503531860 10/20/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3578487

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HARMAN INTERNATIONAL INDUSTRIES, INC.	03/27/2015

RECEIVING PARTY DATA

Name:	APPLE INC.
Street Address:	1 INFINITE LOOP
City:	CUPERTINO
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 16

Property Type	Number
Patent Number:	7336793
Patent Number:	7480389
Patent Number:	8160268
Patent Number:	8165310
Patent Number:	8170233
Patent Number:	8194868
Patent Number:	8781136
Application Number:	12917604
Application Number:	13172612
Application Number:	13460450
Application Number:	13744114
Application Number:	60273867
PCT Number:	US2002007060
PCT Number:	US2004014222
PCT Number:	US2005032339
PCT Number:	US2012042932

CORRESPONDENCE DATA

Fax Number: (408)720-8383

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.

503531860 PATENT REEL: 036838 FRAME: 0506

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ATTORNEY DOCKET NUMBER: 04860

NAME OF SUBMITTER: JAMES C. SCHELLER, REG. NO. 31,195

SIGNATURE: /James C. Scheller/

DATE SIGNED: 10/20/2015

Total Attachments: 3

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PATENT REEL: 036838 FRAME: 0507

ASSIGNMENT OF PATENT RIGHTS

This patent assignment (this "Assignment") is entered into as of March ____ 2015 by and between Harman international industries, inc., a company organized under the laws of Delaware with a principal place of business at 400 Atlantic Street, Suite 1500("Assignor"), and Apple Inc., a California corporation with principal place of business at 1 Infinite Loop, Cupertino, CA 95014 ("Assignee").

Whereas, the Assignor and Assignee have entered into a certain Patent Purchase Agreement dated March ___ 2015 under which, among other things, Assignor assigns to Assignee all right, title and interest in and to the Patents (as defined below).

For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor, does hereby irrevocably sell, assign, transfer, and convey unto Assignee, or Assignee's designees, all of Assignor's right title and interest in and to all of the following (collectively, the "Assigned Patent Rights"):

- all provisional patent applications, patent applications, and patents listed in the attached Appendix (the "Patents"); and
- any reissues, reexaminations and extensions of any of the Patents (together with the Patents, collectively, the "Assigned Patents");
- rights to all inventions claimed or described in any of the Assigned Patents; (c)
- foreign patents, patent applications and counterparts relating to any of the Assigned Patents; (d)
- rights to apply in any or all countries of the world for patents, certificates of invention, utility models, (e) industrial design protections, design patent protections related to any item in the foregoing categories (a) through (d), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;
- any causes of action (whether currently pending, filed or otherwise) and all other enforcement rights and rights to remedies under, on account of, or related to any of the Patents and/or any item in any of the foregoing categories (a) through (d), including, without limitation, all causes of action and other enforcement rights for (i) damages, (ii) injunctive relief, and (iii) other remedies of any kind for past, current and future infringement, misappropriation or violation of rights and all rights to sue for any of the foregoing;
- all rights to collect royalties and other payments under or on account of any of the Patents and/or any item in the foregoing categories (a) through (f).

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Assigned Patent Rights in the name of Assignee, as the assignee to the entire interest

The terms and conditions of this Assignment will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

In witness whereof, Intending to be legally bound, the Parties have executed this Assignment as of the Assignment Date.

ASSIGNOR: Harman International Industries, Inc.

ASSIGNEE: APPLE INC

By:

Name: Title:

By: Name:

Title:

