

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4968962

|   |                               |
|---|-------------------------------|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                    |
| <b>CONVEYING PARTY DATA</b>   |                               |
| <b>Name</b>   | <b>Execution Date</b>         |
| CHIEN-HWA HWANG   | 03/21/2018                    |
| CHIEN-CHANG LI  | 03/21/2018                    |
| YI-JU LIAO  | 03/21/2018                    |
| PEI-KAI LIAO  | 03/21/2018                    |
| WEIDONG YANG  | 05/18/2018                    |
| <b>RECEIVING PARTY DATA</b>   |                               |
| <b>Name:</b>  | MEDIATEK INC.                 |
| <b>Street Address:</b>  | NO. 1 DUSING RD. 1ST.         |
| <b>Internal Address:</b>  | SCIENCE-BASED INDUSTRIAL PARK |
| <b>City:</b>  | HSINCHU                       |
| <b>State/Country:</b>   | TAIWAN                        |
| <b>Postal Code:</b>   | 30078                         |
| <b>PROPERTY NUMBERS Total: 1</b>  |                               |
| <b>Property Type</b>  | <b>Number</b>                 |
| Application Number:   | 15927226                      |
| <b>CORRESPONDENCE DATA</b>  |                               |
| <b>Fax Number:</b>  | (925)835-5804                 |
| <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>   | 408 896 6196                  |
| <b>Email:</b>   | zheng@imperiumpw.com          |
| <b>Correspondent Name:</b>  | LAW OFFICE OF ZHENG JIN       |
| <b>Address Line 1:</b>  | P.O.BOX 731450                |
| <b>Address Line 4:</b>  | SAN JOSE, CALIFORNIA 95173    |
| <b>ATTORNEY DOCKET NUMBER:</b>  | MDT-363                       |
| <b>NAME OF SUBMITTER:</b>   | ZHENG JIN                     |
| <b>SIGNATURE:</b>   | /zheng jin/                   |
| <b>DATE SIGNED:</b>   | 05/18/2018                    |
| <b>Total Attachments: 4</b>   |                               |

source=MDT-363-Assignment#page1.tif

source=MDT-363-Assignment#page2.tif

source=MDT-363-Assignment#page3.tif

source=MDT-363-Assignment#page4.tif

Docket Number: MDT-363

**ASSIGNMENT OF PATENT APPLICATION**

WHEREAS, we, Chien-Hwa Hwang, Chien-Chang Li, Yi-Ju Liao, Pei-Kai Liao, and Weidong Yang (hereinafter referred to as ASSIGNORS), having post office addresses of: No.1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan; No.1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan; No.1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan; No.1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan; 2840 Junction Ave, San Jose, CA 95134, USA; respectively, are the joint inventors of the invention described and claimed in the specification forming part of the United States patent application entitled "PHYSICAL DOWNLINK CONTROL CHANNEL DESIGN FOR NR SYSTEMS," executed herewith;

WHEREAS, MEDIATEK INC. (hereafter referred to as ASSIGNEE), a corporation organized under the laws of Taiwan and having a place of business at No. 1, Dusing Rd. 1st, Hsinchu Science Park, Hsin-Chu 30078, Taiwan, is desirous of acquiring the entire right, title, and interest in and to the invention and in and to any letters patents that may be granted thereof in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said invention, said application and any and all letters patents which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty, or otherwise, said invention, application and all letters patents on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer, and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patents on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patents on said invention, for litigation regarding said letters patents, or for the purpose of protecting title to said invention or letters patents therefor.

IN WITNESS WHEREOF, We have hereunto signed our names on the day and year set forth below.

Chien-Hwa Hwang  
Inventor's Signature

Chien-Hwa Hwang  
Inventor's Printed Name

2018/3/21  
Date

Chien-Chang Li  
Inventor's Signature

Chien-Chang Li  
Inventor's Printed Name

2018/03/21  
Date

Yi-Ju Liao  
Inventor's Signature

Yi-Ju Liao  
Inventor's Printed Name

2018/3/21  
Date

Docket Number: MDT-363

  
Inventor's Signature

Pei-Kai Liao  
Inventor's Printed Name

20/8/03/21  
Date

\_\_\_\_\_  
Inventor's Signature

Weidong Yang  
Inventor's Printed Name

\_\_\_\_\_  
Date

**ASSIGNMENT OF PATENT APPLICATION**

WHEREAS, we, Chien-Hwa Hwang, Chien-Chang Li, Yi-Ju Liao, Pei-Kai Liao, and Weidong Yang (hereinafter referred to as ASSIGNORS), having post office addresses of: No.1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan; No.1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan; No.1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan; No.1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan; 2840 Junction Ave, San Jose, CA 95134, USA; respectively, are the joint inventors of the invention described and claimed in the specification forming part of the United States patent application entitled "PHYSICAL DOWNLINK CONTROL CHANNEL DESIGN FOR NR SYSTEMS," with patent application serial number 15/927,226 filed on March 21, 2018;

WHEREAS, MEDIATEK INC. (hereafter referred to as ASSIGNEE), a corporation organized under the laws of Taiwan and having a place of business at No. 1, Dusing Rd. 1st, Hsinchu Science Park, Hsin-Chu 30078, Taiwan, is desirous of acquiring the entire right, title, and interest in and to the invention and in and to any letters patents that may be granted thereof in the United States and in any and all foreign countries;

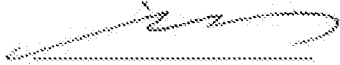
NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said invention, said application and any and all letters patents which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty, or otherwise, said invention, application and all letters patents on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors an assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer, and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patents on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patents on said invention, for litigation regarding said letters patents, or for the purpose of protecting title to said invention or letters patents therefor.

IN WITNESS WHEREOF, We have hereunto signed our names on the day and year set forth below.

|                               |   |               |
|-------------------------------|---|---------------|
| _____<br>Inventor's Signature | <u>Chien-Hwa Hwang</u><br>Inventor's Printed Name | _____<br>Date |
| _____<br>Inventor's Signature | <u>Chien-Chang Li</u><br>Inventor's Printed Name  | _____<br>Date |
| _____<br>Inventor's Signature | <u>Yi-Ju Liao</u><br>Inventor's Printed Name      | _____<br>Date |

Docket Number: MDT-363

\_\_\_\_\_  
Inventor's Signature



\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
Pei-Kai Liao  
Inventor's Printed Name

\_\_\_\_\_  
Weidong Yang  
Inventor's Printed Name

\_\_\_\_\_  
Date

5/18/18

\_\_\_\_\_  
Date