

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5666923

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	QUALCOMM INCORPORATED	02/01/2019
RECEIVING PARTY DATA		
Name:	WITRICITY CORPORATION	
Street Address:	57 WATER STREET	
City:	WATERTOWN	
State/Country:	MASSACHUSETTS	
Postal Code:	02472	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	16518276
CORRESPONDENCE DATA		
Fax Number:	(949)760-9502	
<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>		
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Correspondent Name:	KNOBBE, MARTENS, OLSON & BEAR, LLP	
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ATTORNEY DOCKET NUMBER:	WTCY.339A2D1	
NAME OF SUBMITTER:	MARK M. ABUMERI	
SIGNATURE:	/ Mark M. Abumeri /	
DATE SIGNED:	08/13/2019	
Total Attachments: 95		
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Patent Assignment

THIS PATENT ASSIGNMENT (this "Assignment") is made effective as of 4 February, 2019 (the "Effective Date") between Qualcomm Incorporated, a Delaware corporation, having a place of business located at 5775 Morehouse Drive, San Diego, CA 92121 U.S.A. ("Qualcomm"), and WiTricity Corporation, a Delaware corporation, having a place of business located at 57 Water Street, Watertown, MA 02472 ("Assignee").

WHEREAS, Qualcomm and Assignee and other Qualcomm affiliated entities have entered into an Asset Purchase Agreement dated 4 February, 2019 (the "APA"), in which, among other things, Qualcomm assigned to Assignee the Assigned Patents (as defined below); and

WHEREAS, the execution and delivery of this Assignment is a closing condition of the transaction contemplated by the APA.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. **Assignment.** Subject to all existing encumbrances and rights granted prior to the Effective Date all as more particularly described in the APA, Qualcomm hereby irrevocably sells, assigns, transfers, and conveys to Assignee: (a) the issued patents and patent applications identified in the attached Attachment 1 hereto, together with any patent issuing on any such patent application identified in the attached Attachment 1 hereto, including any rights of priority in and to any of the foregoing patent applications and patents; (b) each patent and patent application throughout the world, directly or through one or more applications, that derives priority from any of the patent applications and patents described in clause (a) above, including all extensions, renewals, reissues, reexaminations, divisionals, substitutions, provisionals, continuations, continuations-in-part, conversions, prolongations, continued examinations, continued prosecution applications, and domestic and foreign counterparts that derive priority from any of the patent applications and patents described in clause (a) above, and each patent issuing on any of the foregoing items; and (c) each patent or patent application that is referenced by a terminal disclaimer filed in connection with any of the patent applications or patents identified in clause (a) or clause (b) above (the "Assigned Patents"). Notwithstanding anything to the contrary, the Assigned Patents do not include any patents or patent applications that were not assigned to Assignee pursuant to the APA, including without limitation those patents and patent applications described in the APA as being excluded from the Assigned Patents. In addition and for clarity, no action taken by Assignee or any other person or entity after the Effective Date shall result in any patent or patent application that exists as of the Effective Date and not included within clause (c) above as of the Effective Date being an Assigned Patent by reason of any such action.

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

3. **Prosecution and Enforcement.** Assignee will be solely responsible for the filing, prosecution, and maintenance of each of the Assigned Patents, including the payment of all fees and costs relating thereto. Assignee will be solely responsible for the defense of the Assigned Patents. For clarity, Assignee is not obligated to file, prosecute, maintain, enforce or defend any of the Assigned Patents.

4. **Disclaimer of Warranties.** Qualcomm makes no representations or warranties under this Assignment whether express or implied, with respect to the Assigned Patents. Nothing in this

Section 4 shall amend, limit or otherwise modify any express representations or warranties made under the APA.

5. **Governing Law.** This Assignment, the rights and obligations of the parties under this Assignment, and any claim or controversy directly or indirectly based upon, arising out of or related to, this Assignment or the transactions contemplated by this Assignment (whether based upon contract, tort or any other theory), including all matters of construction, validity and performance, shall be governed by and construed in accordance with the laws of the State of Delaware, determined without regard to any conflict of law provisions that would require the application of the law of any other jurisdiction.

6. **Successors and Assigns.** This Assignment shall be binding upon and inure to the benefit of the parties and their respective successors and assigns.

7. **Miscellaneous.** Qualcomm makes no representations or warranties in this Assignment. Any rule of construction to the effect that ambiguities are to be resolved against the drafting party will not be applied in the construction or interpretation of this Assignment. The words "include", "including" and variations thereof will be deemed to be followed by the words "without limitation". The use of "or" will not be deemed to be exclusive. This Assignment may be executed in counterparts, each of which when executed will be deemed to be an original but all of which taken together will constitute one and the same agreement. In the event of a conflict between the terms and conditions in this Assignment and the APA, the terms and conditions in the APA shall control.

[Signature page follows]

IN WITNESS WHEREOF, I hereunto set my hand this 2 day of February, 2019.

Qualcomm Incorporated

By: [Signature]

Printed Name: RAYMOND B. HORN

Title: VP, PATENT COUNSEL

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

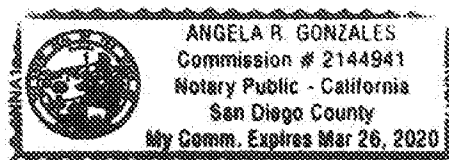
County of San Diego

On 2 February 2019 before me, Angela R. Gonzales, Notary Public personally appeared Raymond B. Horn, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)



IN WITNESS WHEREOF, acknowledged and accepted on this _____ day of _____, 2019.

WiTricity Corporation

By: _____

Printed Name: Alex Gruzen

Title: Chief Executive Officer

SIGNATURE PAGE TO PATENT ASSIGNMENT

IN WITNESS WHEREOF, I hereunto set my hand this _____ day of _____, 2019.

Qualcomm Incorporated

By: _____

Printed Name: _____

Title: _____

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of _____)

On _____ before me,

(insert name and title of the officer)

personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

IN WITNESS WHEREOF, acknowledged and accepted on this _____ day of _____, 2019.

WiTricity Corporation

By: _____

Printed Name: Alex Gruzen

Title: Chief Executive Officer

Attachment 1

List of Assigned Patents

See attached.

Attachment 1

Doc#	Family #	Country	Application Title	App. No.	Patent Number	Issue/Grant Date	Patent Status	Patent Description
092195	09219510F	United States	Wireless power apparatus and methods	12/018,066	5,174,086	9/26/2017	Granted	Granted
092293CN	09229310F	China P.R.	Wireless power apparatus and methods	20088000881.2	21,200,880,008,866	5/29/2014	Granted	Granted
092293CN01	09229310F	China P.R.	Wireless power apparatus and methods	201310070591.5	10,2013,1007059	11/24/2017	Granted	Granted
092195CN02	09219510F	China P.R.	Wireless power apparatus and methods	201410160476.1			Filed	Application restricted to issue via reaction
092293EP	09229310F	European Patent Convention	Wireless power apparatus and methods	5523198.1			Inactive	Abandoned
092293JP01	09229310F	Japanese Patent Convention	Wireless power apparatus and methods	17170991.0			Filed	Application
092293JP01	09229310F	India	Wireless power apparatus and methods	5067/CP-ENG/2009	290190	12/1/2017	Granted	Granted
092193JP	09219310F	Japan	Wireless power apparatus and methods	2009-552815			Inactive	Abandoned
092193JP01	09219310F	Japan	Wireless power apparatus and methods	2012-020845	5529181	4/25/2014	Granted	Granted
092193JP02	09219310F	Japan	Wireless power apparatus and methods	2012-020946	6036557	10/4/2016	Granted	Granted
092193JP03	09219310F	Japan	Wireless power apparatus and methods	2012-030847			Filed	Application - restricted to issue via reaction
092193JP04	09219310F	Japan	Wireless power apparatus and methods	2012-185799			Inactive	Abandoned
092193JP0401	09219310F	Japan	Wireless power apparatus and methods	2015-147090			Filed	Application - restricted to issue via reaction
092193JP04	09219310F	Republic of Korea	Wireless power apparatus and methods	10-2009-707081			Inactive	Abandoned
092193JP03	09219310F	Republic of Korea	Wireless power apparatus and methods	10-2011-1071565	10-1168619	7/9/2012	Granted	Granted
092193JP02	09219310F	Republic of Korea	Wireless power apparatus and methods	10-2012-7071567	10-1234004	2/7/2013	Granted	Granted
092193JP02	09219310F	Republic of Korea	Wireless power apparatus and methods	10-2013-7071566	10-1389798	10/24/2014	Granted	Granted

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09239AD3D1	09239AD1	Republic of Korea	Wireless power apparatus and methods	10-2012-7015407	10-1312189	9/17/2013	Granted	Granted
09239AD3D1	09239AD1	Republic of Korea	Wireless power apparatus and methods	10-2013-7012645			Inactive	Abandoned
09239AD3D1	09239AD1	Republic of Korea	Wireless power apparatus and methods	10-2014-7015215			Inactive	Abandoned
09239AD3D1	09239AD1	Republic of Korea	Wireless power apparatus and methods	10-2013-7011791	10-1375882	3/13/2014	Granted	Granted
09239AD3D1	09239AD1	United States	Wireless power apparatus and methods	60/904,628			Inactive	Expired
09239AD3D1	09239AD1	United States	Wireless power apparatus and methods	PG/065009/055603			Inactive	Expired
092402	092402DF	United States	SYSTEM AND METHOD FOR MAGNETIC POWER TRANSFER	12/233,461	9,624,526	12/24/2013	Granted	Granted
092402C1	092402DF	United States	Biological effects of magnetic power transfer	10/934,924			Inactive	Abandoned
092402CN	092402DF	China P.R.	Maximizing power yield from wireless power magnetic resonators	200560107644.3			Inactive	Abandoned
092402CN1	092402DF	China P.R.	Maximizing power yield from wireless power magnetic resonators	200730143785.1			Filed	Application
092402DE	092402DF	Germany	Maximizing power yield from wireless power magnetic resonators	6020000351001.8	EP2159477	7/5/2017	Granted	Granted
092402EP	092402DF	European Patent Convention	Maximizing power yield from wireless power magnetic resonators	09832139.4	EP2159477	7/5/2017	Granted	Granted
092402EPD1	092402DF	European Patent Convention	Maximizing power yield from wireless power magnetic resonators	17179015.7			Filed	Application
092402FR	092402DF	France	Maximizing power yield from wireless power magnetic resonators	08032129.4	EP2159477	7/5/2017	Granted	Granted
092402GB	092402DF	Great Britain	Maximizing power yield from wireless power magnetic resonators	09032119.4	EP2159477	7/5/2017	Granted	Granted
092402IN	092402DF	India	Maximizing power yield from wireless power magnetic resonators	1958/DELNP/2010	288188	10/9/2017	Granted	Granted

