

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5140645

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
TRINITY CAPITAL FUND III, L.P.	09/12/2018
RECEIVING PARTY DATA	
Name:	ATIEVA, INC.
Street Address:	P.O. BOX 309, UGLAND HOUSE
City:	GRAND CAYMAN
State/Country:	CAYMAN ISLANDS
Postal Code:	KY 1-1104
Name:	ATIEVA USA, INC.
Street Address:	7500 GATEWAY BLVD
City:	NEWARK
State/Country:	CALIFORNIA
Postal Code:	94560
Name:	AVB METRICS, LLC
Street Address:	7500 GATEWAY BLVD
City:	NEWARK
State/Country:	CALIFORNIA
Postal Code:	94560
PROPERTY NUMBERS Total: 196	
Property Type	Number
Application Number:	12372656
Application Number:	13857991
Application Number:	12372693
Application Number:	12372714
Application Number:	12943849
Application Number:	12943882
Application Number:	12732162
Application Number:	12823268
Application Number:	13021007
Application Number:	14617816

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Property Type	Number
Application Number:	13433017
Application Number:	13434678
Application Number:	13434692
Application Number:	13686808
Application Number:	13714214
Application Number:	14860575
Application Number:	13434707
Application Number:	13714263
Application Number:	13794535
Application Number:	14538644
Application Number:	13801894
Application Number:	14986029
Application Number:	13801913
Application Number:	13801936
Application Number:	13834983
Application Number:	13835170
Application Number:	13835377
Application Number:	14710515
Application Number:	13835595
Application Number:	13835760
Application Number:	13948307
Application Number:	14194527
Application Number:	13841754
Application Number:	14880866
Application Number:	13948326
Application Number:	15156183
Application Number:	14194533
Application Number:	13842458
Application Number:	14198329
Application Number:	13920224
Application Number:	13948330
Application Number:	12972516
Application Number:	13889295
Application Number:	13371426
Application Number:	13355372
Application Number:	13896155
Application Number:	14710519
Application Number:	13940170

Property Type	Number
Application Number:	13452908
Application Number:	13171442
Application Number:	12972518
Application Number:	14834310
Application Number:	14082241
Application Number:	14082495
Application Number:	14083476
Application Number:	14132179
Application Number:	14063038
Application Number:	14083572
Application Number:	14083849
Application Number:	14972701
Application Number:	14084198
Application Number:	14091792
Application Number:	14092700
Application Number:	14132560
Application Number:	14133354
Application Number:	14134151
Application Number:	14148933
Application Number:	14149116
Application Number:	14163802
Application Number:	14172147
Application Number:	14177412
Application Number:	14512486
Application Number:	14512511
Application Number:	14176053
Application Number:	14185730
Application Number:	14203874
Application Number:	14201803
Application Number:	14231811
Application Number:	14231938
Application Number:	14242067
Application Number:	14242345
Application Number:	14242515
Application Number:	14242663
Application Number:	14242727
Application Number:	14273667
Application Number:	14273822

Property Type	Number
Application Number:	14273934
Application Number:	14287696
Application Number:	14287801
Application Number:	14287925
Application Number:	14288007
Application Number:	14298998
Application Number:	14299191
Application Number:	14299718
Application Number:	14299962
Application Number:	14875017
Application Number:	14304512
Application Number:	14309238
Application Number:	15286409
Application Number:	14332433
Application Number:	14332608
Application Number:	14333123
Application Number:	14331300
Application Number:	14340606
Application Number:	14462885
Application Number:	14463475
Application Number:	14462104
Application Number:	15263672
Application Number:	14472719
Application Number:	14472865
Application Number:	14473007
Application Number:	14493509
Application Number:	14497004
Application Number:	14497142
Application Number:	14503683
Application Number:	14519182
Application Number:	14519256
Application Number:	14519345
Application Number:	14519448
Application Number:	14519708
Application Number:	14519943
Application Number:	14520046
Application Number:	14520171
Application Number:	14600031

Property Type	Number
Application Number:	14600039
Application Number:	14600081
Application Number:	14600115
Application Number:	14553305
Application Number:	14553506
Application Number:	14560680
Application Number:	14560950
Application Number:	14588463
Application Number:	14588484
Application Number:	14588526
Application Number:	14588562
Application Number:	14588630
Application Number:	14588697
Application Number:	14598019
Application Number:	14607194
Application Number:	14957667
Application Number:	14644273
Application Number:	15006202
Application Number:	14641325
Application Number:	14663517
Application Number:	14641335
Application Number:	14698394
Application Number:	14698539
Application Number:	14698630
Application Number:	14691932
Application Number:	14692285
Application Number:	14708966
Application Number:	14692557
Application Number:	14691694
Application Number:	14706008
Application Number:	14706014
Application Number:	15219425
Application Number:	14723533
Application Number:	14723679
Application Number:	14746881
Application Number:	14746916
Application Number:	14747050
Application Number:	14747271

Property Type	Number
Application Number:	14747772
Application Number:	14748028
Application Number:	14793959
Application Number:	14802207
Application Number:	14814840
Application Number:	14823844
Application Number:	14837172
Application Number:	14837345
Application Number:	14837727
Application Number:	14854748
Application Number:	14865023
Application Number:	14865252
Application Number:	14927757
Application Number:	14927826
Application Number:	14970658
Application Number:	14940468
Application Number:	14940578
Application Number:	14971064
Application Number:	15057169
Application Number:	15057183
Application Number:	15040204
Application Number:	15040259
Application Number:	15040417
Application Number:	15238807
Application Number:	15238845
Application Number:	15238954
Application Number:	15239002
Application Number:	15229498
Application Number:	15333390
Application Number:	15255587
Application Number:	15255675
Application Number:	15278266
Application Number:	15377205
Application Number:	15350610

CORRESPONDENCE DATA

Fax Number: (949)823-6994

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.

PATENT

REEL: 047529 FRAME: 0624

Phone: 949-760-9600
Email: IPNB@omm.com
Correspondent Name: O'MELVENY & MYERS LLP / C. PACHECO
Address Line 1: 610 NEWPORT CENTER DRIVE
Address Line 2: 17TH FLOOR
Address Line 4: NEWPORT BEACH, CALIFORNIA 92660-6429

ATTORNEY DOCKET NUMBER:	034,934-003
NAME OF SUBMITTER:	KRISTIN GODFREY
SIGNATURE:	/Kristin Godfrey/
DATE SIGNED:	09/13/2018

Total Attachments: 24

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RELEASE OF INTELLECTUAL PROPERTY SECURITY AGREEMENTS

This **RELEASE OF INTELLECTUAL PROPERTY SECURITY AGREEMENTS** is made as of September 12, 2018 (the “**Release**”), by and among **ATIEVA, INC.**, an exempted company incorporated under the laws of the Cayman Islands (“**Parent**”), **ATIEVA USA, INC.**, a Delaware corporation (dba Lucid Motors USA, Inc.) (“**Atieva USA**”) and **AVB METRICS, LLC**, a Delaware limited liability company (together with Parent and Atieva USA, individually and collectively, jointly and severally, “**Grantor**”), and **TRINITY CAPITAL FUND III, L.P.**, a Delaware limited partnership (“**Lender**”).

WHEREAS, Grantor is party to that certain Loan and Security Agreement with Lender, dated as of March 31, 2017 (as amended by that certain First Amendment to Loan and Security Agreement and First Amendment to Participation Rights Agreement dated as of August 8, 2017 and that certain Second Amendment to Loan and Security Agreement dated as of October 24, 2017, and as further amended, restated, or otherwise modified from time to time, the “**Loan Agreement**”), pursuant to which, Grantor has granted to Lender for its benefit a security interest in all of Grantor’s right, title and interest, whether presentably existing or hereafter acquired, in, to and under all of the Collateral. All capitalized terms used but not defined herein shall have the respective meanings given to them in the Loan Agreement.

