

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
Name		Execution Date
LINEAR TECHNOLOGY LLC		06/17/2020
RECEIVING PARTY DATA		
Name:	ANALOG DEVICES INTERNATIONAL UNLIMITED COMPANY	
Street Address:	BAY F1 RAHEEN INDUSTRIAL ESTATE	
Internal Address:	CO. LIMERICK	
City:	LIMERICK	
State/Country:	IRELAND	
PROPERTY NUMBERS Total: 83		
Property Type	Number	
PCT Number:	US2015021095	
PCT Number:	US2016047266	
PCT Number:	US2015030640	
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ATTORNEY DOCKET NUMBER:	5867.000001
NAME OF SUBMITTER:	JAMIE A. EHLERS
SIGNATURE:	/Jamie A. Ehlers/
DATE SIGNED:	08/04/2021

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5867.034WO1	PCT/US2015/021095	Mar 17, 2015
5867.037WO1	PCT/US2016/047266	Aug 17, 2016
5867.045WO1	PCT/US2015/030640	May 13, 2015
5867.046WO1	PCT/US2010/036885	Jun 1, 2010
5867.048WO1	PCT/US2007/022430	Oct 23, 2007
5867.048WO2	PCT/US2008/053800	Feb 13, 2008
5867.072WO1	PCT/US2016/020981	Mar 4, 2016
5867.079WO1	PCT/US2013/075054	Dec 13, 2013
5867.082WO1	PCT/US2016/020022	Feb 29, 2016
5867.106WO1	PCT/US2006/001283	Jan 13, 2006
5867.119WO1	PCT/US2006/001731	Jan 19, 2006
5867.140WO1	PCT/US2006/001284	Jan 13, 2006
5867.141WO1	PCT/US2006/034337	Sep 1, 2006
5867.142WO1	PCT/US2009/067241	Dec 9, 2009
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5867.147WO1	PCT/US2014/051530	Aug 18, 2014
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5867.156WO1	PCT/US2011/032401	Apr 14, 2011
5867.157WO1	PCT/US2006/023941	Jun 20, 2006
5867.158WO1	PCT/US2007/018298	Aug 17, 2007
5867.165WO1	PCT/US2006/000344	Jan 9, 2006
5867.170WO1	PCT/US2009/051012	Jul 17, 2009
5867.173WO1	PCT/US2010/044660	Aug 6, 2010
5867.174WO1	PCT/US2005/037718	Oct 21, 2005
5867.191WO1	PCT/US2011/025704	Feb 22, 2011
5867.232WO1	PCT/US2006/023475	Jun 15, 2006
5867.233WO1	PCT/US2005/022066	Jun 22, 2005
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5867.236WO1	PCT/US2009/069917	Dec 31, 2009
5867.237WO1	PCT/US2006/009186	Mar 15, 2006

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5867.294WO1	PCT/US2008/088327	Dec 24, 2008
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5867.333WO1	PCT/US2007/008365	Apr 5, 2007
5867.334WO1	PCT/US2005/030836	Aug 31, 2005
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5867.378WO1	PCT/US2005/016050	May 9, 2005
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5867.404WO1	PCT/US2005/011959	Apr 11, 2005
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5867.473WO1	PCT/US2007/022741	Oct 26, 2007
5867.476WO1	PCT/US2006/043965	Nov 13, 2006
5867.477WO1	PCT/US2006/027094	Jul 13, 2006
5867.485WO1	PCT/US2006/039274	Oct 10, 2006
5867.494WO1	PCT/US2005/032247	Sep 8, 2005
5867.498WO1	PCT/US2006/000342	Jan 9, 2006
5867.512WO1	PCT/US2005/037826	Oct 20, 2005
5867.594WO1	PCT/US2006/028982	Jul 26, 2006
5867.595WO1	PCT/US2006/001730	Jan 19, 2006

CONFIRMATORY ASSIGNMENT

WHEREAS, Linear Technology LLC, an entity organized and existing under and by virtue of the laws of Delaware, and having an office and place of business at 1630 McCarthy Boulevard, Milpitas, California (hereinafter "Assignor"), is the owner of assets identified in Appendix A (hereinafter collectively "Patent Properties"), including all inventions and other subject matter described in the Patent Properties;

AND WHEREAS, Analog Devices International Unlimited Company, an entity organized and existing under and by virtue of the laws of Ireland, and having an office and place of business at Bay F1 Raheen Industrial Estate, Limerick, Ireland (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said Patent Properties, including all inventions and other subject matter described therein, and any patent to be obtained in relation therefor;

AND WHEREAS, the Assignor and the Assignee have agreed by virtue of the DEED OF TRANSFER and ASSIGNMENT OF RIGHTS, each dated November 5, 2018 (the "effective date") that Assignor transferred Assignor's entire right, title, and interest in all intellectual property, including said Patent Properties, as of the effective date of such ASSIGNMENT OF RIGHTS;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, the Assignor has assigned, conveyed, and transferred said intellectual property to Assignee and hereby does:

ASSIGN, CONVEY AND TRANSFER to the Assignee the Assignor's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the whole of said intellectual property including the right to apply for and obtain patents or other forms of protection with respect to said intellectual property;

said Patent Properties, including all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of said Patent Properties;

all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and

jurisdictions, based in whole or in part on any of said Patent Properties (including any application for a utility model or an innovation patent application);

the right to claim priority to said Patent Properties in relation to subject matter based in whole or in part on said Patent Properties and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and the right to all causes of action, remedies, and other enforcement rights related to said Patent Properties, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to said Patent Properties and any of the foregoing, including the right to obtain and collect damages and/or royalties due for past, present, or future infringement;

AUTHORIZES AND REQUESTS the issuing authority to issue any and all United States and foreign patents granted on said Patent Properties to the Assignee;

AUTHORIZES AND REQUESTS that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 165175 may (directly or through his/her designee) delete, insert, or alter any information related to said Patent Properties or any of the foregoing, after execution of this Assignment;

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

COVENANTS, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Assignor shall (1) secure cooperation from all present and former employees and/or inventors contributing or having contributed to the Patent Properties; (2) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Patent Properties; (3) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Patent Properties; (4) communicate to the Assignee all facts known to the Assignor relating to the Patent Properties and the history thereof; (5) cooperate with the Assignee in any interference, reexamination, review proceeding,

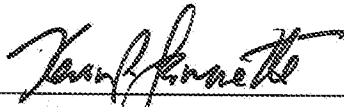
reissue, opposition, dispute, or litigation involving any of the applications or patents for the Patent Properties; and (6) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to said Patent Properties in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Patent Properties; and

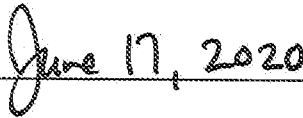
COVENANTS, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions.

THIS AGREEMENT IS TO BE BINDING on the assigns, representatives, and successors of the Assignor, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED to by Assignor as of the Date of the Signature Below:

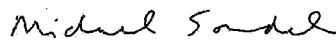
Assignor: Linear Technology Holding Company (Successor by Merger to Linear Technology LLC)

Signature: 
Printed Name: Kevin Lanouette
Title: Director

Date: 

ACCEPTED by Assignee as of the Date of the Signature Below:

Assignee: Analog Devices International Unlimited Company

Signature: 
Printed Name: Michael Sondel
Title: Director

Date: June 17, 2020

Appendix A – Asset List

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00009CA	Canada	551,901	High speed junction field effect transistor for use in bipolar integrated circuits.	Non Provisional	1987-11-17		
P00230CA	Canada	2603897	Network with multiple adjustment elements and sensitivities, and digital-to-analog converter implementing same.	Non Provisional	2005-06-22	2603897	2603897
P00274CA	Canada	2,603,922	Trim circuits and methodologies for data converters.	Non Provisional	2005-08-19		2,603,922
P00073CN	China	200710187232.2	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2007-11-16	CN 101257292A	ZL200710187232.2
P00083CN	China	200880018166	Advanced current-mode control for switched regulators	Non Provisional	2008-05-16	101689805	101689805
P00184CNP01	China	200410057841.2	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-08-19	CN1585228A	ZL200410057841.2
P00210CN	China	200510109870.3	Methods and circuits for frequency modulation that reduce the spectral noise of switching regulators.	Non Provisional	2005-04-29	CN1738189A	ZL200510109870.3
P00224CN	China	200580039495.8	Common-mode data transmission for power over ethernet system.	Non Provisional	2005-10-21	CN101061667A	
P00224CND01	China	201310004399.6	Common-mode data transmission for power over ethernet system.	Non Provisional	2013-01-07		ZL201310004399.6
P00231CN	China	200580039501.X	Analog Power Management Within Power Over Ethernet System.	Non Provisional	2005-10-20	101061668	
P00235CN	China	200510089179	Driving the plurality of light emitting device circuit and method for	Non Provisional	2005-08-05	1731496	1731496
P00236CNABD	China	200510080422.5	Method of fabricating a semiconductor device with multiple gate oxide thickness.	Non Provisional	2005-07-01	CN 1722407A	

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00239CN	China	200580049273.4	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29	CN 101147424A	ZL200580049273.4
P00242CN	China	200510130155.8	Power management circuit and methodology for battery-powered systems.	Non Provisional	2005-12-12	CN 1805238 A	ZL200510130155.8
P00253CN	China	200580035584	Average input current as to reduce the analog signal sampling system and method for	Non Provisional	2005-10-17	101044686	101044686
P00254CN	China	200580035591	Average difference input current as to reduce the analog signal sampling system and method for	Non Provisional	2005-10-17	101044682	101044682
P00255CN	China	200580039633	Analog-to-digital converter with reduced average input current and reduced average reference current	Non Provisional	2005-10-17	101061636	101061636
P00259CN	China	200580049500	For lag regulator of self-adaptive power control	Non Provisional	2005-05-09	101167238	101167238
P00259CND01	China	201110275419	Switch regulator and control method thereof	Non Provisional	2005-05-09	102324848	102324848
P00265CN	China	200680009342	According to through communication link in system for providing power for electric equipment the demand for the power of adjusting current limit threshold	Non Provisional	2006-01-13	101147355	101147355
P00266CN	China	200680003200	According to through communication link in system for providing power supply equipment the output voltage of the adjusting current limit threshold	Non Provisional	2006-01-13	101116285	101116285
P00267CNABD	China	200680005463.0	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2006-01-09	CN 101124771A	

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00267CNABD1	China	200110220583.5	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2011-08-03	CN102394757 A	
P00268CN	China	200680005472.X	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2006-01-09	CN 101124775A	ZL200680005472.X
P00269CN	China	200680009349.5	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09	CN 101147357A	ZL2006 8 0009349.5
P00270CN	China	200680009350.8	Detecting legacy powered device in power over ethernet system.	Non Provisional	2006-01-09	CN 101156355A	ZL 2006 8 0009350.8
P00271CN	China	200680003192.5	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09	CN 101112042A	ZL200680003192.5
P00272CN	China	200680003193.X	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13		
P00272CND01	China	201410293391.0	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13	CN104135375A	ZL201410293391.0
P00273CN	China	200680007906.X	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	CN 101208903A	ZL200680007906.X
P00279CN	China	200580051311.X	Switching regulator with variable slope compensation,	Non Provisional	2005-09-08	CN101238424A	ZL200580051311.X
P00282CN	China	200580049438.8	Configurable Data Port For I2C Or Single-Wire Broadcast Interface.	Non Provisional	2005-04-11	CN 101164052A	ZL 200580049438.8
P00285CN	China	200580051106.3	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-08-31		ZL200580051106.3

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00292CN	China	200710004985	Apparatus and method for producing signal conveying circuit status information	Non Provisional	2007-02-14	101079549	101079549
P00293CN	China	200680039159.8	Squaring cell implementing tail current multiplication.	Non Provisional	2006-08-25	CN 101300586A	ZL200680039159.8
P00295CN	China	200710143867	Circuits and methods for adjustable peak inductor current and hysteresis for burst mode in switching regulators	Non Provisional	2007-08-06	101123395	101123395
P00297CN	China	200680047973.4	Switching regulator slope compensation generator circuit.	Non Provisional	2006-08-07	CN101341647A	ZL200680047973.4
P00299CN	China	200680005470	Providing data communication between power supply device and powered device in system for supplying power over communication link	Non Provisional	2006-01-19	CN101124773A	
P00299CND01	China	201110381824.4	Providing Communication Between Power Supply Device And Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-01-19	CN102497274A	ZL201110381824.4
P00301CN	China	200680003199.7	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2006-01-23	CN 101112043A	ZL12006800003199.7
P00303CNABD	China	200680009343.8	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2006-01-24	CN 101147356A	
P00305CN	China	200680005469	Is used for determining a communication cable of the resistance of the mechanism through communication cable system for providing power	Non Provisional	2006-01-23	101124772	101124772
P00306CN	China	200680005471.5	Utilization Of Power Delivered To Powered Device During Detection And Classification Mode.	Non Provisional	2006-01-19	CN101124774A	

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00307CN	China	200610154166.4	Single feedback input for regulation at both positive and negative voltage levels .	Non Provisional	2006-09-15	CN 101018010A	ZL200610154166.4
P00324CN	China	200680054568.5	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-09-01	CN101438623A	ZL200680054568.5
P00325CN	China	200780016267	Circuit and methodology for supplying pulsed current to a load, such as a light emitting diode	Non Provisional	2007-04-30	101438622	101438622
P00328CN	China	200780027787.9	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-05		ZL200780027787.9
P00330CN	China	200780033922.0	Constant power foldback mechanism programmable to approximate safe operating area of pass device for providing connection to load.	Non Provisional	2007-09-07	CN 101529799 A	ZL200780033922.0
P00331CN	China	200780034583.8	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2007-09-17	CN101529358A	ZL200780034583.8
P00332CN	China	200680055871	Circuit and methodology for high-speed, low-power level shifting	Non Provisional	2006-12-19	101523725	101523725
P00336CN	China	200810000488	Adaptive output current control for switching circuits	Non Provisional	2008-01-14	101242143	101242143
P00342CN	China	200810084563	Synchronous rectifier control for synchronous boost converter	Non Provisional	2008-03-25	101277061	101277061
P00353CNABD	China	200710195142.8	Method and apparatus for measuring the voltage of a power source.	Non Provisional	2007-10-26	CN 101266266A	
P00353CND01	China	201110110712	Is used for measuring voltage of power supply method and device for	Non Provisional	2007-11-30	102288916	102288916
P00355CN	China	200710195141.3	Determining average output current in DC-DC converter.	Non Provisional	2007-11-30	CN 101286704A	ZL200710195141.3

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P00356CN	China	200780051280.7	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2007-10-23	200780051280.7	ZL200780051280.7
P00358CNABD	China	2008-10172079.0	Bidirectional Power Converters.	Non Provisional	2008-10-29	CN101425749A	
P00358CND01	China	201510385792.3	Bidirectional Power Converters.	Non Provisional	2015-06-30	CN 105024544A	
			To use automatic battery equalization technique				
P00360CN	China	200910128427	capacitor charging method and system for	Non Provisional	2009-03-12	101540518	101540518
			Voltage Stackable Data Port.				
P00361CN	China	200780052791.0	Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-02		ZL200780052791.0
P00362CN	China	200710187233	Paralleling voltage regulators	Non Provisional	2007-11-16	101344794	101344794
P00377CN	China	200910133302.5	Method and system for bit polarization coding.	Non Provisional	2009-03-31	CN 101552607 A	ZL200910133302.5
			Magnetic Isolation Of Power Sourcing Equipment Control Circuitry.				
P00387CN	China	200880004872.8		Non Provisional	2008-02-13	101663858	ZL200880004872.8
			Circuit, reim, and layout for temperature compensation of metal resistors in semi-conductor chips				
P00392CN	China	200880132107		Non Provisional	2008-11-25	102246115	102246115
			Containing a bearing the electric current of the heat conducting metal foil part of the metal resistor				
P00392CND01	China	201410069657		Non Provisional	2008-11-25	103887025	103887025
			The invention claims a static shielding of temperature compensation of metal resistor				
P00392CND02	China	201410070158		Non Provisional	2008-11-25	103885520	103885520
			Method and System For High Efficiency, Fast Transient Multi-Channel LED Driver.				
P00393CN	China	201010165595.8		Non Provisional	2010-05-07	CN101883458 A	ZL201010165595.8
P00394CN	China	200980149779.0	Linearity In LED Dimmer Control.	Non Provisional	2009-12-09	102282522	ZL 200980149779.0

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P00395CN	China	200980143497	Current ripple reduction circuit for LEDs	Non Provisional	2009-12-09	102203690	102203690
P00396CN	China	200980149778.6	Dimmer Control Leakage Pull Down Using Main Power Device in Flyback Converter.	Non Provisional	2009-12-04	CN102246114A	ZL200980149778.6
P00397CN	China	200980146846.3	Dimmer-Controlled LEDs Using Flyback Converter With High Power Factor.	Non Provisional	2009-12-09	102273327	ZL200980146846.3
P00398CN	China	200910226338	Pfm direct current-direct current converter the load transient state of accelerating responding	Non Provisional	2009-11-20	101741239	101741239
P00409CN	China	200910224817.6	Method and system for variable-gain amplifier.	Non Provisional	2009-11-24		ZL200910224817.6
P00410CN	China	201010290605.0	Feedback control of a DC/DC power converter.	Non Provisional	2010-09-17	CN102025277A	ZL201010290605.0
P00411CN	China	200980153467.7	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2009-12-31	102273036	ZL200980153467.7
P00412CN	China	200980153466	Without master and slave device the automatic multi-component event synchronization and ordering technology	Non Provisional	2009-12-31	102272688	102272688
P00415CNABD	China	201080052651.5	Sequentially Configured Analog to Digital Converter.	Non Provisional	2010-11-19	2013011000277050	
P00425CN	China	201080062383.5	Method And System For Minimum Output-Voltage Battery Charger.	Non Provisional	2010-12-02		ZL201080062383.5
P00427CN	China	201010216029.5	Method And System For Dimming An Offline LED Driver.	Non Provisional	2010-06-30	CN101969712A	ZL201010216029.5
P00438CN	China	201210129656.4	Current Steering Circuit With Feedback.	Non Provisional	2012-04-27	CN102759943 A	ZL 201210129656.4
P00442CNABD	China	201010593621.7	Clean Transition Between CCM and DCM In Valley Current Mode Control Of DC-To-DC Converter.	Non Provisional	2010-12-17	CN102104334	

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P00447CN	China	201110232440.6	Method and System For Extending PWM Dimming Range In LED drivers.	Non Provisional	2011-08-15	CN102378446	ZL201110232440.6
P00448CN	China	201110181342.4	Current Sensor Using Leadframe as Sensing Element.	Non Provisional	2011-06-30	CN 102313832	ZL201110181342.4
P00449CN	China	201110344942.8	Method And System For Detecting And Asserting BUS Speed Condition In A USB Isolated Device.	Non Provisional	2011-11-04	CN102591826 A	ZL201113044942.8
P00451CN	China	201210214658.3	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2012-06-25	CN102843137	ZL201210214658.3
P00453CN	China	201110137815.0	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Non Provisional	2011-05-18	CN102291143A	ZL201110137815.0
P00454CN	China	201110220839.2	Laser Process For Side Plating Of Terminals.	Non Provisional	2011-08-03	CN 102347225A	ZL201110220839.2
P00455CN	China	201110148969.X	Dynamic Compensation of Aging Drift In Current Sense Resistor.	Non Provisional	2011-06-03	102269776	ZL201110148969.X
P00457CN	China	201110162310.X	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-07	102270932	ZL201110162310.X
P00457CND01	China	201410645633.8	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2014-11-05	CN104539159 A	
P00469CN	China	2012101495110	Preventing circuit of system through the pressure of circuit	Non Provisional	2012-05-14	102832608	102832608
P00470CN	China	2012101668656	Balance with a dc/dc converter the temperature of	Non Provisional	2012-05-25	102810981	102810981
P00475CN	China	201310052899	Source bridge rectification	Non Provisional	2013-02-18	103259428	103259428
P00476CN	China	201210201929	Stackable the invention claims a bidirectional a plurality of battery battery of the balancer	Non Provisional	2012-06-15	102891507	102891507
P00481CN	China	201210237934.8	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2012-07-09	CN102882372 A	ZL201210237934.8

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P00483CN	China	201380009671.8	Negative Slope Compensation For Current Mode Switching Power Supply.	Non Provisional	2013-02-14	CN104396130 A	ZL2013800096718
P00486CNABD	China	201410059004.7	Bipolar Transistor With Lowered the 1/F noise.	Non Provisional	2014-02-21	CN 104051508 A	
P00492CN	China	201210425345	Detecting sensor of the heat time constant the wind velocity meter	Non Provisional	2012-10-30	103105506	103105506
P00493CN	China	201210404686.1	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-10-22	2013042500198500	ZL201210404686.1
P00494CN	China	201210545095.6	Primary unit control of resonant inductive power transfer system for optimum efficiency.	Non Provisional	2012-12-14	CN103166327A	ZL2012105450956
P00495CN	China	201210410477.8	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-24	201210410477.8	ZL201210410477.8
P00497CN	China	201210475708.3	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2012-11-21		ZL201210475708.3
P00498CN	China	201310024562.5	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2013-01-23	103312175 A	ZL201310024562.5
P00513CN	China	201310052650.6	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-18		ZL201310052650.6
P00518CN	China	201210060423.3	Methods and System For Erasing Data Stored in Nonvolatile Memory in Low Power Applications.	Non Provisional	2012-03-08		ZL201210060423.3
P00520CN	China	2013102105605	The dc/dc converter is extended to be connected as a dc/dc converter	Non Provisional	2013-05-30	103457455	103457455
P00521CN	China	201310144030.5	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2013-04-23	103513685 A	ZL 201310144030.5
P00529CN	China	201310201189.6	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2013-05-27	CN 103580489 A	ZL201310201189.6
P00531CN	China	201310141680	Analogue-to-digital converter system and method for	Non Provisional	2013-04-22	103378861	ZL201310141680.4

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P00531CN01	China	201711140526.X	Analog-to-Digital Converter System and Method.9,231,611 and 9,331,709: Analog-to-digital converter	Non Provisional	2017-11-16	CN107846223A	
P00531CN02	China	201711139490.3	Analog-to-Digital Converter System and Method.9,231,611 and 9,331,709: Analog-to-digital converter	Non Provisional	2017-11-16	CN107809244	
P00532CN	China	201210436580	Methods and Circuits for Providing Stable Current and Voltage References Based on Currents Flowing Through Ultra-Thin Dielectric Layer Components.	Non Provisional	2012-11-05		ZL201210436580X
P00533CN	China	201310298631.1	Low Power Radio Receiver.	Non Provisional	2013-07-16	CN 103546176A	ZL2013102986311
P00533CN01	China	201711267627.3	Low Power Radio Receiver.	Non Provisional	2017-12-05	CN107959507A	
P00534CN	China	201310693178	Anti-aliasing sampling circuits and analog-to-digital converters	Non Provisional	2013-12-17	103873058	103873058
P00535CN	China	201310322740.2	Phase-Noise Tolerant Sampling.	Non Provisional	2013-07-29	CN103580682A	ZL2013103227402
P00538CN	China	2014100050706	Low Current DC-DC Converter With Integrated Low Current Coulomb Counter.	Non Provisional	2014-01-06	CN 103916014 A	ZL2014100050706
P00539CN	China	201410005414.3	Method and System For Measuring the Resistance of a Resistive Structure.	Non Provisional	2014-01-06	CN 103913639 A	ZL2014100054143
P00541CN	China	201310489165.5	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2013-10-18	CN 103780077 A	ZL201310489165.5
P00542CN	China	201310534392.5	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2013-11-01	CN103812667B	ZL201310534392.5
P00545CN	China	201380051798.6	Used for sensing the need of transmitting electrical power so as to reach the best efficiency of the wireless transmitter of the electric power from the resonant drive	Non Provisional	2013-09-27	104704705	ZL201380051798.6

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P00545CND01	China	201710369012.5	Method and device for wirelessly supplying power to load	Non Provisional	2013-09-27	CN107317382A	
P00546CN	China	201310493896.7	PWM Control for LEDs With Reduced Flicker When Using Spread Spectrum Switching Frequencies.	Non Provisional	2013-10-21	CN 103781240 A	ZL 201310493896.7
P00549CN	China	201380060077.1	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Non Provisional	2013-09-27	CN 105009432 B	ZL201380060077.1
P00553CN	China	201410079659.0	Method and System For Control of DC-DC Converters.	Non Provisional	2014-03-06	CN104052270A	ZL201410079659.0
P00559CN	China	201410151544.8	Poly-Phase Filter With Phase Tuning.	Non Provisional	2014-04-16	CN 104113299 A	ZL201410151544.8
P00560CN	China	201410080701.0	Balun Mixer Circuits	Non Provisional	2014-03-06	104113284	ZL201410080701.0
P00563CN	China	201410139360.X	Voltage Compensated Active Cell Balancing.	Non Provisional	2014-04-08	201410150033221 0	ZL20140139360.X
P00564CN	China	201410080947.8	System And Method For Providing Fast Transient Response With Dynamic Switching Frequency Adjustment	Non Provisional	2014-03-06	104102262	ZL201410080947.8
P00566CN	China	201410351076.9	Power Supply System and Method.	Non Provisional	2014-07-22	201410351076.9	ZL201410351076.9
P00567CN	China	201480051706.9	Switching Topology For Connecting Two Nodes in Electronic System.	Non Provisional	2014-08-18	CN105593778 A	
P00571CN	China	201410267071.8	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-06-16	CN 104243176	ZL201410267071.8
P00572CN	China	201410329021.8	Inrush Control Method with Multiple Switches.	Non Provisional	2014-07-11	CN104283199	ZL201410329021.8
P00572CN02	China	201910132284.2	Inrush Control Method with Multiple Switches.	Non Provisional	2014-07-11	109830947	
P00573CN	China	201410333820.2	Detecting Faults in Hot-Swap Applications.	Non Provisional	2014-07-14	CN104283421A	ZL201410333820.2
P00582CN	China	201480054680	Detection and classification scheme for power over Ethernet system	Non Provisional	2014-10-01	CN105594157A	

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P00585CN	China	201410852103.0	Forward Converter and Secondary Side Switch Controller	Non Provisional	2014-12-31	CN 104795997 A	ZL201410852103.0
P00587CN	China	201510822555.9	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2015-11-24	CN 105629098	ZL 201510822555.9
P00593CN	China	201510025896.3	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Non Provisional	2015-01-19	CN104795989 A	ZL201510025896.3
P00600CN	China	201510051748.9	Detection Scheme For Four Wire Pair Power Over Ethernet System.	Non Provisional	2015-01-30	CN104821886A	ZL201510051748.9
P00601CN	China	2015100676714	Arbitrary Phase Trajectory Frequency Synthesizer.	Non Provisional	2015-02-09	CN104836580A	
P00608CN	China	201580018141.9	Boost Then Floating Buck Mode Converter For Led Driver Using Common Switch Control Signal.	Non Provisional	2015-02-24	CN 106165541 A	ZL201580018141.9
P00610CN	China	2015101664625	Hardware-Based Licensing for Wireless Networks.	Non Provisional	2015-04-09	CN104980924A	
P00611CN	China	201580012438.4	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-04-09	CN106105094A	ZL 201580012438.4
P00615CN	China	201580010717.7	Voltage Regulation of Resonant Power Wireless Receiver.	Non Provisional	2015-03-17	106104967	
P00619CN	China	201510253387.6	Radio Receiver.	Non Provisional	2015-05-18	105099475	ZL201510253387.6
P00621CN	China	201580025317.3	Configuring Signal-Progressing Systems.	Non Provisional	2015-05-13	CN106463039A	
P00623CN	China	201580023535.3	PoDL System With Active dV/dt and dI/dt Control.	Non Provisional	2015-05-15	CN 106464141 A	ZL 201580023535.3
P00624CN	China	201510263206.8	Broadband Integrated RF/Microwave/Millimeter Mixer with Integrated Balun(s).	Non Provisional	2015-05-21	CN105099369A	
P00624CN02	China	201811176787.1	Broadband Integrated RF/Microwave/Millimeter Mixer with Integrated Balun(s).	Non Provisional	2015-05-21	CN109379048A	
P00635CN	China	201510463049.5	Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Non Provisional	2015-07-31	CN 105321900 A	

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P00636CN	China	201510524844.0	Date line power supply (PODL) system and method implemented by the PODL system.	Non Provisional	2015-08-24	CN105391559A	ZL201510524844.0
P00638CN	China	201580043093.9	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Non Provisional	2015-05-07	CN 106575918 A	ZL201580043093.9
P00641CN	China	201510622717.4	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-25	CN 105471687 A	ZL201510622717.4
P00642CN	China	201510446652.2	DCR Inductor Current-Sensing in Four-Switch Buck-Boost Converters.	Non Provisional	2015-07-27	CN 105445524 A	ZL201510446652.2
P00642CN01	China	201810783920.3	DCR Inductor Current-Sensing in Four-Switch Buck-Boost Converters.	Non Provisional	2018-07-17		
P00644CN	China	201580060574.0	Detecting Ground Isolation Fault in Ethernet PoDL System	Non Provisional	2015-11-19	CN107078499A	ZL201580060574.0
P00646CNABD	China	201510463451.3	Exposed, Solderable Heat Spreader For Flipchip Package.	Non Provisional	2015-07-31	105321901	
P00648CN	China	201610990025.X	Circuit Architectures for Protecting Against PoDL Wire Faults.	Non Provisional	2016-11-10	CN106941409A	
P00650CN01	China	201680016657.4	Spread Spectrum For Switch Mode Power Supplies.	Non Provisional	2016-02-29	CN107408882A	
P00651CN	China	201610104467.X	Distortion Compensation Circuit.	Non Provisional	2016-02-25	CN105915185A	ZL201610104467.X
P00652CN	China	201610105174.3	Phase Error Compensation Circuit.	Non Provisional	2016-02-25	CN105915213A	
P00653CN	China	2016100962871	Control Architecture With Improved Transient Response.	Non Provisional	2016-02-22	CN105915030A	
P00654CN	China	2016100968350	Fast Transient Power Supply With a Separated Higher Frequency Current and Low Frequency Path Signal.	Non Provisional	2016-02-22	CN105915037A	

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P00657CNABD	China	201680013970.2	Accurately Detecting Low Current Threshold.	Non Provisional	2016-03-04	CN107430158A	
P00664CN01	China	201680043144.2	LOW POWER SENSOR NODE OPERATION FOR WIRELESS NETWORK	Non Provisional	2018-01-22	CN107852661A	
P00665CN	China	201610356486.1	Maintaining LED driver operating point during PWM off times.	Non Provisional	2016-05-26	CN106211412A	ZL2016103564861
P00666CN	China	201610365878.4	Maintaining output capacitance voltage in LED driver systems during PWM off times.	Non Provisional	2016-05-27	CN106211414A	ZL2016103658784
P00667CN01	China	201680062059.0	Multiple Access Point Wireless Mesh Network.	Non Provisional	2018-04-23	CN108141833A	
P00678CN01	China	201680080526.2	Ripple Monitoring.	Non Provisional	2018-07-27	108603919	
P00680CN	China	201710048026.7	Fast Transient Power Supply With a Separated High Frequency and Low Frequency Path Signals. Provisional Title was: "Control Architecture With Improved Transient Response"	Non Provisional	2017-01-20	CN106992680A	
P00682CN	China	201610423605.0	Energy Storage Device Stack Balancing Using Switched Inductor Background.	Non Provisional	2016-06-15	CN107305971A	
P00683CN	China	201780025431.5	MECHANICALLY-COMPLIANT AND ELECTRICALLY AND THERMALLY CONDUCTIVE LEADFRAMES FOR COMPONENT-ON-PACKAGE CIRCUITS	Non Provisional	2017-04-11	109075151	
P00684CN01	China	201820580658.8	Switchable Termination with Multiple Resistance Selections.	Utility Model	2018-04-23		ZL201820580658.8
P00685CN	China	201710248147.6	Robust Current Sensing with Shared Amplifier for Multi-phase Switching Converter.	Non Provisional	2017-04-17	CN107302310A	ZL 201710248147.6

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P00686CN	China	201710261395.4	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-20	CN107306187A	
P00688CN	China	201710356471.X	Method for Monitoring Bridge Circuitry and Presenting Maintain Power Signature.	Non Provisional	2017-05-19	CN107404384A	
P00689CN01	China	201780033223.X	Transformer-Based Hybrid Power Converters.	Non Provisional	2017-06-02	CN109275349	
P00690CN	China	201610649674.3	Control Architecture With Improved Transient Response.	Non Provisional	2016-08-09	CN106992672A	
P00691CN	China	2017800398720	Wireless Sensing and Battery Storage System.	Non Provisional	2017-06-28	109416389	
P00692CN01	China	201780045728.8	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	109565240	
P00692CNC01	China	201780045778.6	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	109478843	
P00692CNP01	China	201780045767.8	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	109478842	
P00694CN	China	201710612817.8	Technique for Kelvin Sensing Connector Voltage in One-Pair Data PoDL Applications	Non Provisional	2017-07-25	CN107659337A	
P00695CN01	China	201710982667.0	FAULT-TOLERANT POWER NETWORK	Non Provisional	2017-10-20	CN107979083A	
P00696CN01	China	201780025879.7	Method of Reducing Charge Pump Substrate Noise.	Non Provisional	2017-03-21	CN109075709A	
P00704CN01	China	201810267634.1	Trans-impedance Amplifier with Fast Overdrive Recovery	Non Provisional	2018-03-29	108696256	
P00705CN01	China	201810233523.9	Unity Gain Buffer With Two States	Non Provisional	2018-03-21	108627815	
P00706CN01	China	201780045019.X	Communication System Using Hybrid Common Mode Choke and Kelvin Sensing of Voltage.	Non Provisional	2017-07-19	CN109565445A	
P00707CN01	China	201820291318.3	Common Mode Choke and Differential Mode Choke Combination for Data Transmission over Twisted Pair Cable	Utility Model	2018-03-01		ZL201820291318.3
P00712CN01	China	201810410853.0	Disjoint Manager Security for Wireless Networks.	Non Provisional	2018-05-02	108810887	

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P00713CN01	China	201810409726.9	Fixed Topology Schedules for Fast Joining in Time-Synchronized Channel-Hopping Wireless Networks.	Non Provisional	2018-05-02	CN108810994A	
P00755CN01	China	201910462476.X	REVERSE CAPACITOR VOLTAGE BALANCING FOR HIGH CURRENT HIGH VOLTAGE CHARGE PUMP CIRCUITS	Non Provisional	2019-05-30		
P00003EP	European Patent	85304417.0	Nonlinearity correction circuit for bandgap reference.	Non Provisional	1985-06-20	0170391	0170391
P00009EP	European Patent	87309999.8	High speed junction field effect transistor for use in bipolar integrated circuits.	Non Provisional	1987-11-12	0268426	
P00016EP	European Patent	88304032.1	Charge pump circuitry having low saturation voltage and current-limited switch.	Non Provisional	1988-05-04		0292148
P00054EP	European Patent	94100806.2	Digital to analog converter.	Non Provisional	1994-01-20	0607971 A3	607971
P00054EPD01	European Patent	00103327.3	Digital to analog converter.	Non Provisional	1994-01-20	1005171	1005171
P00054EPD02	European Patent	04025462.5	Digital to analog converter.	Non Provisional	1994-01-20	1548946	1548946
P00065EPP01	European Patent	95103762.1	Fluorescent lamp power supply and control unit	Non Provisional	1995-03-15	0673184 A2	0673184
P00067EP	European Patent	94104509.8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	617501	617501
P00068EP	European Patent	93119453.4	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-02	600488	600488
P00073EP	European Patent	07121448.0	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2007-11-23	1931029	1931029
P00073EPD01	European Patent	11009533.8	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2011-12-01	EP2426819	2426819
P00074EP	European Patent	07111883.0	Range compression in oversampling analog-to-digital	Non Provisional	2007-07-05	1876715	1876715

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
			converters using differential input signals.				
P00075EP	European Patent	08100951.6	Systems and methods for providing compact digitally controlled trim of multi-segment circuits.	Non Provisional	2008-01-25	1956716	1956716
P00078EP	European Patent	95105641.5	High-speed switching regulator drive circuit.	Non Provisional	1995-04-13	677861	677861
P00079EP	European Patent	07111882.2	Range compression in oversampling analog-to-digital converters.	Non Provisional	2007-07-05	1903683	1903683
P00080EP	European Patent	07839808.8	Current source with indirect load current signal extraction.	Non Provisional	2007-10-26	2123122	2123122
P00107EP	European Patent	98110504.2	Synchronous switching regulator which employs switch voltage-drop for current sensing.	Non Provisional	1998-06-09	884746	884746
P00114EP	European Patent	98107299	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads	Non Provisional	1998-04-22	0874461	0874461
P00123EP	European Patent	99113598	Active pullup circuitry for open-drain signals	Non Provisional	1999-07-09	0973261	0973261
P00129EP	European Patent	99109383.2	Voltage mode feedback burst mode circuit.	Non Provisional	1999-06-02	967713	967713
P00134EP	European Patent	99115181.2	Delta-sigma modulator with improved full-scale accuracy.	Non Provisional	1999-08-16	EP981205	981205
P00143EP	European Patent	99125910.2	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use.	Non Provisional	1999-12-23	1018799	1018799
P00143EPD01	European Patent	08167445.9	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use.	Non Provisional	1999-12-23	EP2028751	2028751
P00146EP	European Patent	00108049.8	Offset voltage cancellation system for radio frequency power controllers.	Non Provisional	2000-04-20	1047188	1047188

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00148EPABD	European Patent	01107392.1	Control circuit and method for maintaining high efficiency in a buck-boost switching regulator.	Non Provisional	2001-03-26	1146629	
P00174EPABD	European Patent	01126419.9	Power controllers for amplitude modulation.	Non Provisional	2001-11-07	EP 1215816 A2	
P00177EP	European Patent	02009309.2	Methods and apparatus for power measuring receiver.	Non Provisional	2002-04-30	EP 1258734	1258734
P00179EP	European Patent	01129279.4	RMS-to-DC converter with fault detection and recovery .	Non Provisional	2001-12-12	EP 1215504	1215504
P00181EP	European Patent	01129255.4	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2001-12-11	1213655	1213655
P00181EPD01	European Patent	09150579.2	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2056208	2056208
P00181EPD02	European Patent	09150580.0	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2056209	2056209
P00181EPD03	European Patent	09150581.8	Methods and circuitry for interconnecting data and clock	Non Provisional	2009-01-15	2060978	2060978

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			busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.				
P00184EPABD	European Patent	10154414.6	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-07-29		
P00184EPP01	European Patent	04018003.6	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-07-29	EP1508961	1508961
			Circuits and methods for synchronizing non-constant frequency switching regulators with a phase locked loop				
P00188EP	European Patent	02007264	Multi-bit digital input using a single pin .	Non Provisional	2002-03-28	1248352	1248352
P00198EP	European Patent	03008073.3	Multi-bit digital input using a single pin .	Non Provisional	2003-04-04	1355426	1355426
P00198EPD01	European Patent	05018493.6	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14	1608070	1608070
P00198EPD02	European Patent	06005886	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14	1696568	1696568
			Circuits and methods for detecting the presence of a powered device in a powered network.				
P00209EPABD	European Patent	04028578.5	Methods and circuits for frequency modulation that reduce the spectral noise of switching regulators.	Non Provisional	2004-12-02	1545050	
P00210EPABD	European Patent	05008936.6	Adaptive control for inductor based buck-boost voltage regulators	Non Provisional	2005-04-22	1592154	
P00222EP	European Patent	05255667	Common-mode data transmission for power over ethernet system.	Non Provisional	2005-09-14	1635445	1635445
P00224EP	European Patent	05815577.1	DC/DC converter with current limit protection.	Non Provisional	2005-10-21	EP1813056	1813056
P00225EP	European Patent	06250081.4		Non Provisional	2006-01-09	1679780	1679780

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P00228EPABD	European Patent	05256774.0	Switch-Mode Power Supply Voltage Regulator And Methodology.	Non Provisional	2005-11-02	1655825	
P00230EP	European Patent	05761045.3	Network with multiple adjustment elements and sensitivities, and digital-to-analog converter implementing same.	Non Provisional	2005-06-22	1869770	1869770
P00231EP	European Patent	05815960	ANALOG POWER MANAGEMENT WITHIN POWER OVER ETHERNET SYSTEM	Non Provisional	2005-10-20	1813057	1813057
P00233EP	European Patent	06250659.7	Protection for switched step up/step down regulators.	Non Provisional	2006-02-08	1691474	1691474
P00233EPD01	European Patent	08101359.1	Protection for switched step up/step down regulators.	Non Provisional	2008-02-07	EP1914870	1914870
P00234EP	European Patent	06250683.7	Current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP1689070	1689070
P00239EP	European Patent	05726151.3	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29	EP1864553	EP1864553
P00249EPABD	European Patent	05251276.1	Floating gate nonvolatile memory circuits and methods.	Non Provisional	2005-03-03	1575057	
P00251EP	European Patent	06717350.0	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	EP1842121	1842121
P00251EPD01	European Patent	09165453.3	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	2144133	2144133
P00252EP	European Patent	06250680.3	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP 1689069	1689069
P00252EPD01	European Patent	11002431.2	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP2337208	2337208
P00253EP	European Patent	05812353	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING	Non Provisional	2005-10-17	1805898	1805898

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			REDUCED AVERAGE INPUT CURRENT				
P00253EPD01	European Patent	11161019	Analog signal sampling system and method having reduced average input current	Non Provisional	2005-10-17	2343808	2343808
P00254EP	European Patent	05812383	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE DIFFERENTIAL INPUT CURRENT	Non Provisional	2005-10-17	1810406	1810406
P00255EP	European Patent	05810349	ANALOG-TO-DIGITAL CONVERTER WITH REDUCED AVERAGE INPUT CURRENT AND REDUCED AVERAGE REFERENCE CURRENT	Non Provisional	2005-10-17	1803223	1803223
P00256EP	European Patent	06250682.9	Light load current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	1689068	1689068
P00259EP	European Patent	05745504	ADAPTIVE POWER CONTROL FOR HYSTERETIC REGULATORS	Non Provisional	2005-05-09	1872468	1872468
P00259EPD01	European Patent	11003329	Adaptive power control for hysteretic regulators	Non Provisional	2005-05-09	2348623	2348623
P00262EP	European Patent	06773601.7	Variable gain amplifier with temperature compensation and gain linearity enhancement.	Non Provisional	2006-06-20	1897218	1897218
P00263EP	European Patent	06801036.2	Wideband squaring cell.	Non Provisional	2006-08-09		1915720
P00264EP	European Patent	06784986.9	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2006-06-15	EP1897217	1897217
P00265EP	European Patent	06718370	ADJUSTING CURRENT LIMIT THRESHOLDS BASED ON POWER REQUIREMENT OF POWERED DEVICE IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-13	1842326	1842326
P00266EP	European Patent	06718284	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device	Non Provisional	2006-01-13	1842325	1842325

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			In System For Providing Power Over Communication Link				
P00267EP	European Patent	06717526.5	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2006-01-09	EP 1842321	1842321
P00268EP	European Patent	06717528.1	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2006-01-09	1842323	1842323
P00269EP	European Patent	06717527.3	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09	1842322	1842322
P00270EP	European Patent	06717529.9	Detecting legacy powered device in power over ethernet system.	Non Provisional	2006-01-09	EP1842324	1842324
P00271EP	European Patent	06717525.7	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09	EP1869824	1869824
P00272EP	European Patent	06718369.9	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13	1864429	1864429
P00273EP	European Patent	06738267.1	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	1859567	1859567
P00273EPD01	European Patent	10014682.8	Classification mechanism in system for supplying power over communication link.	Non Provisional	2010-11-15	EP2282445	2282445
P00274EP	European Patent	05789074.1	Trim circuits and methodologies for data converters.	Non Provisional	2005-08-19	1872478	EP1872478
P00277EP	European Patent	05255668.5	Switching regulator over voltage reduction circuit and method.	Non Provisional	2005-09-14	1724908	1724908
P00278EP	European Patent	06752391.0	Switching regulator with slope compensation independent of changes in switching frequency.	Non Provisional	2006-05-08	EP1913679	1913679

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P00281EPP01	European Patent	06760623.6	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2006-06-01	1891735	1891735
P00282EP	European Patent	05733704.0	Configurable Data Port For I2C Or Single-Wire Broadcast Interface.	Non Provisional	2005-04-11	1869563	1869563
P00283EP	European Patent	06251816	Circuit and method of detecting and resolving stuck I2C buses	Non Provisional	2006-03-31	1710709	1710709
P00285EP	European Patent	05792954.9	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-08-31	1905149	1905149
P00290EP	European Patent	06787052.7	Peak charging current modulation for burst mode conversion.	Non Provisional	2006-07-13	1922802	1922802
P00293EP	European Patent	06813730.6	Squaring cell implementing tail current multiplication.	Non Provisional	2006-08-25	1946241	1946241
P00294EPABD	European Patent	06017241.8	Circuits and methods for canceling signal dependent capacitance.	Non Provisional	2006-08-18	1760887	
P00296EP	European Patent	06800924.0	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2006-08-07	EP1932236	1932236
P00296EPD01	European Patent	12000109.4	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2012-01-10	EP2445096	2445096
P00297EP	European Patent	06800923.2	Switching regulator slope compensation generator circuit.	Non Provisional	2006-08-07	1969705	1969705
P00299EP	European Patent	06718758.3	Providing data communication between power supply device and powered device in system for supplying power over communication link.	Non Provisional	2006-01-19	1842328	1842328
P00300EP	European Patent	06800930.7	Controlling Switching Circuits To Balance Power Or Current Drawn From Multiple Power Supply Inputs.	Non Provisional	2006-08-08	2033290	2033290

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00301EP	European Patent	06719192.4	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2006-01-23	EP1859566	1859566
P00302EP	European Patent	06838293.6	Power Sourcing Equipment Having Bipolar Junction Transistor For Controlling Power Supply And Supporting AC Disconnect-Detection Function.	Non Provisional	2006-11-22	1961152 A1	1961152
P00303EPABD	European Patent	06719322.7	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2007-07-25	1842330	
P00304EP	European Patent	06838292.8	Combination of high-side and low-side current control in system for providing power over communication link.	Non Provisional	2006-11-22	1961151	1961151
P00305EP	European Patent	06719193.2	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2006-01-23	1842329	1842329
P00306EP	European Patent	06718757.5	Utilization Of Power Delivered To Powered Device During Detection And Classification Mode.	Non Provisional	2006-01-19	1842327	
P00319EP	European Patent	06122849.0	Methods and circuits for output over-voltage reduction in switching regulators.	Non Provisional	2006-10-24	1806830	1806830
P00320EP	European Patent	06836221.9	Power management mechanism in system for supplying power over communication link.	Non Provisional	2006-10-10	1964308 A1	1964308
P00324EP	European Patent	06802861.2	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-09-01	1994799	1994799
P00325EP	European Patent	07776492	CIRCUIT AND METHODOLOGY FOR SUPPLYING PULSED	Non Provisional	2007-04-30	2016801	2016801

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			CURRENT TO A LOAD, SUCH AS A LIGHT EMITTING DIODE				
P00326EP	European Patent	03017664.8	High linearity digital variable gain amplifier.	Non Provisional	2003-08-13	1424772	1424772
P00326EPABD	European Patent	10173291.5	High linearity digital variable gain amplifier.	Non Provisional	2010-08-18	EP2284990	
P00326EPABD1	European Patent	10173281.6	High linearity digital variable gain amplifier.	Non Provisional	2010-08-18	EP2278706	
P00328EP	European Patent	07754823.8	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-05	2047589	2047589
P00329EP	European Patent	06827753.2	High linearity low noise variable gain amplifier with continuous gain control.	Non Provisional	2006-11-13	2033308	2033308
			Constant power foldback mechanism programmable to approximate safe operating area of pass device for providing connection to load.				
P00330EP	European Patent	07811698.5	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2007-09-07	2060059A2	2060059
P00331EP	European Patent	07838429.4	Circuit and methodology for high-speed, low-power level shifting.	Non Provisional	2007-09-17	2064609	2064609
P00332EP	European Patent	06845700.1	Programmable conduction mode control for switching circuits.	Non Provisional	2006-12-19	2064811	
P00333EP	European Patent	07121449.8	Light load regulator for isolated flyback converter.	Non Provisional	2007-11-23	1928079	1928079
P00334EP	European Patent	07106585.8	Light load regulator for isolated flyback converter.	Non Provisional	2007-04-20	1885051	1885051
P00334EPABD	European Patent	12006349.0	Regulator for isolated flyback power supply using primary side sensing.	Non Provisional	2012-09-10	EP2549636	
P00335EPABD	European Patent	07113960.4	ADAPTIVE OUTPUT CURRENT CONTROL FOR SWITCHING CIRCUITS	Non Provisional	2007-08-07	1919068	
P00336EP	European Patent	07862802		Non Provisional	2007-12-12	2122815	2122815

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00337EPABD	European Patent	07852793.4	Square cell having wide dynamic range and power detector implementing same.	Non Provisional	2007-10-17	2089727	
P00340EP	European Patent	12171032.1	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	2533248	2533248
P00346EP	European Patent	06845202.8	Providing Detailed Information On Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-12-12	1964309	1964309
P00347EPABD	European Patent	06827644.3	Integrated powered device connector in system for supplying power over communication link.	Non Provisional	2006-11-08	1961150 A1	
P00348EP	European Patent	06837211.9	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Non Provisional	2006-11-08	1958375	1958375
P00356EP	European Patent	07852890.8	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2007-10-23	2111705	2111705
P00361EP	European Patent	07875257.3	Voltage Stackable Data Port.	Non Provisional	2007-11-02	2132855	2132855
P00362EP	European Patent	08101358.3	Monitoring Cells In Energy Storage System .	Non Provisional	2008-02-07	2015158	2015158
P00363EP	European Patent	10004454.4	Paralleling voltage regulators. Complex-Admittance Digital-To-Analog Converter.	Non Provisional	2010-04-27	2246985	2246985
P00367EP	European Patent	11000785.3	Time-Multiplexed Residue Amplifier.	Non Provisional	2011-02-01	EP2355357	2355357
P00368EP	European Patent	08870490.3	Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.	Non Provisional	2008-12-24	EP2235751	2235751
P00370EP	European Patent	11707522	CHARGE PUMP WITH GLITCHLESS TERMINAL CURRENTS	Non Provisional	2011-02-22	2539995	2539995

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00373EP	European Patent	09169228.5	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2009-09-02	2159841	2159841
P00373EPD01	European Patent	11004204.1	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2011-05-19	EP2362417	2362417
P00376EP	European Patent	08168692	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias	Non Provisional	2008-11-07	2184858	2184858
P00376EPD01	European Patent	13005146.9	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2013-10-30	EP2713511	2713511
P00377EP	European Patent	09157010.1	Method and system for bit polarization coding	Non Provisional	2009-03-31	EP2107745	2107745
P00380EP	European Patent	08796043.1	Single pass INL trim algorithm for networks.	Non Provisional	2008-06-27	2304875	2304875
P00382EP	European Patent	10150371.2	Extending Input to Output Voltage Range in Multiple Channel Switching Regulator Applications.	Non Provisional	2010-01-08	EP2209194	2209194
P00383EP	European Patent	10808555.6	Switch Mode Power Supply With Dynamic Topology.	Non Provisional	2010-08-06	2465017	
P00385EP	European Patent	12007591.6	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2012-11-07	EP2590329 A1	2590329
P00387EP	European Patent	08729721.4	Magnetic Isolation Of Power Sourcing Equipment Control Circuitry.	Non Provisional	2008-02-13	2127201	2127201
P00392EP	European Patent	08876475	CIRCUIT, TRIM, AND LAYOUT FOR TEMPERATURE COMPENSATION OF METAL RESISTORS IN SEMI-CONDUCTOR CHIPS	Non Provisional	2008-11-25	2356533	2356533
P00393EP	European Patent	10004814.9	Method and System For High Efficiency, Fast Transient Multi-Channel LED Driver.	Non Provisional	2010-05-06	2252131	2252131
P00395EP	European Patent	09832456.9	Current ripple reduction circuit for LEDs	Non Provisional	2009-12-09	2356532	2356532

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P00404EP	European Patent	10151339.8	Circuitry And Methodology Protecting a Boost DC/DC Converter.	Non Provisional	2010-01-21	2211449	2211449
P00406EP	European Patent	10150693.9	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2010-01-13	2207258	2207258
P00406EPD01	European Patent	12008106.2	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2012-12-04	EP2575248 A1	2575248
P00408EP	European Patent	10005284.4	Chopper Stabilized Bandgap Reference Circuit And Methodology For Voltage Regulators.	Non Provisional	2010-05-20	EP2256580A3	
P00409EP	European Patent	09176801.0	Method and system for variable-gain amplifier.	Non Provisional	2009-11-23	2190115	2190115
P00410EP	European Patent	10009843.3	Feedback control of a DC/DC power converter.	Non Provisional	2010-09-17	EP2299575	2299575
P00411EP	European Patent	09837198.2	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2009-12-31		2377219
P00412EP	European Patent	09837200	AUTONOMOUS MULTI-DEVICE EVENT SYNCHRONIZATION AND SEQUENCING TECHNIQUE ELIMINATING MASTER AND SLAVE ASSIGNMENTS	Non Provisional	2009-12-31	2376994	2376994
P00415EPABD	European Patent	10832242.1	Sequentially Configured Analog to Digital Converter.	Non Provisional	2010-11-19	2502350	
P00417EP	European Patent	09838530.5	Pulse-Width Modulation ("PWM") With Independently Adjustable Duty Cycle And Frequency Using Two Adjustable Delays.	Non Provisional	2009-07-17	2387823	
P00418EP	European Patent	10154584.6-2206	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2010-02-24	EP2284640	2284640