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092402IND1	092402IDE	India	AN APPARATUS AND A METHOD OF TRANSMITTING POWER VIA A WIRELESS FIELD	201618036720		Filed	Application
092402JP	092402IDE	Japan	Maximizing power yield from wireless power magnetic resonators	2016-523979		Inactive	Abandoned
092402JP01	092402IDE	Japan	Maximizing power yield from wireless power magnetic resonators	2013-121729	3889835	2/26/2016	Granted
092402KR	092402IDE	Republic of Korea	Maximizing power yield from wireless power magnetic resonators	10-2010-7008437		Inactive	Abandoned
092402KR01	092402IDE	Republic of Korea	Maximizing power yield from wireless power magnetic resonators	10-2013-7002392	10-1502248	3/6/2015	Granted
092402KR02	092402IDE	Republic of Korea	Maximizing power yield from wireless power magnetic resonators	10-2013-7002393	10-1515727	4/21/2015	Granted
092402P1	092402IDE	United States	Constraints imposed by field strength limits	50/979,711		Inactive	Expired
092402WO	092402IDE	Patent Cooperation Treaty	Maximizing power yield from wireless power magnetic resonators	PCT/US2008/070859		Inactive	Expired
092405	092402IDE	United States	Antennas and their coupling characteristics for wireless power transfer via magnetic coupling	13/594,033	8,344,552	1/1/2013	Granted
092409C1	092402IDE	United States	Antennas and their coupling characteristics for wireless power transfer via magnetic coupling	13/737,543	8,370,701	4/29/2014	Granted
092409P1	092402IDE	United States	Antennas and their coupling characteristics for wireless power transfer via magnetic coupling	13/032,063		Inactive	Expired
092412	092412IDE	United States	System and method for efficient wireless power transfer to devices located on and outside a charging base	12/427,318		Inactive	Abandoned

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092412C1	092412IDF	United States	SYSTEM AND METHOD FOR EFFICIENT WIRELESS POWER TRANSFER TO DEVICES LOCATED ON AND OUTSIDE A CHARGING BASE	13/913,036	9,450,455	9/29/2016	Granted	Granted
092412C2	092412IDF	United States	SHORT RANGE EFFICIENT WIRELESS POWER TRANSFER INCLUDING A CHARGING BASE TRANSMITTER BUILT INTO A DESKTOP COMPONENT AND A POWER RELAY INTEGRATED INTO A DESKTOP	14/169,704	9,979,230	5/22/2018	Granted	Granted
092412CN	092412IDF	China P.R.	Short range efficient wireless power transfer	200880113946.6	21200980113946	2/24/2016	Granted	Granted
092412CND1	092412IDF	China P.R.	Short range efficient wireless power transfer	201610034616.9			Filed	Application
092412EP	092412IDF	European Patent Convention	Short range efficient wireless power transfer	09735888.1			Filed	Application
092412IN	092412IDF	India	Short range efficient wireless power transfer	2039/081NP/2010			Filed	Application
092412JP	092412IDF	Japan	Short range efficient wireless power transfer	2011-506391			Inactive	Abandoned
092412JP01	092412IDF	Japan	Short range efficient wireless power transfer	2014-205087	5887431	2/12/2016	Granted	Granted
092412JP01D1	092412IDF	Japan	Short range efficient wireless power transfer	2016-019021			Inactive	Withdrawn
092412KR	092412IDF	Republic of Korea	Short range efficient wireless power transfer	10-2010-7026014	10-1247384	3/19/2013	Granted	Granted
092412KR01	092412IDF	Republic of Korea	Short range efficient wireless power transfer	10-2012-7032797			Inactive	Abandoned
092412KR01D1	092412IDF	Republic of Korea	Short range efficient wireless power transfer	10-2013-7024411	10-1572769	11/29/2015	Granted	Granted
092412KR01D2	092412IDF	Republic of Korea	Short range efficient wireless power transfer	10-2014-7000895	10-1589816	1/22/2016	Granted	Granted
092412P1	092412IDF	United States	Short range efficient wireless power transfer	61/046,757			Inactive	Expired
092412WC	092412IDF	Treaty	Short range efficient wireless power transfer	PCT/US2009/041234			Inactive	Expired

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101328	101328IDF	United States	Wireless power transmission in electric vehicles	13/082,711	9,561,730	2/7/2017	Granted	Granted
101328C1	101328IDF	United States	Wireless power transmission in electric vehicles	15/424,840			Filed	Application
101328C4	101328IDF	China P.R.	Wireless power transmission in electric vehicles	2013/80018015.5			Inactive	Abandoned
101328CND1	101328IDF	China P.R.	Wireless power transmission in electric vehicles	201410677953.1	ZL201410677953	5/3/2017	Granted	Granted
101328EP	101328IDF	European Patent Convention	Wireless power transmission in electric vehicles	13/775,586.2			Inactive	Abandoned
101328E201	101328IDF	European Patent Convention	Wireless power transmission in electric vehicles	15150222.5			Filed	Application
101328IN	101328IDF	India	Wireless power transmission in electric vehicles	9823/CP/ENF/2012			Filed	Application
101328IND1	101328IDF	India	Wireless power transmission in electric vehicles	2013AS043855			Filed	Application
101328JP	101328IDF	Japan	Wireless power transmission in electric vehicles	2013-504038			Filed	Application - Instructed to lapse via notice
101328JPD1	101328IDF	Japan	Wireless power transmission in electric vehicles	2015-138860	8140220	5/12/2017	Granted	Granted
101328KR	101328IDF	Republic of Korea	Wireless power transmission in electric vehicles	10-2012-7028938	10-1923741	11/23/2018	Granted	Granted
101328P1	101328IDF	United States	Wireless power transmission in electric vehicles background	51/322,196			Inactive	Expired
101328TW	101328IDF	Taiwan	Wireless power transmission in electric vehicles background	100112258			Inactive	Abandoned
101328WQ	101328IDF	Patent Cooperation Treaty	Wireless power transmission in electric vehicles	PCT/US2014/031850			Inactive	Expired
101328	101328IDF	United States	Wireless power transmission in electric vehicles	201308105			Filed	Application
101328	101328IDF	United States	Wireless power transmission in electric vehicles	2013-0118078.2	21-01180714072	12/20/2016	Granted	Granted

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103327W0	103327W0F	Parent Cooperation Trendy	Wireless energy transfer via coupled parasitic resonators	PCT/US2011/055147			Inactive	Expired
110660	110660D	United States	Wireless energy transfer and continuous radio station signal coverage	13/124,297	5/3/2018	6/28/2018	Granted	Granted
110660N	110660N	United States	Wireless energy transfer and continuous radio station signal coverage	2012/0734597.1	3/20/2018	4/23/2018	Granted	Granted
110660E	110660E	Germany	Wireless energy transfer and continuous radio station signal coverage	10/711038406.6	5/17/2017	5/17/2017	Granted	Granted
110660P	110660P	Germany	Wireless energy transfer and continuous radio station signal coverage	11/064,114	10/24/2017	10/21/2017	Granted	Granted
110660Q	110660Q	Germany	Wireless energy transfer and continuous radio station signal coverage	11/064,114	10/24/2017	10/21/2017	Granted	Granted
110660R	110660R	China P.R.	Wireless energy transfer and continuous radio station signal coverage	1/200619.4	10/24/2017	10/21/2017	Granted	Granted
110660S	110660S	China P.R.	Wireless energy transfer and continuous radio station signal coverage	4022/CN/2011			Inactive	Application
110660T	110660T	Japan	Wireless energy transfer and continuous radio station signal coverage	2013-044711	5/29/2013	5/1/2013	Granted	Granted
110660U	110660U	Japan	Wireless energy transfer and continuous radio station signal coverage	10-1033-201-015	10-1033-201-015	5/24/2013	Granted	Granted
110660V	110660V	United States	Wireless energy transfer and continuous radio station signal coverage	61/621,779			Inactive	Expired
110660W	110660W	United States	Wireless energy transfer and continuous radio station signal coverage	10/711038406.6			Inactive	Expired
111554	111554D	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicle	19/350,517	10/09/2015	10/7/2018	Granted	Granted
111554N	111554D	China P.R.	Antenna alignment and vehicle guidance for wireless charging of electric vehicle	201280018448.5	10/201380018448	8/4/2017	Granted	Granted

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1115540E	1115540DF	Germany	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	600413046156.2	EP2697910	3/23/2018	Granted	Granted
		European Patent Convention	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	12716164.4	EP2697910	3/23/2018	Granted	Granted
1115540F	1115540DF	France	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	12716164.4	EP2697910	3/23/2018	Granted	Granted
1115540G	1115540DF	Great Britain	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	12716164.4	EP2697910	3/23/2018	Granted	Granted
1115540H	1115540DF	India	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	7962/CHENP/2019			Filed	Application
1115540I	1115540DF	Japan	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	2014-005318	6019108	10/7/2016	Granted	Granted
1115540J	1115540DF	Republic of Korea	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	10-2013-7029272	10-1017901	11/6/2018	Granted	Granted
1115540K	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540L	1115540DF	Treaty	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	PCI/8/52012/032926			Inactive	Expired
1115540M	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540N	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540O	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540P	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540Q	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540R	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540S	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540T	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540U	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540V	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
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1115540X	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540Y	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired
1115540Z	1115540DF	United States	Antenna alignment and vehicle guidance for wireless charging of electric vehicles	51,474,922			Inactive	Expired

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12080450	12080450	Patent Cooperation Treaty	Wireless power transfer device and method of manufacturing	PCT/JP2005/023553				Active	Granted
12080451	12080451	United States	Magnetically permeable structures	124671 1/3	8, 9, 10, 11	10/24/2015	Granted	Granted	
12080452	12080452	China P.R.	Magnetically permeable structures	2006100014500.2	2006.10.01/4500	4/23/2016	Granted	Granted	
12080453	12080453	United States	Magnetically permeable structures	846579 5/11	5, 6, 7, 8, 9, 10	6/01/2016	Granted	Granted	
12080454	12080454	European Patent Convention	METHODS OF FORMING MAGNETICALLY PERMEABLE STRUCTURES	12720113			Filed	Allowed	
12080455	12080455	China P.R.	Magnetically permeable structures	2009.01.06/2014			Filed	Application	
12080456	12080456	Japan	Magnetically permeable structures	1215-101705	6294575	12/8/2017	Granted	Granted	
12080457	12080457	United States	Magnetically permeable structures	10-404, 703985			Filed	Application	
12080458	12080458	Patent Cooperation Treaty	Magnetically permeable structures	PCT/JP2005/023553			Inactive	Expired	
12082878	12082878	United States	Method of multi-coil operation and optimization	13/285,676	9,142,990	8/22/2015	Granted	Granted	
12082879	12082879	China P.R.	Method of multi-coil operation and optimization	20148000504.7	21.20148000504.3	12/15/2017	Granted	Granted	
12082880	12082880	European Patent Convention	Method of multi-coil operation and optimization	14/02994.6			Filed	Allowed	
12082881	12082881	India	Method of multi-coil operation and optimization	4992/CHEP/2015			Filed	Application	
12082882	12082882	Japan	Method of multi-coil operation and optimization	2015-553792	5935958	5/13/2016	Granted	Granted	
12082883	12082883	Republic of Korea	Method of multi-coil operation and optimization	10-2015-7021706	10-1787220	10/11/2017	Granted	Granted	
12082884	12082884	Patent Cooperation Treaty	Method of multi-coil operation and optimization	PCT/JP2014/011492			Inactive	Expired	
12082885	12082885	United States	Coax alignment and detection inductive power transfer system	13/770,343	4,585,785	12/1/2016	Granted	Granted	

