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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5837741

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SANKA GANESAN	07/18/2019
KEVIN MCCARTHY	07/18/2019
LEIGH M. TRIBOLET	07/18/2019
DEBENDRA MALLIK	07/18/2019
RAVINDRANATH V. MAHAJAN	07/18/2019
ROBERT L. SANKMAN	07/19/2019

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:	16524748

CORRESPONDENCE DATA

Fax Number: (503)796-2900

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) 222-9981

Email: svillarreal@schwabe.com

Correspondent Name: JUSTIN K. BRASK

Address Line 1: 1211 SW 5TH AVENUE, STE. 1600

Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	AC1410-US 111079-248323
NAME OF SUBMITTER:	JUSTIN K. BRASK
SIGNATURE:	/Justin K. Brask/
DATE SIGNED:	11/25/2019

Total Attachments: 4

PATENT REEL: 051106 FRAME: 0313

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PATENT REEL: 051106 FRAME: 0314

ASSIGNMENT

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

Sanka GANESAN, Kevin MCCARTHY, Leigh M. TRIBOLET, Debendra MALLIK, Ravindranath V. MAHAJAN, Robert L. SANKMAN

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 a"nd 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

MULTI-DIE ULTRAFINE PITCH PATCH ARCHITECTURE AND METHOD OF MAKING

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.]

US or International Application	Number 16/524,748	filed July 29, 2019

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, continued prosecution applications, continuation-in-part applications, substitute 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 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

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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.

Each Inventor: Please Sign and Date Below:

7/18/2019	8. Company	
Date	Name: Sanka GANESAN	
7/18/19		
Date	Name: Kevin MCCARTHY	
7/18/19		<u> </u>
Date	Name: Leigh M. TRIBOLET	e e e e e e e e e e e e e e e e e e e
7/18/2019	- AM2	e e e e e e e e e e e e e e e e e e e
Date (Name: Debendra MALLIK	
7/18/2019	p)	
Date	Name: Ravindranath V. MAHAJAN	and the second property of the second
Date	Name: Robert L. SANKMAN	

Assignment Document Return Address: Schwabe, Williamson & Wyatt P.C. 1211 SW 5th Avenue, Suite 1900 Portland, OR 97204 Telephone: (503) 222-9981 Attorney's Docket No.: AC1410-US 111079-248323

ASSIGNMENT

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

Sanka GANESAN, Kevin MCCARTHY, Leigh M. TRIBOLET, Debendra MALLIK, Ravindranath V. MAHAJAN, Robert L. SANKMAN

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 a"nd 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

MULTI-DIE ULTRAFINE PITCH PATCH ARCHITECTURE AND METHOD OF MAKING

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

[I/we hereby authorize an attorney or ag	ent for said Assignee to	o insert below the applicatio	n number and
filing date of said patent application when know	1.]		

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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, continued prosecution applications, continuation-in-part applications, substitute 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 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

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Each Inventor: Please Sign and Date Below:

Date	Name:	Sanka GANESAN
Date	Name:	Kevin MCCARTHY
Date	Name:	Leigh M. TRIBOLET
Date	Name:	Debendra MALLIK
Date 7/19/2019	Name:	Rayindranath V. MAHAJAN
///9/20/7 Date	Name:	Robert L. SANKMAN

Assignment Document Return Address: Schwabe, Williamson & Wyatt P.C. 1211 SW 5th Avenue, Suite 1900 Portland, OR 97204 Telephone: (503) 222-9981

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