

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5387161

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
NEVINE NASSIF	01/10/2019
YEN-CHENG LIU	01/03/2019
KRISHNAKANTH V. SISTLA	02/19/2019
GERALD PASDAST	01/08/2019
SIVA SOUMYA EACHEMPATI	01/14/2019
TEJPAL SINGH	12/12/2018
ANKUSH VARMA	01/04/2019
MAHESH K. KUMASHIKAR	01/21/2018
SRIKANTH NIMMAGADDA	12/14/2018
CARLETON L. MOLNAR	01/02/2019
VEDARAMAN GEETHA	12/17/2018
JEFFREY D. CHAMBERLAIN LE	01/18/2019
WILLIAM R. HALLECK	01/14/2019
GEORGE Z. CHRYSOS	01/15/2019
JOHN R. AYERS	01/03/2019
DHEERAJ R. SUBBAREDDY	12/10/2018

**RECEIVING PARTY DATA**

<b>Name:</b>	INTEL CORPORATION
<b>Street Address:</b>	2200 MISSION COLLEGE BOULEVARD
<b>City:</b>	SANTA CLARA
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95054

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>Application Number:</b>	15721822

**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.*

**PATENT**

**Phone:** 4086750441  
**Email:** ndwe\_docketing@cardinal-ip.com  
**Correspondent Name:** NDWE LLP/INTEL C/O CPA GLOBAL  
**Address Line 1:** 900 2ND AVENUE SOUTH, SUITE 600  
**Address Line 4:** MINNEAPOLIS, MINNESOTA 55402

<b>ATTORNEY DOCKET NUMBER:</b>	42P110297
<b>NAME OF SUBMITTER:</b>	SCOTT A. SIMMONS
<b>SIGNATURE:</b>	/Scott A. Simmons, 60,206/
<b>DATE SIGNED:</b>	02/21/2019

**Total Attachments: 17**

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**ASSIGNMENT**

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

NEVINE NASSIF; YEN-CHENG LIU; KRISHNAKANTH V. SISTLA; GERALD PASDAST;  
SIVA SOUMYA EACHEMPATI; TEJPAL SINGH; ANKUSH VARMA; MAHESH K. KUMASHIKAR;  
SRIKANTH NIMMAGADDA; CARLETON L. MOLNAR; VEDARAMAN GEETHA;  
JEFFREY D. CHAMBERLAIN; WILLIAM R. HALLECK; GEORGE Z. CHRYSOS; JOHN R. AYERS;  
DHEERAJ R. SUBBAREDDY

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:

**MULTIPLE DIES HARDWARE PROCESSORS AND METHODS**

(I hereby authorize and request my attorney, associated with customer number 131413, to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on September 30, 2017 as  
U.S. Application Number 15/721,822 and  
COUNTRY or International 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,

Attorney Docket No.: 42P110297

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 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.

*Nevine Nassif*  
NEVINE NASSIF

*January 10, 2019*  
Date signed

\_\_\_\_\_  
YEN-CHENG LIU

\_\_\_\_\_  
Date signed

\_\_\_\_\_  
KRISHNAKANTH V. SISTLA

\_\_\_\_\_  
Date signed

\_\_\_\_\_  
GERALD PASDAST

\_\_\_\_\_  
Date signed

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SIVA SOUMYA EACHEMPATI

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Date signed

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TEJPAL SINGH

\_\_\_\_\_  
Date signed

\_\_\_\_\_  
ANKUSH VARMA

\_\_\_\_\_  
Date signed

\_\_\_\_\_  
MAHESH K. KUMASHIKAR


\_\_\_\_\_  
Date signed

\_\_\_\_\_  
SRIKANTH NIMMAGADDA

\_\_\_\_\_  
Date signed


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_____ NEVINE NASSIF	_____ Date signed
_____  YEN-CHENG LIU	_____ 01/03/19 Date signed
_____ KRISHNAKANTH V. SISTLA	_____ Date signed
_____ GERALD PASDAST	_____ Date signed
_____ SIVA SOUMYA EACHEMPATI	_____ Date signed
_____ TEJPAL SINGH	_____ Date signed
_____ ANKUSH VARMA	_____ Date signed
_____ MAHESH K. KUMASHIKAR	_____ Date signed
_____ SRIKANTH NIMMAGADDA	_____ Date signed

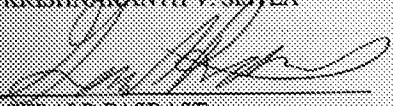
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_____ NEVINE NASSIF	_____ Date signed
_____ YEN-CHENG LIU	_____ Date signed
_____  KRISHNAKANTH V. SISTLA	_____ 02/19/19 Date signed
_____ GERALD PASDAST	_____ Date signed
_____ SIVA SOUMYA EACHEMPATI	_____ Date signed
_____ TEJPAL SINGH	_____ Date signed
_____ ANKUSH VARMA	_____ Date signed
_____ MAHESH K. KUMASHIKAR	_____ Date signed
_____ SRIKANTH NIMMAGADDA	_____ Date signed

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NEVINE NASSIF	Date signed
YEN-CHENG LIU	Date signed
KRISHNAKANTH V. SISTLA	Date signed
	1/8/2019
GERALD PASDAST	Date signed
SIVA SOUMYA EACHEMPATI	Date signed
TEJPAL SINGH	Date signed
ANKUSH VARMA	Date signed
MAHESH K. KUMASHIKAR	Date signed
SRIRANTH NIMMAGADDA	Date signed

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NEVINE NASSIF	Date signed
YEN-CHENG LIU	Date signed
KRISHNAKANTH V. SISTLA	Date signed
GERALD PADDAST	Date signed
 SIVA SOUMYA EACHEMPATI	01/14/2019 Date signed
TEJPAL SINGH	Date signed
ANKUSH VARMA	Date signed
MAHESH K. KUMASHIKAR	Date signed
SRIKANTH NIMMAGADDA	Date signed



