504179367 01/16/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4227000

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KULJIT S. BAINS	01/15/2017
NADAV BONEN	01/15/2017
CHRISTOPHER E. COX	01/13/2017
ALEXEY KOSTINSKY	01/15/2017

RECEIVING PARTY DATA

Name:	INTEL CORPORATION
Street Address:	2200 MISSION COLLEGE BLVD
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14498794

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 503-730-8937

Email: vincent@compassiplaw.com, bob@compassiplaw.com

Correspondent Name: VINCENT H. ANDERSON

Address Line 1: 4804 NW BETHANY BLVD, STE. I-2 #237

Address Line 4: PORTLAND, OREGON 97229

ATTORNEY DOCKET NUMBER:	P70640
NAME OF SUBMITTER:	ROBERT CALDWELL
SIGNATURE:	/Robert Caldwell/
DATE SIGNED:	01/16/2017

Total Attachments: 6

source=P70640_Assignments_Revised_Filed_2017_01_16#page1.tif source=P70640_Assignments_Revised_Filed_2017_01_16#page2.tif source=P70640_Assignments_Revised_Filed_2017_01_16#page3.tif

PATENT 504179367 REEL: 040977 FRAME: 0389

source=P70640_Assignments_Revised_Filed_2017_01_16#page4.tif source=P70640_Assignments_Revised_Filed_2017_01_16#page5.tif source=P70640_Assignments_Revised_Filed_2017_01_16#page6.tif

PATENT REEL: 040977 FRAME: 0390

ASSIGNMENT

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

KULJIT S. BAINS; NADAV BONEN; CHRISTOPHER E. COX; ALEXEY KOSTINSKY

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, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

ON-DIE TERMINATION CONTROL WITHOUT A DEDICATED PIN IN A MULTI-RANK SYSTEM

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on	September 26.	, 2014		as
US		Application Number	14/498,794	and
COUNTRY or Inte	rnational Office			

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and 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 Additional Applications, and all other patent applications on any and all said inventions and 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 and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and

PATENT REEL: 040977 FRAME: 0391

maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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.

Kuljit S. Bains	Jan 15 2017 Date signed
Nadav Bonen	Date signed
Christopher E. Cox	Date signed
Alexey Kostinsky	Date signed

ASSIGNMENT

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

KULJIT S. BAINS; NADAV BONEN; CHRISTOPHER E. COX; ALEXEY KOSTINSKY

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, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

ON-DIE TERMINATION CONTROL WITHOUT A DEDICATED PIN IN A MULTI-RANK SYSTEM

(I nereby authorize and request any attorney havin	g appropriate authority from the assignce to insert on the
designated lines below, the filing date and application	on number of said application when known.)
	The second of the Artifacture of the second states and the second

which was filed on <u>Sep</u>	tember 26, 2014		
US COUNTRY or Internation	Application Numberal Office	r <u>14/498,794</u>	and

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and 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 Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful ouths, 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 and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and

Page 1 of

maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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.

Kuljit S. Bains	Date signed	
	2017/01/15	
Nadav Bonen	Date signed	
Christopher E, Cox	Date signed	
Alexay Kostinslay	2017/01/15	

ASSIGNMENT

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

KULJIT S. BAINS; NADAV BONEN; CHRISTOPHER E. COX; ALEXEY KOSTINSKY

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, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

ON-DIE TERMINATION CONTROL WITHOUT A DEDICATED PIN IN A MULTI-RANK SYSTEM

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on	September 26, 2014		on September 26, 2014 as		as
US		Application Number	14/498,794	and	
COUNTRY or Inte	rnational Office				

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and 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 Additional Applications, and all other patent applications on any and all said inventions and 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 and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and

PATENT REEL: 040977 FRAME: 0395

maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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.

Kuljit S. Bains	Date signed
Nadav Bonen	Date signed
CLa	1/13/17
Christopher E. Cox	Date signed
Alexey Kostinsky	Date signed

RECORDED: 01/16/2017