WHEREAS, Grantor is party to (i) that certain Intellectual Property Security Agreement with Lender, dated as of March 31, 2017 (as amended, restated or otherwise modified from time to time, the “**March 2017 IP Security Agreement**”), (ii) that certain Intellectual Property Security Agreement with Lender, dated as of September 8, 2017 (as amended, restated or otherwise modified from time to time, the “**September 2017 IP Security Agreement**”) and (iii) that certain Intellectual Property Security Agreement First Supplemental Filing with Lender, dated as of October 26, 2017 (as amended, restated or otherwise modified from time to time, the “**October 2017 IP Security Agreement**”, collectively with March 2017 IP Security Agreement, September 2017 IP Security Agreement, the “**IP Security Agreements**”), pursuant to which, Grantor granted to Lender for its benefit a security interest in all Grantor’s right, title and interest in, to and under its intellectual property (collectively, the “**Intellectual Property Collateral**”), including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the “**Copyrights**”);

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions, re-examination

certificates, utility models, and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the “**Patents**”);

(e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the “**Trademarks**”);

(f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the “**Mask Works**”);

(g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i) All amendments, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

WHEREAS, the October 2017 IP Security Agreement was recorded with the United States Patent and Trademark Office on October 30, 2017 at Reel/Frame 044322/0772;

WHEREAS, the March 2017 IP Security Agreement was recorded with the United States Patent and Trademark Office with respect to certain patents owned by Atieva USA, Inc. on March 31, 2017 at Reel/Frame 042125/0761;

WHEREAS, the March 2017 IP Security Agreement was recorded with the United States Patent and Trademark Office with respect to certain patents owned by Atieva, Inc. on March 31, 2017 at Reel/Frame 042125/0897;

WHEREAS, the Lender desires to release and restore all right, title and interest in and to the Intellectual Property Collateral to Grantor, including, without limitation, those set forth on Exhibit A, Exhibit B, Exhibit C and Exhibit D attached hereto.

NOW, THEREFORE, Lender hereby terminates, releases, and discharges fully, the security interest in and lien on the Intellectual Property Collateral (including, without limitation, those set forth on Exhibit A, Exhibit B, Exhibit C and Exhibit D hereto) as granted pursuant to the IP Security Agreements and any rights Lender may have in the Intellectual Property Collateral are hereby reconveyed, transferred, and assigned to the Grantor as applicable, without

recourse, representation or warranty of any kind, and any right, title or interest of Lender in the Intellectual Property Collateral shall hereby cease and become void.

The Lender hereby agrees, at the sole expense of Grantor, to take such further actions and to execute such further documents as Grantor may reasonably request to effect and evidence this Release, including, without limitation, the execution of any filings, statements, amendments, recordations or other instruments required to release its interests in the applications or registrations of the Intellectual Property Collateral and record the chain of title accordingly with the United States Patent and Trademark Office.

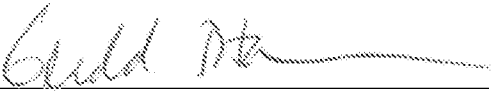
[Signature Page Follows]

IN WITNESS WHEREOF, Lender has caused this Release to be duly executed and delivered by its duly authorized officer as of the date first above written.

TRINITY CAPITAL FUND III, L.P.,
as Lender

By: TRINITY SBIC PARTNERS III, LLC,
a Delaware limited liability company,
Its: General Partner

By: TRINITY SBIC MANAGEMENT, INC.,
a Delaware corporation,
Its: Manager

By: 

Name: Gerald Harder

Title: Member

EXHIBIT A
COPYRIGHTS

N/A

EXHIBIT B**PATENTS****March 2017 IP Security Agreement:**

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Method of Electrically Connecting Cell Terminals in a Battery Pack	9710323.8	8/26/2010	602009031639.7	6/10/2015	Non-US	Battery Lab & Algorithms	Issued
Battery System and Method for Cell Holding and Electrical Connection	9710323.8	8/26/2010	2253037	6/10/2015	Non-US	Battery Lab & Algorithms	Issued
Method of Electrically Connecting Cell Terminals in a Battery Pack	12/372,656	2/17/2009	8426063	4/23/2013	US	Battery Lab & Algorithms	Issued
Method of Electrically Connecting Cell Terminals in a Battery Pack	13/857,991	4/5/2013	8685563	4/1/2014	US	Battery Lab & Algorithms	Issued
Method of Cooling a Battery Pack Using Flat Heat Pipes	12/372,693	2/17/2009	8231996	7/31/2012	US	Battery Lab & Algorithms	Issued ¹
A Rechargeable Split Battery System	200980113518.3	10/15/2010	ZL200980113518.3	9/3/2014	Non-US	Battery Lab & Algorithms	Issued
Rechargeable Split Battery System	12/372,714	2/17/2009	8143855	3/27/2012	US	Battery Lab & Algorithms	Issued
Interlock Mechanism for a Multiple Battery Pack	201080045724.8	4/10/2010	ZL2010800457248	11/25/2015	Non-US	Battery Lab & Algorithms	Issued
Interlock Mechanism for a Multiple Battery Pack	12/943,849	11/10/2010	8866441	10/21/2014	US	Battery Lab & Algorithms	Issued
Flash Cooling System for Increased Battery Safety	2010105414664	11/11/2010	102064364	2/03/2016	Non-US	Battery Lab & Algorithms	Issued
Flash Cooling System for Increased Battery Safety	12/943,882	11/10/2010	8846232	9/30/2014	US	Battery Lab & Algorithms	Issued
High Efficiency Adaptive Power Conversion System and Method of Operation Thereof	12/732,162	3/25/2010	8803485	8/12/2014	US	Powertrain	Issued
Determining the State-of-Charge of Batteries via Selective Sampling of Extrapolated Open Vent Circuit Voltage	12/823,268	6/25/2010	8872518	10/28/2014	US	Battery Lab & Algorithms	Issued
Battery Charging Station	201210024627.1	2/3/2012	ZL2012100246271	3/02/2016	Non-US		Issued
Battery Charging Station	13/021,007	2/4/2011	8952656	2/10/2015	US	Battery Lab & Algorithms	Issued
Battery Charging Station	14/617,816	2/9/2015	9493082	11/15/2016	US	Battery Lab & Algorithms	Issued
Method and Apparatus for Determining the State-of-Charge of a Battery	201210094055.4	3/31/2012	ZL 2012100940554	8/3/2016	Non-US	Battery Lab & Algorithms	Issued
Method and Apparatus for Determining the State-of-Charge of a Battery	13/433,017	3/28/2012			US	Battery Lab & Algorithms	Pending
Margin-Based Battery Charge Balancing	13/434,678	3/29/2012			US	Battery Lab & Algorithms	Pending

¹ Owner of record is Atieva USA Inc.

