504909493 05/10/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4956237

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GUOZHONG SHEN	04/23/2018
TAEHEE CHO	04/23/2018
YONGQIAN TANG	04/23/2018
MANDAR KULKARNI	04/23/2018
OZAN ERSAN ERDOGAN	04/23/2018
SHUBHA RAMAKRISHNAN	04/23/2018
PASCALE EL KALLASSI	04/11/2018

RECEIVING PARTY DATA

Name:	SYNAPTICS INCORPORATED
Street Address:	1251 MCKAY DRIVE
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95131

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15953056	

CORRESPONDENCE DATA

Fax Number: (713)623-4846

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.

using a lax number, if provided, if that is unsuccessful, it will be sent via 03 mail

Phone: 7136234844

Email: tjeffrey@pattersonsheridan.com,

psdocketing@pattersonsheridan.com

Correspondent Name: PATTERSON & SHERIDAN, LLP
Address Line 1: 595 SHREWSBURY AVENUE

Address Line 2: SUITE 100

Address Line 4: SHREWSBURY, NEW JERSEY 07702

ATTORNEY DOCKET NUMBER:	SYNA/170064US02
NAME OF SUBMITTER:	KEITH TABOADA
SIGNATURE:	/Keith Taboada/

PATENT 504909493 REEL: 045773 FRAME: 0253

DATE SIGNED:	05/10/2018	
Total Attachments: 6		
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PATENT REEL: 045773 FRAME: 0254

SYNAPTICS INCORPORATED ASSIGNMENT AGREEMENT – WORLDWIDE

WIIEREAS, We, the undersigned individuals, have invented certain invention(s) described in an application for Letters Patent (the "Application") in:	
X the United States	
X enclosed herewith	
with docket number SYNA/170064US02 and title: INTEGRATED FINGERPRINT AND FORCE SENSOR	

WHEREAS, SYNAPTICS INCORPORATED, a corporation of the State of Delaware, having a place of business at 1251 McKay Drive; San Jose, CA 95131;U.S.A. ("Synaptics"), desires to acquire the entire right, title, and interest in and to the invention(s) disclosed in the Application and all embodiments of such invention(s) previously conceived, made, or discovered by me during my employment with or within the scope of my work in any capacity for Synaptics (collectively, the "Inventions"), and in and to the Application and any and all other applications for utility patents, utility models, inventor's certificates, and other forms of invention protection or rights for the Inventions in any and all patents, inventors certificates, and other forms of invention protection or rights arising therefrom (the "Patents").

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by me to have been received in full from Synaptics:

- 1. We hereby sell, assign, transfer and convey to Synaptics the entire right, title and interest (a) in and to the Inventions and the Application; (b) in and to all rights to apply for patents and all other forms of invention protection or rights on the Inventions in any and all countries pursuant to the Paris Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on the Inventions in any and all countries and groups of countries, including each and every application filed and each and every patent granted on any application which is a conventional, division, substitution, continuation, or continuation-in-part of any of the Applications; and (d) in and to each and every reissue or extension of any of the Patents.
- 2. We hereby covenant and agree to cooperate with Synaptics to enable Synaptics to enjoy to the fullest extent the right, title and interest to the Inventions herein conveyed in any and all countries and groups of countries. Our cooperation shall include prompt production of pertinent facts and documents, giving testimony, executing petitions, oaths, specifications, declarations or other papers, and providing other assistance to the extent deemed necessary or desirable by Synaptics (a) for perfecting in Synaptics the right, title and interest herein conveyed; (b) for prosecuting the Applications; (c) for filing and prosecuting substitute, conventional, divisional, continuation, continuation-in-part, or additional applications covering the Inventions; (d) for filing and prosecuting applications for reexamination or reissuance of any of the Patents; (e) in assisting Synaptics in any pre-grant or post-grant proceeding involving any of the Inventions, Applications, or Patents; and (f) in assisting Synaptics in any court or administrative proceeding involving any of the Inventions, Applications, or Patents, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, and infringement actions; provided, however, that reasonable expenses incurred by me in providing such cooperation shall be paid for by Synaptics.

170064US02

- 3. We hereby agree that the terms and covenants of this Assignment Agreement (the "Agreement") shall inure to the benefit of Synaptics, its successors, assigns and other legal representatives, and shall be binding upon me, my heirs, my legal representatives, and my assigns.
- 4. We hereby warrant and represent that we have not entered into and will not enter into any assignment, license, contract, or understanding in conflict herewith.
- 5. We hereby agree that if any provision of this Agreement is deemed invalid or otherwise unenforceable, the remaining provisions of this Agreement shall remain valid, enforceable, and binding, and the invalid or otherwise unenforceable provision shall be deemed to be replaced by a provision that is valid and enforceable and that comes closest to expressing the intent expressed by the invalid or unenforceable provision.
- 6. We hereby agree that this Agreement contains the entire understanding between Synaptics and us relating to the subject matter contained herein, and supersedes all prior and collateral communications and understandings between Synaptics and us.
- 7. In the event that the filing date or application number of the Application is not entered at the time we execute this document, and if such information is deemed necessary, we hereby authorize Synaptics, its successors and assigns, its legal representatives, or anyone it properly designates to enter above such filing date or application number.

IN WITNESS WHEREOF, we have executed and delivered this instrument to Synaptics on the date indicated below.

