

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5503036

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	VALIDITY SENSORS, LLC	12/17/2013
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:	16399074
CORRESPONDENCE DATA		
Fax Number:	(312)616-5700	
<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>		
Phone:	312-616-5600	
Email:	assignments@leydig.com	
Correspondent Name:	LEYDIG, VOIT & MAYER (WALNUT CREEK)	
Address Line 1:	180 N. STETSON	
Address Line 2:	TWO PRUDENTIAL PLAZA, SUITE 4900	
Address Line 4:	CHICAGO, ILLINOIS 60601	
ATTORNEY DOCKET NUMBER:	742423/VAL71US01	
NAME OF SUBMITTER:	LEONARD Z. HUA	
SIGNATURE:	/Leonard Z. Hua/	
DATE SIGNED:	05/01/2019	
Total Attachments: 26		
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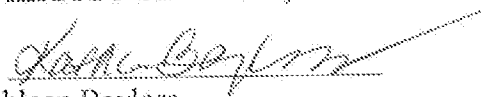
PATENT ASSIGNMENT

This Agreement is effective this 17th day of December, 2013 and is entered into by and between VALIDITY SENSORS, LLC, a Delaware limited liability company having a place of business at 1251 McKay Dr., San Jose, CA 95131, and SYNAPTICS INCORPORATED, a Delaware corporation having a place of business at 1251 McKay Dr., San Jose, CA 95131.

WHEREAS, SYNAPTICS INCORPORATED desires to acquire, and VALIDITY SENSORS, LLC wishes to assign to SYNAPTICS INCORPORATED, all rights, title and interests to the patents and applications listed in the attached EXHIBIT A ("Patents and Patent Applications") and all existing or future patents that may claim common priority thereto or issue therefrom, including reexaminations, reissues, renewals, or extensions (hereinafter the "PATENTS"), and to all inventions described in the PATENTS and embodiments of such inventions previously conceived, made, or discovered and for which VALIDITY SENSORS, LLC holds any rights, title, or interest (hereinafter the "INVENTIONS");

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, VALIDITY SENSORS, LLC hereby assigns to SYNAPTICS INCORPORATED all rights, title and interest to the PATENTS and the INVENTIONS, and to all claims, causes of action and enforcement rights, whether currently pending, filed, or otherwise, for the PATENTS, including without limitation all rights to pursue damages, injunctive relief and other remedies for past, current and future infringement of the PATENTS, and the right to collect royalties or other payments under or on account of any of the PATENTS.

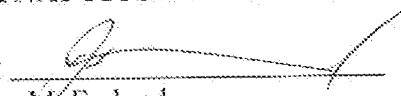
For: VALIDITY SENSORS, LLC

Signed: 

By: Kathleen Bayless

Its: Chief Financial Officer

For: SYNAPTICS INCORPORATED

Signed: 

By: John McFarland

Its: Senior Vice President and General Counsel

EXHIBIT A
PATENTS AND PATENT APPLICATIONS

FILE NO	CNTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.010200	US	APPARATUS AND METHOD FOR ELECTROSTATIC DISCHARGE PROTECTION	Pending	3/2/2010	12/716,122			PEREZSELSKY, Armando Leon NELSON, Richard Brian
123625.010201	DE	APPARATUS AND METHOD FOR ELECTROSTATIC DISCHARGE PROTECTION	Pending	2/25/2011	10 2011 012 405.5			PEREZSELSKY, Armando Leon NELSON, Richard Brian
123625.010202	UK	APPARATUS AND METHOD FOR ELECTROSTATIC DISCHARGE PROTECTION	Abandoned	3/2/2011	1103617.5			PEREZSELSKY, Armando Leon NELSON, Richard Brian
123625.010300	US	FINGERPRINT SENSING CIRCUIT	Expired	2/19/2010	61/306,392			ERHART, Richard Alexander NELSON, Richard Brian THOMPSON, Erik Jonathon
123625.010301	US	FINGERPRINT SENSING CIRCUIT	Pending	2/21/2011	13/021,557			PEREZSELSKY, Armando Leon ERHART, Richard Alexander NELSON, Richard Brian THOMPSON, Erik Jonathon
123625.010400	US	SYSTEM FOR AND METHOD OF IMAGE RECONSTRUCTION WITH DUAL LINE SCANNER USING LINE COUNTS	Issued	1/26/2011	13/014,389	11/26/2013	8,594,393	PEREZSELSKY, Armando Leon RUSSO, Anthony P.
123625.010401	DE	SYSTEM FOR AND METHOD OF IMAGE RECONSTRUCTION WITH DUAL LINE SCANNER USING LINE COUNTS	Pending	12/30/2011	10 2011 122 681.1			RUSSO, Anthony P.
123625.010402	KR	SYSTEM FOR AND METHOD OF IMAGE RECONSTRUCTION WITH DUAL LINE SCANNER USING LINE COUNTS	Pending	1/26/2012	10-2012-0008013			RUSSO, Anthony P.

FILE NO	CNTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.010403	TW	SYSTEM FOR AND METHOD OF IMAGE RECONSTRUCTION WITH DUAL LINE SCANNER USING LINE COUNTS	Pending	1/20/2012	101102450			RUSSO, Anthony P.
123625.010404	UK	SYSTEM FOR AND METHOD OF IMAGE RECONSTRUCTION WITH DUAL LINE SCANNER USING LINE COUNTS	Pending	1/26/2012	1201301.5			RUSSO, Anthony P.
123625.010405	US	SYSTEM FOR AND METHOD OF IMAGE RECONSTRUCTION WITH DUAL LINE SCANNER USING LINE COUNTS	Pending	11/25/2013	14/088,661			RUSSO, Anthony P.
123625.010500	US	USER INPUT UTILIZING DUAL LINE SCANNER APPARATUS AND METHOD	Granted	1/26/2011	13/014,507	9/17/2013	8,538,097	RUSSO, Anthony P.
123625.010501	DE	USER INPUT UTILIZING DUAL LINE SCANNER APPARATUS AND METHOD	Pending	12/30/2011	10 2011 122 680.3			RUSSO, Anthony P.
123625.010502	KR	USER INPUT UTILIZING DUAL LINE SCANNER APPARATUS AND METHOD	Pending	1/26/2012	10-2012-0008000			RUSSO, Anthony P.
123625.010503	TW	USER INPUT UTILIZING DUAL LINE SCANNER APPARATUS AND METHOD	Pending	1/20/2012	101102452			RUSSO, Anthony P.
123625.010504	UK	USER INPUT UTILIZING DUAL LINE SCANNER APPARATUS AND METHOD	Pending	1/26/2012	1201301.7			RUSSO, Anthony P.
123625.010505	US	USER INPUT UTILIZING DUAL LINE SCANNER APPARATUS AND METHOD	Pending	8/20/2013	13/971,644			RUSSO, Anthony P.
123625.010700	US	PACKAGING FOR FINGERPRINT SENSORS AND METHODS OF MANUFACTURE	Expired	3/16/2011	61/453,460			ERHART, Richard Alexander NELSON, Richard Brian
123625.010701	US	PACKAGING FOR FINGERPRINT SENSORS AND METHODS OF MANUFACTURE	Pending	3/14/2012	13/420,188			ERHART, Richard Alexander NELSON, Richard Brian
123625.010702	DE	PACKAGING FOR FINGERPRINT SENSORS AND METHODS OF MANUFACTURE	Pending	3/15/2012	10 2012 005 296.0			ERHART, Richard Alexander NELSON, Richard Brian