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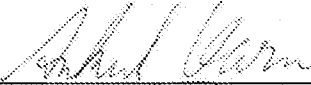
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_____ NEVINE NASSIF	_____ Date signed
_____ YEN-CHENG LIU	_____ Date signed
_____ KRISHNAKANTH V. SISTLA	_____ Date signed
_____ GERALD PASDAST	_____ Date signed
_____ SIVA SOUMYA EACHEMPATI	_____ Date signed
 _____ TEJPAL SINGH	12/12/2018 _____ Date signed
_____ ANKUSH VARMA	_____ Date signed
_____ MAHESH K. KUMASHIKAR	_____ Date signed
_____ SRIKANTH NIMMAGADDA	_____ Date signed

Attorney Docket No.: 42P110297

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NEVINE NASSIF	Date signed
YEN-CHENG LIU	Date signed
KRISHNAKANTH V. SISTLA	Date signed
GERALD PASDAST	Date signed
SIVA SOUMYA EACHEMPATI	Date signed
TEJPAL SINGH	Date signed
 ANKUSH VARMA	1/4/2019 Date signed
MAHESH K. KUMASHIKAR	Date signed
SRIKANTH NIMMAGADDA	Date signed


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YEN-CHENG LIU	Date signed
KRISHNAKANTH V. SISTLA	Date signed
GERALD PASDAST	Date signed
SIVA SOUMYA EACHEMPATI	Date signed
TEJPAL SINGH	Date signed
ANKUSH VARMA	Date signed
<i>M. K. Kumashikar</i> MAHESH K. KUMASHIKAR	01/21/18 Date signed
SRIKANTH NIMMAGADDA	Date signed

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_____ GERALD PASDAST	_____ Date signed
_____ SIVA SOUMYA EACHEMPATI	_____ Date signed
_____ TEJPAL SINGH	_____ Date signed
_____ ANKUSH VARMA	_____ Date signed
_____ MAHESH K. KUMASHIKAR	_____ Date signed
 _____ SRIKANTH NIMMAGADDA	_____ 12/14/2018 Date signed

Attorney Docket No.: 42P110297

  
CARLETON L. MOLNAR

1/2/2019  
Date signed

VEDARAMAN GEETHA

Date signed

JEFFREY D. CHAMBERLAIN

Date signed

WILLIAM R. HALLECK

Date signed

GEORGE Z. CHRYSOS

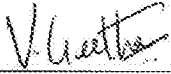
Date signed

JOHN R. AYERS

Date signed

DHEERAJ R. SUBBAREDDY

Date signed

CARLETON L. MOLNAR	Date signed
	12/17/2018
VEDARAMAN GEETHA	Date signed
JEFFREY D. CHAMBERLAIN	Date signed
WILLIAM R. HALLECK	Date signed
GEORGE Z. CHRYSOS	Date signed
JOHN R. AYERS	Date signed
DHEERAJ R. SUBBAREDDY	Date signed

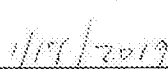
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CARLETON L. MOLNAR

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Date signed

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VEDARAMAN GEETHA

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JEFFREY D. CHAMBERLAIN

  
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WILLIAM R. HALLECK

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GEORGE Z. CHRYSOS

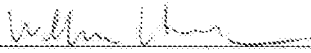
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JOHN R. AYERS

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DHEERAJ R. SUBBAREDDY

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Date signed

CARLETON L. MOLNAR	Date signed
VEDARAMAN GEETHA	Date signed
JEFFREY D. CHAMBERLAIN	Date signed
 WILLIAM R. HALLECK	1/14/19 Date signed
GEORGE Z. CHRYSOS	Date signed
JOHN R. AYERS	Date signed
DHEERAJ R. SUBBAREDDY	Date signed



CARLETON L. MOLNAR

Date signed

VEDARAMAN GEETHA

Date signed

JEFFREY D. CHAMBERLAIN

Date signed

WILLIAM R. HALLECK

Date signed

  
GEORGE Z. CHRYSOS

1/15/19  
Date signed

JOHN R. AYERS

Date signed

DHEERAJ R. SUBBAREDDY

Date signed

Attorney Docket No.: 42P110297

\_\_\_\_\_  
CARLETON L. MOLNAR

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Date signed

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VEDARAMAN GEETHA

\_\_\_\_\_  
Date signed

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JEFFREY D. CHAMBERLAIN

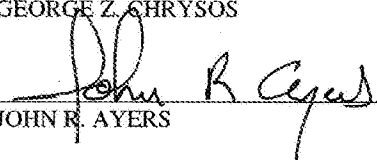
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Date signed

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WILLIAM R. HALLECK

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Date signed

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GEORGE Z. CHRYSOS

\_\_\_\_\_  
Date signed

  
\_\_\_\_\_  
JOHN R. AYERS

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3-Jan-2019  
Date signed

\_\_\_\_\_  
DHEERAJ R. SUBBAREDDY

\_\_\_\_\_  
Date signed

Attorney Docket No.: 42P110297

CARLETON L. MOLNAR

Date signed

VEDARAMAN GEETHA

Date signed

JEFFREY D. CHAMBERLAIN

Date signed

WILLIAM R. HALLECK

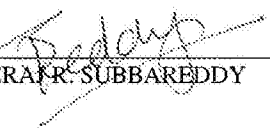
Date signed

GEORGE Z. CHRYSOS

Date signed

JOHN R. AYERS

Date signed

  
DHBEERAN SUBBAREDDY

10 Dec 2018

Date signed