

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4728172

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PAUL X. WANG	11/17/2017
ZHENG GAO	10/22/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	APPLE INC.
<b>Street Address:</b>	1 INFINITE LOOP
<b>City:</b>	CUPERTINO
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95014
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15721461
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	090911-P33159US1-1046002
<b>NAME OF SUBMITTER:</b>	PATRICIA CALDWELL
<b>SIGNATURE:</b>	/Patricia Caldwell/
<b>DATE SIGNED:</b>	12/11/2017
<b>Total Attachments: 2</b>	
source=P33159US1 Assignment fully executed#page1.tif	
source=P33159US1 Assignment fully executed#page2.tif	

**ASSIGNMENT**  
(Patent Application)

WHEREAS, Paul X. Wang and Zheng Gao, hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: SMART CHARGING SYSTEMS FOR PORTABLE ELECTRONIC DEVICES

Filing Date: September 29, 2017

Application No.: 15/721,461

WHEREAS, APPLE INC., a corporation of the state of California, located at 1 Infinite Loop, Cupertino, CA 95014, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignors, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Signature: \_\_\_\_\_

  
Paul X. Wang

Date: \_\_\_\_\_

11/17/2017

Signature: \_\_\_\_\_

Zheng Gao

Date: \_\_\_\_\_

**ASSIGNMENT**  
(Patent Application)

WHEREAS, Zheng Gao and Paul X. Wang, hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

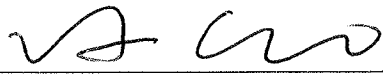
Title of Invention: SMART CHARGING SYSTEMS FOR PORTABLE ELECTRONIC DEVICES  
Filing Date: September 29, 2017  
Application No.: 15/721,461

WHEREAS, APPLE INC., a corporation of the state of California, located at 1 Infinite Loop, Cupertino, CA 95014, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignors, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Signature:   
Zheng Gao

Date: 10/22/2017

Signature: \_\_\_\_\_  
Paul X. Wang

Date: \_\_\_\_\_