504537305 09/07/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4584012

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BARIS CAGDASER	08/31/2017
DEREK K. SHAEFFER	08/11/2017
HOPIL BAE	08/31/2017
JESSE AARON RICHMOND	08/11/2017
JIE WON RYU	08/31/2017
KINGSUK BRAHMA	08/31/2017
MOHAMMAD B. VAHID FAR	08/14/2017
SHINGO HATANAKA	08/11/2017
YAFEI BI	08/15/2017
YUICHI OKUDA	08/14/2017

RECEIVING PARTY DATA

Name:	APPLE INC.
Street Address:	1 Infinite Loop
City:	Cupertino
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	15697233
Application Number:	62398402

CORRESPONDENCE DATA

Fax Number: (281)970-4503

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: 281-970-4545

Email: docket@fyiplaw.com

Correspondent Name: MICHAEL G. FLETCHER

Address Line 1: P.O. BOX 692289
Address Line 2: FLETCHER YODER

Address Line 4: HOUSTON, TEXAS 77269-2289

PATENT 504537305 REEL: 043525 FRAME: 0230

ATTORNEY DOCKET NUMBER:	P32349 / APPL:0688	
NAME OF SUBMITTER:	MICHAEL G. FLETCHER	
SIGNATURE:	/Michael G. Fletcher/	
DATE SIGNED:	09/07/2017	
Total Attachments: 10		
source=P32349US1_Assignment_0907	17#page1.tif	
source=P32349US1_Assignment_090717#page2.tif		
source=P32349US1_Assignment_090717#page3.tif		
source=P32349US1_Assignment_090717#page4.tif		
source=P32349US1_Assignment_090717#page5.tif		
source=P32349US1_Assignment_090717#page6.tif		
source=P32349US1_Assignment_0907	17#page7.tif	
source=P32349US1_Assignment_090717#page8.tif		
source=P32349US1_Assignment_0907	17#page9.tif	

 $source = P32349US1_Assignment_090717\#page10.tif$

PATENT REEL: 043525 FRAME: 0231

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned, does hereby:

SELL, ASSIGN AND TRANSFER to Apple Inc. (the "Assignee"), a corporation of the State of California, having a place of business at 1 Infinite Loop, Cupertino, CA 95014, the entire right, title and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in the application for United States Letters Patent, which is entitled "DIGITAL TO ANALOG CONVERTER," and which may be further identified below, such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States, including all provisional and non-provisional applications, and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST that any attorney associated with PTO Customer No. 73576 may delete, insert, or alter any information identifying this application, or any related application, below after execution of this assignment;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will (1) execute all provisional, non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers; (3) communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; (4) cooperate with the Assignee in any interference, opposition, dispute, or litigation involving any of the applications or patents for such improvements; and (5) generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements;

TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

Additional Application	1 Information
U.S. Provisional Application Serial No. 62/398,402	, filed on <u>September 22, 2016</u>
U.S. Non-Provisional Application Serial No.	, filed on,
International Application Serial No.	filed on
eventor 1:	
ignature): Name: Baris Cagdaser	Date: 8/31/2017

Inventor 2:

Name: Derek K. Shaeffer

Page 2 of 10

Inventor 3:

(Signature):

Name: Hopil Bae

Date: 8/31/2011

Inventor 4:

(Signature):

Name: Jesse Aaron Richmond

Date: 8 / / / / / /

Inventor 5:

(Signature):

- Date: 08/3/./ 2013

Inventor 6:

(Signature):

Name: Kingsuk Brahma

Date: 08 / 31 2017

Inventor 7:				
(Signature):	Vans	Date:	08/14/2017	
(Oightturo)	Name: Mohammad B. Vahid Far			

Inventor 8:

(Signature): Name: Shingo Hatanaka

Date: 8/11/2017

Page 8 of 10

Inventor 9:				
	1001-			
	V()X2.\			
(Signature):	(//////////////////////////////////////	Date:	08/15/2017	
Name: Yafei Bi	()			

PATENT APPL:0688 / P32349

Inventor 10:

Name: Yuichi Okuda

8/14/17

Page 10 of 10

PATENT REEL: 043525 FRAME: 0241