FILE NO	CNTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.010703	KR	PACKAGING FOR FINGERPRINT SENSORS AND METHODS OF MANUFACTURE	Pending	3/15/2012	10-2012-0026762			ERHART, Richard Alexander NELSON, Richard Brian
123625.010704	TW	PACKAGING FOR FINGERPRINT SENSORS AND METHODS OF MANUFACTURE	Pending	3/15/2012	101108616			ERHART, Richard Alexander NELSON, Richard Brian
123625.010705	UK	PACKAGING FOR FINGERPRINT SENSORS AND METHODS OF MANUFACTURE	Pending	3/14/2012	1204480.6			ERHART, Richard Alexander NELSON, Richard Brian
123625.011100	US	SWIPED APERTURE CAPACITIVE SENSOR	Expired	12/5/2000	60/251,371			BENKLEY, Fred George
123625.011101	US	SWIPED APERTURE CAPACITIVE FINGERPRINT SENSING SYSTEMS AND METHODS	Granted	12/5/2001	10/005,643	8/29/2006	7,099,496	BENKLEY, Fred George
123625.011102	WO	SWIPED APERTURE CAPACITIVE FINGERPRINT SENSING SYSTEMS AND METHODS	Expired	12/5/2001	PCT/US2001/46525			BENKLEY, Fred George
123625.011103	EP	SWIPED APERTURE CAPACITIVE FINGERPRINT SENSING SYSTEMS AND METHODS	Granted	12/5/2001	01989927.7	10/19/2005	1374146	BENKLEY, Fred George
123625.011104	HK	SWIPED APERTURE CAPACITIVE FINGERPRINT SENSING SYSTEMS AND METHODS	Granted	12/5/2001	04104768.8	4/7/2006	HK1061912	BENKLEY, Fred George
123625.011105	DE	SWIPED APERTURE CAPACITIVE FINGERPRINT SENSING SYSTEMS AND METHODS	Granted	12/5/2001	01989927.7	10/19/2005	60114241.1	BENKLEY, Fred George
123625.011106	FR	SWIPED APERTURE CAPACITIVE FINGERPRINT SENSING SYSTEMS AND METHODS	Granted	12/5/2001	01989927.7	10/19/2005	1374146	BENKLEY, Fred George
123625.011107	UK	SWIPED APERTURE CAPACITIVE FINGERPRINT SENSING SYSTEMS AND METHODS	Granted	12/5/2001	01989927.7	10/19/2005	1374146	BENKLEY, Fred George
123625.011108	US	SWIPED APERTURE CAPACITIVE FINGERPRINT SENSING SYSTEMS AND METHODS	Granted	10/20/2003	10/689,107	12/5/2006	7,146,014	BENKLEY, Fred George

FILE NO	ENTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.011109	EP	CAPACITIVE RATE OF MOVEMENT SENSOR	Granted	12/5/2001	05021634.0	10/31/2007	1624399	BENKLEY, Fred George
123625.011110	HK	CAPACITIVE RATE OF MOVEMENT SENSOR	Granted	12/5/2001	06108782.9	1/25/2008	HK1088420	BENKLEY, Fred George
123625.011111	DE	CAPACITIVE RATE OF MOVEMENT SENSOR	Granted	12/5/2001	05021634.0	10/31/2007	60131205.8	BENKLEY, Fred George
123625.011112	FR	CAPACITIVE RATE OF MOVEMENT SENSOR	Granted	12/5/2001	05021634.0	10/31/2007	1624399	BENKLEY, Fred George
123625.011113	UK	CAPACITIVE RATE OF MOVEMENT SENSOR	Granted	12/5/2001	05021634.0	10/31/2007	1624399	BENKLEY, Fred George
123625.011300	US	FINGER RATE SENSING METHODS AND APPARATUS	Expired	4/16/2004	60/563,139			BENKLEY, Fred George
123625.011301	US	FINGER POSITION SENSING METHODS AND APPARATUS	Granted	4/15/2005	11/107,682	12/9/2008	7,463,756	BENKLEY, Fred George
123625.011302	WO	FINGERPRINT POSITION SENSING METHODS AND APPARATUS	Expired	4/15/2005	PCT/US2005/01792			BENKLEY, Fred G. III
123625.011303	EP	FINGERPRINT POSITION SENSING METHODS AND APPARATUS	Withdrawn	4/15/2005	05737710.3			BENKLEY, Fred G. III
123625.011400	US	METHOD AND APPARATUS FOR FINGERPRINT MOTION TRACKING USING AN IN-LINE ARRAY FOR USE IN NAVIGATION APPLICATIONS	Granted	9/11/2006	11/519,362	4/24/2012	8,165,355	BENKLEY, Fred George GEOFFROY, David Joseph
123625.011401	WO	METHOD AND APPARATUS FOR FINGERPRINT MOTION TRACKING USING AN IN-LINE ARRAY	Expired	9/7/2007	PCT/US2007/019510			BENKLEY, Fred George GEOFFROY, David Joseph
123625.011402	WO	METHOD AND APPARATUS FOR FINGERPRINT MOTION TRACKING USING AN IN-LINE ARRAY FOR USE IN NAVIGATION APPLICATIONS	Expired	9/7/2007	PCT/US2007/019509			BENKLEY, Fred George GEOFFROY, David Joseph
123625.011403	TW	METHOD AND SYSTEM FOR FINGERPRINT MOTION TRACKING USING AN IN-LINE ARRAY	Abandoned	9/10/2007	096133772			BENKLEY, Fred, G., III GEOFFROY, David Joseph

FILE NO	CNTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.011404	TW	SYSTEM, METHOD AND APPARATUS FOR FINGERPRINT MOTION TRACKING USING AN IN-LINE ARRAY FOR USE IN NAVIGATION APPLICATIONS	Abandoned	9/10/2007	056133763			BENKLEY, Fred G., III GEOFFROY, David J.
123625.011500	US	METHOD AND APPARATUS FOR FINGERPRINT MOTION TRACKING USING AN IN-LINE ARRAY	Granted	9/11/2006	11/519,383	5/21/2013	8,447,077	BENKLEY, Fred George GEOFFROY, David Joseph
123625.011501	US	SYSTEM FOR DETERMINING THE MOTION OF A FINGERPRINT SURFACE WITH RESPECT TO A SENSOR SURFACE	Pending	9/14/2012	13/618,321			BENKLEY, Fred George GEOFFROY, David Joseph
123625.011600	US	FINGERPRINT SENSING ASSEMBLIES AND METHODS OF MAKING	Expired	10/4/2004	60/615,718			BENKLEY, Fred George
123625.011601	WO	FINGERPRINT SENSING ASSEMBLIES COMPRISING A SUBSTRATE	Expired	10/4/2005	PCT/US2005/035504			BENKLEY, Fred G., III
123625.011602	US	FINGERPRINT SENSING ASSEMBLIES AND METHODS OF MAKING	Granted	10/4/2005	11/743,100	7/6/2010	7,751,601	BENKLEY, Fred George
123625.011603	EP	FINGERPRINT SENSING ASSEMBLIES COMPRISING A SUBSTRATE	Granted	10/4/2005	05803274.9	8/11/2010	1800243	BENKLEY, Fred George
123625.011604	DE	FINGERPRINT SENSING ASSEMBLIES COMPRISING A SUBSTRATE	Granted	10/4/2005	05803274.9	8/11/2010	60 2005 022 900.0	BENKLEY, Fred George
123625.011605	FR	FINGERPRINT SENSING ASSEMBLIES COMPRISING A SUBSTRATE	Granted	10/4/2005	05803274.9	8/11/2010	1800243	BENKLEY, Fred George
123625.011606	UK	FINGERPRINT SENSING ASSEMBLIES COMPRISING A SUBSTRATE	Granted	10/4/2005	05803274.9	9/11/2010	1800243	BENKLEY, Fred George
123625.011607	HK	FINGERPRINT SENSING ASSEMBLIES COMPRISING A SUBSTRATE	Withdrawn	10/4/2005	7113484.9			BENKLEY, Fred George
123625.011608	US	FINGERPRINT SENSING ASSEMBLIES AND METHODS OF MAKING	Granted	5/24/2010	12/786,211	7/17/2012	8,224,044	BENKLEY, Fred George
123625.011609	US	FINGERPRINT SENSING ASSEMBLIES AND METHODS OF MAKING	Pending	4/25/2012	13/455,236			BENKLEY, Fred George
123625.011700	US	METHOD AND APPARATUS FOR ACQUIRING A SWIPED FINGERPRINT IMAGE	Expired	4/23/2004	60/564,791			GEOFFROY, David J. BUXTON, Jeffrey J.