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Peak-Equalized Battery Charge Balancing	13/434,692	3/29/2012			US	Battery Lab & Algorithms	Pending
Characterizing a Rechargeable Battery Through Discontinuous Charging	13/686,808	11/27/2012	9496727	11/15/2016	US	Battery Lab & Algorithms	Issued
Method of Controlling Battery State Using Constant-Voltage Discharge	13/714,214	12/13/2012	9142977	9/22/2015	US	Battery Lab & Algorithms	Issued
METHOD OF CONTROLLING BATTERY STATE USING CONSTANT-VOLTAGE DISCHARGE	14/860,575	9/21/2015	9472968	10/18/2016	US	Battery Lab & Algorithms	Issued
Battery State-of-Charge Estimation	13/434,707	3/29/2012			US	Battery Lab & Algorithms	Pending
Battery Module with High Thermal Conductivity and Assembling Method Thereof	13/714,263	12/13/2012	8920955	12/30/2014	US	Battery Lab & Algorithms	Issued
BUS BAR FOR BATTERY PACKS	2014800287828	11/10/2015			Non-US	Battery Lab & Algorithms	Pending
Two Layer Busbar	14778606.5	10/09/2015			Non-US	Battery Lab & Algorithms	Pending
Two Layer Busbar	2016-501075	9/11/2015			Non-US	Battery Lab & Algorithms	Pending
Two Layer Busbar	103108255	3/10/2014			Non-US	Battery Lab & Algorithms	Pending
Bus Bar for Battery Packs	13/794,535	3/11/2013			US	Battery Lab & Algorithms	Pending
Bus Bar for Battery Packs	14/538,644	11/11/2014			US	Battery Lab & Algorithms	Pending
Dual Voltage Communication Bus	2014800151692	09/14/2015			Non-US	powertrain	Pending
Dual Voltage Communication Bus	112014000984.9	9/14/2015			Non-US	powertrain	Pending
Dual Voltage Communication Bus	2016-501880	9/10/2015			Non-US	powertrain	Pending
Dual Voltage Communication Bus	13/801,894	3/13/2013	9229889	01/05/2016	US	powertrain	Issued
Dual Voltage Communication Bus	14/986,029	12/31/2015			US	powertrain	Pending
Configuration Switch for a Broadcast Bus	13/801,913	3/13/2013	9514086	12/06/2016	US	powertrain	Issued
Fault-Tolerant Loop for a Communication Bus	2014800151692	09/14/2015			Non-US	powertrain	Pending
Fault-Tolerant Loop for a Communication Bus	112014001347.1	9/14/2015			Non-US	powertrain	Pending
Fault-Tolerant Loop for a Communication Bus	2016-501662	9/10/2015			Non-US	powertrain	Pending
Fault-Tolerant Loop for a Communication Bus	13/801,936	3/13/2013			US	powertrain	Pending
Balance Resistor and Low Pass Filter	2014101634428	3/14/2014			Non-US	Battery Lab & Algorithms	Pending
Balance Resistor and Low Pass Filter	13/834,983	3/15/2013			US	Battery Lab & Algorithms	Pending
Cell Balancing Through a Switched Capacitor Level Shifter	13/835,170	3/15/2013			US	Battery Lab & Algorithms	Pending
Bias Circuit for a Switched Capacitor Level Shifter	2014800155689	9/15/2015			Non-US	Powertrain	Pending
Bias Circuit for a Switched Capacitor Level Shifter	112014000980.6	9/15/2015			Non-US	Powertrain	Pending

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Bias Circuit for a Switched Capacitor Level Shifter	2016-502855	9/14/2015			Non-US	Powertrain	Pending
Bias Circuit for a Switched Capacitor Level Shifter	13/835,377	3/15/2013	9041454	5/26/2015	US	Powertrain	Issued
Bias Circuit for a Switched Capacitor Level Shifter	14/710,515	5/12/2015	9584126	2/28/2017	US	Powertrain	Issued
Automatic Switchover from Cell Voltage to Interconnect Voltage Monitoring	13/835,595	3/15/2013			US	Battery Lab & Algorithms	Pending
Method of Connecting Cell Voltage Sensors	2014800155852	9/15/2015			Non-US	Battery Lab & Algorithms	Pending
Method of Connecting Cell Voltage Sensors	112014000982.2	9/15/2015			Non-US	Battery Lab & Algorithms	Pending
Method of Connecting Cell Voltage Sensors	2016-501869	9/14/2015			Non-US	Battery Lab & Algorithms	Pending
Method of Connecting Cell Voltage Sensors	13/835,760	3/15/2013			US	Battery Lab & Algorithms	Pending
Electric Vehicle Motor Torque Safety Monitor	2014800485142	3/02/2016			Non-US	Powertrain	Pending
Electric Vehicle Motor Torque Safety Monitor	14829840.9	2/03/2016			Non-US	Powertrain	Pending
Electric Vehicle Motor Torque Safety Monitor	13/948,307	7/23/2013			US	powertrain	Pending
All-Wheel Drive Electric Vehicle Motor Torque Safety Monitor	14/194,527	2/28/2014			US	powertrain	Pending
Inverter IGBT Operating Temperature Monitor	103108253	3/10/2014			Non-US	Powertrain	Pending
Power Device Temperature Monitor	13/841,754	3/15/2013	9182293	11/10/2015	US	Powertrain	Issued
POWER DEVICE TEMPERATURE MONITOR	14/880,866	10/13/2015			US	powertrain	Pending
	201480052426.X	3/23/2016			Non-US		Pending
Induction Motor Flux and Torque Control	14829439.0	2/03/2016			Non-US	Powertrain	Pending
Induction Motor Flux and Torque Control	13/948,326	7/23/2013	9344026	5/17/2016	US	Powertrain	Issued
Induction Motor Flux and Torque Control	15/156,183	05/16/2016			US	Powertrain	Pending
Induction Motor Flux and Torque Control	14/194,533	2/28/2014			US	Powertrain	Pending
Inverter with Parallel IGBT	103108254	3/10/2014			Non-US	Powertrain	Pending
Inverter with Parallel Power Devices	13/842,458	3/15/2013	8884658	11/11/2014	US	Powertrain	Issued
Inverter Power Module Packaging with Cold Plate	103109716	3/14/2014			Non-US	Powertrain	Pending
Inverter Power Module Packaging with Cold Plate	14/198,329	3/5/2014	9578788	2/21/2017	US	Powertrain	Issued
Series Booster Pack for Battery System Capacity Recovery	13/920,224	6/18/2013			US	Battery Lab & Algorithms	Pending
	2014800524293	3/23/2016			Non-US		Pending
Induction Motor Flux and Torque Control with Rotor Flux Estimation	14828862.4	2/03/2016			Non-US	powertrain	Pending
Induction Motor Flux and Torque Control with Rotor Flux Estimation	13/948,330	7/23/2013			US	powertrain	Pending

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Circuit Breaker for Use in High Power System and the Power System	12/972,516	12/19/2010	8278573	10/2/2012	US	powertrain	Issued
Synchronous Energy Source Switching Controller and Method of Operation Thereof	13/889,295	5/7/2013	9118266	8/25/15	US	powertrain	Issued
Battery Assembly with High Thermal Conductivity	13/371,426	2/11/2012	9184427	11/10/2015	US	Battery Lab & Algorithms	Issued
Battery Discharge System and Method of Operation Thereof	13/355,372	1/20/2012	9000731	4/7/2015	US	Battery Lab & Algorithms	Issued
Battery Assembly with Adhesive Stop Mechanism	13/896,155	5/16/2013	9040185	5/26/2015	US	Battery Lab & Algorithms	Issued
Battery Assembly with Adhesive Stop Mechanism	14/710,519	5/12/2015	9236593	01/12/2016	US	Battery Lab & Algorithms	Issued
Heat-Sink Base Provided with Heat-Sink Fin Portions, Method for Producing Same and Motor Provided with Same	13/940,170	7/11/2013			US	powertrain	Pending
High Thermal Conductivity Battery Assembly	13/452,908	4/22/2012	9419259	8/16/2016	US	Battery Lab & Algorithms	Issued
Battery cell, battery module incorporated with same and method for producing the battery module	13/171,442	6/29/2011			US	Battery Lab & Algorithms	Pending
Fuse element having damping	12/972,518	12/20/2010			US	Battery Lab & Algorithms	Pending structure
Side-By-Side Fuse Component and Battery Array with Same	201110207272.5	7/22/2011			Non-US	Battery Lab & Algorithms	Pending
High-Heat-Conduction Battery Module Having Battery Cores, and Assembling Method	201210145299	5/11/2012	103390762	11/13/2013	Non-US	Battery Lab & Algorithms	Issued
Battery Pack with Multiple Parallel Cells and Power Supply Assembly with Multiple Battery Packs Connected in Series	201210106728.3	4/12/2012			Non-US	Battery Lab & Algorithms	Pending
Battery Assembly Provided with Adhesive Stop Mechanism	201210326085.3	9/6/2012			Non-US	Battery Lab & Algorithms	Pending
Battery Assembly Provided with Adhesive Stop Mechanism	2016105765189	7/20/2016			Non-US	Battery Lab & Algorithms	Pending
Synchronous Energy Source Switching Controller and Method of Operation Thereof	14/834,310	8/24/2015			US	Powertrain	Pending
Synchronized Display System	14/082,241	11/18/2013	9,442,688	9/13/2016	US	Infotainment, Controls, and Integration	Issued
Synchronized Display System	201410658892.4	11/18/2014			Non-US	Infotainment, Controls, and Integration	Pending
Display Positioning System	201420692983.5	11/18/2014	ZL201420692983.5	9/9/2015	Non-US	Infotainment, Controls, and Integration	Issued
Synchronized Display System	14 193 270.7	11/14/2014	Granted		Non-US	Infotainment, Controls, and Integration	Issued

