes X No
3 Nature of Conveyance:			
X Assignment	Merger		
Security Agreement	Change of Name		
Other			
Execution Date: 30 September 1999			
Application number(s) or patent number(s). If this document is being filed together with a recommendation.	new application, the execut	ion date of the app	lication is:
A. Patent Application No.(s)		B. Patent No.(s))
09/387.104			
Additional numbers attached? Yes	X No	Additional number	ers attached? YesX_ No
Name and address of party to whom correspo document should be mailed	ndence concerning 6	Number of applic	eations and patents involved: 1
Name: Lisa K. Jorgenson			
Address: 300 Electronics Drive, M	S 2346		
City: Carrollton			
State: Texas Zip 75006			
	7.	Amount of fee en	closed or authorized to be charged: \$ 40.00
	8.	Deposit account	number : <u>500315</u>
	DO NOT USE THI	S SPACE	\$ 3
9. Statement and signature.			9387
To the best of my knowledge and belief, the fo	oregoing information is true	e and correct and a	any attached copy is a true copy of the original
Mon /	Steven H. Sl	ater	2604799
Signature	Name of Person Si		Date 🖫
Tota: number	of pages including cover s	sheet, attachments	2

REEL: 010352 FRAME: 0109

ASSIGNMENT

WHEREAS, we, Thomas Conway and Jason Byrne are the joint inventors of Efficient Interpolator for High Speed Timing Recovery, application for United States Letters Patent which is executed of even date herewith; and

WHEREAS, STMicroelectronics, N.V., a Dutch corporation, with its principal offices at Strawinskylaan 1025, World Trade Center, 1077xx Amsterdam, The Netherlands ("ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to the aforesaid invention throughout the world, and all right, title and interest in, to and under any and all Letters Patent of the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby sell, assign, transfer and set over to ASSIGNEE all right, title and interest in and to the said invention throughout the world, and said application for U.S. Letters Patent, and any and all divisions, continuations, and reissues thereof, and any and all Letters Patent of the United States and foreign countries which may be granted therefor, the same to be held and enjoyed by ASSIGNEE for its own use and benefit, and for the use and benefit of its successors, assigns, or other legal representatives, to the end of the term or terms for which said Letters Patent of the United States or foreign countries are or may be granted or reissued, as fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

And we hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States on said invention or resulting from said application and from any and all divisions, continuations, and reissues thereof, to ASSIGNEE as assignee of my entire interest, and hereby covenant that we have the full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith.

And we further hereby covenant and agree that we will, at any time, upon request, execute and deliver any and all papers that may be necessary or desirable to perfect the title of said invention and to such Letters Patent as may be granted therefor, to ASSIGNEE, its successors, assigns, or other legal representatives and that if ASSIGNEE, its successors, assigns or other legal representatives shall desire to file any divisional or continuation applications or to secure a reissue of such Letters Patent, or to file a disclaimer relating thereto, will upon request, sign all papers, make all rightful oaths and do all lawful acts requisite for the filing of such divisional or continuation application, or such application for reissue and the procuring thereof, and for the filing of such disclaimer, without further compensation but at the expense of said assignee, its successors, or other legal representatives.

Page 1 of 2 ASSIGNMENT And we do further covenant and agree that we will, at any time upon request, communicate to ASSIGNEE, its successors, assigns or other legal representatives, such facts relating to said invention and Letters Patent or the file history thereof as may be known to me, and testify as to the same in any interference or other litigation when requested so to do, without further compensation but at the expense of said assignee, its successors, or other legal representatives.

	Thomas Conway	•
EXECUTED THIS day of _	, 19	

EXECUTED THIS 30th day of September, 19 99.

Jason Byrne

ST-99-AD-080

ASSIGNMENT

WHEREAS, we, Thomas Conway and Jason Byrne are the joint inventors of Efficient Interpolator for High Speed Timing Recovery, application for United States Letters Patent which is executed of even date herewith: and

WHEREAS, STMicroelectronics, N.V., a Dutch corporation, with its principal offices at Strawinskylaan 1025, World Trade Center, 1077xx Amsterdam, The Netherlands ("ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to the aforesaid invention throughout the world, and all right, title and interest in, to and under any and all Letters Patent of the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby sell, assign, transfer and set over to ASSIGNEE all right, title and interest in and to the said invention throughout the world, and said application for U.S. Letters Patent, and any and all divisions, continuations, and reissues thereof, and any and all Letters Patent of the United States and foreign countries which may be granted therefor, the same to be held and enjoyed by ASSIGNEE for its own use and benefit, and for the use and benefit of its successors, assigns, or other legal representatives, to the end of the term or terms for which said Letters Patent of the United States or foreign countries are or may be granted or reissued, as fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

And we hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States on said invention or resulting from said application and from any and all divisions, continuations, and reissues thereof, to ASSIGNEE as assignce of my entire interest, and hereby covenant that we have the full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith

And we further hereby covenant and agree that we will, at any time, upon request, execute and deliver any and all papers that may be necessary or desirable to perfect the title of said invention and to such Letters Patent as may be granted therefor, to ASSIGNEE its successors. assigns, or other legal representatives and that if ASSIGNEE, its successors, assigns or other legal representatives shall desire to file any divisional or continuation applications or to secure a reissue of such Letters Patent, or to file a disclaimer relating thereto, will upon request, sign all papers. make all rightful oaths and do all lawful acts requisite for the filing of such divisional or continuation application, or such application for reissue and the procuring thereof, and for the filing of such disclaimer, without further compensation but at the expense of said assignee, its successors, or other legal representatives

Page 1 of 2 ASSIGNMENT

PATENT REEL: 010352 FRAME: 0112 And we do further covenant and agree that we will, at any time upon request, communicate to ASSIGNEE, its successors, assigns or other legal representatives, such facts relating to said invention and Letters Patent or the file history thereof as may be known to me, and testify as to the same in any interference or other litigation when requested so to do, without further compensation but at the expense of said assignee, its successors, or other legal representatives.

EXECUTED THIS	30	day of	SEPT	. 19 99
	\sim		(101)	• 1 1 1 1

monias conway

Jason Byrne

Page 2 of 2 ASSIGNMENT

RECORDED: 11/01/1999

PATENT REEL: 010352 FRAME: 0113