FILE NO	CNTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.011701	US	METHODS AND APPARATUS FOR ACQUIRING A SWIPED FINGERPRINT IMAGE	Granted	4/22/2005	11/112,338	12/13/2011	8,077,935	GEOFFROY, David Joseph BUXTON, Jeffrey J.
123625.011702	WO	METHOD AND APPARATUS FOR ACQUIRING A SWIPED FINGERPRINT IMAGE	Expired	4/22/2005	PCT/US2005/013943			GEOFFROY, David Joseph BUXTON, Jeffrey J.
123625.011703	EP	METHOD AND APPARATUS FOR ACQUIRING A SWIPED FINGERPRINT IMAGE	Withdrawn	4/22/2005	05738819.1			GEOFFROY, David J. BUXTON, Jeffrey J.
123625.011800	US	METHOD AND APPARATUS FOR FINGERPRINT IMAGE RECONSTRUCTION	Granted	12/14/2007	11/957,311	3/6/2012	8,131,026	BENKLEY, Fred George GEOFFROY, David Joseph SATYAN, Pallavi
123625.011801	WO	METHOD AND APPARATUS FOR FINGERPRINT IMAGE RECONSTRUCTION	Expired	12/4/2008	PCT/US2008/085548			BENKLEY, Fred George GEOFFROY, David Joseph SATYAN, Pallavi
123625.011802	US	METHOD AND APPARATUS FOR FINGERPRINT IMAGE RECONSTRUCTION	Pending	1/4/2012	13/343,565			BENKLEY, Fred George GEOFFROY, David Joseph SATYAN, Pallavi
123625.011900	US	METHOD AND ALGORITHM FOR ACCURATE FINGER MOTION TRACKING	Granted	12/14/2007	11/957,322	7/24/2012	8,229,184	BENKLEY, Fred George GEOFFROY, David Joseph SATYAN, Pallavi
123625.011901	WO	METHOD AND ALGORITHM FOR ACCURATE FINGER MOTION TRACKING	Expired	12/4/2008	PCT/US2008/085575			BENKLEY, Fred George GEOFFROY, David Joseph SATYAN, Pallavi
123625.012000	US	METHOD AND APPARATUS FOR TWO-DIMENSIONAL FINGER MOTION TRACKING AND CONTROL	Granted	12/14/2007	11/957,332	1/22/2013	8,358,815	BENKLEY, Fred George GEOFFROY, David Joseph SATYAN, Pallavi
123625.012001	WO	METHOD AND APPARATUS FOR TWO-DIMENSIONAL FINGER MOTION TRACKING AND CONTROL	Expired	12/8/2008	PCT/US2008/085872			BENKLEY, Fred George GEOFFROY, David Joseph SATYAN, Pallavi
123625.012100	US	UNITIZED ERGONOMIC TWO-DIMENSIONAL FINGERPRINT MOTION TRACKING DEVICE AND METHOD	Granted	4/15/2008	12/103,655	5/8/2012	8,175,345	GARDNER, Lawrence C.

FILE NO	CNTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.012101	US	UNITIZED ERGONOMIC TWO-DIMENSIONAL FINGERPRINT MOTION TRACKING DEVICE AND METHOD	Granted	4/30/2012	13/460,330	11/20/2012	8,315,444	GARDNER, Lawrence C.
123625.012200	US	ELECTRONIC FINGERPRINT SENSOR WITH DIFFERENTIAL NOISE CANCELLATION	Granted	7/19/2005	11/134,464	12/2/2008	7,460,697	ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder
123625.012201	WO	ELECTRONIC FINGERPRINT SENSOR WITH NOISE CANCELLATION	Expired	7/12/2006	PCT/US2006/027060			ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder
123625.012202	CN	ELECTRONIC FINGERPRINT SENSOR WITH DIFFERENTIAL NOISE CANCELLATION	Granted	7/12/2006	2006 8002 6508.2	7/6/2011	ZL20066002 6508.2	ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder
123625.012203	DE	ELECTRONIC FINGERPRINT SENSOR WITH DIFFERENTIAL NOISE CANCELLATION	Granted	7/12/2006	06787022.0	9/16/2009	60 2006 009274.1	ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder
123625.012204	EP	ELECTRONIC FINGERPRINT SENSOR WITH DIFFERENTIAL NOISE CANCELLATION	Granted	7/12/2006	06787022.0	9/16/2009	1907979	ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder
123625.012205	FR	ELECTRONIC FINGERPRINT SENSOR WITH DIFFERENTIAL NOISE CANCELLATION	Granted	7/12/2006	06787022.0	9/16/2009	1907979	ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder
123625.012206	JP	ELECTRONIC FINGERPRINT SENSOR WITH DIFFERENTIAL NOISE CANCELLATION	Granted	7/12/2006	2008-522823	5/20/2011	4742348	ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder