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P00418EPD01	European Patent	14000301.3	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2014-01-28	2728431	2728431
P00419EPABD	European Patent	10727568.7	Monolithic Voltage Reference Device With Internal, Multi-Temperature Drift Data And Related Testing Procedures.	Non Provisional	2010-06-01		
P00420EP	European Patent	EP10160094.8	Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Non Provisional	2010-04-15	EP2259161 A2	2259161
P00421EP	European Patent	10158030	Average inductor current mode switching converters	Non Provisional	2010-03-26	2234256	2234256
P00422EP	European Patent	10159567	Buck-mode boost converter with regulated output current	Non Provisional	2010-04-09	2239834	2239834
P00423EP	European Patent	10014953.3	Method and system for reduced phase noise in a BICMOS clock driver	Non Provisional	2010-11-24	2326003	2326003
P00427EP	European Patent	10006723.0	Method And System For Dimming An Offline LED Driver.	Non Provisional	2010-06-29	EP2271181A1	2271181
P00431EP	European Patent	10009841.7	Extending Achievable Duty Cycle Range in a DC/DC Forward Converter With Active Clamp Reset.	Non Provisional	2010-09-17	EP2299579	2299579
P00432EP	European Patent	10009842	Improving the accuracy of a volt-second clamp in an isolated dc/dc converter	Non Provisional	2010-09-17	2299573	2299573
P00432EPD01	European Patent	16001187.0	IMPROVING THE ACCURACY OF A VOLT-SECOND CLAMP IN AN ISOLATED DC/DC CONVERTER	Non Provisional	2010-09-17	3091650	
P00433EP	European Patent	10009840.9	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2010-09-17	EP2299578	2299578
P00433EPD01	European Patent	11000951.1	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2317634	2317634
P00433EPD02	European Patent	11000952.9	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2323246	2323246

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P00434EP	European Patent	10014625.7	Method And System For Improving Limiting Amplifier Phase Noise For Low Slew-Rate Input Signals.	Non Provisional	2010-11-15	EP2323256	2323256
P00438EP	European Patent	12165770.4	Current Steering Circuit With Feedback.	Non Provisional	2012-04-26	EP2518900	2518900
P00439EP	European Patent	10009844.1	DC/DC Converter Overcurrent Protection.	Non Provisional	2010-09-17	EP2299570	2299570
P00441EP	European Patent	10015745.2	Continuously Switching Buck-Boost Control.	Non Provisional	2010-12-16	EP2337206	2337206
P00441EPD01	European Patent	11005360.0	Continuously Switching Buck-Boost Control.	Non Provisional	2011-06-30	EP2378650 A1	EP2378650
P00442EPABD	European Patent	10015834.4	Clean Transition Between CCM and DCM In Valley Current Mode Control Of DC-To-DC Converter.	Non Provisional	2010-12-20	EP2337201	
P00443EP	European Patent	10787615.3	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2010-11-19	EP2504947	2504947
P00445EP	European Patent	11717836.8	Stacked Interposer Leadframes.	Non Provisional	2011-04-14		2557726
P00445EPD01	European Patent	13003931.6	Stacked Interposer Leadframes.	Non Provisional	2013-08-06	EP2662892	2662892
P00446EP	European Patent	10799210.9	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Non Provisional	2010-12-17	EP2517034	2517034
P00447EP	European Patent	11006618.0	Method and System For Extending PWM Dimming Range In LED drivers.	Non Provisional	2011-08-11	EP2418918A1	2418918
P00449EP	European Patent	11008786.3	Method And System For Detecting And Asserting BUS Speed Condition In A USB Isolated Device.	Non Provisional	2011-11-04	EP2450801 (A1)	2450801
P00450EPABD	European Patent	11003282.8	Switching Scheme For Step Up-Step Down Converters Using Fixed Frequency Current-Mode Control.	Non Provisional	2011-04-19	EP2378649	

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P00451EP	European Patent	12004634.7	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2012-06-20	EP2538562 A2	2538562
P00453EP	European Patent	11004111.8	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Non Provisional	2011-05-18	EP2388922	2388922
P00455EP	European Patent	11004552.3	Dynamic Compensation of Aging Drift In Current Sense Resistor.	Non Provisional	2011-06-03	EP2392931	2392931
P00456EP	European Patent	12000890.9	Circuits for accurately measuring temperature of semiconductor junctions	Non Provisional	2012-02-10	EP2487476	2487476
P00457EP	European Patent	11004553.1	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	EP2393190	2393190
P00457EPD01	European Patent	16002475.8	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	3157150	
P00462EP	European Patent	12005563	I2C isolated, bidirectional communication system	Non Provisional	2012-07-31	2555122	2555122
P00463EP	European Patent	11793633	BIAS POINT SETTING FOR THIRD ORDER LINEARITY OPTIMIZATION OF CLASS A AMPLIFIER	Non Provisional	2011-11-29	2647123	2647123
P00464EP	European Patent	11191991.6	Third Order Intermodulation Cancellation By In-Line Generated Signal.	Non Provisional	2011-12-03	EP2461478	2461478
P00470EP	European Patent	12169479	Balancing temperatures in a multi-phase dc/dc converter	Non Provisional	2012-05-25	2528215	2528215
P00471EP	European Patent	12003032.5	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Non Provisional	2012-04-30	EP2520942	2520942
P00471EPD01	European Patent	17000762.9	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Non Provisional	2017-05-03	3299824	
P00472EP	European Patent	12003031.7	Isolated Communications Interface.	Non Provisional	2012-04-30	EP2518957	2518957
P00475EP	European Patent	13000787	Active bridge rectification	Non Provisional	2013-02-15	2629411	

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P00476EP	European Patent	12004497.9	Stackable Bi-Directional Multicell Battery Balancer.	Non Provisional	2012-06-14	2538519	
P00477EP	European Patent	12170949.7	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533246	EP2533246
P00478EP	European Patent	12171026.3	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533247	2533247
P00479EPABD	European Patent	12171039.6	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	2533249	
P00481EP	European Patent	12175986.4	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2012-07-11	EP2546966 A2	EP2546966
P00482EP	European Patent	12004632.1	Radar System and Method For Providing Information On Movements of Object's Surface.	Non Provisional	2012-06-20	EP2560021 A1	2560021
P00483EPABD	European Patent	13707959.6	Negative Slope Compensation For Current Mode Switching Power Supply.	Non Provisional	2013-02-15		
P00486EPABD	European Patent	14000884.8	Bipolar Transistor With Lowered the 1/F noise.	Non Provisional	2014-03-12	EP2779241	
P00491EP	European Patent	12753339.6	Power Combining In Power Over Ethernet Systems.	Non Provisional	2012-08-21	EP2727285	2727285
P00492EP	European Patent	12275154	Anemometer detecting thermal time constant of sensor	Non Provisional	2012-09-28	2592425	2592425
P00493EP	European Patent	12007270.7	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-10-19	2583858	2583858
P00495EP	European Patent	12007313.5	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-24	EP2587718	2587718
P00496EP	European Patent	12193463.2	Second Order Intermodulation Canceller.	Non Provisional	2012-11-20	2605412 A1	2605412
P00497EP	European Patent	13150881.4	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2013-01-10	EP2621069	2621069

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P00498EP	European Patent	13158838.6	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2013-03-12	EP2639951	2639951
P00499EP	European Patent	12193843.5	Third-Order Intermodulation Cancellation for RF Transconductors.	Non Provisional	2012-11-22	EP2605402	EP2605402
P00500EP	European Patent	12723319.5	High Side Current Sense Amplifier.	Non Provisional	2012-05-09	EP2839579	2839579
P00503EP	European Patent	5731559	Diagraph Based Mesh Communication Network	Non Provisional	2005-03-25	1730910	
P00513EP	European Patent	13000683.6	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-08	EP2626862	2626862
P00518EP	European Patent	12001597.9	Methods and System For Erasing Data Stored in Nonvolatile Memory in Low Power Applications.	Non Provisional	2012-03-08	2498259	2498259
P00521EP	European Patent	13275075.3	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2013-03-22	EP2680419	2680419
P00529EP	European Patent	13275116.5	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2013-05-14	EP2709253A3	2709253
P00530EP	European Patent	13004202.1	Frequency Mixer Topology Providing High Linearity, Low Noise, High Gain.	Non Provisional	2013-08-26	2704315	2704315
P00531EP	European Patent	13002092	Analog-to-digital converter system and method	Non Provisional	2013-04-22	2654208	
P00532EP	European Patent	12007509.8	Methods and Circuits for Providing Stable Current and Voltage References Based on Currents Flowing Through Ultra-Thin Dielectric Layer Components.	Non Provisional	2012-11-02	2592521	
P00533EP	European Patent	13003571.0	Low Power Radio Receiver.	Non Provisional	2013-07-16	EP2688215	2688215
P00533EPD01	European Patent	17000415.4	Low Power Radio Receiver.	Non Provisional	2017-03-14	3249822	602013061672.8
P00533EPD01	European Patent	17000415.4	Low Power Radio Receiver.	Non Provisional	2017-03-14	3249822	3249822

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P00534EP	European Patent	13005868.8	Anti-aliasing sampling circuits and analog-to-digital converters	Non Provisional	2013-12-17	2744112	2744112
P00535EP01	European Patent	13003775.7	Phase-Noise Tolerant Sampling.	Non Provisional	2013-07-29	EP2711725	2711725
P00535EP02	European Patent	19156656.1	Phase-Noise Tolerant Sampling.	Non Provisional	2013-07-29		
			Method for Voltage Regulation of Switch Mode Power Supplies Implementing Burst Mode Operation.				
P00536EP	European Patent	13004815.0	Power Supply System Having Input Node and Output Node and Method of Supplying Power From Input Node to Output Node	Non Provisional	2013-10-07	EP2717447	2717447
P00538EP	European Patent	14000003.5	Method and System For Measuring the Resistance of a Resistive Structure.	Non Provisional	2014-01-02	EP2752965	2752965
P00539EP	European Patent	14000004.3	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2014-01-02	2752672	
P00541EP	European Patent	13186691.5	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2013-09-30	EP2722987	2722987
P00542EP	European Patent	13186007.4	Address translation in I2C data communications system	Non Provisional	2013-09-25	2728793	2728793
P00544EP	European Patent	14000608	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2014-02-20	2778941	2778941
P00545EP	European Patent	13773573	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2013-09-27	2904688	2904688
P00545EPD01	European Patent	16202486.3	PWM Control for LEDs With Reduced Flicker When Using Spread Spectrum Switching Frequencies.	Non Provisional	2016-12-06	EP3157130	3157130
P00546EP	European Patent	13186476.1	Monitoring of Channel Stability And Interference in Wireless Networks.	Non Provisional	2013-09-27	EP2723146	2723146
P00548EP	European Patent	14001424.2		Non Provisional	2014-04-17	2802167	2802167

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P00549EP	European Patent	13776655.6	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Non Provisional	2013-09-27	EP2920872	2920872
P00550EP	European Patent	13862985.2	Power Converter For Generating Both Positive and Negative Output Signals.	Non Provisional	2013-12-13	2932590	2932590
P00555EP	European Patent	13198155.7	High-Frequency RMS-DC Converter Using Chopper-Stabilized Square Cells.	Non Provisional	2013-12-18	EP2770334	2770334
P00556EP	European Patent	14001075.2	Synchronized Charge Pump Driven Input Buffer and Method.	Non Provisional	2014-03-21	2922207	
P00557EPABD	European Patent	14001074.5	Thermocouple Open-Circuit Detection Circuit and Method.	Non Provisional	2014-03-21	EP2921831	
P00558EP	European Patent	14001073.7	Rotating 3-Wire Resistance Temperature Detection Excitation Current Sources and Method.	Non Provisional	2014-03-21	EP2921832	2921832
P00561EP	European Patent	14000727.9	Leakage Compensation for Switched Capacitor Integrators.	Non Provisional	2014-02-28	EP2779444	2779444
P00563EP	European Patent	14001261.8	Voltage Compensated Active Cell Balancing.	Non Provisional	2014-04-04	2787594	
P00565EP	European Patent	14001697.3	Resolution-boosted sigma delta analog-to-digital converter.	Non Provisional	2014-05-14	EP2811654	2811654
P00567EP	European Patent	14846595.8	Switching Topology For Connecting Two Nodes in Electronic System.	Non Provisional	2014-08-18	EP3047344	
P00571EP	European Patent	14002012.4	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-06-11	EP2816759	2816759
P00572EP	European Patent	14002344.1	Inrush Control Method with Multiple Switches.	Non Provisional	2014-07-08	2852018	
P00573EP	European Patent	14002300.3	Detecting Faults in Hot-Swap Applications.	Non Provisional	2014-07-14	2827160	2827160
P00575EPABD	European Patent	14002459.7	Interface Circuit For Driving Fully-Differential Circuits.	Non Provisional	2014-07-16	EP2827501	
P00576EP	European Patent	14002828	Accurate current sensing in bridge applications without	Non Provisional	2014-08-13	2840407	2840407

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			amplifier having high common mode rejection ratio				
			DETECTION AND CLASSIFICATION SCHEME FOR POWER OVER ETHERNET SYSTEM				
P00582EP	European Patent	14786558	Isolated Bootstrapped Switch.	Non Provisional	2014-10-01	3053299	
P00583EP	European Patent	14002509.9	Bipolar Isolated High Voltage Sampling Network.	Non Provisional	2014-07-18	EP2866347	2866347
P00584EP	European Patent	14158410.2	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2014-03-07	2869305	2869305
P00587EP	European Patent	15003333.0	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2015-11-23	3024172	
P00589EP	European Patent	14766294.4	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Non Provisional	2014-08-28	EP3138365	3138365
P00593EP	European Patent	15000109.7	Detection Scheme For Four Wire Pair Power Over Ethernet System.	Non Provisional	2015-01-16	EP2897270	2897270
P00600EP	European Patent	1500281.4	Arbitrary Phase Trajectory Frequency Synthesizer	Non Provisional	2015-01-30	2903205	
P00601EP	European Patent	15000352	Cancellation Of Distortion Induced by Elevated OP-AMP Bias Current.	Non Provisional	2015-02-06	2905902	2905902
P00602EPABD	European Patent	15000351.5	Bootstrap Sampling Circuit With Accurately Averaging	Non Provisional	2015-02-06	EP2908433	
P00603EP	European Patent	15000760.7	Pre-Charge Circuit.	Non Provisional	2015-03-13	EP2922065	2922065
P00608EP	European Patent	15708415.3	Boost Then Floating Buck Mode Converter For Led Driver Using Common Switch Control Signal.	Non Provisional	2015-02-24	EP3127399	
P00610EP	European Patent	15000998.3	Hardware-Based Licensing for Wireless Networks.	Non Provisional	2015-04-08	EP2930964	2930964

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P00611EP	European Patent	15719055	BROADBAND POWER COUPLING/DECOUPLING NETWORK FOR PoDL	Non Provisional	2015-04-09	3130105	3130105
P00613EPABD	European Patent	15001040.3	Converting Time-Encoded Signal Into Analog Output.	Non Provisional	2015-04-08	2961066	
P00614EP	European Patent	15001050.2	Suppressing Dielectric Absorption Effects In Sample-And-Hold Systems.	Non Provisional	2015-04-13	2933800	
P00615EP	European Patent	15779915.6	Voltage Regulation in Resonant Power Wireless Receiver.	Non Provisional	2015-03-17	EP3134957	
P00618EP	European Patent	15001197.1	Low-Voltage Analog Variable Gain Amplifier With Enhanced Linearity.	Non Provisional	2015-04-22	2942869	
P00619EP	European Patent	15001492.6	Improved radio receiver.	Non Provisional	2015-05-18	EP2945292	2945292
P00621EP	European Patent	15792573.6	Configuring Signal-Progressing Systems.	Non Provisional	2015-05-13	3143603	
P00623EP	European Patent	15727762.5	PoDL System With Active dV/dt and dI/dt Control.	Non Provisional	2015-05-15	EP3143722	3143722
P00624EP	European Patent	15001518.8	Broadband Integrated RF/Microwave/Millimeter Mixer with Integrated Balun(s).	Non Provisional	2015-05-20	2947767	
P00635EP	European Patent	15002262.2	Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Non Provisional	2015-07-30	2980847	
P00636EP	European Patent	15002497	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-21	2991270	2991270
P00638EP	European Patent	15722416.3	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Non Provisional	2015-05-07	3186877	3186877
P00641EP	European Patent	15002779.5	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-28	EP3001564	3001564
P00642EP	European Patent	15002415.6	DCR Inductor Current-Sensing in Four-Switch Buck-Boost Converters.	Non Provisional	2015-08-13	3002861	

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P00644EP	European Patent	15813948.5	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19	3221998	3221998
P00646EPABD	European Patent	15002260.6	Exposed, Solderable Heat Spreader For Flipchip Package.	Non Provisional	2015-07-30	EP2980846	
P00647EP	European Patent	15002058.4	Peak-Buck Peak-Boost Current Mode Control for Switched Step-Up Step-Down Regulators.	Non Provisional	2015-07-09	3002860	
P00648EP	European Patent	16002547.4	Circuit Architectures for Protecting Against PoDL Wire Faults.	Non Provisional	2016-11-30	EP3176978A1	3176978
P00650EP01	European Patent	16720586.3	Spread Spectrum For Switch Mode Power Supplies.	Non Provisional	2016-02-29	3271999	
P00651EP	European Patent	16000320.8	Distortion Compensation Circuit.	Non Provisional	2016-02-09	EP3062437	
P00652EP	European Patent	16000425.5	Phase Error Compensation Circuit.	Non Provisional	2016-02-22	3062438	
P00657EP01	European Patent	16716950.7	Accurately Detecting Low Current Threshold.	Non Provisional	2017-09-08	3265833	
P00663EP	European Patent	16001081.5	System With Sleep and Wake up Control Over DC Path.	Non Provisional	2016-05-12	EP3094044	3094044
P00664EP01	European Patent	16800516.3	LOW POWER SENSOR NODE OPERATION FOR WIRELESS NETWORK	Non Provisional	2016-05-19	3298710	
P00667EP01	European Patent	16757794.9	Multiple Access Point Wireless Mesh Network.	Non Provisional	2016-08-17	3338493	
P00677EP	European Patent	16001649.9	Double Balanced Field-Effect Transistor Mixer With Direct Single-Ended Intermediate Frequency Output.	Non Provisional	2016-07-27	3168984	
P00678EP01	European Patent	16871185.1	Ripple Monitoring.	Non Provisional	2016-05-16	3384301	
P00683EP	European Patent	17719130.1	MECHANICALLY-COMPLIANT AND ELECTRICALLY AND THERMALLY CONDUCTIVE LEADFRAMES FOR COMPONENT-ON-PACKAGE CIRCUITS	Non Provisional	2017-04-11	3449502	

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P00686EP	European Patent	17000671.2	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-20	3236615	3236615
P00688EP	European Patent	17000811.4	Method for Monitoring Bridge Circuitry and Presenting Maintain Power Signature.	Non Provisional	2017-05-10	3247071	3247071
P00689EP01	European Patent	17729334.7	Transformer-Based Hybrid Power Converters.	Non Provisional	2017-06-02	3465894	
P00691EP01	European Patent	17821141.3	Wireless Sensing and Battery Storage System.	Non Provisional	2017-06-28	3475715	
P00692EP01	European Patent	178280913	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	3485562	
P00692EPC01	European Patent	17828093.9	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	3485561	
P00692EPP01	European Patent	17828092.1	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	3485560	
P00694EP	European Patent	17001282.7	Technique for Kelvin Sensing Connector Voltage in One-Pair Data PoDL Applications	Non Provisional	2017-07-25	3276881	3276881
P00695EP01	European Patent	17001715.6	Fault-Tolerant Power Node Analog to Digital Conversion Yielding Exponential Results	Non Provisional	2017-10-17	3313021	3313021
P00697EP	European Patent	17000566.4	REVERSE CAPACITOR VOLTAGE BALANCING FOR HIGH CURRENT HIGH VOLTAGE CHARGE PUMP CIRCUITS	Non Provisional	2017-04-04	3370146	3370146
P00755EP01	European Patent	19180221.4	Paralleling voltage regulators.	Non Provisional	2019-06-14		
P00362FI	Finland	08101358.3	Nonlinearity correction circuit for bandgap reference.	Non Provisional	2008-02-07		2015158
P00003FR	France	85304417.0	Charge pump circuitry having low saturation voltage and current-limited switch.	Non Provisional	1985-06-20	0170391	0170391
P00016FR	France	88304032.1	Digital to analog converter.	Non Provisional	1988-05-04		0292148
P00054FR	France	94100806.2	Digital to analog converter.	Non Provisional	1994-01-20	607971	607971
P00054FRD01	France	00103327.3	Digital to analog converter.	Non Provisional	1994-01-20	1005171	1005171
P00054FRD02	France	04025462.5	Digital to analog converter.	Non Provisional	1994-01-20	1548946	1548946
P00067FR	France	94104509.8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	617501	617501

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P00068FR	France	93119453.4	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-02	600488	600488
P00073FR	France	07121448.0	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2007-11-23	1931029	1931029
P00073FRD01	France	11009533.8	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2011-12-01	EP2426819	2426819
P00074FR	France	07111883.0	Range compression in oversampling analog-to-digital converters using differential input signals.	Non Provisional	2007-07-05	1876715	1876715
P00075FR	France	08100951.6	Systems and methods for providing compact digitally controlled trim of multi-segment circuits.	Non Provisional	2008-01-25	1956716	1956716
P00079FR	France	07111882.2	Range compression in oversampling analog-to-digital converters.	Non Provisional	2007-07-05	1903683	1903683
P00080FR	France	07839808.8	Current source with indirect load current signal extraction.	Non Provisional	2007-10-26	2123122	2123122
P00107FR	France	98110504.2	Synchronous switching regulator which employs switch voltage-drop for current sensing.	Non Provisional	1998-06-09	884746	884746
P00114FR	France	98107299	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads	Non Provisional	1998-04-22	0874461	0874461
P00123FR	France	99113598	Active pullup circuitry for open-drain signals	Non Provisional	1999-07-09	0973261	0973261
P00129FR	France	99109383.2	Voltage mode feedback burst mode circuit.	Non Provisional	1999-06-02	967713	967713
P00134FR	France	99115181.2	Delta-sigma modulator with improved full-scale accuracy.	Non Provisional	1999-08-16	EP981205	981205
P00143FR	France	99125910.2	Low noise step-down switching regulator circuits with	Non Provisional	1999-12-23	1018799	1018799

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			programmable slew rate limiter and methods of use.				
P00143FRD01	France	08167445.9	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use.	Non Provisional	1999-12-23	EP2028751	2028751
P00146FR	France	00108049.8	Offset voltage cancellation system for radio frequency power controllers.	Non Provisional	2000-04-20	1047188	1047188
P00153FR	France	0104022	The pulse width modulation type linear	Non Provisional	2001-03-26	2806857	2806857
P00177FR	France	02009309.2	Methods and apparatus for power measuring receiver.	Non Provisional	2002-04-30	EP 1258734	1258734
P00179FR	France	01129279.4	RMS-to-DC converter with fault detection and recovery .	Non Provisional	2001-12-12	EP 1215504	1215504
			Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.				
P00181FR	France	01129255.4	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2001-12-11	1213655	1213655
P00181FRD01	France	09150579.2	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2056208	2056208
P00181FRD02	France	09150580.0	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and	Non Provisional	2009-01-15	2056209	2056209

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			circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.				
			Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2060978	2060978
P00181FRD03	France	09150581.8	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-07-29	EP1508961	1508961
P00184FRP01	France	04018003.6	Circuits and 1995, in order to improve the performance of an element 10 of application	Non Provisional			
P00185FRD01	France	0215367	Circuits and 1995, in order to improve the performance of an element 10 of application	Non Provisional	2002-12-05	2837059	2837059
			Circuits and 1995, in order to improve the performance of an element 10 of application	Non Provisional			
P00185FRD02	France	0306869	Circuits and methods for synchronizing non-constant frequency switching regulators with a phase locked loop	Non Provisional	2003-06-06	2841730	2841730
			Multi-bit digital input using a single pin .	Non Provisional			
P00188FR	France	02007264	Multi-bit digital input using a single pin .	Non Provisional	2002-03-28	1248352	1248352
P00198FR	France	03008073.3	Multi-bit digital input using a single pin .	Non Provisional	2003-04-04	1355426	1355426
P00198FR01	France	05018493.6	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		1608070
P00198FR02	France	06005886	Adaptive control for inductor based buck-boost voltage regulators	Non Provisional	2003-04-14		1966568
			Common-mode data transmission for power over ethernet system.	Non Provisional	2005-09-14	1635445	1635445
P00222FR	France	05255667					
P00224FR	France	05815577.1		Non Provisional	2005-10-21	EP1813056	1813056

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P00225FR01	France	06250081.4	DC/DC converter with current limit protection.	Non Provisional	2006-01-09		1679780
P00230FR	France	05761045.3	Network with multiple adjustment elements and sensitivities, and digital-to-analog converter implementing same.	Non Provisional	2005-06-22	1869770	1869770
P00231FR	France	05815960	ANALOG POWER MANAGEMENT WITHIN POWER OVER ETHERNET SYSTEM	Non Provisional	2005-10-20	1813057	1813057
P00233FR	France	06250659.7	Protection for switched step up/step down regulators.	Non Provisional	2006-02-08	1691474	1691474
P00233FRD01	France	08101359.1	Protection for switched step up/step down regulators.	Non Provisional	2008-02-07	EP1914870	1914870
P00234FR	France	06250683.7	Current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP1689070	1689070
P00239FR	France	05726151.3	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29	EP1864553	EP1864553
P00251FR	France	06717350.0	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	EP1842121	1842121
P00251FRD01	France	09165453.3	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	2144133	2144133
P00252FR	France	06250680.3	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP 1689069	1689069
P00252FRD01	France	11002431.2	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP2337208	2337208
P00253FR	France	05812353	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE INPUT CURRENT	Non Provisional	2005-10-17	1805898	1805898

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P00253FRD01	France	11161019	Analog signal sampling system and method having reduced average input current	Non Provisional	2005-10-17	2343808	2343808
P00254FR	France	05812383	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE DIFFERENTIAL INPUT CURRENT	Non Provisional	2005-10-17	1810406	1810406
P00255FR	France	05810349	ANALOG-TO-DIGITAL CONVERTER WITH REDUCED AVERAGE INPUT CURRENT AND REDUCED AVERAGE REFERENCE CURRENT	Non Provisional	2005-10-17	1803223	1803223
P00256FR	France	06250682.9	Light load current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	1689068	1689068
P00259FR	France	05745504	ADAPTIVE POWER CONTROL FOR HYSTERETIC REGULATORS	Non Provisional	2005-05-09	1872468	1872468
P00259FRD01	France	11003329	Adaptive power control for hysteretic regulators	Non Provisional	2005-05-09	2348623	2348623
P00262FR	France	06773601.7	Variable gain amplifier with temperature compensation and gain linearity enhancement.	Non Provisional	2006-06-20	1897218	1897218
P00263FR	France	06801036.2	Wideband squaring cell.	Non Provisional	2006-08-09		1915720
P00264FR	France	06784986.9	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2006-06-15	EP1897217	1897217
P00265FR	France	06718370	ADJUSTING CURRENT LIMIT THRESHOLDS BASED ON POWER REQUIREMENT OF POWERED DEVICE IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-13	1842326	1842326
P00266FR	France	06718284	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2006-01-13	1842325	1842325

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P00267FR	France	06717526.5	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2006-01-09	EP 1842321	1842321
P00268FR	France	06717528.1	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2006-01-09	1842323	1842323
P00269FR	France	06717527.3	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09	1842322	1842322
P00270FR	France	06717529.9	Detecting legacy powered device in power over ethernet system.	Non Provisional	2006-01-09	EP1842324	1842324
P00271FR	France	06717525.7	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09	EP1869824	1869824
P00272FR	France	06718369.9	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13	1864429	1864429
P00273FR	France	06738267.1	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	1859567	1859567
P00273FRD01	France	10014682.8	Classification mechanism in system for supplying power over communication link.	Non Provisional	2010-11-15	EP2282445	2282445
P00274FR	France	05789074.1	Trim circuits and methodologies for data converters.	Non Provisional	2005-08-19	1872478	EP1872478
P00277FR	France	05255668.5	Switching regulator over voltage reduction circuit and method.	Non Provisional	2005-09-14	1724908	1724908
P00278FR	France	06752391.0	Switching regulator with slope compensation independent of changes in switching frequency.	Non Provisional	2006-05-08	EP1913679	1913679
P00281FRP01	France	06760623.6	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2006-06-01	1891735	1891735

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P00282FR	France	05733704.0	Configurable Data Port For I2C Or Single-Wire Broadcast Interface.	Non Provisional	2005-04-11	1869563	1869563
P00283FR	France	06251816	Circuit and method of detecting and resolving stuck I2C buses	Non Provisional	2006-03-31	1710709	1710709
P00285FR	France	05792954.9	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-08-31	1905149	1905149
P00290FR	France	06787052.7	Peak charging current modulation for burst mode conversion.	Non Provisional	2006-07-13	1922802	1922802
P00293FR	France	06813730.6	Squaring cell implementing tail current multiplication.	Non Provisional	2006-08-25		1946241
P00296FR	France	06800924.0	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2006-08-07	EP1932236	1932236
P00296FRD01	France	12000109.4	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2012-01-10	EP2445096	2445096
P00297FR	France	06800923.2	Switching regulator slope compensation generator circuit.	Non Provisional	2006-08-07	1969705	1969705
P00299FR01	France	06718758.3	Providing data communication between power supply device and powered device in system for supplying power over communication link.	Non Provisional	2006-01-19		1842328
P00300FR	France	06800930.7	Controlling Switching Circuits To Balance Power Or Current Drawn From Multiple Power Supply Inputs.	Non Provisional	2006-08-08	2033290	2033290
P00301FR	France	06719192.4	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2007-07-17	EP1859566	1859566
P00302FR	France	06838293.6	Power Sourcing Equipment Having Bipolar Junction Transistor For Controlling Power Supply And Supporting	Non Provisional	2006-11-22	1961152 A1	1961152

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			AC Disconnect-Detection Function.				
P00303FRABD	France	06719322.7	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2007-07-25	1842330	
P00304FR	France	06838292.8	Combination of high-side and low-side current control in system for providing power over communication link.	Non Provisional	2006-11-22	1961151	1961151
P00305FR	France	06719193.2	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2007-07-24	1842329	1842329
P00319FR01	France	06122849.0	Methods and circuits for output over-voltage reduction in switching regulators.	Non Provisional	2006-10-24		1806830
P00320FR	France	06836221.9	Power management mechanism in system for supplying power over communication link.	Non Provisional	2006-10-10	1964308 A1	1964308
P00324FR	France	06802861.2	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-09-01	1994799	1994799
P00325FR	France	07776492	CIRCUIT AND METHODOLOGY FOR SUPPLYING PULSED CURRENT TO A LOAD, SUCH AS A LIGHT EMITTING DIODE	Non Provisional	2007-04-30	2016801	2016801
P00328FR	France	07754823.8	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-05	2047589	2047589
P00329FR	France	06827753.2	High linearity low noise variable gain amplifier with continuous gain control.	Non Provisional	2006-11-13	2033308	2033308
P00330FR	France	07811698.5	Constant power foldback mechanism programmable to approximate safe operating area of pass device for providing connection to load.	Non Provisional	2007-09-07	2060059A2	2060059

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P00331FR	France	07838429.4	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2007-09-17	2064609	2064609
P00332FR	France	06845700.1	Circuit and methodology for high-speed, low-power level shifting.	Non Provisional	2006-12-19	2064811	
P00333FR	France	07121449.8	Programmable conduction mode control for switching circuits.	Non Provisional	2007-11-23	1928079	1928079
P00334FR	France	07106585.8	Light load regulator for isolated flyback converter.	Non Provisional	2007-04-20	1885051	1885051
P00336FR	France	07862802	ADAPTIVE OUTPUT CURRENT CONTROL FOR SWITCHING CIRCUITS	Non Provisional	2007-12-12	2122815	2122815
P00346FR	France	06845202.8	Providing Detailed Information On Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-12-12	1964309	1964309
P00347FR	France	06827644.3	Integrated powered device connector in system for supplying power over communication link.	Non Provisional	2006-11-08	1961150 A1	
P00348FR	France	06837211.9	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Non Provisional	2006-11-08	1958375	1958375
P00356FR01	France	07852890.8	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2007-10-23		2111705
P00361FR	France	07875257.3	Voltage Stackable Data Port.				
P00363FR	France	10004454.4	Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-02	2132855	2132855
P00367FR	France	11000785.3	Complex-Admittance Digital-To-Analog Converter.	Non Provisional	2010-04-27	2246985	2246985
			Time-Multiplexed Residue Amplifier.	Non Provisional	2011-02-01		2355357

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P00368FR	France	08870490.3	Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.	Non Provisional	2008-12-24	EP2235751	2235751
P00370FR01	France	11707522.6	Charge Pump With Reduced Current Variation.	Non Provisional	2011-02-22		2539995
P00373FR	France	09169228.5	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2009-09-02	2159841	2159841
P00373FR01	France	11004204.1	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2011-05-19		2362417
P00376FR	France	08168692	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias	Non Provisional	2008-11-07	2184858	2184858
P00376FR01	France	13005146.9	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2013-10-30		2713511
P00377FR	France	09157010.1	Method and system for bit polarization coding.	Non Provisional	2009-03-31		2107745
P00380FR	France	08796043.1	Single pass INL trim algorithm for networks.	Non Provisional	2008-06-27	2304875	2304875
P00382FR	France	10150371.2	Extending Input to Output Voltage Range in Multiple Channel Switching Regulator Applications.	Non Provisional	2010-01-08	EP2209194	2209194
P00385FR	France	12007591.6	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2012-11-07	EP2590329 A1	2590329
P00387FR	France	08729721.4	Magnetic Isolation Of Power Sourcing Equipment Control Circuitry.	Non Provisional	2008-02-13	2127201	2127201
P00392FR	France	08876475	CIRCUIT, TRIM, AND LAYOUT FOR TEMPERATURE COMPENSATION OF METAL RESISTORS IN SEMI-CONDUCTOR CHIPS	Non Provisional	2008-11-25	2356533	2356533

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00393FR	France	10004814.9	Method and System For High Efficiency, Fast Transient Multi-Channel LED Driver.	Non Provisional	2010-05-06	2252131	2252131
P00404FR	France	10151339.8	Circuitry And Methodology Protecting a Boost DC/DC Converter.	Non Provisional	2010-01-21	2211449	2211449
P00406FR	France	10150693.9	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2010-01-13	2207258	2207258
P00406FRD01	France	12008106.2	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2012-12-04	EP2575248 A1	2575248
P00408FR	France	10005284.4	Chopper Stabilized Bandgap Reference Circuit And Methodology For Voltage Regulators.	Non Provisional	2010-05-20	EP2256580A3	
P00409FR	France	09176801.0	Method and system for variable-gain amplifier.	Non Provisional	2009-11-23	2190115	2190115
P00410FR	France	10009843.3	Feedback control of a DC/DC power converter.	Non Provisional	2010-09-17	EP2299575	2299575
P00411FR	France	09837198.2	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2011-07-11		2377219
P00412FR	France	09837200	AUTONOMOUS MULTI-DEVICE EVENT SYNCHRONIZATION AND SEQUENCING TECHNIQUE ELIMINATING MASTER AND SLAVE ASSIGNMENTS	Non Provisional	2009-12-31	2376994	2376994
P00418FR	France	10154584.6	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2010-02-24	EP2284640	2284640
P00418FRD01	France	14000301.3	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2014-01-28	2728431	2728431

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P00420FR	France	EP10160094.8	Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Non Provisional	2010-04-15	2259161	2259161
P00421FR	France	10158030	Average inductor current mode switching converters	Non Provisional	2010-03-26	2234256	2234256
P00422FR	France	10159567	Buck-mode boost converter with regulated output current	Non Provisional	2010-04-09	2239834	2239834
P00423FR	France	10014953.3	Method and System For Improved Phase Noise In A BiCMOS Clock Driver.	Non Provisional	2010-11-24	EP2326003	2326003
P00427FR	France	10006723.0	Method And System For Dimming An Offline LED Driver. Extending Achievable Duty Cycle Range in a DC/DC Forward Converter With Active Clamp Reset.	Non Provisional	2010-06-29	EP2271181A1	2271181
P00431FR	France	10009841.7	Improving the accuracy of a volt-second clamp in an isolated dc/dc converter	Non Provisional	2010-09-17	EP2299579	2299579
P00432FR	France	10009842	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2010-09-17	2299573	2299573
P00433FR	France	10009840.9	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2010-09-17	EP2299578	2299578
P00433FRD01	France	11000951.1	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2317634	2317634
P00433FRD02	France	11000952.9	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2323246	2323246
P00434FR	France	10014625.7	Method And System For Improving Limiting Amplifier Phase Noise For Low Slew-Rate Input Signals.	Non Provisional	2010-11-15	EP2323256	2323256
P00438FR	France	12165770.4	Current Steering Circuit With Feedback.	Non Provisional	2012-04-26	EP2518900	2518900
P00439FR	France	10009844.1	DC/DC Converter Overcurrent Protection.	Non Provisional	2010-09-17	EP2299570	2299570
P00441FR	France	10015745.2	Continuously Switching Buck-Boost Control.	Non Provisional	2010-12-16	EP2337206	2337206

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P00441FRD01	France	11005360.0	Continuously Switching Buck-Boost Control.	Non Provisional	2011-06-30	EP2378650 A1	EP2378650
P00442FRABD	France	10015834.4	Clean Transition Between CCM and DCM In Valley Current Mode Control Of DC-To-DC Converter.	Non Provisional	2010-12-20		
P00443FR	France	10787615.3	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2012-06-21	EP2504947	2504947
P00445FR	France	11717836.8	Stacked Interposer Leadframes.	Non Provisional	2011-04-14		2577726
P00445FRD01	France	13003931.6	Stacked Interposer Leadframes.	Non Provisional	2013-08-06		2662892
P00446FR	France	10799210.9	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Non Provisional	2012-07-24		2517034
P00447FR	France	11006618.0	Method and System For Extending PWM Dimming Range In LED drivers.	Non Provisional	2011-08-11	EP2418918A1	2418918
P00449FR	France	11008786.3	Method And System For Detecting And Asserting BUS Speed Condition In A USB Isolated Device.	Non Provisional	2011-11-04	EP2450801 (A1)	2450801
P00451FR	France	12004634.7	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2012-06-20	EP2538562 A2	2538562
P00453FR	France	11004111.8	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Non Provisional	2011-05-18	EP2388922	2388922
P00455FR	France	11004552.3	Dynamic Compensation of Aging Drift In Current Sense Resistor.	Non Provisional	2011-06-03	EP2392931	2392931
P00456FR	France	12000890.9	Circuits for accurately measuring temperature of semiconductor junctions	Non Provisional	2012-02-10	EP2487476	2487476

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P00457FR	France	11004553.1	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	EP2393190	2393190
P00462FR	France	12005563	I2C isolated, bidirectional communication system	Non Provisional	2012-07-31	2555122	2555122
P00463FR	France	11793633	BIAS POINT SETTING FOR THIRD ORDER LINEARITY OPTIMIZATION OF CLASS A AMPLIFIER	Non Provisional	2011-11-29	2647123	2647123
P00464FR	France	11191991.6	Third Order Intermodulation Cancellation By In-Line Generated Signal.	Non Provisional	2011-12-03	EP2461478	2461478
P00470FR	France	12169479	Balancing temperatures in a multi-phase dc/dc converter	Non Provisional	2012-05-25	2528215	2528215
P00471FR	France	12003032.5	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Non Provisional	2012-04-30	EP2520942	2520942
P00472FR	France	12003031.7	Isolated Communications Interface.	Non Provisional	2012-04-30	EP2518957	2518957
P00477FR	France	12170949.7	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533246	EP2533246
P00478FR	France	12171026.3	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533247	2533247
P00481FR	France	12175986.4	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2012-07-11	EP2546966 A2	EP2546966
P00482FR	France	12004632.1	Radar System and Method For Providing Information On Movements of Object's Surface.	Non Provisional	2012-06-20	EP2560021 A1	2560021
P00491FR	France	12753339.6	Power Combining In Power Over Ethernet Systems.	Non Provisional	2014-01-27	EP2727285	2727285
P00492FR	France	12275154	Anemometer detecting thermal time constant of sensor	Non Provisional	2012-09-28	2592425	2592425
P00493FR	France	12007270.7	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-10-19	2583858	2583858

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P00495FR	France	12007313.5	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-24	EP2587718	2587718
P00496FR	France	12193463.2	Second Order Intermodulation Canceller.	Non Provisional	2012-11-20	2605412 A1	2605412
P00497FR	France	13150881.4	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2013-01-10	EP2621069	2621069
P00498FR	France	13158838.6	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2013-03-12	EP2639951	2639951
P00499FR	France	12193843.5	Third-Order Intermodulation Cancellation for RF Transconductors.	Non Provisional	2012-11-22	EP2605402	EP2605402
P00500FR01	France	12723319.5	High Side Current Sense Amplifier.	Non Provisional	2012-05-09		2839579
P00513FR	France	13000683.6	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-08	EP2626862	2626862
P00521FR	France	13275075.3	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2013-03-22	EP2680419	2680419
P00529FR	France	13275116.5	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2013-05-14	EP2709253A3	2709253
P00530FR01	France	13004202.1	Frequency Mixer Topology Providing High Linearity, Low Noise, High Gain.	Non Provisional	2013-08-26		2704315
P00533FR	France	13003571.0	Low Power Radio Receiver.	Non Provisional	2013-07-16	EP2688215	2688215
P00535FR01	France	13003775.7	Phase-Noise Tolerant Sampling.	Non Provisional	2013-07-29		2711725
P00536FR01	France	13004815.0	Method for Voltage Regulation of Switch Mode Power Supplies Implementing Burst Mode Operation.	Non Provisional	2013-10-07		2717447
P00538FR	France	14000003.5	Low Current DC-DC Converter With Integrated Low Current Coulomb Counter.	Non Provisional	2014-01-02	EP2752965	2752965
P00541FR	France	13186691.5	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2013-09-30	EP2722987	2722987

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P00542FR01	France	13186007.4	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2013-09-25		2728793
P00544FR	France	14000608	Address translation in I2C data communications system	Non Provisional	2014-02-20	2778941	2778941
P00545FR	France	13773573	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2013-09-27	2904688	2904688
P00545FR01	France	16202486.3	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2016-12-06		3157130
P00546FR	France	13186476.1	PWM Control for LEDs With Reduced Flicker When Using Spread Spectrum Switching Frequencies.	Non Provisional	2013-09-27	EP2723146	2723146
P00548FR01	France	14001424.2	Monitoring of Channel Stability And Interference in Wireless Networks.	Non Provisional	2014-04-17		2802167
P00549FR	France	13776655.6	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Non Provisional	2013-09-27		2920872
P00555FR01	France	13198155.7	High-Frequency RMS-DC Converter Using Chopper-Stabilized Square Cells.	Non Provisional	2013-12-18		2770334
P00558FR	France	14001073.7	Rotating 3-Wire Resistance Temperature Detection Excitation Current Sources and Method.	Non Provisional	2014-03-21	EP2921832	2921832
P00561FR01	France	14000727.9	Leakage Compensation for Switched Capacitor Integrators.	Non Provisional	2014-02-28		2779444
P00571FR	France	14002012.4	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-06-11	EP2816759	2816759
P00576FR01	France	14002828	Accurate current sensing in bridge applications without amplifier having high common mode rejection ratio	Non Provisional	2014-08-13	EP2840407	2840407

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P00583FR01	France	14002509.9	Isolated Bootstrapped Switch.	Non Provisional	2014-07-18		2866347
P00589FR01	France	14766294.4	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-08-28		3138365
P00593FR01	France	15000109.7	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Non Provisional	2015-01-16		2897270
P00601FR	France	15000352	Arbitrary Phase Trajectory Frequency Synthesizer	Non Provisional	2015-02-06	2905902	2905902
P00603FR01	France	15000760.7	Bootstrap Sampling Circuit With Accurately Averaging	Non Provisional	2015-03-13		2922065
P00610FR01	France	15000998.3	Hardware-Based Licensing for Wireless Networks.	Non Provisional	2015-04-08		2930964
P00611FR01	France	15719055.4	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-04-09		3130105
P00619FR01	France	15001492.6	Radio Receiver.	Non Provisional	2015-05-18		2945292
P00623FR01	France	15727762.5	PoDL System With Active dV/dt and dI/dt Control.	Non Provisional	2015-05-15		3143722
P00636FR	France	15002497	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-21	2991270	2991270
P00638FR01	France	15722416.3	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Non Provisional	2015-05-07		3186877
P00641FR01	France	15002779.5	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-28		3001564
P00644FR	France	15813948.5	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19		3221998

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P00648FR01	France	16002547.4	Circuit Architectures for Protecting Against PoDL Wire Faults.	Non Provisional	2016-11-30		3176978
P00663FR01	France	16001081.5	System With Sleep and Wake up Control Over DC Path.	Non Provisional	2016-05-12		3094044
P00686FR01	France	17000671.2	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-20		3236615
P00688FR	France	17000811.4	Method for Monitoring Bridge Circuitry and Presenting Maintain Power Signature.	Non Provisional	2017-05-10		3247071
P00694FR	France	17001282.7	Communications system using hybrid common mode choke and kelvin sensing of voltage.	Non Provisional	2017-07-25		3276881
P00695FR01	France	17001715.6	Fault-Tolerant Power Node	Non Provisional	2017-10-17		3313021
P00697FR01	France	17000566.4	Analog to Digital Conversion Yielding Exponential Results	Non Provisional	2017-04-04		3370146
P00003DE	Germany (Federal Republic of)	85304417.0	Nonlinearity correction circuit for bandgap reference.	Non Provisional	1985-06-20		P3574632.7
P00016DE	Germany (Federal Republic of)	88304032.1	Charge pump circuitry having low saturation voltage and current-limited switch.	Non Provisional	1988-05-04		3882591
P00054DE	Germany (Federal Republic of)	94100806.2	Digital to analog converter.	Non Provisional	1994-01-20	0607971	69425765.6
P00054DED01	Germany (Federal Republic of)	00103327.3	Digital to analog converter.	Non Provisional	1994-01-20	1005171	DE69434102.2-08
P00054DED02	Germany (Federal Republic of)	04025462.5	Digital to analog converter.	Non Provisional	1994-01-20	1548946	69434957.7
P00067DE	Germany (Federal Republic of)	94104509.8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	617501	69420430.7-08

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P00068DE	Germany (Federal Republic of)	93119453.4	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-02	600488	69332140.7-08
P00073DE	Germany (Federal Republic of)	07121448	Sawtooth oscillator having controlled endpoints and methodology therefor	Non Provisional	2007-11-23	1931029	1931029
P00073DED01	Germany (Federal Republic of)	11009533.8	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2011-12-01	EP2426819	602007035717.9
P00074DE	Germany (Federal Republic of)	07111883.0	Range compression in oversampling analog-to-digital converters using differential input signals.	Non Provisional	2007-07-05	1876715	602007019025.8
P00075DE	Germany (Federal Republic of)	08100951.6	Systems and methods for providing compact digitally controlled trim of multi-segment circuits.	Non Provisional	2008-01-25	1956716	602008017356.9
P00078DE	Germany (Federal Republic of)	95105641.5	High-speed switching regulator drive circuit.	Non Provisional	1995-04-13	677861	69527737.5
P00079DE	Germany (Federal Republic of)	07111882.2	Range compression in oversampling analog-to-digital converters.	Non Provisional	2007-07-05	1903683	602007019023.1
P00080DE	Germany (Federal Republic of)	07839808	CURRENT SOURCE WITH INDIRECT LOAD CURRENT SIGNAL EXTRACTION	Non Provisional	2007-10-26	2123122	2123122
P00107DE	Germany (Federal Republic of)	98110504.2	Synchronous switching regulator which employs switch voltage-drop for current sensing.	Non Provisional	1998-06-09	884746	69807991.4-08
P00114DE	Germany (Federal Republic of)	69834978	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads	Non Provisional	1998-04-22	0874461	0874461
P00123DE	Germany (Federal Republic of)	B0021949	Made of thermoplastic plastic lining for cooperating with wire cables discs, in particular, drive pulleys for the mining operation	Non Provisional	1952-09-08	1025684	973261

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P00129DE	Germany (Federal Republic of)	99109383.2	Voltage mode feedback burst mode circuit.	Non Provisional	1999-06-02	967713	69912358.5-08
P00134DE	Germany (Federal Republic of)	99115181.2	Delta-sigma modulator with improved full-scale accuracy.	Non Provisional	1999-08-16	EP981205	981205
P00143DE	Germany (Federal Republic of)	99125910	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use	Non Provisional	1999-12-23	1018799	1018799
P00143DEDED01	Germany (Federal Republic of)	08167445.9	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use.	Non Provisional	1999-12-23	EP2028751	69945540.5
P00146DE	Germany (Federal Republic of)	60041219	A system for the suppression of offset voltages for hf - power controller	Non Provisional	2000-04-20	1047188	1047188
P00153DE	Germany (Federal Republic of)	10114942.5	Systems and methods for linearly varying a pulse-width modulation signal with a control signal .	Non Provisional	2001-03-27	10114942.5	10114942.5
P00175DEABD	Germany (Federal Republic of)	10205069.4	Multiple phase switching regulators with stage shedding.	Non Provisional	2002-02-07	10205069.4	
P00176DEABD	Germany (Federal Republic of)	10207137.3	Systems and methods for controlling the charge profile during the commutation event of a synchronous switching transistor in a regulator.	Non Provisional	2002-02-20	DE10207137.3	
P00177DE	Germany (Federal Republic of)	02009309.2	Methods and apparatus for power measuring receiver.	Non Provisional	2002-04-30	EP 1258734	60237178.3-08
P00179DE	Germany (Federal Republic of)	60143185	RMS-TO-DC converter with fault detection and recovery	Non Provisional	2001-12-12	1215504	1215504
P00181DE	Germany (Federal Republic of)	01129255.4	Methods and circuitry for interconnecting data and clock busses of live backplane	Non Provisional	2001-12-11	1213655	60145148.8

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			circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.				
P00181DED01	Germany (Federal Republic of)	09150579	Circuits and methods for interconnecting bus systems	Non Provisional	2001-12-11	2056208	2056208
P00181DED02	Germany (Federal Republic of)	09150580.0	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2056209	60147668.9
P00181DED03	Germany (Federal Republic of)	09150581.8	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2060978	60147669.7
P00184DEP01	Germany (Federal Republic of)	04018003.6	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-07-29	EP1508961	602004049897.1
P00185DEABD	Germany (Federal Republic of)	10257187.2	Circuitry and methods for improving the performance of a light emitting element.	Non Provisional	2002-12-06		
P00186DEABD	Germany (Federal Republic of)	10207138.1	Circuitry for improving the efficiency of a switching regulator by reducing reverse recovery current.	Non Provisional	2002-02-20	DE 10207138.1	

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P00188DE	Germany (Federal Republic of)	60224896	Circuits and methods for synchronizing non-constant frequency switching regulators with a phase locked loop	Non Provisional	2002-03-28	1248352	1248352
P00198DE	Germany (Federal Republic of)	6031755996-08	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14	1355426	1355426
P00198DE01	Germany (Federal Republic of)	60350816.2	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		1608070
P00198DE02	Germany (Federal Republic of)	60350792.1	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		1696568
P00222DE	Germany (Federal Republic of)	05255667	Adaptive control for inductor based buck-boost voltage regulators	Non Provisional	2005-09-14	1635445	1635445
P00224DE	Germany (Federal Republic of)	05815577.1	Common-mode data transmission for power over ethernet system.	Non Provisional	2005-10-21	EP1813056	602005049434.0
P00225DE01	Germany (Federal Republic of)	06250081.4	DC/DC converter with current limit protection.	Non Provisional	2006-01-09		1679780
P00230DE	Germany (Federal Republic of)	05761045	IMPROVED NETWORK ADJUSTMENT CIRCUITS AND METHODOLOGIES	Non Provisional	2005-06-22	1869770	1869770
P00231DE	Germany (Federal Republic of)	602005019610	ANALOG POWER MANAGEMENT WITHIN POWER OVER ETHERNET SYSTEM	Non Provisional	2005-10-20	1813057	1813057
P00233DE	Germany (Federal Republic of)	06250659.7	Protection for switched step up/step down regulators.	Non Provisional	2006-02-08	1691474	602006038086.0
P00233DE01	Germany (Federal Republic of)	08101359.1	Protection for switched step up/step down regulators.	Non Provisional	2008-02-07	EP1914870	602006052199.5
P00234DE	Germany (Federal Republic of)	06250683.7	Current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP1689070	602006048 622.7

