PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MAHESH KRISHNAMURTHI	08/06/2014
I-WEI HSIEH	07/31/2014
HAISHENG RONG	07/31/2014
ASSIA BARKAI	07/14/2014
OSHRIT HAREL	07/17/2014
HAREL FRISH	07/18/2014
WENHUA LIN	09/02/2014

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:	14334260

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: 2066891223

Email: mchristopherson@schwabe.com

SCHWABE WILLIAMSON & WYATT PC **Correspondent Name:**

1211 SW 5TH AVE Address Line 1:

Address Line 2: **SUITE 1900**

Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	125157-197566 (P67849)	
NAME OF SUBMITTER:	MELEE CHRISTOPHERSON	
SIGNATURE:	/Melee Christopherson/	
DATE SIGNED:	09/03/2014	

REEL: 033661 FRAME: 0162 502960920

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Total Attachments: 8 source=P67849 Fully Executed Assignment#page1.tif source=P67849 Fully Executed Assignment#page2.tif source=P67849 Fully Executed Assignment#page3.tif source=P67849 Fully Executed Assignment#page4.tif source=P67849 Fully Executed Assignment#page5.tif source=P67849 Fully Executed Assignment#page6.tif source=P67849 Fully Executed Assignment#page7.tif source=P67849 Fully Executed Assignment#page8.tif

PATENT REEL: 033661 FRAME: 0163

ASSIGNMENT

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

Mahesh Krishnamurthi I-Wei Hsieh Haisheng Rong Oshrit Harel Harel Frish Assia Barkai Wenhua Lin

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:

OPTICAL DEVICE USING ECHELLE GRATING THAT PROVIDES TOTAL INTERNAL REFLECTION OF LIGHT

(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 July 17, 2014 as U.S. Application Number 14/334,260

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;

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K. Maheon	Aug 6, 2014.
Mahesh Krishnamurthi	Date signed
I-Wei Hsieh	Date signed
Haisheng Rong	Date signed
Oshrit Harel	Date signed
Harel Frish	Date signed
Assia Barkai	Date signed
Wenhua Lin	Date signed

Mahesh Krishnamurthi	Date signed
e ne	July 31, 2014
I-Wei Hsieh	Date signed
Haisheng Rong	Date signed
Oshrit Harel	Date signed
Harel Frish	Date signed
Assia Barkai	Date signed
Wenhua Lin	Date signed

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

Mahesh Krishnamurthi	Date signed
I-Wei Hsieh	Date signed
Hansheng Rong Haisheng Rong	July 31, 2014
Haisheng Rong	July 31, 2014 Date signed
Oshrit Harel	Date signed
Harel Frish	Date signed
Assia Barkai	Date signed
Wenhua Lin	Date signed

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

Mahesh Krishnamurthi	Date signed
I-Wei Hsieh	Date signed
Haisheng Rong	Date signed
Oshrit Harel	Date signed
Harel Frish	Date signed
Assia Barkai	14-JUL-2014 Date signed
Wenhua Lin	Date signed

Mahesh Krishnamurthi	Date signed
I-Wei Hsieh	Date signed
Haisheng Rong	Date signed
	14,7,2014
Oshrit Harel	Date signed
Harel Frish	Date signed
Assia Barkai	Date signed
Wenhua Lin	 Date signed

Mahesh Krishnamurthi	Date signed
I-Wei Hsieh	Date signed
Haisheng Rong	Date signed
Oshrit Harel	Date signed
	7/18/14
Harel Frish	Date signed
Assia Barkai	Date signed
Wenhua Lin	Date signed

and agree that said Assignce 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.

Mahesh Krishnamurthi	Date signed
I-Wei Hsieh	Date signed
Haisheng Rong	Date signed
Oshrit Harel	Date signed
Harel Frish	Date signed
Assia Barkai	Date signed
	9/2/14
Wenhua Lin	Date signed

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