FILE NO	CNTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.012207	KR	ELECTRONIC FINGERPRINT SENSOR WITH DIFFERENTIAL NOISE CANCELLATION	Granted	7/12/2006	10-2008-7003644	5/28/2010	10-0970526	ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder
123625.012208	UK	ELECTRONIC FINGERPRINT SENSOR WITH DIFFERENTIAL NOISE CANCELLATION	Granted	7/12/2006	06787022.0	9/16/2009	1907979	ERHART, Richard Alexander KEYVANI, Darioush BENKLEY, Fred George JANDU, Jaswinder
123625.012210	US	SYSTEM AND METHOD FOR MINIMIZING POWER CONSUMPTION FOR AN OBJECT SENSOR	Reissued	12/1/2005	11/291,639	1/5/2010	7,643,950	GETZIN, Lawrence
123625.012211	US	SYSTEM AND METHOD FOR MINIMIZING POWER CONSUMPTION FOR AN OBJECT SENSOR	Granted	1/5/2012	13/343,855	8/13/2013	RE44,440	GETZIN, Lawrence NELSON, Richard Brian JANDU, Jaswinder
123625.012300	US	APPARATUS AND METHOD FOR PROTECTING FINGERPRINT SENSING CIRCUITRY FROM ELECTROSTATIC DISCHARGE	Granted	4/30/2007	11/799,407	1/31/2012	8,107,212	ERHART, Richard Alexander NELSON, Richard Brian ERHART, Richard Alexander PEREZSELSKY, Armando Leon
123625.012301	WO	APPARATUS AND METHOD FOR PROTECTING FINGERPRINT SENSING CIRCUITRY FROM ELECTROSTATIC DISCHARGE	Expired	4/19/2008	PCT/US2008/060924			NELSON, Richard Brian ERHART, Richard Alexander PEREZSELSKY, Armando Leon
123625.012400	US	METHOD AND SYSTEM FOR ELECTRONICALLY SECURING AN ELECTRONIC DEVICE USING PHYSICALLY UNCLONABLE FUNCTIONS	Expired	5/11/2007	60/928,864			ERHART, Richard Alexander DEAN, Gregory SCHWAB, Frank
123625.012401	US	METHOD AND SYSTEM FOR ELECTRONICALLY SECURING AN ELECTRONIC DEVICE USING PHYSICALLY UNCLONABLE FUNCTIONS	Granted	7/17/2007	11/779,215	10/16/2012	8,290,150	ERHART, Richard Alexander DEAN, Gregory L. SCHWAB, Frank

FILE NO	CNTRY	TITLE	STATUS	APPLN DATE	APPLN NO.	PATENT DATE	PATENT NO.	INVENTORS
123625.012402	WO	METHOD AND SYSTEM FOR ELECTRONICALLY SECURING AN ELECTRONIC DEVICE USING PHYSICALLY UNCLONABLE FUNCTIONS	Expired	4/21/2008	PCT/US2008/061054			ERHART, Richard A. DEAN, Gregory Lewis SCHWAB, Frank
123625.012403	TW	METHOD AND SYSTEM FOR ELECTRONICALLY SECURING AN ELECTRONIC DEVICE USING PHYSICAL UNCLONABLE FUNCTIONS	Pending	4/29/2008	087115643			ERHART, Richard Alexander DEAN, Gregory L. SCHWAB, Frank
123625.012404	EP	METHOD AND SYSTEM FOR ELECTRONICALLY SECURING AN ELECTRONIC DEVICE USING PHYSICAL UNCLONABLE FUNCTIONS	Pending	4/71/2008	08825983.2			ERHART, Richard Alexander DEAN, Gregory L. SCHWAB, Frank
123625.012405	JP	METHOD AND SYSTEM FOR ELECTRONICALLY SECURING AN ELECTRONIC DEVICE USING PHYSICALLY UNCLONABLE FUNCTIONS	Abandoned	4/21/2008	2010-508482			ERHART, Richard Alexander DEAN, Gregory L. SCHWAB, Frank
123625.012406	KR	METHOD AND SYSTEM FOR ELECTRONICALLY SECURING AN ELECTRONIC DEVICE USING PHYSICAL UNCLONABLE FUNCTIONS	Pending	4/21/2008	10-2009-7025877			ERHART, Richard Alexander DEAN, Gregory L. SCHWAB, Frank
123625.012407	US	METHOD AND SYSTEM FOR ELECTRONICALLY SECURING AN ELECTRONIC BIOMETRIC DEVICE USING PHYSICALLY UNCLONABLE FUNCTIONS	Abandoned	12/21/2007	11/963,721			ERHART, Richard Alexander DEAN, Gregory L. SCHWAB, Frank
123625.012500	US	SMART CARD SYSTEM WITH ERGONOMIC FINGERPRINT SENSOR AND METHOD OF USING	Granted	12/14/2007	11/957,353	10/2/2012	8,276,816	GARDNER, Lawrence C.
123625.012600	US	SYSTEM AND METHOD TO REMOVE ARTIFACTS FROM FINGERPRINT SENSOR SCANS	Granted	12/14/2007	11/957,295	6/19/2012	8,204,281	SATYAN, Pallavi CHAN, Philip Yiu Kwong

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123625.012601	WO	SYSTEM AND METHOD TO REMOVE ARTIFACTS FROM FINGERPRINT SENSOR SCANS	Expired	12/8/2008	PCT/US2008/085932			SATYAN, Pallavi CHAN, Philip Yiu Kwong
123625.012700	US	SYSTEM AND METHOD FOR FINGERPRINT-RESISTANT SURFACES FOR DEVICES USING FINGERPRINT SENSORS	Abandoned	12/14/2007	11/957,162			BENKLEY, Fred George GEOFFROY, David I.
123625.012800	US	FINGERPRINT SENSING CIRCUIT HAVING PROGRAMMABLE SENSING PATTERNS	Granted	4/4/2008	12/098,364	5/31/2011	7,953,258	DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder THOMPSON, Erik Jonathon
123625.012801	US	FINGERPRINT SENSING CIRCUIT HAVING PROGRAMMABLE SENSING PATTERNS	Pending	9/26/2013	14/037,862			DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder THOMPSON, Erik Jonathon
123625.012900	US	APPARATUS AND METHOD FOR REDUCING NOISE IN FINGERPRINT SENSING CIRCUITS	Granted	4/4/2008	12/098,367	2/14/2012	8,116,540	DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder THOMPSON, Erik Jonathon
123625.012901	US	APPARATUS AND METHOD FOR REDUCING NOISE IN FINGERPRINT SENSING CIRCUITS	Granted	2/13/2012	13/372,153	8/27/2013	8,520,913	DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder THOMPSON, Erik Jonathon
123625.012902	US	APPARATUS AND METHOD FOR REDUCING NOISE IN FINGERPRINT SENSING CIRCUITS	Pending	8/13/2013	13/965,978			DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder THOMPSON, Erik Jonathon
123625.013000	US	APPARATUS AND METHOD FOR REDUCING PARASITIC CAPACITIVE COUPLING AND NOISE IN FINGERPRINT SENSING CIRCUITS	Granted	4/4/2008	12/098,370	8/23/2011	8,005,276	DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder THOMPSON, Erik Jonathon
123625.013001	US	APPARATUS AND METHOD FOR REDUCING PARASITIC CAPACITIVE COUPLING AND NOISE IN FINGERPRINT SENSING CIRCUITS	Pending	8/22/2013	13/973,138			DEAN, Gregory Lewis ERHART, Richard Alexander JANDU, Jaswinder THOMPSON, Erik Jonathon

