#### 504198834 01/26/2017

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4245510

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
ERIKO NURVITADHI	01/11/2017
DEBORAH MARR	01/04/2017

#### **RECEIVING PARTY DATA**

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

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15396513

#### **CORRESPONDENCE DATA**

**Fax Number:** (408)675-0442

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:** (408)664-9268

Email: katie@nicholsondevos.com

**Correspondent Name:** BRIAN F. LEEGE **Address Line 1:** 217 HIGH STREET

Address Line 4: PALO ALTO, CALIFORNIA 94301

ATTORNEY DOCKET NUMBER:	42P99061
NAME OF SUBMITTER:	BRIAN F. LEEGE
SIGNATURE:	/ Brian F. Leege /
DATE SIGNED:	01/26/2017

#### **Total Attachments: 4**

source=P99061_ASSIGN_01_26_17#page1.tif
source=P99061_ASSIGN_01_26_17#page2.tif
source=P99061_ASSIGN_01_26_17#page3.tif
source=P99061_ASSIGN_01_26_17#page4.tif

PATENT 504198834 REEL: 041513 FRAME: 0055

# ASSIGNMENT

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

#### Eriko NURVITADHI; and Deborah MARR

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 ("Assignce"), 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:

# HETEROGENEOUS HARDWARE ACCELERATOR ARCHITECTURE FOR PROCESSING SPARSE MATRIX DATA WITH SKEWED NON-ZERO DISTRIBUTIONS

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

S S S S S S S S S S S S S S S S S S S	CONTRACTOR NO NO NO.		- XX	
				variable and the second and the seco
8.653	X 44 X	Continue Miconinos	6.000 6.00	9888
(3.7)	2000			Will management
COUNTY AND THE STATE OF THE STA	and the state of the same of			
	CONTRACTOR STATES			

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 it 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 onths, 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 inventious and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and

Page Lof 2

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

coveriant with said Assignce, 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.

LULIO NURVITADHI	Jan 11,2017
Enko NURVITADIII	Date Signed
Debyah MAKR	Date Signed

# ASSIGNMENT

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

#### Eriko NURVITADHI: and Deborah MARR

		and trans	

### **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:

# HETEROGENEOUS HARDWARE ACCELERATOR ARCHITECTURE FOR PROCESSING SPARSE MATRIX DATA WITH SKEWED NON-ZERO DISTRIBUTIONS

(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 _	December 31, 2	016		
***************************************	national Office	Application Number		10 miles 10 miles

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

Page 1 of 2

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 Assignce, 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.

Eriko NURVITADHI Date Signed

| 1/25/7|
| Deborah MARR Date Signed

Page 2 of 2