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Synchronized Display System	14 193 270.7	11/14/2014	60 2014 004 201.5	10/12/2016	Non-US	Infotainment, Controls, and Integration	Issued
Synchronized Display System	14 193 270.7	11/14/2014	2 873 563		Non-US	Infotainment, Controls, and Integration	Issued
Synchronized Display System	14 193 270.7	11/14/2014	2 873 563		Non-US	Infotainment, Controls, and Integration	Issued
Synchronized Display System	2014-224459	11/4/2014	5,984,124	8/12/2016	Non-US	Infotainment, Controls, and Integration	Issued
Adjustable Display System for Vehicular Use	14/082,495	11/18/2013			US	Infotainment, Controls, and Integration	Pending
Electric Vehicle Undercarriage Crumple Zone	14/083,476	11/19/2013	9,052,168	6/9/2015	US	Battery Lab & Algorithms	Issued
Electric Vehicle Battery Pack Protection System	14/132,179	12/18/2013	9,054,402	6/9/2015	US	Battery Lab & Algorithms	Issued
Electric Vehicle Battery Pack Protection System	US14/63038	10/30/2014			US	Battery Lab & Algorithms	Pending
A Battery Pack Protection System	201490001173.9	5/18/2016			Non-US	Battery Lab & Algorithms	Pending
Vehicle Display with Automatic Positioning System	14/083,572	11/19/2013	9,386,335	7/5/2016	US	Infotainment, Controls, and Integration	Issued
Method of Adjusting a Display Position Based on User Orientation	14/083,849	11/19/2013	9,084,004	7/14/2015	US	Infotainment, Controls, and Integration	Issued
Vehicle Display with Automatic Positioning System	14/972,701	12/17/2015			US	Infotainment, Controls, and Integration	Pending
System and Method of Adjusting a Vehicle Display Based on User Orientation	201410662797.1	11/19/2014			Non-US	Infotainment, Controls, and Integration	Pending
System and Method of Adjusting a Vehicle Display Based on User Orientation	201420698923.4	11/19/2014	ZL201420698923.4	7/3/2015	Non-US	Infotainment, Controls, and Integration	Issued
System and Method of Adjusting a Vehicle Display Based on User Orientation	14 193 672.4	11/18/2014	Granted		Non-US	Infotainment, Controls, and Integration	Issued
System and Method of Adjusting a Vehicle Display Based on User Orientation	14 193 672.4		60 2014 003 809.3	9/21/2016	Non-US	Infotainment, Controls, and Integration	Issued
System and Method of Adjusting a Vehicle Display Based on User Orientation	14 193 672.4		2 923 884		Non-US	Infotainment, Controls, and Integration	Issued
System and Method of Adjusting a Vehicle Display Based on User Orientation	14 193 672.4		2 923 884		Non-US	Infotainment, Controls, and Integration	Issued
System and Method of Adjusting a Vehicle Display Based on User Orientation	2014-223961	11/4/2014	5,994,179	9/2/2016	Non-US	Infotainment, Controls, and Integration	Issued
Vehicle Seat Ventilation System	14/084,198	11/19/2013			US	HVAC and Thermal	Pending
Vehicle Seat Ventilation System	201410663257.5	11/19/2014			Non-US	HVAC and Thermal	Pending
Vehicle Seat Ventilation System	201420699081.4	11/19/2014	ZL201420699081.4	5/20/2015	Non-US	HVAC and Thermal	Issued
Vehicle Seat Ventilation System	14 193 273.1	11/14/2014			Non-US	HVAC and Thermal	Pending

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Vehicle Seat Ventilation System	2014-224855	11/5/2014			Non-US	HVAC and Thermal	Pending
Reactive Air Suspension System	14/091,792	11/27/2013	9,085,210	7/21/2015	US	Integrated Safety	Issued
Method of Operating a Reactive Air Suspension System	14/092,700	11/27/2013	8,989,963	3/24/2015	US	Integrated Safety	Issued
Reactive Air Suspension System and Method of Use	201410699649.7	11/27/2014			Non-US	Integrated Safety	Pending
Obstacle Avoidance System	201420726250.9	11/27/2014	ZL201420726250.9	7/1/2015	Non-US	Integrated Safety	Issued
Reactive Air Suspension System and Method of Use	14 193 674.0	11/18/2014	Granted		Non-US	Integrated Safety	Issued
Reactive Air Suspension System and Method of Use	14 193 674.0	11/18/2014	2 878 461		Non-US	Integrated Safety	Issued
Reactive Air Suspension System and Method of Use	14 193 674.0	11/18/2014	2 878 461		Non-US	Integrated Safety	Issued
Reactive Air Suspension System and Method of Use	14 193 674.0	11/18/2014	2 878 461		Non-US	Integrated Safety	Issued
Reactive Air Suspension System and Method of Use	2014-223964	11/4/2014	6,051,475	12/9/2016	Non-US	Integrated Safety	Issued
Battery Pack Damage Monitor	14/132,560	12/18/2013	9,306,246	4/5/2016	US	Battery Lab & Algorithms	Issued
Method of Detecting Battery Pack Damage	14/133,354	12/18/2013	9,306,247	4/5/2016	US	Battery Lab & Algorithms	Issued
Method and Apparatus for Detecting Battery Pack Damage	201410790219.6				Non-US	Battery Lab & Algorithms	Pending
Battery Pack Damage Monitor	201420806852.5		ZL201420806852.5	5/27/2015	Non-US	Battery Lab & Algorithms	Issued
Method and Apparatus for Detecting Battery Pack Damage	14 193 678.1	11/18/2014	Granted		Non-US	Battery Lab & Algorithms	Issued
Method and Apparatus for Detecting Battery Pack Damage	14 193 678.1	11/18/2014	2 887 446		Non-US	Battery Lab & Algorithms	Issued
Method and Apparatus for Detecting Battery Pack Damage	14 193 678.1	11/18/2014	2 887 446		Non-US	Battery Lab & Algorithms	Issued
Method and Apparatus for Detecting Battery Pack Damage	14 193 678.1	11/18/2014	2 887 446		Non-US	Battery Lab & Algorithms	Issued
Method and Apparatus for Detecting Battery Pack Damage	2014-224906	11/5/2014	5,858,123	12/25/2015	Non-US	Battery Lab & Algorithms	Issued
Readily Replaceable EV Battery Pack Ballistic Shield	14/134,151	12/19/2013	9,016,765	4/28/2015	US	Battery Lab & Algorithms	Issued
A Battery Pack Protection System	201420818967.612/19/2014		ZL201420818967.6	10/14/2015	Non-US	Battery Lab & Algorithms	Issued
EV Battery Pack Multi-Mode Cooling System	14/148,933	1/7/2014			US	Battery Lab & Algorithms	Pending
EV Battery Pack Multi-Mode Cooling System	14/149,116	1/7/2014			US	Battery Lab & Algorithms	Pending
EV Battery Pack Protection System Utilizing an Undercarriage Debris Trap	14/163,802	1/24/2014	9,061,714	6/23/2015	US	Battery Lab & Algorithms	Issued
EV Battery Pack Protection System Utilizing an Undercarriage Debris Trap	201520039024.8		ZL201520039024.8	8/26/2015	Non-US	Battery Lab & Algorithms	Issued
Compact Rear Suspension Damper-Spring Assembly	14/172,147	2/4/2014	8,905,416	12/9/2014	US	Chassis	Issued