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123625.013100	US	SYSTEM, DEVICE AND METHOD FOR SECURING A DEVICE COMPONENT	Expired	7/22/2008	61/082,799			ERHART, Richard Alexander SCHWAB, Frank
123625.013101	US	SYSTEM, DEVICE AND METHOD FOR SECURING A DEVICE COMPONENT	Pending	7/22/2009	12/507,689			ERHART, Richard Alexander SCHWAB, Frank
123625.013102	WO	SYSTEM, DEVICE AND METHOD FOR SECURING A DEVICE COMPONENT	Expired	7/22/2009	PCT/US2009/051449			ERHART, Richard Alexander SCHWAB, Frank
123625.013103	TW	SYSTEM, DEVICE AND METHOD FOR SECURING A DEVICE COMPONENT	Pending	7/22/2009	098124784			ERHART, Richard Alexander SCHWAB, Frank
123625.013104	DE	SYSTEM, DEVICE AND METHOD FOR SECURING A DEVICE COMPONENT	Pending	7/22/2009	11 2009 001 794.0			ERHART, Richard Alexander SCHWAB, Frank
123625.013105	UK	SYSTEM, DEVICE AND METHOD FOR SECURING A DEVICE COMPONENT	Granted	7/22/2009	1103007.9	2/20/2013	2474999	ERHART, Richard Alexander SCHWAB, Frank
123625.013106	EP	SYSTEM, DEVICE AND METHOD FOR SECURING A DEVICE COMPONENT	Pending	7/22/2009	098166653.1			ERHART, Richard Alexander SCHWAB, Frank
123625.013200	US	FINGERPRINT SENSOR DEVICE AND SYSTEM WITH VERIFICATION TOKEN AND METHOD OF USING	Expired	9/16/2003	61/097,503			KESANUPALLI, Ramesh
123625.013201	US	FINGERPRINT SENSOR DEVICE AND SYSTEM WITH VERIFICATION TOKEN AND METHODS OF USING	Pending	9/16/2009	12/561,186			KESANUPALLI, Ramesh
123625.013202	WO	FINGERPRINT SENSOR DEVICE AND SYSTEM WITH VERIFICATION TOKEN AND METHODS OF USING	Expired	9/23/2009	PCT/US2009/058107			KESANUPALLI, Ramesh
123625.013205	UK	FINGERPRINT SENSOR DEVICE AND SYSTEM WITH VERIFICATION TOKEN AND METHODS OF USING	Abandoned	9/23/2009	1106205.6			KESANUPALLI, Ramesh
123625.013300	US	SYSTEM AND METHOD FOR IMPROVED SCANNING OF FINGERPRINT EDGES	Granted	11/10/2008	12/268,260	3/5/2013	8,391,568	SATYAN, Pallavi
123625.013400	US	APPARATUS AND METHOD FOR DETECTING FINGER ACTIVITY ON A FINGERPRINT SENSOR	Granted	1/15/2009	12/354,722	10/2/2012	8,278,946	THOMPSON, Erik Jonathon DEAN, Gregory L. JANDU, Jaswinder ERHART, Richard Alexander

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123625.013401	US	APPARATUS AND METHOD FOR FINGER ACTIVITY ON A FINGERPRINT SENSOR	Granted	9/13/2012	13/614,665	11/26/2013	8,593,160	THOMPSON, Erik Jonathon DEAN, Gregory Lewis JANDU, Jaswinder
123625.013500	US	ULTRA LOW POWER OSCILLATOR	Abandoned	1/15/2009	12/354,699			ERHART, Richard Alexander THOMPSON, Erik Jonathon DEAN, Gregory L. JANDU, Jaswinder
123625.013600	US	APPARATUS AND METHOD FOR CULLING SUBSTANTIALLY REDUNDANT DATA IN FINGERPRINT SENSING CIRCUITS	Granted	1/15/2009	12/354,680	12/3/2013	8,600,122	ERHART, Richard Alexander DEAN, Gregory L.
123625.013700	US	ULTRA LOW POWER WAKE-ON-EVENT MODE FOR BIOMETRIC SYSTEMS	Pending	1/15/2009	12/354,685			THOMPSON, Erik Jonathon DEAN, Gregory L. JANDU, Jaswinder
123625.013800	US	LIVE FINGER DETECTION	Granted	1/28/2009	12/361,408	2/12/2013	8,374,407	ERHART, Richard Alexander BENKLEY, Fred George
123625.013801	US	LIVE FINGER DETECTION	Abandoned	9/14/2012	13/617,146			GEOFFROY, David Joseph BENKLEY, Fred George
123625.013900	US	ILLUMINATED FINGERPRINT SENSOR AND METHOD	Expired	2/17/2009	61/153,251			GEOFFROY, David Joseph GARDNER, Larry
123625.013901	US	ILLUMINATED FINGERPRINT SENSOR AND METHOD	Pending	2/12/2010	12/703,464			GARDNER, Lawrence C. BLAZER, Robert
123625.013902	EP	ILLUMINATED FINGERPRINT SENSOR AND METHOD	Abandoned	2/17/2010	10153816.3			GARDNER, Lawrence C. BLAZER, Robert
123625.013903	JP	ILLUMINATED FINGERPRINT SENSOR AND METHOD	Abandoned	2/17/2010	2010-031921			GARDNER, Lawrence C. BLAZER, Robert
123625.013904	KR	ILLUMINATED FINGERPRINT SENSOR AND METHOD	Abandoned	2/16/2010	10-2010-0013697			GARDNER, Lawrence C. BLAZER, Robert
123625.013905	TW	ILLUMINATED FINGERPRINT SENSOR AND METHOD	Abandoned	2/22/2010	099105039			GARDNER, Lawrence C. BLAZER, Robert
123625.014000	US	COMBINED FINGERPRINT ACQUISITION AND CONTROL DEVICE	Granted	5/15/1998	09/080,322	6/4/2002	6,400,836	SENIOR, Andrew William

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123625.014100	US	COMBINED FINGERPRINT ACQUISITION AND CONTROL DEVICE	Granted	1/24/2000	09/489,908	9/6/2005	6,941,001	BOILE, Rudolf M. RATHA, Nalini K. SENIOR, Andrew William GARDNER, Lawrence C.
123625.014200	US	SMART CARD SYSTEM AND DOCKING DEVICE WITH ERGONOMIC FINGERPRINT SENSOR	Abandoned	12/14/2007	11/957,359			
123625.014300	US	SECURE AUTHENTICATION	Expired	10/6/2009	61/249,218			KESANUPALLI, Ramesh BAGHDASARYAN, Davit SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014301	US	SECURE TRANSACTIONS	Expired	1/6/2010	61/292,820			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014302	US	USER ENROLLMENT VIA BIOMETRIC DEVICE	Pending	3/24/2010	12/731,027			KESANUPALLI, Ramesh BAGHDASARYAN, Davit SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014303	US	SECURE USER AUTHENTICATION	Pending	3/24/2010	12/731,037			KESANUPALLI, Ramesh BAGHDASARYAN, Davit SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014304	US	SECURE USER AUTHENTICATION USING BIOMETRIC INFORMATION	Pending	3/24/2010	12/731,050			KESANUPALLI, Ramesh BAGHDASARYAN, Davit SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence

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123625.014305	US	SECURE TRANSACTION SYSTEMS AND METHOD USING USER AUTHENTICATION BIOMETRIC INFORMATION	Pending	6/3/2010	12/793,499			KESANUPALLI, Ramesh BAGHDASARYAN, Davit SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014306	US	MONITORING SECURE FINANCIAL TRANSACTIONS	Pending	3/31/2010	12/751,969			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014307	EP	MONITORING SECURE FINANCIAL TRANSACTIONS	Pending	1/6/2011	11150343.9			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014308	KR	MONITORING SECURE FINANCIAL TRANSACTIONS	Pending	1/6/2011	10-2011-0001585			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014309	US	SECURE TRANSACTION SYSTEMS AND METHODS	Pending	3/31/2010	12/751,964			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014310	EP	SECURE TRANSACTION SYSTEMS AND METHODS	Pending	1/6/2011	11150344.7			KESANUPALLI, Ramesh BAGHDASARYAN, Davit SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014311	KR	SECURE TRANSACTION SYSTEMS AND METHODS	Pending	1/6/2011	10-2011-0001584			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence

