

<b>PATENT ASSIGNMENT COVER SHEET</b>
--------------------------------------

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5063232

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Denis G. Chen	06/29/2018
Scott D. Ridel	06/29/2018
Shingo Yoneoka	06/29/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Apple Inc.
<b>Street Address:</b>	One Apple Park Way
<b>City:</b>	Cupertino
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95014-2094
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16024679
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
<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>	(858) 678-5070
<b>Email:</b>	apsi@fr.com
<b>Correspondent Name:</b>	DAN V. VACAR
<b>Address Line 1:</b>	FISH & RICHARDSON P.C.
<b>Address Line 2:</b>	P.O.BOX 1022
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440-1022
<b>ATTORNEY DOCKET NUMBER:</b>	18962-1017001
<b>NAME OF SUBMITTER:</b>	NANCY GRANT
<b>SIGNATURE:</b>	/Nancy Grant/
<b>DATE SIGNED:</b>	07/23/2018
<b>Total Attachments: 2</b>	
source=18962-1017001Signedassignment2#page1.tif	
source=18962-1017001Signedassignment2#page2.tif	

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS, Denis G. Chen, Scott D. Ridel, Shingo Yoneoka, hereby sell, assign, and transfer to Apple Inc. (CALIFORNIA corporation), having offices located at One Apple Park Way, Cupertino, California 95014-0642, and its successors, assigns and legal representatives (collectively, "ASSIGNEE") all of the right, title and interest of ASSIGNORS throughout the world in and to any and all inventions and improvements which are the subject of a patent document entitled

HAPTIC ENGINE HAVING MOVING COIL STRUCTURE POWERED BY SUSPENDED FLEXIBLE PRINTED CIRCUIT WITH MULTIPLE TRACES

and which is found in

- (a)  U.S. patent application executed on \_\_\_\_\_, entitled as above, listing the above named persons as Inventors.
- (b)  U.S. patent application filed on June 29, 2018  
 under Application No. 16/024,679  
 with Express Mail No. \_\_\_\_\_ (Application Number not yet known).
- (c)  U.S. Patent No. \_\_\_\_\_ issued

An attorney of record, or the attorney filing the application, is authorized and requested by the execution of this assignment to insert into this assignment the execution date of the application and/or the filing date and serial number of the application when officially known.

This assignment includes the foregoing patent application or patent; all legal equivalents thereof in any foreign country and all patents issuing therefrom; all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements; and the right to claim priority based on the filing date of the foregoing patent application or patent under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes. ASSIGNORS authorize ASSIGNEE to apply in all countries in the name of ASSIGNORS or in the name of ASSIGNEE for patents, utility models, and design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

ASSIGNORS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with this assignment.


ASSIGNORS further covenant for themselves and their respective heirs, legal representatives and assigns to provide to ASSIGNEE promptly upon the request of ASSIGNEE all pertinent facts and documents relating to said invention and said patents and legal equivalents as may be known and accessible to ASSIGNORS and to testify as to the same in any interference, litigation, or proceeding relating thereto and promptly to execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said inventions and improvements and said patents and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

ASSIGNORS request the Commissioner of Patents and Trademarks to issue said patents of the United States and any reissue or extension thereof to the ASSIGNEE.

Executed this

29 day of JUNE, 2018

Signature of Inventor

  
\_\_\_\_\_  
Denis G. Chen

Executed this

29 day of June, 2018

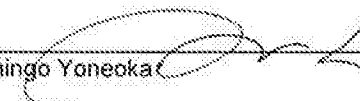
Signature of Inventor

  
\_\_\_\_\_  
Scott D. Ridel

Executed this

29 day of June, 2018

Signature of Inventor

  
\_\_\_\_\_  
Shingo Yoneoka

61707547.doc