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P00239DE	Germany (Federal Republic of)	05726151.3	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29	EP1864553	602005047342.4
P00251DE	Germany (Federal Republic of)	06717350	SYSTEM AND METHOD FOR TRACKING A VARIABLE CHARACTERISTIC THROUGH A RANGE OF OPERATION	Non Provisional	2006-01-04	1842121	1842121
P00251DED01	Germany (Federal Republic of)	09165453.3	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	2144133	602006037909.9
P00252DE	Germany (Federal Republic of)	06250680.3	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP 1689069	602006047773.2
P00252DED01	Germany (Federal Republic of)	11002431.2	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP2337208	602006047697.3
P00253DE	Germany (Federal Republic of)	05812353	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE INPUT CURRENT	Non Provisional	2005-10-17	1805898	1805898
P00253DED01	Germany (Federal Republic of)	11161019	Analog signal sampling system and method having reduced average input current	Non Provisional	2005-10-17	2343808	2343808
P00254DE	Germany (Federal Republic of)	05812383	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE DIFFERENTIAL INPUT CURRENT	Non Provisional	2005-10-17	1810406	1810406
P00255DE	Germany (Federal Republic of)	05810349	ANALOG-TO-DIGITAL CONVERTER WITH REDUCED AVERAGE INPUT CURRENT AND REDUCED AVERAGE REFERENCE CURRENT	Non Provisional	2005-10-17	1803223	1803223
P00256DE	Germany (Federal Republic of)	06250682	Light load current-mode control for switched step up-step down regulators	Non Provisional	2006-02-08	1689068	1689068
P00259DE	Germany (Federal Republic of)	05745504	ADAPTIVE POWER CONTROL FOR HYSTERETIC REGULATORS	Non Provisional	2005-05-09	1872468	1872468

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P00259DEDE01	Germany (Federal Republic of)	11003329	Adaptive power control for hysteretic regulators	Non Provisional	2005-05-09	2348623	2348623
P00262DE	Germany (Federal Republic of)	602006005051	Variable gain amplifier with temperature compensation and amplification linearity improvement	Non Provisional	2006-06-20	1897218	1897218
P00263DE	Germany (Federal Republic of)	06801036	WIDEBAND SQUARING CELL	Non Provisional	2006-08-09	1915720	1915720
P00264DE	Germany (Federal Republic of)	06784986.9	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2006-06-15	EP1897217	602006050499.3
P00265DE	Germany (Federal Republic of)	06718370	ADJUSTING CURRENT LIMIT THRESHOLDS BASED ON POWER REQUIREMENT OF POWERED DEVICE IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-13	1842326	1842326
P00266DE	Germany (Federal Republic of)	06718284	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2006-01-13	1842325	1842325
P00267DE	Germany (Federal Republic of)	06717526	POWER SOURCING EQUIPMENT HAVING AUTO-ZERO CIRCUIT FOR DETERMINING AND CONTROLLING OUTPUT CURRENT	Non Provisional	2006-01-09	1842321	1842321
P00268DE	Germany (Federal Republic of)	06717528	DUAL-MODE DETECTION OF POWERED DEVICE IN POWER OVER ETHERNET SYSTEM	Non Provisional	2006-01-09	1842323	1842323
P00269DE	Germany (Federal Republic of)	06717527.3	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09	1842322	602006021702.1-08

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P00270DE	Germany (Federal Republic of)	06717529.9	Detecting legacy powered device in power over ethernet system.	Non Provisional	2006-01-09	EP1842324	602006051971.0
P00271DE	Germany (Federal Republic of)	06717525.7	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09	EP1869824	602006048336.8
P00272DE	Germany (Federal Republic of)	06718369.9	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13	1864429	602006021404.9
P00273DE	Germany (Federal Republic of)	06738267.1	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	1859567	602006039582.5
P00273DEDED01	Germany (Federal Republic of)	10014682.8	Classification mechanism in system for supplying power over communication link.	Non Provisional	2010-11-15	EP2282445	602006049920.5
P00274DE	Germany (Federal Republic of)	05789074.1	Trim circuits and methodologies for data converters.	Non Provisional	2005-08-19	1872478	602005021705.3-08
P00277DE	Germany (Federal Republic of)	05255668.5	Circuit and method for reducing overshoot in a switching regulator	Non Provisional	2005-09-14	1724908	1724908
P00278DE	Germany (Federal Republic of)	06752391.0	Switching regulator with slope compensation independent of changes in switching frequency.	Non Provisional	2006-05-08	EP1913679	602006051216.3
P00281DEP01	Germany (Federal Republic of)	06760623	INRUSH CURRENT CONTROL SYSTEM WITH SOFT START CIRCUIT AND METHOD	Non Provisional	2006-06-01	1891735	1891735
P00282DE	Germany (Federal Republic of)	602005016606	CONFIGURABLE DATA PART FOR I2C OR SINGLE-WIRE BROADCAST INTERFACE	Non Provisional	2005-04-11	1869563	1869563
P00283DE	Germany (Federal Republic of)	602006004783	A circuit and method for detection and resolution of the blocked 12c - buses	Non Provisional	2006-03-31	1710709	1710709
P00285DE	Germany (Federal Republic of)	05792954	DUAL-INPUT DC-DC CONVERTER WITH INTEGRATED IDEAL DIODE FUNCTION	Non Provisional	2005-08-31	1905149	1905149

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P00290DE	Germany (Federal Republic of)	06787052.7	Peak charging current modulation for burst mode conversion.	Non Provisional	2006-07-13	1922802	602006023089.3-08
P00293DE	Germany (Federal Republic of)	06813730.6	Squaring cell implementing tail current multiplication.	Non Provisional	2006-08-25		602006033385.4
P00296DE	Germany (Federal Republic of)	06800924.0	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2006-08-07	EP1932236	602006051783.1
P00296DEDE01	Germany (Federal Republic of)	12000109.4	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2012-01-10	EP2445096	602006049634.6
P00297DE	Germany (Federal Republic of)	06800923	SWITCHING REGULATOR SLOPE COMPENSATION GENERATOR CIRCUIT	Non Provisional	2006-08-07	1969705	1969705
P00299DE01	Germany (Federal Republic of)	06718758.3	Providing data communication between power supply device and powered device in system for supplying power over communication link.	Non Provisional	2006-01-19		602006056246.2
P00300DE	Germany (Federal Republic of)	06800930.7	Controlling Switching Circuits To Balance Power Or Current Drawn From Multiple Power Supply Inputs.	Non Provisional	2006-08-08	2033290	60200609043453.7
P00301DE	Germany (Federal Republic of)	06719192.4	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2007-07-17	EP1859566	602006048857.2
P00302DE	Germany (Federal Republic of)	06838293.6	Power Sourcing Equipment Having Bipolar Junction Transistor For Controlling Power Supply And Supporting AC Disconnect-Detection Function.	Non Provisional	2006-11-22	1961152 A1	602006014593.4-08
P00303DEABD	Germany (Federal Republic of)	06719322.7	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2007-07-25	1842330	

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P00304DE	Germany (Federal Republic of)	06838292.8	Combination of high-side and low-side current control in system for providing power over communication link.	Non Provisional	2006-11-22	1961151	602006014725.2-08
P00305DE	Germany (Federal Republic of)	06719193.2	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2007-07-24	1842329	602006030103.0-08
P00319DE01	Germany (Federal Republic of)	06122849.0	Methods and circuits for output over-voltage reduction in switching regulators.	Non Provisional	2006-10-24		602006054731.5
P00320DE	Germany (Federal Republic of)	06836221	POWER MANAGEMENT MECHANISM IN SYSTEM FOR SUPPLYING POWER OVER COMMUNICATION LINK	Non Provisional	2006-10-10	1964308	1964308
P00324DE	Germany (Federal Republic of)	06802861.2	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-09-01	1994799	602006055519.9
P00325DE	Germany (Federal Republic of)	07776492	CIRCUIT AND METHODOLOGY FOR SUPPLYING PULSED CURRENT TO A LOAD, SUCH AS A LIGHT EMITTING DIODE	Non Provisional	2007-04-30	2016801	2016801
P00326DE01	Germany (Federal Republic of)	03017664.8	High linearity digital variable gain amplifier.	Non Provisional	2003-08-13	EP1424772	603 51 920.2
P00328DE	Germany (Federal Republic of)	07754823.8	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-05	2047589	602007038822
P00329DE	Germany (Federal Republic of)	06827753	HIGH LINEARITY LOW NOISE VARIABLE GAIN AMPLIFIER WITH CONTINUOUS GAIN CONTROL	Non Provisional	2006-11-13	2033308	2033308
P00330DE	Germany (Federal Republic of)	602007030042.8	Constant power foldback mechanism programmable to approximate safe operating	Non Provisional	2007-09-07	2060059A2	2060059

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			area of pass device for providing connection to load.				
P00331DE	Germany (Federal Republic of)	07838429.4	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2007-09-17	2064609	602077017065.6
P00332DE	Germany (Federal Republic of)	06845700.1	Circuit and methodology for high-speed, low-power level shifting.	Non Provisional	2006-12-19	2064811	
P00333DE	Germany (Federal Republic of)	07121449.8	Programmable conduction mode control for switching circuits.	Non Provisional	2007-11-23	1928079	602007034772
P00334DE	Germany (Federal Republic of)	07106585.8	Light load regulator for isolated flyback converter.	Non Provisional	2007-04-20	1885051	602007040221
P00336DE	Germany (Federal Republic of)	07862802	ADAPTIVE OUTPUT CURRENT CONTROL FOR SWITCHING CIRCUITS	Non Provisional	2007-12-12	2122815	2122815
P00340DE01	Germany (Federal Republic of)	12171032.1	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06		60 2012 049 070.5
P00346DE	Germany (Federal Republic of)	06845202	PROVIDING DETAILED INFORMATION ON POWERED DEVICE IN SYSTEM FOR SUPPLYING POWER OVER COMMUNICATION LINK	Non Provisional	2006-12-12	1964309	1964309
P00347DE	Germany (Federal Republic of)	06827644.3	Integrated powered device connector in system for supplying power over communication link.	Non Provisional	2006-11-08	1961150 A1	
P00348DE	Germany (Federal Republic of)	06837211.9	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Non Provisional	2006-11-08	1958375	602006042080
P00356DE01	Germany (Federal Republic of)	60 2007 053 493.3	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2007-10-23		2111705

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P00361DE	Germany (Federal Republic of)	07875257.3	Voltage Stackable Data Port. Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-02	2132855	602007024698.8
P00362DE	Germany (Federal Republic of)	08101358.3	Paralleling voltage regulators.	Non Provisional	2008-02-07	2015158	2015158
P00363DE	Germany (Federal Republic of)	10004454	Complex-admittance digital-to-analog converter	Non Provisional	2000-02-03	2246985	2246985
P00367DE	Germany (Federal Republic of)	11000785	Time-multiplexed residue amplifier	Non Provisional	2011-02-01	2355357	2355357
P00368DE	Germany (Federal Republic of)	08870490.3	Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.	Non Provisional	2008-12-24	EP2235751	602008043655.1
P00370DE01	Germany (Federal Republic of)	60 2011 042 086.0	Charge Pump With Reduced Current Variation	Non Provisional	2011-02-22		2539995
P00373DE	Germany (Federal Republic of)	60 2009 049 228.4	Semiconductor device having a suspended isolating interconnect	Non Provisional	2009-09-02	2159841	2159841
P00373DE01	Germany (Federal Republic of)	60 2009 050 412.6	Semiconductor device having a suspended isolating interconnect	Non Provisional	2011-05-19		2362417
P00376DE	Germany (Federal Republic of)	08168692	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias	Non Provisional	2008-11-07	2184858	60 2008 049 570.1
P00376DE01	Germany (Federal Republic of)	13005146.9	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2013-10-30		602008055054.0
P00377DE	Germany (Federal Republic of)	09157010	Method and system for bit polarization coding	Non Provisional	2009-03-31	2107745	2107745

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P00380DE	Germany (Federal Republic of)	08796043.1	Single pass INL trim algorithm for networks.	Non Provisional	2008-06-27	2304875	602008025327.9
P00382DE	Germany (Federal Republic of)	10150371.2	Extending Input to Output Voltage Range in Multiple Channel Switching Regulator Applications.	Non Provisional	2010-01-08	EP2209194	602010038907.3
P00385DE	Germany (Federal Republic of)	12007591.6	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2012-11-07	EP2590329 A1	602012018226.1
P00387DE	Germany (Federal Republic of)	08729721.4	Magnetic Isolation Of Power Sourcing Equipment Control Circuitry.	Non Provisional	2008-02-13	2127201	602008006047.0-08
P00392DE	Germany (Federal Republic of)	08876475	CIRCUIT, TRIM, AND LAYOUT FOR TEMPERATURE COMPENSATION OF METAL RESISTORS IN SEMI-CONDUCTOR CHIPS	Non Provisional	2008-11-25	2356533	2356533
P00393DE	Germany (Federal Republic of)	10004814	Method and system for high efficiency, fast transient multi-channel led driver	Non Provisional	2000-02-04	2252131	2252131
P00395DE01	Germany (Federal Republic of)	09832456.9	Current ripple reduction circuit for LEDs	Non Provisional	2009-12-09		60 2009 053 510.2
P00404DE	Germany (Federal Republic of)	602010048950.7	Circuitry And Methodology Protecting a Boost DC/DC Converter	Non Provisional	2010-01-21	2211449	2211449
P00406DE	Germany (Federal Republic of)	10150693.9	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2010-01-13	2207258	602010010300.5
P00406DEDE01	Germany (Federal Republic of)	12008106.2	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2012-12-04	EP2575248 A1	602010029802.7

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P00409DE	Germany (Federal Republic of)	09176801	Method and system for variable-gain amplifier	Non Provisional	2009-11-23	2190115	2190115
P00410DE	Germany (Federal Republic of)	10009843.3	Feedback control of a DC/DC power converter.	Non Provisional	2010-09-17	EP2299575	602010038163.3
P00411DE	Germany (Federal Republic of)	09837198.2	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2011-07-11		602009044261.9
P00412DE	Germany (Federal Republic of)	09837200	AUTONOMOUS MULTI-DEVICE EVENT SYNCHRONIZATION AND SEQUENCING TECHNIQUE ELIMINATING MASTER AND SLAVE ASSIGNMENTS	Non Provisional	2009-12-31	2376994	2376994
P00418DE	Germany (Federal Republic of)	10154584	Low thermal hysteresis bandgap voltage reference	Non Provisional	2001-11-07	2284640	2284640
P00418DEDE01	Germany (Federal Republic of)	14000301.3	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2014-01-28	2728431	2728431
P00420DE	Germany (Federal Republic of)	10160094.8	Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Non Provisional	2010-04-15	EP2259161	602010038173.0
P00421DE	Germany (Federal Republic of)	10158030	Average inductor current mode switching converters	Non Provisional	2010-03-26	2234256	2234256
P00422DE	Germany (Federal Republic of)	10159567	Buck-mode boost converter with regulated output current	Non Provisional	2001-12-04	2239834	2239834
P00423DE	Germany (Federal Republic of)	10014953.3	Method and System For Improved Phase Noise In A BiCMOS Clock Driver.	Non Provisional	2010-11-24	EP2326003	602010039267.8
P00427DE	Germany (Federal Republic of)	6020100005680.5	Method And System For Dimming An Offline LED Driver.	Non Provisional	2010-06-29	EP2271181A1	6020100005680.5
P00431DE	Germany (Federal Republic of)	10009841.7	Extending Achievable Duty Cycle Range in a DC/DC Forward	Non Provisional	2010-09-17	EP2299579	602010041590.2

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			Converter With Active Clamp Reset.				
P00432DE	Germany (Federal Republic of)	10009842	Improving the accuracy of a volt-second clamp in an isolated dc/dc converter	Non Provisional	2010-09-17	2299573	2299573
P00433DE	Germany (Federal Republic of)	10009840	Telematic services - activating method	Non Provisional	2000-02-24	10009840	2299578
P00433DEDED01	Germany (Federal Republic of)	11000951.1	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2317634	602010043206.8
P00433DEDED02	Germany (Federal Republic of)	11000952.9	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2323246	602010021326.9
			Method And System For Improving Limiting Amplifier Phase Noise For Low Slew-Rate Input Signals.	Non Provisional	2010-11-15	EP2323256	602010033568.2
P00434DE	Germany (Federal Republic of)	10014625.7		Non Provisional	2010-11-15	EP2323256	602010033568.2
P00438DE	Germany (Federal Republic of)	12165770.4	Current Steering Circuit With Feedback.	Non Provisional	2012-04-26	EP2518900	602012019323.9
P00439DE	Germany (Federal Republic of)	10009844.1	DC/DC Converter Overcurrent Protection.	Non Provisional	2010-09-17	EP2299570	602010020072.8
P00441DE	Germany (Federal Republic of)	10015745.2	Continuously Switching Buck-Boost Control	Non Provisional	2010-12-16	EP2337206	602010043671.3
P00441DEDED01	Germany (Federal Republic of)	11005360.0	Continuously Switching Buck-Boost Control.	Non Provisional	2011-06-30	EP2378650 A1	EP2378650
			Clean Transition Between CCM and DCM In Valley Current Mode Control Of DC-To-DC Converter.	Non Provisional	2010-12-20		
P00442DEABD	Germany (Federal Republic of)	10015834.4		Non Provisional	2010-12-20		
P00443DE	Germany (Federal Republic of)	10787615.3	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2012-06-21	EP2504947	602010041336.5

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P00445DE	Germany (Federal Republic of)	602011044904.4	Stacked Interposer Leadframes	Non Provisional	2011-04-14		2577726
P00445DE01	Germany (Federal Republic of)	13003931.6	Stacked Interposer Leadframes	Non Provisional	2013-08-06		2662892
P00446DE	Germany (Federal Republic of)	10799210.9	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Non Provisional	2012-07-24		602010014309.0
P00447DE	Germany (Federal Republic of)	11006618.0	Method and System For Extending PWM Dimming Range In LED drivers.	Non Provisional	2011-08-11	EP2418918A1	602011015356.0
P00449DE	Germany (Federal Republic of)	11008786	Method and system for detecting and asserting bus speed condition in a USB isolating device	Non Provisional	2011-11-04	2450801	2450801
P00451DE	Germany (Federal Republic of)	12004634.7	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2012-06-20	EP2538562 A2	602012024226.4
P00453DE	Germany (Federal Republic of)	11004111.8	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Non Provisional	2011-05-18	EP2388922	602011008211.6
P00455DE	Germany (Federal Republic of)	11004552	Dynamic compensation of aging drift in current sense resistor	Non Provisional	2011-06-03	2392931	60 2011 040 299.4
P00456DE	Germany (Federal Republic of)	12000890.9	Circuits for accurately measuring temperature of semiconductor junctions	Non Provisional	2012-02-10	EP2487476	602012025617.6
P00457DE	Germany (Federal Republic of)	11004553.1	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	EP2393190	6020110333301.1

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P00462DE	Germany (Federal Republic of)	12005563	I2C isolated, bidirectional communication system	Non Provisional	2012-07-31	2555122	2555122
P00463DE	Germany (Federal Republic of)	11793633	BIAS POINT SETTING FOR THIRD ORDER LINEARITY OPTIMIZATION OF CLASS A AMPLIFIER	Non Provisional	2011-11-29	2647123	2647123
P00464DE	Germany (Federal Republic of)	11191991.6	Third Order Intermodulation Cancellation By In-Line Generated Signal.	Non Provisional	2011-12-03	EP2461478	602011006511
P00470DE	Germany (Federal Republic of)	12169479	Balancing temperatures in a multi-phase dc/dc converter	Non Provisional	2012-05-25	2528215	2528215
P00471DE	Germany (Federal Republic of)	12003032.5	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Non Provisional	2012-04-30	EP2520942	60212033336.7
P00472DE	Germany (Federal Republic of)	12003031.7	Isolated Communications Interface.	Non Provisional	2012-04-30	EP2518957	2518957
P00477DE	Germany (Federal Republic of)	12170949.7	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533246	602012021381.7
P00478DE	Germany (Federal Republic of)	12171026.3	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533247	602012027294.5
P00481DE	Germany (Federal Republic of)	12175986.4	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2012-07-11	EP2546966 A2	602012010169.5
P00482DE	Germany (Federal Republic of)	12004632.1	Radar System and Method For Providing Information On Movements of Object's Surface.	Non Provisional	2012-06-20	EP2560021 A1	60 2012 035 529.8
P00491DE	Germany (Federal Republic of)	12753339.6	Power Combining In Power Over Ethernet Systems.	Non Provisional	2014-01-27	EP2727285	602012027387.9

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P00492DE	Germany (Federal Republic of)	12275154	Anemometer detecting thermal time constant of sensor	Non Provisional	2012-09-28	2592425	2592425
P00493DE	Germany (Federal Republic of)	12007270.7	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-10-19	2583858	602012011927
P00495DE	Germany (Federal Republic of)	12007313.5	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-24	EP2587718	2587718
P00496DE	Germany (Federal Republic of)	12193463.2	Second Order Intermodulation Canceller.	Non Provisional	2012-11-20	2605412 A1	602012005535
P00497DE	Germany (Federal Republic of)	13150881.4	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2013-01-10	EP2621069	602013018468.2
P00498DE	Germany (Federal Republic of)	13158838.6	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2013-03-12	EP2639951	602013010519.7
P00499DE	Germany (Federal Republic of)	12193843.5	Third-Order Intermodulation Cancellation for RF Transconductors.	Non Provisional	2012-11-22	EP2605402	602012016552.9
P00500DE01	Germany (Federal Republic of)	12723319.5	High Side Current Sense Amplifier.	Non Provisional	2012-05-09		60 2012 045 893.3
P00513DE	Germany (Federal Republic of)	13000683.6	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-08	EP2626862	602013004823.1
P00518DE01	Germany (Federal Republic of)	12001597.9	Methods and System For Erasing Data Stored in Nonvolatile Memory in Low Power Applications.	Non Provisional	2012-03-08		2498259
P00521DE	Germany (Federal Republic of)	13275075.3	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2013-03-22	EP2680419	602013004469.4
P00529DE	Germany (Federal Republic of)	13275116.5	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2013-05-14	EP2709253A3	602013014056.1

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P00530DE01	Germany (Federal Republic of)	13004202.1	Frequency Mixer Topology Providing High Linearity, Low Noise, High Gain.	Non Provisional	2013-08-26		2704315
P00533DE	Germany (Federal Republic of)	13003571.0	Low Power Radio Receiver.	Non Provisional	2013-07-16	EP2688215	602013018457.7
P00533DE01	Germany (Federal Republic of)	17000415.4	Low Power Radio Receiver.	Non Provisional	2017-03-14		#####
P00534DE	Germany (Federal Republic of)	13005868.8	Anti-aliasing sampling circuits and analog-to-digital converters	Non Provisional	2013-12-17	EP2744112	2744112
P00535DE01	Germany (Federal Republic of)	602013050693.0	Phase-Noise Tolerant Sampling. Method for Voltage Regulation of Switch Mode Power Supplies Implementing Burst Mode Operation.	Non Provisional	2013-07-29		602013050693.0
P00536DE01	Germany (Federal Republic of)	13004815.0	Low Current DC-DC Converter With Integrated Low Current Coulomb Counter.	Non Provisional	2013-10-07		60 2013 051 277
P00538DE	Germany (Federal Republic of)	14000003.5	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2014-01-02	EP2752965	602014001210.8
P00541DE	Germany (Federal Republic of)	13186691.5	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2013-09-30	EP2722987	602013014040.5
P00542DE01	Germany (Federal Republic of)	13186007.4	Address translation in I2C data communications system	Non Provisional	2013-09-25		2728793
P00544DE	Germany (Federal Republic of)	14000608	AUTO RESONANT DRIVER FOR WIRELESS POWER TRANSMITTER SENSING REQUIRED TRANSMIT POWER FOR OPTIMUM EFFICIENCY	Non Provisional	2014-02-20	2778941	2778941
P00545DE	Germany (Federal Republic of)	13773573		Non Provisional	2013-09-27	2904688	2904688

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P00545DE01	Germany (Federal Republic of)	16202486.3	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2016-12-06		60 2013 034 580 .5
P00546DE	Germany (Federal Republic of)	13186476.1	PWM Control for LEDs With Reduced Flicker When Using Spread Spectrum Switching Frequencies.	Non Provisional	2013-09-27	EP2723146	602013015532.1
P00548DE01	Germany (Federal Republic of)	14001424.2	Monitoring of Channel Stability And Interference in Wireless Networks.	Non Provisional	2014-04-17		2802167
P00549DE	Germany (Federal Republic of)	13776655.6	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Non Provisional	2013-09-27		602013043578.2
P00550DE01	Germany (Federal Republic of)	13862985.2	Power Converter For Generating Both Positive and Negative Output Signals.	Non Provisional	2013-12-13	2932590	2932590
P00555DE01	Germany (Federal Republic of)	13198155.7	High-Frequency RMS-DC Converter Using Chopper-Stabilized Square Cells.	Non Provisional	2013-12-18		2770334
P00558DE	Germany (Federal Republic of)	14001073.7	Rotating 3-Wire Resistance Temperature Detection Excitation Current Sources and Method.	Non Provisional	2014-03-21	EP2921832	602014002273.1
P00561DE01	Germany (Federal Republic of)	60 2014 018 956.3	Leakage Compensation for Switched Capacitor Integrators	Non Provisional	2014-02-28		2779444
P00565DE01	Germany (Federal Republic of)	14001697.3	Resolution-boosted sigma delta analog-to-digital converter.	Non Provisional	2014-05-14		2811654
P00571DE	Germany (Federal Republic of)	14002012.4	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-06-11	EP2816759	602014001594.8
P00573DE01	Germany (Federal Republic of)	14002300.3	Detecting Faults in Hot-Swap Applications.	Non Provisional	2014-07-14		2827160

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P00576DE01	Germany (Federal Republic of)	14002828	Accurate current sensing in h-bridge applications without amplifier having high common mode rejection ratio	Non Provisional	2014-08-13		602014050740.9
P00583DE01	Germany (Federal Republic of)	14002509.9	Isolated Bootstrapped Switch.	Non Provisional	2014-07-18		60 2014 028 135.4
P00584DE01	Germany (Federal Republic of)	14158410.2	Bipolar Isolated High Voltage Sampling Network.	Non Provisional	2014-03-07		2869305
P00589DE01	Germany (Federal Republic of)	14766294.4	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-08-28		60 2014 019 686
P00593DE01	Germany (Federal Republic of)	15000109.7	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Non Provisional	2015-01-16		602015012857.5
P00601DE	Germany (Federal Republic of)	60 2015 002 853.8	Arbitrary Phase Trajectory Frequency Synthesizer	Non Provisional	2015-02-06	2905902	2905902
P00603DE01	Germany (Federal Republic of)	15000760.7	Bootstrap Sampling Circuit With Accurately Averaging	Non Provisional	2015-03-13		60 2015 006 901.3
P00610DE01	Germany (Federal Republic of)	15000998.3	Pre-Charge Circuit.	Non Provisional	2015-04-08		60 2015 025 172
P00611DE01	Germany (Federal Republic of)	15719055.4	Hardware-Based Licensing for Wireless Networks.	Non Provisional	2015-04-09		60 2015 006 695
P00619DE01	Germany (Federal Republic of)	15001492.6	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-05-18		2945292
P00623DE01	Germany (Federal Republic of)	15727762.5	Radio Receiver.	Non Provisional	2015-05-15		602015007475.0
			PoDL System With Active dV/dt and dI/dt Control.	Non Provisional			

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P00636DE	Germany (Federal Republic of)	15002497	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-21	2991270	2991270
P00638DE01	Germany (Federal Republic of)	15722416.3	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Non Provisional	2015-05-07	3186877	3186877
P00641DE01	Germany (Federal Republic of)	15002779.5	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-28	602015021729.2	602015021729.2
P00644DE	Germany (Federal Republic of)	15813948.5	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19	602015019271.0	602015019271.0
P00648DE01	Germany (Federal Republic of)	16002547.4	Circuit Architectures for Protecting Against PoDL Wire Faults.	Non Provisional	2016-11-30	602016003589.8	602016003589.8
P00663DE01	Germany (Federal Republic of)	16001081.5	System With Sleep and Wake up Control Over DC Path.	Non Provisional	2016-05-12	602016003857.9	602016003857.9
P00686DE01	Germany (Federal Republic of)	17000671.2	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-20	602017000225.9	602017000225.9
P00688DE	Germany (Federal Republic of)	17000811.4	Method for Monitoring Bridge Circuitry and Presenting Maintain Power Signature.	Non Provisional	2017-05-10	602017000285.2	602017000285.2
P00694DE	Germany (Federal Republic of)	17001282.7	Communications system using hybrid common mode choke and kelvin sensing of voltage.	Non Provisional	2017-07-25	602017000402.2	602017000402.2
P00695DE01	Germany (Federal Republic of)	17001715.6	Fault-Tolerant Power Node	Non Provisional	2017-10-17	602017007520.5	602017007520.5
P00696DE01	Germany (Federal Republic of)	11 2017 004 130.9	Method of Reducing Charge Pump Substrate Noise.	Non Provisional	2017-03-21	112017004130	
P00697DE01	Germany (Federal Republic of)	17000566.4	Analog to Digital Conversion Yielding Exponential Results	Non Provisional	2017-04-04	3370146	3370146

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P00704DE01	Germany (Federal Republic of)	10 2018 107 001.2	Trans-impedance Amplifier with Fast Overdrive Recovery	Non Provisional	2018-03-23	102018107001	
P00705DE01	Germany (Federal Republic of)	10 2018 106 140.4	Unity Gain Buffer With Two States	Non Provisional	2018-03-16	102018106140	
P00706DE01	Germany (Federal Republic of)	112017003738.7	Communication System Using Hybrid Common Mode Choke and Kelvin Sensing of Voltage.	Non Provisional	2017-07-19	DE 11 2017 003 738	
P00707DE01	Germany (Federal Republic of)	20 2018 101 132.4	Common Mode Choke and Differential Mode Choke Combination for Data Transmission over Twisted Pair Cable	Utility Model	2018-03-01		20 2018 101 132
P00712DE01	Germany (Federal Republic of)	10 2018 003 539.6	Disjoint Manager Security for Wireless Networks.	Non Provisional	2018-04-30	102018003539	
P00713DE01	Germany (Federal Republic of)	10 2018 003 535.3	FAST JOINING IN WIRELESS MESH NETWORKS WITH PREDETERMINED PHYSICAL TOPOLOGIES	Non Provisional	2018-04-30	102018003535	
P00054HKD02	Hong Kong	05111577.3	Digital to analog converter.	Non Provisional	1994-01-20	1080623	HK1080623
P00146HK	Hong Kong	01102054.8	Offset voltage cancellation system for radio frequency power controllers.	Non Provisional	2000-04-20	1032859	
P00179HKABD	Hong Kong	02108299.9	RMS-to-DC converter with fault detection and recovery .	Non Provisional	2001-12-12	1046731	
P00184HKABD	Hong Kong	5107205.1	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-07-29	1075976	
P00104IE	Ireland (Republic of)	1997/0334	Circuits and methods for compensating non-linear capacitances to minimize harmonic distortion.	Non Provisional	1997-05-08		80408
P00054IT	Italy	94100806.2	Digital to analog converter.	Non Provisional	1994-01-20	607971	607971
P00054ITD01	Italy	00103327.3	Digital to analog converter.	Non Provisional	1994-01-20	1005171	1005171
P00054ITD02	Italy	04025462.5	Digital to analog converter.	Non Provisional	1994-01-20	1548946	1548946

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P00067IT	Italy	94104509.8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	617501	617501
P00068IT	Italy	93119453.4	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-02	600488	600488
P00073IT	Italy	07121448.0	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2007-11-23	1931029	1931029
P00073ITD01	Italy	11009533.8	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2011-12-01	EP2426819	2426819
P00074IT	Italy	07111883.0	Range compression in oversampling analog-to-digital converters using differential input signals.	Non Provisional	2007-07-05	1876715	1876715
P00075IT	Italy	08100951.6	Systems and methods for providing compact digitally controlled trim of multi-segment circuits.	Non Provisional	2008-01-25	1956716	1956716
P00079IT	Italy	07111882.2	Range compression in oversampling analog-to-digital converters.	Non Provisional	2007-07-05	1903683	1903683
P00080IT	Italy	07839808.8	Current source with indirect load current signal extraction.	Non Provisional	2007-10-26	2123122	2123122
P00107IT	Italy	98110504.2	Synchronous switching regulator which employs switch voltage-drop for current sensing.	Non Provisional	1998-06-09	884746	884746
P00114IT	Italy	98107299	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads	Non Provisional	1998-04-22	0874461	0874461
P00143IT	Italy	99125910.2	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use.	Non Provisional	1999-12-23	1018799	1018799

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P00177IT	Italy	02009309.2	Methods and apparatus for power measuring receiver.	Non Provisional	2002-04-30	EP 1258734	1258734
P00179IT	Italy	01129279.4	RMS-to-DC converter with fault detection and recovery .	Non Provisional	2001-12-12	EP 1215504	1215504
P00181IT	Italy	01129255.4	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2001-12-11	1213655	29109 BE/2011
P00181ITD01	Italy	09150579.2	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2056208	2056208
P00181ITD02	Italy	09150580.0	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2056209	2056209
P00181ITD03	Italy	09150581.8	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane	Non Provisional	2009-01-15	2060978	2060978

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			from the capacitances of at least one input/output card.				
P00184ITP01	Italy	04018003.6	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-07-29	EP1508961	502016000115970
P00188IT	Italy	02007264	Circuits and methods for synchronizing non-constant frequency switching regulators with a phase locked loop	Non Provisional	2002-03-28	1248352	1248352
P00198IT	Italy	03008073.3	Multi-bit digital input using a single pin .	Non Provisional	2003-04-04	1355426	1355426
P00198IT01	Italy	1608070	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		502018000004940
P00198IT02	Italy	06005886	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		1966568
P00222IT	Italy	05255667	Adaptive control for inductor based buck-boost voltage regulators	Non Provisional	2005-09-14	1635445	1635445
P00224IT	Italy	05815577.1	Common-mode data transmission for power over ethernet system.	Non Provisional	2005-10-21	EP1813056	502016000082101
P00225IT01	Italy	06250081.4	DC/DC converter with current limit protection.	Non Provisional	2006-01-09		502017000114927
P00230IT	Italy	05761045.3	Network with multiple adjustment elements and sensitivities, and digital-to-analog converter implementing same.	Non Provisional	2005-06-22	1869770	1869770
P00231IT	Italy	05815960	ANALOG POWER MANAGEMENT WITHIN POWER OVER ETHERNET SYSTEM	Non Provisional	2005-10-20	1813057	1813057
P00233IT	Italy	06250659.7	Protection for switched step up/step down regulators.	Non Provisional	2006-02-08	1691474	1691474
P00233ITD01	Italy	08101359.1	Protection for switched step up/step down regulators.	Non Provisional	2008-02-07	EP1914870	1914870
P00234IT	Italy	06250683.7	Current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP1689070	502016000065400

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P00239IT	Italy	05726151.3	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29	EP1864553	5020150000070725
P00251IT	Italy	06717350.0	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	EP1842121	1842121
P00251ITD01	Italy	09165453.3	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	2144133	2144133
P00252IT	Italy	06250680.3	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP 1689069	5020160000033525
P00252ITD01	Italy	11002431.2	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP2337208	5020160000028430
P00253IT	Italy	05812353	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE INPUT CURRENT	Non Provisional	2005-10-17	1805898	1805898
P00253ITD01	Italy	11161019	Analog signal sampling system and method having reduced average input current	Non Provisional	2005-10-17	2343808	2343808
P00254IT	Italy	05812383	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE DIFFERENTIAL INPUT CURRENT	Non Provisional	2005-10-17	1810406	1810406
P00255IT	Italy	05810349	ANALOG-TO-DIGITAL CONVERTER WITH REDUCED AVERAGE INPUT CURRENT AND REDUCED AVERAGE REFERENCE CURRENT	Non Provisional	2005-10-17	1803223	1803223
P00256IT	Italy	06250682.9	Light load current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	1689068	1689068
P00259IT	Italy	05745504	ADAPTIVE POWER CONTROL FOR HYSTERETIC REGULATORS	Non Provisional	2005-05-09	1872468	1872468
P00259ITD01	Italy	11003329	Adaptive power control for hysteretic regulators	Non Provisional	2005-05-09	2348623	2348623

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P00262IT	Italy	06773601.7	Variable gain amplifier with temperature compensation and gain linearity enhancement.	Non Provisional	2006-06-20	1897218	1897218
P00263IT	Italy	06801036.2	Wideband squaring cell.	Non Provisional	2006-08-09		1915720
P00264IT	Italy	06784986.9	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2006-06-15	EP1897217	502016000126922
P00265IT	Italy	06718370	ADJUSTING CURRENT LIMIT THRESHOLDS BASED ON POWER REQUIREMENT OF POWERED DEVICE IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-13	1842326	1842326
P00266IT	Italy	06718284	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2006-01-13	1842325	1842325
P00267IT	Italy	06717526.5	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2006-01-09	EP 1842321	502015000025111
P00268IT	Italy	06717528.1	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2006-01-09	1842323	1842323
P00269IT	Italy	06717527.3	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09	1842322	1842322
P00270IT	Italy	06717529.9	Detecting legacy powered device in power over ethernet system.	Non Provisional	2006-01-09	EP1842324	1842324
P00271IT	Italy	06717525.7	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09	EP1869824	502016000058281
P00272IT	Italy	06718369.9	Combination of high-side and low-side current sensing in	Non Provisional	2006-01-13	1864429	1864429

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			system for providing power over communication link.				
P00273IT	Italy	06738267.1	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	1859567	1859567
P00273ITD01	Italy	10014682.8	Classification mechanism in system for supplying power over communication link.	Non Provisional	2010-11-15	EP2282445	502016000106090
P00274IT	Italy	05789074.1	Trim circuits and methodologies for data converters.	Non Provisional	2005-08-19	1872478	EP1872478
P00277IT	Italy	05255668.5	Circuit and method for reducing overshoot in a switching regulator	Non Provisional	2005-09-14	1724908	502009901750554
P00278IT	Italy	06752391.0	Switching regulator with slope compensation independent of changes in switching frequency.	Non Provisional	2006-05-08	EP1913679	502017000020492
P00281ITP01	Italy	06760623.6	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2006-06-01	1891735	1891735
P00282IT	Italy	05733704.0	Configurable Data Port For I2C Or Single-Wire Broadcast Interface.	Non Provisional	2005-04-11	1869563	1869563
P00283IT	Italy	06251816	Circuit and method of detecting and resolving stuck I2C buses	Non Provisional	2006-03-31	1710709	1710709
P00285IT	Italy	05792954.9	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-08-31	1905149	1905149
P00290IT	Italy	06787052.7	Peak charging current modulation for burst mode conversion.	Non Provisional	2006-07-13	1922802	1922802
P00293IT	Italy	06813730.6	Squaring cell implementing tail current multiplication.	Non Provisional	2006-08-25	1946241	1946241
P00296IT	Italy	06800924.0	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2006-08-07	EP1932236	502017000048055
P00296ITD01	Italy	12000109.4	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2012-01-10	EP2445096	502016000095365

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P00297IT	Italy	06800923.2	Switching regulator slope compensation generator circuit.	Non Provisional	2006-08-07	1969705	1969705
P00300IT	Italy	06800930.7	Controlling Switching Circuits To Balance Power Or Current Drawn From Multiple Power Supply Inputs.	Non Provisional	2006-08-08	2033290	2033290
P00301IT	Italy	06719192.4	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2007-07-17	EP1859566	502016000072750
P00302IT	Italy	06838293.6	Power Sourcing Equipment Having Bipolar Junction Transistor For Controlling Power Supply And Supporting AC Disconnect-Detection Function.	Non Provisional	2006-11-22	1961152 A1	1961152
P00303ITABD	Italy	06719322.7	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2007-07-25	1842330	
P00304IT	Italy	06838292.8	Combination of high-side and low-side current control in system for providing power over communication link.	Non Provisional	2006-11-22	1961151	71589/BE/2010
P00305IT	Italy	06719193.2	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2007-07-24	1842329	1842329
P00319IT01	Italy	06122849.0	Methods and circuits for output over-voltage reduction in switching regulators.	Non Provisional	2006-10-24		502018000013212
P00320IT	Italy	06836221.9	Power management mechanism in system for supplying power over communication link.	Non Provisional	2006-10-10	1964308 A1	1964308
P00324IT	Italy	06802861.2	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-09-01	1994799	502018000023986

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P00325IT	Italy	07776492	CIRCUIT AND METHODOLOGY FOR SUPPLYING PULSED CURRENT TO A LOAD, SUCH AS A LIGHT EMITTING DIODE	Non Provisional	2007-04-30	2016801	2016801
P00328IT	Italy	07754823.8	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-05	2047589	2047589
P00329IT	Italy	06827753.2	High linearity low noise variable gain amplifier with continuous gain control.	Non Provisional	2006-11-13	2033308	2033308
P00330IT	Italy	07811698.5	Constant power foldback mechanism programmable to approximate safe operating area of pass device for providing connection to load.	Non Provisional	2007-09-07	2060059A2	502013902167964
P00331IT	Italy	07838429.4	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2007-09-17	2064609	502011901998234
P00332IT	Italy	06845700.1	Circuit and methodology for high-speed, low-power level shifting.	Non Provisional	2006-12-19	2064811	
P00333IT	Italy	07121449.8	Programmable conduction mode control for switching circuits.	Non Provisional	2007-11-23	1928079	1928079
P00334IT	Italy	07106585.8	A Method To Modulate Off-Time To Improve Light Load Regulation In Isolated Flyback Converters	Non Provisional	2007-04-20	1885051	502015000012126
P00336IT	Italy	07862802	ADAPTIVE OUTPUT CURRENT CONTROL FOR SWITCHING CIRCUITS	Non Provisional	2007-12-12	2122815	2122815
P00346IT	Italy	06845202.8	Providing Detailed Information On Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-12-12	1964309	1964309
P00347IT	Italy	06827644.3	Integrated powered device connector in system for	Non Provisional	2006-11-08	1961150 A1	

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			supplying power over communication link.				
P00348IT	Italy	06837211.9	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Non Provisional	2006-11-08	1958375	1958375
P00356IT01	Italy	2111705	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2007-10-23		502018000007243
			Voltage Stackable Data Port.				
P00361IT	Italy	07875257.3	Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-02	2132855	2132855
P00363IT	Italy	10004454.4	Complex-Admittance Digital-To-Analog Converter.	Non Provisional	2010-04-27	2246985	2246985
P00367IT	Italy	11000785.3	Time-Multiplexed Residue Amplifier.	Non Provisional	2011-02-01		2355357
			Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.				
P00368IT	Italy	08870490.3	Charge Pump With Reduced Current Variation	Non Provisional	2008-12-24	EP2235751	5020160000065409
P00370IT01	Italy	2539995	Semiconductor device having a suspended isolating interconnect	Non Provisional	2011-02-22	2539995	5020170000136342
P00373IT	Italy	2159841	Semiconductor device having a suspended isolating interconnect	Non Provisional	2009-09-02	2159841	5020180000000840
P00373IT01	Italy	5020180000009119	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2011-05-19		5020180000009119
P00376IT	Italy	08168692.5	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2008-11-07	EP2184858	5020170000065292
P00376IT01	Italy	13005146.9	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2013-10-30		5020180000019897
P00377IT	Italy	09157010.1	Method and system for bit polarization coding.	Non Provisional	2009-03-31		5020150000008127

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P00380IT	Italy	08796043.1	Single pass INL trim algorithm for networks.	Non Provisional	2008-06-27	2304875	2304875
P00382IT	Italy	10150371.2	Extending Input to Output Voltage Range in Multiple Channel Switching Regulator Applications.	Non Provisional	2010-01-08	EP2209194	502017000022949
P00385IT	Italy	12007591.6	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2012-11-07	EP2590329 A1	502016000078064
P00387IT	Italy	08729721.4	Magnetic Isolation Of Power Sourcing Equipment Control Circuitry.	Non Provisional	2008-02-13	2127201	2127201
P00392IT	Italy	08876475	CIRCUIT, TRIM, AND LAYOUT FOR TEMPERATURE COMPENSATION OF METAL RESISTORS IN SEMI-CONDUCTOR CHIPS	Non Provisional	2008-11-25	2356533	2356533
P00393IT	Italy	10004814.9	Method and System For High Efficiency, Fast Transient Multi-Channel LED Driver.	Non Provisional	2010-05-06	2252131	2252131
P00404IT	Italy	10151339.8	Circuitry And Methodology Protecting a Boost DC/DC Converter	Non Provisional	2010-01-21	2211449	502018000014473
P00406IT	Italy	10150693.9	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2010-01-13	2207258	2207258
P00406ITD01	Italy	12008106.2	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2012-12-04	EP2575248 A1	502016000025235
P00408IT	Italy	10005284.4	Chopper Stabilized Bandgap Reference Circuit And Methodology For Voltage Regulators.	Non Provisional	2010-05-20	EP2256580A3	

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P00409IT	Italy	09176801.0	Method and system for variable-gain amplifier.	Non Provisional	2009-11-23	2190115	2190115
P00410IT	Italy	10009843.3	Feedback control of a DC/DC power converter.	Non Provisional	2010-09-17	EP2299575	502017000010094
P00411IT	Italy	09837198.2	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2011-07-11		502017000045741
P00412IT	Italy	09837200	AUTONOMOUS MULTI-DEVICE EVENT SYNCHRONIZATION AND SEQUENCING TECHNIQUE ELIMINATING MASTER AND SLAVE ASSIGNMENTS	Non Provisional	2009-12-31	2376994	2376994
P00418IT	Italy	10154584.6	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2010-02-24	EP2284640	2284640
P00418ITD01	Italy	14000301.3	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2014-01-28	2728431	502015000046314
P00420IT	Italy	EP10160094.8	Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Non Provisional	2010-04-15	EP2259161	502017000010098
P00421IT	Italy	10158030	Average inductor current mode switching converters	Non Provisional	2010-03-26	2234256	2234256
P00422IT	Italy	10159567	Buck-mode boost converter with regulated output current	Non Provisional	2010-04-09	2239834	2239834
P00423IT	Italy	10014953.3	Method and System For Improved Phase Noise In A BiCMOS Clock Driver.	Non Provisional	2010-11-24	EP2326003	502017000030319
P00427IT	Italy	10006723.0	Method And System For Dimming An Offline LED Driver. Extending Achievable Duty Cycle Range in a DC/DC Forward Converter With Active Clamp Reset.	Non Provisional	2010-06-29	EP2271181A1	69352BE/2013
P00431IT	Italy	10009841.7	Improving the accuracy of a volt-second clamp in an isolated dc/dc converter	Non Provisional	2010-09-17	EP2299579	502017000072976
P00432IT	Italy	10009842	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2010-09-17	2299573	2299573
P00433IT	Italy	10009840.9		Non Provisional	2010-09-17	EP2299578	502013902189044

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P00433ITD01	Italy	11000951.1	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2317634	5020170000099148
P00433ITD02	Italy	11000952.9	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2323246	502015000007621
P00434IT	Italy	10014625.7	Method And System For Improving Limiting Amplifier Phase Noise For Low Slew-Rate Input Signals.	Non Provisional	2010-11-15	EP2323256	5020160000082114
P00438IT	Italy	12165770.4	Current Steering Circuit With Feedback.	Non Provisional	2012-04-26	EP2518900	5020160000086145
P00439IT	Italy	10009844.1	DC/DC Converter Overcurrent Protection.	Non Provisional	2010-09-17	EP2299570	5020150000004608
P00441IT	Italy	2337206	Continuously Switching Buck-Boost Control	Non Provisional	2010-12-16	EP2337206	502017000105303
P00441ITD01	Italy	11005360.0	Continuously Switching Buck-Boost Control.	Non Provisional	2011-06-30	EP2378650 A1	2378650
P00442ITABD	Italy	10015834.4	Clean Transition Between CCM and DCM In Valley Current Mode Control Of DC-To-DC Converter.	Non Provisional	2010-12-20		
P00443IT	Italy	10787615.3	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2012-06-21	EP2504947	5020170000067300
P00445IT	Italy	11717836.8	Stacked Interposer Leadframes.	Non Provisional	2011-04-14		5020180000008816
P00445ITD01	Italy	2662892	Stacked Interposer Leadframes	Non Provisional	2013-08-06		502017000136237
P00446IT	Italy	10799210.9	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Non Provisional	2012-07-24		2517034
P00447IT	Italy	11006618.0	Method and System For Extending PWM Dimming Range In LED drivers.	Non Provisional	2011-08-11	EP2418918A1	2418918
P00449IT	Italy	11008786.3	Method And System For Detecting And Asserting BUS	Non Provisional	2011-11-04	EP2450801 (A1)	2450801

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			Speed Condition In A USB Isolated Device.				
P00451IT	Italy	12004634.7	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2012-06-20	EP2538562 A2	5020160000132204
P00453IT	Italy	11004111.8	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Non Provisional	2011-05-18	EP2388922	2388922
P00455IT	Italy	11004552.3	Dynamic Compensation of Aging Drift In Current Sense Resistor.	Non Provisional	2011-06-03	EP2392931	5020170000107555
P00456IT	Italy	12000890.9	Circuits for accurately measuring temperature of semiconductor junctions	Non Provisional	2012-02-10	EP2487476	502017000010087
P00457IT	Italy	11004553.1	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	EP2393190	502017000020497
P00462IT	Italy	12005563	I2C isolated, bidirectional communication system	Non Provisional	2012-07-31	2555122	2555122
P00463IT	Italy	11793633	BIAS POINT SETTING FOR THIRD ORDER LINEARITY OPTIMIZATION OF CLASS A AMPLIFIER	Non Provisional	2011-11-29	2647123	2647123
P00464IT	Italy	11191991.6	Third Order Intermodulation Cancellation By In-Line Generated Signal.	Non Provisional	2011-12-03	EP2461478	2461478
P00470IT	Italy	12169479	Balancing temperatures in a multi-phase dc/dc converter	Non Provisional	2012-05-25	2528215	2528215
P00471IT	Italy	12003032.5	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Non Provisional	2012-04-30	EP2520942	5020170000095739
P00472IT	Italy	12003031.7	Isolated Communications Interface.	Non Provisional	2012-04-30	EP2518957	2518957
P00477IT	Italy	12170949.7	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533246	5020160000106043

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P00478IT	Italy	12171026.3	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533247	502017000029037
P00481IT	Italy	12175986.4	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2012-07-11	EP2546966 A2	502015000072837
P00482IT	Italy	12004632.1	Radar System and Method For Providing Information On Movements of Object's Surface.	Non Provisional	2012-06-20	EP2560021 A1	502017000114278
P00491IT	Italy	12753339.6	Power Combining In Power Over Ethernet Systems.	Non Provisional	2014-01-27	EP2727285	502017000030014
P00492IT	Italy	12275154	Anemometer detecting thermal time constant of sensor	Non Provisional	2012-09-28	2592425	2592425
P00493IT	Italy	12007270.7	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-10-19	2583858	2583858
P00495IT	Italy	12007313.5	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-24	EP2587718	2587718
P00496IT	Italy	12193463.2	Second Order Intermodulation Canceller.	Non Provisional	2012-11-20	2605412 A1	2605412
P00497IT	Italy	13150881.4	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2013-01-10	EP2621069	502017000057055
P00498IT	Italy	13158838.6	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2013-03-12	EP2639951	502016000110973
P00499IT	Italy	12193843.5	Third-Order Intermodulation Cancellation for RF Transconductors.	Non Provisional	2012-11-22	EP2605402	502016000063684
P00500IT01	Italy	12723319.5	High Side Current Sense Amplifier.	Non Provisional	2012-05-09		502018000020395
P00513IT	Italy	13000683.6	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-08	EP2626862	2626862
P00521IT	Italy	13275075.3	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2013-03-22	EP2680419	2680419
P00529IT	Italy	13275116.5	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2013-05-14	EP2709253	502017000007109