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1222706P	1222706DF	European Patent Convention	Tuning circuit and method for wireless power transfer systems	1373/909.5	EP2873132	9/28/2016	Granted	Granted
1222706R	1222706DF	France	Tuning circuit and method for wireless power transfer systems	1373/909.5	EP2873132	9/28/2016	Granted	Granted
1222706S	1222706DF	Great Britain	Tuning circuit and method for wireless power transfer systems	1373/909.5	EP2873132	9/28/2016	Granted	Granted
1222706N	1222706DF	India	Tuning circuit and method for wireless power transfer systems	345/CHENP/2015			Filed	Application
1222706I	1222706DF	United States	Tuning circuit and method for wireless power transfer systems	51,672,249			inactive	Expired
1222706J	1222706DF	Patent Cooperation Treaty	Tuning circuit and method for wireless power transfer systems	PC/US2013/047840			inactive	Expired
1222706L	1222706DF	United States	Power supply control in wireless power transfer systems	10,928,801	9,880,906	1/27/2018	Granted	Granted
1222706M	1222706DF	China P.R.	Power supply control in wireless power transfer systems	20130102417.4	2,401,480/041417	9/27/2018	Granted	Granted
1222706P	1222706DF	European Patent Convention	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706N	1222706DF	India	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706P	1222706DF	United States	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706Q	1222706DF	France	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706R	1222706DF	Great Britain	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706S	1222706DF	India	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706T	1222706DF	China P.R.	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706U	1222706DF	European Patent Convention	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706V	1222706DF	United States	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application
1222706W	1222706DF	Patent Cooperation Treaty	Power supply control in wireless power transfer systems	1373/909.5			Filed	Application

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122296	122296.IDF	United States	System and method for power output control in wireless power transfer systems	13/740,679	9,839,365	1/2/2018	Granted	Granted
1222967R	122296.IDF	China P.R.	System and method for power output control in wireless power transfer systems	201380043725.2		Filed	Application	
1222966V	122296.IDF	European Patent Convention	System and method for power output control in wireless power transfer systems	13756243.5		Filed	Application	
1222966N	122296.IDF	India	System and method for power output control in wireless power transfer systems	687/CHENP/2015		Filed	Application	
1222966P	122296.IDF	Japan	System and method for power output control in wireless power transfer systems	2015-528628	6317349	4/8/2018	Granted	Granted
1222966R	122296.IDF	Republic of Korea	System and method for power output control in wireless power transfer systems	10-2015-7007067		Filed	Application	
1222966T	122296.IDF	United States	System and method for power output control in wireless power transfer systems	51/652,898		Inactive	Expired	
1222966W	122296.IDF	Cooperation Treaty	System and method for power output control in wireless power transfer systems	PCT/US2013/036032		Inactive	Expired	
1222967	122296.IDF	United States	System and method for power output control in wireless power transfer systems	13/739,424	9,672,975	5/6/2017	Granted	Granted
1222967A	122296.IDF	China P.R.	System and method for power output control in wireless power transfer systems	0132040973.3	2020-30104973	1/19/2017	Granted	Granted
1222967B	122296.IDF	India	System and method for power output control in wireless power transfer systems	2007FNSNP/2005		Filed	Application	
1222967C	122296.IDF	United States	System and method for power output control in wireless power transfer systems	13/739,424		Inactive	Expired	
1222967D	122296.IDF	Cooperation Treaty	System and method for power output control in wireless power transfer systems	PCT/US2013/036032		Inactive	Expired	

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122906CN	122906IDF	China P.R.	Wireless power transfer system coil arrangements and method of operation	201380046978.1	ZL201380046978	10/24/2017	Granted	Granted
122906IN	122906IDF	India	Wireless power transfer system coil arrangements and method of operation	1187/CHENP/2015			Filed	Application
12290691	122906IDF	United States	Device, system and method for control of wireless power transfer	61/699,700			Inactive	Expired
12290690	122906IDF	Patent Cooperation Treaty	Wireless power transfer system coil arrangements and method of operation	PCT/US2013/054791			Inactive	Expired
12290701	122907IDF	United States	RESONANT SYSTEMS AND METHOD FOR WIRELESS POWERING POWERUSING CONDUCTIVE STRUCTURES	13/791,338	9,580,357	5/21/2017	Granted	Granted
12290702	122907IDF	China P.R.	Wireless power transfer system coil arrangements and method of operation	201380046978.7	ZL201380046978	9/9/2017	Granted	Granted
12290705	122907IDF	Germany	Wireless power transfer system coil arrangements and method of operation	800010023141.9	87886402	9/9/2017	Granted	Granted
12290709	122907IDF	Japan	Wireless power transfer system coil arrangements and method of operation	13/75,480.2	5-2660415	7/9/2017	Granted	Granted
12290709	122907IDF	Japan	Wireless power transfer system coil arrangements and method of operation	13/75,480.2	5-2660415	7/9/2017	Granted	Granted
12290709	122907IDF	United States	Wireless power transfer system coil arrangements and method of operation	13/729,659.2	892960103	7/9/2017	Granted	Granted
12290709	122907IDF	India	Wireless power transfer system coil arrangements and method of operation	501/CHENP/2015			Filed	Application
12290709	122907IDF	Japan	Wireless power transfer system coil arrangements and method of operation	2013-154,092	5-198775	5/17/2017	Granted	Granted
12290709	122907IDF	Japan	Wireless power transfer system coil arrangements and method of operation	10/2013-10080113	5-198775	5/17/2017	Granted	Granted

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123039P1	123039USP	United States	Systems, methods, and apparatus related to electric vehicle wireless charging	61/665,205			inactive	Expired
123039WO	123039EP	Patent Cooperation Treaty	Electric vehicle wireless charging with monitoring of duration of charging operational mode	PC/US2015/047676			inactive	Expired
123041	123041JP	United States	Systems, methods, and apparatus related to electric vehicle parking and wireless charging	13/932,892	9/27/2018	2/12/2019	Granted	Granted
123041WO	123041EP	China P.R.	Systems, methods, and apparatus related to electric vehicle parking and wireless charging	201380014172.2	6/20/2018	2/20/2017	Granted	Granted
123041WO	123041EP	China P.R.	Systems, methods, and apparatus related to electric vehicle parking and wireless charging	201710079645.8			Filed	Application - not active to issue via reaction
123041WO	123041EP	European Patent Convention	Systems, methods, and apparatus related to electric vehicle parking and wireless charging	13/932,892			Filed	Application
123041WO	123041EP	China P.R.	Systems, methods, and apparatus related to electric vehicle parking and wireless charging	6446/010007/0004			Filed	Application
123041WO	123041EP	China P.R.	Systems, methods, and apparatus related to electric vehicle parking and wireless charging	50/2016-7036602			Filed	Application
123041WO	123041EP	United States	Systems, methods, and apparatus related to electric vehicle parking and wireless charging	61/665,205			inactive	Granted
123041WO	123041EP	European Patent Convention	Systems, methods, and apparatus related to electric vehicle parking and wireless charging	PC/US2015/047676			inactive	Expired

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123480	123480DS	United States	Selective communication based on distance from a plurality of electric vehicle wireless charging stations in a facility	13/998,875	9,862,594	4/5/2016	Granted	Granted
123480CN	123480DS	China P.R.	Selective communication based on distance from a plurality of electric vehicle wireless charging stations in a facility	201380039834.7	ZL201380039834	10/13/2017	Granted	Granted
123480EP	123480DS	European Patent Convention	Selective communication based on distance from a plurality of electric vehicle wireless charging stations in a facility	13/477,351.1			Filed	Application
123480IN	123480DS	India	Selective communication based on distance from a plurality of electric vehicle wireless charging stations in a facility	621/CHENP/2015			Filed	Application
123480JP	123480DS	Japan	Selective communication based on distance from a plurality of electric vehicle wireless charging stations in a facility	2015-028,452	6382913	8/10/2018	Granted	Granted
123480P1	123480DS	United States	Systems, methods, and apparatus related to electric vehicle wireless charging and parking	61/677,967			Inactive	Expired
123480WO	123480DS	Patent Cooperation Treaty	Selective communication based on distance from a plurality of electric vehicle wireless charging stations in a facility	PCT/US2013/051509			Inactive	Expired
123480P1	123480DS	United States	Systems, methods, and apparatus related to electric vehicle wireless charging	61/668,012			Inactive	Expired
123480P1	123480DS	United States	Systems, methods, and apparatus for detection of metal objects in a predetermined space	61/671,498			Inactive	Expired

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123478U1	123478DP	United States	Systems, methods, and apparatus for detection of metal objects in a predetermined space	13/791,585	9,726,518	8/8/2017	Granted	Granted
123478U1A6	123478DP	Argentina	Systems, methods, and apparatus for detection of metal objects in a predetermined space	P130103A98	A689A620	11/29/2017	Granted	Granted
123478U1C1	123478DP	United States	SYSTEMS, METHODS, AND APPARATUS FOR DETECTION OF METAL OBJECTS IN A PREDETERMINED SPACE	15/663,466		Filed	Application	
123478U1CN	123478DP	China P.R.	Systems, methods, and apparatus for detection of metal objects in a predetermined space	201380036625.7	ZL201380036625	6/9/2017	Granted	Granted
123478U1EP	123478DP	European Patent Convention	Systems, methods, and apparatus for detection of metal objects in a predetermined space	13742084.0		Filed	Application	
123478U1JP	123478DP	Japan	Systems, methods, and apparatus for detection of metal objects in a predetermined space	2015-521778	6266616	4/5/2018	Granted	Granted
123478U1K01	123478DP	Japan	Systems, methods, and apparatus for detection of metal objects in a predetermined space	2017-240455		Filed	Application	
123478U1TW	123478DP	Taiwan	Systems, methods, and apparatus for detection of metal objects in a predetermined space	102125283	1536035	6/1/2016	Granted	Granted
123478U1WO	123478DP	Patent Cooperation Treaty	Systems, methods, and apparatus for detection of metal objects in a predetermined space	PCT/US2012/046995		Inactive	Expired	
123478U2	123478DP	United States	Systems, methods, and apparatus for detection of metal objects in a predetermined space	13/791,365	9,410,823	8/9/2016	Granted	Granted

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123478UJAB	123478UDF	Argentina	Systems, methods, and apparatus for detection of metal objects in a predetermined space	P130102497	AR052856	12/29/2017	Granted	Granted
123478UJCN	123478UDF	China P.R.	Systems, methods, and apparatus for detection of metal objects in a predetermined space using the magnetic field generated by an inductive power transmitter	20138005632.7	2120139006632	12/26/2017	Granted	Granted
123478UJEP	123478UDF	European Patent Convention	Systems, methods, and apparatus for detection of metal objects in a predetermined space using the magnetic field generated by an inductive power transmitter	13742897.3			Filed	Allowed
123478UJIN	123478UDF	India	Systems, methods, and apparatus for detection of metal objects in a predetermined space using the magnetic field generated by an inductive power transmitter	9131/CHENP/2014			Filed	Application
123478UJTW	123478UDF	Taiwan	Systems, methods, and apparatus for detection of metal objects in a predetermined space	107125282	1699386	9/1/2015	Granted	Granted
123478UJWDI	123478UDF	Taiwan	Systems, methods, and apparatus for detection of metal objects in a predetermined space	104123934	1570436	2/11/2017	Granted	Granted
123478UJWJ	123478UDF	Parent Cooperation Treaty	Systems, methods, and apparatus for detection of metal objects in a predetermined space using the magnetic field generated by an inductive power transmitter	PCT/092013/049348			Inactive	Expired
123478UJZL	123478UDF	United States	Systems, methods, and apparatus for detection of metal objects in a predetermined space	14/773,474	9,574,153	12/21/2018	Granted	Granted

