503401446 07/21/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3448080

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HONG HE	05/25/2015
JONG-KAE FWU	05/20/2015
SEUNGHEE HAN	05/21/2015
HWAN-JOON KWON	07/06/2015

RECEIVING PARTY DATA

Name:	Intel IP 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:	14723284

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: (503) 222-9981
Email: alee@schwabe.com

Correspondent Name: SCHWABE, WILLIAMSON & WYATT, P.C. Address Line 1: 1211 SW FIFTH AVENUE, SUITE 1600

Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	P73968 / 111027-201209
NAME OF SUBMITTER:	AILEEN LEE
SIGNATURE:	/Aileen Lee/
DATE SIGNED:	07/21/2015

Total Attachments: 5

source=P73968 Intel IP Assignment#page1.tif source=P73968 Intel IP Assignment#page2.tif source=P73968 Intel IP Assignment#page3.tif

PATENT 503401446 REEL: 036145 FRAME: 0582

source=P73968 Intel IP Assignment#page4.tif source=P73968 Intel IP Assignment#page5.tif

> PATENT REEL: 036145 FRAME: 0583

ASSIGNMENT

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

Hong He, Jong-kae Fwu, Seunghee Han, and Hwan-joon Kwon

hereby sell, assign, and transfer to:

Intel IP 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:

DOWNLINK CONTROL INFORMATION (DCI) DESIGN FOR LTE DEVICES

	late and application number of said a		
which was filed on	May 27, 2015	as	
US	Application Number	14/723,284	an
COUNTRY or Internation	nal Office		5.8

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the

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

PATENT REEL: 036145 FRAME: 0584

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.

Hong He	25 Nay 2015 Date signed
Hong He	Date signed
Jong-kae Fwu	Date signed
Seunghee Han	Date signed
Hwan-joon Kwon	Date signed

3666

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.

Hong He	Date signed
	05/20/2015
Jong-kae Fwu	Date signed
Seunghee Han	Date signed
Hwan-joon Kwon	Date signed

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.

Date signed
Date signed
05/21/20/5
Date signed
Date signed

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.

Hong He	Date signed
Jong-kae Fwu	Date signed
Seunghee Han	Date signed
	9/6/2015
Hwan-joon Kwon	Date signed