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P00533IT	Italy	13003571.0	Low Power Radio Receiver.	Non Provisional	2013-07-16	EP2688215	5020170000055526
P00538IT	Italy	14000003.5	Low Current DC-DC Converter With Integrated Low Current Coulomb Counter.	Non Provisional	2014-01-02	EP2752965	5020160000061019
P00541IT	Italy	13186691.5	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2013-09-30	EP2722987	5020170000007100
P00542IT01	Italy	13186007.4	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2013-09-25		5020180000026578
P00544IT	Italy	14000608	Address translation in I2C data communications system	Non Provisional	2014-02-20	2778941	2778941
P00545IT	Italy	13773573	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2013-09-27	2904688	2904688
P00545IT01	Italy	16202486.3	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2016-12-06		5020180000015366
P00546IT	Italy	13186476.1	PWM Control for LEDs With Reduced Flicker When Using Spread Spectrum Switching Frequencies.	Non Provisional	2013-09-27	EP2723146	5020170000030461
P00549IT	Italy	13776655.6	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Non Provisional	2013-09-27		5020180000035812
P00555IT01	Italy	13198155.7	High-Frequency RMS-DC Converter Using Chopper-Stabilized Square Cells.	Non Provisional	2013-12-18		2770334
P00558IT	Italy	14001073.7	Rotating 3-Wire Resistance Temperature Detection Excitation Current Sources and Method.	Non Provisional	2014-03-21	EP2921832	5020160000087398
P00561IT01	Italy	2779444	Leakage Compensation for Switched Capacitor Integrators	Non Provisional	2014-02-28		5020180000007549
P00571IT	Italy	14002012.4	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-06-11	EP2816759	5020160000072755

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P00583 T01	Italy	14002509.9	Isolated Bootstrapped Switch.	Non Provisional	2014-07-18		2866347
P00589 T01	Italy	14766294.4	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-08-28		502018000009118
P00593 T01	Italy	15000109.7	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Non Provisional	2015-01-16		502018000027311
P00601 T	Italy	2905902	Arbitrary Phase Trajectory Frequency Synthesizer	Non Provisional	2015-02-06	2905902	5020170000092847
P00603 T01	Italy	15000760.7	Bootstrap Sampling Circuit With Accurately Averaging	Non Provisional	2015-03-13		502018000007672
P00611 T01	Italy	15719055.4	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-04-09		502018000006285
P00623 T01	Italy	15727762.5	PoDL System With Active dV/dt and dI/dt Control.	Non Provisional	2015-05-15		502018000009113
P00636 T	Italy	15002497	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-21	2991270	2991270
P00638 T01	Italy	15722416.3	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Non Provisional	2015-05-07		5020190000074438
P00641 T01	Italy	15002779.5	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-28		5020190000014593
P00644 T	Italy	15813948.5	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19		502019000003601
P00648 T01	Italy	16002547.4	Circuit Architectures for Protecting Against PoDL Wire Faults.	Non Provisional	2016-11-30		5020180000026181
P00663 T01	Italy	16001081.5	System With Sleep and Wake up Control Over DC Path.	Non Provisional	2016-05-12		5020180000027299

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P00686IT01	Italy	17000671.2	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-20		502018000031886
P00688IT	Italy	17000811.4	Method for Monitoring Bridge Circuitry and Presenting Maintain Power Signature.	Non Provisional	2017-05-10		502018000034290
P00694IT	Italy	17001282.7	Technique for Kelvin Sensing Connector Voltage in One-Pair Data PoDL Applications	Non Provisional	2017-07-25		3276881
P00695IT01	Italy	17001715.6	Fault-Tolerant Power Node	Non Provisional	2017-10-17		3313021
P00003JPABD	Japan	60-140112/1985	Nonlinearity correction circuit for bandgap reference.	Non Provisional	1985-06-26		
P00009JP	Japan	290464	High speed junction field effect transistor for use in bipolar integrated circuits.	Non Provisional	1987-11-17		
P00016JP	Japan	63-116778	Charge pump circuitry having low saturation voltage and current-limited switch.	Non Provisional	1988-05-13	06-095829	1963659
P00065JPP01	Japan	757666	Fluorescent lamp power supply and control unit	Non Provisional	1995-03-16	855691	
P00065JPP02	Japan	8146277	Fluorescent lamp power supply and control unit	Non Provisional	1996-06-07	9-7786	
P00067JP	Japan	6-52295	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-23		3501491
P00068JP	Japan	5-304235	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-03		2690264
P00075JP	Japan	22733/2008	Systems and methods for providing compact digitally controlled trim of multi-segment circuits.	Non Provisional	2008-02-01	193694/2008	5062751
P00078JP	Japan	7-91169	High-speed switching regulator drive circuit.	Non Provisional	1995-04-17		3605174
P00082JP	Japan	8137268	High efficiency switching regulator with adaptive drive output circuit.	Non Provisional	1996-05-30	9-140126	

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P00100JP	Japan	9-265267	Low drop-out switching regulator architecture.	Non Provisional	1997-09-30		4025396
P00108JP	Japan	9-253738	Methods and apparatus for obtaining floating output drive to fluorescent lamps and minimizing installation requirements.	Non Provisional	1997-09-18		
P00108JPABD	Japan	2007-89681	Methods and apparatus for obtaining floating output drive to fluorescent lamps and minimizing installation requirements.	Non Provisional	1997-09-18	2007-180053	
P00114JP	Japan	11573798	How to control the switching regulator and low noise switching regulator	Non Provisional	1998-04-24	H1141918	4065601
P00123JP	Japan	19942299	ACTIVE PULL-UP CIRCUIT FOR OPEN-DRAIN SIGNAL	Non Provisional	1999-07-13	2000101407	3403976
P00129JPABD	Japan	11-173444	Voltage mode feedback burst mode circuit.	Non Provisional	1999-06-18	2000-32745	
P00129JPABD2	Japan	2009-281054	Voltage mode feedback burst mode circuit.	Non Provisional	2009-12-01		
P00136JP	Japan	11-332090	Fluorescent-lamp excitation circuit with frequency and amplitude control and methods for using same.	Non Provisional	1999-11-22		4761598
P00138JP	Japan	11257437	METHOD AND CIRCUIT FOR CONTROLLING TIMING AND SLOPE COMPENSATION IN SWITCHING REGULATOR	Non Provisional	1999-09-10	2000201474	4409673
P00143JP	Japan	11-375720	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use.	Non Provisional	1999-12-28		3270440
P00146JP	Japan	2000-123303	Offset voltage cancellation system for radio frequency power controllers.	Non Provisional	2000-04-24	2000-341059	5143320

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P00148JP	Japan	2001-90892	Control circuit and method for maintaining high efficiency in a buck-boost switching regulator.	Non Provisional	2001-03-27	2001-0314076	4903945
P00174JP	Japan	2001-341966	Power controllers for amplitude modulation.	Non Provisional	2001-11-07	2002-232246	
P00175JP	Japan	2002-33176	Multiple phase switching regulators with stage shedding.	Non Provisional	2002-02-08		4129134
P00184JP	Japan	2002-227851	Circuits and techniques for capacitor charging circuits.	Non Provisional	2002-08-05		
P00184JPD01	Japan	2005-228694	Circuits and techniques for capacitor charging circuits.	Non Provisional	2002-08-05	2006-14596	
P00184JPP01	Japan	2004-240099	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-08-19	2004-240099	
P00185JP	Japan	2002-346589	Circuitry and methods for improving the performance of a light emitting element.	Non Provisional	2002-11-28		
P00187JP	Japan	2002-54885	High Voltage Transistor	Non Provisional	2002-02-28	2002-314077	
P00188JP	Japan	2002-104583	CIRCUIT AND METHOD FOR SYNCHRONIZING SWITCHING REGULATOR WITH NON-CONSTANT FREQUENCY WITH PHASE LOCKED LOOP	Non Provisional	2002-04-05	2002-325432	4056780
P00209JPABD	Japan	2004-361954	Circuits and methods for detecting the presence of a powered device in a powered network.	Non Provisional	2004-12-14	2005-184821	4664057
P00210JP	Japan	2005-134615	Methods and circuits for frequency modulation that reduce the spectral noise of switching regulators.	Non Provisional	2005-05-02	2005-318797	4550661
P00217JP	Japan	2005-293068	CIRCUIT AND METHOD FOR FLEXIBLE CURRENT DIVISION IN MONOLITHIC SWITCHING REGULATOR	Non Provisional	2005-10-05	2006109695	4660339
P00224JP	Japan	543057/2007	Common-mode data transmission for power over ethernet system.	Non Provisional	2005-10-21	521342-2008	4454665

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P00225JP	Japan	000779/2006	DC/DC converter with current limit protection.	Non Provisional	2006-01-05	2006-197794	4864463
P00228JPABD	Japan	233131/2005	Switch-Mode Power Supply Voltage Regulator And Methodology.	Non Provisional	2005-08-11	2006-136190	
P00231JP	Japan	2007543060	The analog power management Power over Ethernet in (registered trademark) system	Non Provisional	2005-10-20	2008521343	4485576
P00235JP	Japan	2005222844	CIRCUITRY AND METHODOLOGY FOR DRIVING MULTIPLE LIGHT EMITTING DEVICES AND CIRCUITRY FOR CONTROLLING REGULATOR	Non Provisional	2005-08-01	2006-048047	5319048
P00237JP	Japan	301695-2005	Inrush current slew control circuit and method.	Non Provisional	2005-10-17	2006-121691	4790369
P00241JP	Japan	377229/2005	Current control circuitry and methodology for controlling current from current constrained source.	Non Provisional	2005-12-28	2006-191796	
P00262JP	Japan	519387/2008	Variable gain amplifier with temperature compensation and gain linearity enhancement.	Non Provisional	2006-06-20	2008-519387	
P00263JP	Japan	526999/2008	Wideband squaring cell.	Non Provisional	2006-08-09	505285/2009	4663789
P00264JP	Japan	519356/2008	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2006-06-15	544724/2008	4850247
P00265JP	Japan	552189/2007	Adjusting Current Limit Thresholds Based On Power Requirement Of Powered Device In System For Providing Power Over Communication Unit.	Non Provisional	2006-01-13	529460-2008	4876078
P00266JP	Japan	552184/2007	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2006-01-13	529459-2008	4850848

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P00267JP	Japan	2007-552154	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2006-01-09	2008-529129	5231811
P00268JP	Japan	552156/2007	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2006-01-09	2008-529352	4598084
P00269JP	Japan	552155/2007	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09	529351-2008	4981686
P00270JP	Japan	552157/2007	Detecting legacy powered device in power over ethernet system.	Non Provisional	2006-01-09	2008-529353	4624430
P00271JP	Japan	552153/2007	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09	2008-529350	4624429
P00272JP	Japan	552188/2007	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13	537647/2008	4790729
P00273JP	Japan	501976/2008	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	533918/2008	4764478
P00281JPP01	Japan	516903/2008	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2006-06-01	2008-547087	5135214
P00285JP	Japan	522757/2008	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-08-31	502110/2009	5222725
P00290JP	Japan	2008-529032	Peak charging current modulation for burst mode conversion.	Non Provisional	2006-07-13	2009-507461	4937262
P00291JP	Japan	233786/2006	Switched converter with variable peak current and variable off-time control.	Non Provisional	2006-08-30	181389/2007	4874033

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P00292JP	Japan	042721/2007	Apparatus and method for producing signal conveying circuit status information.	Non Provisional	2007-02-22	236191/2007	5192161
P00295JP	Japan	203075/2007	Circuits And Methods For Adjustable Peak Inductor Current And Hysteresis For Burst Mode in Switching Regulators.	Non Provisional	2007-08-03	043195/2008	5240983
P00296JP	Japan	534524/2008	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2006-08-07	510995/2009	5066526
P00299JP	Japan	552229/2007	Providing Communication Between Power Supply Device And Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-01-19	529359/2008	4850849
P00301JP	Japan	552330/2007	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2006-01-23	529462-2008	4981687
P00303JPABD	Japan	552361/2007	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2006-01-24	529463/2008	
P00305JP	Japan	552331/2007	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2006-01-23	529362-2008	4718562
P00306JP	Japan	552228/2007	Utilization Of Power Delivered To Powered Device During Detection And Classification Mode.	Non Provisional	2006-01-19	529461-2008	
P00310JP	Japan	254064/2006	Spread spectrum modulation of a clock signal for reduction of electromagnetic interference.	Non Provisional	2006-09-20	243911/2007	4887106
P00317JP	Japan	2006-263687	Systems and methods for reducing input current in photoflash chargers.	Non Provisional	2006-09-28	2007-215393	5075384

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P00326JP	Japan	2003-293957	High linearity digital variable gain amplifier.	Non Provisional	2003-08-15	2004-187267	4490060
P00326JPD01	Japan	2009-192629	High linearity digital variable gain amplifier.	Non Provisional	2003-08-15	2009-273192	5061165
P00326JPD02	Japan	2012-006257	High linearity digital variable gain amplifier.	Non Provisional	2012-01-16	2012-110013	5377676
P00361JPABD1	Japan	2010-502066	Voltage Stackable Data Port. Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-02	2010-524421	
P00361JPABD2	Japan	2015-078951	Voltage Stackable Data Port. Monitoring Cells In Energy Storage System .	Non Provisional		2015-173591	
P00361JPD01	Japan	2014-057613	Voltage Stackable Data Port. Monitoring Cells In Energy Storage System .	Non Provisional	2014-03-20	2015-173591	5914551
P00495JP	Japan	2012-233880	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-22		6202801
P00497JP	Japan	2012-254113	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2012-11-20	2013-158231	5453508
P00498JP	Japan	2013-28800	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2013-02-18	2013-192441	5522760
P00541JP	Japan	2013-204019	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2013-09-30	2014-87252	5779213
P00545JP	Japan	2015-535705	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmitter Power for Optimum Efficiency.	Non Provisional	2013-09-27	2015-536130	5988467
P00563JP	Japan	2014-077592	Voltage Compensated Active Cell Balancing.	Non Provisional	2014-04-04	2014-226029	

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P00567JP	Japan	2016-544331	Switching Topology For Connecting Two Nodes in Electronic System.	Non Provisional	2014-08-18		
P00571JP	Japan	2014-123241	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-06-16		5745140
P00572JP	Japan	2014-137399	Inrush Control Method with Multiple Switches.	Non Provisional	2014-07-03	2015-019361	
P00573JP	Japan	2014-143147	Detecting Faults in Hot-Swap Applications.	Non Provisional	2014-07-11	2015-029264	
P00575JPABD	Japan	2014-145822	Interface Circuit For Driving Fully-Differential Circuits.	Non Provisional	2014-07-16		
P00576JP	Japan	2014-165126	The current sense circuit , and a circuit for driving the windings of the motor	Non Provisional	2014-08-14	2015045640	6215795
P00582JP	Japan	2016506800	Detection and Classification Scheme For Power Over Ethernet System	Non Provisional	2014-03-18	2016-518710	6200588
P00587JP	Japan	2015-227412	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2015-11-20	2016-100900	6061436
P00587JPD01	Japan	2016-224806	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2016-11-18	2017-63473	6258449
P00587JPD02	Japan	2016-224807	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2016-11-18	2017-69972	6322263
P00587JPD03	Japan	2016-224808	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2015-11-20	2017-46356	6384970
P00589JP	Japan	2016-560488	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-08-28	2017-511579	6242508
P00600JP	Japan	2015-15493	Detection Scheme For Four Wire Pair Power Over Ethernet System.	Non Provisional	2015-01-29	2015-180046	6021234

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P00611JP	Japan	2016-555982	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-04-09	2017-511638	6322293
P00615JP	Japan	2016-561859	Voltage Regulation of Resonant Power Wireless Receiver.	Non Provisional	2015-03-17	2017-514436	
P00615JP02	Japan	2018-172240	Voltage Regulation of Resonant Power Wireless Receiver.	Non Provisional	2018-09-14		
P00621JP	Japan	2016-567343	Configuring Signal-Progressing Systems.	Non Provisional	2015-05-13	2017-520967	6480953
P00621JP02	Japan	2019-021814	Configuring Signal-Progressing Systems.	Non Provisional	2015-05-13	2019-134427	
P00623JP	Japan	2017-507943	PoDL System With Active dV/dt and dI/dt Control.	Non Provisional	2015-05-15	2017-514454	6202704
P00624JP	Japan	2015-101740	Broadband Integrated RF/Microwave/Millimeter Mixer with Integrated Balun(s).	Non Provisional	2015-05-19	2015-226325	
P00636JP	Japan	2015-163798	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-21	2016046815	6013571
P00641JP	Japan	2015-185705	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-18	2015-185705	6132446
P00644JP	Japan	2017-526883	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19	2018-503288	6372946
P00648JP	Japan	2016-213295	Circuit Architectures for Protecting Against PoDL Wire Faults.	Non Provisional	2016-10-31	2017-103759	6348556
P00657JP01	Japan	2017-546674	Accurately Detecting Low Current Threshold.	Non Provisional	2016-09-05	2018-508782	
P00664JP01	Japan	2017-560743	LOW POWER SENSOR NODE OPERATION FOR WIRELESS NETWORK	Non Provisional	2016-05-19	2018-520574	
P00667JP01	Japan	2018-509798	Multiple Access Point Wireless Mesh Network.	Non Provisional	2018-02-20		
P00678JP01	Japan	2018-527920	Ripple Monitoring.	Non Provisional	2016-05-16	2018-538532	

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P00686JP	Japan	2017-82696	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-19	2017-195763	6381161
P00688JP	Japan	2017-099039	Maintain power signature controller at power interface of PoE or PoDL system.	Non Provisional	2017-05-18	2017-208819	6425768
P00691JP01	Japan	2018-567724	Wireless Sensing and Battery Storage System.	Non Provisional	2017-06-28		
P00694JP	Japan	2017-142776	Communications System Using Hybrid common mode choke and Kelvin sensing of voltage.	Non Provisional	2017-07-24	2018-19398	6377819
P00695JP01	Japan	2017-199174	Fault-Tolerant Power Node	Non Provisional	2017-10-13	2018-67917	6556801
P00696JP01	Japan	2018-559211	Method of Reducing Charge Pump Substrate Noise.	Non Provisional	2017-03-21	2019-515635	
P00697JP	Japan	2017-099004	ANALOG TO DIGITAL CONVERTER, DIMMING PWM GENERATOR OF LED DRIVER, AND METHOD OF PROVIDING ANALOG TO DIGITAL CONVERSION	Non Provisional	2017-05-18	2018-148540	6431567
P00704JP01	Japan	2018-061954	Trans-impedance Amplifier with Fast Overdrive Recovery	Non Provisional	2018-03-28	2018-170763	
P00705JP01	Japan	2018-052270	Unity Gain Buffer With Two States	Non Provisional	2018-03-20	2018-159706	
P00712JP01	Japan	2018-086733	Disjoint Manager Security for Wireless Networks.	Non Provisional	2018-04-27	2018-191284	
P00713JP01	Japan	2018-088096	Fast Joining in Wireless Mesh Networks With Predetermined Physical Topologies	Non Provisional	2018-05-01	2018-191286	6567725
P00713JP02	Japan	2019-139837	Fixed Topology Schedules for Fast Joining in Time-Synchronized Channel-Hopping Wireless Networks.	Non Provisional	2019-07-30		
P00218KR	Korea, Republic of (KR)	20050065987	FLASHLESS LEAD FRAME WITH HORIZONTAL SINGULATION	Non Provisional	2005-07-20	20060053957	101121256
P00220KRABD	Korea, Republic of (KR)	10-2005-0116743	Current Control Circuitry For Controlling Current From	Non Provisional	2005-12-02		

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
			Limited Current Capacity Source.				
P00221KR	Korea, Republic of (KR)	20050118738	SYSTEM AND METHOD FOR DETERMINING LOAD CURRENT IN SWITCHING REGULATORS	Non Provisional	2005-12-07	20060064543	101193669
P00224KR	Korea, Republic of (KR)	10-2007-7010890	Common-mode data transmission for power over ethernet system.	Non Provisional	2005-10-21		10-0864768
P00225KR	Korea, Republic of (KR)	10-2006-0002854	DC/DC converter with current limit protection.	Non Provisional	2006-01-10		10-1185410
P00228KRABD	Korea, Republic of (KR)	10-2005-0086536	Switch-Mode Power Supply Voltage Regulator And Methodology.	Non Provisional	2005-09-15		
P00231KR	Korea, Republic of (KR)	10-2007-7010891	Analog Power Management Within Power Over Ethernet System.	Non Provisional	2005-10-20	20070072582	
P00235KR	Korea, Republic of (KR)	10-2005-0071350	Circuitry And Methodology For Driving Multiple Light Emitting Devices.	Non Provisional	2005-08-04		10-1029359
P00237KR	Korea, Republic of (KR)	10-2005-0097770	Inrush current slew control circuit and method.	Non Provisional	2005-10-17		10-1230172
P00238KR	Korea, Republic of (KR)	20050130694	COMPENSATION TECHNIQUE PROVIDING STABILITY OVER BROAD RANGE OF OUTPUT CAPACITOR VALUES	Non Provisional	2005-12-27	20060085166	101238296
P00239KR	Korea, Republic of (KR)	10-2007-7020935	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29		10-1311140
P00241KRABD	Korea, Republic of (KR)	10-2005-0131915	Current control circuitry and methodology for controlling current from current constrained source.	Non Provisional	2005-12-28		
P00242KR	Korea, Republic of (KR)	20050131813	POWER MANAGEMENT CIRCUIT AND METHODOLOGY FOR BATTERY-POWERED SYSTEMS	Non Provisional	2005-12-28	20060079104	101201097
P00253KR	Korea, Republic of (KR)	20077009236	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING	Non Provisional	2005-10-17	20070065404	101204521

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			REDUCED AVERAGE INPUT CURRENT				
P00254KR	Korea, Republic of (KR)	10-2007-7009235	Analog signal sampling system and method having reduced average differential input current (FIG. 6).	Non Provisional	2007-04-23		10-1280626
P00255KR	Korea, Republic of (KR)	2007-7010266	ANALOG-TO-DIGITAL CONVERTER WITH REDUCED AVERAGE INPUT CURRENT AND REDUCED AVERAGE REFERENCE CURRENT	Non Provisional	2005-10-17	20070069192	101255862
P00259KR	Korea, Republic of (KR)	2007-7023907	Adaptive power control for hysteretic regulators.	Non Provisional	2005-05-09		10-1126456
P00265KR	Korea, Republic of (KR)	10-2007-7019063	Adjusting Current Limit Thresholds Based On Power Requirement Of Powered Device In System For Providing Power Over Communication Unit.	Non Provisional	2006-01-13		10-1217910
P00266KR	Korea, Republic of (KR)	10-2007-7016923	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2006-01-13		10-1214686
P00267KR	Korea, Republic of (KR)	10-2007-7019018	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2006-01-09		10-1228205
P00268KR	Korea, Republic of (KR)	10-2007-7019059	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2006-01-09		10-1214773
P00269KR	Korea, Republic of (KR)	10-2007-7019029	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09		10-1196156
P00270KR	Korea, Republic of (KR)	10-2007-7018707	Detecting legacy powered device in power over ethernet system.	Non Provisional	2007-08-16		10-1218007

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P00271KR	Korea, Republic of (KR)	10-2007-7017158	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09		10-1275443
P00272KR	Korea, Republic of (KR)	10-2007-7018989	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13		10-1186451
P00273KR	Korea, Republic of (KR)	10-2007-7020934	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15		10-1218004
P00280KR	Korea, Republic of (KR)	20050131586	POWER MANAGER AND POWER MANAGING METHOD FOR BATTERY-POWERED APPLICATION	Non Provisional	2005-12-28	20070011053	101202493
P00281KRP01	Korea, Republic of (KR)	10-2007-7030206	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2006-06-01		10-1259209
P00282KR	Korea, Republic of (KR)	2007-7023953	Configurable Data Port For I2C Or Single-Wire Broadcast Interface.	Non Provisional	2005-04-11		10-1139135
P00285KR	Korea, Republic of (KR)	10-2008-7001408	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-08-31		10-1196027
P00291KR	Korea, Republic of (KR)	20060080741	SWITCHED CONVERTER WITH VARIABLE PEAK CURRENT AND VARIABLE OFF-TIME CONTROL	Non Provisional	2006-08-24	20070068994	101254814
P00292KR	Korea, Republic of (KR)	10-2007-0010322	Apparatus and method for producing signal conveying circuit status information.	Non Provisional	2007-01-31		10-1329418
P00293KR	Korea, Republic of (KR)	20087012074	CURRENT SQUARING CELL	Non Provisional	2006-08-25	20080074132	101252323
P00295KR	Korea, Republic of (KR)	10-2007-0078478	Circuits And Methods For Adjustable Peak Inductor Current And Hysteresis For Burst Mode in Switching Regulators.	Non Provisional	2007-08-06		10-1379627

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P00296KR	Korea, Republic of (KR)	2008-7010700	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2006-08-07	2008-0075496	10-1332677
P00297KR	Korea, Republic of (KR)	20087014541	SWITCHING REGULATOR SLOPE COMPENSATION GENERATOR CIRCUIT	Non Provisional	2006-08-07	20080093975	101322284
P00299KR	Korea, Republic of (KR)	20077018647	PROVIDING DATA COMMUNICATION BETWEEN POWER SUPPLY DEVICE AND POWERED DEVICE IN SYSTEM FOR SUPPLYING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-19	20070104601	101244975
P00301KR	Korea, Republic of (KR)	10-2007-7016948	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2006-01-23		10-1200648
P00303KR	Korea, Republic of (KR)	10-2007-7018706	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2006-01-24		10-1196024
P00305KR	Korea, Republic of (KR)	10-2007-7018920	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2006-01-23		10-1224712
P00306KR	Korea, Republic of (KR)	10-2007-7018651	Utilization Of Power Delivered To Powered Device During Detection And Classification Mode.	Non Provisional	2006-01-19		
P00317KR	Korea, Republic of (KR)	20060101777	SYSTEMS AND METHODS FOR REDUCING INPUT CURRENT IN PHOTOFLASH CHARGERS	Non Provisional	2006-10-19	20070081076	101285010
P00318KR	Korea, Republic of (KR)	20060116141	ADAPTIVE CURRENT REVERSAL COMPARATOR	Non Provisional	2006-11-23	20070104200	101304178
P00319KR	Korea, Republic of (KR)	20060106120	METHOD AND CIRCUITS FOR OUTPUT OVER-VOLTAGE REDUCTION IN SWITCHING REGULATORS	Non Provisional	2006-10-31	20070073576	101238089
P00328KR	Korea, Republic of (KR)	2009-7000760	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-05		10-1328055

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P00330KR	Korea, Republic of (KR)	2009-7006740	Constant power foldback mechanism programmable to approximate safe operating area of pass device for providing connection to load.	Non Provisional	2007-09-07		10-1382212
P00331KR	Korea, Republic of (KR)	2009-7007112	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2007-09-17	nn-YYYY-nnnnnnn	10-1341877
P00332KR	Korea, Republic of (KR)	2009-7007159	Circuit and methodology for high-speed, low-power level shifting.	Non Provisional	2006-12-19		10-1216507
P00342KR	Korea, Republic of (KR)	20070122250	SYNCHRONOUS RECTIFIER CONTROL FOR SYNCHRONOUS BOOST CONVERTER	Non Provisional	2007-11-28	20080087636	10-1418594
P00355KR	Korea, Republic of (KR)	10-2007-0122788	Determining average output current in DC-DC converter.	Non Provisional	2007-11-29	10/2008-0092826	10-1356352
P00358KR	Korea, Republic of (KR)	2008-0106020	BIDIRECTIONAL POWER CONVERTERS	Non Provisional	2008-10-28	20090043462	10-1497918
P00360KR	Korea, Republic of (KR)	2009-0021220	SYSTEM AND METHOD FOR CHARGING CAPACITORS USING AUTOMATIC CELL BALANCING	Non Provisional	2009-03-12	20090097828	10-1512305
P00361KR	Korea, Republic of (KR)	2009-7022542	Voltage Stackable Data Port. Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-02	nn-YYYY-nnnnnnn	10-1364459
P00393KRABD	Korea, Republic of (KR)	2010-0042866	Method and System For High Efficiency, Fast Transient Multi-Channel LED Driver.	Non Provisional	2010-05-07		
P00409KR	Korea, Republic of (KR)	10-2009-0113976	Method and system for variable-gain amplifier.	Non Provisional	2009-11-24		10-1624194
P00411KR	Korea, Republic of (KR)	2011-7015835	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2009-12-31		10-1336054
P00412KR	Korea, Republic of (KR)	2011-7017881	AUTONOMOUS MULTI-DEVICE EVENT SYNCHRONIZATION AND SEQUENCING TECHNIQUE	Non Provisional	2009-12-31	20110110283	10-1604014

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			ELIMINATING MASTER AND SLAVE ASSIGNMENTS				
P00425KR	Korea, Republic of (KR)	2012-7017431	METHOD AND SYSTEM FOR MINIMUM OUTPUT-VOLTAGE BATTERY CHARGER	Non Provisional	2010-12-02	20120101108	10-1452242
P00454KR	Korea, Republic of (KR)	2011-0076972	Laser Process For Side Plating Of Terminals.	Non Provisional	2011-08-03		10-1216509
P00476KR	Korea, Republic of (KR)	2012-0064126	STACKABLE BI-DIRECTIONAL MULTICELL BATTERY BALANCER	Non Provisional	2012-06-15	20120138707	10-1423064
P00493KR	Korea, Republic of (KR)	2012-0117298	OPTIMIZED BI-DIRECTIONAL BALANCING METHOD AND SYSTEM	Non Provisional	2012-10-22	20130044190	10-1767561
P00495KR	Korea, Republic of (KR)	10-2012-0118428	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-24	10-2013-0045211	10-1900869
P00553KR	Korea, Republic of (KR)	20140030213	METHODS AND SYSTEMS FOR CONTROL OF DC-DC CONVERTERS	Non Provisional	2014-03-14	20140113521	10-1584169
P00563KR	Korea, Republic of (KR)	20140040717	VOLTAGE COMPENSATED ACTIVE CELL BALANCING	Non Provisional	2014-04-04	20140121365	10-1590532
P00567KR	Korea, Republic of (KR)	2016-7007087	SWITCHING TOPOLOGY FOR CONNECTING TWO NODES IN ELECTRONIC SYSTEM	Non Provisional	2014-08-18	20160044551	10-1723477
P00571KR	Korea, Republic of (KR)	20140073521	POWER OVER ETHERNET ON DATA PAIRS AND SPARE PAIRS	Non Provisional	2014-06-17	20140147042	10-1559885
P00572KR	Korea, Republic of (KR)	20140086636	Inrush Control Method with Multiple Switches.	Non Provisional	2014-07-10	10-2015-0007980	
P00573KR	Korea, Republic of (KR)	2014-0086622	Detecting Faults in Hot-Swap Applications.	Non Provisional	2014-07-10		
P00576KR	Korea, Republic of (KR)	2014-0105100	ACCURATE CURRENT SENSING IN H-BRIDGE APPLICATIONS WITHOUT AMPLIFIER HAVING HIGH COMMON MODE REJECTION RATIO	Non Provisional	2014-08-13	20150020121	
P00582KR	Korea, Republic of (KR)	2016-7011334	DETECTION AND CLASSIFICATION SCHEME FOR POWER OVER ETHERNET SYSTEM	Non Provisional	2014-10-01	20160065160	10-1877654

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P00587KR	Korea, Republic of (KR)	2015-0164507	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2015-11-04		
P00587KRD01	Korea, Republic of (KR)	2017-0088363	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2017-07-12		
P00600KRABD	Korea, Republic of (KR)	10-2015-0015610	Detection Scheme For Four Wire Pair Power Over Ethernet System.	Non Provisional	2015-01-30		
P00600KRD01	Korea, Republic of (KR)	20160105725	A POWER OVER ETHERNET(PoE) SYSTEM FOR SUPPLYING POWER VIA FOUR WIRE PAIRS IN AN ETHERNET CABLE AND A ROUTINE PERFORMED BY A PoE SYSTEM	Non Provisional	2016-08-19	20160102945	10-1746344
P00608KR	Korea, Republic of (KR)	2016-7027029	Boost Then Floating Buck Mode Converter For Led Driver Using Common Switch Control Signal.	Non Provisional	2015-02-24		10-1835255
P00611KR	Korea, Republic of (KR)	2016-7031216	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-04-09		10-1805344
P00623KR	Korea, Republic of (KR)	2016-7031781	PoDL SYSTEM WITH ACTIVE dV/dt and dI/dt CONTROL	Non Provisional	2015-05-15	20160144485	10-1747066
P00624KR	Korea, Republic of (KR)	2015-0071715	BROADBAND INTEGRATED RF/MICROWAVE/MILLIMETER MIXER WITH INTEGRATED BALUN(S)	Non Provisional	2015-05-22	20150135143	10-1688036
P00635KR	Korea, Republic of (KR)	2015-0106264	Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Non Provisional	2015-07-28	20160016629	10-1690051
P00636KR	Korea, Republic of (KR)	2015-0118087	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-21	20160023616	10-1767314
P00638KR	Korea, Republic of (KR)	1020177008179	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Non Provisional	2015-05-07	20170045313	10-1905343
P00641KR	Korea, Republic of (KR)	2015-0135345	CONTROLLER AREA NETWORK BUS TRANSMITTER WITH	Non Provisional	2015-09-24	20160037103	10-1726514

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			COMPLEMENTARY SOURCE FOLLOWER DRIVER				
P00644KR	Korea, Republic of (KR)	2017-7016816	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19		10-1988781
P00646KRABD	Korea, Republic of (KR)	2015-0106257	Exposed, Solderable Heat Spreader For Flipchip Package.	Non Provisional	2015-07-28		
P00648KR	Korea, Republic of (KR)	2016-0161370	Circuit Architectures for Protecting Against PoDL Wire Faults	Non Provisional	2016-11-30	10-2017-0064484	10-2002672
P00651KR	Korea, Republic of (KR)	2016-0021789	Distortion Compensation Circuit.	Non Provisional	2016-02-24		
P00652KR	Korea, Republic of (KR)	2016-0021771	Phase Error Compensation Circuit.	Non Provisional	2016-02-24		10-1993446
P00657KR01	Korea, Republic of (KR)	10-2017-7027702	Accurately Detecting Low Current Threshold.	Non Provisional	2016-03-04		
P00686KR	Korea, Republic of (KR)	10-2017-0050257	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-19		10-1974713
P00688KR	Korea, Republic of (KR)	2017-0061663	Maintain Power Signature Controller at Power Interface of PoE or PoDL System	Non Provisional	2017-05-18	KR-2017-031263A	10-1960163
P00694KR	Korea, Republic of (KR)	2017-0094078	COMMUNICATIONS SYSTEM USING HYBRID COMMON MODE CHOKE AND KELVIN SENSING OF VOLTAGE	Non Provisional	2017-07-25		10-1890533
P00695KR01	Korea, Republic of (KR)	10-2017-0136540	Fault-Tolerant Power Node	Non Provisional	2017-10-20	10-2018-0044212	
P00054NL	Netherlands	94100806.2	Digital to analog converter.	Non Provisional	1994-01-20	607971	607971
P00054NLD01	Netherlands	00103327.3	Digital to analog converter.	Non Provisional	1994-01-20	1005171	1005171
P00054NLD02	Netherlands	04025462.5	Digital to analog converter.	Non Provisional	1994-01-20	1548946	1548946
P00067NL	Netherlands	94104509.8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	617501	617501

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P00068NL	Netherlands	93119453.4	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-02	600488	600488
P00073NL	Netherlands	07121448.0	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2007-11-23	1931029	1931029
P00073NLD01	Netherlands	11009533.8	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2011-12-01	EP2426819	2426819
P00074NL	Netherlands	07111883.0	Range compression in oversampling analog-to-digital converters using differential input signals.	Non Provisional	2007-07-05	1876715	1876715
P00075NL	Netherlands	08100951.6	Systems and methods for providing compact digitally controlled trim of multi-segment circuits.	Non Provisional	2008-01-25	1956716	1956716
P00079NL	Netherlands	07111882.2	Range compression in oversampling analog-to-digital converters.	Non Provisional	2007-07-05	1903683	1903683
P00080NL	Netherlands	07839808.8	Current source with indirect load current signal extraction.	Non Provisional	2007-10-26	2123122	2123122
P00114NL	Netherlands	98107299	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads	Non Provisional	1998-04-22	0874461	0874461
P00123NL	Netherlands	99113598	Active pullup circuitry for open-drain signals	Non Provisional	1999-07-09	0973261	0973261
P00143NL	Netherlands	99125910.2	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use.	Non Provisional	1999-12-23	1018799	1018799
P00177NL	Netherlands	02009309.2	Methods and apparatus for power measuring receiver.	Non Provisional	2002-04-30	EP 1258734	1258734
P00179NL	Netherlands	01129279.4	RMS-to-DC converter with fault detection and recovery .	Non Provisional	2001-12-12	EP 1215504	1215504
P00181NL	Netherlands	01129255.4	Methods and circuitry for interconnecting data and clock	Non Provisional	2001-12-11	1213655	1213655

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			busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.				
P00181NLD01	Netherlands	09150579.2	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2056208	2056208
			Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.				
P00181NLD02	Netherlands	09150580.0	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2056209	2056209
			Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.				
P00181NLD03	Netherlands	09150581.8	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2009-01-15	2060978	2060978
P00184NLP01	Netherlands	04018003.6	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-07-29	EP1508961	1508961
P00188NL	Netherlands	02007264	Circuits and methods for synchronizing non-constant	Non Provisional	2002-03-28	1248352	1248352

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			frequency switching regulators with a phase locked loop				
P00198NL	Netherlands	03008073.3	Multi-bit digital input using a single pin .	Non Provisional	2003-04-04	1355426	1355426
P00198NL01	Netherlands	05018493.6	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		1608070
P00198NL02	Netherlands	06005886	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		1696568
P00222NL	Netherlands	05255667	Adaptive control for inductor based buck-boost voltage regulators	Non Provisional	2005-09-14	1635445	1635445
P00224NL	Netherlands	05815577.1	Common-mode data transmission for power over ethernet system.	Non Provisional	2005-10-21	EP1813056	1813056
P00225NL01	Netherlands	06250081.4	DC/DC converter with current limit protection.	Non Provisional	2006-01-09		1679780
P00230NL	Netherlands	05761045.3	Network with multiple adjustment elements and sensitivities, and digital-to-analog converter implementing same.	Non Provisional	2005-06-22	1869770	1869770
P00231NL	Netherlands	05815960	ANALOG POWER MANAGEMENT WITHIN POWER OVER ETHERNET SYSTEM	Non Provisional	2005-10-20	1813057	1813057
P00233NL	Netherlands	06250659.7	Protection for switched step up/step down regulators.	Non Provisional	2006-02-08	1691474	1691474
P00233NLD01	Netherlands	08101359.1	Protection for switched step up/step down regulators.	Non Provisional	2008-02-07	EP1914870	1914870
P00234NL	Netherlands	06250683.7	Current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP1689070	1689070
P00239NL	Netherlands	05726151.3	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29	EP1864553	EP1864553
P00251NL	Netherlands	06717350.0	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	EP1842121	1842121

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P00251NLD01	Netherlands	09165453.3	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	2144133	2144133
P00252NL	Netherlands	06250680.3	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP 1689069	1689069
P00252NLD01	Netherlands	11002431.2	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	EP2337208	2337208
P00253NL	Netherlands	05812353	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE INPUT CURRENT	Non Provisional	2005-10-17	1805898	1805898
P00253NLD01	Netherlands	11161019	Analog signal sampling system and method having reduced average input current	Non Provisional	2005-10-17	2343808	2343808
P00254NL	Netherlands	05812383	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE DIFFERENTIAL INPUT CURRENT	Non Provisional	2005-10-17	1810406	1810406
P00255NL	Netherlands	05810349	ANALOG-TO-DIGITAL CONVERTER WITH REDUCED AVERAGE INPUT CURRENT AND REDUCED AVERAGE REFERENCE CURRENT	Non Provisional	2005-10-17	1803223	1803223
P00256NL	Netherlands	06250682.9	Light load current-mode control for switched step up-step down regulators.	Non Provisional	2006-02-08	1689068	1689068
P00259NL	Netherlands	05745504	ADAPTIVE POWER CONTROL FOR HYSTERETIC REGULATORS	Non Provisional	2005-05-09	1872468	1872468
P00259NLD01	Netherlands	11003329	Adaptive power control for hysteretic regulators	Non Provisional	2005-05-09	2348623	2348623
P00262NL	Netherlands	06773601.7	Variable gain amplifier with temperature compensation and gain linearity enhancement.	Non Provisional	2006-06-20	1897218	1897218
P00263NL	Netherlands	06801036.2	Wideband squaring cell.	Non Provisional	2006-08-09		1915720

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P00264NL	Netherlands	06784986.9	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2006-06-15	EP1897217	1897217
P00265NL	Netherlands	06718370	ADJUSTING CURRENT LIMIT THRESHOLDS BASED ON POWER REQUIREMENT OF POWERED DEVICE IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-13	1842326	1842326
P00266NL	Netherlands	06718284	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2006-01-13	1842325	1842325
P00267NL	Netherlands	06717526.5	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2006-01-09	EP 1842321	1842321
P00268NL	Netherlands	06717528.1	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2006-01-09	1842323	1842323
P00269NL	Netherlands	06717527.3	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09	1842322	1842322
P00270NL	Netherlands	06717529.9	Detecting legacy powered device in power over ethernet system.	Non Provisional	2006-01-09	EP1842324	1842324
P00271NL	Netherlands	06717525.7	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09	EP1869824	1869824
P00272NL	Netherlands	06718369.9	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13	1864429	1864429
P00273NL	Netherlands	06738267.1	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	1859567	1859567

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P00273NLD01	Netherlands	10014682.8	Classification mechanism in system for supplying power over communication link.	Non Provisional	2010-11-15	EP2282445	2282445
P00274NL	Netherlands	05789074.1	Trim circuits and methodologies for data converters.	Non Provisional	2005-08-19	1872478	EP1872478
P00277NL	Netherlands	05255668.5	Switching regulator over voltage reduction circuit and method.	Non Provisional	2005-09-14	1724908	1724908
P00278NL	Netherlands	06752391.0	Switching regulator with slope compensation independent of changes in switching frequency.	Non Provisional	2006-05-08	EP1913679	1913679
P00281NLP01	Netherlands	06760623.6	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2006-06-01	1891735	1891735
P00282NL	Netherlands	05733704.0	Configurable Data Port For I2C Or Single-Wire Broadcast Interface.	Non Provisional	2005-04-11	1869563	1869563
P00283NL	Netherlands	06251816	Circuit and method of detecting and resolving stuck I2C buses	Non Provisional	2006-03-31	1710709	1710709
P00285NL	Netherlands	05792954.9	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-08-31	1905149	1905149
P00290NL	Netherlands	06787052.7	Peak charging current modulation for burst mode conversion.	Non Provisional	2006-07-13	1922802	1922802
P00293NL	Netherlands	06813730.6	Squaring cell implementing tail current multiplication.	Non Provisional	2006-08-25	1946241	1946241
P00296NL	Netherlands	06800924.0	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2006-08-07	EP1932236	1932236
P00296NLD01	Netherlands	12000109.4	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2012-01-10	EP2445096	2445096
P00297NL	Netherlands	06800923.2	Switching regulator slope compensation generator circuit.	Non Provisional	2006-08-07	1969705	1969705
P00300NL	Netherlands	06800930.7	Controlling Switching Circuits To Balance Power Or Current Drawn From Multiple Power Supply Inputs.	Non Provisional	2006-08-08	2033290	2033290

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P00301NL	Netherlands	06719192.4	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2007-07-17	EP1859566	1859566
P00302NL	Netherlands	06838293.6	Power Sourcing Equipment Having Bipolar Junction Transistor For Controlling Power Supply And Supporting AC Disconnect-Detection Function.	Non Provisional	2006-11-22	1961152 A1	1961152
P00303NLABD	Netherlands	06719322.7	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2007-07-25	1842330	
P00304NL	Netherlands	06838292.8	Combination of high-side and low-side current control in system for providing power over communication link.	Non Provisional	2006-11-22	1961151	1961151
P00305NL	Netherlands	06719193.2	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2007-07-24	1842329	1842329
P00319NL01	Netherlands	06122849.0	Methods and circuits for output over-voltage reduction in switching regulators.	Non Provisional	2006-10-24		1806830
P00320NL	Netherlands	06836221.9	Power management mechanism in system for supplying power over communication link.	Non Provisional	2006-10-10	1964308 A1	1964308
P00324NL	Netherlands	06802861.2	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-09-01	1994799	1994799
P00325NL	Netherlands	07776492	CIRCUIT AND METHODOLOGY FOR SUPPLYING PULSED CURRENT TO A LOAD, SUCH AS A LIGHT EMITTING DIODE	Non Provisional	2007-04-30	2016801	2016801
P00328NL	Netherlands	07754823.8	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-05	2047589	2047589

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P00329NL	Netherlands	06827753.2	High linearity low noise variable gain amplifier with continuous gain control.	Non Provisional	2006-11-13	2033308	2033308
P00330NL	Netherlands	07811698.5	Constant power foldback mechanism programmable to approximate safe operating area of pass device for providing connection to load.	Non Provisional	2007-09-07	2060059A2	2060059
P00331NL	Netherlands	07838429.4	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2007-09-17	2064609	2064609
P00332NL	Netherlands	06845700.1	Circuit and methodology for high-speed, low-power level shifting.	Non Provisional	2006-12-19	2064811	
P00333NL	Netherlands	07121449.8	Programmable conduction mode control for switching circuits.	Non Provisional	2007-11-23	1928079	1928079
P00334NL	Netherlands	07106585.8	Light load regulator for isolated flyback converter.	Non Provisional	2007-04-20	1885051	1885051
P00336NL	Netherlands	07862802	ADAPTIVE OUTPUT CURRENT CONTROL FOR SWITCHING CIRCUITS	Non Provisional	2007-12-12	2122815	2122815
P00346NL	Netherlands	06845202.8	Providing Detailed Information On Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-12-12	1964309	1964309
P00347NL	Netherlands	06827644.3	Integrated powered device connector in system for supplying power over communication link.	Non Provisional	2006-11-08	1961150 A1	
P00348NL	Netherlands	06837211.9	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Non Provisional	2006-11-08	1958375	1958375
P00356NL01	Netherlands	07852890.8	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2007-10-23		2111705

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P00361NL	Netherlands	07875257.3	Voltage Stackable Data Port. Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-02	2132855	2132855
P00363NL	Netherlands	10004454.4	Complex-Admittance Digital-To-Analog Converter.	Non Provisional	2010-04-27	2246985	2246985
P00367NL	Netherlands	11000785.3	Time-Multiplexed Residue Amplifier.	Non Provisional	2011-02-01		2355357
P00368NL	Netherlands	08870490.3	Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.	Non Provisional	2008-12-24	EP2235751	2235751
P00370NL01	Netherlands	11707522.6	Charge Pump With Reduced Current Variation.	Non Provisional	2011-02-22		2539995
P00373NL	Netherlands	09169228.5	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2009-09-02	2159841	2159841
P00373NL01	Netherlands	11004204.1	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2011-05-19		2362417
P00376NL	Netherlands	08168692.5	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2008-11-07	EP2184858	2184858
P00376NL01	Netherlands	13005146.9	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2013-10-30		2713511
P00377NL	Netherlands	09157010.1	Method and system for bit polarization coding.	Non Provisional	2009-03-31		2107745
P00380NL	Netherlands	08796043.1	Single pass INL trim algorithm for networks.	Non Provisional	2008-06-27	2304875	2304875
P00382NL	Netherlands	10150371.2	Extending Input to Output Voltage Range in Multiple Channel Switching Regulator Applications.	Non Provisional	2010-01-08	EP2209194	2209194
P00385NL	Netherlands	12007591.6	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2012-11-07	EP2590329 A1	2590329

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P00387NL	Netherlands	08729721.4	Magnetic Isolation Of Power Sourcing Equipment Control Circuitry.	Non Provisional	2008-02-13	2127201	2127201
P00392NL	Netherlands	08876475	CIRCUIT, TRIM, AND LAYOUT FOR TEMPERATURE COMPENSATION OF METAL RESISTORS IN SEMI-CONDUCTOR CHIPS	Non Provisional	2008-11-25	2356533	2356533
P00393NL	Netherlands	10004814.9	Method and System For High Efficiency, Fast Transient Multi-Channel LED Driver.	Non Provisional	2010-05-06	2252131	2252131
P00404NL	Netherlands	10151339.8	Circuitry And Methodology Protecting a Boost DC/DC Converter.	Non Provisional	2010-01-21	2211449	2211449
P00406NL	Netherlands	10150693.9	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2010-01-13	2207258	2207258
P00406NLD01	Netherlands	12008106.2	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2012-12-04	EP2575248 A1	2575248
P00408NL	Netherlands	10005284.4	Chopper Stabilized Bandgap Reference Circuit And Methodology For Voltage Regulators.	Non Provisional	2010-05-20	EP2256580A3	
P00409NL	Netherlands	09176801.0	Method and system for variable-gain amplifier.	Non Provisional	2009-11-23	2190115	2190115
P00410NL	Netherlands	10009843.3	Feedback control of a DC/DC power converter.	Non Provisional	2010-09-17	EP2299575	2299575
P00411NL	Netherlands	09837198.2	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2011-07-11		2377219
P00412NL	Netherlands	09837200	AUTONOMOUS MULTI-DEVICE EVENT SYNCHRONIZATION AND SEQUENCING TECHNIQUE	Non Provisional	2009-12-31	2376994	2376994

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			ELIMINATING MASTER AND SLAVE ASSIGNMENTS				
P00418NL	Netherlands	10154584.6-2206	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2010-02-24	EP2284640	2284640
P00418NLD01	Netherlands	14000301.3	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2014-01-28	2728431	2728431
			Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Non Provisional	2010-04-15	EP2259161	2259161
P00420NL	Netherlands	EP10160094.8	Average inductor current mode switching converters	Non Provisional	2010-03-26	2234256	2234256
P00421NL	Netherlands	10158030	Buck-mode boost converter with regulated output current	Non Provisional	2010-04-09	2239834	2239834
P00422NL	Netherlands	10159567	Method and System For Improved Phase Noise In A BiCMOS Clock Driver.	Non Provisional	2010-11-24	EP2326003	2326003
P00423NL	Netherlands	10014953.3	Method And System For Dimming An Offline LED Driver.	Non Provisional	2010-06-29	EP2271181A1	2271181
P00427NL	Netherlands	500085725	Extending Achievable Duty Cycle Range in a DC/DC Forward Converter With Active Clamp Reset.	Non Provisional	2010-09-17	EP2299579	2299579
P00431NL	Netherlands	10009841.7	Improving the accuracy of a volt-second clamp in an isolated dc/dc converter	Non Provisional	2010-09-17	2299573	2299573
P00432NL	Netherlands	10009842	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2010-09-17	EP2299578	2299578
P00433NL	Netherlands	10009840.9	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2317634	2317634
P00433NLD01	Netherlands	11000951.1	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2011-02-07	EP2323246	2323246
P00433NLD02	Netherlands	11000952.9	Method And System For Improving Limiting Amplifier Phase Noise For Low Slew-Rate Input Signals.	Non Provisional	2010-11-15	EP2323256	2323256
P00434NL	Netherlands	10014625.7					

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P00438NL	Netherlands	12165770.4	Current Steering Circuit With Feedback.	Non Provisional	2012-04-26	EP2518900	2518900
P00439NL	Netherlands	10009844.1	DC/DC Converter Overcurrent Protection.	Non Provisional	2010-09-17	EP2299570	2299570
P00441NL	Netherlands	10015745.2	Continuously Switching Buck-Boost Control.	Non Provisional	2010-12-16	EP2337206	2337206
P00441NLD01	Netherlands	11005360.0	Continuously Switching Buck-Boost Control.	Non Provisional	2011-06-30	EP2378650 A1	EP2378650
P00442NLABD	Netherlands	10015834.4	Clean Transition Between CCM and DCM In Valley Current Mode Control Of DC-To-DC Converter.	Non Provisional	2010-12-20		
P00443NL	Netherlands	10787615.3	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2012-06-21	EP2504947	2504947
P00445NL	Netherlands	11717836.8	Stacked Interposer Leadframes.	Non Provisional	2011-04-14		2577726
P00445NLD01	Netherlands	13003931.6	Stacked Interposer Leadframes.	Non Provisional	2013-08-06		2662892
P00446NL	Netherlands	10799210.9	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Non Provisional	2012-07-24		2517034
P00447NL	Netherlands	11006618.0	Method and System For Extending PWM Dimming Range In LED drivers.	Non Provisional	2011-08-11	EP2418918A1	2418918
P00449NL	Netherlands	11008786.3	Method And System For Detecting And Asserting BUS Speed Condition In A USB Isolated Device.	Non Provisional	2011-11-04	EP2450801 (A1)	2450801
P00451NL	Netherlands	12004634.7	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2012-06-20	EP2538562 A2	2538562
P00453NL	Netherlands	11004111.8	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Non Provisional	2011-05-18	EP2388922	2388922