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Compact Rear Suspension Damper-Spring Assembly	14/177,412	2/11/2014	9,022,401	5/5/2015	US	Chassis	Issued
Compact Rear Suspension Damper-Spring Assembly	14/512,486	10/13/2014	9,073,397	7/7/2015	US	Chassis	Issued
Compact Rear Suspension Damper-Spring Assembly	14/512,511	10/13/2014	9,022,402	5/5/2015	US	Chassis	Issued
Compact Rear Suspension Damper-Spring Assembly	201410753649.0	12/10/2014			Non-US	Chassis	Pending
Wheel Suspension System	201420774820.1	12/10/2014	ZL201420774820.1	11/25/2015	Non-US	Chassis	Issued
Compact Rear Suspension Damper-Spring Assembly	14 193 265.7	11/14/2014			Non-US	Chassis	Pending
Compact Rear Suspension Damper-Spring Assembly	2014-223888	11/4/2014			Non-US	Chassis	Pending
Integrated Motor Assembly with Compliantly Mounted Power Inverter	14/176,053	2/8/2014	9,120,389	9/1/2015	US	Powertrain	Issued
Integrated Motor Assembly with Compliantly Mounted Power Inverter	201520086823.0		ZL201520086823.0	7/8/2015	Non-US	Powertrain	Issued
Segmented, Undercarriage Mounted EV Battery Pack	14/185,730	2/20/2014	9,033,085	5/19/2015	US	Body Structures	Issued
Segmented, Undercarriage Mounted EV Battery Pack	201520108417.X		ZL201520108417.X	12/9/2015	Non-US	Body Structures	Issued
Z-Shaped Bus Bar for a Battery Pack	14/203,874	3/11/2014	9,490,465	11/8/2016	US	Battery Lab & Algorithms	Issued
Communication Bus System	14/201,803	3/9/2014	9,430,438	8/30/2016	US	Powertrain	Issued
Bidirectional Bus with Zero Power Wake Function	201520130563.2		ZL201520130563.2	12/2/2015	Non-US	Powertrain	Issued
Accelerator Pedal Feedback System	14/231,811	4/1/2014	9,189,009	11/17/2015	US	Powertrain	Issued
Dual Stage Accelerator Assembly with Pedal Feedback System	14/231,938	4/1/2014	9,043,086	5/26/2015	US	Powertrain	Issued
Dual Stage Accelerator Assembly with Selectable Stroke Transition	14/242,067	4/1/2014	9,176,516	11/3/2015	US	Powertrain	Issued
Dual Stage Accelerator Assembly with Pedal Feedback System	14/242,345	4/1/2014	9,290,094	3/22/2016	US	Powertrain	Issued
Dual Stage Accelerator Assembly with Selectable Stroke Transition and Pedal Feedback System	14/242,515	4/1/2014	9,296,297	3/29/2016	US	Powertrain	Issued
Dual Stage Accelerator Assembly with Selectable Stroke Transition and Pedal Feedback System	14/242,663	4/1/2014	9,381,809	7/5/2016	US	Powertrain	Issued
Configurable Accelerator Pedal	14/242,727	4/1/2014	9,221,338	12/29/2015	US	Powertrain	Issued
Dual Ratio Constant Mesh Gearbox	14/273,667	5/9/2014	9,109,666	8/18/2015	US	Powertrain	Issued
Dual Ratio Constant Mesh Gearbox	14/273,822	5/9/2014	9,228,641	1/5/2015	US	Powertrain	Issued
Dual Ratio Constant Mesh Gearbox	14/273,934	5/9/2014	9,200,697	12/1/2015	US	Powertrain	Issued
Dual Ratio Constant Mesh Gearbox	15 166 028.9	4/30/2015	Granted		Non-US	Powertrain	Issued
Dual Ratio Constant Mesh Gearbox	15 166 028.9	4/30/2015	602,015,000,507	10/19/2016	Non-US	Powertrain	Issued

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Dual Ratio Constant Mesh Gearbox	15 166 028.9	4/30/2015	2 942 546		Non-US	Powertrain	Issued
Dual Ratio Constant Mesh Gearbox	15 166 028.9	4/30/2015	2 942 546		Non-US	Powertrain	Issued
Automated Vehicle Route Scheduling System	14/287,696	5/27/2014			US	Infotainment, Controls, and Integration	Pending
Vehicle Navigation Route Optimized for EV Charging	14/287,801	5/27/2014			US	Infotainment, Controls, and Integration	Pending
Automated Vehicle Route Scheduling and Optimization System	14/287,925	5/27/2014			US	Infotainment, Controls, and Integration	Pending
Method of Controlling an Auxiliary Vehicle System	14/288,007	5/27/2014			US	Infotainment, Controls, and Integration	Pending
Location Sensitive Learning Interface	14/298,998	6/9/2014	9,440,603	9/13/2016	US	Infotainment, Controls, and Integration	Issued
Vehicle Learning Interface	201510312367.1	6/9/2015			Non-US	Infotainment, Controls, and Integration	Pending
Time Sensitive Learning Interface	14/299,191	6/9/2014	9,428,126	8/30/2016	US	Infotainment, Controls, and Integration	Issued
Time and Day Sensitive Learning Interface	14/299,718	6/9/2014	9,440,604	9/13/2016	US	Infotainment, Controls, and Integration	Issued
Vehicle Learning Interface	TBD	6/9/2015			US	Infotainment, Controls, and Integration	Pending
Event Sensitive Learning Interface	14/299,962	6/9/2014	9,193,314	11/24/2015	US	Infotainment, Controls, and Integration	Issued
Event Sensitive Learning Interface	14/875,017	10/5/2015	9,487,218	11/8/2016	US	Infotainment, Controls, and Integration	Issued
Vehicle Learning Interface	201510312166.1	6/9/2015			Non-US	Infotainment, Controls, and Integration	Pending
Vehicle Test System	14/304,512	6/13/2014			US	Infotainment, Controls, and Integration	Pending
Vehicle Fault Early Warning System	14/309,238	6/19/2014	9,495,814	11/15/2016	US	Infotainment, Controls, and Integration	Issued
Vehicle Fault Early Warning System	15/286,409	10/5/2016			US	Infotainment, Controls, and Integration	Pending
Direct Torque Control Motor Controller with Torque Ripple Reduction	14/332,433	7/16/2014	9,407,189	8/2/2016	US	Powertrain	Issued
Direct Torque Control Motor Controller with Transient Current Limiter	14/332,608	7/16/2014	9,444,384	9/13/2016	US	Powertrain	Issued
Direct Torque Control Motor Controller with Transient Current Limiter	14/333,123	7/16/2014	9,431,951	8/30/2016	US	Powertrain	Issued
Direct Torque Control Motor Controller	201520416118.2	6/16/2015	ZL201520416118.2	5/4/2016	Non-US	Powertrain	Issued
Battery Pack with Non-Conductive Structural Support	14/331,300	7/15/2014	9,444,125	9/13/2016	US	Battery Lab & Algorithms	Issued