(Printed legal name of inventor)	Guozhong SHEN		
(Inventor's Signature) (inv	elng 3-trac	(Date)	04/23/2018
	1251 McKay Drive San Jose, California 95131	***************************************	
(Printed legal name of inventor)	Tachee CHO	****	
(Inventor's Signature)	110	(Date)	4/23/2018
	1251 McKay Drive San Jose, California 95131		
(Printed legal name of inventor)	Yongqian TANG		
(Inventor's Signature)	1229	(Date)	04/23/2018
	1251 McKay Drive San Jose, California 95131		

170064US02

Synaptics Incorporated Assignment Agreement v. 2014-10-15

Page 2 of 3

(Printed legal name of inventor) Mandar KULKARNI		ANV TO
(Inventor's Signature)	(Date)	4/23/2018
(Inventor's mailing address) / 1251 McKay Drive San Jose, California 95131		
(Printed legal name of inventor) Ozan Ersan ERDOGAN		
(Inventor's Signature) . Shappu	(Date)	4/23/2018
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131		
(Printed legal name of inventor) Shubha RAMAKRISHNAN		
(Inventor's Signature)	(Date)	7/23/2018
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131		
(Printed legal name of inventor) Pascale EL KALLASSI		
(Inventor's Signature)	(Date)	
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131	3913 5113 50000 7000 7000 7010 70	

${\bf SYNAPTICS\ INCORPORATED\ ASSIGNMENT\ AGREEMENT-WORLDWIDE}$

WHEREAS, We, the undersigned individuals, have invented certain invention(s) described in an application for Letters Patent (the "Application") in:
X the United States
X enclosed herewith
with docket number SYNA/170064US02 and title: INTEGRATED FINGERPRINT AND FORCE SENSOR
WHEREAS, SYNAPTICS INCORPORATED, a corporation of the State of Delaware, having a place of business at 1251 McKay Drive; San Jose, CA 95131;U.S.A. ("Synaptics"), desires to acquire the entire right, title, and interest in and to the invention(s) disclosed in the Application and all embodiments of such invention(s) previously conceived, made, or discovered by me during my employment with or within the scope of my work in any capacity for Synaptics (collectively, the "Inventions"), and in and to the Application and any and all other applications for utility patents, utility models, inventor's certificates, and other forms of invention protection or rights for the Inventions in any and all countries and groups of countries (collectively the "Applications"), and in and to any and all patents, inventors certificates, and other forms of invention protection or rights arising therefrom (the "Patents").
NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by me to have been received in full from Synaptics:
1. We hereby sell, assign, transfer and convey to Synaptics the entire right, title and interest (a) in and to the Inventions and the Application; (b) in and to all rights to apply for patents and all other forms of invention protection or rights on the Inventions in any and all countries pursuant to the Paris Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on the Inventions in any and all countries and groups of countries, including each and every application filed and each and every patent granted on any application which is a conventional, division, substitution, continuation, or continuation-in-part of any of the Applications; and (d) in and to each and every reissue or extension of any of the Patents.
2. We hereby covenant and agree to cooperate with Synaptics to enable Synaptics to enjoy to the fullest extent the right, title and interest to the Inventions herein conveyed in any and all countries and groups of countries. Our cooperation shall include prompt production of pertinent facts and documents, giving testimony, executing petitions, oaths, specifications, declarations or other papers, and providing other assistance to the extent deemed necessary or desirable by Synaptics (a) for perfecting in Synaptics the right, title and interest herein conveyed; (b) for prosecuting the Applications; (c) for filing and prosecuting substitute, conventional, divisional, continuation, continuation-in-part, or additional applications covering the Inventions; (d) for filing and prosecuting applications for reexamination or reissuance of any of the Patents; (e) in assisting Synaptics in any pre-grant or post-grant proceeding involving any of the Inventions, Applications, or Patents; and (f) in assisting Synaptics in any court or administrative proceeding involving any of the Inventions, Applications, or Patents, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, and infringement actions; provided, however, that reasonable expenses incurred by me in providing such cooperation shall be paid for by Synaptics.
17006411500

PATENT REEL: 045773 FRAME: 0258

Page 1 of 3

- 3. We hereby agree that the terms and covenants of this Assignment Agreement (the "Agreement") shall inure to the benefit of Synaptics, its successors, assigns and other legal representatives, and shall be binding upon me, my heirs, my legal representatives, and my assigns.
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IN WITNESS WHEREOF, we have executed and delivered this instrument to Synaptics on the date indicated below.

(Printed legal name of inventor) Guozhong SHEN	
(Inventor's Signature)	(Date)
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131	
(Printed legal name of inventor) Taehee CHO	
(Inventor's Signature)	(Date)
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131	
(Printed legal name of inventor) Yongqian TANG	
(Inventor's Signature)	(Date)
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131	

Page 2 of 3

170064US02

(Printed legal name of inventor) Mandar KULKARNI	
(Inventor's Signature)	(Date)
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131	
(Printed legal name of inventor)	
(Inventor's Signature)	(Date)
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131	
(Printed legal name of inventor) Shubha RAMAKRISHNAN	
(Inventor's Signature)	(Date)
(Inventor's mailing address) 1251 McKay Drive San Jose, California 95131	
(Printed legal name of inventor) Pascale EL KALLASSI	
(Inventor's Signature)	(Date) <u>C.(1./11/26.15</u>
1251 McKay Drive (Inventor's mailing address) San Jose, California 95131	

RECORDED: 05/10/2018