PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Kuljit S. Bains	12/21/2009
Joseph H. Salmon	12/21/2009

RECEIVING PARTY DATA

Name:	me: Intel Corporation	
Street Address:	Address: 2200 Mission College Blvd.	
City:	Santa Clara	
State/Country:	CALIFORNIA	
Postal Code:	95052	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12644803

CORRESPONDENCE DATA

Fax Number: (503)372-1083

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 5034398778

Email: michelle_evans@bstz.com

Correspondent Name: Paul A. Mendonsa

Address Line 1: 1279 Oakmead Parkway

Address Line 4: Sunnyvale, CALIFORNIA 94085-4040

ATTORNEY DOCKET NUMBER:	42P32494
NAME OF SUBMITTER:	Michelle L. Evans

Total Attachments: 4

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PATENT REEL: 023709 FRAME: 0449 Attorney's Docket No.: 42P32494

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned:

KULJIT S. BAINS; JOSEPH H. SALMON

hereby sell, assign, and transfer to

Intel Corporation

a Corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California 95052 United States ("Assignce"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which may have a declaration executed by the undersigned prior hereto or concurrently herewith and is entitled

MEMORY CONTROLLER FUNCTIONALITIES TO SUPPORT DATA SWIZZLING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number 12/644,803 filed 12/22/09,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continuation applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof, and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

42P32494

Page 1 of 2

PATENT REEL: 023709 FRAME: 0450 Each Inventor: Please Sign and Date Below:

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

12/21/2009	Hobairs	
Date	Name: KULJIT S. BAINS	•
Date	Name: JOSEPH H. SALMON	•
Date	Name:	-
Date	Name:	
Date	Name:	-
Date	Name:	<u></u>

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 Oakmead Parkway Sunnyvale, CA 94085-4040 Telephone: (503) 439-8778

42P32494

Page 2 of 2

PATENT REEL: 023709 FRAME: 0451 Attorney's Docket No.: 42P32494

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned:

KULJIT S. BAINS; JOSEPH H. SALMON

hereby sell, assign, and transfer to

Intel Corporation

a Corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California 95052 United States ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which may have a declaration executed by the undersigned prior hereto or concurrently herewith and is entitled

MEMORY CONTROLLER FUNCTIONALITIES TO SUPPORT DATA SWIZZLING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number 12/644,803 filed 12/22/09,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continuation applications, continuation applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history theorem, and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

42P32494

Page 1 of 2

PATENT

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covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

itor: Please Sign and Date	Below;
Date	Name: KULJIT S. BAINS
12-21-20	55 Joseph M Jalua
Date	Name: JOSEPH H. SALMON
Date	Name:
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	raine.
Date	Name:
Date	Name:
Date	Name:
	Assignment Document Return Address;
	Blakely, Sokoloff, Taylor & Zafman LI 1279 Oakmead Parkway
	Sunnyvale, CA 94085-4040 Telephone: (503) 439-8778

42P32494

Page 2 of 2

PATENT

REEL: 023709 FRAME: 0453