PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4879317

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SRI RANGA SAI BOYAPATI	10/18/2015
AMANDA E SCHUCKMAN	10/15/2015
SASHI S KANDANUR	10/12/2015
SRINIVAS V PIETAMBARAM	10/12/2015
MARK HLAD	10/13/2015
KRISTOF DARMAWIKARTA	10/12/2015

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
PCT Number:	US2015052446

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

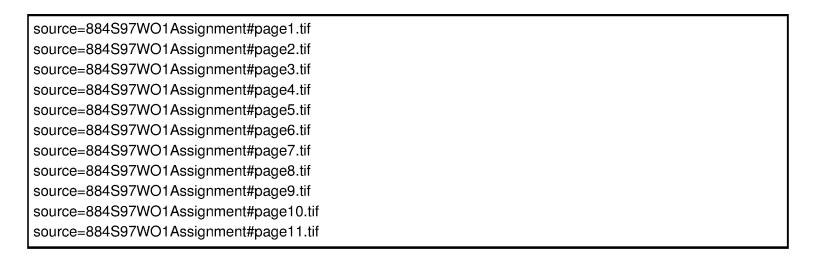
Correspondent Name: SCHWEGMAN, LUNDBERG & WOESSNER/INTEL

Address Line 1: PO BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	884.S97WO1
NAME OF SUBMITTER:	NANCY CUNDALL
SIGNATURE:	/Nancy Cundall/
DATE SIGNED:	03/22/2018

Total Attachments: 11



RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 884.S97WO1 Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Intel Corporation Sri Ranga Sai Boyapati, Amanda E. Schuckman, Sashi S. Kandanur, Srinivas V. Pietambaram, Mark Hlad, Kristof Street Address: 2200 Mission College Blvd. Darmawikarta City: Santa Clara State: CA Zip: <u>95054</u> Additional name(s) of conveying party(ies) attached? Country: United States of America []Yes [X]No Additional name(s) & address(es) attached? []Yes [X]No 3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: October 18, 2015, October 15, 2015, October 12, 2015, October 12, 2015, October 13, 2015, October 12, 2015 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Serial No. PCT/US2015/052446 Additional numbers attached? []Yes [X]No 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):\$ 0.00 Name: Andrew R. Peret [[Enclosed []Authorized to be charged to deposit account Address: 504238 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 8. Please charge any additional fees or credit any over Minneapolis, MN 55402--0938 payments to our Deposit Account No.: 504238 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. 1 andrew Peret / March 22, 2018 Andrew R. Peret/Reg. No. 41,246 Name of Person Signing Total number of pages including cover sheet: 11

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):

Sri Ranga Sai BOYAPATI, Amanda E. SCHUCKMAN, Sashi S. KANDANUR, Srinivas PIETAMBARAM, Mark HLAD, Kristof DARMAWIKARTA

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Blvd., Santa Clara, CA 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions and improvements that are disclosed in the International application entitled:

ELECTRONIC ASSEMBLY THAT INCLUDES VOID FREE HOLES

(I hereby authorize and request my attorney, associated with Customer Number 45457, to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on September 25, 2015 as

International Application Number PCT/US2015/052446 and

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said International application and all related applications (e.g. national phase applications, divisional applications, continuation applications, reexaminations, reissues, and the like) that have been or shall be filed in the United States and/or all foreign countries on said inventions and improvements, as well as in and to all rights of priority resulting from the filing of said International application;

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 design, utility, divisional, continuing, continuation-in-part, substitute, renewal, reissue, 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 maintaining proper patent protection for said inventions and

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Mark HIAD	Data
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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.

Sri Ranga Sai BOYAPATI	Date
Amanda E, SCHUCKMAN	Date
Sashi S. KANDANUR	io 12 2015 Date
Srinivas PIETAMBARAM	Date
Mark HLAD	Date
Kristof DARMAWIKARTA	Date

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Sashi S. KANDANUR	Date
Sining Palambagan.	10/12/2018
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RECORDED: 03/22/2018