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Electric Vehicle Battery Pack	201520464871.9	7/1/2015			Non-US	Battery Lab & Algorithms	Pending
EV Integrated Temperature Control System	14/340,606	7/25/2014			US	Battery Lab & Algorithms	Pending
Three Loop Temperature Control System	201520536414.6		ZL201520536414.6	1/20/2016	Non-US	Battery Lab & Algorithms	Issued
EV Integrated Temperature Control System	15173384.7	6/23/2015			Non-US	Battery Lab & Algorithms	Pending
Vehicle Power Distribution System	14/462,885	8/19/2014	9,221,409	12/29/2015	US	Battery Lab & Algorithms	Issued
Vehicle Power Distribution System with Extended Storage Capabilities	14/463,475	8/19/2014	9,227,581	1/5/2016	US	Battery Lab & Algorithms	Issued
Self-Cleaning Fan Assembly	14/462,104	8/18/2014			US	HVAC and Thermal	Pending
Method of Cleaning a Vehicle Heat Exchanger	15/263,672	9/13/2016			US	HVAC and Thermal	Pending
Sensorless DC Fan Speed Controller	14/472,719	8/29/2014	9,385,644	7/5/2016	US	HVAC and Thermal	Issued
Method of Diagnosing a Malfunctioning DC Fan Motor	14/472,865	8/29/2014	9,337,769	5/10/2016	US	HVAC and Thermal	Issued
Method of Diagnosing a Blocked Heat Exchanger	14/473,007	8/29/2014	9,383,414	7/5/2016	US	HVAC and Thermal	Issued
EV Adaptive Thermal Management System Optimized to Minimize Power Consumption	14/493,509	9/23/2014	9,527,404	12/27/2016	US	HVAC and Thermal	Issued
Battery Pack with Segmented, Electrically Isolated Heat Sinks	14/497,004	9/25/2014	9,397,375	7/19/2016	US	Battery Lab & Algorithms	Issued
Battery Pack with Segmented, Electrically Isolated Heat Sinks	14/497,142	9/25/2014	9,397,376	7/19/2016	US	Battery Lab & Algorithms	Issued
A Battery Assembly	201520742676.8	9/23/2015	ZL201520742676.8	3/23/2016	Non-US	Battery Lab & Algorithms	Issued
Motor Housing with Integral Gear Housing	14/503,683	10/1/2014			US	Powertrain	Pending
Motor Enclosure with Integral Gear Enclosure	201520758849.5	9/28/2015	ZL201520758849.5	1/13/2016	Non-US	Powertrain	Issued
EV Multi-Mode Thermal Management System	14/519,182	10/21/2014	9,533,544	1/3/2017	US	HVAC and Thermal	Issued
EV Multi-Mode Thermal Management System	14/519,256	10/21/2014			US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	14/519,345	10/21/2014	9,511,645	12/6/2016	US	HVAC and Thermal	Issued
EV Multi-Mode Thermal Management System	14/519,448	10/21/2014			US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	14/519,708	10/21/2014			US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	14/519,943	10/21/2014			US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	14/520,046	10/21/2014			US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	14/520,171	10/21/2014			US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	201510686483.X	10/21/2015			Non-US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	201520817687.8	10/21/2015	ZL201520817687.8	6/1/2015	Non-US	HVAC and Thermal	Issued

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
EV Multi-Mode Thermal Management System	15 182 168.3	8/24/2015			Non-US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	201510686224.7	10/21/2015			Non-US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Management System	201520818201.2	10/21/2015	ZL201520818201.2	10/21/2015	Non-US	HVAC and Thermal	Issued
EV Multi-Mode Thermal Management System	15 181 357.3	8/18/2015			Non-US	HVAC and Thermal	Pending
A Method of Operating a Preemptive EV Battery Pack Temperature Control System	14/600,031	1/20/2015			US	HVAC and Thermal	Pending
A Method of Operating a Preemptive Vehicle Temperature Control System	14/600,039	1/20/2015	9,446,682	9/20/2016	US	HVAC and Thermal	Issued
A Preemptive Vehicle Temperature Control System	14/600,081	1/20/2015			US	HVAC and Thermal	Pending
A Preemptive EV Battery Pack Temperature Control System	14/600,115	1/20/2015			US	HVAC and Thermal	Pending
Method of Selecting a Battery Pack Charging Protocol	14/553,305	11/25/2014	9,463,700	10/11/2016	US	Infotainment, Controls, and Integration	Issued
Battery Pack Charging Protocol Selection System	14/553,506	11/25/2014			US	Infotainment, Controls, and Integration	Pending
Battery Pack Charging Protocol Selection System	201510831281.X	11/25/2015			Non-US	Infotainment, Controls, and Integration	Pending
Battery Pack Charging Protocol Selection System	15 187 628.1	9/30/2015			Non-US	Infotainment, Controls, and Integration	Pending
Battery Pack Charging Protocol Selection System	2015-199286	10/7/2015			Non-US	Infotainment, Controls, and Integration	Pending
Motor Cooling System	14/560,680	12/4/2014			US	Powertrain	Pending
Motor Cooling System	14/560,950	12/4/2014			US	Powertrain	Pending
Motor Cooling System	201510862013.4	12/1/2015			Non-US	Powertrain	Pending
Motor Cooling System	201520979333.3	12/1/2015	ZL201520979333.3	8/3/2016	Non-US	Powertrain	Issued
Motor Cooling System	15 194 448.5	11/13/2015			Non-US	Powertrain	Pending
Motor Cooling System	2015-212826	10/29/2015			Non-US	Powertrain	Pending
Automatically Activated Blind Spot Camera System	14/588,463	1/2/2015	9,406,234	8/2/2016	US	Infotainment, Controls, and Integration	Issued
Automatically Activated Cross Traffic Camera System	14/588,484	1/2/2015	9,428,185	8/30/2016	US	Infotainment, Controls, and Integration	Issued
Automatically Activated Vehicle Obstacle Viewing System	14/588,526	1/2/2015			US	Infotainment, Controls, and Integration	Pending
Automatically Activated In-Cabin Vehicle Camera System	14/588,562	1/2/2015	9,305,463	4/5/2016	US	Infotainment, Controls, and Integration	Issued
Voice Command Activated Vehicle Camera System	14/588,630	1/2/2015			US	Infotainment, Controls, and Integration	Pending
Location Based Activation of a Vehicle Camera System	14/588,697	1/2/2015	9,428,119	8/30/2016	US	Infotainment, Controls, and Integration	Issued
Method of Manufacturing the Rotor Assembly for an Electric Motor	14/598,019	1/15/2015			US	Powertrain	Pending

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Method of Manufacturing the Rotor Assembly for an Electric Motor	201610020725.6	1/13/2016			Non-US	Powertrain	Pending
Method of Manufacturing the Rotor Assembly for an Electric Motor	15 199 780.6	12/14/2015			Non-US	Powertrain	Pending
Method of Manufacturing the Rotor Assembly for an Electric Motor	2015-246600	12/17/2015			Non-US	Powertrain	Pending
Compliantly Mounted Motor Assembly Utilizing Dual Levels of Vibration Isolation	14/607,194	1/28/2015	9,283,837	3/15/2016	US	Powertrain	Issued
Compliantly Mounted Motor Assembly Utilizing Dual Levels of Vibration Isolation	14/957,667	12/3/2015			US	Powertrain	Pending
Compliantly Mounted Motor Assembly Utilizing Dual Levels of Vibration Isolation	201521062228.X	12/17/2015	ZL201521062228.X	5/25/2016	Non-US	Powertrain	Issued
Positionable User Interface for Vehicular Use	14/644,273	3/11/2015			US	Infotainment, Controls, and Integration	Pending
Positionable User Interface for Vehicular Use	15/006,202	1/26/2016			US	Infotainment, Controls, and Integration	Pending
Positionable User Interface for Vehicular Use	201610134422.7	3/10/2016			Non-US	Infotainment, Controls, and Integration	Pending
Positionable User Interface for Vehicular Use	201620181646.9	3/10/2016	ZL201620181646.9	7/27/2016	Non-US	Infotainment, Controls, and Integration	Issued
Positionable User Interface for Vehicular Use	16 155 854.9	2/16/2016			Non-US	Infotainment, Controls, and Integration	Pending
Retractable Workstation Integrated Into the Passenger Cabin of a Vehicle	14/641,325	3/7/2015	9,428,118	8/30/2016	US	Infotainment, Controls, and Integration	Issued
Rear Seat Accessible Vehicle Storage Compartment	14/663,517	3/20/2015			US	Infotainment, Controls, and Integration	Pending
Motor Rotor Cooling System	14/641,335	3/7/2015			US	Powertrain	Pending
EV Multi-Mode Thermal Control System	14/698,394	4/28/2015			US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Control System	201620354584.7	4/25/2016	ZL201620354584.7	10/12/2016	Non-US	HVAC and Thermal	Issued
EV Multi-Mode Thermal Control System	14/698,539	4/28/2015			US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Control System	201610262325.6	4/25/2016			Non-US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Control System	16160386.5	3/15/2016			Non-US	HVAC and Thermal	Pending
EV Multi-Mode Thermal Control System	14/698,630	4/28/2015			US	HVAC and Thermal	Pending
Preconditioned Bus Bar Interconnect System	14/691,932	4/21/2015			US	Battery Lab & Algorithms	Pending
Preconditioned Bus Bar Interconnect System	14/692,285	4/21/2015	9,431,644	8/30/2016	US	Battery Lab & Algorithms	Issued
Preconditioned Bus Bar Interconnect System	14/708,966	5/11/2015			US	Battery Lab & Algorithms	Pending
Encapsulated Fusible Interconnect	14/692,557	4/21/2015			US	Powertrain	Pending

