PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE	E: NEW ASSIGNMENT		
NATURE OF CONV	YEYANCE: ASSIGNMENT		
CONVEYING PART	Y DATA		
		Name	Execution Date
Kai-feng WANG			11/09/2009
Hong-xia SUN		11/09/2009	
Peng-fei ZHU			11/09/2009
Yong-qiang WU			11/09/2009
RECEIVING PARTY	' DATA		
Name:	STMICROELE	CTRONICS (BEIJING) R&D CO., I	LTD.
Street Address:		Building, No. 9 Northwest Fourth Ri	
Internal Address:	Haidian Distric		
City:	Beijing		
State/Country:			
Postal Code:	100080		
Property	Туре	N	umber
Property Application Number		2631098	
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Date:	06/21/2013
Total Attachments: 6 source=2740-003-03_Assignment_as_filed_ source=2740-003-03_Assignment_as_filed_ source=2740-003-03_Assignment_as_filed_ source=2740-003-03_Assignment_as_filed_ source=2740-003-03_Assignment_as_filed_	20130620#page2.tif 20130620#page3.tif 20130620#page4.tif 20130620#page5.tif

ASSIGNMENT OF U.S. AND FOREIGN RIGHTS IN INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNORS of good and valuable consideration the adequacy and receipt of which are hereby acknowledged,

ASSIGNOR <u>Kai-Feng WANG</u> residing or having a principal place of business at <u>Rm. 08, 12B/F, Yingu Building, No. 9 Northwest Fourth Ring Road,</u> <u>Haidian District, Beijing 100080, P.R. China</u>, and a citizen or juristic entity of <u>China</u>,

ASSIGNOR <u>Hong-Xia SUN</u> residing or having a principal place of business at <u>12B/F</u>, <u>Yingu Building</u>, <u>No. 9</u> Northwest Fourth Ring Road, <u>Haidian</u> <u>District</u>, <u>Beijing</u>, <u>100080</u>, P.R. China , and a citizen or juristic entity of <u>China</u>,

ASSIGNOR <u>Peng-fei ZHU</u> residing or having a principal place of business at <u>12B/F, Yingu Building, No. 9 Northwest Fourth Ring Road, Haidian District, Beijing, 100080, P.R. China</u>, and a citizen or juristic entity of <u>China</u>,

ASSIGNOR <u>Yong-giang WU</u> residing or having a principal place of business at <u>12B/F</u>, <u>Yingu Building</u>, <u>No. 9</u> Northwest Fourth Ring Road, <u>Haidian</u> <u>District</u>, <u>Beijing</u>, <u>100080</u>, P.R. China</u>, and a citizen or juristic entity of <u>China</u>,

hereby sells, assigns, and transfers to:

ASSIGNEE <u>STMicroelectronics R&D (Beijing) Co. Ltd</u>, residing or having a principal place of business at <u>12B/F, Yin Gu Building No. 9 Northwest the Fourth Ring Road, Hai Dian District, Beijing 100080 P.R. China</u> and a citizen or juristic entity of <u>China</u>, and the successors, assigns, and legal representatives of the ASSIGNEE, the entire right, title, and interest in the United States and in all foreign countries, including all rights to claim priority, in and to any and all improvements which are disclosed in the invention entitled <u>REDUCING INSTRUCTION COLLISIONS IN A PROCESSOR</u> and which is found in United States patent application serial number <u>12/631,098</u>, filed on <u>December 4, 2009</u> (if not present when this instrument is executed, applicant's attorney or agent is authorized to enter the application serial number and filing date upon receipt of the same from the United States Patent and Trademark Office), and in and to all Letters Patent to be obtained from said invention by the above application or any continuation, division, renewal, or substitute thereof, and as to Letters Patent from any reissue or re-examination thereof.

ASSIGNORS hereby covenant that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this assignment.

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts, documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will

Page 1 of 6

PATENT REEL: 030662 FRAME: 0591 testify as to the same in any interference, litigation, or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, and enforce said application, said invention, and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purpose thereof.

Name:	Kai-feng WANG	
Signature:	Kai forg WANG	
Title (if applic	able): <u>Sen Tre Design Tragineor</u>	<u></u>
	ON, and effective from this	
	fing of Chiron	

I hereby declare that I was personally present and did see the ASSIGNOR, who is personally known to me to be a person named in the assignment, duly sign and execute the same on this 10 H_{Δ} day of 10 H_{Δ} day of 10 H_{Δ} , 2009 of his own free will for the purpose therein expressed at the following location:

	Beijing of China	 ,
WITNESS		
Name:	Fin TU	
Signature:	Tin IU	

Name:	Hong-xia SUN
Signature:	Hongria SUN
	cable): Serier Pesign Engineer
EXECUTED	ON, and effective from this <u>3th</u> day of <u>November</u> , 2009 at
[5:	eyny of China

I hereby declare that I was personally present and did see the ASSIGNOR, who is personally known to me to be a person named in the assignment, duly sign and execute the same on this 10+16 day of 10-16, 2009 of her own free will for the purpose therein expressed at the following location:

	Beijing	of	China		
WITNESS	J (J	•			
Name:	Ĭn	ĩц			
Signature:	- Tin	ТИ			

Name:	Peng-fei ZHU	
Signature: _	Penyfei ZHU	
Title (if appli	icable): Sur Application Engr.	
EXECUTED Beiji	ON, and effective from thisday of <u>November</u> , 2009 at	

I hereby declare that I was personally present and did see the ASSIGNOR, who is personally known to me to be a person named in the assignment, duly sign and execute the same on this <u>loth</u> day of <u>NO</u>, 2009 of her own free will for the purpose therein expressed at the following location: ______

	Beijing of China	
WITNESS	19.	
Name:	tin TU	
Signature:	Tin YU	

Name:	Yong-qiang WU
Signature:	Jonzany WM
Title (if applic	able): <u>R&D</u> lender
EXECUTED Be	ON, and effective from this <u>minch</u> day of <u>November</u> , 2009 at
personally kn the same on t	clare that I was personally present and did see the ASSIGNOR, who is nown to me to be a person named in the assignment, duly sign and execute this 1046 day of 100 , 100 , 2009 of her own free will se therein expressed at the following location:
	Beijing of China
WITNESS	
Name:	Yin YU
Signature:	Tin TU