VP & Chief IP Counsel

Assignment-1

Appendix to Assignment of Patent Rights - Patents

Status	Patent No.	Application No.	Country	US/FF	Title
Granted	US 7,336,793	10/434,448	US	US	Loudspeaker System for Virtual Sound Synthesis
Granted	US 8,194,868	11/969,149	US	US	Loudspeaker System for Virtual Sound Synthesis
Expired		PCT/U504/014222	PCT	FF	Loudspeaker System for Virtual Sound Synthesis
Abandoned		2005-501733	JP	FF	Loudspeaker System for Virtual Sound Synthesis
Granted	EP 1 621 046	4751564.8	EP	FF	Loudspeaker System for Virtual Sound Synthesis
Granted	EP 1 621 046	4751564.8	UK	FF	Loudspeaker System for Virtual Sound Synthesis
Granted	EP 1 621 046	4751564.8	IT	FF	Loudspeaker System for Virtual Sound Synthesis
Granted	EP 1 621 046	4751564.8	FR	FF	Loudspeaker System for Virtual Sound Synthesis
Granted	EP 1 621 046	4751564.8	DE	FF	Loudspeaker System for Virtual Sound Synthesis
Pending		12000341.3	EP	FF	Method for Operating a Conference System and Device for a Conference System
Pending		20130018445.8	CN	FF	Method for Operating a Conference System and Device for a Conference System
Pending		13/744,114	US	US	Method for Operating a Conference System and Device for a Conference System
Expired		60/273,867	UŠ	US	Sound Direction System
Granted	US 7,480,389	10/093,230	US	US	Sound Direction System
Expired		PCT/US02/07060	PCT	FF	Sound Direction System
Granted	EP 1 718 103	5009446.5	EP	FF	Compensation of Reverberation and Feedback
Granted	EP 1 718 103	5009446.5	UK	FF	Compensation of Reverberation and Feedback
Granted	EP 1 718 103	5009446.5	FR	FF	Compensation of Reverberation and Feedback
Granted	EP 1 718 103	5009446.5	DE	FF	Compensation of Reverberation and Feedback
Granted	US 8,165,310	11/411,004	US	US	Dereverberation and Feedback Compensation System
Granted	US 8,170,233	10/771,190	US	US	Loudspeaker Array System
Granted	US 8,160,268	10/935,929	US	US	Loudspeaker Array System
Granted	US 8,781,136	13/448,072	US	US	Loudspeaker Array System
Pending		13/460,450	US	US	Loudspeaker Array System
Granted	EP 1 560 460	4028748.4	EP	FF	Linear Array Loudspeaker and Method for Positioning of Transducers
Granted	EP 1 560 460	4028748.4	UK	FF	Linear Array Loudspeaker and Method for Positioning of Transducers
Granted	EP 1 560 460	4028748.4	FR	FF	Linear Array Loudspeaker and Method for Positioning of Transducers

Assignment-2

PATENT REEL: 036838 FRAME: 0509

APPLE-Harman CONFIDENTIAL SUBJECT TO NDA

Granted	EP 1 560 460	4028748.4	DE	FF	Linear Array Loudspeaker and Method for Positioning of Transducers
Abandoned		5027896.9	EP	FF	Loudspeaker Array System
Granted	DE 20 2005 021 579	20 2005 021 579.1	DE	FF	Loudspeaker Array System
Granted	4171468	2005-13412	JP	FF	Loudspeaker Array System
Granted	4625756	2005-350065	JP	FF	Loudspeaker Array System
Abandoned		PCT/US2005/032339	PCT	FF	Loudspeaker Array System
Abandoned		2007-315278	JP	FF	Loudspeaker Array System
Abandoned		2010-93532	JP	FF	Loudspeaker Array Enabling Surround System
Allowed		9174806.1	EP	FF	Audio System Phase Equalization
Allowed		12/917,604	US	US	Audio System Phase Equalization
Pending		201010532161.7	CN	FF	Audio System Phase Equalization
Granted	5357115	2010-163449	JP	FF	Audio System Phase Equalization
Pending		13/172,612	US	ŲS	Musical Measurement Stimuli
Expired		PCT/US2012/042932	PCT	FF	Musical Measurement Stimuli
Pending		12741403.5	ΕP	FF	Musical Measurement Stimuli
Pending		14111260.4	HK	FF	Musical Measurement Stimuli

Assignment-3

PATENT REEL: 036838 FRAME: 0510

RECORDED: 10/20/2015