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Encapsulated Fusible Interconnect	201620250236.5	3/29/2016	ZL201620250236.5	9/7/2016	Non-US	Powertrain	Issued
Method of Providing Constant Driving Range in an Electric Vehicle	14/691,694	4/21/2015			US	Infotainment, Controls, and Integration	Pending
Method of Providing Constant Driving Range in an Electric Vehicle	201610247412.4	4/20/2016			Non-US	Infotainment, Controls, and Integration	Pending
Method of Providing Constant Driving Range in an Electric Vehicle	16159015.3	3/7/2016			Non-US	Infotainment, Controls, and Integration	Pending
Method of Providing Constant Driving Range in an Electric Vehicle	2016-038366	2/29/2016			Non-US	Infotainment, Controls, and Integration	Pending
Multi-Position Vehicle Seat	14/706,008	5/7/2015	9,452,692	9/27/2016	US	Body Structures	Issued
Method of Operating a Multi-Position Vehicle Seat	14/706,014	5/7/2015	9,463,715	10/11/2016	US	Body Structures	Issued
Method of Operating a Multi-Position Vehicle Seat	15/219,425	7/26/2015			US	Body Structures	Pending
Multi-Position Vehicle Seat	201620410919.2	5/9/2016			Non-US	Body Structures	Pending
Dual Data Rate Traction Control System for a Two Wheel Drive Electric Vehicle	14/723,533	5/28/2015	9,463,697	10/11/2016	US	Powertrain	Issued
Dual Data Rate Traction Control System for a Four Wheel Drive Electric Vehicle	14/723,679	5/28/2015	9,469,199	10/18/2016	US	Powertrain	Issued
Electric Vehicle Dynamic Feedback System	14/746,881	6/23/2015			US	Infotainment, Controls, and Integration	Pending
Electric Vehicle Driving Range Optimization System with Dynamic Feedback	14/746,916	6/23/2015			US	Infotainment, Controls, and Integration	Pending
Electric Vehicle Driving Range Optimization System with Dynamic Feedback	14/747,050	6/23/2015			US	Infotainment, Controls, and Integration	Pending
Electric Vehicle Driving Range Optimization System with Dynamic Feedback	14/747,271	6/23/2015			US	Infotainment, Controls, and Integration	Pending
Electric Vehicle Driving Range Optimization System with Dynamic Feedback	14/747,772	6/23/2015	9,517,705	12/13/2016	US	Infotainment, Controls, and Integration	Issued
Electric Vehicle Driving Range Optimization System with Dynamic Feedback	14/748,028	6/23/2015	9,517,703	12/13/2016	US	Infotainment, Controls, and Integration	Issued
Electric Vehicle Dynamic Feedback System	201610465570.7	6/23/2016			Non-US	Infotainment, Controls, and Integration	Pending
Method and Apparatus for Selectively Heating Individual Battery Modules Within a Battery Pack	14/793,959	7/8/2015			US	Battery Lab & Algorithms	Pending
Battery Assembly with Linear Bus Bar Configuration	14/802,207	7/17/2015			US	Battery Lab & Algorithms	Pending
Battery Assembly with Linear Bus Bar Configuration	201620713289.6	7/7/2016			Non-US	Battery Lab & Algorithms	Pending
Battery Pack Fuse Monitoring and Current Limiting System	14/814,840	7/31/2015	9,543,870	1/10/2017	US	Battery Lab & Algorithms	Issued
Current Distribution System for a Battery Assembly Utilizing Non-Overlapping Bus Bars	14/823,844	8/11/2015			US	Powertrain	Pending

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
Current Distribution System for a Battery Assembly Utilizing Non-Overlapping Bus Bars	201610656729.3	8/11/2016			Non-US	Powertrain	Pending
Current Distribution System for a Battery Assembly Utilizing Non-Overlapping Bus Bars	201620868468.7	8/11/2016			Non-US	Powertrain	Pending
Current Distribution System for a Battery Assembly Utilizing Non-Overlapping Bus Bars	16181567.5	7/27/2016			Non-US	Powertrain	Pending
Swiveling Front Suspension Subframe	14/837,172	8/27/2015	9,487,237	11/8/2016	US	Body Structures	Issued
Bumper Assembly for an Undercarriage Mounted Battery Pack	14/837,345	8/27/2015			US	Body Structures	Pending
Swiveling Front Suspension Subframe	14/837,727	8/27/2015	9,446,643	9/20/2016	US	Body Structures	Issued
Small Overlap Impact Management System	201620926105.4	8/23/2016			Non-US	Body Structures	Pending
Vehicle Control System	14/854,748	9/15/2015			US	Body Structures	Pending
External Auxiliary Thermal Management System for an Electric Vehicle	14/865,023	9/25/2015			US	HVAC and Thermal	Pending
External Auxiliary Thermal Management System for an Electric Vehicle	14/865,252	9/25/2015			US	HVAC and Thermal	Pending
Battery Packaging System	14/927,757	10/30/2015			US	Battery Lab & Algorithms	Pending
Battery Interconnect System	14/927,826	10/30/2015			US	Battery Lab & Algorithms	Pending
Battery Interconnect System	201621077779.8	9/22/2016			Non-US	Battery Lab & Algorithms	Pending
Parallel Axis Epicyclic Gear Differential	14/970,658	12/16/2015			US	Powertrain	Pending
Parallel Axis Epicyclic Gear Differential	TBD				Non-US	Powertrain	Pending
Parallel Axis Epicyclic Gear Differential	TBD				Non-US	Powertrain	Pending
Parallel Axis Epicyclic Gear Differential	16199842.2	11/21/2016			Non-US	Powertrain	Pending
Parallel Axis Epicyclic Gear Differential	2016-221048	11/11/2014			Non-US	Powertrain	Pending
High Current Battery Pack Fusing System	14/940,468	11/13/2015			US	Powertrain	Pending
High Current Battery Pack Fusing System	14/940,578	11/13/2015			US	Powertrain	Pending
Vehicle Heat Exchanger Air Flow Control System	14/971,064	12/16/2015			US	HVAC and Thermal	Pending
Vehicle Heat Exchanger Air Flow Control System	201620170159.2	3/7/2016	ZL201620170159.2	8/31/2016	Non-US	HVAC and Thermal	Issued
Battery Pack Bus Bar Assembly with Enlarged Interconnect Mounting Platforms	15/057,169	3/1/2016			US	Battery Lab & Algorithms	Pending
Battery Pack Bus Bar Assembly with Shaped Interconnect Mounting Platforms	15/057,183	3/1/2016			US	Battery Lab & Algorithms	Pending

