505502301 05/31/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5549105

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KEAN HUAT LEONG	08/09/2018
CHUN KIT SEE	08/09/2018
SHENG JIAN DARREN TAN	08/09/2018
PAIK WEN ONG	08/09/2018
ENG HUAT GOH	08/09/2018

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:	16018940

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: 612-373-6900 **Email:** request@slwip.com

Correspondent Name: SCHWEGMAN, LUNDBERG & WOESSNER/INTEL

Address Line 1: PO BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	1884.115US1	
NAME OF SUBMITTER:	NANCY CUNDALL	
SIGNATURE:	/Nancy Cundall/	
DATE SIGNED:	05/31/2019	

Total Attachments: 3

source=1884115US1Assignment#page1.tif

PATENT REEL: 049328 FRAME: 0221

505502301

source=1884115US1Assignment#page2.tif source=1884115US1Assignment#page3.tif

PATENT REEL: 049328 FRAME: 0222

RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: (P114101MY-US) 1884.115US1 Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.				
1. Name of conveying party(ies):	2. Name and address of receiving party(ies):			
	Name: Intel Corporation			
Kean Huat Leong, Chun Kit See, Sheng Jian Darren Tan, Paik Wen Ong, Eng Huat Goh	Street Address: 2200 Mission College Blvd.			
Additional name(s) of conveying party(ies) attached?	City: Santa Clara State: CA Zip: 95054 Country: United States of America			
[]Yes [X]No	Additional name(s) & address(es) attached? []Yes [X]No			
3. Nature of conveyance:	raditional name(s) & saddess(es) situation. [1105 [11]110			
[X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other				
Execution Date: <u>August 9, 2018, August 9, 2018, August 9, 2018, August 9, 2018</u> , August 9, 2018				
4. Application number(s) or patent number(s):				
If this document is being filed together with a new application, the	e execution date of the application is:			
and and another to desire the state of the s	app.			
A. Patent Application No.(s)	B. Patent No.(s)			
Serial No. 16/018,940				
Additional numbers attached? []Yes [X]No				
S N	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: John N. Greaves	[]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 informatio the original document.	721			
John N. Greaves/Reg. No. 40,362 Name of Person Signing	30. May 2019 Signature Date			
	-			
I stat	number of pages including cover sheet: 3			

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

> PATENT REEL: 049328 FRAME: 0223

Intel Docket No.: P114101MY-US SLW Reference No.: (P114101MY-US) 1884.115US1

ASSIGNMENT

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

< Kean Huat Leong, Chun Kit Sec, Sheng Jian Darren Tan, Paik Wen Ong, Eng Huat Goh>

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:

SEMICONDUCTOR PACKAGE SUBSTRATE SUPPORT STRUCTURES FOR BALL-GRID ARRAY CAVITIES, AND METHODS OF ASSEMBLING SAME

(I bereby 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 26, 2018 as

United States of America Application Number 16/018,940

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 filled 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

Page 1 of 2

PATENT REEL: 049328 FRAME: 0224

Intel Docket No.: P114101MY-US SLW Reference No.: (P114101MY-US) 1884.115US1

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 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.

Ja Had	9 AUG 2018
Kean Huat Leong	Date Signed
	9 Aug 2011
Chún Kit See	Date Signed
January	9 AMG 2018
Sheng Jian Darren Tan	Date Signed
99NV	9 Aug 2018
Pail Wer Opg	Date Signed
No.	9 Aug 7018
Eng Huat Goh	Date Signed