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123625.014312	US	SECURE FINANCIAL TRANSACTION SYSTEMS AND METHODS	Pending	3/31/2010	12/751,983			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014313	US	SECURE TRANSACTION SYSTEMS AND METHODS	Pending	3/31/2010	12/751,952			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014314	EP	SECURE TRANSACTION SYSTEMS AND METHODS	Pending	1/6/2011	11150346.2			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014315	KR	SECURE TRANSACTION SYSTEMS AND MEHTODS	Pending	1/6/2011	10-2011-0001583			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014316	US	SECURE TRANSACTION SYSTEMS AND METHODS	Pending	3/31/2010	12/751,954			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014317	EP	SECURE TRANSACTION SYSTEMS AND METHODS	Pending	1/6/2011	11150341.3			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence
123625.014318	KR	SECURE TRANSACTION SYSTEMS AND METHODS	Pending	1/6/2011	10-2011-0001581			BAGHDASARYAN, Davit KESANUPALLI, Ramesh SCHWAB, Frank CHAN, Philip Yiu Kwong HATTERY, Lawrence

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123625.014400	US	INTEGRATED FINGERPRINT SENSOR AND NAVIGATION DEVICE	Pending	6/2/2010	12/792,496			DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder RUSSO, Anthony P. THOMPSON, Erik Jonathon
123625.014401	DE	INTEGRATED FINGERPRINT SENSOR AND NAVIGATION DEVICE	Pending	5/25/2011	10 2011 102 341.4			DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder RUSSO, Anthony P. THOMPSON, Erik Jonathon
123625.014402	KR	INTEGRATED FINGERPRINT SENSOR AND NAVIGATION DEVICE	Pending	6/1/2011	10-2011-0052828			DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder RUSSO, Anthony P. THOMPSON, Erik Jonathon
123625.014403	TW	INTEGRATED FINGERPRINT SENSOR AND NAVIGATION DEVICE	Pending	6/2/2011	100119395			DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder RUSSO, Anthony P. THOMPSON, Erik Jonathon
123625.014404	UK	INTEGRATED FINGERPRINT SENSOR AND NAVIGATION DEVICE	Pending	9/27/2011	1109124.6			DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder RUSSO, Anthony P. THOMPSON, Erik Jonathon
123625.014500	US	FINGERPRINT ACQUISITION EXPANSION CARD APPARATUS	Granted	8/20/2010	12/860,748	10/31/2012	8,331,096	DEAN, Gregory L. ERHART, Richard Alexander JANDU, Jaswinder RUSSO, Anthony P. THOMPSON, Erik Jonathon GARCIA, Ed
123625.014600	US	SYSTEMS AND METHODS FOR SENSING FINGER PRINTS THROUGH A DISPLAY	Expired	10/30/2009	61/756,908			ERHART, Richard Alexander
123625.014601	US	INTEGRATED FINGERPRINT SENSOR AND DISPLAY	Pending	10/28/2010	12/914,812			ERHART, Richard Alexander NELSON, Richard Brian WICKBOLDT, Paul

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123625.014602	US	SYSTEMS AND METHODS FOR SENSING FINGERPRINTS THROUGH A DISPLAY	Pending	10/29/2010	12/916,000			ERHART, Richard Alexander NELSON, Richard Brian WICKBOLDT, Paul
123625.014603	WO	INTEGRATED FINGERPRINT SENSOR AND DISPLAY	Expired	10/29/2010	PCT/US2010/054742			ERHART, Richard Alexander NELSON, Richard Brian WICKBOLDT, Paul
123625.014604	TW	INTEGRATED FINGERPRINT SENSOR AND DISPLAY	Pending	10/29/2010	099137180			ERHART, Richard Alexander NELSON, Richard Brian WICKBOLDT, Paul
123625.014605	US	FINGERPRINT SENSOR AND INTEGRATABLE ELECTRONIC DISPLAY	Pending	5/3/2011	13/099,983			ERHART, Richard Alexander NELSON, Richard Brian WICKBOLDT, Paul
123625.014606	DE	INTEGRATED FINGERPRINT SENSOR AND DISPLAY	Pending	10/29/2010	11 2010 003 811.2			ERHART, Richard Alexander
123625.014607	KR	INTEGRATED FINGERPRINT SENSOR AND DISPLAY	Pending	10/29/2010	10-2012-7011069			ERHART, Richard Alexander
123625.014608	UK	INTEGRATED FINGERPRINT SENSOR AND DISPLAY	Pending	10/29/2010	1207678.2			ERHART, Richard Alexander
123625.014609	US	FINGERPRINT SENSOR AND INTEGRATABLE ELECTRONIC DISPLAY	Expired	1/3/2012	61/582,570			ERHART, Richard Alexander NELSON, Richard Brian WICKBOLDT, Paul
123625.014610	DE	FINGERPRINT SENSOR AND INTEGRATABLE ELECTRONIC DISPLAY	Pending	4/30/2012	10 2012 008 847.7			ERHART, Richard Alexander
123625.014611	KR	FINGERPRINT SENSOR AND INTEGRATABLE ELECTRONIC DISPLAY	Pending	5/2/2012	10-2012-0046549			ERHART, Richard Alexander
123625.014612	TW	FINGERPRINT SENSOR AND INTEGRATABLE ELECTRONIC DISPLAY	Pending	4/27/2012	0101115132			ERHART, Richard Alexander
123625.014613	UK	INTEGRATED FINGERPRINT SENSOR AND DISPLAY	Pending	5/2/2012	1207675.8			ERHART, Richard Alexander
123625.014614	US	FINGERPRINT SENSOR AND INTEGRATABLE ELECTRONIC DISPLAY	Expired	4/10/2012	61/632,832			ERHART, Richard Alexander NELSON, Richard Brian WICKBOLDT, Paul
123625.014615	US	FINGERPRINT SENSOR AND INTEGRATABLE ELECTRONIC DISPLAY	Pending	4/24/2012	13/454,432			ERHART, Richard Alexander NELSON, Richard Brian WICKBOLDT, Paul