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending
EV Battery Pack Cooling System	15/040,204	2/10/2016			US	Battery Lab & Algorithms	Pending
EV Battery Pack Cooling System	15/040,259	2/10/2016			US	Battery Lab & Algorithms	Pending
EV Battery Pack Cooling System	15/040,417	2/10/2016			US	Battery Lab & Algorithms	Pending
Motor Cooling System Utilizing Axial Cooling Channels	15/238,807	8/17/2016			US	Powertrain	Pending
Motor Cooling System Utilizing Axial Cooling Channels	15/238,845	8/17/2016			US	Powertrain	Pending
Motor Cooling System Utilizing Axial Cooling Channels	15/238,954	8/17/2016			US	Powertrain	Pending
Motor Cooling System Utilizing Axial Cooling Channels	15/239,002	8/17/2016			US	Powertrain	Pending
High Efficiency, High Power Density Drive System Utilizing Complementary Motor Assemblies	15/229,498	8/5/2016			US	Powertrain	Pending
High Efficiency, High Power Density Drive System Utilizing Complementary Motor Assemblies	201621300046.6	11/30/2016			Non-US	Powertrain	Pending
Vehicle Assembly System	15/333,390	10/25/2016			US	Body Structures	Pending
Vehicle Child Detection and Response System	15/255,587	9/2/2016			US	Integrated Safety	Pending
Vehicle Child Detection and Response System	15/255,675	9/2/2016			US	Integrated Safety	Pending
Automotive Air Intake Utilizing a Vortex Generating Airflow System	15/278,266	9/28/2016			US	HVAC and Thermal	Pending
Compact Dual Speed Gear Assembly	15/377,205	12/13/2016			US	Powertrain	Pending
EV Adaptive Thermal Management System Optimized to Minimize Power Consumption	15/350,610	11/14/2016			US	Thermal Management	Pending

September 2017 IP Security Agreement:

Title	Application Number	Filing Date	Patent No.	Issue Date	Issue Country	Business Area	Issued / Pending	Owner
Apparatus for selectively heating individual battery modules within a battery pack	15583757	5/1/2017			USA		Pending	Atieva, Inc.
Inverter power module packaging with cold plate	15437390	2/20/2017			USA		Pending	Atieva, Inc.
Rotor assembly manufacturing technique and resultant structure	15422209	2/1/2017			USA		Pending	Atieva, Inc.
Vehicle heat exchanger air flow control system	14971692	12/16/2015			USA		Pending	Atieva, Inc.

October 2017 IP Security Agreement:

Title	Issue	Category	Filing Date	Application	Issue Date	Patent No.	Issued /
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	Country			Number			Pending
Rotor Assembly Manufacturing Technique and Resultant Structure	US	Powertrain	2/1/2017	15/422,209			Pending
Inverter Power Module Packaging with Cold Plate	US	Powertrain	2/20/2017	15/437,390			Pending
Apparatus for Selectively Heating Individual Battery Modules Within a Battery Pack	US	Battery Lab & Algorithms	5/1/2017	15/583,757			Pending
Battery Assembly with Linear Bus Bar Configuration	US	Battery Lab & Algorithms	6/1/2017	15/610,759			Pending

EXHIBIT C
TRADEMARKS

March 2017 IP Security Agreement:

Client-Matter	Title/Mark	Country	Application No.	Application Date	Registration No.	Registration Date	International Classes	Case Status
310797-20020	AIR	United States of America	87/267,374 ²	12/13/2016			12	Office Action Issued
310797-20019	AIR 1	United States of America	87/267,378 ³	12/13/2016			12	Office Action Issued
310797-20018	AIR 9	United States of America	87/267,380 ⁴	12/13/2016			12	Office Action Issued
310797-20004	LUCID	United States of America	87/075,028 ⁵	6/17/2016			12	Published
310797-20013	LUCID	United States of America	87/227,550	11/5/2016			09, 12, 36, 37, 39, 40	Office Action Issued
310797-20005	PALOS	United States of America	87/075,035 ⁶	6/17/2016			12	Office Action Issued
310797-20006	LUCID	Australia	1803368	10/18/2016	1803368	2/1/2017	12	Registered
310797-20008	LUCID	Canada	1805361	10/19/2016			12	Application Filed
310797-20010	LUCID	Cayman Islands	15559611	11/16/2016	15559611	11/28/2016	12	Registered
310797-20002	LUCID	China	20469899	6/29/2016			12	Application Filed
310797-20003	PALOS	China	20469898	6/29/2016			12	Response Filed
310797-TEMP09	LUCID	European Union Intellectual Property Office	015559611	6/17/2016	015559611	10/6/2016	12	Registered
310797-TEMP10	PALOS	European Union Intellectual Property Office	015553191	6/17/2016	015553191	10/6/2016	12	Registered
310797-20009	LUCID	Hong Kong	303934666	10/18/2016			12	Published
310797-20016	LUCID	Japan	A0063771	12/16/2016			12	Pending
310797-20015	LUCID	Madrid Protocol	A0063771	12/16/2016			12	Application Filed
310797-20011	LUCID	Norway	201612052	10/18/2016			12	Application Filed
310797-20007	LUCID	Switzerland	62796/2016	10/19/2016			12	Application Filed
310797-20012	LUCID	Taiwan	105061504	10/18/2016			12	Application Filed
310797-20017	LUCID	United Kingdom	A0063771	12/16/2016			12	Pending

² Intent to use

³ Intent to use

⁴ Intent to use

⁵ Intent to use

⁶ Intent to use

Client-Matter	Title/Mark	Country	Application No.	Application Date	Registration No.	Registration Date	International Classes	Case Status
	ATIEVA	China	UIT140285	4/8/2014			9	Reg/Application Filed
	ATIEVA	China	UIT140286	4/8/2014			12	Reg/Application Filed
	ATIEVA	China	UIT140287	4/8/2014			35	Reg/Application Filed
	ATIEVA	China	UIT140288	4/8/2014			37	Reg/Application Filed
	ATIEVA	China	UIT140289	4/8/2014			42	Reg/Application Filed
	ATIEVA	China	UIT140994	4/8/2014			7	Reg/Application Filed

October 2017 IP Security Agreement:

Title/Mark	Country	Classes	Application Date	Application No.	Registration Date	Registration No.	Case Status
AIR	Australia	12	6/9/2017	1850950			Application Filed
LUCID	Australia	09, 12, 36, 37, 39, 40	5/5/2017	1842759			Application Filed
AIR	Canada	12	6/12/2017	1842032			Application Filed
LUCID	Canada	09, 12, 36, 37, 39, 40	5/5/2017	1836143			Office Action Issued
AIR	China	12	6/12/2017	TBD			Application Filed
LUCID	China	09	5/5/2017	23970701			Application Filed
LUCID	China	36	5/5/2017	23970699			Application Filed
LUCID	China	12	5/5/2017	23970700			Application Filed
LUCID	China	37	5/5/2017	23970698			Application Filed
LUCID	China	39	5/5/2017	23970697			Application Filed
LUCID	China	40	5/5/2017	23970696			Application Filed
LUCID in Chinese Characters	China	12	8/18/2017				Application Filed
AIR	European Union	12	6/9/2017	016817521	9/26/2017	016817521	Registered
LUCID	European Union	09, 12, 20, 36, 37, 39, 40	5/5/2017	016681546			Published
AIR	Hong Kong	12	6/12/2017	304169638			Application Filed
LUCID	Hong Kong	09, 12, 36, 37, 39, 40	5/5/2017	304130847			Office Action Issued
AIR	Japan	12	6/12/2017	2017-77833			Office Action Issued
LUCID	Japan	09, 12, 36, 37, 39, 40	5/8/2017	2017-62735			Office Action Issued

Title/Mark	Country	Classes	Application Date	Application No.	Registration Date	Registration No.	Case Status
AIR	Norway	12	6/12/2017	201707608			Application Filed
LUCID	Norway	09, 12, 36, 37, 39, 40	5/5/2017	201705775			Application Filed
AIR	Switzerland	12	6/12/2017	571642017			Application Filed
LUCID	Switzerland	09, 12, 36, 37, 39, 40	5/4/2017	55595 2017			Response Filed
AIR	Taiwan	12	6/12/2017	106035287			Application Filed
LUCID	Taiwan	09, 12, 36, 37, 39, 40	5/5/2017	106026619			Application Filed
LUCID AIR (refile)	Taiwan	09, 12, 36, 37, 39, 40	10/5/2017	106063150			Application Filed
AIR	United Kingdom	12	6/9/2017	3236371	8/25/2017	3236371	Registered
LUCID	United Kingdom	12	12/16/2016	1335067	8/24/2017	1335067	Registered
LUCID	United Kingdom	09, 12, 36, 37, 39, 40	5/5/2017	3229119	8/25/2017	3229119	Registered

EXHIBIT D
MASK WORKS

N/A