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1242881CN	1242881CN	China P.R.	Modular inductive power transfer power supply and method of operation	20130806011.9	20130806011.9	9/11/2016	Granted	Granted
1242881DE	1242881DE	Germany	Modular inductive power transfer power supply and method of operation	1000000230.0.0	EP2690904	4/21/2016	Granted	Granted
1242881EP	1242881EP	Germany	Modular inductive power transfer power supply and method of operation	441067.28.3	EP2595562	4/21/2016	Granted	Granted
1242881FR	1242881FR	France	Modular inductive power transfer power supply and method of operation	441067283	EP2595562	4/21/2016	Granted	Granted
1242881GB	1242881GB	Great Britain	Modular inductive power transfer power supply and method of operation	441067283	EP2595562	4/21/2016	Granted	Granted
1242881JP	1242881JP	Japan	Modular inductive power transfer power supply and method of operation	2015-0308002	6405370	6/3/2016	Granted	Granted
1242881KR	1242881KR	Republic of Korea	Modular inductive power transfer power supply and method of operation	10-2015-022313			Filed	Application
1242881NO	1242881NO	Norway	Modular inductive power transfer power supply and method of operation	NO2015040055.02			Refused	Refused
1242881US	1242881US	United States	Coil arrangements in wireless power transfer systems for low electromagnetic emissions	13/786,231	10/01A.104	7/3/2018	Granted	Granted
1242881BR	1242881BR	Brazil	Coil arrangements in wireless power transfer systems for low electromagnetic emissions	BR1120140087782			Filed	Application
1242881CN	1242881CN	China P.R.	Coil arrangements in wireless power transfer systems for low electromagnetic emissions	201380056764.5	2101380056764	10/31/2017	Granted	Granted
1242881EP	1242881EP	European Patent Convention	Coil arrangements in wireless power transfer systems for low electromagnetic emissions	13/763,193.9			Filed	Application
1242881IN	1242881IN	India	Coil arrangements in wireless power transfer systems for low electromagnetic emissions	1385/CHENP/2015			Filed	Application

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130816FI	130816DF	Finland	Systems and methods for bi-state impedance conversion in wireless power transfer	14766380.1	EP3036820	5/24/2017	Granted	Granted
130816FR	130816DF	France	Systems and methods for bi-state impedance conversion in wireless power transfer	14766380.1	EP3036820	5/24/2017	Granted	Granted
130816GB	130816DF	Great Britain	Systems and methods for bi-state impedance conversion in wireless power transfer	14766380.1	EP3036820	5/24/2017	Granted	Granted
130816HU	130816DF	Hungary	Systems and methods for bi-state impedance conversion in wireless power transfer	14766380.1	EP3036820	5/24/2017	Granted	Granted
130816ID	130816DF	Indonesia	Systems and methods for bi-state impedance conversion in wireless power transfer	P-20201802725			Filed	Application
130816IN	130816DF	India	Systems and methods for bi-state impedance conversion in wireless power transfer	201647004004			Filed	Application
130816IT	130816DF	Italy	Systems and methods for bi-state impedance conversion in wireless power transfer	50201700090108	EP3036820	5/24/2017	Granted	Granted
130816JP	130816DF	Japan	Systems and methods for bi-state impedance conversion in wireless power transfer	2016-542043	6041895	11/28/2016	Granted	Granted
130816KR	130816DF	Republic of Korea	Systems and methods for bi-state impedance conversion in wireless power transfer	10-2016-7008040	10-1992823	10/19/2016	Granted	Granted
130816KR	130816DF	Republic of Korea	Systems and methods for bi-state impedance conversion in wireless power transfer	10-2017-7014519			Filed	Application
130816NL	130816DF	Netherlands	Systems and methods for bi-state impedance conversion in wireless power transfer	14766380.1	EP3036820	5/24/2017	Granted	Granted
130816WD	130816DF	Cooperation Treaty	Systems and methods for bi-state impedance conversion in wireless power transfer	PCT/US2014/054787			Inactive	Expired
130816US	130816DF	United States	Systems and methods for bi-state impedance conversion in wireless power transfer	14766380.1	6,601,188	6/30/2016	Granted	Granted
130816VN	130816DF	Vietnam	Systems and methods for bi-state impedance conversion in wireless power transfer	10-2016-7008040			Filed	Application

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13287001	13287002F	United States	Vehicle charging and parking system	6/10/2017			Active	Granted
13287002	13287003F	Japan	Vehicle charging and parking system	PCT/JP2014/030504			Inactive	Expired
13287003	13287004F	United States	System and method for detecting the presence of a moving object below a vehicle	14/059,299	9,365,126	6/14/2016	Granted	Granted
13287004	13287005F	China P.R.	System and method for detecting the presence of a moving object below a vehicle	101480024711.0	ZL201480024711.8	6/9/2017	Granted	Granted
13287005	13287006F	European Patent Convention	System and method for detecting the presence of a moving object below a vehicle	14727310.6			Filed	Application
13287006	13287007F	India	System and method for detecting the presence of a moving object below a vehicle	5979/CHENP/2015			Filed	Application
13287007	13287008F	Japan	System and method for detecting the presence of a moving object below a vehicle	2016-512926			Filed	Allowed
13287008	13287009F	Republic of Korea	System and method for detecting the presence of a moving object below a vehicle	10-2015-7054677			Filed	Application
13287009	13287010F	United States	System and method for detecting the presence of a moving object below a vehicle	61/822,114			Inactive	Expired
13287010	13287011F	Patent Cooperation Treaty	System and method for detecting the presence of a moving object below a vehicle	PCT/US2014/035462			Inactive	Expired
13287011	13287012F	United States	System, network and apparatus related to electric vehicle charging and wireless charging	14/156,106	9,361,811	7/5/2016	Granted	Granted
13287012	13287013F	China P.R.	System, network and apparatus related to electric vehicle charging and wireless charging	101480024711.0			Filed	Application
13287013	13287014F	European Patent Convention	System, network and apparatus related to electric vehicle charging and wireless charging	14727310.6			Filed	Application

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133295N	133295DP	India	Systems, methods, and apparatus related to electric vehicle wheel and sensor charging	2015-04-16/2015-04-16			Filed	Application
133295P	133295DP	Spain	Systems, methods, and apparatus related to electric vehicle wheel and sensor charging	2015-04-16/2015-04-16			Filed	Application
133295F	133295DP	Republic of Korea	Systems, methods, and apparatus related to electric vehicle wheel and sensor charging	2015-04-16/2015-04-16			Filed	Application
133295T	133295DP	United States	Systems, methods, and apparatus related to electric vehicle wheel and sensor charging	2015-04-16/2015-04-16			Filed	Application
133295G	133295DP	United States	Systems, methods, and apparatus related to electric vehicle wheel and sensor charging	2015-04-16/2015-04-16			Filed	Application
133295	133295DP	United States	Electric vehicle induction coil housing with interengagement structure for ferrite tile assemblies	14/209,389	9,585,253	2/28/2017	Granted	Granted
133295B	133295DP	Spain	Electric vehicle induction coil housing with interengagement structure for ferrite tile assemblies	2013-01-16/2013-01-16			Filed	Application
133295C	133295DP	China P.R.	Electric vehicle induction coil housing with interengagement structure for ferrite tile assemblies	2015-04-16/2015-04-16			Filed	Application
133295E	133295DP	European Patent Convention	Electric vehicle induction coil housing with interengagement structure for ferrite tile assemblies	15/07855.1			Filed	Application
133295N	133295DP	India	Electric vehicle induction coil housing with interengagement structure for ferrite tile assemblies	2015-04-16/2015-04-16			Filed	Application

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133295JP	133295JP	Japan	Electric vehicle induction coil housing with interengagement structure for ferrite tile assemblies	2016-555825			Filed	Application
133295KR	133295DP	Republic of Korea	Electric vehicle induction coil housing with interengagement structure for ferrite tile assemblies	10-2016-7026366			Filed	Application
133295WQ	133295DP	Patent Cooperation Treaty	Electric vehicle induction coil housing with interengagement structure for ferrite tile assemblies	ACT/US2015/017121			Inactive	Expired
133298	133298DP	United States	System, method, and apparatus related to mutual detection and location of electric vehicle and charging station	US/USN 2014	9,446,974	9/23/2016	Granted	Granted
133298	133298DP	United States	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLES AND CHARGING STATIONS	2014/020,034A1			Filed	Application
133298	133298DP	United States	Systems, methods, and apparatus related to mutual detection and identification of electric vehicle and charging station	2014/020,034	9,446,974	9/23/2016	Granted	Granted
133298	133298DP	United States	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLES AND CHARGING STATIONS	15/034,781			Filed	Application
133298	133298DP	United States	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLES AND CHARGING STATIONS	2014/020,034			Filed	Application

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6500000	6500000	6500000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500001	6500001	6500001	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500002	6500002	6500002	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500003	6500003	6500003	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500004	6500004	6500004	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500005	6500005	6500005	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500006	6500006	6500006	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500007	6500007	6500007	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500008	6500008	6500008	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500009	6500009	6500009	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20
6500010	6500010	6500010	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20	2010/01/20

000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted
000000	000000	0000	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	4742777.4	EP000000	10/19/2016	Granted	Granted

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133985	133985D	United States	SYSTEMS, METHODS, AND APPARATUS RELATED TO MUTUAL DETECTION AND IDENTIFICATION OF ELECTRIC VEHICLE AND CHARGING STATION	14/252,518	9,539,599	1/3/2017	Granted	Granted
133985	133985D	China P.R.	Integration of electronic components in inductive power transfer systems	201480039896.1	ZL201480039896.1	10/10/2018	Granted	Granted
133985	133985D	European Patent Convention	Integration of electronic components in inductive power transfer systems	14733934.5		Filed	Application	
133985	133985D	India	Integration of electronic components in inductive power transfer systems	7618/CHENP/2015		Filed	Application	
133985	133985D	Patent Cooperation Treaty	INTEGRATION OF ELECTRONIC COMPONENTS IN INDUCTIVE POWER TRANSFER SYSTEMS	PCT/US2014/041107		Inactive	Expired	
133985	133985D	United States	Systems, methods, and apparatus related to detecting and scattering electric vehicle and charging station	14/159,703	9,509,314	11/29/2018	Granted	Granted
133985	133985D	United States	Systems, methods, and apparatus related to detecting and scattering electric vehicle and charging station	14/159,703		Inactive	Abandoned	
133985	133985D	China P.R.	Systems, methods, and apparatus related to detecting and scattering electric vehicle and charging station	10148814283.4	7,520,480A2013	2/24/2017	Granted	Granted