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123625.014700	US	METHOD AND DEVICES FOR CAPACITIVE IMAGE SENSING	Expired	12/23/2011	61/579,994			ERHART, Richard Alexander WICKBOLDT, Paul
123625.014701	DE	METHODS AND DEVICES FOR CAPACITIVE IMAGE SENSING	Pending	12/21/2012	10 2012 025 255.2			ERHART, Richard Alexander WICKBOLDT, Paul
123625.014702	KR	METHODS AND DEVICES FOR CAPACITIVE IMAGE SENSING	Pending	12/24/2012	10-2012-0152546			DEAN, Gregory Lewis ERHART, Richard Alexander WICKBOLDT, Paul
123625.014703	TW	METHODS AND DEVICES FOR CAPACITIVE IMAGE SENSING	Pending	12/21/2012	101148951			DEAN, Gregory Lewis ERHART, Richard Alexander WICKBOLDT, Paul
123625.014704	UK	METHODS AND DEVICES FOR CAPACITIVE IMAGE SENSING	Pending	12/21/2012	1273233.6			DEAN, Gregory Lewis ERHART, Richard Alexander WICKBOLDT, Paul
123625.014705	US	METHODS AND DEVICES FOR CAPACITIVE IMAGE SENSING	Pending	12/19/2012	13/720,508			DEAN, Gregory Lewis ERHART, Richard Alexander WICKBOLDT, Paul
123625.014800	US	TOUCH SENSOR DEVICE PACKAGE AND METHODS	Expired	10/27/2011	61/552,108			DEAN, Gregory Lewis WICKBOLDT, Paul
123625.014801	DE	TOUCH SENSOR DEVICE PACKAGE AND METHODS	Pending	10/26/2012	10 2012 021 084.1			THAMMASOUK, Khamvong WICKBOLDT, Paul
123625.014802	KR	TOUCH SENSOR DEVICE PACKAGE AND METHODS	Pending	10/29/2012	10-2012-0120765			THAMMASOUK, Khamvong WICKBOLDT, Paul
123625.014803	TW	TOUCH SENSOR DEVICE PACKAGE AND METHODS	Pending	10/26/2012	101139655			THAMMASOUK, Khamvong WICKBOLDT, Paul
123625.014804	UK	TOUCH SENSOR DEVICE PACKAGE AND METHODS	Pending	10/26/2012	1219308.2			THAMMASOUK, Khamvong WICKBOLDT, Paul
123625.014805	US	TOUCH SENSOR DEVICE PACKAGE AND METHODS	Pending	10/23/2012	13/657,959			THAMMASOUK, Khamvong WICKBOLDT, Paul
123625.015000	US	METHOD OF AND SYSTEM FOR ENROLLING AND MATCHING BIOMETRIC DATA	Expired	3/27/2012	61/615,999			THAMMASOUK, Khamvong RUSSO, Anthony P. HATTERY, Larry

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123625.015001	US	METHOD OF AND SYSTEM FOR ENROLLING AND MATCHING BIOMETRIC DATA	Pending	3/26/2013	13/851,015			RUSSO, Anthony P. HATTERY, Lawrence KRISHNAPURA, Rohini CHAN, Philip Yiu Kwong
123625.015100	US	BIOMETRIC OBJECT SENSOR AND METHOD	Expired	3/27/2012	61/616,112			ERHART, Richard Alexander THOMPSON, Erik Jonathon JANDU, Jaswinder PERCY, Pamela
123625.015101	US	BIOMETRIC OBJECT SENSOR AND METHOD	Pending	2/8/2013	13/763,377			ERHART, Richard Alexander THOMPSON, Erik Jonathon JANDU, Jaswinder PERCY, Pamela
123625.015300	US	STRUCTURES AND MANUFACTURING METHODS FOR GLASS COVERED ELECTRONIC DEVICES	Expired	1/3/2012	61/582,660			WICKBOLDT, Paul JONES, Eric
123625.015301	DE	STRUCTURES AND MANUFACTURING METHODS FOR GLASS COVERED ELECTRONIC DEVICES	Pending	1/3/2013	10 2013 000 218.4			WICKBOLDT, Paul JONES, Eric
123625.015302	KR	STRUCTURES AND MANUFACTURING METHODS FOR GLASS COVERED ELECTRONIC DEVICES	Pending	1/3/2013	10-2013-0000801			WICKBOLDT, Paul JONES, Eric
123625.015303	TW	STRUCTURES AND MANUFACTURING METHODS FOR GLASS COVERED ELECTRONIC DEVICES	Pending	1/2/2013	102100057			WICKBOLDT, Paul JONES, Eric
123625.015304	UK	STRUCTURES AND MANUFACTURING METHODS FOR GLASS COVERED ELECTRONIC DEVICES	Pending	1/3/2013	1300026.0			WICKBOLDT, Paul JONES, Eric

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123625.015305	US	STRUCTURES AND MANUFACTURING METHODS FOR GLASS COVERED ELECTRONIC DEVICES	Pending	12/26/2012	13/727,081			WICKBOLDT, Paul JONES, Eric
123625.015400	US	PLACEMENT FINGERPRINT IMAGE SENSOR AND IMAGE CONSTRUCTIONMETHOD AND APPARATUS	Expired	1/20/2012	61/588,947			ERHART, Richard Alexander
123625.015401	US	PLACEMENT FINGERPRINT IMAGE SENSOR AND IMAGE CONSTRUCTION METHOD AND APPARATUS	Pending	1/18/2013	13/745,222			ERHART, Richard Alexander
123625.015500	US	FINGERPRINT SENSOR PACKAGINGS FOR INTEGRATION INTO MULTI-FACETED SURFACES	Expired	3/29/2012	61/617,500			NELSON, Richard Brian ERHART, Richard Alexander
123625.015501	DE	FINGERPRINT SENSOR PACKAGINGS AND METHODS	Pending	3/25/2013	10 2013 005 500.8			WICKBOLDT, Paul NELSON, Richard Alexander
123625.015502	KR	FINGERPRINT SENSOR PACKAGINGS AND METHODS	Pending	3/29/2013	10-2013-0034847			ERHART, Richard Alexander WICKBOLDT, Paul NELSON, Richard Brian
123625.015503	TW	FINGERPRINT SENSOR PACKAGINGS AND METHODS	Pending	3/28/2013	102111264			ERHART, Richard Alexander WICKBOLDT, Paul NELSON, Richard Brian
123625.015504	UK	FINGERPRINT SENSOR PACKAGINGS AND METHODS	Pending	3/28/2013	1305735.1			ERHART, Richard Alexander WICKBOLDT, Paul NELSON, Richard Brian
123625.015505	US	FINGERPRINT SENSOR PACKAGINGS AND METHODS	Pending	3/26/2013	13/850,439			ERHART, Richard Alexander WICKBOLDT, Paul NELSON, Richard Brian
123625.015600	US	METHODS AND SYSTEMS FOR REDUCING NOISE IN BIOMETRIC DATA ACQUISITION	Expired	3/27/2012	61/616,319			ERHART, Richard Alexander RUSSO, Anthony P

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123625.015601	US	METHODS AND SYSTEMS FOR REDUCING NOISE IN BIOMETRIC DATA ACQUISITION	Pending	3/27/2013	13/851,771			RUSSO, Anthony P.
123625.015700	US	METHODS AND SYSTEMS FOR ENROLLING BIOMETRIC DATA	Expired	3/28/2012	61/616,529			RUSSO, Anthony P.
123625.015701	DE	METHODS AND SYSTEMS FOR ENROLLING BIOMETRIC DATA	Pending	3/20/2013	10 2013 004 842.7			RUSSO, Anthony P.
123625.015702	KR	METHODS AND SYSTEMS FOR ENROLLING BIOMETRIC DATA	Pending	3/28/2013	10-2013-0033974			RUSSO, Anthony P.
123625.015703	TW	METHODS AND SYSTEMS FOR ENROLLING BIOMETRIC DATA	Pending	3/26/2013	102110647			RUSSO, Anthony P.
123625.015704	UK	METHODS AND SYSTEMS FOR ENROLLING BIOMETRIC DATA	Pending	3/25/2013	1305379.8			RUSSO, Anthony P.
123625.015705	US	METHODS AND SYSTEMS FOR ENROLLING BIOMETRIC DATA	Pending	2/5/2013	13/759,852			RUSSO, Anthony P.
123625.015800	US	INTEGRATABLE FINGERPRINT SENSOR PACKAGINGS	Expired	4/2/2012	61/619,254			NELSON, Richard Brian WICKBOLDT, Paul RAM, Sudhakaran
123625.015801	US	INTEGRATABLE FINGERPRINT SENSOR PACKAGINGS	Pending	4/2/2013	13/855,552			NELSON, Richard Brian WICKBOLDT, Paul RAM, Sudhakaran
123625.016100	US	LOW POWER NAVIGATION, DEVICES, SYSTEMS AND METHODS	Expired	9/28/2012	61/707,725			THOMPSON, Erik SCHWAB, Frank RUSSO, Anthony P DAVIS, Bjoren BELLMAN, Charles DEAN, Gregory Lewis CHAN, Philip Yui Kwong JANDU, Jaswinder