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P00455NL	Netherlands	11004552.3	Dynamic Compensation of Aging Drift In Current Sense Resistor.	Non Provisional	2011-06-03	EP2392931	2392931
P00456NL	Netherlands	12000890.9	Circuits for accurately measuring temperature of semiconductor junctions	Non Provisional	2012-02-10	EP2487476	2487476
P00457NL	Netherlands	11004553.1	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	EP2393190	2393190
P00462NL	Netherlands	12005563	I2C isolated, bidirectional communication system	Non Provisional	2012-07-31	2555122	2555122
P00463NL	Netherlands	11793633	BIAS POINT SETTING FOR THIRD ORDER LINEARITY OPTIMIZATION OF CLASS A AMPLIFIER	Non Provisional	2011-11-29	2647123	2647123
P00464NL	Netherlands	11191991.6	Third Order Intermodulation Cancellation By In-Line Generated Signal.	Non Provisional	2011-12-03	EP2461478	2461478
P00470NL	Netherlands	12169479	Balancing temperatures in a multi-phase dc/dc converter	Non Provisional	2012-05-25	2528215	2528215
P00471NL	Netherlands	12003032.5	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Non Provisional	2012-04-30	EP2520942	2520942
P00472NL	Netherlands	12003031.7	Isolated Communications Interface.	Non Provisional	2012-04-30	EP2518957	2518957
P00477NL	Netherlands	12170949.7	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533246	EP2533246
P00478NL	Netherlands	12171026.3	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533247	2533247
P00481NL	Netherlands	12175986.4	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2012-07-11	EP2546966 A2	EP2546966
P00482NL	Netherlands	12004632.1	Radar System and Method For Providing Information On Movements of Object's Surface.	Non Provisional	2012-06-20	EP2560021 A1	2560021

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P00491NL	Netherlands	12753339.6	Power Combining In Power Over Ethernet Systems.	Non Provisional	2014-01-27	EP2727285	2727285
P00492NL	Netherlands	12275154	Anemometer detecting thermal time constant of sensor	Non Provisional	2012-09-28	2592425	2592425
P00493NL	Netherlands	12007270.7	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-10-19	2583858	2583858
P00495NL	Netherlands	12007313.5	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-24	EP2587718	2587718
P00496NL	Netherlands	12193463.2	Second Order Intermodulation Canceller.	Non Provisional	2012-11-20	2605412 A1	2605412
P00497NL	Netherlands	13150881.4	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2013-01-10	EP2621069	2621069
P00498NL	Netherlands	13158838.6	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2013-03-12	EP2639951	2639951
P00499NL	Netherlands	12193843.5	Third-Order Intermodulation Cancellation for RF Transconductors.	Non Provisional	2012-11-22	EP2605402	EP2605402
P00500NL01	Netherlands	12723319.5	High Side Current Sense Amplifier.	Non Provisional	2012-05-09		500213536
P00513NL	Netherlands	13000683.6	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-08	EP2626862	2626862
P00521NL	Netherlands	13275075.3	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2013-03-22	EP2680419	2680419
P00529NL	Netherlands	13275116.5	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2013-05-14	EP2709253A3	2709253
P00533NL	Netherlands	13003571.0	Low Power Radio Receiver.	Non Provisional	2013-07-16	EP2688215	2688215
P00536NL01	Netherlands	13004815.0	Method for Voltage Regulation of Switch Mode Power Supplies Implementing Burst Mode Operation.	Non Provisional	2013-10-07	2717447	2717447
P00538NL	Netherlands	14000003.5	Low Current DC-DC Converter With Integrated Low Current Coulomb Counter.	Non Provisional	2014-01-02	EP2752965	2752965
P00541NL	Netherlands	13186691.5	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2013-09-30	EP2722987	2722987

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P00542NL01	Netherlands	13186007.4	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2013-09-25		2728793
P00544NL	Netherlands	14000608	Address translation in I2C data communications system	Non Provisional	2014-02-20	2778941	2778941
P00545NL	Netherlands	13773573	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2013-09-27	2904688	2904688
P00545NL01	Netherlands	16202486.3	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2016-12-06		500209358
P00546NL	Netherlands	13186476.1	PWM Control for LEDs With Reduced Flicker When Using Spread Spectrum Switching Frequencies.	Non Provisional	2013-09-27	EP2723146	2723146
P00549NL	Netherlands	13776655.6	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Non Provisional	2013-09-27		500224037
P00555NL01	Netherlands	13198155.7	High-Frequency RMS-DC Converter Using Chopper-Stabilized Square Cells.	Non Provisional	2013-12-18		2770334
P00558NL	Netherlands	14001073.7	Rotating 3-Wire Resistance Temperature Detection Excitation Current Sources and Method.	Non Provisional	2014-03-21	EP2921832	2921832
P00561NL01	Netherlands	14000727.9	Leakage Compensation for Switched Capacitor Integrators.	Non Provisional	2014-02-28		2779444
P00571NL	Netherlands	14002012.4	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-06-11	EP2816759	2816759
P00583NL01	Netherlands	14002509.9	Isolated Bootstrapped Switch.	Non Provisional	2014-07-18		2866347
P00589NL01	Netherlands	14766294.4	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-08-28		500208317

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P00593NL01	Netherlands	15000109.7	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Non Provisional	2015-01-16		2897270
P00601NL	Netherlands	15000352	Arbitrary Phase Trajectory Frequency Synthesizer	Non Provisional	2015-02-06	2905902	2905902
P00603NL01	Netherlands	15000760.7	Bootstrap Sampling Circuit With Accurately Averaging				
P00611NL01	Netherlands	15719055.4	Pre-Charge Circuit.	Non Provisional	2015-03-13		2922065
P00623NL01	Netherlands	15727762.5	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-04-09		500205700
P00636NL	Netherlands	15002497	PoDL System With Active dV/dt and dI/dt Control.	Non Provisional	2015-05-15		3143722
P00641NL01	Netherlands	15002779.5	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-21	2991270	2991270
P00644NL	Netherlands	15813948.5	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-28		500239049
P00648NL01	Netherlands	16002547.4	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19		500230554
P00663NL01	Netherlands	16001081.5	Circuit Architectures for Protecting Against PoDL Wire Faults.	Non Provisional	2016-11-30		3176978
P00686NL01	Netherlands	17000671.2	System With Sleep and Wake up Control Over DC Path.	Non Provisional	2016-05-12		3094044
P00688NL	Netherlands	17000811.4	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-20		500228095
P00694NL	Netherlands	17001282.7	Method for Monitoring Bridge Circuitry and Presenting Maintain Power Signature.	Non Provisional	2017-05-10		500229618
P00695NL01	Netherlands	17001715.6	Communications system using hybrid common mode choke and kelvin sensing of voltage.	Non Provisional	2017-07-25		500228395
P00695NL01	Netherlands	17001715.6	Fault-Tolerant Power Node	Non Provisional	2017-10-17		3313021

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P00080PCT	Patent Cooperation Treaty	PCT/US2007/022742	Current source with indirect load current signal extraction.	Non Provisional	2007-10-26	WO 2008/094232	
P00083PCT	Patent Cooperation Treaty	PCT/US2008/063829	Advanced current-mode control for switched regulators.	Non Provisional	2008-05-16	2008150663	
P00224PCT	Patent Cooperation Treaty	PCT/US2005/037718	Common-mode data transmission for power over ethernet system.	Non Provisional	2005-10-21	WO 2006/055163	
P00230PCT	Patent Cooperation Treaty	PCT/US2005/022066	Network with multiple adjustment elements and sensitivities, and digital-to-analog converter implementing same.	Non Provisional	2005-06-22	WO 2006/112868	
P00231PCT	Patent Cooperation Treaty	PCT/US2005/037826	Analog Power Management Within Power Over Ethernet System.	Non Provisional	2005-10-20	2006055170	
P00239PCT	Patent Cooperation Treaty	PCT/US2005/010138	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29	WO 2006/104481	
P00251PCT	Patent Cooperation Treaty	PCT/US2006/000131	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2006-01-04	WO 2006/081038	
P00253PCT	Patent Cooperation Treaty	PCT/US2005/037187	Analog signal sampling system and method having reduced average input current (FIGS. 1-5 of the provisional application).	Non Provisional	2005-10-17	2006044756	
P00254PCT	Patent Cooperation Treaty	PCT/US2005/037186	Analog signal sampling system and method having reduced average differential input current (FIG. 6).	Non Provisional	2005-10-17	WO2006/044755 A1	
P00255PCT	Patent Cooperation Treaty	PCT/US2005/037662	Analog-to-digital converter with reduced average input current and reduced average reference current (FIG. 7).	Non Provisional	2005-10-17	2006044992	
P00259PCT	Patent Cooperation Treaty	PCT/US2005/016050	Adaptive power control for hysteretic regulators.	Non Provisional	2005-05-09	2006112855	

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P00262PCT	Patent Cooperation Treaty	PCT/US2006/023941	Variable gain amplifier with temperature compensation and gain linearity enhancement.	Non Provisional	2006-06-20	WO 2007/002061	
P00263PCT	Patent Cooperation Treaty	PCT/US2006/031041	Wideband squaring cell.	Non Provisional	2006-08-09	WO 2007/021748	
P00264PCT	Patent Cooperation Treaty	PCT/US2006/023475	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2006-06-15	WO 2007/001907	
P00265PCT	Patent Cooperation Treaty	PCT/US2006/001284	Adjusting Current Limit Thresholds Based On Power Requirement Of Powered Device In System For Providing Power Over Communication Unit.	Non Provisional	2006-01-13	2006081083	
P00266PCT	Patent Cooperation Treaty	PCT/US2006/001193	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2006-01-13	2006081078	
P00267PCT	Patent Cooperation Treaty	PCT/US2006/00341	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2006-01-09	WO 2006/081044	
P00268PCT	Patent Cooperation Treaty	PCT/US2006/000343	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2006-01-09	WO 2006/081046	
P00269PCT	Patent Cooperation Treaty	PCT/US2006/000342	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2006-01-09	WO 2006/081045	
P00270PCT	Patent Cooperation Treaty	PCT/US2006/000344	Detecting legacy powered device in power over ethernet system.	Non Provisional	2006-01-09	WO 2006/081047	
P00271PCT	Patent Cooperation Treaty	PCT/US2006/000340	Distinguishing network interface card from short circuit condition in power over ethernet system.	Non Provisional	2006-01-09	WO 2006/081043	

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P00272PCT	Patent Cooperation Treaty	PCT/US2006/001283	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2006-01-13	WO 2006/081082	
P00273PCT	Patent Cooperation Treaty	PCT/US2006/009186	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	WO 2006/099440	
P00274PCT	Patent Cooperation Treaty	PCT/US2005/029653	Trim circuits and methodologies for data converters.	Non Provisional	2005-08-19	WO 2006/112874	
P00278PCT	Patent Cooperation Treaty	PCT/US2006/017697	Switching regulator with slope compensation independent of changes in switching frequency.	Non Provisional	2006-05-08	WO 2007/021339	
P00279PCT	Patent Cooperation Treaty	PCT/US2005/032247	Switching regulator with variable slope compensation.	Non Provisional	2005-09-08	WO 2007/011371	
P00281PCTP01	Patent Cooperation Treaty	PCT/US2006/021272	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2006-06-01	WO 2006/138066	
P00282PCT	Patent Cooperation Treaty	PT/US2005/011959	Configurable Data Port For I2C Or Single-Wire Broadcast Interface.	Non Provisional	2005-04-11	WO 2006/110138	
P00285PCT	Patent Cooperation Treaty	PCT/US2005/030836	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-08-31	WO 2007/011370	
P00290PCT	Patent Cooperation Treaty	PCT/US2006/027094	Peak charging current modulation for burst mode conversion.	Non Provisional	2006-07-13	WO 2007/030199	
P00293PCT	Patent Cooperation Treaty	PCT/US2006/033171	Squaring cell implementing tail current multiplication.	Non Provisional	2006-08-25	WO 2007/046950	
P00296PCT	Patent Cooperation Treaty	PCT/US2006/030798	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2006-08-07	WO/2007/040814	
P00297PCT	Patent Cooperation Treaty	PCT/US/2006/030797	Switching regulator slope compensation generator circuit.	Non Provisional	2006-08-07	WO 2007/061463	

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P00298PCT	Patent Cooperation Treaty	PCT/US2006/028982	Oscillator Having Low Phase Noise.	Non Provisional	2006-07-26	WO 2007/092040	
P00299PCT	Patent Cooperation Treaty	PCT/US2006/001731	Providing Communication Between Power Supply Device And Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-01-19	WO 2006/081112	
P00300PCT	Patent Cooperation Treaty	PCT/US2006/030828	Controlling Switching Circuits To Balance Power Or Current Drawn From Multiple Power Supply Inputs.	Non Provisional	2006-08-08	WO 2007/139565	
P00301PCT	Patent Cooperation Treaty	PCT/US2006/002241	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2006-01-23	WO 2006/081166	
P00302PCT	Patent Cooperation Treaty	PCT/US2006/045242	Power Sourcing Equipment Having Bipolar Junction Transistor For Controlling Power Supply And Supporting AC Disconnect-Detection Function.	Non Provisional	2006-11-22	WO 2007/070234	
P00303PCT	Patent Cooperation Treaty	PCT/US2006/002412	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2006-01-24	WO 2006/081225	
P00304PCT	Patent Cooperation Treaty	PCT/US2006/045241	Combination of high-side and low-side current control in system for providing power over communication link.	Non Provisional	2006-11-22	WO 2007/070233	
P00305PCT	Patent Cooperation Treaty	PCT/US2006/002242	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2006-01-23	WO 2006/081167	
P00306PCT	Patent Cooperation Treaty	PCT/US2006/001730	Utilization Of Power Delivered To Powered Device During Detection And Classification Mode.	Non Provisional	2006-01-19	WO 2006/081111	

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P00309PCT	Patent Cooperation Treaty	PCT/US2006/039274	Balancing current drawn from multiple power supply inputs using multiple-input inductors.	Non Provisional	2006-10-10	WO 2007/139576	
P00311PCT	Patent Cooperation Treaty	PCT/US2006/043583	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Non Provisional	2006-11-08	WO 2007/058871	
P00320PCT	Patent Cooperation Treaty	PCT/US2006/039273	Power management mechanism in system for supplying power over communication link.	Non Provisional	2006-10-10	WO 2007/070157	
P00324PCT	Patent Cooperation Treaty	PCT/US2006/034337	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-09-01	WO 2007/106123	
P00325PCT	Patent Cooperation Treaty	PCT/US2007/010442	Circuit and methodology for supplying pulsed current to a load, such as a light emitting diode.	Non Provisional	2007-04-30	WO 2007/130348	
P00328PCT	Patent Cooperation Treaty	PCT/US2007/008365	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-05	WO 2008/013588	
P00329PCT	Patent Cooperation Treaty	PCT/US2006/043965	High linearity low noise variable gain amplifier with continuous gain control.	Non Provisional	2006-11-13	WO 2007/149117	
P00330PCT	Patent Cooperation Treaty	PCT/US2007/019540	Constant power foldback mechanism programmable to approximate safe operating area of pass device for providing connection to load.	Non Provisional	2007-09-07	WO 2008/033270	
P00331PCT	Patent Cooperation Treaty	PCT/US2007/020217	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2007-09-17	WO 2008/036268	
P00332PCT	Patent Cooperation Treaty	PCT/US2006/048197	Circuit and methodology for high-speed, low-power level shifting.	Non Provisional	2006-12-19	WO 2008/036105	
P00336PCT	Patent Cooperation Treaty	PCT/US2007/025394	Adaptive output current control for switching circuits.	Non Provisional	2007-12-12	2008097305	

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P00337PCT	Patent Cooperation Treaty	PCT/US2007/022090	Square cell having wide dynamic range and power detector implementing same.	Non Provisional	2007-10-17	WO 2008/069867	
P00346PCT	Patent Cooperation Treaty	PCT/US2006/047218	Providing Detailed Information On Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-12-12	WO 2007/070473	
P00347PCT	Patent Cooperation Treaty	PCT/US2006/043547	Integrated powered device connector in system for supplying power over communication link.	Non Provisional	2006-11-08	WO 2007/070193	
P00348PCT	Patent Cooperation Treaty	PCT/US2006/043583	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Non Provisional	2006-11-08	WO2007/058871	
P00349PCT	Patent Cooperation Treaty	PCT/US2007/018298	Bandgap Voltage And Current Reference.	Non Provisional	2007-08-17	2008/121123	
P00353PCT	Patent Cooperation Treaty	PCT/US2007/022741	Method and apparatus for measuring the voltage of a power source.	Non Provisional	2007-10-26	WO 2008/111962	
P00356PCT	Patent Cooperation Treaty	PCT/US2007/022430	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2007-10-23	WO 2008/100294	
P00359PCT	Patent Cooperation Treaty	PCT/US2008/058039	Method For Clamping a Semiconductor Region At Or Near Ground.	Non Provisional	2008-03-24	WO 2008/121597	
P00361PCT	Patent Cooperation Treaty	PCT/US2007/023133	Voltage Stackable Data Port. Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-02	WO/2009/091349	
P00368PCT	Patent Cooperation Treaty	PCT/US2008/088327	Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.	Non Provisional	2008-12-24	WO2009/088803	
P00370PCT	Patent Cooperation Treaty	PCT/US2011/025704	Charge Pump With Reduced Current Variation.	Non Provisional	2011-02-22	WO/2011/106312	

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P00380PCT	Patent Cooperation Treaty	PCT/US2008/068652	Single pass INL trim algorithm for networks.	Non Provisional	2008-06-27	WO/2009/157951	
P00383PCT	Patent Cooperation Treaty	PCT/US2010/044660	Switch Mode Power Supply With Dynamic Topology.	Non Provisional	2010-08-06	WO/2011/019588	
P00387PCT	Patent Cooperation Treaty	PCT/US2008/053800	Magnetic Isolation Of Power Sourcing Equipment Control Circuitry.	Non Provisional	2008-02-13	WO 2008/100987	
P00392PCT	Patent Cooperation Treaty	PCT/US2008/084679	Circuit, trim and layout for temperature compensation of metal resistors in semi-conductor chips.	Non Provisional	2008-11-25	WO2010/062285	
P00394PCT	Patent Cooperation Treaty	PCT/US2009/067242	Linearity In LED Dimmer Control.	Non Provisional	2009-12-09	WO 2010/068641	
P00395PCT	Patent Cooperation Treaty	PCT/US2009/67241	Current ripple reduction circuit for LEDs	Non Provisional	2009-12-09	WO2010/68640	
P00396PCT	Patent Cooperation Treaty	PCT/US2009/66861	Dimmer Control Leakage Pull Down Using Main Power Device in Flyback Converter.	Non Provisional	2009-12-04	WO2010/068568	
P00397PCT	Patent Cooperation Treaty	PCT/US2009/67240	Dimmer-Controlled LEDs Using Flyback Converter With High Power Factor.	Non Provisional	2009-12-09	WO2010/068639	
P00411PCT	Patent Cooperation Treaty	PCT/US2009/069917	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2009-12-31	WO 2010/078496	
P00412PCT	Patent Cooperation Treaty	PCT/US2009/069922	Autonomous Multi-Device Event Synchronization And Sequencing Technique Eliminating Master And Slave Assignments.	Non Provisional	2010-01-26	WO 2010/078499	
P00415PCT	Patent Cooperation Treaty	PCT/US2010/057378	Sequentially Configured Analog to Digital Converter.	Non Provisional	2010-11-19	WO/2011/063203	

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P00417PCT	Patent Cooperation Treaty	PCT/US09/051012	Pulse-Width Modulation ("PWM") With Independently Adjustable Duty Cycle And Frequency Using Two Adjustable Delays.	Non Provisional	2009-07-17	WO 2010/082954	
P00419PCT	Patent Cooperation Treaty	PCT/US2010/036885	Monolithic Voltage Reference Device With Internal, Multi-Temperature Drift Data And Related Testing Procedures.	Non Provisional	2010-06-01	WO2010/138966	
P00425PCT	Patent Cooperation Treaty	PCT/US2010/058739	Method And System For Minimum Output-Voltage Battery Charger.	Non Provisional	2010-12-02	WO/2011/068973	
P00443PCT	Patent Cooperation Treaty	PCT/US2010/057413	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2010-11-19	WO/2011/063225	
P00445PCT	Patent Cooperation Treaty	PCT/US2011/032401	Stacked Interposer Leadframes. Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Non Provisional	2011-04-14	WO/2011/156051	
P00446PCT	Patent Cooperation Treaty	PCT/US2010/61095	Bias Point Setting For Third Order Linearity Optimization Of Class A Amplifier.	Non Provisional	2010-12-17	WO2011/079049	
P00463PCT	Patent Cooperation Treaty	PCT/US2011/062469	Negative Slope Compensation For Current Mode Switching Power Supply.	Non Provisional	2011-11-29	WO/2012/075047	
P00483PCT	Patent Cooperation Treaty	PCT/US2013/26156	Power Combining In Power Over Ethernet Systems.	Non Provisional	2013-02-15	WO2013/123203	
P00491PCT	Patent Cooperation Treaty	PCT/US2012/051753	High Side Current Sense Amplifier.	Non Provisional	2012-08-21	WO2013032789	
P00500PCT	Patent Cooperation Treaty	PCT/US2012/037120	Diagraph Based Mesh Communication Network	Non Provisional	2012-05-09	WO/2013/158128	
P00503PCT	Patent Cooperation Treaty	PCT/US2005/010375		Non Provisional	2005-03-25	WO 2005/094312	

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P00505PCT	Patent Cooperation Treaty	PCT/US2005/010095	Digraph Network Timing Synchronization.	Non Provisional	2005-03-25	WO 2005/096722	
P00545PCT	Patent Cooperation Treaty	PCT/US2013/62129	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2013-09-27	WO/2014/055341	
P00549PCT	Patent Cooperation Treaty	PCT/US2013/62357	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Non Provisional	2013-09-27	WO2014/077958	
P00550PCT	Patent Cooperation Treaty	PCT/US2013/75054	Power Converter For Generating Both Positive and Negative Output Signals.	Non Provisional	2013-12-13	WO/2014/093843	
P00567PCT	Patent Cooperation Treaty	PCT/US2014/051530	Switching Topology For Connecting Two Nodes in Electronic System.	Non Provisional	2014-08-18	WO2015/041781	
P00582PCT	Patent Cooperation Treaty	PCT/US2014/058558	1. Detection and Classification Scheme for Power Over Ethernet System 2. Voltage Classification and Power-On Method for PoE Mutual Identification.	Non Provisional	2014-10-01	2015050945	
P00589PCT	Patent Cooperation Treaty	PCT/US2014/053141	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-08-28	WO2015/167599	
P00608PCT	Patent Cooperation Treaty	PCT/US2015/017330	Boost Then Floating Buck Mode Converter For Led Driver Using Common Switch Control Signal.	Non Provisional	2015-02-24	WO/2015/153015	
P00611PCT	Patent Cooperation Treaty	PCT/US2015/025133	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-04-09	WO/2015/157527	
P00615PCT	Patent Cooperation Treaty	PCT/US2015/021095	Voltage Regulation of Resonant Power Wireless Receiver.	Non Provisional	2015-03-17	WO2015/160463	

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P00621PCT	Patent Cooperation Treaty	PCT/US2015/030640	Configuring Signal-Progressing Systems.	Non Provisional	2015-05-13	WO2015/175706	
P00623PCT	Patent Cooperation Treaty	PCT/US2015/031102	PoDL System With Active dV/dt and dI/dt Control.	Non Provisional	2015-05-15	WO2015/175951	
P00638PCT	Patent Cooperation Treaty	PCT/US2015/029684	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Non Provisional	2015-05-07	WO/2016/032579	
P00644PCT	Patent Cooperation Treaty	PCT/US2015/61661	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19	WO/2016/081759	
P00650PCT	Patent Cooperation Treaty	PCT/US2016/020022	Spread Spectrum For Switch Mode Power Supplies.	Non Provisional	2016-02-29	WO2016/148883	
P00657PCT	Patent Cooperation Treaty	PCT/US2016/020981	ACCURATELY DETECTING LOW CURRENT THRESHOLD	Non Provisional	2016-03-04	2016141329	
P00664PCT	Patent Cooperation Treaty	PCT/US2016/033266	Blink Mode Sensor Node Operation for Wireless Networks.	Non Provisional	2016-05-19		
P00667PCT	Patent Cooperation Treaty	PCT/US2016/047266	Multiple Access Point Wireless Mesh Network.	Non Provisional	2016-08-17	WO2017/034869	
P00678PCT	Patent Cooperation Treaty	PCT/US2016/032723	Ripple Monitoring.	Non Provisional	2016-05-16	WO/2017/095474	
P00683PCT	Patent Cooperation Treaty	PCT/US2017/027047	MECHANICALLY-COMPLIANT AND ELECTRICALLY AND THERMALLY CONDUCTIVE LEADFRAMES FOR COMPONENT-ON-PACKAGE CIRCUITS	Non Provisional	2017-04-11	WO/2017/189224	
P00689PCT	Patent Cooperation Treaty	PCT/US2017/035588	Transformer-Based Hybrid Power Converters.	Non Provisional	2017-06-02	WO/2017/213975	

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P00691PCT	Patent Cooperation Treaty	PCT/US2017/039722	Wireless Sensing and Battery Storage System.	Non Provisional	2017-06-28	WO/2018/005631	
P00692PCT	Patent Cooperation Treaty	PCT/US2017/023466	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	WO/2018/013183	
P00692PCTC01	Patent Cooperation Treaty	PCT/US2017/023469	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	WO/2018/013185	
P00692PCTP01	Patent Cooperation Treaty	PCT/US2017/023468	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	WO/2018/013184	
P00696PCT	Patent Cooperation Treaty	PCT/US2017/023409	Method of Reducing Charge Pump Substrate Noise.	Non Provisional	2017-03-21	WO/2018/160204	
P00701PCT	Patent Cooperation Treaty	PCT/US2018/015744	Adaptive Slope Compensation for Current Mode Switching Power Supply.	Non Provisional	2018-01-29	WO/2018/144388	
P00702PCT01	Patent Cooperation Treaty	PCT/US2018/031103	Predictive Ripple-Cancelling Signal Into Error Amplifier of Switch Mode Power Supply.	Non Provisional	2018-05-04	WO/2018/208597	
P00706PCT	Patent Cooperation Treaty	PCT/US2017/42893	Communication System Using Hybrid Common Mode Choke and Kelvin Sensing of Voltage.	Non Provisional	2017-07-19	WO/2018/022381	
P00016SG	Singapore	9590169-0	Charge pump circuitry having low saturation voltage and current-limited switch.	Non Provisional	1988-05-04	0292148	26293
P00067SG	Singapore	9603554-8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	43872	43872
P00154SG	Singapore	200003915.6	Methods and apparatus for controlling the intensity of a fluorescent lamp.	Non Provisional	2000-07-12	0084608	84608
P00054SE	Sweden	94100806.2	Digital to analog converter.	Non Provisional	1994-01-20	607971	607971
P00054SE02	Sweden	04025462.5	Digital to analog converter.	Non Provisional	1994-01-20	1548946	1548946

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P00067SE	Sweden	94104509.8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	617501	617501
P00068SE	Sweden	93119453.4	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-02	600488	600488
P00114SE	Sweden	98107299	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads	Non Provisional	1998-04-22	0874461	0874461
P00054CH	Switzerland	94100806.2	Digital to analog converter.	Non Provisional	1994-01-20	0607971	0607971
P00054CHD02	Switzerland	04025462.5	Digital to analog converter.	Non Provisional	1994-01-20	1548946	1548946
P00067CH	Switzerland	94104509.8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	617501	617501
P00068CH	Switzerland	93119453.4	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-02	600488	600488
P00107CH	Switzerland	98110504.2	Synchronous switching regulator which employs switch voltage-drop for current sensing.	Non Provisional	1998-06-09	884746	884746
P00114CH	Switzerland	98107299	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads	Non Provisional	1998-04-22	0874461	0874461
P00576CH01	Switzerland	14002828	Accurate current sensing in h-bridge applications without amplifier having high common mode rejection ratio	Non Provisional	2014-08-13	2840407	2840407
P00073TW	Taiwan	96140126	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2007-10-25	200830717	I418149
P00074TW	Taiwan	96124805	Range compression in oversampling analog-to-digital	Non Provisional	2007-07-06	200814541	I426713

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			converters using differential input signals.				
P00075TW	Taiwan	96150844	Systems and methods for providing compact digitally controlled trim of multi-segment circuits.	Non Provisional	2007-12-28	200838152	I371927
P00079TW	Taiwan	96124806	Range compression in oversampling analog-to-digital converters.	Non Provisional	2007-07-06	200826515	I426716
P00083TW	Taiwan	97119437	Advanced current-mode control for switched regulators	Non Provisional	2008-05-26	200903212	I431451
P00100TW	Taiwan	86113278	Low drop-out switching regulator architecture.	Non Provisional	1997-09-12	345772	NI-098474
P00107TW	Taiwan	87109392	Synchronous switching regulator which employs switch voltage-drop for current sensing.	Non Provisional	1998-06-12		NI-130897
P00108TW	Taiwan	86113272	Methods and apparatus for obtaining floating output drive to fluorescent lamps and minimizing installation requirements.	Non Provisional	1997-09-12		NI-119159
P00114TW	Taiwan	87106162	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads.	Non Provisional	1998-04-22	451546	NI-138717
P00123TW	Taiwan	88109700	Active pullup circuitry for open-drain signals	Non Provisional	1999-06-10		439359
P00129TW	Taiwan	88109391	Voltage mode feedback burst mode circuit.	Non Provisional	1999-06-07	448605	NI-137291
P00136TW	Taiwan	88120035	Fluorescent-lamp excitation circuit with frequency and amplitude control and methods for using same.	Non Provisional	1999-11-17	479439	NI-151659
P00138TW	Taiwan	88115655	Circuits and methods for controlling timing and slope compensation in switching regulators.	Non Provisional	1999-09-10	432790	432790

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P00153TW	Taiwan	90104716	Systems and methods for linearly varying a pulse-width modulation signal with a control signal .	Non Provisional	2001-03-01	503622	NI-163237
P00154TW	Taiwan	89113918	Methods and apparatus for controlling the intensity of a fluorescent lamp.	Non Provisional	2000-07-13	429335	NI-130381
P00175TW	Taiwan	91102196	Multiple phase switching regulators with stage shedding.	Non Provisional	2002-02-07	550444	NI-184844
P00179TW	Taiwan	90130936	RMS-to-DC converter with fault detection and recovery .	Non Provisional	2001-12-13	550876	NI 184821
P00182TW	Taiwan	91114175	Analog computation circuits using synchronous demodulation and power meters and energy meters using the same	Non Provisional	2002-06-27	595119	595119
P00184TW	Taiwan	91116583	Circuits and techniques for capacitor charging circuits.	Non Provisional	2002-07-25	571482	NI-193840
P00184TWP01	Taiwan	93123521	Circuits and techniques for capacitor charging circuits.	Non Provisional	2004-08-05	200518434	I348810
P00188TW	Taiwan	91106147	Circuits and methods for synchronizing non-constant frequency switching regulators with a phase locked loop	Non Provisional	2002-03-28	554613	554613
P00210TW	Taiwan	94113506	Methods and circuits for frequency modulation that reduce the spectral noise of switching regulators	Non Provisional	2005-04-27	200620859	I352519
P00217TW	Taiwan	94133545	Circuits and methods for flexible current partitioning in monolithic switching regulators	Non Provisional	2005-09-27	200633347	I346439
P00220TWABD	Taiwan	94139531	Current Control Circuitry For Controlling Current From Limited Current Capacity Source.	Non Provisional	2005-11-11	200625754	
P00221TW	Taiwan	94140670	System and method for determining load current in	Non Provisional	2005-11-18		I351816

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			switching regulators operable in pulse skipping mode.				
P00222TW	Taiwan	94123423	Adaptive control for inductor based buck-boost voltage regulators	Non Provisional	2005-07-11	200625050	I3593338
P00226TW	Taiwan	94136591	A Method Of And System For Regulating A Power Supply.	Non Provisional	2005-10-19	200622572	
P00227TW	Taiwan	95104960	Method and circuit for driving a gate of a MOS transistor negative.	Non Provisional	2006-02-14	200637115	I413351
P00228TWABD	Taiwan	94125328	Switch-Mode Power Supply Voltage Regulator And Methodology.	Non Provisional	2005-07-26	200620802	
P00235TW	Taiwan	94124118	Circuitry and methodology for driving multiple light emitting devices	Non Provisional	2005-07-15	200606795	I412001
P00236TW	Taiwan	94120597	Method of fabricating a semiconductor device with multiple gate oxide thickness.	Non Provisional	2005-06-21	200605414	I364849
P00237TW	Taiwan	94135326	Inrush current slew control circuit and method.	Non Provisional	2005-10-11	I362166	I362166
P00238TW	Taiwan	94136408	Compensation technique providing stability over broad range of output capacitor values.	Non Provisional	2005-10-18	200627118	I3644640
P00241TW	Taiwan	94146830	Current control circuitry and methodology for controlling current from current constrained source.	Non Provisional	2005-12-27	200631276	I369053
P00242TW	Taiwan	94138949	Power management circuit and methodology for battery-powered systems	Non Provisional	2005-11-07	200638652	I351153
P00249TW	Taiwan	94106833	Floating gate nonvolatile memory circuits and methods.	Non Provisional	2005-03-07	200601344	I362041
P00262TW	Taiwan	95120585	Variable gain amplifier with temperature compensation and gain linearity enhancement.	Non Provisional	2006-06-09	200713802	I379508
P00263TW	Taiwan	95130204	Wideband squaring cell.	Non Provisional	2006-08-17	200709568	I431940

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P00264TW	Taiwan	95120885	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2006-06-13	200713798	I382651
P00277TW	Taiwan	94131526	Switching regulator over voltage reduction circuit and method.	Non Provisional	2005-09-13	200642249	I353711
P00278TW	Taiwan	95117252	Switching regulator with slope compensation independent of changes in switching frequency.	Non Provisional	2006-05-16	200707155	I398746
P00279TW	Taiwan	94131662	Switching regulator with variable slope compensation,	Non Provisional	2005-09-14	200703912	I361567
P00280TW	Taiwan	94131276	Power manager and power managing method for battery-powered application.	Non Provisional	2005-09-12	200705775	I382629
P00285TW	Taiwan	94130462	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-09-06	200705786	I375390
P00287TW	Taiwan	95124197	Single-wire sequencing technique .	Non Provisional	2006-07-03	200712857	I376593
P00289TW	Taiwan	95126218	Level shift delay equalization circuit and methodology.	Non Provisional	2006-07-18	200726089	I430578
P00290TW	Taiwan	95127381	Peak charging current modulation for burst mode conversion.	Non Provisional	2006-07-26	200711282	I400869
P00291TW	Taiwan	95126214	Switched converter with variable peak current and variable off-time control.	Non Provisional	2006-07-18	200726046	I390828
P00292TW	Taiwan	95147979	Apparatus and method for producing signal conveying circuit status information.	Non Provisional	2006-12-20	200733515	I394348
P00293TW	Taiwan	95133536	Squaring cell implementing tail current multiplication.	Non Provisional	2006-09-11	200729040	I409702
P00294TW	Taiwan	95130514	Circuits and methods for canceling signal dependent capacitance.	Non Provisional	2006-08-18	200723687	I411230
P00295TW	Taiwan	96128756	Circuits and methods for adjustable peak inductor current and hysteresis for burst mode in switching regulators	Non Provisional	2007-08-03	200827969	I396953

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P00307TW	Taiwan	95133343	Single feedback input for regulation at both positive and negative voltage levels .	Non Provisional	2006-09-08	200731048	I388964
P00317TW	Taiwan	95135806	Systems and methods for reducing input current in photoflash chargers.	Non Provisional	2006-09-27	200731876	I414137
P00318TW	Taiwan	95136795	Adaptive current reversal comparator.	Non Provisional	2006-10-03	200741407	I396958
P00319TW	Taiwan	95137848	Methods and circuits for output over-voltage reduction in switching regulators.	Non Provisional	2006-10-14	200727562	I397247
P00328TW	Taiwan	96113376	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2007-04-16	200820574	I410036
P00329TW	Taiwan	95142876	High linearity low noise variable gain amplifier with continuous gain control.	Non Provisional	2006-11-20	200803160	I347743
P00334TW	Taiwan	96113377	Light load regulator for isolated flyback converter.	Non Provisional	2007-04-16		I419456
P00335TW	Taiwan	96129030	Regulator for isolated flyback power supply using primary side sensing.	Non Provisional	2007-08-07		I430554
P00336TW	Taiwan	97100239	Adaptive output current control for switching circuits	Non Provisional	2008-01-03	200845551	I371905
P00337TW	Taiwan	96141033	Square cell having wide dynamic range and power detector implementing same.	Non Provisional	2007-10-31	200830702	I445300
P00340TW	Taiwan	101120695	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-08	201307870	I493205
P00342TW	Taiwan	96142256	Synchronous Rectifier Control For Synchronous Boost Converter.	Non Provisional	2007-11-08	2008-40193	I424673
P00349TW	Taiwan	96131731	Bandgap voltage and current reference	Non Provisional	2007-08-27	2008-39480	I435200
P00350TW	Taiwan	98134408	Systems and methods for characterizing component ratios	Non Provisional	2009-10-09	201025867	I455487

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			and generating a digital representation of same.				
P00355TW	Taiwan	96142737	Determining average output current in DC-DC converter.	Non Provisional	2007-11-12	200841567	I404314
P00358TW	Taiwan	97140350	Bidirectional power converters	Non Provisional	2008-10-21	200929817	I454034
P00359TW	Taiwan	97111088	Method For Clamping a Semiconductor Region At Or Near Ground.	Non Provisional	2008-03-27	200907630	I4311456
P00360TW	Taiwan	98107726	System and Method For Charging Capacitors Using Automatic Cell Balancing.	Non Provisional	2009-03-10	200945728	I424654
			Voltage Stackable Data Port.				
P00361TW	Taiwan	96143532	Monitoring Cells In Energy Storage System .	Non Provisional	2007-11-16	2008-41035	I440873
P00362TW	Taiwan	96140122	Paralleling voltage regulators.	Non Provisional	2007-10-25	200903970	I441439
			Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.				
P00368TW	Taiwan	97151477	Semiconductor Device.	Non Provisional	2008-12-30	200941653	I489595
P00369TW	Taiwan	97129357	Over-voltage protection circuit.	Non Provisional	2008-08-01	200919890	I404285
P00370TW	Taiwan	100106254	Charge pump with glitchless terminal currents	Non Provisional	2011-02-24	201206036	I439028
P00373TW	Taiwan	98129435	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2009-09-01	201017858	I463630
P00376TW	Taiwan	97142931	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias	Non Provisional	2008-11-06	200935205	I446139
P00377TW	Taiwan	98110727	Method and system for bit polarization coding.	Non Provisional	2009-03-31	200950348	I458265
P00382TW	Taiwan	99100385	Extending Input to Output Voltage Range in Multiple Channel Switching Regulator Applications.	Non Provisional	2010-01-08		I474145

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P00383TW	Taiwan	99127193	Switch Mode Power Supply With Dynamic Topology.	Non Provisional	2010-08-13	201117538	I458240
P00385TW	Taiwan	101141331	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2012-11-07	201334424	I504158
P00390TW	Taiwan	98142175	Power Measurement Circuit.	Non Provisional	2009-12-10	201030347	I438444
P00392TW	Taiwan	97145992	Circuit, trim, and layout for temperature compensation of metal resistors in semi-conductor chips	Non Provisional	2008-11-27	201020710	I446132
P00393TW	Taiwan	99114458	Method and System For High Efficiency, Fast Transient Multi-Channel LED Driver.	Non Provisional	2010-05-06	201044914	I473531
P00394TW	Taiwan	98142121	Linearity In LED Dimmer Control.	Non Provisional	2009-12-09	201028041	I454178
P00395TW	Taiwan	98142122	Current ripple reduction circuit for LEDs	Non Provisional	2009-12-09	201028042	I526117
P00396TW	Taiwan	98142372	Dimmer Control Leakage Pull Down Using Main Power Device in Flyback Converter.	Non Provisional	2009-12-10	201032445	I442676
P00397TW	Taiwan	98142370	Dimmer-Controlled LEDs Using Flyback Converter With High Power Factor.	Non Provisional	2009-12-10	201031100	I458247
P00398TW	Taiwan	98137966	Accelerated Response to Load Transients in PFM DC-to-DC Converters	Non Provisional	2009-11-09	201021390	I452814
P00404TW	Taiwan	98140853	Circuitry and methodology for protecting a boost DC/DC converter	Non Provisional	2009-11-30	201029286	I462417
P00406TW	Taiwan	99100848	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2010-01-13	201031097	I460980
P00408TW	Taiwan	99115856	Chopper stabilized bandgap reference circuit and methodology for voltage regulators	Non Provisional	2010-05-18	201115296	I436191

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P00409TW	Taiwan	98139990	Method and system for variable-gain amplifier.	Non Provisional	2009-11-24	201025842	I502884
P00410TW	Taiwan	99131083	Feedback control of a DC/DC power converter.	Non Provisional	2010-09-14	201124809	I470390
P00418TW	Taiwan	99105352	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2010-02-24		I453568
P00420TW	Taiwan	99111838	Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Non Provisional	2010-04-15	201042414	I468893
P00421TW	Taiwan	99109433	Average inductor current mode switching converters	Non Provisional	2010-03-29	201044759	I473408
P00422TW	Taiwan	99111122	Buck-made boost converter with regulated output current	Non Provisional	2010-04-09	201101665	I485963
P00423TW	Taiwan	99140628	Method and System For Improved Phase Noise In A BiCMOS Clock Driver.	Non Provisional	2010-11-24	201141062	I430576
P00425TW	Taiwan	99142159	Method And System For Minimum Output-Voltage Battery Charger.	Non Provisional	2010-12-03	201136099	I479774
P00427TW	Taiwan	99121522	Method And System For Dimming An Offline LED Driver.	Non Provisional	2010-06-30	201108860	I471060
P00430TW	Taiwan	099129280	Enhanced Pad Design For Solder Attach Devices.	Non Provisional	2010-08-31	201115663	I446467
P00434TW	Taiwan	99137820	Method And System For Improving Limiting Amplifier Phase Noise For Low Slew-Rate Input Signals.	Non Provisional	2010-11-03	2011382298	I454047
P00436TW	Taiwan	100111069	Error Amplifier For Regulating Single Feedback Input At Multiple Levels.	Non Provisional	2011-03-30		I454877
P00438TW	Taiwan	101113519	Current Steering Circuit With Feedback.	Non Provisional	2012-04-16	201320613	I482437
P00441TW	Taiwan	99143794	Continuously Switching Buck-Boost Control.	Non Provisional	2010-12-14	201141035	I430552
P00445TW	Taiwan	100113702	Stacked Interposer Leadframes.	Non Provisional	2011-04-20	201201336	I441300
P00446TW	Taiwan	99145014	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of	Non Provisional	2010-12-17	201135265	I409485

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			Switching Inductor Based on Duty Cycle.				
P00447TW	Taiwan	100128564	Method and System For Extending PWM Dimming Range In LED drivers.	Non Provisional	2011-08-10	201220934	I440395
P00448TW	Taiwan	100122682	Current Sensor Using Leadframe as Sensing Element.	Non Provisional	2011-06-28	201213817	I408379
P00449TW	Taiwan	100139968	Method And System For Detecting And Asserting BUS Speed Condition In A USB Isolated Device.	Non Provisional	2011-11-02	201229771	I505094
P00450TW	Taiwan	100113579	Switching Scheme For Step Up-Step Down Converters Using Fixed Frequency Current-Mode Control.	Non Provisional	2011-04-19	201212511	I450487
P00451TW	Taiwan	101122067	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2012-06-20	201306492	I484760
P00453TW	Taiwan	100117263	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Non Provisional	2011-05-17	2012207069	I469530
P00454TW	Taiwan	100125165	Laser Process For Side Plating Of Terminals.	Non Provisional	2011-07-15	201208109	I411132
P00455TW	Taiwan	100119424	Dynamic Compensation of Aging Drift In Current Sense Resistor.	Non Provisional	2011-06-02	201221969	I463143
P00457TW	Taiwan	100119607	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	201223092	I430546
P00457TWD01	Taiwan	102141468	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	201415774	I497887
P00457TWD02	Taiwan	102141469	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-03	201415775	I492501
P00469TW	Taiwan	101116695	Circuitry to prevent overvoltage of circuit system	Non Provisional	2012-05-10	201301760	I492532
P00475TW	Taiwan	102105558	Active bridge rectification	Non Provisional	2013-02-18	201340576	I485967

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P00476TW	Taiwan	101121598	Stackable Bi-Directional Multicell Battery Balancer.	Non Provisional	2012-06-15	201301626	I474530
P00477TW	Taiwan	101120692	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-08	201301766	I511461
P00478TW	Taiwan	101120698	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-08	201301767	I504147
P00479TW	Taiwan	101120700	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-08	201306039	I512741
P00481TW	Taiwan	101121799	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2012-06-18	201305767	I450068
P00486TWABD	Taiwan	103102148	Bipolar Transistor With Lowered the 1/F noise.	Non Provisional	2014-01-21	20143620	
P00491TW	Taiwan	101131231	Power Combining In Power Over Ethernet Systems.	Non Provisional	2012-08-28	201318374	I462520
P00492TW	Taiwan	101134781	Anemometer detecting thermal time constant of sensor	Non Provisional	2012-09-21	201319575	I472768
P00493TW	Taiwan	101138739	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-10-19	201330454	I558062
P00494TW	Taiwan	101147219	Primary unit control of resonant inductive power transfer system for optimum efficiency.	Non Provisional	2012-12-13	201342763	I502843
P00497TW	Taiwan	101140178	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2012-10-30	201334377	I423569
P00498TW	Taiwan	101150768	Flyback Converter, Method for Operating the Same and Method for Operating a Flyback Converter at Load Currents Below a Threshold Current	Non Provisional	2012-12-28	201340573	I492513
P00500TW	Taiwan	101121631	High Side Current Sense Amplifier.	Non Provisional	2012-06-15	201345145	I429191

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P00513TW	Taiwan	102105294	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-08	201346906	I154381
P00518TW	Taiwan	101107904	Methods and System For Erasing Data Stored in Nonvolatile Memory in Low Power Applications.	Non Provisional	2012-03-08	201308341	I473101
P00520TW	Taiwan	102119184	Expanding DC/DC Converter Into Multi-Phase DC/DC Converter.	Non Provisional	2013-05-30	201406028	I493856
P00521TW	Taiwan	102109530	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2013-03-18	201401742	I462454
P00529TW	Taiwan	102115531	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2013-04-30	201406032	I481177
P00531TW	Taiwan	102114053	Analog-to-digital converter system and method	Non Provisional	2013-04-19	201345164	I520496
P00532TW	Taiwan	101140823	Methods and Circuits for Providing Stable Current and Voltage References Based on Currents Flowing Through Ultra-Thin Dielectric Layer Components.	Non Provisional	2012-11-02	201324072	I570536
P00533TW	Taiwan	102125414	Low Power Radio Receiver.	Non Provisional	2013-07-16	201412033	I551065
P00533TW/D01	Taiwan	105127530	Low Power Radio Receiver.	Non Provisional	2016-09-05	201701584	I614988
P00534TW	Taiwan	102146694	Anti-aliasing sampling circuits and analog-to-digital converters	Non Provisional	2013-12-17	201436471	I621338
P00535TW	Taiwan	102126139	Phase-Noise Tolerant Sampling.	Non Provisional	2013-07-22	201419763	I589122
P00536TW	Taiwan	102135876	System and Method for Input Voltage Regulation of Switch Mode Supplies Implementing Burst Mode Operation.	Non Provisional	2013-10-03	201428444	I536136
P00538TW	Taiwan	102149339	Power Supply System Having Input Node and Method of Supplying Power from Input Node to Output Node	Non Provisional	2013-12-31	201440401	I606681

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P00539TW	Taiwan	103100261	Method and System For Measuring the Resistance of a Resistive Structure.	Non Provisional	2014-01-03		I503646
P00540TW	Taiwan	102135874	Configurable Serial Interface.	Non Provisional	2013-10-03	201428501	I582601
P00541TW	Taiwan	102135709	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2013-10-02	201419732	I492507
P00542TW	Taiwan	102136379	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2013-10-08	201419791	I501586
P00544TW	Taiwan	92209102	Improved structure for tool box	Non Provisional	2003-05-19		590061
P00545TW	Taiwan	102135732	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2013-10-02	201415756	I492478
P00546TW	Taiwan	102136374	PWM Control for LEDs With Reduced Flicker When Using Spread Spectrum Switching Frequencies.	Non Provisional	2013-10-08	201417628	I606746
P00547TW	Taiwan	102141726	Precision Temperature Measurement Device, Sensors and Methods.	Non Provisional	2013-11-15	201428247	I519769
P00549TW	Taiwan	102136378	Switching Regulator Circuit and Method Performed by a Switching Regulator Circuit.	Non Provisional	2013-10-08	201421883	I495243
P00550TW	Taiwan	102146169	Power Converter For Generating Both Positive and Negative Output Signals.	Non Provisional	2013-12-13	201436434	I519045
P00553TW	Taiwan	103105676	SWITCHING REGULATOR AND METHOD OF REGULATING VOLTAGE	Non Provisional	2014-02-20	201444261	I619338
P00559TW	Taiwan	103111909	Poly-Phase Filter With Phase Tuning.	Non Provisional	2014-03-31		I521869
P00560TW	Taiwan	102147153	Balun Mixer Circuits	Non Provisional	2013-12-19	201442329	I514660
P00563TW	Taiwan	103112559	DEVICE, SYSTEM, AND METHOD OF VOLTAGE COMPENSATED ACTIVE CELL BALANCING"	Non Provisional	2014-04-03	201509061	I627812

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P00564TW	Taiwan	102147154	System and method for providing fast transient response with dynamic switching frequency adjustment	Non Provisional	2013-12-19	201440400	I508421
P00566TW	Taiwan	103125131	Power Supply System and Method.	Non Provisional	2014-07-22	201517438	I641195
P00567TW	Taiwan	103132094	Switching Topology For Connecting Two Nodes in Electronic System.	Non Provisional	2014-09-17	201528684	I552525
P00572TW	Taiwan	103123811	System for inrush control with multiple switches.	Non Provisional	2014-07-10	201517435	I637572
P00572TW01	Taiwan	107125857	Inrush Control Method with Multiple Switches.	Non Provisional	2014-07-10	201904157	
P00573TW	Taiwan	103123812	System, Circuit, and Method for Detecting Faults in Hot-Swap Applications.	Non Provisional	2014-07-10	2015029264	I652490
P00583TW	Taiwan	103116224	Isolated Bootstrapped Switch.	Non Provisional	2014-05-07		I554032
P00584TW	Taiwan	103108569	Bipolar isolated high voltage sampling network and sampling method thereof	Non Provisional	2014-03-12	201516419	I515441
P00585TW	Taiwan	103144625	Predictive and Reactive Control Secondary Side Synchronous Rectifiers in Forward Converter.	Non Provisional	2014-12-19	201535951	I523396
P00589TW	Taiwan	103132311	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-09-18	201521515	I562674
P00593TW	Taiwan	104101571	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Non Provisional	2015-01-16	201530998	I562520
P00601TW	Taiwan	104103911	Arbitrary Phase Trajectory Frequency Synthesizer.	Non Provisional	2015-02-07	201603496	I630798
P00603TW	Taiwan	104106687	Bootstrap Sampling Circuit With Accurately Averaging Pre-Charge Circuit.	Non Provisional	2015-03-03	201537900	

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P00610TW	Taiwan	104111293	NETWORK MANAGER AND METHODS FOR MANAGING WIRELESS NETWORK SERVICES USING LICENSE INFORMATION	Non Provisional	2015-04-08	201541979	I606038
P00613TW	Taiwan	104111137	Converting Time-Encoded Signal Into Analog Output.	Non Provisional	2015-04-07	201543822	I590592
P00615TW	Taiwan	104110515	Voltage Regulation of Resonant Power Wireless Receiver.	Non Provisional	2015-03-31	201541791	I577105
P00618TW	Taiwan	104113315	Low-Voltage Analog Variable Gain Amplifier With Enhanced Linearity.	Non Provisional	2015-04-24	201545472	I571051
P00619TW	Taiwan	104115629	Radio Receiver.	Non Provisional	2015-05-15	201601468	I594584
P00621TW	Taiwan	104115642	Configuring Signal-Progressing Systems.	Non Provisional	2015-05-15	201601463	I654845
P00624TW	Taiwan	104113551	Broadband integrated RF/microwave/millimeter mixer with integrated balun(S)	Non Provisional	2015-04-28	201545468	I565227
P00635TW	Taiwan	104124088	Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Non Provisional	2015-07-24	201611207	I590396
P00635TWD01	Taiwan	106115241	Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Non Provisional	2017-05-09	201729366	
P00635TWD02	Taiwan		Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Non Provisional			
P00641TW	Taiwan	104130333	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-14	201616806	I566520
P00642TW	Taiwan	104125360	DCR Inductor Current-Sensing in Four-Switch Buck-Boost Converters.	Non Provisional	2015-08-05		
P00646TWABD	Taiwan	104123917	Exposed, Solderable Heat Spreader For Flipchip Package.	Non Provisional	2015-07-23	201612992	
P00650TW	Taiwan	105107225	Spread Spectrum For Switch Mode Power Supplies.	Non Provisional	2016-03-09	201637338	I596878

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P00651TW	Taiwan	105105148	Distortion Compensation Circuit.	Non Provisional	2016-02-22		
P00652TW	Taiwan	105105147	Phase Error Compensation Circuit.	Non Provisional	2016-02-22		I629889
P00653TW	Taiwan	105105000	Control Architecture With Improved Transient Response.	Non Provisional	2016-02-19	201631858	
P00654TW	Taiwan	105105003	Fast Transient Power Supply With a Separated Higher Frequency Current and Low Frequency Path Signal.	Non Provisional	2016-02-19		I614979
P00665TW	Taiwan	105115965	Maintaining LED driver operating point during PWM off times.	Non Provisional	2016-05-23	201711522	I617220
P00666TW	Taiwan	105115365	Maintaining output capacitance voltage in LED driver systems during PWM off times.	Non Provisional	2016-05-18	201707515	I617219
P00667TW	Taiwan	105126555	Multiple Access Point Wireless Mesh Network.	Non Provisional	2016-08-19	201713159	
P00678TW	Taiwan	105115760	Ripple Monitoring.	Non Provisional	2016-05-20	201723743	
P00680TW	Taiwan	106101651	Fast Transient Power Supply With a Separated High Frequency and Low Frequency Path Signals. Provisional Title was: "Control Architecture With Improved Transient Response"	Non Provisional	2017-01-18	201733258	
P00682TW	Taiwan	105113140	Energy Storage Device Stack Balancing Using Switched Inductor Background.	Non Provisional	2016-04-27	201739135	I624128
P00683TW	Taiwan	106113400	MECHANICALLY-COMPLIANT AND ELECTRICALLY AND THERMALLY CONDUCTIVE LEADFRAMES FOR COMPONENT-ON-PACKAGE CIRCUITS	Non Provisional	2017-04-21	201740526	

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P00685TW	Taiwan	106112657	Robust Current Sensing with Shared Amplifier for Multi-phase Switching Converter.	Non Provisional	2017-04-14	201739151	I610523
P00689TW	Taiwan	106118171	Transformer-Based Hybrid Power Converters.	Non Provisional	2017-06-02	201804719	
P00690TW	Taiwan	105124589	Control Architecture With Improved Transient Response.	Non Provisional	2016-08-03	201728065	
P00692TW	Taiwan	106116577	Balancing Charge Pump Circuits	Non Provisional	2017-05-19	201817147	I660567
P00692TWC01	Taiwan	106116593	Balancing Charge Pump Circuits	Non Provisional	2017-05-19	201817148	
P00692TWP01	Taiwan	106116594	Balancing Charge Pump Circuits	Non Provisional	2017-05-19	201813263	I652886
P00706TW	Taiwan	106124601	Communication System Using Hybrid Common Mode Choke and Kelvin Sensing of Voltage.	Non Provisional	2017-07-21	201810992	I658710
P00003GB	United Kingdom	85304417.0	Nonlinearity correction circuit for bandgap reference.	Non Provisional	1985-06-20	0170391	0170391
P00016GB	United Kingdom	88304032.1	Charge pump circuitry having low saturation voltage and current-limited switch.	Non Provisional	1988-05-04		0292148
P00054GB	United Kingdom	94100806.2	Digital to analog converter.	Non Provisional	1994-01-20	607971	607971
P00054GBD01	United Kingdom	00103327.3	Digital to analog converter.	Non Provisional	1994-01-20	1005171	1005171
P00054GBD02	United Kingdom	04025462.5	Digital to analog converter.	Non Provisional	1994-01-20	1548946	1548946
P00067GB	United Kingdom	94104509.8	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1994-03-22	617501	617501
P00068GB	United Kingdom	93119453.4	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1993-12-02	600488	600488
P00073GB	United Kingdom	07121448	Sawtooth oscillator having controlled endpoints and methodology therefor	Non Provisional	2007-11-23	1931029	1931029
P00073GBD01	United Kingdom	11009533	Sawtooth oscillator having controlled endpoints and methodology therefor	Non Provisional	2007-11-23	2426819	2426819
P00074GB	United Kingdom	07111883	Range compression in oversampling analog-to-digital	Non Provisional	2007-07-05	1876715	1876715

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			converters using differential input signals				
P00075GB	United Kingdom	08100951	Systems and methods for providing compact digitally controlled trim of multi-segment circuits	Non Provisional	2008-01-25	1956716	1956716
P00078GB	United Kingdom	95105641.5	High-speed switching regulator drive circuit.	Non Provisional	1995-04-13	677861	677861
P00079GB	United Kingdom	07111882	Range compression in oversampling analog-to-digital converters	Non Provisional	2007-07-05	1903683	1903683
P00080GB	United Kingdom	07839808	CURRENT SOURCE WITH INDIRECT LOAD CURRENT SIGNAL EXTRACTION	Non Provisional	2007-10-26	2123122	2123122
P00107GB	United Kingdom	98110504.2	Synchronous switching regulator which employs switch voltage-drop for current sensing.	Non Provisional	1998-06-09	884746	884746
P00114GB	United Kingdom	98107299	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads	Non Provisional	1998-04-22	0874461	0874461
P00123GB	United Kingdom	99113598	Active pullup circuitry for open-drain signals	Non Provisional	1999-07-09	0973261	0973261
P00129GB	United Kingdom	99109383.2	Voltage mode feedback burst mode circuit.	Non Provisional	1999-06-02	967713	967713
P00134GB	United Kingdom	99115181.2	Delta-sigma modulator with improved full-scale accuracy.	Non Provisional	1999-08-16	EP981205	981205
P00143GB	United Kingdom	99125910.2	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use.	Non Provisional	1999-12-23	1018799	1018799
P00153GB	United Kingdom	0105748	Linear pulse-width modulation system	Non Provisional	2001-03-08	2364456	2364456
P00175GB	United Kingdom	0202811.6	Multiple phase switching regulators with stage shedding.	Non Provisional	2002-02-07	2376091 A	GB2376091
P00175GBD01	United Kingdom	0502459.1	Multiple phase switching regulators with stage shedding.	Non Provisional	2002-02-07	2407882	GB2407882

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P00176GB	United Kingdom	0203942.8	Systems and methods for controlling the charge profile during the commutation event of a synchronous switching transistor in a regulator.	Non Provisional	2002-02-20	2375663	GB2375663
P00177GB	United Kingdom	02009309	Method and receiver for measuring power	Non Provisional	2002-04-30	1258734	1258734
P00179GB	United Kingdom	01129279	RMS-TO-DC converter with fault detection and recovery	Non Provisional	2001-12-12	1215504	1215504
P00181GB	United Kingdom	01129255	Circuits and methods for interconnecting bus systems	Non Provisional	2001-12-11	1213655	1213655
P00181GBD01	United Kingdom	09150579	Circuits and methods for interconnecting bus systems	Non Provisional	2001-12-11	2056208	2056208
P00181GBD02	United Kingdom	09150580	Circuits and methods for interconnecting bus systems	Non Provisional	2001-12-11	2056209	2056209
P00181GBD03	United Kingdom	09150581	Circuits and methods for interconnecting bus systems	Non Provisional	2001-12-11	2060978	2060978
P00184GBP01	United Kingdom	04018003	Capacitor charging circuit and method thereof	Non Provisional	2004-07-29	1508961	1508961
P00185GB	United Kingdom	0227787	Component containing light emitting and impedance elements	Non Provisional	2002-11-28	2386252	2386252
P00188GB	United Kingdom	02007264	Circuits and methods for synchronizing non-constant frequency switching regulators with a phase locked loop	Non Provisional	2002-03-28	1248352	1248352
P00198GB	United Kingdom	1355426D	MICROBIOLOGICAL METHOD OF PRODUCING EDIBLE ACETIC ACID	Non Provisional	1971-07-08	1355426	1355426
P00198GB01	United Kingdom	05018493.6	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		1608070
P00198GB02	United Kingdom	06005886	Multi-bit digital input using a single pin .	Non Provisional	2003-04-14		1966568
P00222GB	United Kingdom	05255667	Adaptive control for inductor based buck-boost voltage regulators	Non Provisional	2005-09-14	1635445	1635445

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P00224GB	United Kingdom	05815577	COMMON-MODE DATA TRANSMISSION FOR POWER OVER ETHERNET SYSTEM	Non Provisional	2005-10-21	1813056	1813056
P00225GB01	United Kingdom	06250081.4	DC/DC converter with current limit protection.	Non Provisional	2006-01-09		1679780
P00230GB	United Kingdom	05761045	IMPROVED NETWORK ADJUSTMENT CIRCUITS AND METHODOLOGIES	Non Provisional	2005-06-22	1869770	1869770
P00231GB	United Kingdom	05815960	ANALOG POWER MANAGEMENT WITHIN POWER OVER ETHERNET SYSTEM	Non Provisional	2005-10-20	1813057	1813057
P00233GB	United Kingdom	06250659	Overcurrent protection for a buck-boost switching regulator	Non Provisional	2006-02-08	1691474	1691474
P00233GBD01	United Kingdom	08101359	Overcurrent protection for a buck-boost switching regulator	Non Provisional	2006-02-08	1914870	1914870
P00234GB	United Kingdom	06250683	Current-mode control for switched step up-step down regulators	Non Provisional	2006-02-08	1689070	1689070
P00239GB	United Kingdom	05726151.3	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29	EP1864553	EP1864553
P00251GB	United Kingdom	06717350	SYSTEM AND METHOD FOR TRACKING A VARIABLE CHARACTERISTIC THROUGH A RANGE OF OPERATION	Non Provisional	2006-01-04	1842121	1842121
P00251GBD01	United Kingdom	09165453	System and method for tracking a variable characteristic through a range of operation	Non Provisional	2006-01-04	2144133	2144133
P00252GB	United Kingdom	06250680	Variable frequency current-mode control for switched step up-step down regulators	Non Provisional	2006-02-08	1689069	1689069
P00252GBD01	United Kingdom	11002431	Variable frequency current-mode control for switched step up-step down regulators	Non Provisional	2006-02-08	2337208	2337208
P00253GB	United Kingdom	05812353	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE INPUT CURRENT	Non Provisional	2005-10-17	1805898	1805898

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P00253GBD01	United Kingdom	11161019	Analog signal sampling system and method having reduced average input current	Non Provisional	2005-10-17	2343808	2343808
P00254GB	United Kingdom	05812383	ANALOG SIGNAL SAMPLING SYSTEM AND METHOD HAVING REDUCED AVERAGE DIFFERENTIAL INPUT CURRENT	Non Provisional	2005-10-17	1810406	1810406
P00255GB	United Kingdom	05810349	ANALOG-TO-DIGITAL CONVERTER WITH REDUCED AVERAGE INPUT CURRENT AND REDUCED AVERAGE REFERENCE CURRENT	Non Provisional	2005-10-17	1803223	1803223
P00256GB	United Kingdom	06250682	Light load current-mode control for switched step up-step down regulators	Non Provisional	2006-02-08	1689068	1689068
P00259GB	United Kingdom	05745504	ADAPTIVE POWER CONTROL FOR HYSTERETIC REGULATORS	Non Provisional	2005-05-09	1872468	1872468
P00259GBD01	United Kingdom	11003329	Adaptive power control for hysteretic regulators	Non Provisional	2005-05-09	2348623	2348623
P00262GB	United Kingdom	06773601	VARIABLE GAIN AMPLIFIER WITH TEMPERATURE COMPENSATION AND GAIN LINEARITY ENHANCEMENT	Non Provisional	2006-06-20	1897218	1897218
P00263GB	United Kingdom	06801036	WIDEBAND SQUARING CELL	Non Provisional	2006-08-09	1915720	1915720
P00264GB	United Kingdom	06784986	WIDE DYNAMIC RANGE SWITCHING VARIABLE GAIN AMPLIFIER AND CONTROL	Non Provisional	2006-06-15	1897217	1897217
P00265GB	United Kingdom	06718370	ADJUSTING CURRENT LIMIT THRESHOLDS BASED ON POWER REQUIREMENT OF POWERED DEVICE IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-13	1842326	1842326
P00266GB	United Kingdom	06718284	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2006-01-13	1842325	1842325

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P00267GB	United Kingdom	06717526	POWER SOURCING EQUIPMENT HAVING AUTO-ZERO CIRCUIT FOR DETERMINING AND CONTROLLING OUTPUT CURRENT	Non Provisional	2006-01-09	1842321	1842321
P00268GB	United Kingdom	06717528	DUAL-MODE DETECTION OF POWERED DEVICE IN POWER OVER ETHERNET SYSTEM	Non Provisional	2006-01-09	1842323	1842323
P00269GB	United Kingdom	06717527	HIGH-POWER FOLDBACK MECHANISM IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-09	1842322	1842322
P00270GB	United Kingdom	06717529	DETECTING LEGACY POWERED DEVICE IN POWER OVER ETHERNET SYSTEM	Non Provisional	2006-01-09	1842324	1842324
P00271GB	United Kingdom	06717525	DISTINGUISHING NETWORK INTERFACE CARD FROM SHORT CIRCUIT CONDITION IN POWER OVER ETHERNET SYSTEM	Non Provisional	2006-01-09	1869824	1869824
P00272GB	United Kingdom	06718369	COMBINATION OF HIGH-SIDE AND LOW-SIDE CURRENT SENSING IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-01-13	1864429	1864429
P00273GB	United Kingdom	06738267	CLASSIFICATION MECHANISM IN SYSTEM FOR SUPPLYING POWER OVER COMMUNICATION LINK	Non Provisional	2006-03-15	1859567	1859567
P00273GBD01	United Kingdom	10014682	Classification mechanism for supplying power over communication link	Non Provisional	2006-03-15	2282445	2282445
P00274GB	United Kingdom	05789074.1	Trim circuits and methodologies for data converters.	Non Provisional	2005-08-19	1872478	EP1872478
P00277GB	United Kingdom	05255668	Circuit and method for reducing overshoot in a switching regulator	Non Provisional	2005-09-14	1724908	1724908
P00278GB	United Kingdom	06752391	SWITCHING REGULATOR WITH SLOPE COMPENSATION	Non Provisional	2006-05-08	1913679	1913679

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			INDEPENDENT OF CHANGES IN SWITCHING FREQUENCY				
P00281GBP01	United Kingdom	06760623	INRUSH CURRENT CONTROL SYSTEM WITH SOFT START CIRCUIT AND METHOD	Non Provisional	2006-06-01	1891735	1891735
P00282GB	United Kingdom	05733704	CONFIGURABLE DATA PART FOR 12C OR SINGLE-WIRE BROADCAST INTERFACE	Non Provisional	2005-04-11	1869563	1869563
P00283GB	United Kingdom	06251816	Circuit and method of detecting and resolving stuck 12C buses	Non Provisional	2006-03-31	1710709	1710709
P00285GB	United Kingdom	05792954	DUAL-INPUT DC-DC CONVERTER WITH INTEGRATED IDEAL DIODE FUNCTION	Non Provisional	2005-08-31	1905149	1905149
P00290GB	United Kingdom	06787052.7	PEAK CHARGING CURRENT MODULATION FOR BURST MODE CONVERSION	Non Provisional	2006-07-13	1922802	1922802
P00293GB	United Kingdom	06813730	CURRENT SQUARING CELL	Non Provisional	2006-08-25	1946241	1946241
P00296GB	United Kingdom	06800924	SWITCHING REGULATOR DUTY CYCLE CONTROL IN A FIXED FREQUENCY OPERATION	Non Provisional	2006-08-07	1932236	1932236
P00296GBD01	United Kingdom	12000109	Switching regulator duty cycle control in a fixed frequency operation	Non Provisional	2006-08-07	2445096	2445096
P00297GB	United Kingdom	06800923	SWITCHING REGULATOR SLOPE COMPENSATION GENERATOR CIRCUIT	Non Provisional	2006-08-07	1969705	1969705
P00299GB01	United Kingdom	06718758.3	Providing data communication between power supply device and powered device in system for supplying power over communication link.	Non Provisional	2006-01-19	1842328	1842328
P00300GB	United Kingdom	06800930	CONTROLLING SWITCHING CIRCUITS TO BALANCE POWER OR CURRENT DRAWN FROM MULTIPLE POWER SUPPLY INPUTS	Non Provisional	2006-08-08	2033290	2033290
P00301GB	United Kingdom	06719192	CONTROLLING POWER DISTRIBUTION AMONG	Non Provisional	2006-01-23	1859566	1859566

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			MULTIPLE WIRES IN COMMUNICATION CABLE				
P00302GB	United Kingdom	06838293	POWER SOURCING EQUIPMENT HAVING BIPOLAR JUNCTION TRANSISTOR FOR CONTROLLING SUPPLY AND SUPPORTING AC DISCONNECT-DETECTION FUNCTION	Non Provisional	2006-11-22	1961152	1961152
P00303GBABD	United Kingdom	06719322.7	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2007-07-25	1842330	
P00304GB	United Kingdom	06838292	COMBINATION OF HIGH-SIDE AND LOW-SIDE CURRENT CONTROL IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-11-22	1961151	1961151
P00305GB	United Kingdom	06719193	SYSTEM FOR PROVIDING POWER OVER COMMUNICATION CABLE HAVING MECHANISM FOR DETERMINING RESISTANCE OF COMMUNICATION CABLE	Non Provisional	2006-01-23	1842329	1842329
P00319GB01	United Kingdom	06122849.0	Methods and circuits for output over-voltage reduction in switching regulators.	Non Provisional	2006-10-24		1806830
P00320GB	United Kingdom	06836221	POWER MANAGEMENT MECHANISM IN SYSTEM FOR SUPPLYING POWER OVER COMMUNICATION LINK	Non Provisional	2006-10-10	1964308	1964308
P00324GB	United Kingdom	06802861.2	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-09-01	1994799	1994799
P00325GB	United Kingdom	07776492	CIRCUIT AND METHODOLOGY FOR SUPPLYING PULSED CURRENT TO A LOAD, SUCH AS A LIGHT EMITTING DIODE	Non Provisional	2007-04-30	2016801	2016801

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P00328GB	United Kingdom	07754823	LOW POWER WIDE DYNAMIC RANGE RMS-TO-DC CONVERTER	Non Provisional	2007-04-05	2047589	2047589
P00329GB	United Kingdom	06827753	HIGH LINEARITY LOW NOISE VARIABLE GAIN AMPLIFIER WITH CONTINUOUS GAIN CONTROL	Non Provisional	2006-11-13	2033308	2033308
P00330GB	United Kingdom	07811698	PROGRAMMABLE CONSTANT POWER FOLDBACK	Non Provisional	2007-09-07	2060059	2060059
P00331GB	United Kingdom	07838429	REDUCING OSCILLATIONS IN SYSTEM WITH FOLDBACK CURRENT LIMIT WHEN INDUCTIVE LOAD IS CONNECTED	Non Provisional	2007-09-17	2064609	2064609
P00332GB	United Kingdom	06845700.1	Circuit and methodology for high-speed, low-power level shifting.	Non Provisional	2006-12-19	2064811	
P00333GB	United Kingdom	07121449	Programmable conduction mode control for switching circuits	Non Provisional	2007-11-23	1928079	1928079
P00334GB	United Kingdom	07106585	Light load regulator for isolated flyback converter	Non Provisional	2007-04-20	1885051	1885051
P00336GB	United Kingdom	07862802	ADAPTIVE OUTPUT CURRENT CONTROL FOR SWITCHING CIRCUITS	Non Provisional	2007-12-12	2122815	2122815
P00346GB	United Kingdom	06845202	PROVIDING DETAILED INFORMATION ON POWERED DEVICE IN SYSTEM FOR SUPPLYING POWER OVER COMMUNICATION LINK	Non Provisional	2006-12-12	1964309	1964309
P00347GB	United Kingdom	06827644.3	Integrated powered device connector in system for supplying power over communication link.	Non Provisional	2006-11-08	1961150 A1	
P00348GB	United Kingdom	06837211	DYNAMIC POWER ALLOCATION IN SYSTEM FOR PROVIDING POWER OVER COMMUNICATION LINK	Non Provisional	2006-11-08	1958375	1958375

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P00356GB01	United Kingdom	07852890.8	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2007-10-23		2111705
P00361GB	United Kingdom	07875257.3	MONITORING CELLS IN ENERGY STORAGE SYSTEM	Non Provisional	2007-11-02	2132855	2132855
P00362GB	United Kingdom	08101358.3	Paralleling voltage regulators.	Non Provisional	2008-02-07	2015158	2015158
P00363GB	United Kingdom	10004454	Complex-admittance digital-to-analog converter	Non Provisional	2010-04-27	2246985	2246985
P00367GB	United Kingdom	11000785	Time-multiplexed residue amplifier	Non Provisional	2011-02-01	2355357	2355357
P00368GB	United Kingdom	08870490	FLEXIBLE CONTACTLESS WIRE BONDING STRUCTURE ANAD METHODOLOGY FOR SEMICONDUCTOR DEVICE	Non Provisional	2008-12-24	2235751	2235751
P00370GB01	United Kingdom	11707522.6	Charge Pump With Reduced Current Variation.	Non Provisional	2011-02-22		2539995
P00373GB	United Kingdom	09169228	A semiconductor device having a suspended isolating interconnect	Non Provisional	2009-09-02	2159841	2159841
P00373GB01	United Kingdom	11004204.1	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2011-05-19		2362417
P00376GB	United Kingdom	08168692	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias	Non Provisional	2008-11-07	2184858	2184858
P00376GB01	United Kingdom	13005146.9	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Non Provisional	2013-10-30		2713511
P00377GB	United Kingdom	09157010	Method and system for bit polarization coding	Non Provisional	2009-03-31	2107745	2107745
P00380GB	United Kingdom	08796043	SINGLE PASS INL TRIM ALGORITHM FOR NETWORKS	Non Provisional	2008-06-27	2304875	2304875
P00382GB	United Kingdom	10150371	Extending input to output voltage range in multiple channel switching regulator applications	Non Provisional	2010-01-08	2209194	2209194

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P00385GB	United Kingdom	12007591.6	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2012-11-07	EP2590329 A1	2590329
P00387GB	United Kingdom	08729721	MAGNETIC ISOLATION OF POWER SOURCING EQUIPMENT CONTROL CIRCUITRY	Non Provisional	2008-02-13	2127201	2127201
P00392GB	United Kingdom	08876475	CIRCUIT, TRIM, AND LAYOUT FOR TEMPERATURE COMPENSATION OF METAL RESISTORS IN SEMI-CONDUCTOR CHIPS	Non Provisional	2008-11-25	2356533	2356533
P00393GB	United Kingdom	10004814	Method and system for high efficiency, fast transient multi-channel led driver	Non Provisional	2010-05-06	2252131	2252131
P00404GB	United Kingdom	10151339.8	Circuitry And Methodology Protecting a Boost DC/DC Converter.	Non Provisional	2010-01-21	2211449	2211449
P00406GB	United Kingdom	10150693	Method and system for polarity independent step-up converter capable of operating under ultra-low input voltage condition	Non Provisional	2010-01-13	2207258	2207258
P00406GBD01	United Kingdom	12008106.2	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2012-12-04	EP2575248 A1	2575248
P00408GB	United Kingdom	10005284.4	Chopper Stabilized Bandgap Reference Circuit And Methodology For Voltage Regulators.	Non Provisional	2010-05-20	EP2256580A3	
P00409GB	United Kingdom	09176801	Method and system for variable-gain amplifier	Non Provisional	2009-11-23	2190115	2190115
P00410GB	United Kingdom	10009843	Improved feedback control of a dc/dc power converter	Non Provisional	2010-09-17	2299575	2299575
P00411GB	United Kingdom	09837198	METHOD AND SYSTEM FOR VOLTAGE INDEPENDENT POWER SUPPLY LOAD SHARING	Non Provisional	2009-12-31	2377219	2377219

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P00412GB	United Kingdom	09837200	AUTONOMOUS MULTI-DEVICE EVENT SYNCHRONIZATION AND SEQUENCING TECHNIQUE ELIMINATING MASTER AND SLAVE ASSIGNMENTS	Non Provisional	2009-12-31	2376994	2376994
P00418GB	United Kingdom	10154584	Low thermal hysteresis bandgap voltage reference	Non Provisional	2010-02-24	2284640	2284640
P00418GBD01	United Kingdom	14000301.3	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2014-01-28	2728431	2728431
P00420GB	United Kingdom	EP10160094.8	Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Non Provisional	2010-04-15	EP2259161	2259161
P00421GB	United Kingdom	10158030	Average inductor current mode switching converters	Non Provisional	2010-03-26	2234256	2234256
P00422GB	United Kingdom	10159567	Buck-mode boost converter with regulated output current	Non Provisional	2010-04-09	2239834	2239834
P00423GB	United Kingdom	10014953	Method and system for reduced phase noise in a BICMOS clock driver	Non Provisional	2010-11-24	2326003	2326003
P00427GB	United Kingdom	10006723	Method and system for dimming an offline LED driver	Non Provisional	2010-06-29	2271181	2271181
P00431GB	United Kingdom	10009841	Extending achievable duty cycle range in DC/DC forward converter with active clamp reset	Non Provisional	2010-09-17	2299579	2299579
P00432GB	United Kingdom	10009842	Improving the accuracy of a volt-second clamp in an isolated dc/dc converter	Non Provisional	2010-09-17	2299573	2299573
P00433GB	United Kingdom	10009840	Dc/dc converter having a fast and accurate average current limit	Non Provisional	2010-09-17	2299578	2299578
P00433GBD01	United Kingdom	11000951	Dc/dc converter having a fast and accurate average current limit	Non Provisional	2010-09-17	2317634	2317634
P00433GBD02	United Kingdom	11000952	Dc/dc converter having a fast and accurate average current limit	Non Provisional	2010-09-17	2323246	2323246

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P00434GB	United Kingdom	10014625	Method and system for improving limiting amplifier phase noise for low slew-rate input signals	Non Provisional	2010-11-15	2323256	2323256
P00438GB	United Kingdom	12165770.4	Current Steering Circuit With Feedback.	Non Provisional	2012-04-26	EP2518900	2518900
P00439GB	United Kingdom	10009844	Dc/dc converter overcurrent protection	Non Provisional	2010-09-17	2299570	2299570
P00441GB	United Kingdom	10015745	Buck-boost switching regulator	Non Provisional	2010-12-16	2337206	2337206
P00441GBD01	United Kingdom	11005360.0	Continuously Switching Buck-Boost Control.	Non Provisional	2011-06-30	EP2378650 A1	EP2378650
P00442GBABD	United Kingdom	10015834.4	Clean Transition Between CCM and DCM In Valley Current Mode Control Of DC-To-DC Converter.	Non Provisional	2010-12-20		
P00443GB	United Kingdom	10787615.3	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2012-06-21	EP2504947	2504947
P00445GB	United Kingdom	11717836.8	Stacked Interposer Leadframes.	Non Provisional	2011-04-14		2577726
P00445GBD01	United Kingdom	13003931.6	Stacked Interposer Leadframes.	Non Provisional	2013-08-06		2662892
P00446GB	United Kingdom	10799210.9	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Non Provisional	2012-07-24		2517034
P00447GB	United Kingdom	11006618	Method and system for extending PWM dimming range in LED drivers	Non Provisional	2011-08-11	2418918	2418918
P00449GB	United Kingdom	11008786.3	Method And System For Detecting And Asserting BUS Speed Condition In A USB Isolated Device.	Non Provisional	2011-11-04	EP2450801 (A1)	2450801
P00451GB	United Kingdom	12004634.7	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2012-06-20	EP2538562 A2	2538562

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P00453GB	United Kingdom	11004111	Method and circuit for encoding and transmitting numerical values from an analog-to-digital conversion process	Non Provisional	2011-05-18	2388922	2388922
P00455GB	United Kingdom	11004552	Dynamic compensation of aging drift in current sense resistor	Non Provisional	2011-06-03	2392931	2392931
P00456GB	United Kingdom	12000890.9	Circuits for accurately measuring temperature of semiconductor junctions	Non Provisional	2012-02-10	EP2487476	2487476
P00457GB	United Kingdom	11004553	DC/DC converter with magnetic flux density limits	Non Provisional	2011-06-03	2393190	2393190
P00462GB	United Kingdom	12005563	I2C isolated, bidirectional communication system	Non Provisional	2012-07-31	2555122	2555122
P00463GB	United Kingdom	11793633	BIAS POINT SETTING FOR THIRD ORDER LINEARITY OPTIMIZATION OF CLASS A AMPLIFIER	Non Provisional	2011-11-29	2647123	2647123
P00464GB	United Kingdom	11191991.6	Third Order Intermodulation Cancellation By In-Line Generated Signal.	Non Provisional	2011-12-03	EP2461478	2461478
P00470GB	United Kingdom	12169479	Balancing temperatures in a multi-phase dc/dc converter	Non Provisional	2012-05-25	2528215	2528215
P00471GB	United Kingdom	12003032.5	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Non Provisional	2012-04-30	EP2520942	2520942
P00472GB	United Kingdom	12003031.7	Isolated Communications Interface.	Non Provisional	2012-04-30	EP2518957	2518957
P00477GB	United Kingdom	12170949.7	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533246	EP2533246
P00478GB	United Kingdom	12171026.3	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2012-06-06	EP2533247	2533247
P00481GB	United Kingdom	12175986.4	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2012-07-11	EP2546966 A2	EP2546966

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P00482GB	United Kingdom	12004632.1	Radar System and Method For Providing Information On Movements of Object's Surface.	Non Provisional	2012-06-20	EP2560021 A1	2560021
P00491GB	United Kingdom	12753339.6	Power Combining In Power Over Ethernet Systems.	Non Provisional	2014-01-27	EP2727285	2727285
P00492GB	United Kingdom	12275154	Anemometer detecting thermal time constant of sensor	Non Provisional	2012-09-28	2592425	2592425
P00493GB	United Kingdom	12007270.7	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-10-19	2583858	2583858
P00495GB	United Kingdom	12007313.5	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-24	EP2587718	2587718
P00496GB	United Kingdom	12193463.2	Second Order Intermodulation Canceller.	Non Provisional	2012-11-20	2605412 A1	2605412
P00497GB	United Kingdom	13150881.4	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2013-01-10	EP2621069	2621069
P00498GB	United Kingdom	13158838.6	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2013-03-12	EP2639951	2639951
P00499GB	United Kingdom	12193843.5	Third-Order Intermodulation Cancellation for RF Transconductors.	Non Provisional	2012-11-22	EP2605402	EP2605402
P00500GB01	United Kingdom	12723319.5	High Side Current Sense Amplifier.	Non Provisional	2012-05-09		2839579
P00513GB	United Kingdom	13000683.6	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-08	EP2626862	2626862
P00521GB	United Kingdom	13275075.3	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2013-03-22	EP2680419	2680419
P00529GB	United Kingdom	13275116.5	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2013-05-14	EP2709253A3	2709253
P00530GB01	United Kingdom	13004202.1	Frequency Mixer Topology Providing High Linearity, Low Noise, High Gain.	Non Provisional	2013-08-26		2704315
P00533GB	United Kingdom	13003571.0	Low Power Radio Receiver.	Non Provisional	2013-07-16	EP2688215	2688215
P00534GB	United Kingdom	13005868.8	Anti-aliasing sampling circuits and analog-to-digital converters	Non Provisional	2013-12-17	EP2744112	2744112

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P00535GB01	United Kingdom	13003775.7	Phase-Noise Tolerant Sampling.	Non Provisional	2013-07-29		2711725
P00536GB01	United Kingdom	13004815.0	Method for Voltage Regulation of Switch Mode Power Supplies Implementing Burst Mode Operation.	Non Provisional	2013-10-07		2717447
P00538GB	United Kingdom	14000003.5	Low Current DC-DC Converter With Integrated Low Current Coulomb Counter.	Non Provisional	2014-01-02	EP2752965	2752965
P00541GB	United Kingdom	13186691.5	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2013-09-30	EP2722987	2722987
P00542GB01	United Kingdom	13186007.4	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2013-09-25		2728793
P00544GB	United Kingdom	14000608	Address translation in I2C data communications system	Non Provisional	2014-02-20	2778941	2778941
P00545GB	United Kingdom	13773573	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2013-09-27	2904688	2904688
P00545GB01	United Kingdom	16202486.3	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2016-12-06		3157130
P00546GB	United Kingdom	13186476.1	PWM Control for LEDs With Reduced Flicker When Using Spread Spectrum Switching Frequencies.	Non Provisional	2013-09-27	EP2723146	2723146
P00548GB01	United Kingdom	14001424.2	Monitoring of Channel Stability And Interference in Wireless Networks.	Non Provisional	2014-04-17		2802167
P00549GB	United Kingdom	13776655.6	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Non Provisional	2013-09-27		2920872
P00555GB01	United Kingdom	13198155.7	High-Frequency RMS-DC Converter Using Chopper-Stabilized Square Cells.	Non Provisional	2013-12-18		2770334
P00558GB	United Kingdom	14001073.7	Rotating 3-Wire Resistance Temperature Detection	Non Provisional	2014-03-21	EP2921832	2921832

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			Excitation Current Sources and Method.				
P00561GB01	United Kingdom	14000727.9	Leakage Compensation for Switched Capacitor Integrators.	Non Provisional	2014-02-28		2779444
P00571GB	United Kingdom	14002012.4	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-06-11	EP2816759	2816759
			Accurate current sensing in h-bridge applications without amplifier having high common mode rejection ratio				
P00576GB01	United Kingdom	14002828	Isolated Bootstrapped Switch.	Non Provisional	2014-08-13		2840407
P00583GB01	United Kingdom	14002509.9	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-07-18		2866347
P00589GB01	United Kingdom	14766294.4	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.				
			Arbitrary Phase Trajectory Frequency Synthesizer	Non Provisional	2015-01-16		2897270
P00593GB01	United Kingdom	15000109.7	Bootstrapped Sampling Circuit With Accurately Averaging	Non Provisional	2015-02-06	2905902	2905902
P00603GB01	United Kingdom	15000760.7	Pre-Charge Circuit.	Non Provisional	2015-03-13		2922065
P00610GB01	United Kingdom	15000998.3	Hardware-Based Licensing for Wireless Networks.	Non Provisional	2015-04-08		2930964
P00611GB01	United Kingdom	15719055.4	Broadband Power Decoupling Networks for PoDL.	Non Provisional	2015-04-09		3130105
P00619GB01	United Kingdom	15001492.6	Radio Receiver.	Non Provisional	2015-05-18		2945292
P00623GB01	United Kingdom	15727762.5	PoDL System With Active dV/dt and dI/dt Control.	Non Provisional	2015-05-15		3143722
P00636GB	United Kingdom	15002497	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-21	2991270	2991270
P00638GB01	United Kingdom	15722416.3	Floating output voltage boost-buck regulator using a buck	Non Provisional	2015-05-07		3186877

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			controller with low input and low output ripple.				
P00641GB01	United Kingdom	15002779.5	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-09-28		3001564
P00644GB			Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Non Provisional	2015-11-19		3221998
P00648GB01	United Kingdom	15813948.5	Circuit Architectures for Protecting Against PoDL Wire Faults.	Non Provisional	2016-11-30		3176978
P00663GB01	United Kingdom	16002547.4	System With Sleep and Wake up Control Over DC Path.	Non Provisional	2016-05-12		3094044
P00686GB01	United Kingdom	17000671.2	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Non Provisional	2017-04-20		3236615
P00688GB	United Kingdom	17000811.4	Method for Monitoring Bridge Circuitry and Presenting Maintain Power Signature.	Non Provisional	2017-05-10		3247071
P00694GB	United Kingdom	17001282.7	Communications system using hybrid common mode choke and kelvin sensing of voltage.	Non Provisional	2017-07-25		3276881
P00695GB01	United Kingdom	17001715.6	Fault-Tolerant Power Node	Non Provisional	2017-10-17		3313021
P00697GB01	United Kingdom	17000566.4	Analog to Digital Conversion Yielding Exponential Results	Non Provisional	2017-04-04		3370146
P00001US	United States of America	637,389	Arrangement for cancelling the input bias current, at picoampere levels, in an integrated circuit.	Non Provisional	1984-08-03		4,575,685
P00002US	United States of America	684,758	Diffusion of dopant into a semiconductor wafer.	Non Provisional	1984-12-21		4,588,454
P00003US	United States of America	624,630	Nonlinearity correction circuit for bandgap reference.	Non Provisional	1984-06-26		4,603,291
P00004USABD	United States of America	637,513	Integrated circuit having permanent adjustment circuitry which requires low adjustment current.	Non Provisional	1984-08-03		

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P00004USC01	United States of America	038,420	Integrated circuit having permanent adjustment circuitry which requires low adjustment current.	Non Provisional	1987-04-14		4,775,884
P00004USR01	United States of America	368,842	Integrated circuit having permanent adjustment circuitry which requires low adjustment current.	Non Provisional	1989-06-20		RE33,475
P00005US	United States of America	732,660	Bidirectional shift register using parallel inverters with adjustable transconductance.	Non Provisional	1985-05-10		4,624,006
P00006US	United States of America	06/775,774	Low Capacitance High Current MOS Transistor	Non Provisional	1985-09-13		
P00007US	United States of America	812,016	Precision operational amplifier using data sampling.	Non Provisional	1985-12-23		4,622,521
P00008US	United States of America	909,973	Low pass filter circuit.	Non Provisional	1986-09-22		4,783,635
P00009US	United States of America	06/931,263	High speed junction field effect transistor for use in bipolar integrated circuits.	Non Provisional	1986-11-17		
P00009USP01	United States of America	07/553,181	High speed junction field effect transistor for use in bipolar integrated circuits.	Non Provisional	1990-07-13		5,012,305
P00009USR01	United States of America	08/036,935	High speed junction field effect transistor for use in bipolar integrated circuits.	Non Provisional	1993-03-25		RE34,821
P00010US	United States of America	932,014	Adaptive transistor drive circuit	Non Provisional	1986-11-18		4,755,741
P00010USEX1	United States of America	932,014	Adaptive transistor drive circuit	Non Provisional	1986-11-18		4,755,741
P00010USEX2	United States of America	932,014	Adaptive transistor drive circuit	Non Provisional	1986-11-18		4,755,741
P00010USEX3	United States of America	932,014	Adaptive transistor drive circuit	Non Provisional	1986-11-18		4,755,741
P00010USREX	United States of America	932,014	Adaptive transistor drive circuit	Non Provisional	1986-11-18		4,755,741
P00011US	United States of America	06/932,159	Breakpoint compensation and thermal limit circuit.	Non Provisional	1986-11-18		4,789,819

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P00012USABD	United States of America	06/932,158	Switching voltage regulator circuit.	Non Provisional	1986-11-18		
P00012USC01	United States of America	07/683,549	Switching voltage regulator circuit.	Non Provisional	1991-04-10		
P00012USC02	United States of America	07/082,989	Switching voltage regulator circuit.	Non Provisional	1987-08-03		4,823,070
P00012USC03	United States of America	08/558,204	Switching voltage regulator circuit.	Non Provisional	1995-11-16		
P00012USC04	United States of America	08/794,374	Switching voltage regulator circuit.	Non Provisional	1996-12-10		RE39,065
P00013US	United States of America	06/932,714	Output impedance compensation circuit.	Non Provisional	1986-11-19		4,771,227
P00014US	United States of America	06/932,715	Current boosted switching regulator.	Non Provisional	1986-11-19		4,731,719
P00015US	United States of America	07/033,348	Permanent Adjustment Of Packaged Integrated Circuits Using Input Terminals As Adjustment Terminals.	Non Provisional	1987-03-31		
P00015USC01	United States of America	07/262,117	Permanent Adjustment Of Packaged Integrated Circuits Using Input Terminals As Adjustment Terminals.	Non Provisional	1988-10-19		
P00015USC02	United States of America	08/018,906	Permanent Adjustment Of Packaged Integrated Circuits Using Input Terminals As Adjustment Terminals.	Non Provisional	1992-12-14		
P00016US	United States of America	07/050,896	Charge pump circuitry having low saturation voltage and current-limited switch.	Non Provisional	1987-05-15		4,812,961
P00017US	United States of America	077,170	High thermal resistance bonding material and semiconductor structures using same.	Non Provisional	1987-07-24		
P00017USC01	United States of America	07/307,234	High thermal resistance bonding material and semiconductor structures using same.	Non Provisional	1989-02-03		4,888,634
P00018US	United States of America	07/081,830	Schottky diode having injected current collector.	Non Provisional	1987-08-05		

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P00018USC01	United States of America	07/425,433	Schottky diode having injected current collector.	Non Provisional	1989-10-20		4,998,148
P00019US	United States of America	07/202,952	Clock-sweepable low-pass filter having DC gain accuracy and reduced DC offset.	Non Provisional	1988-06-06		4,857,860
P00020US	United States of America	07/173,758	Low voltage current source/start-up circuit.	Non Provisional	1988-03-28		4,837,496
P00021US	United States of America	07/127,865	Non-overlapping switch drive in push-pull transistor circuit.	Non Provisional	1987-12-01		4,827,156
P00022US	United States of America	07/091,548	Fast PNP transistor turn-off circuit.	Non Provisional	1987-08-31		4,847,520
P00023US	United States of America	07/154,070	CMOS Amplifier having enhanced current sinking and capacitance load drive.	Non Provisional	1988-02-09		4,847,566
P00024US	United States of America	07/189,479	Non-linear temperature generator circuit.	Non Provisional	1988-05-02		4,843,302
P00025US	United States of America	07/312,218	Impedance control circuit for an integrated circuit node.	Non Provisional	1989-02-21		5,055,711
P00026US	United States of America	07/114,439	Dual transistor output stage.	Non Provisional	1987-10-28		4,792,745
P00027US	United States of America	07/114,219	Low voltage current limit loop.	Non Provisional	1987-10-28		4,851,953
P00028US	United States of America	07/152,169	Regulator for current source transistor bias voltage.	Non Provisional	1988-02-04		4,786,855
P00029US	United States of America	07/170,744	High Voltage Transistor	Non Provisional	1988-03-21		
P00029USD01	United States of America	07/403,500	High Voltage Transistor	Non Provisional	1989-09-06		
P00030US	United States of America	07/312,691	CMOS chopper-stabilized operational amplifier using two differential amplifier pairs as input stages.	Non Provisional	1989-02-17		4,933,642
P00031US	United States of America	07/314,378	Schottky enhanced CMOS output circuit .	Non Provisional	1989-02-23		5,015,889
P00031USR01	United States of America	08/061,628	Schottky enhanced CMOS output circuit .	Non Provisional	1993-05-13		RE35,221
P00032US	United States of America	07/304,963	Semi-flash A/D converter using switched capacitor comparators	Non Provisional	1989-01-30		5,355,135

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P00033US	United States of America	304,962	Method Of Providing Plasma-Etched Openings Having Tapered Edges In Semiconductor Device Fabrication.	Non Provisional	1989-01-30		
P00035US	United States of America	07/304,964	Method Of Improving Idss In JFET Fabrication.	Non Provisional	1989-01-30		
P00037US	United States of America	07/362,144	High Q switched capacitor filter having internal thin-film resistors.	Non Provisional	1989-06-06		4,988,952
P00037USEX1	United States of America	07/362,144	High Q switched capacitor filter having internal thin-film resistors.	Non Provisional	1989-06-06		
P00038US	United States of America	07/518,151	Electrostatic discharge clamp using vertical NPN transistor.	Non Provisional	1990-05-03		5,212,618
P00039US	United States of America	384,160	Push-back junction isolation semiconductor structure and method.	Non Provisional	1989-07-21		
P00039USC01	United States of America	07/666,504	Push-back junction isolation semiconductor structure and method.	Non Provisional	1991-03-06		
P00039USC02	United States of America	07/739,791	Push-back junction isolation semiconductor structure and method.	Non Provisional	1991-08-01		5,182,219
P00039USC03	United States of America	07/845,341	Push-back junction isolation semiconductor structure and method.	Non Provisional	1992-03-04		5,177,587
P00039USD01	United States of America	07/554,299	Push-back junction isolation semiconductor structure and method.	Non Provisional	1990-07-17		
P00040US	United States of America	07/456,354	Constant current, highspeed, auto-zeroed, CMOS comparator.	Non Provisional	1989-12-26		5,070,259
P00041US	United States of America	07/457,157	Clock selection circuit.	Non Provisional	1989-12-26		4,982,116
P00042US	United States of America	07/442,846	Software controlled power shutdown in an integrated circuit.	Non Provisional	1989-11-29		

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P00042USC01	United States of America	07/780,524	Software controlled power shutdown in an integrated circuit.	Non Provisional	1991-10-17		
P00042USC02	United States of America	08/010,477	Software controlled power shutdown in an integrated circuit.	Non Provisional	1993-01-28		5,287,525
P00044US	United States of America	07/652,053	Operational amplifier having improved slew rate.	Non Provisional	1991-02-06		5,128,631
P00046US	United States of America	07/655,314	Method for improving the radiation hardness of an integrated circuit bipolar transistor.	Non Provisional	1991-02-14		5,200,347
P00048US	United States of America	07/652,192	Integrated high gain amplifier.	Non Provisional	1991-02-06		5,168,243
P00049US	United States of America	07/708,173	Method of forming integrated circuits with diffused resistors in isolation regions.	Non Provisional	1991-05-31		
P00049USC01	United States of America	07/988,342	Method of forming integrated circuits with diffused resistors in isolation regions.	Non Provisional	1992-12-08		5,316,964
P00051US	United States of America	07/542,322	Lateral PNP turn-off drive circuit.	Non Provisional	1990-06-22		5,128,553
P00052US	United States of America	07/579,773	Switching regulator with asymmetrical feedback amplifier and method.	Non Provisional	1990-09-10		5,220,272
P00053US	United States of America	07/546,103	Analog multiplier in the feedback loop of a switching regulator.	Non Provisional	1990-06-29		5,055,767
P00054US	United States of America	08/007,108	Digital to analog converter.	Non Provisional	1993-01-21		5,396,245
P00055US	United States of America	07/673,466	Precise reference voltage generator for feedforward compensated amplifiers.	Non Provisional	1991-03-22		5,148,119
P00056US	United States of America	07/673,475	Level shift circuit with gain enhancement.	Non Provisional	1991-03-22		5,148,118
P00057US	United States of America	07/722,941	Aluminum alloy/silicon chromium sandwich schottky diode.	Non Provisional	1991-06-28		5,254,869

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P00057USC01	United States of America	08/088,927	Aluminum alloy/silicon chromium sandwich schottky diode.	Non Provisional	1993-07-07		
P00057USD01	United States of America	08/088,928	Aluminum alloy/silicon chromium sandwich schottky diode.	Non Provisional	1993-07-07		5,296,406
P00058US	United States of America	07/732,039	Differential input amplifier stage with frequency compensation.	Non Provisional	1991-07-18		5,182,526
P00058USR01	United States of America	08/355,080	Differential input amplifier stage with frequency compensation.	Non Provisional	1994-12-12		RE35,261
P00059US	United States of America	07/643,031	High Voltage Transistor	Non Provisional	1991-01-18		
P00060US	United States of America	07/862,993	Micropower gate charge pump for power MOSFETS.	Non Provisional	1992-04-06		5,258,662
P00060USC01	United States of America	08/098,462	Micropower gate charge pump for power MOSFETS.	Non Provisional	1993-07-27		5,426,334
P00061US	United States of America	07/893,523	Circuit for driving two power mosfets in a half-bridge configuration.	Non Provisional	1992-06-04		5,365,118
P00061USP01	United States of America	08/035,423	Circuit for driving two power mosfets in a half-bridge configuration.	Non Provisional	1993-03-22		5,408,150
P00062US	United States of America	07/785,483	Control circuit for low dropout regulator.	Non Provisional	1991-10-31		5,274,323
P00062USC01	United States of America	08/241,505	Control circuit for low dropout regulator.	Non Provisional	1994-05-12		5,485,109
P00062USD01	United States of America	08/098,461	Control circuit for low dropout regulator.	Non Provisional	1993-07-27		5,334,928
P00063US	United States of America	07/786,718	Switching regulator circuit using magnetic flux-sensing.	Non Provisional	1991-11-01		5,305,192
P00063USC01	United States of America	08/125,429	Switching regulator circuit using magnetic flux-sensing.	Non Provisional	1993-09-22		
P00063USC02	United States of America	08/266,092	Switching regulator circuit using magnetic flux-sensing.	Non Provisional	1994-06-27		5,438,499
P00064US	United States of America	07/826,825	Battery Backup Circuit With Charge Pumped N-Channel Mosfet Power Switch And Conditional Battery Backup.	Non Provisional	1992-01-28		

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P00064USC01	United States of America	08/110,340	Battery Backup Circuit With Charge Pumped N-Channel Mosfet Power Switch And Conditional Battery Backup.	Non Provisional	1993-08-20		
P00065US	United States of America	07/857,734	Fluorescent lamp power supply and control unit	Non Provisional	1992-03-26		
P00065USC01	United States of America	08/043,152	Fluorescent lamp power supply and control unit	Non Provisional	1993-03-31		5,408,162
P00065USC02	United States of America	08/339,347	Fluorescent lamp power supply and control unit	Non Provisional	1994-11-14		
P00065USC03	United States of America	08/757,995	Fluorescent lamp power supply and control unit	Non Provisional	1996-11-27		6,127,785
P00065USP01	United States of America	08/213,865	Fluorescent lamp power supply and control unit	Non Provisional	1994-03-16		
P00065USP02	United States of America	08/483,374	Fluorescent lamp power supply and control unit	Non Provisional	1995-06-07		5,548,189
P00066US	United States of America	07/914,205	Linear-phase filter having high gain selectivity.	Non Provisional	1992-07-14		5,440,270
P00067US	United States of America	08/036,047	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1993-03-23		5,481,178
P00067USC01	United States of America	08/634,688	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1996-04-18		
P00067USC02	United States of America	08/799,467	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1997-02-13		5,731,694
P00067USC03	United States of America	09/395,895	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1999-09-14		6,304,066
P00067USC04	United States of America	09/978,120	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	2001-10-15	US-2002-0017897-A1	6,580,258

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P00067USD01	United States of America	08/476,232	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1995-06-07		
P00067USD02	United States of America	08/978,167	Control circuit and method for maintaining high efficiency over broad current ranges in a switching regular circuit.	Non Provisional	1997-11-25		5,994,885
P00068US	United States of America	07/985,881	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1992-12-03		5,444,600
P00068USC01	United States of America	08/401,028	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1995-03-08		5,926,358
P00068USC02	United States of America	08/807,197	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1997-02-27		5,945,728
P00068USD01	United States of America	08/401,027	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1995-03-08		5,589,709
P00068USD02	United States of America	08/401,026	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1995-03-08		
P00068USD03	United States of America	08/401,033	Lead frame capacitor and capacitively-coupled isolator circuit using same.	Non Provisional	1995-03-08		5,650,357
P00069US	United States of America	08/020,619	Method and circuit for increasing the output impedance of an inactive amplifier.	Non Provisional	1993-02-19		5,327,095
P00070US	United States of America	08/073,684	Tunable filter network having DC accuracy.	Non Provisional	1993-06-09		5,426,393
P00071USRCE	United States of America	11/671,628	Systems and methods for switch resistance control in digital to analog converters (DACs).	Non Provisional	2007-02-06		7,639,168
P00072US	United States of America	11/671,646	Systems and methods for reducing transient errors on	Non Provisional	2007-02-06		7,375,671

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			digital to analog converters (DACs) deglitcher.				
P00073URCE	United States of America	11/607,899	Sawtooth oscillator having controlled endpoints and methodology therefor.	Non Provisional	2006-12-04		7,583,113
P00074US	United States of America	11/483,390	Range compression in oversampling analog-to-digital converters using differential input signals.	Non Provisional	2006-07-07	US-2008-0007442-A1	7,397,403
P00075US	United States of America	11/671,666	Systems and methods for providing compact digitally controlled trim of multi-segment circuits.	Non Provisional	2007-02-06	US-2008-0186215-A1	7,468,686
P00076US	United States of America	592,150	Circuit output stage arrangement .	Non Provisional	1984-03-22		4,573,021
P00078US	United States of America	08/228,478	High-speed switching regulator drive circuit.	Non Provisional	1994-04-15		5,672,988
P00078USC01	United States of America	08/472,538	High-speed switching regulator drive circuit.	Non Provisional	1995-06-07		5,589,761
P00078USC02	United States of America	08/488,042	High-speed switching regulator drive circuit.	Non Provisional	1995-06-07		5,656,965
P00078USC03	United States of America	08/488,071	High-speed switching regulator drive circuit.	Non Provisional	1995-06-07		5,668,493
P00078USC04	United States of America	08/939,310	High-speed switching regulator drive circuit.	Non Provisional	1997-09-29		5,815,015
P00078USC05	United States of America	09/153,111	High-speed switching regulator drive circuit.	Non Provisional	1998-09-15		6,111,439
P00078USC06	United States of America	09/153,108	High-speed switching regulator drive circuit.	Non Provisional	1998-09-15		6,130,575
P00079US	United States of America	11/483,420	Range compression in oversampling analog-to-digital converters.	Non Provisional	2006-07-07	US-2008-0007435-A1	7,348,907
P00080URCE	United States of America	11/698,874	Current source with indirect load current signal extraction.	Non Provisional	2007-01-29		7,642,762
P00081US	United States of America	08/414,622	Operational amplifier with JFET inputs having low input bias current and methods for using same.	Non Provisional	1995-03-31		5,537,078

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P00082US	United States of America	08/454,595	High efficiency switching regulator with adaptive drive output circuit.	Non Provisional	1995-05-30		
P00082USC01	United States of America	08/786,500	High efficiency switching regulator with adaptive drive output circuit.	Non Provisional	1997-01-21		5,731,731
P00083US	United States of America	11/802,960	Advanced current-mode control for switched regulators	Non Provisional	2007-05-29	20080297122	7,812,585
P00084US	United States of America	08/175,991	Electrostatic discharge circuit.	Non Provisional	1993-12-30		5,485,024
P00085US	United States of America	08/346,395	Current mirror circuits and methods with guaranteed off state and amplifier circuits using same.	Non Provisional	1994-11-29		5,517,143
P00085USD01	United States of America	08/479,009	Current mirror circuits and methods with guaranteed off state and amplifier circuits using same.	Non Provisional	1995-06-07		5,627,486
P00086US	United States of America	08/322,430	Analog-to-digital conversion using comparator coupled capacitor digital-to-analog converters.	Non Provisional	1994-10-13		5,581,252
P00087US	United States of America	08/215,898	Synchronously rectified buck-flyback DC to DC power converter.	Non Provisional	1994-03-22		5,552,695
P00088USABD	United States of America	60/858,722	System And Method For Providing Negotiation Between MIDSPAN PSE And PD In Advanced Power Over Ethernet System.	Provisional	2006-11-14		
P00088USPRO	United States of America	60/986,683	System And Method For Providing Negotiation Between MIDSPAN PSE And PD In Advanced Power Over Ethernet System.	Provisional	2007-11-09		
P00089US	United States of America	08/286,526	Tunable operational transconductance amplifier having high linearity.	Non Provisional	1994-08-05		5,465,072

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P00090US	United States of America	08/480,696	Method and circuit for trimming an operational amplifier having dual input stages.	Non Provisional	1995-06-07		5,610,557
P00093US	United States of America	08/486,862	Analog-to-digital converter.	Non Provisional	1995-06-07		5,714,955
P00094US	United States of America	08/483,992	Fast current feedback amplifiers and current-to-voltage converters and methods maintaining high DC accuracy over temperature.	Non Provisional	1995-06-07		
P00094USC01	United States of America	08/746,761	Fast current feedback amplifiers and current-to-voltage converters and methods maintaining high DC accuracy over temperature.	Non Provisional	1996-11-15		5,734,293
P00095US	United States of America	08/534,336	Self-configuring interface circuitry, including circuitry for identifying a protocol used to send signals to the interface circuitry, and circuitry for receiving the signals using the identified protocol.	Non Provisional	1995-09-27		6,038,400
P00096US	United States of America	08/494,237	AC coupling loops for current-to-voltage transimpedance amplifiers and methods of using same.	Non Provisional	1995-06-23		5,606,277
P00097US	United States of America	08/477,455	Multiple output regulator with time sequencing.	Non Provisional	1995-06-07		5,617,015
P00098US	United States of America	08/628,802	Battery charging circuitry having supply current regulation.	Non Provisional	1996-04-05		5,723,970
P00099US	United States of America	08/592,976	Low quiescent power, high output power rail-to rail amplifier output stages and methods for using same.	Non Provisional	1996-01-29		5,825,228
P00100US	United States of America	08/723,575	Low drop-out switching regulator architecture.	Non Provisional	1996-09-30		5,705,919

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P00101US	United States of America	08/604,749	Anti-latch circuit for low dropout dual supply voltage regulator.	Non Provisional	1996-02-23		
P00101USC01	United States of America	08/908,293	Anti-latch circuit for low dropout dual supply voltage regulator.	Non Provisional	1997-08-07		5,781,002
P00101USC02	United States of America	09/078,945	Anti-latch circuit for low dropout dual supply voltage regulator.	Non Provisional	1998-05-14		6,091,235
P00102US	United States of America	08/970,994	Adaptive threshold circuit for comparators	Non Provisional	1997-11-14		6,166,566
P00103US	United States of America	08/724,614	High Efficiency, Boot-Strapped Switch Stage For Switching Regulators.	Non Provisional	1996-09-30		
			Circuits and methods for compensating non-linear capacitances to minimize harmonic distortion.				
P00104US	United States of America	08/647,361	Dual resolution circuitry for an analog-to-digital converter.	Non Provisional	1996-05-09		5,763,924
P00105US	United States of America	08/717,774	Interpolation circuit for digital-to-analog converter.	Non Provisional	1996-09-24		5,764,175
P00106US	United States of America	08/910,482	Synchronous switching regulator which employs switch voltage-drop for current sensing.	Non Provisional	1997-07-25		5,859,606
P00107US	United States of America	08/878,631	Methods and apparatus for obtaining floating output drive to fluorescent lamps and minimizing installation requirements.	Non Provisional	1997-06-13		5,847,554
P00108US	United States of America	08/715,428	Amplifier having output range that exceeds supply voltage.	Non Provisional	1996-09-18		5,767,630
P00109US	United States of America	08/819,966	Input Threshold Circuit.	Non Provisional	1997-03-18		6,011,440
P00110US	United States of America	08/924,978	Mixed-mode multi-protocol serial interface driver.	Non Provisional	1997-09-08		
P00111US	United States of America	08/868,311		Non Provisional	1997-06-03		6,005,414

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P00112US	United States of America	08/873,545	Selectable multi-protocol cable termination.	Non Provisional	1997-06-12		6,018,549
P00113US	United States of America	08/744,388	Switching regulators having a synchronizable oscillator frequency with constant ramp amplitude.	Non Provisional	1996-11-07		5,929,620
P00114US	United States of America	08/840,017	Apparatus and method using waveform shaping for reducing high frequency noise from switching inductive loads.	Non Provisional	1997-04-24		5,952,817
P00115US	United States of America	09/060,561	Circuits and methods for canceling harmonic distortion in sample and hold circuits	Non Provisional	1998-04-15		6,084,440
P00116US	United States of America	08/974,292	Inductorless step-up and step-down converter with inrush current limiting	Non Provisional	1997-11-19		5,973,944
P00117US	United States of America	08/942,451	Method and apparatus for isolated flyback regulator control and load compensation	Non Provisional	1997-10-01		5,841,643
P00118US	United States of America	09/185,144	Synchronous rectifier for boost converters	Non Provisional	1998-11-03		5,994,882
P00119US	United States of America	09/176,397	Pipelined successive approximation analog-to-digital converters	Non Provisional	1998-10-21		6,124,818
P00120US	United States of America	09/169,524	Methods and apparatus for actively snubbing waveforms in switching regulators	Non Provisional	1998-10-09		6,051,963
P00121US	United States of America	09/113,618	Circuits and methods for providing rail-to-rail output with highly linear transconductance performance	Non Provisional	1998-07-10		6,265,929
P00121USD01	United States of America	09/573,619	Circuits and methods for generating bias voltages to control output stage idle currents	Non Provisional	2000-05-17		6,188,269
P00122US	United States of America	09/114,384	Polyphase synchronous switching voltage regulators	Non Provisional	1998-07-13		6,144,194

Patent Ref	Country	Application Number	Application Description	Patent/Design Type	Filed Date	Publication Number	Patent No.
P00123US	United States of America	09/116,309	Active pullup circuitry for open-drain signals	Non Provisional	1998-07-15		6,356,140
P00123USC01	United States of America	10/028,243	Active pullup circuitry for open-drain signals	Non Provisional	2001-12-18	US-2002-0053905-A1	6,650,174
P00124US	United States of America		Monolithic filter gain control circuits and techniques with favorable noise behavior	Non Provisional	1998-08-28		6,121,908
P00125US	United States of America	09/143,627	Circuits and methods for multiple-input, single-output, low-dropout voltage regulators	Non Provisional	1998-09-14		6,097,178
P00126US	United States of America	09/395,804	Circuits and methods for developing a regulated auxiliary output with an overwinding on a synchronous buck regulator	Non Provisional	1999-09-14		6,087,817
P00127US	United States of America	09/179,534	High efficiency step-down switching regulators	Non Provisional	1998-10-27		6,034,517
P00128US	United States of America	09/240,102	IC with enhanced low voltage start-up	Non Provisional	1999-01-29		6,163,494
P00129US	United States of America	09/099,409	Voltage mode feedback burst mode circuit	Non Provisional	1998-06-18		6,307,356
P00130US	United States of America	09/260,990	Circuit and method for reducing quiescent current in a switching regulator	Non Provisional	1999-03-01		6,127,815
P00130USC01	United States of America	09/595,452	Circuit and method for reducing quiescent current in a switching regulator	Non Provisional	2000-06-16		6,366,066
P00132US	United States of America	09/135,229	Hardware implementation of a decimating finite impulse response filter	Non Provisional	1998-08-17		6,603,812
P00133US	United States of America	09/135,161	Oversampling data converter with good rejection capability	Non Provisional	1998-08-17		6,169,506
P00134US	United States of America	09/135,224	Delta-sigma modulator with improved full-scale accuracy	Non Provisional	1998-08-17		6,140,950
P00135US	United States of America	09/135,159	Single-cycle oversampling analog-to-digital converter	Non Provisional	1998-08-17		6,208,279
P00136US	United States of America	09/198,193	Fluorescent-lamp excitation circuit with frequency and	Non Provisional	1998-11-23		6,087,787

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			amplitude control and methods for using same				
P00137US	United States of America	09/383,458	Single package pin providing soft-start and short-circuit timer functions in a voltage regulator controller	Non Provisional	1999-08-26		6,100,678
P00138US	United States of America	09/383,459	Circuits and methods for controlling timing and slope compensation in switching regulators	Non Provisional	1999-08-26		6,177,787
P00139US	United States of America	09/151,435	Monolithic integrated circuit die heater and methods for using same	Non Provisional	1998-09-11		6,046,433
P00140US	United States of America	09/145,536	Operational filter building block	Non Provisional	1998-09-02		6,271,719
P00140USP01	United States of America	09/305,132	Operational filter building block	Non Provisional	1999-05-04		6,271,720
P00141US	United States of America	09/239,047	Error amplifier reference circuit	Non Provisional	1999-01-27		6,144,250
P00142US	United States of America	09/239,048	Current generator circuitry with zero-current shutdown state	Non Provisional	1999-01-27		6,118,263
P00143US	United States of America	09/227,002	Low noise step-down switching regulator circuits with programmable slew rate limiter and methods of use	Non Provisional	1999-01-07		6,040,686
P00144US	United States of America	09/258,534	Signal processor	Non Provisional	1999-02-26		6,181,263
P00145US	United States of America	10/011,504	Time-based current control in switching regulators	Non Provisional	2001-11-06		6,987,380
P00145USC01	United States of America	11/244,887	Time-based current control in switching regulators.	Non Provisional	2005-10-05	US-2006-0028191-A1	
P00146US	United States of America	09/298,345	Offset voltage cancellation system for radio frequency power controllers	Non Provisional	1999-04-23		6,167,242
P00147USCP1	United States of America	09/390,178	Programmable configuration, level and output voltage range circuits and methods for signal processors	Non Provisional	1999-09-07		6,310,567

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P00147USP01	United States of America	09/932,518	Programmable configuration, level and output voltage range circuits and methods for signal processors	Non Provisional	2001-08-17	20020063646	6,492,924
P00148US	United States of America	09/536,266	Control circuit and method for maintaining high efficiency in a buck-boost switching regulator	Non Provisional	2000-03-27		6,166,527
P00149US	United States of America	09/617,179	Slope compensation circuit utilizing CMOS linear effects	Non Provisional	2000-07-17		6,522,116
P00150US	United States of America	09/576,517	Cancellation of slope compensation effect on current limit	Non Provisional	2000-05-23		6,498,466
P00150USC01	United States of America	10/261,916	Cancellation of slope compensation effect on current limit	Non Provisional	2002-09-30		6,611,131
P00151USC01	United States of America	10/350,552	Load-generated drive, substantially no quiescent current, techniques and circuits for high speed switching of transistors	Non Provisional	2003-01-22		6,861,892
P00151USC02	United States of America	11/040,357	Load-generated drive, no quiescent current, techniques and circuits for high speed switching of transistors	Non Provisional	2005-01-21		7,173,474
P00151USCP1	United States of America	09/397,629	Load-generated drive, substantially no quiescent current, techniques and circuits for high speed switching of transistors	Non Provisional	1999-09-15		6,531,909
P00152US	United States of America	09/510,181	High-speed, current-driven latch	Non Provisional	2000-02-22		6,535,042
P00152USD01	United States of America	10/350,670	High-speed, current driven latch	Non Provisional	2003-01-22		6,847,245
P00152USD02	United States of America	10/350,927	High-speed, current driven latch	Non Provisional	2003-01-22		6,750,690
P00152USD03	United States of America	10/761,753	High-speed, current driven latch	Non Provisional	2004-01-20	20040150450	7,176,736

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P00152USD04	United States of America	11/077,297	High-speed, current-driven latch	Non Provisional	2005-03-10	20050156643	7,173,465
P00153US	United States of America	09/536,271	Systems and methods for linearly varying a pulse-width modulation signal with a control signal	Non Provisional	2000-03-27		6,404,251
P00154US	United States of America	09/359,854	Methods and apparatus for controlling the intensity of a fluorescent lamp	Non Provisional	1999-07-23		6,198,236
P00155US	United States of America	09/544,837	Low-voltage, current-folded signal modulators and methods	Non Provisional	2000-04-06		6,300,845
P00156US	United States of America	09/721,140	High-efficiency, low noise, inductorless step-down DC/DC converter	Non Provisional	2000-11-22		6,438,005
P00158US	United States of America	09/457,628	Dynamic error compensation in track-and-hold circuits	Non Provisional	1999-12-08		6,281,717
P00159US	United States of America	09/564,597	High voltage MOS transistor with up-retro well	Non Provisional	2000-05-03		6,528,850
P00159USC01	United States of America	10/858,619	High voltage MOS transistor with up-retro well	Non Provisional	2004-06-01	20040224472	6,989,309
P00159USD01	United States of America	10/345,467	High voltage MOS transistor with up-retro well	Non Provisional	2003-01-14	20030127689	6,768,173
P00159USD02	United States of America	11/282,245	High voltage MOS transistor with up-retro well.	Non Provisional	2005-11-18	US-2006-0071269-A1	
P00160US	United States of America	09/564,108	High voltage MOS transistor with gate extension	Non Provisional	2000-05-03		6,492,678
P00160USC01	United States of America	10/878,703	High voltage MOS transistor with gate extension.	Non Provisional	2004-06-28	US-2004-0227204-A1	7,374,982
P00160USD01	United States of America	10/272,688	High voltage MOS transistor with gate extension	Non Provisional	2002-10-15	20030038319	6,797,549
P00161US	United States of America	09/593,021	Oversampling analog-to-digital converter with improved DC offset performance	Non Provisional	2000-06-13		6,411,242
P00162US	United States of America	09/677,158	Maintaining constant amount of slope compensation regardless of switching frequency during synchronization	Non Provisional	2000-10-02		6,369,665

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P00163US	United States of America	09/537,027	Dual input, single output power supply	Non Provisional	2000-03-28		6,150,803
P00163USC01	United States of America	09/634,305	Dual input, single output power supply.	Non Provisional	2000-08-08		
P00165US	United States of America	09/503,549	Polyphase PWM regulator with high efficiency at light loads	Non Provisional	2000-02-14		6,803,752
P00165USC01	United States of America	09/920,463	Polyphase PWM converter with high efficiency at light loads	Non Provisional	2001-08-01		6,593,724
P00165USC02	United States of America	09/995,701	Polyphase PWM converter with high efficiency at light loads	Non Provisional	2001-11-29		6,462,525
P00166US	United States of America	09/628,534	Circuits and methods for controlling load sharing by multiple power supplies	Non Provisional	2000-07-31		6,465,909
P00166USC01	United States of America	10/180,418	Circuits and methods for controlling load sharing by multiple power supplies	Non Provisional	2002-06-24		6,608,402
P00167US	United States of America	09/713,908	Adaptive filtering for improved RMS-to-DC signal conversion	Non Provisional	2000-11-16		6,501,329
P00168US	United States of America	10/394,335	Circuits and methods for providing multiple phase switching regulators which employ the input capacitor voltage signal for current sensing	Non Provisional	2003-03-19		6,940,261
P00168USC01	United States of America	11/173,616	Circuits and methods for providing multiple phase switching regulators which employ the input capacitor voltage signal for current sensing	Non Provisional	2005-07-01	20050242798	7,164,258
P00168USC02	United States of America	11/604,912	Circuits and methods for providing multiple phase switching regulators which employ the input capacitor voltage signal for current sensing.	Non Provisional	2006-11-28	US-2007-0069705-A1	

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P00169US	United States of America	09/693,058	Flexible monolithic continuous-time analog low-pass filter with minimal circuitry	Non Provisional	2000-10-20		6,344,773
P00170US	United States of America	09/804,348	CMOS switch with linearized gate capacitance	Non Provisional	2001-03-12		6,522,187
P00171US	United States of America	10/173,452	Gain normalization for automatic control of lightwave emitters	Non Provisional	2002-06-13		6,975,658
P00172US	United States of America	09/721,600	Charge pump DC/DC converters with reduced input noise	Non Provisional	2000-11-21		6,411,531
P00172USR01	United States of America	10/875,089	Charge pump DC/DC converters with reduced input noise.	Non Provisional	2004-06-24		
P00173US	United States of America	09/684,317	Precision oscillator circuits and methods with switched capacitor frequency control and frequency-setting resistor	Non Provisional	2000-10-06		6,342,817
P00173USP01	United States of America	09/988,930	Precision oscillator circuits and methods with switched capacitor frequency control and frequency-setting resistor	Non Provisional	2001-11-21	US-2002-0041217-A1	6,614,313
P00174US	United States of America	09/708,791	Power controllers for amplitude modulation	Non Provisional	2000-11-07		6,628,165
P00175US	United States of America	09/780,649	Multiple phase switching regulators with stage shedding	Non Provisional	2001-02-08		6,674,274
P00176US	United States of America	09/789,960	Systems and methods for controlling the charge profile of a synchronous switching transistor	Non Provisional	2001-02-20	20020113581	6,504,351
P00177US	United States of America	09/853,287	Methods and apparatus for power measuring receiver	Non Provisional	2001-05-10	20020175668	6,534,966
P00177USC01	United States of America	10/368,089	METHODS AND APPARATUS FOR POWER MEASURING RECEIVER	Non Provisional	2003-02-13	20030155904	6,836,105
P00178US	United States of America	09/892,652	Gate protection clamping circuits and techniques with controlled output discharge current	Non Provisional	2001-06-28		6,459,321

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P00179US	United States of America	09/736,068	RMS-to-DC converter with fault detection and recovery	Non Provisional	2000-12-13	20020103627	6,516,291
P00179USD01	United States of America	10/324,629	RMS-to-DC converter with fault detection and recovery	Non Provisional	2002-12-18	US-2003-0097239-A1	6,651,036
P00180US	United States of America	09/735,331	Apparatus and methods for performing RMS-to-DC conversion utilizing clock dithering	Non Provisional	2000-12-12		6,362,677
P00181US	United States of America	10/013,893	Circuits and methods for interconnecting bus systems	Non Provisional	2001-12-11	20020091887	7,032,051
P00181USC01	United States of America	11/364,832	Methods and circuitry for interconnecting data and clock busses of live backplane circuitry and input/output card circuitry, and methods and circuitry for isolating capacitances of a live backplane from the capacitances of at least one input/output card.	Non Provisional	2006-02-27	US-2006-0212634-A1	
P00182US	United States of America	09/898,245	ANALOG COMPUTATION CIRCUITS USING SYNCHRONOUS DEMODULATION AND POWER METERS AND ENERGY METERS USING THE SAME	Non Provisional	2001-07-03	US-2003-0080886-A1	6,587,061
P00183US	United States of America	09/837,658	Constant-current/constant-voltage current supply	Non Provisional	2001-04-18		6,522,118
P00183USC01	United States of America	10/106,499	Constant-current/constant-voltage circuit architecture	Non Provisional	2002-03-27		6,570,372
P00183USC02	United States of America	10/443,299	Constant-current/constant-voltage circuit architecture	Non Provisional	2003-05-21		6,700,364
P00183USC03	United States of America	10/716,129	Constant-current/constant-voltage circuit architecture	Non Provisional	2003-11-17	20040100243	6,819,094
P00184US	United States of America	09/921,466	Circuits and techniques for capacitor charging circuits.	Non Provisional	2001-08-03		6,518,733
P00184USC01	United States of America	10/324,628	Circuits and techniques for capacitor charging circuits.	Non Provisional	2002-12-18		6,636,021
P00184USCON	United States of America	11/347,791	Circuits and techniques for capacitor charging circuits.	Non Provisional	2006-02-03	US2007/0030713 A1	7,292,005

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P00184USEX1	United States of America	09/921,466	Circuits and techniques for capacitor charging circuits	Non Provisional	2001-08-03		6,518,733
P00184USEX2	United States of America	10/324,628	Circuits and techniques for capacitor charging circuits	Non Provisional	2002-12-18	20030090240	6,636,021
P00184USP01	United States of America	10/644,524	Circuits and techniques for capacitor charging circuits.	Non Provisional	2003-08-19	0130299 A1	
P00185USC01	United States of America	11/176,126	Circuitry and methods for improving the performance of a light emitting element	Non Provisional	2005-07-06	20050242749	7,312,581
P00185USRCE	United States of America	10/003,096	Circuitry and methods for improving the performance of a light emitting element	Non Provisional	2001-12-06	20040070351	7,049,759
P00186US	United States of America	09/789,866	CIRCUITRY FOR IMPROVING THE EFFICIENCY OF A SWITCHING REGULATOR BY REDUCING REVERSE RECOVERY CURRENT	Non Provisional	2001-02-20	20020135341	6,495,993
P00187USRCE	United States of America	09/796,495	High Voltage Transistor	Non Provisional	2001-02-28	US-2002-0117714-A1	
P00188US	United States of America	09/827,872	CIRCUITS AND METHODS FOR SYNCHRONIZING NON-CONSTANT FREQUENCY SWITCHING REGULATORS WITH A PHASE LOCKED LOOP	Non Provisional	2001-04-06	20020145409	6,476,589
P00188USC01	United States of America	10/197,357	Circuits and methods for synchronizing non-constant frequency switching regulators with a phase locked loop	Non Provisional	2002-07-15	20020180413	6,774,611
P00188USC02	United States of America	10/883,892	Circuits and methods for synchronizing non-constant frequency switching regulators with a phase locked loop	Non Provisional	2004-07-02	20050001602	7,019,497
P00189US	United States of America	10/008,637	Circuits and methods for extending the input common mode voltage range of JFET op-amps	Non Provisional	2001-12-04		6,563,381
P00191US	United States of America	10/015,972	Circuits and methods for current measurements referred to a precision impedance	Non Provisional	2001-11-01		6,944,556

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P00191USCON	United States of America	11/489,378	Circuits and methods for current measurements referred to a precision impedance	Non Provisional	2006-07-18	20060259256	7,246,016
P00191USD01	United States of America	11/176,553	Circuitry and methods for current measurements referred to a precision impedance	Non Provisional	2005-07-06	20050261846	7,103,487
P00192US	United States of America	09/986,256	Driver circuitry with tuned output impedance	Non Provisional	2001-11-08		6,522,083
P00193US	United States of America	10/144,160	Synthetic circuit component and amplifier applications	Non Provisional	2002-05-10		6,879,215
P00194US	United States of America	10/010,398	Circuit and method for reducing quiescent current in a voltage reference circuit	Non Provisional	2001-12-05		6,545,530
P00195US	United States of America	10/270,799	Bidirectional power conversion with multiple control loops	Non Provisional	2002-10-11		6,894,461
P00195USD01	United States of America	11/114,267	Bidirectional power conversion with multiple control loops	Non Provisional	2005-04-25	20050194942	7,348,767
P00195USD02	United States of America	12/076,302	Bidirectional power conversion with multiple control loops	Non Provisional	2008-03-17	20080164853	7,538,532
P00196US	United States of America	10/066,030	Leadframe with support members	Non Provisional	2002-01-31		6,703,692
P00197US	United States of America	10/342,415	Systems and methods for conserving energy in a switching circuit	Non Provisional	2003-01-13		6,809,503
P00198US	United States of America	10/124,658	Multi-bit digital input using a single pin	Non Provisional	2002-04-15		6,967,591
P00198USD01	United States of America	11/121,156	Composition for dyeing keratinous fibres with a cationic direct dye and a nonionic surfactant	Non Provisional	2005-05-04	20060070191	7,239,251
P00198USD02	United States of America	11/222,996	Multi-bit digital input using a single pin	Non Provisional	2005-09-09	20060007018	7,119,714
P00199US	United States of America	10/207,446	Bootstrap circuit to cancel input bias currents of a differential amplifier over most of common-mode input voltage range	Non Provisional	2002-07-26		6,636,111
P00200US	United States of America	10/104,808	Circuits and methods for a variable oversample ratio delta-	Non Provisional	2002-03-21		6,639,526

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			sigma analog-to-digital converter				
P00200USC01	United States of America	10/695,679	Circuits and methods for a variable over sample ratio delta-sigma analog-to-digital converter	Non Provisional	2003-10-28	20040090355	6,795,007
P00201US	United States of America	10/243,526	Adjustable minimum peak inductor current level for burst mode in current-mode DC-DC regulators.	Non Provisional	2002-09-12		6,724,174
P00201USR01	United States of America	11/409,549	Adjustable minimum peak inductor current level for burst mode in current-mode DC-DC regulators	Non Provisional	2006-04-20		RE41,037
P00202US	United States of America	09/411,150	Apparatus and methods for performing RMS-to-DC conversion with bipolar input signal range	Non Provisional	1999-10-01		6,359,576
P00203US	United States of America	10/440,080	Gradient insensitive split-core digital to analog converter	Non Provisional	2003-05-15		6,937,178
P00203USC01	United States of America	11/101,944	Gradient insensitive split-core digital to analog converter.	Non Provisional	2005-04-08		
P00203USC02	United States of America	11/284,619	Gradient insensitive split-core digital to analog converter.	Non Provisional	2005-11-21		
P00203USC03	United States of America	11/487,143	Gradient insensitive split-core digital to analog converter.	Non Provisional	2006-07-13		7,532,140
P00203USP01	United States of America	11/704,441	Gradient insensitive split-core digital to analog converter.	Non Provisional	2007-02-08		7,414,561
P00204US	United States of America	10/430,837	Circuits and methods for accurately setting a phase shift	Non Provisional	2003-05-05		6,744,296
P00205US	United States of America	10/412,778	High capacitance integrated circuits.	Non Provisional	2003-04-11		7,323,928
P00206US	United States of America	10/444,489	Voltage overshoot reduction circuits	Non Provisional	2003-05-23		6,853,565
P00206USC01	United States of America	11/052,370	Voltage overshoot reduction circuits	Non Provisional	2005-02-07	20050146313	7,023,713
P00207US	United States of America	10/728,021	Methods and circuits for programmable automatic burst	Non Provisional	2003-12-03		7,030,596

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			mode control using average output current				
P00208US	United States of America	12/333,933	DC/DC converter startup with frequency ramping.	Non Provisional	2008-12-12		7,843,178
P00208USPRO	United States of America	61/013,693	DC/DC converter startup with frequency ramping.	Provisional	2007-12-14		
			Circuits and methods for detecting the presence of a powered device in a powered network				
P00209US	United States of America	10/738,824		Non Provisional	2003-12-16	20050132240	7,356,588
			Methods and circuits for frequency modulation that reduce the spectral noise of switching regulators.				
P00210US	United States of America	10/835,693		Non Provisional	2004-04-29	US-2005-0243894-A1	7,362,191
P00211US	United States of America	10/726,964		Non Provisional	2003-12-02		6,949,965
P00211USC01	United States of America	11/200,711		Non Provisional	2005-08-09	US-2006-0033539-A1	7,292,076
P00212US	United States of America	10/722,808		Non Provisional	2003-11-26		7,019,507
			Methods and circuits for more accurately mirroring current over a wide range of input current				
P00213US	United States of America	10/761,502		Non Provisional	2004-01-20		6,897,717
			Methods and circuits for selectable gain amplification by subtracting gains				
P00214US	United States of America	10/897,053		Non Provisional	2004-07-21		7,098,733
P00215USRCE	United States of America	10/761,501		Non Provisional	2004-01-20		7,342,328
			BUFFERED OVERSAMPLING ANALOG-TO-DIGITAL CONVERTER WITH IMPROVED DC OFFSET PERFORMANCE				
P00216US	United States of America	10/779,292		Non Provisional	2004-02-12	20050179573	6,927,717
			Circuits and methods for flexible current partitioning in monolithic switching regulators				
P00217US	United States of America	10/962,302		Non Provisional	2004-10-08	20060076936	7,170,195

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P00218US	United States of America	10/895,095	Flashless lead frame with horizontal singulation	Non Provisional	2004-07-21	20060017140	7,154,165
P00218USD01	United States of America	11/500,359	Flashless lead frame with horizontal singulation.	Non Provisional	2006-08-08	US-2006-0267163-A1	7,414,302
P00219US	United States of America	10/891,108	CMOS driver with minimum shoot-through current	Non Provisional	2004-07-15		7,208,984
P00219USD01	United States of America	11/304,820	CMOS driver with minimum shoot-through current.	Non Provisional	2005-12-16		7,265,591
P00220USABD	United States of America	11/119,936	Current Control Circuitry For Controlling Current From Limited Current Capacity Source.	Non Provisional	2005-05-05		
P00220USPRO	United States of America	60/632,690	Current Control Circuitry For Controlling Current From Limited Current Capacity Source.	Provisional	2004-12-03		
P00221US	United States of America	11/006,746	System and method for determining load current in switching regulators	Non Provisional	2004-12-08	20060119338	7,161,333
P00222US	United States of America	10/939,469	Adaptive control for inductor based buck-boost voltage regulators	Non Provisional	2004-09-14	20060055384	7,265,524
P00223US	United States of America	10/992,945	System and method for transferring duty cycle information in an isolated DC/DC converter or other circuit	Non Provisional	2004-11-22		7,200,014
P00224USRCE	United States of America	10/991,387	Common-mode data transmission for power over ethernet system.	Non Provisional	2004-11-19	2006-0109728-A1	8,831,211
P00225US	United States of America	11/030,993	DC/DC converter with current limit protection.	Non Provisional	2005-01-10		7,710,700
P00226US	United States of America	10/976,871	A Method Of And System For Regulating A Power Supply.	Non Provisional	2004-11-01	20060091869	
P00227US	United States of America	11/073,722	Method and circuit for driving a gate of a MOS transistor negative	Non Provisional	2005-03-08	20060202737	7,224,204

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P00228USABD	United States of America	10/981,488	Switch-Mode Power Supply Voltage Regulator And Methodology.	Non Provisional	2004-11-05		7,199,560
P00230US	United States of America	11/106,596	Network with multiple adjustment elements and sensitivities, and digital-to-analog converter implementing same.	Non Provisional	2005-04-15	US-2006-0232458-A1	7,256,721
P00231US	United States of America	10/991,409	Analog Power Management Within Power Over Ethernet System.	Non Provisional	2004-11-19	20060112285	
P00232US	United States of America	11/012,179	Method of and system for regulating output voltage	Non Provisional	2004-12-16		7,212,012
P00233US	United States of America	11/052,478	Protection for switched step up/step down regulators.	Non Provisional	2005-02-08	US-2006-0176037-A1	7,365,525
P00234US	United States of America	11/052,480	Current-mode control for switched step up-step down regulators.	Non Provisional	2005-02-08		7,394,231
P00235US	United States of America	10/911,703	Circuitry and methodology for driving multiple light emitting devices	Non Provisional	2004-08-05	20060028150	8,558,760
P00236US	United States of America	10/880,527	Method of fabricating a semiconductor device with multiple gate oxide thickness.	Non Provisional	2004-07-01		7,402,480
P00237US	United States of America	10/966,101	Inrush current slew control circuit and method.	Non Provisional	2004-10-18		7,330,065
P00238US	United States of America	11/038,041	Compensation technique providing stability over broad range of output capacitor values	Non Provisional	2005-01-21	20060164053	7,218,082
P00239US	United States of America	11/091,467	Offset Correction Circuit For Voltage-Controlled Current Source.	Non Provisional	2005-03-29		8,791,644
P00240US	United States of America	11/052,104	Voltage offset measurement for calibration of an integrated circuit amplifier	Non Provisional	2005-02-08		7,218,171
P00241USRCE	United States of America	11/024,032	Current control circuitry and methodology for controlling	Non Provisional	2004-12-29	US 2006/0139002 A1	7,733,061

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			current from current constrained source.				
P00242USRCE	United States of America	11/024,473	Power management circuit and methodology for battery-powered systems.	Non Provisional	2004-12-30		7,548,041
P00243US	United States of America	60/619,007	Simplifying Configuration With Reduced Average Input Current.	Provisional	2004-10-18		
P00244US	United States of America	10/087,881	High voltage transistors with graded extension	Non Provisional	2002-02-28		6,677,210
P00244USD01	United States of America	10/683,922	High voltage transistors with graded extension	Non Provisional	2003-10-10		6,888,207
P00246US	United States of America	10/676,492	Handle extender	Non Provisional	2003-10-02	20050071951	6,891,433
P00247US	United States of America	10/637,747	Low-voltage high dynamic range variable-gain amplifier	Non Provisional	2003-08-08		6,972,624
P00248US	United States of America	10/637,714	Low-voltage pre-distortion circuit for linear-in-dB variable-gain cells	Non Provisional	2003-08-08		6,980,052
P00249US	United States of America	10/798,547	FLOATING GATE NONVOLATILE MEMORY CIRCUITS AND METHODS	Non Provisional	2004-03-10	20050201179	6,961,279
P00250USPRO	United States of America	60/646,509	Power Sourcing Equipment Having Auto-Zero Circuit For Determining And Controlling Output Current.	Provisional	2005-01-25		
P00251US	United States of America	11/253,697	System and method for tracking a variable characteristic through a range of operation.	Non Provisional	2005-10-20		7,714,550
P00251USPRO	United States of America	60/645,607	System and method for tracking a variable characteristic through a range of operation.	Provisional	2005-01-24		
P00252US	United States of America	11/052,477	Variable frequency current-mode control for switched step up-step down regulators.	Non Provisional	2005-02-08		7,466,112
P00253US	United States of America	11/252,387	Analog signal sampling system and method having reduced average input current	Non Provisional	2005-10-17	20060082480	7,088,280

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P00253USC01	United States of America	11/477,159	Analog signal sampling system and method having reduced average input current	Non Provisional	2006-06-27	20060244650	7,420,491
P00254US	United States of America	11/253,082	Analog signal sampling system and method having reduced average differential input current	Non Provisional	2005-10-17	20060082481	7,091,896
P00255US	United States of America	11/252,388	Analog-to-digital converter with reduced average input current and reduced average reference current	Non Provisional	2005-10-17	20060082486	7,164,378
P00256US	United States of America	11/052,473	Light load current-mode control for switched step up-step down regulators.	Non Provisional	2005-02-08		7,256,570
P00258US	United States of America	11/142,477	Non-feedback implemented control of the output-common mode of a differential amplifier.	Non Provisional	2005-06-02		7,365,600
P00259US	United States of America	11/107,739	Adaptive power control for hysteretic regulators	Non Provisional	2005-04-18	20060232256	7,432,695
P00260US	United States of America	11/116,427	High-linearity differential amplifier with flexible common-mode range	Non Provisional	2005-04-28		7,215,200
P00261US	United States of America	11/154,548	System for controlling frequency of oscillator	Non Provisional	2005-06-17		7,230,497
P00262US	United States of America	11/166,279	Variable gain amplifier with temperature compensation and gain linearity enhancement.	Non Provisional	2005-06-27		7,262,661
P00263US	United States of America	11/206,070	Wideband squaring cell.	Non Provisional	2005-08-18		7,268,608
P00264US	United States of America	11/166,089	Wide dynamic range switching variable gain amplifier and control.	Non Provisional	2005-06-27	US-2006-0290420-A1	7,259,620
P00265USRCE	United States of America	11/252,567	Adjusting current limit thresholds based on power requirement of powered device in system for providing power over communication link	Non Provisional	2005-10-19	20060164769	9,769,090

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P00266USABD	United States of America	11/252,547	Adjusting Current Limit Thresholds Based On Output Voltage Of Power Supply Device In System For Providing Power Over Communication Link	Non Provisional	2005-10-19	20060164773	
P00267US	United States of America	11/227,289	Power sourcing equipment having auto-zero circuit for determining and controlling output current.	Non Provisional	2005-09-16	2006-0165096-A1	7,639,469
P00268US	United States of America	11/252,624	Dual-mode detection of powered device in power over ethernet system.	Non Provisional	2005-10-19	US-2006-0164775-A1	7,613,936
P00269US	United States of America	11/252,565	High-power foldback mechanism in system for providing power over communication link.	Non Provisional	2005-10-19	US-2006-0164774-A1	7,554,783
P00270USRCE	United States of America	11/252,607	Detecting legacy powered device in power over ethernet system.	Non Provisional	2005-10-19		7,856,561
P00271US	United States of America	11/252,585	Distinguishing network interface card from short circuit condition in power over ethernet system	Non Provisional	2005-10-19	20060164062	7,230,412
P00272US	United States of America	11/267,261	Combination of high-side and low-side current sensing in system for providing power over communication link.	Non Provisional	2005-11-07	US-2006-0166706-A1	7,426,374
P00273US	United States of America	11/079,487	Classification mechanism in system for supplying power over communication link.	Non Provisional	2005-03-15		
P00273USP01	United States of America	11/375,578	Classification mechanism in system for supplying power over communication link.	Non Provisional	2006-03-15	US-2006-0259798-A1	7,504,744
P00274US	United States of America	11/108,895	Trim circuits and methodologies for data converters	Non Provisional	2005-04-19		7,034,735
P00275US	United States of America	10/172,874	Ultra-wideband constant gain CMOS amplifier	Non Provisional	2002-06-13		6,670,850
P00275USC01	United States of America	10/613,420	Ultra-wideband constant gain CMOS amplifier	Non Provisional	2003-07-03		6,946,914

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P00275USC02	United States of America	11/183,289	Ultra-wideband constant gain CMOS amplifier	Non Provisional	2005-07-14	20050248408	7,123,097
P00275USC03	United States of America	10/570318	Covered wire and automobile-use wire harness	Non Provisional	2004-09-01	20070017691	7,202,748
P00275USC04	United States of America	11/726,988	Ultra-wideband constant gain CMOS amplifier.	Non Provisional	2007-03-22	US-2007-0188240-A1	7,339,437
P00276US	United States of America	11/102,876	Circuit and method for controlling hysteresis for bilevel signal transitions	Non Provisional	2005-04-11		7,382,167
P00277USRCE	United States of America	11/131,338	Switching regulator over voltage reduction circuit and method.	Non Provisional	2005-05-18	US-2006-0261792-A1	7,518,351
P00278US	United States of America	11/201,430	Switching regulator with slope compensation independent of changes in switching frequency.	Non Provisional	2005-08-11		7,342,392
P00279US	United States of America	11/180,556	Switching regulator with variable slope compensation,	Non Provisional	2005-07-14		7,656,142
P00280USRCE	United States of America	11/183,960	Power manager and power managing method for battery-powered application.	Non Provisional	2005-07-20	US-2007-0029975-A1	7,710,079
P00281US	United States of America	11/102,863	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2005-04-11		
P00281USC01	United States of America	12/723,841	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2010-03-15	US-2010-0225294-A1	8,194,379
P00281USP01	United States of America	11/153,680	Inrush Current Control System With Soft Start Circuit and Method.	Non Provisional	2005-06-16		
P00282USRCE	United States of America	11/102,868	Configurable Data Port For I2C Or Single-Wire Broadcast Interface.	Non Provisional	2005-04-11	US-2006-0227798-A1	8,230,151
P00283US	United States of America	11/101,638	Circuit and method of detecting and resolving stuck I2C buses	Non Provisional	2005-04-08	20060242348	7,478,286
P00285USRCE	United States of America	11/183,969	Dual-input DC-DC converter with integrated ideal diode function.	Non Provisional	2005-07-19		7,709,976
P00286US	United States of America	11/191,968	Dual FET output stage with controlled output DV/DT for	Non Provisional	2005-07-29		7,511,390

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			reduced EMI and input supply noise.				
P00287US	United States of America	11/208,630	Single-wire sequencing technique .	Non Provisional	2005-08-23		7,765,420
P00288US	United States of America	11/216,008	Asymmetric minor hysteresis loop model and circuit simulator including the same	Non Provisional	2005-09-01		7,502,723
P00288USPRO	United States of America	60/685,887	Asymmetric minor hysteresis loop model and circuit simulator including the same.	Provisional	2005-06-01		
P00289USRCE	United States of America	11/315,146	Level shift delay equalization circuit and methodology.	Non Provisional	2005-12-23	US-2007-0146007-A1	7,545,173
P00290USRCE	United States of America	11/219,722	Peak charging current modulation for burst mode conversion.	Non Provisional	2005-09-07		7,893,665
P00291USRCE	United States of America	11/316,993	Switched converter with variable peak current and variable off-time control.	Non Provisional	2005-12-27		7,528,587
P00292US	United States of America	11/582,443	Apparatus and method for producing signal conveying circuit status information	Non Provisional	2006-10-18	20070216380	7,782,017
P00292USPRO	United States of America	60/777,121	Apparatus and method for producing signal conveying circuit status information.	Provisional	2006-02-28		
P00293USRCE	United States of America	11/253,565	Squaring cell implementing tail current multiplication.	Non Provisional	2005-10-20		7,301,387
P00294US	United States of America	11/506,338	Circuits and methods for canceling signal dependent capacitance	Non Provisional	2006-08-18	20070103845	7,683,695
P00294USPRO	United States of America	60/709,566	Circuits and methods for canceling signal dependent capacitance.	Provisional	2005-08-18		
P00295US	United States of America	12/131232	METHOD, SYSTEM AND COMPUTER PROGRAM FOR MANAGING MULTIPLE ROLE USERID	Non Provisional	2008-06-02	20080301781	7,990,120

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P00296USRCE	United States of America	11/242,095	Switching regulator duty cycle control in a fixed frequency operation.	Non Provisional	2005-10-03	US-2007-0075790	7,388,444
P00297US	United States of America	11/282,992	Switching regulator slope compensation generator circuit.	Non Provisional	2005-11-17	US-2007-0108947-A1	7,378,822
P00298US	United States of America	11/348,354	Oscillator Having Low Phase Noise.	Non Provisional	2006-02-07		
P00299USRCE	United States of America	11/273,255	Providing Communication Between Power Supply Device And Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2005-11-15		
P00300USRCE	United States of America	11/444,405	Controlling Switching Circuits To Balance Power Or Current Drawn From Multiple Power Supply Inputs.	Non Provisional	2006-06-01		9,705,325
P00301US	United States of America	11/334,733	Controlling power distribution among multiple wires in communication cable.	Non Provisional	2006-01-19	2006-0178783-A1	7,827,418
P00302US	United States of America	11/406,334	Power Sourcing Equipment Having Bipolar Junction Transistor For Controlling Power Supply And Supporting AC Disconnect-Detection Function.	Non Provisional	2006-04-19		8,014,412
P00303US	United States of America	11/336,971	Supplying Power Over Four Paires Of Conductors In Communication Cable.	Non Provisional	2006-01-23	2006-0210057-A1	
P00304US	United States of America	11/506,779	Combination of high-side and low-side current control in system for providing power over communication link.	Non Provisional	2006-08-21		7,702,302
P00305USRCE	United States of America	11/334,456	System for providing power over communication cable having mechanism for determining resistance of communication cable.	Non Provisional	2006-01-19	US-2006-0164108-A1	7,511,515

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P00306US	United States of America	11/325,319	Utilization Of Power Delivered To Powered Device During Detection And Classification Mode.	Non Provisional	2006-01-05	2006-0164098-A1	
P00307US	United States of America	11/348,367	Single feedback input for regulation at both positive and negative voltage levels .	Non Provisional	2006-02-07	US-2007-0152647-A1	7,579,816
P00308US	United States of America	11/377,451	Bandgap curvature correction and post-package trim implemented therewith	Non Provisional	2006-03-17		7,420,359
P00309USRCE	United States of America	11/444,400	Balancing current drawn from multiple power supply inputs using multiple-input inductors	Non Provisional	2006-06-01	20070281754	7,863,772
P00310US	United States of America	11/366,590	Spread spectrum modulation of a clock signal for reduction of electromagnetic interference.	Non Provisional	2006-03-03	US-2007-0216488-A1	7,417,509
P00311USPRO	United States of America	60/736,328	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Provisional	2005-11-15		
P00312USPRO	United States of America	60/749,048	System And Method For Supporting Advanced Power Over Ethernet System Correspondence Address.	Provisional	2005-12-12		
P00315US	United States of America	11/445,237	Folded cascode amplifier having improved slew performance.	Non Provisional	2006-06-02		7,443,237
P00316US	United States of America	11/493,654	Class AB folded-cascode amplifier having cascode compensation.	Non Provisional	2006-07-27		7,414,473
P00316USP01	United States of America	12/174,102	Class AB folded-cascode amplifier having cascode compensation.	Non Provisional	2008-07-16	US-2008-0272844-A1	7,639,078
P00317US	United States of America	11/351,356	Systems and methods for reducing input current in photoflash chargers.	Non Provisional	2006-02-09	US-2007-0182253-A1	7,342,365
P00318US	United States of America	11/408,749	ADAPTIVE CURRENT REVERSAL COMPARATOR	Non Provisional	2006-04-21	20070247130	7,279,877

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P00319US	United States of America	11/326,731	Methods and circuits for output over-voltage reduction in switching regulators.	Non Provisional	2006-01-05	US-2007-0152647-A1	7,378,826
P00320US	United States of America	11/444,435	Power management mechanism in system for supplying power over communication link.	Non Provisional	2006-06-01	2007-0136614-A1	7,814,340
P00321US	United States of America	11/476,128	Multi-input power supply supervisor .	Non Provisional	2006-06-28		7,711,971
P00322US	United States of America	11/524,197	Common mode rejection ratio trim circuit and methodology.	Non Provisional	2006-09-21		7,548,115
P00323US	United States of America	11/523,561	Non-perturbing power supply margin controller.	Non Provisional	2006-09-20		7,382,303
P00324US	United States of America	11/373,266	LED dimming control technique for increasing the maximum PWM dimming ratio and avoiding LED flicker.	Non Provisional	2006-03-13	US-2007-0210725-A1	7,321,203
P00325US	United States of America	11/418,131	Circuit and methodology for supplying pulsed current to a load, such as a light emitting diode	Non Provisional	2006-05-05	20070257861	7,746,300
P00326US	United States of America	10/307,200	High linearity digital variable gain amplifier	Non Provisional	2002-11-29	20040104775	7,071,784
P00326USC01	United States of America	11/326,823	High linearity digital variable gain amplifier.	Non Provisional	2006-01-06	US-2006-0119436-A1	7,843,038
P00326USC02	United States of America	11/327,052	High linearity digital variable gain amplifier	Non Provisional	2006-01-06	20060114065	7,245,189
P00327US	United States of America	12/078,419	Precision RF Power Detector With Automatic Thermal Feedback Loop.	Non Provisional	2008-03-31		
P00327USPRO	United States of America	60/907,553	Precision RF Power Detector With Automatic Thermal Feedback Loop.	Provisional	2007-04-06		
P00328US	United States of America	11/493,528	Low power wide dynamic range RMS-to-DC converter.	Non Provisional	2006-07-27	US-2008-0024191-A1	7,342,431
P00329US	United States of America	11/473,331	High linearity low noise variable gain amplifier with continuous gain control.	Non Provisional	2006-06-23		7,317,357

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P00330US	United States of America	11/520,018	Constant power foldback mechanism programmable to approximate safe operating area of pass device for providing connection to load.	Non Provisional	2006-09-13	US-2008-0061752-A1	7,538,528
P00331US	United States of America	11/522,409	Reducing oscillations in system with foldback current limit when inductive load is connected.	Non Provisional	2006-09-18	US-2008-0068771-A1	7,466,039
P00332US	United States of America	11/522,408	Circuit and methodology for high-speed, low-power level shifting	Non Provisional	2006-09-18	20080122486	8,692,576
P00333USRCE	United States of America	11/605,297	Programmable conduction mode control for switching circuits.	Non Provisional	2006-11-29		7,733,672
P00334US	United States of America	11/498,130	Light load regulator for isolated flyback converter.	Non Provisional	2006-08-03		7,471,522
P00335US	United States of America	11/499,726	Regulator for isolated flyback power supply using primary side sensing.	Non Provisional	2006-08-07	US-2008-0031018-A1	7,463,497
P00336US	United States of America	11/703,718	Adaptive output current control for switching circuits	Non Provisional	2007-02-08	20080192514	7,639,517
P00337US	United States of America	11/634,113	Square cell having wide dynamic range and power detector implementing same.	Non Provisional	2006-12-06		7,622,981
P00338US	United States of America	11/891,211	System And Methods For Reducing Distortion In Semiconductor Based Sampling Systems.	Non Provisional	2007-08-09	US-2009-0039924-A1	
P00340USRCE	United States of America	13/155,993	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2011-06-08		8,786,318
P00342USD01	United States of America	13/251,852	Synchronous Rectifier Control For Synchronous Boost Converter.	Non Provisional	2011-10-03		8,310,216

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P00342USRCE	United States of America	11/727,497	Synchronous Rectifier Control For Synchronous Boost Converter.	Non Provisional	2007-03-27		8,063,615
P00343USRCE	United States of America	11/681,581	Method to control the output common mode in a differential OPAMP with rail-to-rail input stage.	Non Provisional	2007-03-02		7,532,072
P00344USRCE	United States of America	11/717,647	Feedback circuitry and methodology for switching circuit capable of generating both positive and negative output voltages.	Non Provisional	2007-03-14		7,825,665
P00346US	United States of America	11/637,085	Providing Detailed Information On Powered Device In System For Supplying Power Over Communication Link.	Non Provisional	2006-12-12	2007-0135086-A1	
P00347US	United States of America	11/594,091	Integrated powered device connector in system for supplying power over communication link.	Non Provisional	2006-11-08	2007-0132487-A1	7,831,844
P00348USABD	United States of America	11/594,158	Dynamic Power Allocation In System For Providing Power Over Communication Link.	Non Provisional	2006-11-08	2007-0110360-A1	
P00349USRCE	United States of America	11/731,279	Bandgap voltage and current reference	Non Provisional	2007-03-30	20080238400	8,085,029
P00350US	United States of America	12/287,598	Systems and methods for characterizing component ratios and generating a digital representation of same.	Non Provisional	2008-10-10		7,705,765
P00351US	United States of America	11/812,417	Switching battery charger with programmable current control and power control.	Non Provisional	2007-06-19		7,777,455
P00352US	United States of America	12/000,595	Regulated power supply system and an operating method therefore.	Non Provisional	2007-12-14	US-2008-0143307-A1	7,834,600
P00352USPRO	United States of America	60/874,742	Regulated power supply system and an operating method therefore.	Provisional	2006-12-14		

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P00353US	United States of America	11/717,126	Method and apparatus for measuring the voltage of a power source.	Non Provisional	2007-03-13		7,622,893
P00354US	United States of America	09/240,261	Control feature for IC without using a dedicated pin	Non Provisional	1999-01-29		6,229,385
P00355URCE	United States of America	11/783,957	Determining average output current in DC-DC converter.	Non Provisional	2007-04-13		7,795,846
P00356USPRO	United States of America	60/900,933	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Provisional	2007-02-13		
P00356URCE	United States of America	12/527,079	Measuring Cable Resistance In System For Providing Power Over Communication Cable.	Non Provisional	2009-08-14		8,552,749
P00357URCE	United States of America	11/850,494	Multiple output amplifiers and comparators.	Non Provisional	2007-09-05		7,804,286
P00358USABD	United States of America	11/980,182	Bidirectional Power Converters.	Non Provisional	2007-10-29		
P00358USC01	United States of America	12/855,232	Bidirectional Power Converters	Non Provisional	2010-08-12	20100320839	8,593,115
P00359US	United States of America	12/033,600	Method For Clamping a Semiconductor Region At Or Near Ground.	Non Provisional	2008-02-19		
P00359USC01	United States of America	13/178,302	Method For Clamping a Semiconductor Region At Or Near Ground.	Non Provisional	2011-07-11		8,159,278
P00359USPRO	United States of America	60/908,922	Method For Clamping a Semiconductor Region At Or Near Ground.	Non Provisional	2007-03-29		
P00360US	United States of America	12/073,924	System and Method For Charging Capacitors Using Automatic Cell Balancing.	Non Provisional	2008-03-12		8,198,869
P00360USD01	United States of America	13/409,992	System and Method For Charging Capacitors Using Automatic Cell Balancing.	Non Provisional	2012-03-01	US-2012-0161722-A1	8,587,263
P00361USC01	United States of America	13/727,418	Voltage Stackable Data Port.	Non Provisional	2012-12-26	20140062407	9,793,734