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1342318P	1342318P	Israel	System and method for alignment and compatibility detection for a wireless power transfer system	BR1120160042158		Filed	Application
1342318A	1342318P	Canada	System and method for alignment and compatibility detection for a wireless power transfer system	2919719		Filed	Application
1342317N	1342318P	China P.R.	System and method for alignment and compatibility detection for a wireless power transfer system	701485047010.9	21.03.480347010	4/24/2018	Granted
1342318C	1342318P	Germany	System and method for alignment and compatibility detection for a wireless power transfer system	602014011033.3	EP3031117	6/21/2017	Granted
1342318F	1342318P	European Patent Convention	System and method for alignment and compatibility detection for a wireless power transfer system	14756195.5	EP3031117	6/21/2017	Granted
1342318S	1342318P	Spain	System and method for alignment and compatibility detection for a wireless power transfer system	14756195.5	EP3031117	6/21/2017	Granted
1342318I	1342318P	Sweden	System and method for alignment and compatibility detection for a wireless power transfer system	14756195.5	EP3031117	6/21/2017	Granted
1342318R	1342318P	France	System and method for alignment and compatibility detection for a wireless power transfer system	14756195.5	EP3031117	6/21/2017	Granted
1342318B	1342318P	Great Britain	System and method for alignment and compatibility detection for a wireless power transfer system	14756195.5	EP3031117	6/21/2017	Granted
1342318H	1342318P	Hungary	System and method for alignment and compatibility detection for a wireless power transfer system	14756195.5	EP3031117	6/21/2017	Granted

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134231ID	134231IDF	Indonesia	System and method for alignment and compatibility detection for a wireless power transfer system	P.0301601857		Filed	Application
134231IN	134231IDF	India	System and method for alignment and compatibility detection for a wireless power transfer system	103647092535		Filed	Application
134231IT	134231IDF	Italy	System and method for alignment and compatibility detection for a wireless power transfer system	502017000066981	EP3031117	6/21/2017	Granted
134231JP	134231IDF	Japan	System and method for alignment and compatibility detection for a wireless power transfer system	2016-03-8959	6427578	11/2/2016	Granted
134231KR	134231IDF	Republic of Korea	System and method for alignment and compatibility detection for a wireless power transfer system	11-2016-7008240		Filed	Application
134231NL	134231IDF	Netherlands	System and method for alignment and compatibility detection for a wireless power transfer system	14756195.5	EP3031117	6/21/2017	Granted
134231US	134231IDF	United States	System and method for alignment and compatibility detection for a wireless power transfer system	64/0873, 274		Inactive	Expired
134231TW	134231IDF	Taiwan	System and method for alignment and compatibility detection for a wireless power transfer system	103123750		Filed	Allowed
134231WO	134231IDF	Patent Cooperation Treaty	System and method for alignment and compatibility detection for a wireless power transfer system	PCT/US2014/051141		Inactive	Expired
134231	134231IDF	United States	System, system, and method for detecting electric vehicle charging with position detection	14/7341, 872		Filed	Application

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1402031P	1402031P	Japan	System, method, and apparatus for improved foreign object detection for adaptively	2016-04-28			Filed	Apparative
1402031P	1402031P	United States	SYSTEMS, METHODS, AND APPARATUS FOR INCREASED SENSITIVITY FOR FOREIGN OBJECT DETECTION	2016-04-28			Filed	Granted
1402031P	1402031P	United States	System, method, and apparatus for improved foreign object detection for adaptively	2016-04-28			Filed	Granted
1402031P	1402031P	United States	SYSTEM AND METHOD FOR ADAPTIVE CHARGING COMPLIANCE CONTROL	2016-04-28			Filed	Granted
1402031P	1402031P	China P.R.	System and method for adaptive charging compliance control	2016-04-28			Filed	Granted
1402031P	1402031P	Patent Convention	System and method for adaptive charging compliance control	2016-04-28			Filed	Application
1402031P	1402031P	India	System and method for adaptive charging compliance control	2016-04-28			Filed	Application
1402031P	1402031P	Japan	System and method for adaptive charging compliance control	2016-04-28			Filed	Granted
1402031P	1402031P	Republic of Korea	System and method for adaptive charging compliance control	2016-04-28			Filed	Granted
1402031P	1402031P	Patent Cooperation Treaty	System and method for adaptive charging compliance control	2016-04-28			Filed	Granted
1402031P	1402031P	United States	System and method for adaptive charging compliance control	2016-04-28			Filed	Granted

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14072506	14072506	China P.R.	SYSTEM AND METHOD FOR REDUCING EMISSIONS FOR POLARIZED COIL SYSTEMS FOR WIRELESS INDUCTIVE POWER TRANSFER	2015001111.0				Filed	Issued
14072507	14072507	European Patent Cooperation Treaty	SYSTEM AND METHOD FOR REDUCING EMISSIONS FOR POLARIZED COIL SYSTEMS FOR WIRELESS INDUCTIVE POWER TRANSFER	1.7389.7 A				Filed	Application
14072508	14072508	India	SYSTEM AND METHOD FOR REDUCING EMISSIONS FOR POLARIZED COIL SYSTEMS FOR WIRELESS INDUCTIVE POWER TRANSFER	2016010400				Filed	Application
14072509	14072509	Japan	SYSTEM AND METHOD FOR REDUCING EMISSIONS FOR POLARIZED COIL SYSTEMS FOR WIRELESS INDUCTIVE POWER TRANSFER	2016-055428				Filed	Application
14072510	14072510	Republic of Korea	SYSTEM AND METHOD FOR REDUCING EMISSIONS FOR POLARIZED COIL SYSTEMS FOR WIRELESS INDUCTIVE POWER TRANSFER	10-2016-1025109				Filed	Application
14072511	14072511	United States	SYSTEM AND METHOD FOR REDUCING EMISSIONS FOR POLARIZED COIL SYSTEMS FOR WIRELESS INDUCTIVE POWER TRANSFER	14/0947919				Indefinite	Issued
14072512	14072512	United States	SYSTEM AND METHOD FOR REDUCING EMISSIONS FOR POLARIZED COIL SYSTEMS FOR WIRELESS INDUCTIVE POWER TRANSFER	14/0947919				Indefinite	Issued
14072513	14072513	United States	Methods and systems for object detection and sensing for wireless charging systems	14/367 285	9,735,605	8/15/2017		Granted	Granted
14072514	14072514	China P.R.	Methods and systems for object detection and sensing for wireless charging systems	201580031659.6				Filed	Application

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140725EP	140725DP	European Patent Convention	Methods and systems for object detection and sensing for wireless charging systems	15731489.8			Filed	Application
140725IN	140725IOF	India	Methods and systems for object detection and sensing for wireless charging systems	2016470379.2			Filed	Application
140725JP	140725JP	Japan	Methods and systems for object detection and sensing for wireless charging systems	2016-573098			Filed	Application
140725KR	140725IOF	Republic of Korea	Methods and systems for object detection and sensing for wireless charging systems	10-2016-709893			Filed	Application
140725WO	140725IOF	Patent Cooperation Treaty	Methods and systems for object detection and sensing for wireless charging systems	PCT/JP2015/053195			Filed	Application
14072601	1407260DP	United States	COIL TOPOLOGIES FOR INDUCTIVE POWER TRANSFER	14/461,293	9,857,204	10/6/2017	Granted	Granted
14072603	1407260DP	United States	COIL TOPOLOGIES FOR INDUCTIVE POWER TRANSFER	14/853,648			Filed	Application
14072607	1407260DP	China P.R.	Coil topologies for inductive power transfer	201410068807.2			Filed	Application
14072608	1407260DP	Germany	Coil topologies for inductive power transfer	102014010400.2	1020140104	2/6/2018	Granted	Granted
14072609	1407260DP	Barbados	Coil topologies for inductive power transfer	1411309.1	EP2048174	7/6/2018	Granted	Granted
14072617	1407260DP	European Patent Convention	Coil topologies for inductive power transfer	1411309.1	EP2048174	7/6/2018	Granted	Granted
14072620	1407260DP	European Patent Convention	Coil topologies for inductive power transfer	1411309.1	EP2048174	7/6/2018	Granted	Granted
14072624	1407260DP	France	Coil topologies for inductive power transfer	1411309.1	EP2048174	7/6/2018	Granted	Granted
14072625	1407260DP	Great Britain	Coil topologies for inductive power transfer	1411309.1	EP2048174	7/6/2018	Granted	Granted
14072626	1407260DP	India	Coil topologies for inductive power transfer	2016070115004			Filed	Application
14072627	1407260DP	India	Coil topologies for inductive power transfer	2016-550732			Filed	Application
14072628	1407260DP	India	Coil topologies for inductive power transfer	2016-550732			Filed	Application
14072629	1407260DP	India	Coil topologies for inductive power transfer	2016-550732			Filed	Application
14072630	1407260DP	India	Coil topologies for inductive power transfer	2016-550732			Filed	Application
14072631	1407260DP	United States	Coil topologies for inductive power transfer	14/461,293			Filed	Application

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14075401	14075401	Super capacitor array	Capacitor for inductive power transfer	PGPUS06A07001				Issued	Granted
141067	141067/02	United States	Wireless charging based on selective activation of transmit antennas	14/450,923	9,905,315		11/29/2016	Granted	Granted
141071	141071/02	United States	SYSTEM, METHOD AND APPARATUS FOR REDUCING THE HEIGHT OF WIRELESS TRANSMITTERS AND/OR RECEIVERS IN ELECTRIC VEHICLE CHARGING	14/277,534	9,981,792		9/25/2018	Granted	Granted
14107101	14107101	United States	System, method and apparatus for reducing the height of wireless transmitters and/or receivers in electric vehicle charging	2016/020,697 A				Filed	Application
14107102	14107102	United States	System, method and apparatus for reducing the height of wireless transmitters and/or receivers in electric vehicle charging	2017/020,697 A				Filed	Application
14107103	14107103	United States	System, method and apparatus for reducing the height of wireless transmitters and/or receivers in electric vehicle charging	2016/020,697 A				Filed	Application
14107104	14107104	United States	System, method and apparatus for reducing the height of wireless transmitters and/or receivers in electric vehicle charging	2016/020,697 A				Filed	Application
14107105	14107105	United States	System, method and apparatus for reducing the height of wireless transmitters and/or receivers in electric vehicle charging	2016/020,697 A				Filed	Application
14107106	14107106	United States	System, method and apparatus for reducing the height of wireless transmitters and/or receivers in electric vehicle charging	2016/020,697 A				Filed	Application
14107107	14107107	United States	System, method and apparatus for reducing the height of wireless transmitters and/or receivers in electric vehicle charging	2016/020,697 A				Filed	Application
14107108	14107108	United States	System, method and apparatus for reducing the height of wireless transmitters and/or receivers in electric vehicle charging	2016/020,697 A				Filed	Application