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123625.016101	US	LOW POWER NAVIGATION, DEVICES, SYSTEMS AND METHODS	Pending	09/26/2013	14/037,647			THOMPSON, Erik SCHWAB, Frank RUSSO, Anthony P DAVIS, Bjoren BELLMAN, Charles DEAN, Gregory Lewis CHAN, Philip Yui Kwong JANDU, Jaswinder
123625.016200	US	FINGER DETECTION USING BULK CAPACITANCE AND METHODS	Pending	1/9/2013	61/750,728			THOMPSON, Erik Jonathon ERHART, Richard Alexander JANDU, Jaswinder DEAN, Gregory Lewis
123625.016300	US	TIERED WAKEUP STRATEGY	Pending	1/11/2013	61/751,739			THOMPSON, Erik Jonathon BELLMAN, Charles Walter RUSSO, Anthony P. CHAN, Philip Yui Kwong DAVIS, Bjoren Kurt ERHART, Richard Alexander JANDU, Jaswinder LIEN, Ty Bao SCHWAB, Frank
123625.016301	US	TIERED WAKEUP STRATEGY	Pending	2/13/2013	13/766,394			THOMPSON, Erik Jonathon BELLMAN, Charles Walter RUSSO, Anthony P. CHAN, Philip Yui Kwong DAVIS, Bjoren Kurt ERHART, Richard Alexander JANDU, Jaswinder LIEN, Ty Bao SCHWAB, Frank
123625.016400	US	CAPACITIVE GAP FINGERPRINT SENSOR WITH SIGNAL STRENGTHENING APPARATUS	Pending	10/16/2013	61/891,870			DEAN, Gregory Lewis LEE, Young Seen DUNLAP, Brett

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123625.016401	US	CAPACITIVE GAP FINGERPRINT SENSOR WITH SIGNAL STRENGTHENING APPARATUS	Pending	10/17/2013	61/892,361			DEAN, Gregory Lewis LEE, Young Seon DUNLAP, Brett
123625.016500	US	PATID GENERATION AND USE OF PATID VARIABLES ON TESTER	Pending	2/26/2013	61/769,667			HARRY, John DEAN, Gregory Lewis
123625.016600	US	BUTTON DEPRESS WAKEUP AND WAKEUP STRATEGY	Pending	2/19/2013	13/770,164			THOMPSON, Erik Jonathon LIEN, Ty Bao
123625.016700	US	CREDENTIAL QUALITY ASSESSMENT ENGINE SYSTEMS AND METHODS	Expired	7/2/2012	61/667,149			TAVEAU, Sebastien Ludovic Jean HATTERY, Lawrence SCHWAB, Frank
123625.016701	US	CREDENTIAL QUALITY ASSESSMENT ENGINE SYSTEMS AND METHODS	Pending	7/1/2013	13/932,129			TAVEAU, Sebastien Ludovic Jean HATTERY, Lawrence SCHWAB, Frank
123625.016702	WO	CREDENTIAL QUALITY ASSESSMENT ENGINE SYSTEMS AND METHODS	Pending	7/2/2013	PCT/US2013/4 9018			TAVEAU, Sebastien Ludovic Jean HATTERY, Lawrence SCHWAB, Frank
123625.016720	US	CREDENTIAL QUALITY ASSESSMENT ENGINE SYSTEMS AND METHODS	Pending	7/1/2013	61/841,497			TAVEAU, Sebastien Ludovic Jean HATTERY, Lawrence SCHWAB, Frank
123625.016900	US	GLASS LAMINATES AND METHODS OF MAKING SAME	Pending	2/9/2013	61/762,872			BROESLER, Robert WICKBOLDT, Paul JONES, Eric
123625.017100	US	FINGERPRINT SENSOR HAVING FLIP CHIP PACKAGING	Expired	10/14/2012	61/713,550			DUNLAP, Brett
123625.017101	DE	FINGERPRINT SENSOR AND BUTTON COMBINATIONS AND METHODS OF MAKING SAME	Pending	10/14/2013	10 2013 017 013.3			DUNLAP, Brett WICKBOLDT, Paul
123625.017102	KR	FINGERPRINT SENSOR AND BUTTON COMBINATIONS AND METHODS OF MAKING SAME	Pending	10/11/2013	10-2013- 121590			DUNLAP, Brett WICKBOLDT, Paul

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123625.017103	TW	FINGERPRINT SENSOR AND BUTTON COMBINATIONS AND METHODS OF MAKING SAME	Pending	10/14/2013	102136931			DUNLAP, Brett WICKBOLDT, Paul
123625.017104	UK	FINGERPRINT SENSOR AND BUTTON COMBINATIONS AND METHODS OF MAKING SAME	Pending	10/13/2013	1318045.0			DUNLAP, Brett WICKBOLDT, Paul
123625.017105	US	FINGERPRINT SENSOR AND BUTTON COMBINATIONS AND METHODS OF MAKING SAME	Pending	10/09/2013	14/050,012			DUNLAP, Brett WICKBOLDT, Paul
123625.017400	US	COMPACT BUTTON CONFIGURATIONS AND METHODS	Pending	1/18/2013	61/754,287			WICKBOLDT, Paul
123625.017700	US	METHODS AND SYSTEMS FOR FINGERPRINT TEMPLATE ENROLLMENT AND DISTRIBUTION PROCESS	Pending	1/4/2013	61/748,851			TAVEAU, Sebastien Ludovic Jean TSUCHIYA, Marcia
123625.017800	US	METHOD AND APPARATUS FOR NOISE REDUCTION AND HIGHER RESOLUTION IN BIOMETRIC SENSORS	Pending	3/15/2013	61/792,938			THOMPSON, Erik Jonathon DEAN, Gregory Lewis JANDU, Jaswinder MOLESA, Steven WICKBOLDT, Paul
123625.017900	US	BIOMETRIC SENSOR ON GLASS PACKAGINGS AND HOUSINGS AND METHODS THEREFOR	Pending	7/24/2013	61/858,067			THAMMASOUK, Khairvong LEE, Young Seen NELSON, Richard Brian WICKBOLDT, Paul
123625.018000	US	SIGNAL STRENGTH ENHANCEMENT IN A BIOMETRIC SENSOR ARRAY	Pending	7/24/2013	61/858,017			WICKBOLDT, Paul DEAN, Gregory Lewis THOMPSON, Erik Jonathon MOLESA, Steven JANDU, Jaswinder SMITH, Patrick
123625.018300	US	COMPACT BUTTON AND SENSOR ARRAY COMBINATION	Pending	8/1/2013	61/861,277			MOLESA, Steven

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123625.012301	US	COMPACT AND DURABLE BUTTON WITH BIOMETRIC SENSOR HAVING IMPROVES SENSOR SIGNAL PRODUCTION AND METHOD FOR MAKING SAME	Pending	10/1/2013	61/885,260			WICKBOLDT, Paul JONES, Eric LEE, Young Seon MOLESA, Steven KELSOE, Jeff