## 505719651 10/11/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5766462

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
LI NIU	07/07/2017
DILLON J. THOMASSON	07/12/2017
KAN ZHOU	07/11/2017
DAVID F. NELSON	03/24/2018
RUI GUAN	07/11/2017

#### RECEIVING PARTY DATA

Name:	APPLE INC.
Street Address:	ONE APPLE PARK WAY
City:	CUPERTINO
State/Country:	CALIFORNIA
Postal Code:	95014

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15682838

#### **CORRESPONDENCE DATA**

**Fax Number:** (248)649-3338

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:** (248) 649-3333

**Email:** docketing@youngbasile.com

Correspondent Name: YOUNG BASILE HANLON & MACFARLANE, P.C.

**Address Line 1:** 3001 WEST BIG BEAVER RD.

Address Line 2: SUITE 624

Address Line 4: TROY, MICHIGAN 48084

DATE SIGNED:	10/11/2019
SIGNATURE:	/Craig A. Redinger/
NAME OF SUBMITTER:	CRAIG A. REDINGER
ATTORNEY DOCKET NUMBER:	J1068C

Total Attachments: 3

PATENT REEL: 050690 FRAME: 0572 source=ExecutedAssignment#page1.tif
source=ExecutedAssignment#page2.tif
source=ExecutedAssignment#page3.tif

PATENT REEL: 050690 FRAME: 0573

#### PATENT ASSIGNMENT AND AGREEMENT

This Patent Assignment and Agreement ("Assignment") is made and entered into by the undersigned inventors (collectively, "Assignors" and individually an "Assignor") in favor of Apple Inc., a California corporation having an office at 1 Infinite Loop, Cupertino, California 95014, ("Assignee").

#### Background

	nventors of a certain invention or inventions entitled indings" as set forth in the following patent application	n
U.S. Pat. App. Ser. No	filed on	
The Assignors desire to assign Invention, including the Application, so	to Assignee all right, title and interest in and to the pject to the terms of this Assignment.	

#### Assignment and Agreement

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged:

Each Assignor has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto Assignee, its successors and assigns, the full and exclusive right, title, and interest in and to: (a) the above-identified invention or inventions and all improvements and modifications thereof; (b) the above-identified application and all other patent applications of the United States and countries foreign thereto for the above-identified invention or inventions and all improvements and modifications thereof; (c) all patents which may issue from said applications in the United States and countries foreign thereto; (d) all divisions, continuations, reissues, reexaminations, and extensions of said applications and patents; and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by Assignee, its successors and assigns, to the full end of the term or terms for which any and all such patents may be granted as fully and entirely as would have been held and enjoyed by Assignor had this Assignment not been made.

Each Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said patents to Assignee as assignee of the entire interest, for the sole use and benefit of Assignee, its successors and assigns.

Each Assignor hereby agrees to: (a) communicate to Assignee, its successors and assigns, or their representatives or agents, all facts and information known or available to the Assignor respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by Assignee; (b) testify in person or by affidavit as required by Assignee, its

PATENT REEL: 050690 FRAME: 0574

Assignment of U.S. Pat. App. Ser. No.	(continued	ď
---------------------------------------	------------	---

successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) execute and deliver, upon request by Assignee, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, declarations, depositions; and (d) provide all reasonable assistance to Assignee, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

Each Assignor hereby represents and warrants that assignor has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that Assignor has not executed and will not execute any document or instrument in conflict herewith.

Each Assignor hereby grants to the law firm of Young Basile Hanlon & MacFarlane, P.C. the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

Each Assignor understands and agrees that the attorneys and agents of the law firm of Young Basile Hanlon & MacFarlane P.C. do not personally represent the Assignor or Assignor's legal interests, but instead represent the interests of Assignee; since said attorneys and agents cannot provide legal advice to Assignor with respect to this Assignment, each Assignor acknowledges its right to seek its own independent legal counsel.

NAMES AND SIGNATURES OF ASSIGNOR		
Name: Li Niu	Signature:	Date: 07/07/201
Name: Dillon J. Thomasson	Signature:	Date: 7/12/227
Name: Kan Zhou	Signature:	Date: 7/11/201
Name: David F. Nelson	Signature:	Date:
Name: Rui Guan	Signature: Ph. (gr	Date: 7/11/201

# Assignment of U.S. Pat. App. Ser. No. P32295USI (continued)

successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) execute and deliver, upon request by Assignee, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, declarations, depositions; and (d) provide all reasonable assistance to Assignee, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

Each Assignor hereby represents and warrants that assignor has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that Assignor has not executed and will not execute any document or instrument in conflict herewith.

Each Assignor hereby grants to the law firm of Young Basile Hanlon & MacFarlane, P.C. the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

Each Assignor understands and agrees that the attorneys and agents of the law firm of Young Basile Hanlon & MacFarlane P.C. do not personally represent the Assignor or Assignor's legal interests, but instead represent the interests of Assignee; since said attorneys and agents cannot provide legal advice to Assignor with respect to this Assignment, each Assignor acknowledges its right to seek its own independent legal counsel.

NAMES AND SIGNATURES OF ASSIGNOR		
Name: Li Niu	Signature:	Date:
Name: Dillon J. Thomasson	Signature:	Date:
Name: Kan Zhou	Signature:	Date:
Name: David F. Nelson	Signature:	Date: 3/24/18
Name: Rui Guan	Signature:	Date: