PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Mushtaq Sarwar	01/20/2010
Omar Sze Leung	01/20/2010
Aleksandar Pance	01/20/2010
Brett Bilbrey	01/20/2010
Andrew Ross Richardson	01/20/2010

RECEIVING PARTY DATA

Name:	Apple Inc.
Street Address:	One Infinite Loop
City:	Cupertino
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12690907

CORRESPONDENCE DATA

Fax Number: (303)629-3450

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

303-629-3400 Phone:

Email: asaro.elissa@dorsey.com

Correspondent Name: S. Craig Hemenway / Dorsey & Whitney LLP

Address Line 1: 370 Seventeenth Street

Address Line 2: Republic Plaza Building, Suite 4700 Address Line 4: Denver, COLORADO 80202-5647

ATTORNEY DOCKET NUMBER:	P8482US1 (P201284.US.01)
NAME OF SUBMITTER:	Flissa Asaro fbo S. Craig Hemenway

PATENT 501071431 **REEL: 023823 FRAME: 0733**

Total Attachments: 5

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PATENT REEL: 023823 FRAME: 0734

Attorney Docket No. P8482US1 (P201284.US.01)

ASSIGNMENT

WHEREAS, we, Mushtaq A. Sarwar, whose address is One Infinite Loop, MS: 305-2GM, Cupertino, California 95014, Omar Sze Leung, whose address is One Infinite Loop, MS: 83-1, Cupertino, California 95014, Aleksandar Pance, whose address is One Infinite Loop, MS: 306-3P, Cupertino, California 95014, Brett Bilbrey, whose address is One Infinite Loop, MS: 305-2GM, Cupertino, California 95014 and Andrew Ross Richardson, residing at 205 South State Street, Apartment C, Ann Arbor, Michigan 48109 (hereinafter, individually and collectively the "Assignor"), have invented certain new and useful systems, devices, and methods disclosed and described in a utility application for Letters Patent in the United States ("U.S."), titled "Piezo-Based Acoustic and Capacitive Tap Detection," which can be identified in the United States Patent and Trademark Office ("USPTO") by Application No. 12/690,907 , filed on January 20, 2010 (the "Utility Application") with attorney docket no. P8482US1 (P201284.US.01); and

WHEREAS, Assignor desires to assign any and all right, title and interest to said Utility Application, and any provisional, non-provisional, continuation, continuation-in-part, divisional, international, foreign, regional and convention applications corresponding thereto, and any and all Letters Patent of the United States and countries and regions foreign thereto which may grant or have granted thereto or be lodged in relation thereto, any reissue or reexamination thereof or to be obtained therefor, any renewals, or substitutes thereof, and any and all priority rights or priority claims, International Convention rights, any and all rights to collect past damages for infringement of any and all Letters Patent of the United States and countries and regions foreign thereto which may be published, which may grant, or have granted thereto or be lodged in relation thereto, and other benefits accruing to or to accrue to Assignor with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto (the "Patent Rights");

WHEREAS, Apple Inc., a corporation organized and existing under the laws of the State of California, and having its principal place of business at One Infinite Loop, Cupertino, California 95014 (the "Assignee"), desires to acquire any and all, right, title, and interest of Assignor in and to the invention(s), the Patent Rights, and in, to, and under any and all Letters Patent to be obtained therefor;

NOW THEREFORE, for the sum of \$1.00 and other good and valuable consideration to Assignor in hand pald, the receipt and sufficiency of which are hereby acknowledged, Assignor has sold, assigned, and transfer and by these presents does hereby sell, assign and transfer to the said Assignee, and said Assignee's legal representatives, successors and assigns, any and all of the entire right, title and interest in and to the invention(s), Patent Rights, and any and all Letters Patent to be obtained therefor:

UPON SAID CONSIDERATION, the Assignor hereby covenants and agrees with the said Assignee that it will not execute any writing or do any act whatsoever conflicting with these presents, and that it will, at any time upon request, without further or additional consideration, but at the expense of the said Assignee, execute such additional assignments and other writings and do such additional acts as said Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, provisionals, non-provisionals, continuations, continuations-in-part, continuing prosecutions, divisionals, renewals, reissues, reexamined or extended Letters Patent of the United States, or of any and all foreign countries, on said Patent Rights, and execute confirmatory assignments or acknowledgments of this assignment as

Attorney Docket No. P8482US1 (P201284.US.01)

necessary for full enjoyment of the Patent Rights and for recording in foreign patent offices, and in enforcing any rights or choses in action accruing as a result of such Patent Rights, by giving testimony in any proceedings or transactions involving such Patent Rights, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties;

UPON SAID CONSIDERATION, Assignor represents and warrants that Assignor has the right, title, and authority to execute this Assignment and to convey any and all right, title, and interest in the Patent Rights, and that Assignor has not conveyed nor will convey hereafter all or part of the Patent Rights to a third party;

ASSIGNOR HEREBY AUTHORIZES said Assignee, its successors, and assigns, or anyone it may properly designate, to apply for Letters Patent in the U.S. and any and all foreign countries and regions, in its own name if desired, and additionally to claim priority to the filing date of the Utility Application and otherwise take advantage of the provisions of any international conventions.

ASSIGNOR HEREBY AUTHORIZES Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the application number, filing date, and title of the Utility Application once known.

IN WITNESS WHEREOF, the Assignor hereunto has executed this Assignment upon the date indicated below.

Date:	By:
	Mushtaq A. Sarwar
IN WITNESS WHEREOF, the Assignor the date indicated below.	hereunto has executed this Assignment upon
Date:	Ву:
	By:Omar Sze Leung
IN WITNESS WHEREOF, the Assignor the date indicated below.	hereunto has executed this Assignment upon
Date:	Bv ⁻
	By:Aleksandar Pance
IN WITNESS WHEREOF, the Assignor the date indicated below.	hereunto has executed this Assignment upon
Date:	Ву:
	Brett Bilbrey
IN WITNESS WHEREOF, the Assignor the date indicated below.	hereunto has executed this Assignment upon
Date:	By:
	By:Andrew Ross Richardson

2 of 3

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Date:	Ву:
	Mushtaq A. Sarwar
the date indicated below.	r hereunto has executed this Assignment upon
Date: $1/20/2010$	By: Omar Szo Ling Omar Sze Leung
·	Omar Sze Leung
IN WITNESS WHEREOF, the Assignor the date indicated below.	r hereunto has executed this Assignment upon
Date:	Ву:
· · · · · · · · · · · · · · · · · · ·	Aleksandar Pance
IN WITNESS WHEREOF, the Assignor the date indicated below.	hereunto has executed this Assignment upon
Date:	Ву:
	Brett Bilbrey
IN WITNESS WHEREOF, the Assignor the date indicated below.	hereunto has executed this Assignment upon
Date:	By:
	By: Andrew Ross Richardson

2 of 3

Attorney Docket No. P8482US1 (P201284.US.01)

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2 of 3

PATENT REEL: 023823 FRAME: 0738 necessary for full enjoyment of the Patent Rights and for recording in foreign patent offices, and in enforcing any rights or choses in action accruing as a result of such Patent Rights, by giving testimony in any proceedings or transactions involving such Patent Rights, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties;

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IN WITNESS WHEREOF, the Assignor hereunto has executed this Assignment upon

By:______Brett Bilbrey

Date: 20 10 2010

the date indicated below.

the date indicated below.

Date:

Andrew Ross Richardson

2 of 3

IN WITNESS WHEREOF, the Assignor hereunto has executed this Assignment upon