

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6082900

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the SIGNATURE DATE previously recorded on Reel 046383 Frame 0986. Assignor(s) hereby confirms the SIGNATURE DATE OF THE FIFTH INVENTOR IS JANUARY 3, 2018.
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
TRANG THAI	09/28/2017
OMER ASAF	12/13/2017
SIDHARTH DALMIA	09/28/2017
JOSEF HAGN	09/29/2017
RICHARD S. PERRY	01/03/2018
JONATHAN C. JENSEN	07/18/2018
RAANAN SOVER	10/01/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	INTEL CORPORATION
<b>Street Address:</b>	2200 MISSION COLLEGE BOULEVARD
<b>City:</b>	SANTA CLARA
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95054
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>PCT Number:</b>	US1754662
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(832)375-0202
<i>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.</i>	
<b>Phone:</b>	832-375-0200
<b>Email:</b>	intel_docketing@iiplg.com
<b>Correspondent Name:</b>	INTERNATIONAL IP LAW GROUP P.L.L.C.
<b>Address Line 1:</b>	13231 CHAMPION FOREST DRIVE
<b>Address Line 2:</b>	SUITE 410
<b>Address Line 4:</b>	HOUSTON, TEXAS 77069
<b>ATTORNEY DOCKET NUMBER:</b>	P115647PCT
<b>NAME OF SUBMITTER:</b>	LAURYN SMITH

<b>SIGNATURE:</b>	/Laurn Smith/
<b>DATE SIGNED:</b>	04/29/2020
<b>Total Attachments: 9</b> source=P115647PCT_Corrected-Assignment#page1.tif source=P115647PCT_Corrected-Assignment#page2.tif source=P115647PCT_Corrected-Assignment#page3.tif source=P115647PCT_Corrected-Assignment#page4.tif source=P115647PCT_Corrected-Assignment#page5.tif source=P115647PCT_Corrected-Assignment#page6.tif source=P115647PCT_Corrected-Assignment#page7.tif source=P115647PCT_Corrected-Assignment#page8.tif source=P115647PCT_Corrected-Assignment#page9.tif	

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5055932

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
TRANG THAI	09/28/2017
OMER ASAF	12/13/2017
SIDHARTH DALMIA	09/28/2017
JOSEF HAGN	09/29/2017
RICHARD S. PERRY	01/03/2018 <del>01/18/2018</del>
JONATHAN C. JENSEN	07/18/2018
RAANAN SOVER	10/01/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	INTEL CORPORATION
<b>Street Address:</b>	2200 MISSION COLLEGE BOULEVARD
<b>City:</b>	SANTA CLARA
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95054
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>PCT Number:</b>	US1754662
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(832)375-0202
<i>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.</i>	
<b>Phone:</b>	8323750200
<b>Email:</b>	Lauryn.Smith@iiplg.com
<b>Correspondent Name:</b>	INTERNATIONAL IP LAW GROUP, PLLC
<b>Address Line 1:</b>	13231 CHAMPION FOREST DRIVE
<b>Address Line 2:</b>	SUITE 410
<b>Address Line 4:</b>	HOUSTON, TEXAS 77069
<b>ATTORNEY DOCKET NUMBER:</b>	P115647PCT
<b>NAME OF SUBMITTER:</b>	LAURYN SMITH
<b>SIGNATURE:</b>	/Lauryn Smith/
<b>DATE SIGNED:</b>	07/18/2018

## **ASSIGNMENT**

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

**Trang Thai; Omer Asaf; Sidharth Dalmia; Josef Hagn; Richard S. Perry; Jonathan C. Jensen; Raanan Sover**

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:

### **PERPENDICULAR END FIRE ANTENNAS**

**(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 September 30, 2017 as **PCT** Application Number PCT/US17/54662 and

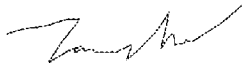
which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

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 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.



Trang Thai

09/28/17

Date signed

Omer Asaf

Date signed

Sidharth Dalmia

Date signed

Josef Hagn

Date signed

Richard S. Perry

Date signed

Jonathan C. Jensen

Date signed

Raanan Sover

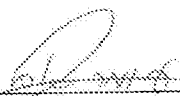
Date signed

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

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Trang Thai

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Date signed

  
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Omer Asaf

13/12/2017  
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Date signed

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Sidharth Dalmia

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Date signed

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Josef Hagn

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Date signed

\_\_\_\_\_  
Richard S. Perry

\_\_\_\_\_  
Date signed

\_\_\_\_\_  
Jonathan C. Jensen

\_\_\_\_\_  
Date signed

\_\_\_\_\_  
Raanan Sover

\_\_\_\_\_  
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Trang Thai

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Date signed

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Omer Asaf

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Date signed



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Sidharth Dalmia

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9/28/2017

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Date signed

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Josef Hagn

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Date signed

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Richard S. Perry

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Date signed

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Jonathan C. Jensen

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Date signed

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Raanan Sover

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Trang Thai


Date signed

Omer Asaf

Date signed

Sidharth Dalmia

Date signed

Josef Hagn

29.9.2017

Date signed

Richard S. Perry

Date signed

Jonathan C. Jensen

Date signed

Raanan Sover

Date signed



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Trang Thai

Date signed

Omer Asaf

Date signed

Sidharth Dalmia

Date signed

Josef Hagn

Date signed

  
Richard S. Perry

1-3-17  
Date signed

Jonathan C. Jensen

Date signed

Raanan Sover

Date signed

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Trang Thai

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Date signed

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Omer Asaf

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Date signed

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Sidbarth Dalmia

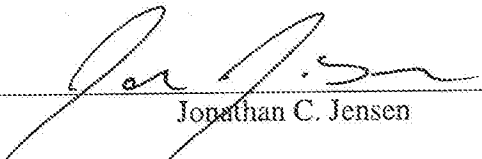
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Josef Hagn

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Date signed

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Richard S. Perry

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Date signed

  
\_\_\_\_\_  
Jonathan C. Jensen

7/18/18  
\_\_\_\_\_  
Date signed

\_\_\_\_\_  
Raanan Sover

\_\_\_\_\_  
Date signed

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_____ Trang Thai	_____ Date signed
_____ Omer Asaf	_____ Date signed
_____ Sidharth Dalmia	_____ Date signed
_____ Josef Hagn	_____ Date signed
_____ Richard S. Perry	_____ Date signed
_____ Jonathan C. Jensen	_____ Date signed
_____  Raanan Sover	_____ 1/OCT/2017 Date signed