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14109860	14109860	United States	System and method for reducing the height of initial inductance and/or inductance in a ferromagnetic material	14/466,883	3,742,200	8/22/2017	Granted	Granted
14109858	14109858	United States	System and method to avoid magnetic power loss while providing alternating current through a ferromagnetic material	14/466,883	3,742,200	8/22/2017	Granted	Granted
14109859	14109859	China P.R.	System and method to avoid magnetic power loss while providing alternating current through a ferromagnetic material	201480064577.7	21201480064577	4/20/2018	Granted	Granted
14109857	14109857	European Patent Convention	System and method to avoid magnetic power loss while providing alternating current through a ferromagnetic material	14816044.3			Filed	Application
14109856	14109856	India	System and method to avoid magnetic power loss while providing alternating current through a ferromagnetic material	201647014474			Filed	Application
14109855	14109855	Japan	System and method to avoid magnetic power loss while providing alternating current through a ferromagnetic material	2016-536537			Filed	Application
14109854	14109854	Republic of Korea	System and method to avoid magnetic power loss while providing alternating current through a ferromagnetic material	10-2016-2017630			Filed	Application
14109853	14109853	United States	System and method to avoid magnetic power loss while providing alternating current through a ferromagnetic material	01/513,775			Inactive	Expired

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14137300	14137305	Patent Cooperation Treaty	Devices, systems, and method for power control of battery electric vehicle charging system	PCT/US2016/01953			Granted	Granted
141373	14137305	United States	COMPLIANCE ASSESSMENT OF HUMAN EXPOSURE FROM WIRELESS ELECTRIC VEHICLE CHARGING SYSTEM USING AT LEAST ONE PHANTOM MODEL	14/574,095	5,575,108	2/21/2017	Granted	Granted
14137300	14137305	China P.R.	Compliance assessment of human exposure from wireless electric vehicle charging system	20148006389.8	203048006389	10/16/2018	Granted	Granted
14137300	14137305	European Patent Convention	Compliance assessment of human exposure from wireless electric vehicle charging system	14824725.7			Filed	Application
14137300	14137305	India	Compliance assessment of human exposure from wireless electric vehicle charging system	2016/47016132			Filed	Application
14137300	14137305	Japan	Compliance assessment of human exposure from wireless electric vehicle charging system	2016-539911			Filed	Application
14137300	14137305	Republic of Korea	Compliance assessment of human exposure from wireless electric vehicle charging system	10-2018-7019096			Filed	Application
14137300	14137305	United States	Compliance assessment of human exposure from wireless electric vehicle charging system	61/5938,588			Inactive	Expired
14137300	14137305	Patent Cooperation Treaty	Compliance assessment of human exposure from wireless electric vehicle charging system	PCT/US2016/071289			Inactive	Expired
14137300	14137305	United States	Compliance assessment of human exposure from wireless electric vehicle charging system	14/738,302	5,574,774	12/17/2016	Granted	Granted

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1416379R	14163710F	Small	Inductive power supply for vehicles comprising a plurality of charging coils which can be operated in different sequences	981120160242170			Filed	Application
141637CN	14163710F	China P.R.	Inductive power supply for vehicles comprising a plurality of charging coils which can be operated in different sequences	201586820342.2			Filed	Application
141637EP	14163710F	European Patent Convention	Inductive power supply for vehicles comprising a plurality of charging coils which can be operated in different sequences	1571637A.5			Filed	allowed
141637IN	14163710F	India	Inductive power supply for vehicles comprising a plurality of charging coils which can be operated in different sequences	201647030326			Filed	Application
141637JP	14163710F	Japan	Inductive power supply for vehicles comprising a plurality of charging coils which can be operated in different sequences	2016-562528			Filed	Application
141637KR	14163710F	Republic of Korea	Inductive power supply for vehicles comprising a plurality of charging coils which can be operated in different sequences	10-2016-2034018			Filed	Application
141637PL	14163710F	United States	Base magnetic and sequence design for dynamic systems	61/981443			inactive	Expired
141637TW	14163710F	Taiwan	Base magnetic and sequence design for dynamic systems	104111985			Filed	Application
141637WO	14163710F	Patent Cooperation Treaty	Inductive power supply for vehicles comprising a plurality of charging coils which can be operated in different sequences	PCT/AU2015/023815			inactive	Expired

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1434180A	1434180B	United States	System and method for reactive power control in dynamic inductive power transfer systems	14/082,003	9,580,112	6/03/2017	Granted	Granted
1434180A	1434180F	China P.R.	System and method for reactive power control in dynamic inductive power transfer systems	201520080775.9			Filed	Application
1434180B	1434180F	European Patent Convention	System and method for reactive power control in dynamic inductive power transfer systems	17/08308.8	EP311138	9/29/2018	Granted	Granted
1434180B	1434180F	Great Britain	System and method for reactive power control in dynamic inductive power transfer systems	17/08308.8	EP311138	9/29/2018	Granted	Granted
1434180B	1434180F	Spain	System and method for reactive power control in dynamic inductive power transfer systems	2017/08308.8			Filed	Application
1434180B	1434180F	Republic of Korea	System and method for reactive power control in dynamic inductive power transfer systems	10-2017-0006558			Filed	Application
1434180B	1434180F	Smart Corporation of Korea	System and method for reactive power control in dynamic inductive power transfer systems	20170000150047192			Filed	Application
1434180B	1434180F	United States	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	14/735,256	9,772,401	9/26/2017	Granted	Granted
1434180B	1434180F	Israel	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	EP1120160214870			Filed	Application
1434180CN	1434180F	China P.R.	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	201590012630.3			Filed	Application

143418DE	143418DF	Germany	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	101013007454.8	EP3120463	1/10/2018	Granted	Granted
143418EP	143418DF	European Patent Convention	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	15707852.8	EP3120463	1/10/2018	Granted	Granted
143418EPD1	143418DF	European Patent Convention	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	17202185.9		Filed	Application	
143418FR	143418DF	France	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	15707852.8	EP3120463	1/10/2018	Granted	Granted
143418GB	143418DF	Great Britain	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	15707852.8	EP3120463	1/10/2018	Granted	Granted
143418IN	143418DF	India	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	201647025358		Filed	Application	
143418JP	143418DF	Japan	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	2016-554550		Filed	Allowed	
143418KR	143418DF	Republic of Korea	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	10-2016-7027741		Filed	Application	
143418PT	143418DF	United States	SYSTEMS, METHODS, AND APPARATUS FOR RADAR-BASED DETECTION OF OBJECTS IN A PREDETERMINED SPACE	61/7954,287		Inactive	Expired	
143418WO	143418DF	Patent Cooperation Treaty	Systems, methods, and apparatus for radar-based detection of objects in a predetermined space	PCT/US2015/016871		Inactive	Expired	

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1431160	1431160	United States	METHODS AND SYSTEMS FOR CONDUCTING OPERATION BETWEEN A WIRELESS POWER TRANSFER SYSTEM AND VEHICLE PLUG-IN ENERGY SYSTEMS	14/489,006	9,280,971	5/21/2017	Granted	Granted
1431160	1431160	China P.R.	Methods and systems for compatible operation between a wireless power transfer system and vehicle energy delivery system	20150042106.8		Filed	Application	
1431160	1431160	European Patent Cooperation	Methods and systems for compatible operation between a wireless power transfer system and vehicle energy delivery system	15/71089.5		Filed	Application	
1431160	1431160	China	Methods and systems for compatible operation between a wireless power transfer system and vehicle energy delivery system	201701084200		Filed	Application	
1431160	1431160	Japan	Methods and systems for compatible operation between a wireless power transfer system and vehicle energy delivery system	2017-253637		Filed	Allowed	
1431160	1431160	United States	SYSTEM AND METHOD FOR FREQUENCY PROTECTION IN WIRELESS CHARGING	14/755,380	9,680,331	5/13/2017	Granted	Granted
1431160	1431160	Brazil	System and method for frequency protection in wireless charging	BR112016015585		Filed	Application	
1431160	1431160	China P.R.	System and method for frequency protection in wireless charging	201569015220.8		Filed	Application	

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144551W0	144551W0F	Patent Cooperation Treaty	System and method for reducing energy loss in wireless device	PCT/US2015/030148				Filed	Granted
144551	144551DF	United States	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	14/279,112				Filed	Allowed
144551CN	144551DF	China P.A.	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	201580024599.5				Filed	Application
144551EP	144551DF	European Patent Convention	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	15/27114.5				Filed	Application
144551IN	144551DF	India	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	20164734031				Filed	Application
144551JP	144551DF	Japan	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	2016-567409				Filed	Application
144551KR	144551DF	Republic of Korea	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	10-2016-7035096				Filed	Application
144551W0	144551DF	Patent Cooperation Treaty	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	PCT/US2015/030148				Filed	Granted
144551	144551DF	United States	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	14/279,112				Filed	Application
144551CN	144551DF	China P.A.	System, method, and apparatus for foreign object detection loop based on inductive thermal sensing	201580024599.5				Filed	Application

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14527820	14527820	European Patent Convention	Method and apparatus for tuning and controlling double coupled resonant power transfer systems	1376/02049			Filed	Allowed
14527821	14527821	USA	Method and apparatus for tuning and controlling double coupled resonant power transfer systems	2013/0700054			Filed	Application
14527822	14527822	Japan	Method and apparatus for tuning and controlling double coupled resonant power transfer systems	2013/0700054			Filed	Application
14527823	14527823	European Patent Convention	Method and apparatus for tuning and controlling double coupled resonant power transfer systems	2013/0700054			Filed	Application
14527824	14527824	United States	Systems, methods and apparatus for reducing intra-base array network coupling	14/584,472	9,560,507	5/1/2018	Granted	Granted
14527825	14527825	China P.R.	SYSTEMS, METHODS AND APPARATUS FOR REDUCING INTRA- BASE ARRAY NETWORK COUPLING	20150071206.5			Filed	Application
14527826	14527826	European Patent Convention	SYSTEMS, METHODS AND APPARATUS FOR REDUCING INTRA- BASE ARRAY NETWORK COUPLING	1081/2001.9			Filed	Application
14527827	14527827	India	SYSTEMS, METHODS AND APPARATUS FOR REDUCING INTRA- BASE ARRAY NETWORK COUPLING	2014/2017120			Filed	Application
14527828	14527828	Japan	SYSTEMS, METHODS AND APPARATUS FOR REDUCING INTRA- BASE ARRAY NETWORK COUPLING	2017-531577			Filed	Application
14527829	14527829	Patent Cooperation Treaty	SYSTEMS, METHODS AND APPARATUS FOR REDUCING INTRA- BASE ARRAY NETWORK COUPLING	PCT/US2015/063729			Inactive	Expired

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146143DE	14614310F	Germany	SYSTEM AND METHOD FOR MULTI-COIL DUAL BACKBONE DYNAMIC INDUCTIVE POWER TRANSFER	15813213.4	EP3212456	5/9/2018	Granted	Granted
146143EP	14614310F	European Patent Convention	SYSTEM AND METHOD FOR MULTI-COIL DUAL BACKBONE DYNAMIC INDUCTIVE POWER TRANSFER	15813213.4	EP3212456	5/9/2018	Granted	Granted
146143FR	14614310F	France	SYSTEM AND METHOD FOR MULTI-COIL DUAL BACKBONE DYNAMIC INDUCTIVE POWER TRANSFER	15813213.4	EP3212456	5/9/2018	Granted	Granted
146143GB	14614310F	Great Britain	SYSTEM AND METHOD FOR MULTI-COIL DUAL BACKBONE DYNAMIC INDUCTIVE POWER TRANSFER	15813213.4	EP3212456	5/9/2018	Granted	Granted
146143IN	14614310F	India	SYSTEM AND METHOD FOR MULTI-COIL DUAL BACKBONE DYNAMIC INDUCTIVE POWER TRANSFER	201747017130		Filed	Application	
146143JP	14614310F	Japan	SYSTEM AND METHOD FOR MULTI-COIL DUAL BACKBONE DYNAMIC INDUCTIVE POWER TRANSFER	2017-531846	6325752	4/20/2018	Granted	Granted
146143WO	14614310F	Patent Cooperation Treaty	SYSTEM AND METHOD FOR MULTI-COIL DUAL BACKBONE DYNAMIC INDUCTIVE POWER TRANSFER	PCT/US2015/069167		Inactive	Expired	
146143US	14614310F	United States	System, methods, and apparatus for controlling the amount of power provided to a charge-receiving element in a resonant inductive system	14/085485		Filed	Application	
146143CN	14614310F	China P.R.	System, methods, and apparatus for controlling the amount of power provided to a charge-receiving element in a resonant inductive system	201580801441.9		Filed	Application	

