#### 505587584 07/24/2019

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5634383

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
YUSHU ZHANG	07/13/2019
GANG XIONG	07/12/2019
GUOTONG WANG	07/15/2019
ALEXEI VLADIMIROVICH DAVYDOV	07/15/2019

#### **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:	16449294

#### **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.

Email: REQUEST@SLWIP.COM

Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER P.A.

Address Line 1: PO BOX 2938

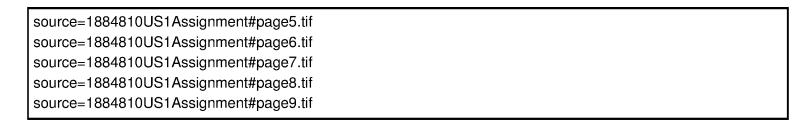
Address Line 4: MINNEAPOLIS, MINNESOTA 55402-0938

ATTORNEY DOCKET NUMBER:	(AC2617-US) 1884.810US1
NAME OF SUBMITTER:	LINN LEIFERMAN
SIGNATURE:	/Linn Leiferman/
DATE SIGNED:	07/24/2019

#### **Total Attachments: 9**

source=1884810US1Assignment#page1.tif source=1884810US1Assignment#page2.tif source=1884810US1Assignment#page3.tif source=1884810US1Assignment#page4.tif

PATENT 505587584 REEL: 049848 FRAME: 0697



# RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: (AC2617-US) 1884.810US1 Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office	2. Name and address of receiving party(ies):	
1. Name of conveying party(ies):	Name: Intel Corporation	
Yushu Zhang, Gang Xiong, Guotong Wang, Alexei Vladimirovich Davydov	Street Address: 2200 Mission College Blvd.	
Additional name(s) of conveying party(ies) attached?	City: <u>Santa Clara</u> State: <u>CA</u> Zip: <u>95054</u> Country: <u>United States of America</u>	
[ ]Yes [X]No	Additional name(s) & address(es) attached? [ ]Yes [X]No	
3. Nature of conveyance:	And more than the state of the	
[X] Assignment [ ] Merger [ ] Security Agreement [ ] Change of Name [ ] Other		
Execution Date: July 13, 2019, July 12, 2019, July 15, 2019, July 15, 2019		
4. Application number(s) or patent number(s):		
If this document is being filed together with a new appli	cation, the execution date of the application is:	
A. Patent Application No.(s)	B. Patent No.(s)	
Serial No. 16/449,294, Filed June 21, 2019		
Additional numbers attached? [ ]Yes [X]No		
5. Name and address of party to viliam correspondence	6. Total number of applications and patents involved: 1	
5. Name and address of party to whom correspondence concerning document should be mailed:	7. Total fee (37 CFR 3.41):\$ <u>0.00</u>	
Name: Ognyan I. Beremski	[]Enclosed	
Address: Schwegman Lundberg & Woessner, P.A.	Authorized to be charged to deposit account 190743	
P.O. Box 2938 Minneapolis, Minnesota 55402	8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 190743	
DO NOT USE THIS SPACE		
9. Statement and signature. To the best of my knowledge and belief, the foregoing i the original document.	nformation is true and correct and any attached copy is a true copy of	
Ognyan I. Beremski/Reg. No. 51,458	/Ognyan I. Beremski/ 24-JUL-2019	
Name of Person Signing	Signature Date	
	Total number of pages including cover sheet: 9	

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450

Alexandria, VA 22313-1450

ASSIGNMENT

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

undersigned inventor(s):

<Yushu Zhang, Gang Xiong, Guotong Wang, Alexei Vladimirovich Davydov>

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:

BEAM INDICATION FOR SEMI-PERSISTENT AND GRANT-FREE TRANSMISSIONS

(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 June 21, 2019 as

United States of America Application Number 16/449,294

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,

Page 1 of 2

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.

3KAD	2019/7/13
Yushu Zhang	Date Signed
Gang Xiong	Date Signed
Guotong Wang	Date Signed
Alexei Vladimirovich Davydov	Date Signed

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Yushu Zhang	Date Signed
	07/12/2019
Gang Xiong	Date Signed
Guotong Wang	Date Signed
Alexei Vladimirovich Davydov	Date Signed

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Yushu Zhang	Date Signed
C. a Vi	
Gang Xiong  Fuotore Wass	Date Signed -7//৮/५७/४
Guotong Wang	07/15/249 Date Signed
Alexei Vladimirovich Davydov	Date Signed

Page 2 of 2

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Yushu Zhang	Date Signed
Gang Xiong	Date Signed
	The state of the s
Guotong Wang	Date Signed
dalyol	July 15, 2019
Alexei Vladimirovich Davydov	Date Signed

Page 2 of 2