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150059CM	150059MDF	China P.R.	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	2015.8005885A.2		Filed	Application
150059DE	150059MDF	Germany	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	6003015006893.9	EP3192141	12/20/2017	Granted
150059EP	150059MDF	Swiss Patent Convention	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	15794727.6	EP3192141	12/20/2017	Granted
150059ES	150059MDF	Spain	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	15794727.6	EP3192141	12/20/2017	Granted
150059FI	150059MDF	Finland	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	15794727.6	EP3192141	12/20/2017	Granted
150059FR	150059MDF	France	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	15794727.6	EP3192141	12/20/2017	Granted
150059GB	150059MDF	Great Britain	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	15794727.6	EP3192141	12/20/2017	Granted
150059HU	150059MDF	Hungary	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	15794727.6	EP3192141	12/20/2017	Granted
150059ID	150059MDF	Indonesia	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	P-000201702791		Filed	Application
150059IN	150059MDF	India	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	201747010026		Filed	Application

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150053917	150053916	Italy	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	15794727.6	EP3182141	12/20/2017	Granted	Granted
150053916	150053915	Japan	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	2017-023390			Filed	Application
150053915	150053914	Republic of Korea	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	10-2017-7011827			Filed	Application
150053914	150053913	Netherlands	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	15794727.5	EP3192141	12/20/2017	Granted	Granted
150053913	150053912	United States	SYSTEMS, METHODS, AND APPARATUS RELATED TO WIRELESS ELECTRIC VEHICLE CHARGING INCLUDING INTEGRATED TUNING CAPACITORS IN CHARGING COIL STRUCTURE	62/075,900			Inactive	Expired
150053912	150053911	System for cooperation Treaty	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	PCT/JP2015/058176			Inactive	Expired
150053911	150053910	System for cooperation Treaty	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	14/601,599	9,983,300	5/29/2018	Granted	Granted
150053910	150053909	System for cooperation Treaty	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	2015-080000	801.3		Inactive	Expired
150053909	150053908	System for cooperation Treaty	Systems, methods, and apparatus for integrated tuning capacitors in charging coil structure	62/075,900	EP3192141	12/20/2017	Granted	Granted

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1503871N	1503871D	India	Method and apparatus for a modular coil holder for an extended wireless charging roadway assembly	2017/4701996/7			Filed	Application
1503871P	1503871D	Japan	Method and apparatus for a modular coil holder for an extended wireless charging roadway assembly	2017-055863			Filed	Application
1503871P	1503871D	United States	Method and apparatus for a modular coil holder for an extended wireless charging roadway assembly	62/107,002			Inactive	Expired
1503871W	1503871D	Patent Cooperation Treaty	Method and apparatus for a modular coil holder for an extended wireless charging roadway assembly	PCT/US2016/014315			Inactive	Expired
1503871A	1503871D	United States	System, method, and apparatus for being object detection having extended life span, in wireless power transfer applications	15/811,813	1865.1/21	1/27/2018	Granted	Granted
1503871A	1503871D	China P.R.	Method system with several sensors for monitoring and detecting objects within a surveillance area	201510082-05.7			Filed	App. pending
1503871A	1503871D	European Patent Convention	Method system with several sensors for monitoring and detecting objects within a surveillance area	1528-4392.8			Filed	Application
1503871A	1503871D	India	Method system with several sensors for monitoring and detecting objects within a surveillance area	2017/4701996/7			Filed	Application
1503871A	1503871D	Japan	Method system with several sensors for monitoring and detecting objects within a surveillance area	2017/4701996/7			Filed	Application

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150902	150902:DF	United States	System and method for reducing leakage flux in wireless charging systems	US 2016/015,060 A1	9/22/2016	3/20/2018	Granted	Granted
150902	150902:DF	United States	System and method for reducing leakage flux in wireless charging systems	US 2016/015,060 A1	9/22/2016	3/20/2018	Granted	Granted
150902	150902:DF	China P.R.	System and method for reducing leakage flux in wireless charging systems	201580048348.0			Filed	Application
150902	150902:DF	Germany	System and method for reducing leakage flux in wireless charging systems	15737388.0	EP3152098	1/9/2019	Granted	Granted
150902	150902:DF	European Patent Convention	System and method for reducing leakage flux in wireless charging systems	15737388.0	EP3152098	1/9/2019	Granted	Granted
150902	150902:DF	France	System and method for reducing leakage flux in wireless charging systems	15737388.0	EP3152098	1/9/2019	Granted	Granted
150902	150902:DF	Great Britain	System and method for reducing leakage flux in wireless charging systems	15737388.0	EP3152098	1/9/2019	Granted	Granted
150902	150902:DF	India	System and method for reducing leakage flux in wireless charging systems	201747002517			Filed	Application
150902	150902:DF	Patent Cooperation Treaty	System and method for reducing leakage flux in wireless charging systems	PCT/US2015/048974			Inactive	Expired
150902	150902:DF	United States	System and method for reducing leakage flux in wireless charging systems	US 2016/015,060 A1	9/22/2016	3/20/2018	Granted	Granted
150902	150902:DF	China P.R.	System and method for reducing leakage flux in wireless charging systems	201580048348.0			Filed	Application

151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application
151190CN	151190IDF	United States	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	14/808,942	Filed	Application
151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application
151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application
151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application
151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application
151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application
151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application
151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application
151190CN	151190IDF	China P.R.	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING EARTHQUAKE FORCES IN A PREDETERMINED SPACE	15/03/2016	20160043746.8	Filed	Application

1518900B	1518900DP	Israel	Methods and systems for compatible operation between a wireless power transfer system and wirelessly communicating vehicle systems	BR11 20180054283				Filed	Application
1518900C	1518900DP	China P.R.	Methods and systems for compatible operation between a wireless power transfer system and wirelessly communicating vehicle systems	201680059813.4				Filed	Application
1518900E	1518900DP	European Patent Convention	Methods and systems for compatible operation between a wireless power transfer system and wirelessly communicating vehicle systems	15756758.2				Filed	Application
1518900N	1518900DP	India	Methods and systems for compatible operation between a wireless power transfer system and wirelessly communicating vehicle systems	201847013503				Filed	Application
1518900P	1518900DP	Japan	Methods and systems for compatible operation between a wireless power transfer system and wirelessly communicating vehicle systems	2018-518658				Filed	Application
1518900K	1518900DP	Republic of Korea	Methods and systems for compatible operation between a wireless power transfer system and wirelessly communicating vehicle systems	10-2018-7010501				Filed	Application

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15209759	15209740P	European Patent Convention	Methods and apparatus utilizing multi-filter alignment assistance in wireless power transfer applications	16760891.8			Filed	Application
1520971N	15209708P	India	Methods and apparatus utilizing multi-filter alignment assistance in wireless power transfer applications	2018/07013432			Filed	Application
1520971P	15209709P	Japan	Methods and apparatus utilizing multi-filter alignment assistance in wireless power transfer applications	2018-512620			Filed	Application
1520974R	15209702P	Republic of Korea	Methods and apparatus utilizing multi-filter alignment assistance in wireless power transfer applications	10-2018-2010751			Filed	Application
1520970Q	15209705P	Patent Cooperation Treaty	Methods and apparatus utilizing multi-filter alignment assistance in wireless power transfer applications	PCT/US2016/049719			Filed	Expired
152117	15211706P	United States	Systems, methods, and apparatus to control electronic components in wireless power transfer applications	14/984,905	9,811,361	11/24/2017	Granted	Granted
1521172R	15211708P	Canada	Systems, methods, and apparatus to control electronic components in wireless power transfer applications	EN1,211,008,1567			Filed	Application
1521174A	15211709P	Canada	Systems, methods, and apparatus to control electronic components in wireless power transfer applications	2016/01,4			Filed	Application
1521175N	15211709P	Canada	Systems, methods, and apparatus to control electronic components in wireless power transfer applications	2016/001,2382,7			Filed	Application

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152756CN	152756DP	China P.R.	INTEGRATION OF POSITIONING ANTENNAS IN WIRELESS INDUCTIVE CHARGING POWER APPLICATIONS	2016R0026743.0		Filed	Application
152756EP	152756DP	European Patent Convention	INTEGRATION OF POSITIONING ANTENNAS IN WIRELESS INDUCTIVE CHARGING POWER APPLICATIONS	16721051.7		Filed	Allowed
152756IN	152756DP	India	INTEGRATION OF POSITIONING ANTENNAS IN WIRELESS INDUCTIVE CHARGING POWER APPLICATIONS	201747033123		Filed	Application
152756JP	152756DP	Japan	INTEGRATION OF POSITIONING ANTENNAS IN WIRELESS INDUCTIVE CHARGING POWER APPLICATIONS	2017-58419		Filed	Application
152756PJ	152756DP	United States	Integration of coherent positioning antennas in wireless inductive charging power applications	62/159,875		Inactive	Expired
152756WO	152756DP	Patent Cooperation Treaty	INTEGRATION OF POSITIONING ANTENNAS IN WIRELESS INDUCTIVE CHARGING POWER APPLICATIONS	PCT/RUS2016/030444		Inactive	Expired
152756CN	152756DP	China P.R.	Devices, systems, and methods using reactive power injection for active tuning electric vehicle charging systems	2016R0026743.0		Filed	Application
152756EP	152756DP	European Patent Convention	Devices, systems, and methods using reactive power injection for active tuning electric vehicle charging systems	16721051.7		Filed	Application
152756IN	152756DP	India	Devices, systems, and methods using reactive power injection for active tuning electric vehicle charging systems	201747033123		Filed	Application

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153537EP	153537IDF	European Patent Convention	Integration of solenoid positioning antennas in wireless inductive charging power applications	16723548.6			Filed	Application
153537IN	153537IDF	India	Integration of solenoid positioning antennas in wireless inductive charging power applications	201787035206			Filed	Application
153537JP	153537IDF	Japan	Integration of solenoid positioning antennas in wireless inductive charging power applications	2017-157184			Filed	Application
153537FI	153537IDF	United States	Integration of solenoid positioning antennas in wireless inductive charging power applications	62/163,096			Inactive	Expired
153537WO	153537IDF	Patent Cooperation Treaty	Integration of solenoid positioning antennas in wireless inductive charging power applications	PCT/US2016/035015			Inactive	Expired
153537FI	153537IDF	United States	Methods and apparatuses relating to a division access of multiple nodes/modules in finding object detectors for wireless power transfer applications	14/913,296			Filed	Application
153537CN	153537IDF	China P.R.	Methods and apparatuses relating to a division access of multiple nodes/modules in finding object detectors for wireless power transfer applications	201600128099			Filed	Application
153537EP	153537IDF	European Patent Convention	Methods and apparatuses relating to a division access of multiple nodes/modules in finding object detectors for wireless power transfer applications	16710463			Filed	Application

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15A372WQ	15A372BF	Patent Cooperation Treaty	Systems, methods and apparatus for guidance and alignment between electric vehicles and wireless charging systems	PCT/US2016/034412				inactive	Expired
15A372WQ	15A372BF	United States	Method and apparatus for computer aided design & wiring and modeling of wireless power transfer systems	15/619,794				Filed	Allowed
15A372WQ	15A372BF	United States	METHOD AND APPARATUS FOR COMPUTER AIDED DESIGNING, WIRING AND WIRING OF WIRELESS POWER TRANSFER SYSTEMS	15/619,794				Filed	Allowed
15A372WQ	15A372BF	United States	Method and apparatus for computer aided design, wiring and modeling of wireless power transfer systems	15/619,794				Filed	Allowed
1570A7WQ	1570A7BF	United States	METHODS AND APPARATUS FOR WIRELESSLY TRANSFERRING POWER	15/182,395				Filed	Application
1570A7WQ	1570A7BF	Patent Cooperation Treaty	METHODS AND APPARATUS FOR WIRELESSLY TRANSFERRING POWER	PCT/US2017/025427				inactive	Expired
1571A7WQ	1571A7BF	United States	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING METALLIC OBJECTS IN A PREDETERMINED SPACE VIA INDUCTIVE KINEMATIC SENSING	15/200,721				Filed	Application
1571A7WQ	1571A7BF	United States	SYSTEMS, METHODS, AND APPARATUS FOR DETECTING METALLIC OBJECTS IN A PREDETERMINED SPACE VIA INDUCTIVE KINEMATIC SENSING	15/200,721				Filed	Application

162039WQ	162039IDF	Patent Cooperation Treaty	TWISTED WIRE FOR POWER CHARGING	PCT/US2017/047331			Filed	Application
162113	162113DF	United States	METHODS AND APPARATUS FOR POSITIONING A VEHICLE USING FOR POSITION DETECTION	15/163,248			Filed	Application
162118WQ	162118IDF	Patent Cooperation Treaty	METHODS AND APPARATUS FOR POSITIONING A VEHICLE USING FOR POSITION DETECTION	PCT/US2017/047331			Filed	Application
162217	162217IDF	United States	METHOD AND APPARATUS FOR POSITIONING A VEHICLE	15/449,718			Filed	Application
162317CN	162317IDF	China P.R.	METHOD AND APPARATUS FOR POSITIONING A VEHICLE	201780016060.4			Filed	Application
162317CN	162317IDF	European Patent Convention	METHOD AND APPARATUS FOR POSITIONING A VEHICLE	17714935.8			Filed	Application
162317CN	162317IDF	United States	METHODS AND APPARATUS FOR POSITIONING A VEHICLE	62/343,736			Filed	Application
162317CN	162317IDF	United States	SYSTEM AND METHOD FOR POSITIONING A VEHICLE	62/305,411			Filed	Application
162317WQ	162317IDF	Patent Cooperation Treaty	METHOD AND APPARATUS FOR POSITIONING A VEHICLE	PCT/US2017/020890			Filed	Application
162317WQ	162317IDF	United States	METHODS AND APPARATUS FOR POSITIONING A VEHICLE	15/296,144			Filed	Application
162317WQ	162317IDF	China P.R.	METHODS AND APPARATUS FOR POSITIONING A VEHICLE	107800774.1			Filed	Application
162317WQ	162317IDF	United States	METHOD AND APPARATUS FOR POSITIONING A VEHICLE	62/310,553			Filed	Application
162317WQ	162317IDF	Patent Cooperation Treaty	METHODS AND APPARATUS FOR POSITIONING A VEHICLE	PCT/US2017/047331			Filed	Application
162730	162730IDF	United States	DETERMINING POWER ELECTRONICS FEASIBILITY WITH SIMPLE TURN MAGNETIC SIMULATION DATA	15/273,678			Filed	Application

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6446DWO	16446DOW	Patent Cooperation Treaty	MULTI-COIL BASE PAD WITH ANGLED STRUCTURE	PCT/US2017/046143			Filed	Application
6535G2	16535G2D	United States	Object Detection for Power-Operated, Wiper, Lane Control	US2018/008			Filed	Application
6555G2	16555G2D	United States	Vehicle-Side Beacon Mode for Wireless Electric Vehicle Charging	US/491,697			Filed	Application
7004R	17004RDP	United States	MULTI-SPLIT SYNCHRONIZATION FOR WIRELESS CHARGING	US/671,897			Filed	Application
7004RDP	17004RDP	Patent Cooperation Treaty	MULTI-SPLIT SYNCHRONIZATION FOR WIRELESS CHARGING	PCT/US2017/022010			Filed	Application
170107	170107DP	United States	VEHICLE ALIGNMENT FOR WIRELESS CHARGING	US/656,915			Filed	Application
170110	170110DP	United States	STATIC POWER BEATING FOR WIRELESS CHARGING	US/667,281			Filed	Application
170112	170112DP	United States	METHOD FOR INCREASING PAD EFFICIENCY AND ROBUSTNESS	US/665,569			Filed	Application
170112P1	170112DP	United States	Increasing Pad Efficiency and Robustness	62/637,009			Inventive	Expired
170112WO	170112DP	Patent Cooperation Treaty	MAGNETIC STRUCTURE FOR INDUCTIVE POWER TRANSMISSION WITH IMPROVED EFFICIENCY	PCT/US2017/066279			Filed	Application
170120	170120DP	United States	WIRELESS CHARGING FRANMETER WITH SENSING OBJECT AND LIVING OBJECT DETECTION SYSTEM	US/661,065			Filed	Allowed
170126	170126DP	United States	RIPEL CURRENT REDUCTION FOR WIRELESS ELECTRIC VEHICLE CHARGING	US/709,314			Filed	Application
170126P1	170126DP	United States	MULTI-WIRELESS POWER RECEIVER CONTROL	US/665,000			Inventive	Allowed
170126P2	170126DP	United States	MULTI-WIRELESS POWER RECEIVER CONTROL	US/667,189			Inventive	Allowed
170126P3	170126DP	United States	MULTI-WIRELESS POWER RECEIVER CONTROL	US/711,644			Filed	Application

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1735896	1735896D	United States	FOREIGN OBJECT DETECTION USING NEUTRON SENSITIVE MATERIAL AND INDUCTIVE SENSING	PG 1/US 2017/066005			Filed	Application
1735895	1735895D	United States	ADAPTIVE ADC CONTROL FOR LIVING OBJECT PROTECTION	15/838,679			Filed	Application
1735892	1735892D	United States	ADAPTIVE ADC CONTROL FOR LIVING OBJECT PROTECTION	62/079,208			inactive	Expired
1735891	1735891D	United States	SHIELDING FOR NON-FILAR MAGNETIC COIL FOR WIRELESS POWER TRANSFER	15/840,486			Filed	Application
1735890	1735890D	United States	METHODS AND APPARATUS FOR SHIELDING IN WIRELESS TRANSFER POWER SYSTEMS	62/558,270			inactive	Expired
1748588	1748588D	United States	METHODS AND APPARATUS FOR SHIELDING IN WIRELESS TRANSFER POWER SYSTEMS	15/008,063			Filed	Application
1748589	1748589D	United States	SHIELDING IN WIRELESS TRANSFER POWER SYSTEMS	62/520,461			inactive	Expired
1748587	1748587D	United States	METHODS FOR MANAGING OF ELECTROMAGNETIC INTERFERENCE BY WIRELESS ELECTRIC POWER CHARGING SYSTEMS	15/940,740			Filed	Application
1750110	1750110D	United States	PASSIVE FLUX BRIDGE FOR CHARGING ELECTRIC VEHICLES	15/971,577			Filed	Application
1750098	1750098D	United States	SHIELDING FOR INDUCTIVE WIRELESS CHARGING SYSTEMS	62/560,670			Filed	Application
1750097	1750097D	United States	SHIELDING FOR INDUCTIVE WIRELESS CHARGING SYSTEMS	62/560,670			Filed	Application
1758972	1758972D	United States	FOREIGN OBJECT DETECTION CIRCUIT USING CURRENT MEASUREMENT	15/226,156			Filed	Application
1758929	1758929D	United States	FOREIGN OBJECT DETECTION CIRCUIT USING CURRENT MEASUREMENT	62/520,672			Filed	Application
1758928	1758928D	United States	SHIELDING FOR WIRELESS POWER TRANSFER	15/940,461			Filed	Application

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183105	183105>IDF	United States	EXT-40 AND SYSTEM FOR REDUCING MAGNETIC FIELD EMISSIONS FROM JON-5LE D COURTENS	16/09/1980			Filed	Application
183222-1	183222>IDF	United States	CON. TURN STAIRING ARRANGEMENT FOR INDUCTIVE WIRELESS CHARGING SYSTEM ALLIED DETECTION AND MONITORING MET-005 FOR SAFE OPERATION OF A WTC SYSTEM	02/03/1990			Filed	Application - Instructed to lapse via inaction (no conversion planned)
183262	183262>IDF	United States	WIRELESS ELECTRICAL VEHICLE CHARGING SYSTEM	16/09/1980			Filed	Application
183262-1	183262>IDF	United States	WIRELESS ELECTRICAL VEHICLE CHARGING SYSTEM	02/03/1990			Filed	Application
183277	183277>IDF	United States	EXTENDED FOREIGN OBJECT DETECTION SIGNAL PROCESSING				To be filed	To be filed
183277-1	183277>IDF	United States	EXTENDED FOREIGN OBJECT DETECTION SIGNAL PROCESSING	02/07/1997			Filed	Application
183277-2	183277>IDF	United States	EXTENDED FOREIGN OBJECT DETECTION SIGNAL PROCESSING				To be filed	To be filed
183754	183754>IDF	United States	Extended Range Positioning System Based on Foreign Object Detection				To be filed	To be filed
183754-1	183754>IDF	United States	Extended Range Positioning System Based on Foreign Object Detection	02/07/1994			Filed	Application
183772	183772>IDF	United States	FOREIGN OBJECT DETECTION CIRCUIT USING MANUAL REFERENCE SENSING	02/07/1994			Filed	Application
183772-1	183772>IDF	United States	FOREIGN OBJECT DETECTION CIRCUIT USING MANUAL REFERENCE SENSING				To be filed	To be filed
183925	183925>IDF	United States	METHOD AND SYSTEM FOR MOVING A MAGNETIC FIELD HOT SPOT OF A WIRELESS POWER TRANSFER DEVICE	16/09/1980			Filed	Application
183925-1	183925>IDF	United States	METHOD AND SYSTEM FOR MOVING A MAGNETIC FIELD HOT SPOT OF A WIRELESS POWER TRANSFER DEVICE				To be filed	To be filed

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RECORDED: 08/13/2019