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			Monitoring Cells In Energy Storage System .				
P00361USPRO	United States of America	60/907,423	Voltage Stackable Data Port.	Provisional	2007-04-02		
P00361USRCE	United States of America	11/896,669	Monitoring Cells In Energy Storage System .	Non Provisional	2007-09-05	20100327806	9,270,133
P00362US	United States of America	11/827,704	Paralleling voltage regulators.	Non Provisional	2007-07-13		7,642,759
P00362USC01	United States of America	12/541,557	Paralleling voltage regulators.	Non Provisional	2009-08-14	US-2010-0001708-A1	8,378,657
P00363US	United States of America	12/430,482	Complex-Admittance Digital-To-Analog Converter.	Non Provisional	2009-04-27		7,916,057
P00367US	United States of America	12/698,020	Time-Multiplexed Residue Amplifier.	Non Provisional	2010-02-01	US-2011-0187573-A1	8,018,370
P00368USD01	United States of America	12/941,383	Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.	Non Provisional	2010-11-08	US-2011-0042792-A1	8,269,355
P00368USRCE	United States of America	12/003,883	Flexible Contactless Wire Bonding Structure And Methodology For Semiconductor Device.	Non Provisional	2008-01-03		7,960,845
P00369USPRO	United States of America	60/935,287	Over-voltage protection circuit.	Provisional	2007-08-03		
P00369USRCE	United States of America	12/181,862	Over-voltage protection circuit.	Non Provisional	2008-07-29		8,139,329
P00370USRCE	United States of America	12/711,828	Charge Pump with Reduced Current Variation	Non Provisional	2010-02-24	20110204959	8,319,545
P00371US	United States of America	12/202,736	Amplitude lock loop for producing constant amplitude oscillator ramp signal	Non Provisional	2008-09-02		8,120,330
P00371USPRO	United States of America	60/935,803	Amplitude Lock Loop For Producing Constant Amplitude Oscillator Ramp Signal.	Provisional	2007-08-31		

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P00373US	United States of America	12/202,835	Semiconductor device having a suspended isolating interconnect.	Non Provisional	2008-09-02		7,902,665
P00375USRCE	United States of America	12/405,282	Bidirectional Power Converters	Non Provisional	2009-03-17	20100237840	8,536,840
P00376US	United States of America	12/287,623	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias	Non Provisional	2008-10-09	20090121912	7,907,074
P00376USPRO	United States of America	61/002,495	Circuits and methods to reduce or eliminate signal-dependent modulation of a reference bias.	Provisional	2007-11-09		
P00377US	United States of America	12/078,384	Method and system for bit polarization coding.	Non Provisional	2008-03-31	US-2009-0243905-A1	7,656,337
P00378US	United States of America	12/068,970	Method and system for determining a clock input mode.	Non Provisional	2008-02-13		7,656,216
P00380US	United States of America	12/147,328	Single pass INL trim algorithm for networks.	Non Provisional	2008-06-26	US-2009-0322575-A1	7,671,770
P00382US	United States of America	12/350,532	Extending Input to Output Voltage Range in Multiple Channel Switching Regulator Applications.	Non Provisional	2009-01-08		8,319,485
P00383US	United States of America	12/541,596	Switch Mode Power Supply With Dynamic Topology.	Non Provisional	2009-08-14		8,274,266
P00384US	United States of America	13/222,742	DC/DC power converter with feedback control operable in linear and non-linear modes.	Non Provisional	2011-08-31	2013/0049715	9,166,473
P00385US	United States of America	13/671,151	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2012-11-07	US-2013-0113639-A1	8,648,741
P00385USPRO	United States of America	61/556,440	System And Method For Randomizing Component Mismatch In An ADC.	Provisional	2011-11-07		
P00385USR01	United States of America	14/473,745	System And Method For Randomizing Component Mismatch In An ADC.	Non Provisional	2014-08-29		RE45,798
P00387US	United States of America	12/527,067	Magnetic Isolation Of Power Sourcing Equipment Control Circuitry.	Non Provisional	2010-04-15	US2010-0201188 A1	8,076,793

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P00388US	United States of America	12/425,015	Systems And Methods For Fast Switch Turn On Approximating Ideal Diode Function.	Non Provisional	2009-04-16	US-2009-0261798-A1	8,022,679
P00388USPRO	United States of America	61/124,653	Systems And Methods For Fast Switch Turn On Approximating Ideal Diode Function.	Provisional	2008-04-18		
P00389US	United States of America	12/425,052	Systems And Methods For Oscillation Suppression In Switching Circuits.	Non Provisional	2009-04-16	US-2009-0261898-A1	7,920,013
P00389USPRO	United States of America	61/124,636	Systems And Methods For Oscillation Suppression In Switching Circuits.	Provisional	2008-04-18		
P00390US	United States of America	12/277,811	Power Measurement Circuit.	Non Provisional	2008-11-25		
P00390USP01	United States of America	12/338,235	Power Measurement Circuit.	Non Provisional	2008-12-18		8,049,487
P00391US	United States of America	12/349,641	Switching Mode Converters. CIRCUIT, TRIM AND LAYOUT FOR TEMPERATURE COMPENSATION OF METAL RESISTORS IN SEMI-CONDUCTOR CHIPS	Non Provisional	2009-01-07		8,203,320
P00392US	United States of America	12/991,540	Method and System For High Efficiency, Fast Transient Multi-Channel LED Driver.	Non Provisional	2008-11-25	20110068854	8,390,363
P00393US	United States of America	12/437,273	Linearity In LED Dimmer Control.	Non Provisional	2009-05-07		8,058,810
P00394US	United States of America	12/332,278	Current ripple reduction circuit for LEDs	Non Provisional	2008-12-10	US-2010-0141173-A1	8,089,216
P00395USRCE	United States of America	12/332,288	Dimmer Control Leakage Pull Down Using Main Power Device in Flyback Converter.	Non Provisional	2008-12-10	US-2010-0141174-A1	8,310,172
P00396US	United States of America	12/332,292	Dimmer-Controlled LEDs Using Flyback Converter With High Power Factor.	Non Provisional	2008-12-10	US-2010-0141178-A1	8,013,544
P00397USRCE	United States of America	12/332,299		Non Provisional	2008-12-10	US-2010-0141177-A1	8,692,481

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P00398US	United States of America	12/275,129	Accelerated Response to Load Transients in PFM DC-to-DC Converters	Non Provisional	2008-11-20	20100123444	8,030,907
P00399US	United States of America	12/275,114	Dynamically-Compensated Controller.	Non Provisional	2008-11-20		8,143,871
P00400USRCE	United States of America	12/489,184	ADJUSTABLE CURRENT LIMIT SWITCHING REGULATOR WITH CONSTANT LOOP GAIN	Non Provisional	2009-06-22	20100320974	8,786,265
P00401US	United States of America	12/844,727	A/D CONVERTER USING ISOLATION SWITCHES	Non Provisional	2010-07-27	20120026027	8,130,133
P00404US	United States of America	12/358,568	CIRCUITRY AND METHODOLOGY FOR PROTECTING A BOOST DC/DC CONVERTER	Non Provisional	2009-01-23	20100188784	8,116,045
P00405US	United States of America	12/431,349	Analog sampler with reduced input current	Non Provisional	2009-04-28		8,319,527
P00406USPRO	United States of America	61/256,628	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2009-10-30		
P00406USRCE	United States of America	12/686,749	Method And System For Polarity Independent Step-Up Converter Capable Of Operating Under Ultra-Low Input Voltage Condition.	Non Provisional	2010-01-13		9,325,250
P00407US	United States of America	12/396,151	Bootstrapped switch for sampling voltages beyond the supply voltage	Non Provisional	2009-03-02		7,940,091
P00408US	United States of America	12/470,932	CHOPPER STABILIZED BANDGAP REFERENCE CIRCUIT AND METHODOLOGY FOR VOLTAGE REGULATORS	Non Provisional	2009-05-22	20100295529	8,004,266
P00409US	United States of America	12/276,552	Method and system for variable-gain amplifier.	Non Provisional	2008-11-24	US-2010-0127779-A1	7,714,658
P00410USRCE	United States of America	12/561,912	Feedback control of a DC/DC power converter.	Non Provisional	2009-09-17	US-2011-0062929-A1	8,587,274

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P00411USPRO	United States of America	61/141,766	Method and System For Voltage Independent Power Supply Load Sharing.	Provisional	2008-12-31		
P00411USRCE	United States of America	12/645,341	Method and System For Voltage Independent Power Supply Load Sharing.	Non Provisional	2009-12-22		8,853,885
P00412US	United States of America	12/645,258	AUTONOMOUS MULTI-DEVICE EVENT SYNCHRONIZATION AND SEQUENCING TECHNIQUE ELIMINATING MASTER AND SLAVE ASSIGNMENTS	Non Provisional	2009-12-22	20100169695	8,627,132
P00412USPRO	United States of America	61/141,777	Autonomous Multi-Device Event Synchronization And Sequencing Technique Eliminating Master And Slave Assignments.	Provisional	2008-12-31		
P00413USPRO	United States of America	61/141,787	Bootstrap Transistor Circuit.	Provisional	2008-12-31		
P00413USRCE	United States of America	12/628,945	Bootstrap Transistor Circuit	Non Provisional	2009-12-01	20100164597	8,502,594
P00414USPRO	United States of America	61/262,732	Successive-Approximation Converter (DSAR).	Provisional	2009-11-19		
P00415US	United States of America	12/949,507	Sequentially Configured Analog to Digital Converter.	Non Provisional	2010-11-18	US-2011-0115661-A1	8,232,905
P00415USPRO	United States of America	61/262,737	Sequentially Configured Analog to Digital Converter.	Provisional	2009-11-19		
P00416USABD	United States of America	61/144,872	Generating A Pulse-Width Modulation ("PWM") Train. Pulse-Width Modulation ("PWM") With Independently Adjustable Duty Cycle And Frequency Using Two Adjustable Delays.	Provisional	2009-01-15		
P00417US	United States of America	12/863,699	Pulse-Width Modulation ("PWM") With Independently Adjustable Duty Cycle And Frequency Using Two Adjustable Delays.	Non Provisional	2010-07-20	US-201-0289547-A1	8,207,773
P00417USPRO	United States of America	61/147,843	Pulse-Width Modulation ("PWM") With Independently Adjustable Duty Cycle And Frequency Using Two Adjustable Delays.	Provisional	2009-01-28		

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P00418US	United States of America	12/474,938	Low thermal hysteresis bandgap voltage reference.	Non Provisional	2009-05-29		7,772,920
P00419US	United States of America	12/475,184	Monolithic Voltage Reference Device With Internal, Multi-Temperature Drift Data And Related Testing Procedures.	Non Provisional	2009-05-29	US-2010-0301923-A1	7,920,016
P00420US	United States of America	12/508,670	Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Non Provisional	2009-07-24		8,901,904
P00420USPRO	United States of America	61/169,421	Voltage or Current Regulators with Switched Output Capacitor For Multiple Regulation States.	Provisional	2009-04-15		
P00421US	United States of America	12/413,247	AVERAGE INDUCTOR CURRENT MODE SWITCHING CONVERTERS	Non Provisional	2009-03-27	20100244793	8,120,335
P00422US	United States of America	12/421,126	BUCK-MODE BOOST CONVERTER WITH REGULATED OUTPUT CURRENT	Non Provisional	2009-04-09	20100259192	8,058,812
P00423US	United States of America	12/624,854	Method and System For Improved Phase Noise In A BiCMOS Clock Driver.	Non Provisional	2009-11-24		7,969,189
P00424US	United States of America	12/577,358	Method and System for Communicating Multiple Data Signals Over a Single Unidirectional Isolation Component.	Non Provisional	2009-10-12		8,175,087
P00424USPRO	United States of America	61/170,382	Method and System for Communicating Multiple Data Signals Over a Single Unidirectional Isolation Component.	Provisional	2009-04-17		
P00425US	United States of America	12/631,564	Method And System For Minimum Output-Voltage Battery Charger.	Non Provisional	2009-12-07		8,405,362
P00426USRCE	United States of America	12/616,996	Method and System For Developing Low Noise Bandgap References.	Non Provisional	2009-11-12		8,508,211

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P00427US	United States of America	12/495,170	Method And System For Dimming An Offline LED Driver. Voltage Regulator	Non Provisional	2009-06-30	US-2010-0327773-A1	8,264,165
P00428US	United States of America	12/610,190	Compensating For Voltage Drop Along Conductors Between Regulator Output and Load.	Non Provisional	2009-10-30		8,754,622
P00429USD01	United States of America	13/594,684	Method And System For Solar Panel Peak-Power Transfer Using Input Voltage Regulation	Non Provisional	2012-08-24	US-2013-0057225-A1	8,664,920
P00429USRCE	United States of America	12/645,241	Method And System For Solar Panel Peak-Power Transfer Using Input Voltage Regulation	Non Provisional	2009-12-22		8,629,658
P00430US	United States of America	12/773,477	Enhanced Pad Design For Solder Attach Devices.	Non Provisional	2010-05-04		8,163,643
P00430USPRO	United States of America	61/238,239	Enhanced Pad Design For Solder Attach Devices.	Provisional	2009-08-31		
P00431US	United States of America	12/880,618	Extending Achievable Duty Cycle Range in a DC/DC Forward Converter With Active Clamp Reset.	Non Provisional	2010-09-13		8,385,087
P00431USPRO	United States of America	61/243,233	Extending Achievable Duty Cycle Range in a DC/DC Forward Converter With Active Clamp Reset.	Provisional	2009-09-17		
P00432US	United States of America	12/882,806	ACCURACY OF A VOLT-SECOND CLAMP IN AN ISOLATED DC/DC CONVERTER	Non Provisional	2010-09-15	20110063882	8,593,839
P00432USPRO	United States of America	61/243,230	Accuracy of a Volt-Second Clamp in An Isolated DC/DC Converter.	Provisional	2009-09-17		
P00433US	United States of America	12/884,013	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Non Provisional	2010-09-16		8,421,432
P00433USPRO	United States of America	61/243,228	DC/DC Converter Having a Fast and Accurate Average Current Limit.	Provisional	2009-09-17		
P00434US	United States of America	12/913,293	Method And System For Improving Limiting Amplifier	Non Provisional	2010-10-27		8,319,551

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			Phase Noise For Low Slew-Rate Input Signals.				
P00434USPRO	United States of America	61/261,481	Method And System For Improving Limiting Amplifier Phase Noise For Low Slew-Rate Input Signals.	Provisional	2009-11-16		
P00435US	United States of America	13/024,916	Method And System For Clock Edge Synchronization Of Multiple Clock Distribution Integrated Circuits by Configuring Master Device To Produce At Least One Gated Clock Output Signal.	Non Provisional	2011-02-10		8,819,472
P00435USPRO	United States of America	61/304,156	Method And System For Clock Edge Synchronization Of Multiple Clock Distribution Integrated Circuits by Configuring Master Device To Produce At Least One Gated Clock Output Signal.	Provisional	2010-02-12		
P00436US	United States of America	12/752,858	Error Amplifier For Regulating Single Feedback Input At Multiple Levels.	Non Provisional	2010-04-01		8,274,314
P00438US	United States of America	13/096,737	Current Steering Circuit With Feedback.	Non Provisional	2011-04-28		8,330,633
P00439US	United States of America	12/883,876	DC/DC Converter Overcurrent Protection.	Non Provisional	2010-09-16	US-2011-0063760-A1	8,345,391
P00439USPRO	United States of America	61/243,236	DC/DC Converter Overcurrent Protection.	Provisional	2009-09-17		
P00440US	United States of America	12/768,245	Enhancing the Operational Amplifier's Capacitive Load Driving Capability Using Parallel Miller Feedback.	Non Provisional	2010-04-27		8,058,931
P00440USPRO	United States of America	61/264,149	Enhancing the Operational Amplifier's Capacitive Load Driving Capability Using Parallel Miller Feedback.	Provisional	2009-11-24		

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P00441US	United States of America	12/642,634	Continuously Switching Buck-Boost Control.	Non Provisional	2009-12-18	US-2011-0148373-A1	8,368,365
P00442USABD	United States of America	12/642,542	Clean Transition Between CCM and DCM In Valley Current Mode Control Of DC-To-DC Converter.	Non Provisional	2009-12-18	US-2011-0148379-A1	
P00443USABD	United States of America	13/567,788	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2012-08-06		
P00443USPRO	United States of America	61/263,628	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Provisional	2009-11-23		
P00443USRCE	United States of America	12/759,270	Providing Power to Powered Device Having Multiple Power Supply Inputs.	Non Provisional	2010-04-13	US-2011-0125341-A1	8,581,438
P00444US	United States of America	12/699,794	Sampling Switch And Controller.	Non Provisional	2010-02-03		7,961,132
P00445US	United States of America	12/795,330	Stacked Interposer Leadframes.	Non Provisional	2010-06-07		8,492,884
P00445USC01	United States of America	13/924,258	Stacked Interposer Leadframes.	Non Provisional	2013-06-21	US-2013-0277811-A1	8,921,159
P00446US	United States of America	12/755,291	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Non Provisional	2010-04-06	US-2011-0156687-A1	8,278,895
P00446USPRO	United States of America	61/290,116	Efficiency Measuring Circuit for DC-DC Converter Which Calculates Internal Resistance of Switching Inductor Based on Duty Cycle.	Provisional	2009-12-24		
P00447US	United States of America	12/856,159	Method and System For Extending PWM Dimming Range In LED drivers.	Non Provisional	2010-08-13	US-2012-0038288-A1	8,198,832
P00448US	United States of America	12/827,455	Current Sensor Using Leadframe as Sensing Element.	Non Provisional	2010-06-30		8,446,159
P00449USRCE	United States of America	12/940,434	Method And System For Detecting And Asserting BUS	Non Provisional	2010-11-05	US 2012-0117294	8,924,621

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			Speed Condition In A USB Isolated Device.				
P00450USPRO	United States of America	61/325,690	Switching Scheme For Step Up-Step Down Converters Using Fixed Frequency Current-Mode Control.	Provisional	2010-04-19		
P00450USRCE	United States of America	13/088,867	Switching Scheme For Step Up-Step Down Converters Using Fixed Frequency Current-Mode Control.	Non Provisional	2011-04-18	US-2011-0279098-A1	8,912,779
P00451US	United States of America	13/166,360	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Non Provisional	2011-06-22		8,576,104
P00451USPRO	United States of America	61/333,966	Simultaneous-Sampling Single-Ended and Differential Two-Input Analog-to-Digital Converter.	Provisional	2010-05-12		
P00452USPRO	United States of America	61/345,964	A/D Converter With Compressed Full-Scale Range.	Provisional	2010-05-18		
P00452USRCE	United States of America	12/861,696	A/D Converter with Compressed Full-Scale Range	Non Provisional	2010-08-23	20110285569	8,319,673
P00453US	United States of America	13/107,508	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Non Provisional	2011-05-13		8,390,497
P00453USPRO	United States of America	61/345,960	Method and Circuit For Encoding And Transmitting Numerical Values From An Analog-to-Digital Conversion Process.	Provisional	2010-05-18		
P00454US	United States of America	12/849,331	Laser Process For Side Plating Of Terminals.	Non Provisional	2010-08-03		8,017,447
P00455US	United States of America	13/111,636	Dynamic Compensation of Aging Drift In Current Sense Resistor.	Non Provisional	2011-05-19		8,779,777
P00455USPRO	United States of America	61/351,600	Dynamic Compensation of Aging Drift In Current Sense Resistor.	Non Provisional	2010-06-04		

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P00456USRCE	United States of America	13/024,591	Circuits For And Methods Of Accurately Measuring Temperature Of Semiconductor Junctions.	Non Provisional	2011-02-10		9,116,048
P00457US	United States of America	13/151,689	DC/DC Converter With Magnetic Flux Density Limits.	Non Provisional	2011-06-02	US-2011-0299304-A1	8,693,215
P00457USPRO	United States of America	61/351,685	DC/DC Converter With Magnetic Flux Density Limits.	Provisional	2010-06-04		
P00458US	United States of America	12/949,722	Capacitively Coupled Switched Current Source	Non Provisional	2010-11-18	20120013389	8,324,957
P00458USPRO	United States of America	61/365,006	Capacitively Coupled Switched Current Source.	Provisional	2010-07-16		
P00459US	United States of America	12/910,676	Lead Plating technique For Singulated IC Packages.	Non Provisional	2010-10-22		8,076,181
P00460USRCE	United States of America	12/950,490	Controlling Power Received Through Multiple BUS Interfaces In A Portable Computing Device.	Non Provisional	2010-11-19		8,694,803
P00461US	United States of America	12/960,299	High Dynamic Range Coulomb Counter Which Simultaneously Monitors Multiple Sense Resistors.	Non Provisional	2010-12-03		8,233,582
P00462USRCE	United States of America	13/204,327	12C isolated, bidirectional communication system with isolated domain current source pull-ups	Non Provisional	2011-08-05	20130036247	9,256,570
P00463US	United States of America	12/959,970	Bias Point Setting for Third Order Linearity Optimization of Class A Amplifier	Non Provisional	2010-12-03	20120139642	8,305,148
P00464US	United States of America	12/959,986	Third Order Intermodulation Cancellation By In-Line Generated Signal.	Non Provisional	2010-12-03		8,305,142
P00466USRCE	United States of America	13/035,884	Accurate Current Sensing with Heat Transfer Correction	Non Provisional	2011-02-25	20120218022	8,920,026
P00467US	United States of America	13/037,090	Voltage-Mode Band-Gap Reference Circuit With Temperature Drift And Output Voltage Trims.	Non Provisional	2011-02-28		8,791,683

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P00468US	United States of America	13/025,045	Interpolating Digital-To-Analog Converter With Separate bias Current Source For Each Differential Input Transistor Pair.	Non Provisional	2011-02-10	US-2012-0206284-A1	
P00469US	United States of America	13/424,116	CIRCUITRY TO PREVENT OVERVOLTAGE OF CIRCUIT SYSTEMS	Non Provisional	2012-03-19	20120287540	8,619,400
P00469USPRO	United States of America	61/485,283	Circuitry to prevent overvoltage of circuit systems.	Provisional	2011-05-12		
P00470US	United States of America	13/115,924	Balancing Temperatures in A Multi-Phase DC/DC Converter	Non Provisional	2011-05-25	20120299560	8,587,272
P00471US	United States of America	13/457,320	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Non Provisional	2012-04-26		9,182,428
P00471USPRO	United States of America	61/480,915	Switched Capacitance Voltage Differential Sensing Circuit With Near Infinite Input Impedance.	Provisional	2011-04-29		
P00472US	United States of America	13/458,765	Isolated Communications Interface.	Non Provisional	2012-04-30		8,908,779
P00472USPRO	United States of America	61/480,832	Isolated Communications Interface.	Provisional	2011-04-29		
P00473USABD	United States of America	61/486,446	PoE Active Bridge.	Provisional	2011-05-16		
P00475US	United States of America	13/398,046	ACTIVE BRIDGE RECTIFICATION	Non Provisional	2012-02-16	20130215657	8,804,389
P00476US	United States of America	13/242,836	Stackable Bi-Directional Multicell Battery Balancer.	Non Provisional	2011-09-23	US-2013-0076309-A1	8,692,516
P00476USPRO	United States of America	61/497,381	Stackable Bi-Directional Multicell Battery Balancer.	Provisional	2011-06-15		
P00477USRCE	United States of America	13/155,971	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2011-06-08		8,698,522
P00478USRCE	United States of America	13/155,945	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2011-06-08		8,723,556

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P00479US	United States of America	13/155,922	System And Methods To Improve The Performance Of Semiconductor Based Sampling System.	Non Provisional	2011-06-08	US-2011-0313800-A1	8,482,442
P00481USRCE	United States of America	13/180,460	Switching Power Supply Having Separate AC And DC Current Sensing Paths.	Non Provisional	2011-07-11		8,823,352
P00482US	United States of America	13/315,654	Radar System and Method For Providing Information On Movements of Object's Surface.	Non Provisional	2011-12-09		9,188,477
P00482USPRO	United States of America	61/524,945	Radar System and Method For Providing Information On Movements of Object's Surface.	Provisional	2011-08-18		
P00483US	United States of America	13/397,370	Negative Slope Compensation For Current Mode Switching Power Supply.	Non Provisional	2012-02-15	US-2013-0207629-A1	8,686,702
P00484US	United States of America	13/587,703	Common Mode Input Control for Switch Capacitor Amplifier in Pipeline Analog-to-Digital Converter.	Non Provisional	2012-08-16	US-2013-0043950-A1	8,922,275
P00484USABD	United States of America	13/857,935	Common Mode Input Control for Switch Capacitor Amplifier in Pipeline Analog-to-Digital Converter.	Non Provisional	2013-04-05		
P00484USPR1	United States of America	61/524,478	Common Mode Input Control for Switch Capacitor Amplifier in Pipeline Analog-to-Digital Converter.	Provisional	2011-08-17		
P00484USPRO	United States of America	61/684,016	Common Mode Input Control for Switch Capacitor Amplifier in Pipeline Analog-to-Digital Converter.	Provisional	2012-08-16		
P00485USABD	United States of America	61/524,485	Providing Common Mode Output Control for Wide Output Swing Amplifier.	Provisional	2011-08-17		
P00485USPRO	United States of America	61/683,082	Providing Common Mode Output Control for Wide Output Swing Amplifier.	Provisional	2012-08-16		

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P00486USABD	United States of America	13/829,598	Bipolar Transistor With Lowered the 1/F noise.	Non Provisional	2013-03-14		
P00487US	United States of America	13/829,652	Single Supply Amplifier With Swing to Ground.	Non Provisional	2013-03-14		9,000,747
P00488US	United States of America	13/829,567	Common Mode Rejection Ratio Versus Frequency in Instrumentation Amplifier.	Non Provisional	2013-03-14		8,742,848
P00489US	United States of America	13/829,807	Translinear Slew Boost Circuit For Operational Amplifier.	Non Provisional	2013-03-14		8,866,554
P00490US	United States of America	13/829,517	Output Stage with Fast Feedback to Drive ADC.	Non Provisional	2013-03-15		8,866,553
P00491US	United States of America	13/590,043	Power Combining In Power Over Ethernet Systems.	Non Provisional	2012-08-20		9,024,473
P00491USPRO	United States of America	61/528,917	Power Combining In Power Over Ethernet Systems.	Provisional	2011-08-30		
P00492US	United States of America	13/448,075	Anemometer Detecting Thermal Time Constant of Sensor	Non Provisional	2012-04-16	20130124112	9,176,163
P00492USD01	United States of America	14/883,164	ANEMOMETER DETECTING THERMAL TIME CONSTANT OF SENSOR	Non Provisional	2015-10-14	20160033545	9,851,372
P00492USPRO	United States of America	61/559,257	Anemometer Detecting Thermal Time Constant of Sensor.	Provisional	2011-11-14		
P00493US	United States of America	13/426,277	Optimized Bi-directional Balancing Method and System.	Non Provisional	2012-03-21		8,766,597
P00493USPRO	United States of America	61/550,128	Optimized Bi-directional Balancing Method and System.	Provisional	2011-10-21		
P00494US	United States of America	13/325,959	Primary unit control of resonant inductive power transfer system for optimum efficiency.	Non Provisional	2011-12-14		9,041,254
P00495USPRO	United States of America	61/550,655	Switching Of Conductor Pair In Power Over Ethernet System.	Provisional	2011-10-24		
P00495USRCE	United States of America	13/657,412	Switching Of Conductor Pair In Power Over Ethernet System.	Non Provisional	2012-10-22		9,660,456
P00496US	United States of America	13/323,744	Second Order Intermodulation Canceller.	Non Provisional	2011-12-12		8,483,646
P00497US	United States of America	13/359,447	Isolated Flyback Converter With Efficient Light Load Operation.	Non Provisional	2012-01-26		8,570,772

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P00498US	United States of America	13/418,285	Isolated Flyback Converter With Sleep Mode For Light Load Operation.	Non Provisional	2012-03-12		8,873,254
P00499US	United States of America	13/323,753	Third-Order Intermodulation Cancellation for RF Transconductors.	Non Provisional	2011-12-12		8,373,503
P00500US	United States of America	13/448,161	High Side Current Sense Amplifier.	Non Provisional	2012-04-16		8,648,623
P00501US	United States of America	11/484,433	Radio Oscillator Tuning.	Non Provisional	2006-07-11		7,375,594
P00501USPRO	United States of America	60/698,758	Radio Oscillator Tuning.	Provisional	2005-07-12		
P00503US	United States of America	10/914,056	Diagraph Based Mesh Communication Network	Non Provisional	2004-08-05	US-2006-0029060-A1	8,194,655
P00503USABD	United States of America	11/152,042	Diagraph Based Mesh Communication Network	Non Provisional	2005-06-13		
P00503USC01	United States of America	12/220,493	Diagraph Based Mesh Communication Network	Non Provisional	2008-07-25		7,873,043
P00503USCIP	United States of America	10/960,709	Diagraph Based Mesh Communication Network	Non Provisional	2004-10-06		7,529,217
P00503USP01	United States of America	11/125,529	Diagraph Based Mesh Communication Network	Non Provisional	2005-05-10		7,881,239
P00503USP02	United States of America	11/152,043	Diagraph Based Mesh Communication Network	Non Provisional	2005-06-13		7,420,980
P00503USP03	United States of America	11/152,025	Diagraph Based Mesh Communication Network	Non Provisional	2005-06-23		8,059,629
P00503USP04	United States of America	11/152,026	Diagraph Based Mesh Communication Network	Non Provisional	2005-06-13		7,961,664
P00503USPRO	United States of America	60/557,148	Diagraph Based Mesh Communication Network	Provisional	2004-03-27		
P00507US	United States of America	11/371,317	Application-driven agile networks	Non Provisional	2006-03-07		7,630,326
P00507USPRO	United States of America	60/661,075	Application-Driven Agile Networks.	Provisional	2005-03-11		
P00508US	United States of America	11/651,921	Providing Low Average Latency Communication In Wireless Mesh Networks.	Non Provisional	2007-01-09		7,787,427

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P00509US	United States of America	11/881,822	Providing A Low Latency Backbone In A Wireless Mesh Network.	Non Provisional	2007-07-27		7,742,435
P00510US	United States of America	12/082,242	Timing Calibration For Crystal Oscillators Within A Mesh Network.	Non Provisional	2008-04-09		7,791,419
P00510USPRO	United States of America	60/930,226	Timing Calibration For Crystal Oscillators Within A Mesh Network.	Provisional	2007-05-14		
P00511US	United States of America	12/148,411	Demodulator For A Low Power Radio Receiver.	Non Provisional	2008-04-18		7,898,322
P00512US	United States of America	12/378,773	Localization In A Network.	Non Provisional	2009-02-18		8,102,784
P00512USC01	United States of America	13/330,758	Localization In A Network.	Non Provisional	2011-12-20		8,570,904
P00513US	United States of America	13/763,190	Low Leakage Circuits, Devices, And Techniques.	Non Provisional	2013-02-08		9,160,312
P00513USPRO	United States of America	61/596,892	Low Leakage Circuits, Devices, And Techniques.	Provisional	2012-02-09		
P00514US	United States of America	13/465,722	Low Power Timing, Configuring, and Scheduling.	Non Provisional	2012-05-07		8,943,352
P00514US01	United States of America	15/728,453	Low Power Timing, Configuring, and Scheduling.	Non Provisional	2017-10-09	US 2018/0046242	10,152,111
P00514USD01	United States of America	14/524,844	Low Power Timing, Configuring, and Scheduling.	Non Provisional	2014-10-27	US-2015-0042389-A1	9,785,219
P00514USD02	United States of America	14/526,271	Low Power Timing, Configuring, and Scheduling.	Non Provisional	2014-10-28		9,104,418
P00515US	United States of America	11/973,295	Adaptive timing synchronization for mesh networks	Non Provisional	2007-10-05		8,194,636
P00515USPRO	United States of America	60/849,663	Adaptive Timing Synchronization For Mesh Networks.	Non Provisional	2006-10-05		
P00516USPRO	United States of America	61/130,523	Congestion Control For Wireless Sensor Networks.	Provisional	2008-05-30		
P00516USRCE	United States of America	12/387,454	Congestion Control For Wireless Sensor Networks.	Non Provisional	2009-04-30		8,189,479
P00517US	United States of America	12/877,732	Radio Frequency Modulator.	Non Provisional	2010-09-08		8,222,965

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P00517USPRO	United States of America	61/276,970	Radio Frequency Modulator.	Provisional	2009-09-18		
P00518US	United States of America	13/415,548	Methods and System For Erasing Data Stored in Nonvolatile Memory in Low Power Applications.	Non Provisional	2012-03-08	US-2012-0233384-A1	8,924,633
P00518USPRO	United States of America	61/450,516	Methods and System For Erasing Data Stored in Nonvolatile Memory in Low Power Applications.	Provisional	2011-03-08		
P00519USPRO	United States of America	61/446,374	Electrostatic Discharge Protection For Radio Frequency Circuits.	Provisional	2011-02-14		
P00520USRCE	United States of America	13/483,693	Expanding DC/DC Converter Into Multi-Phase DC/DC Converter.	Non Provisional	2012-05-30		9,077,244
P00521US	United States of America	13/536,596	Current Mode Voltage Regulator With Auto-Compensation.	Non Provisional	2012-06-28		8,786,268
P00522US	United States of America	11/256,652	Self Managing a Low Power Network.	Non Provisional	2005-10-25		8,532,002
P00522USPRO	United States of America	60/634,195	Self Managing a Low Power Network.	Provisional	2004-12-07		
P00523USPRO	United States of America	61/002,415	Source Routing Bandwidth Activation.	Provisional	2007-11-07		
P00523USRCE	United States of America	12/288,342	Source Routing Bandwidth Activation.	Non Provisional	2008-10-17		8,396,022
P00524US	United States of America	11/649,342	Providing Bounded Latency Communication In Wireless Mesh Networks.	Non Provisional	2007-01-03		8,139,554
P00524USPRO	United States of America	60/756,240	Providing Bounded Latency Communication In Wireless Mesh Networks.	Provisional	2006-01-03		
P00525USPRO	United States of America	60/930,600	Time Correction and Distance Measurement in Wireless Mesh Networks.	Provisional	2007-05-16		

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P00525USRCE	United States of America	12/148,412	Time Correction and Distance Measurement in Wireless Mesh Networks.	Non Provisional	2008-04-18		8,325,704
P00526USPRO	United States of America	61/216,601	Determining Path Stability Using Source Routed Packets in Wireless Networks.	Provisional	2009-05-19		
P00526USRCE	United States of America	12/770,571	Determining Path Stability Using Source Routed Packets in Wireless Networks.	Non Provisional	2010-04-29		8,830,847
P00527US	United States of America	12/770,565	Discovery of Neighbors During Wireless Network Joining.	Non Provisional	2010-04-29		8,599,719
P00527USPRO	United States of America	61/268,854	Discovery of Neighbors During Wireless Network Joining.	Provisional	2009-06-16		
P00528USA003	United States of America	12/778,617	Timing Synchronization for Wireless Networks.	Non Provisional	2010-05-12		8,699,406
P00528USC01	United States of America	14/586,692	TIMING SYNCHRONIZATION FOR WIRELESS NETWORKS	Non Provisional	2014-12-30	20150189611	9,955,443
P00528USPRO	United States of America	61/216,202	Timing Synchronization for Wireless Networks.	Provisional	2009-05-13		
P00528USRCE	United States of America	12/778,624	Timing Synchronization for Wireless Networks.	Non Provisional	2009-05-13		8,953,581
P00529US	United States of America	13/552,360	Temperature Compensation for Output Diode in an Isolated Flyback Converter.	Non Provisional	2012-07-18		9,019,727
P00530US	United States of America	13/595,600	Frequency Mixer Topology Providing High Linearity, Low Noise, High Gain.	Non Provisional	2012-08-27		8,558,605
P00531US	United States of America	13/553,092	ANALOG-TO-DIGITAL CONVERTER SYSTEM AND METHOD	Non Provisional	2012-07-19	20130278453	8,810,443
P00531USD01	United States of America	14/162,559	ANALOG-TO-DIGITAL CONVERTER SYSTEM AND METHOD	Non Provisional	2014-01-23	20140132430	9,054,727
P00531USD02	United States of America	14/162,567	ANALOG-TO-DIGITAL CONVERTER	Non Provisional	2014-01-23	20140132431	9,231,611
P00531USD03	United States of America	14/162,572	ANALOG-TO-DIGITAL CONVERTER	Non Provisional	2014-01-23	20140132432	9,331,709

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P00531USPRO	United States of America	61/636,372	Analog-to-Digital Converter System and Method. 9,231,611 and 9,331,709: Analog-to-digital converter	Provisional	2012-04-20		
P00532US	United States of America	13/666,916	Methods and Circuits for Providing Stable Current and Voltage References Based on Currents Flowing Through Ultra-Thin Dielectric Layer Components.	Non Provisional	2012-11-01		8,981,833
P00532USPRO	United States of America	61/555,309	Methods and Circuits for Providing Stable Current and Voltage References Based on Currents Flowing Through Ultra-Thin Dielectric Layer Components.	Provisional	2011-11-03	US-2014-0018028-A1	
P00533US	United States of America	13/550,033	Low Power Radio Receiver.	Non Provisional	2012-07-16	US-2016-0112082-A1	9,246,436
P00533USC01	United States of America	14/981,755	Low Power Radio Receiver.	Non Provisional	2015-12-28		9,595,991
P00534US	United States of America	13/717,377	ANTI-ALIASING SAMPLING CIRCUITS AND ANALOG-TO-DIGITAL CONVERTER	Non Provisional	2012-12-17	20140168000	8,823,572
P00535US	United States of America	13/559,909	Phase-Noise Tolerant Sampling.	Non Provisional	2012-07-27		8,558,728
P00536USRCE	United States of America	13/646,571	System and method for input voltage regulation of switch mode supplies implementing burst mode operation	Non Provisional	2012-10-05	US-2014-0097814-A1	9,246,383
P00537US	United States of America	13/482,760	Current Controlled Fast Low-Side Clamp.	Non Provisional	2012-05-29		8,446,203
P00538US	United States of America	13/734,485	Low Current DC-DC Converter With Integrated Low Current Coulomb Counter.	Non Provisional	2013-01-04	US-2014-0191741-A1	9,134,744
P00539US	United States of America	13/734,581	Method and System For Measuring the Resistance of a Resistive Structure.	Non Provisional	2013-01-04	US-2014-0191768-A1	8,947,101

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P00540US	United States of America	13/645,322	Configurable Serial Interface.	Non Provisional	2012-10-04	US-2014-0101349-A1	8,909,841
P00541US	United States of America	13/710,127	Magnetic Field Cancellation in Switching Regulators.	Non Provisional	2012-12-10		8,823,345
P00541USPRO	United States of America	61/715,947	Magnetic Field Cancellation in Switching Regulators.	Provisional	2012-10-19		
P00542US	United States of America	13/668,943	Polarity Correction Bridge Controller for Combined Power Over Ethernet System.	Non Provisional	2012-11-05		9,026,809
P00543USABD	United States of America	61/714,057	Power Over Data Lines Techniques..	Provisional	2012-10-15		
P00544US	United States of America	13/828,511	ADDRESS TRANSLATION IN 12C DATA COMMUNICATIONS SYSTEM	Non Provisional	2013-03-14	20140281080	9,448,960
P00545US	United States of America	13/862,200	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Non Provisional	2013-04-12	20140097791	9,305,700
P00545USD01	United States of America	14/932,891	Driver for wireless power transmitter sensing required transmit power for optimum efficiency	Non Provisional	2015-11-04	20160072310	9,524,824
P00545USPRO	United States of America	61/709,398	Auto Resonant Driver for Wireless Power Transmitter Sensing Required Transmit Power for Optimum Efficiency.	Provisional	2012-10-04		
P00546USRCE	United States of America	13/656,559	PWM CONTROL FOR LEDs WITH REDUCED FLICKER WHEN USING SPREAD SPECTRUM SWITCHING FREQUENCIES	Non Provisional	2012-10-19	20140111110	10,368,410
P00547USPRO	United States of America	61/727,317	Precision Temperature Measurement Device, Sensors and Methods.	Provisional	2012-11-16		
P00547USRCE	United States of America	14/080,625	Precision Temperature Measurement Device, Sensors and Methods.	Non Provisional	2013-11-14	US-2014-0140364-A1	9,658,118

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P00548USRCE	United States of America	13/866,751	MONITORING OF CHANNEL STABILITY AND INTERFERENCE IN WIRELESS NETWORKS	Non Provisional	2013-04-19	20140313909	
P00548USRCEO 1	United States of America	15/886,754	MONITORING OF CHANNEL STABILITY AND INTERFERENCE IN WIRELESS NETWORKS	Non Provisional	2018-02-01	2018-0160321	
P00549USPRO	United States of America	61/727,408	Feed Forward Current Mode Switching Regulator With Improved Transient Response.	Provisional	2012-11-16		
P00549USRCE	United States of America	13/764,045	FEED FORWARD CURRENT MODE SWITCHING REGULATOR WITH IMPROVED TRANSIENT RESPONSE	Non Provisional	2013-02-11	20140139198	10,013,003
P00550US	United States of America	13/851,250	Power Converter For Generating Both Positive and Negative Output Signals.	Non Provisional	2013-03-27	US-2014-0167715-A1	9,337,731
P00550USPRO	United States of America	61/736,861	Power Converter For Generating Both Positive and Negative Output Signals.	Provisional	2012-12-13		
P00552US	United States of America	13/841,459	Isolated High Voltage Sampling Network.	Non Provisional	2013-03-15		8,907,703
P00553USRCE	United States of America	13/843,572	Method and System For Control of DC-DC Converters.	Non Provisional	2013-03-15	US-2014-0268909-A1	9,564,820
P00554USPRO	United States of America	61/754,452	Voltage Regulator Sleep Control In Dropout Mode.	Provisional	2013-01-18		
P00554USRCE	United States of America	13/922,191	Voltage Regulator Sleep Control In Dropout Mode.	Non Provisional	2013-06-19		9,250,638
P00555US	United States of America	14/092,131	High-Frequency RMS-DC Converter Using Chopper-Stabilized Square Cells.	Non Provisional	2013-11-27	US-2014-0233288-A1	9,330,283
P00555USD01	United States of America	14/854,635	Chopper-Stabilized Square Cells	Non Provisional	2015-09-15	US 2016/0004887 A1	9,639,719
P00555USPRO	United States of America	61/767,628	High-Frequency RMS-DC Converter Using Chopper-Stabilized Square Cells.	Provisional	2013-02-21		
P00556US	United States of America	14/169,084	SYNCHRONIZED CHARGE PUMP-DRIVEN INPUT BUFFER AND METHOD	Non Provisional	2014-01-30	20140240035	9,973,079

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P00556USPRO	United States of America	61/769,684	Synchronized Charge Pump Driven Input Buffer and Method.	Provisional	2013-02-26		
P00557USABD	United States of America	14/169,077	Thermocouple Open-Circuit Detection Circuit and Method.	Non Provisional	2014-01-30	US- 2014-0239970-A1	
P00557USPRO	United States of America	61/769,682	Thermocouple Open-Circuit Detection Circuit and Method.	Provisional	2013-02-26		
P00558USABD	United States of America	14/169,090	Rotating 3-Wire Resistance Temperature Detection Excitation Current Sources and Method.	Non Provisional	2014-01-30	2014/0241400 A1	
P00558USPRO	United States of America	61/770,262	Rotating 3-Wire Resistance Temperature Detection Excitation Current Sources and Method.	Provisional	2013-02-27		
P00559US	United States of America	14/189,652	Poly-Phase Filter With Phase Tuning.	Non Provisional	2014-02-25	US-2014-0312989-A1	9,106,202
P00559USPRO	United States of America	61/813,077	Poly-Phase Filter With Phase Tuning.	Provisional	2013-04-17		
P00560US	United States of America	14/061,479	Balun Mixer Circuits	Non Provisional	2013-10-23	20140312955	8,901,988
P00560USPRO	United States of America	61/813,583	Balun Mixer Circuits	Provisional	2013-04-18		
P00561US	United States of America	13/871,981	Leakage Compensation for Switched Capacitor Integrators.	Non Provisional	2013-04-26		8,841,962
P00561USPRO	United States of America	61/780,727	Leakage Compensation for Switched Capacitor Integrators.	Provisional	2013-03-13		
P00563USPRO	United States of America	61/809,192	Voltage Compensated Active Cell Balancing.	Provisional	2013-04-05		
P00563USRCE	United States of America	14/245,390	Voltage Compensated Active Cell Balancing.	Non Provisional	2014-04-01	US-2014-0306666-2-A1	9,774,206
P00564USPRO	United States of America	61/810,661	Circuit and method for dynamic switching frequency adjustment in a power converter.	Provisional	2013-04-10		
P00564USRCE	United States of America	13/963,880	SYSTEM AND METHOD FOR PROVIDING FAST TRANSIENT RESPONSE WITH DYNAMIC	Non Provisional	2013-08-09	20140306670	9,614,436

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			SWITCHING FREQUENCY ADJUSTMENT				
P00565US	United States of America	14/052,479	Resolution-boostered sigma delta analog-to-digital converter.	Non Provisional	2013-10-11	US-2014-0340248-A1	9,077,374
P00565USPRO	United States of America	61/824,819	Resolution-boostered sigma delta analog-to-digital converter.	Provisional	2013-05-17		
P00566US	United States of America	13/947,860	Power Supply System and Method.	Non Provisional	2013-07-22		9,478,982
	United States of America		Switching Topology For Connecting Two Nodes in Electronic System.				
P00567USRCE	United States of America	14/033,110	Light Load Stability Circuitry for LDO Regulator.	Non Provisional	2013-09-20		8,963,617
P00568US	United States of America	13/946,816	Light Load Stability Circuitry for LDO Regulator.	Non Provisional	2013-07-19		9,069,368
P00568USPRO	United States of America	61/813,472	Light Load Stability Circuitry for LDO Regulator.	Provisional	2013-04-18		
			Voltage Generator With Current Source Compensated For an Error Current Operable Over a Wide Voltage Range.				
P00569USPRO	United States of America	61/813,485	Voltage Generator With Current Source Compensated For an Error Current Operable Over a Wide Voltage Range.	Provisional	2013-04-18		
			Voltage Generator With Current Source Compensated For an Error Current Operable Over a Wide Voltage Range.				
P00569USRCE	United States of America	13/969,865	Voltage Generator With Current Source Compensated For an Error Current Operable Over a Wide Voltage Range.	Non Provisional	2013-08-19		9,348,347
P00570US	United States of America	13/969,893	Linear Regulator IC With Versatile Ground Pin.	Non Provisional	2013-08-19		9,152,158
P00570USPRO	United States of America	61/813,789	Linear Regulator IC With Versatile Ground Pin.	Provisional	2013-04-19		
P00571US	United States of America	14/150,150	Power Over Ethernet On Data Pairs and Spare Pairs.	Non Provisional	2014-01-08		9,209,981
P00571USPRO	United States of America	61/836,399	Power Over Ethernet On Data Pairs and Spare Pairs.	Provisional	2013-06-18		
P00572US	United States of America	14/300,999	Network-accessible account system	Non Provisional	2014-06-10	2015-0357466	10,003,190
P00572US01	United States of America	16/010,283	INRUSH CONTROL WITH MULTIPLE SWITCHES	Non Provisional	2018-06-15	US-2018-0294646	2827160
P00572USPRO	United States of America	61/845,491	Inrush Control Method with Multiple Switches.	Provisional	2013-07-12		

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P00573US	United States of America	14/301,043	Detecting Faults in Hot-Swap Applications.	Non Provisional	2014-06-10	US-2015-0015300-A1	9,671,465
P00573USPRO	United States of America	61/845,502	Detecting Faults in Hot-Swap Applications.	Provisional	2013-07-12		
P00574US	United States of America	14/288,103	PD in POE System Having Redundant PSE Channel Inputs.	Non Provisional	2014-05-27		9,419,807
P00574USPRO	United States of America	61/845,453	PD in POE System Having Redundant PSE Channel Inputs.	Provisional	2013-07-12		
P00575US	United States of America	14/083,195	Interface Circuit For Driving Fully-Differential Circuits.	Non Provisional	2013-11-18		8,878,587
P00575USPRO	United States of America	61/847,697	Interface Circuit For Driving Fully-Differential Circuits.	Provisional	2013-07-18		
P00576US	United States of America	14/148,550	ACCURATE CURRENT SENSING IN H-BRIDGE APPLICATIONS WITHOUT AMPLIFIER HAVING HIGH COMMON MODE REJECTION RATIO	Non Provisional	2014-01-06	20150048770	9,240,718
P00576USPRO	United States of America	61/866,334	Accurate Current Sensing in H-Bridge Applications Without Amplifier Having High Common Mode Rejection Ratio.	Provisional	2013-08-15		
P00577US	United States of America	14/054,576	Rapid Power Up of Power Over Ethernet System.	Non Provisional	2013-10-15		9,377,794
P00578USABD	United States of America	14/054,547	Power Sourcing Equipment Providing Programmable Output Voltage Level To Accommodate Different Types of Powered Devices.	Non Provisional	2013-10-15		
P00579US	United States of America	14/054,516	Power over ethernet power sourcing equipment provides low voltage output for increased efficiency in low power mode.	Non Provisional	2013-10-15		9,535,437
P00580US	United States of America	14/054,488	Powered Device, Using Power Over Ethernet, With Dedicated Low Current and High Current Paths For Loads.	Non Provisional	2013-10-15		9,547,318
P00581US	United States of America	14/054,440	Power Over Ethernet System Where Power Sourcing	Non Provisional	2013-10-15		9,488,997

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			Equipment Detects Actual Voltage At Powered Device.				
P00582US	United States of America	14/501,517	DETECTION AND CLASSIFICATION SCHEME FOR POWER OVER ETHERNET SYSTEM	Non Provisional	2014-09-30	20150091391	9,897,981
P00582US01	United States of America	15/863,571	Detection and Classification Scheme for Power Over Ethernet System	Non Provisional	2018-01-05	2018/0129171	10,261,477
P00582USPRO	United States of America	61/885,195	1. Detection and Classification Scheme for Power Over Ethernet System 2. Voltage Classification and Power-On Method for PoE Mutual Identification.	Provisional	2013-10-01	US-2015-0109161-A1	9,172,364
P00583US	United States of America	14/157,300	Isolated Bootstrapped Switch.	Non Provisional	2014-01-16		
P00583USPRO	United States of America	61/894,764	Isolated Bootstrapped Switch.	Provisional	2013-10-23		
P00584US	United States of America	14/157,316	Bipolar isolated high voltage sampling network	Non Provisional	2014-01-16		8,890,577
P00584USPRO	United States of America	61/897,067	Bipolar Isolated High Voltage Sampling Network.	Provisional	2013-10-29		
P00585US	United States of America	14/160,831	Predictive and Reactive Control Secondary Side Synchronous Rectifiers in Forward Converters.	Non Provisional	2014-01-22	20150207423	9,270,190
P00586US	United States of America	14/486,697	MOSFET protection using resistor-capacitor thermal network.	Non Provisional	2014-09-15		9,634,480
P00586USD01	United States of America	15/088,714	MOSFET protection using resistor-capacitor thermal network.	Non Provisional	2016-04-01		9,634,481
P00586USPRO	United States of America	61/900,832	MOSFET protection using resistor-capacitor thermal network.	Provisional	2013-11-06		

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P00587US	United States of America	14/552,164	Power Over Data Lines Detection and Classification Scheme.	Non Provisional	2014-11-24		9,859,951
P00587USD01	United States of America	15/587,315	POWER OVER DATA LINES SYSTEM PROVIDING A VARIABLE VOLTAGE TO POWERED DEVICE	Non Provisional	2017-05-04	2017/0237574	10,256,867
P00587USD02	United States of America	15/587,324	POWER OVER DATA LINES SYSTEM USING VOLTAGE CLAMP IN PD FOR DETECTION OR CLASSIFICATION	Non Provisional	2017-05-04	20170237575	10,122,413
P00587USPRO	United States of America	61/909,232	Power Over Data Lines Detection and Classification Scheme.	Provisional	2013-11-26		
P00588US	United States of America	14/264,518	Pre-Charging Inductor in Switching Converter To Achieve High PWM Dimming Ratios in LED Drivers.	Non Provisional	2014-04-29		9,072,147
P00588USPRO	United States of America	61/909,685	Pre-Charging Inductor in Switching Converter To Achieve High PWM Dimming Ratios in LED Drivers.	Provisional	2013-11-27		
P00589US	United States of America	14/264,477	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Non Provisional	2014-04-29		8,975,831
P00589USPRO	United States of America	61/909,784	Pre-Charging Inductor in Switching Converter While Delaying PWM Dimming Signal to Achieve High PWM Dimming Ratio in LED Drivers.	Provisional	2013-11-27		
P00590USABD	United States of America	62/089,662	Four Pair Dual Hotswap PSE.	Provisional	2014-12-09		
P00590USpro	United States of America	61/914,004	Four Pair Dual Hotswap PSE.	Provisional	2013-12-10		
P00591USABD	United States of America	61/919,012	Novel Single-Stage Hybrid Pulse Width Modulation Converters	Provisional	2013-12-20		

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			Combined with former P-00592).				
P00592USPRO	United States of America	62/011,670	Transition Timing Control for Switching DC/DC Converter.	Provisional	2014-06-13		
P00592USRCE	United States of America	14/733,932	Transition Timing Control for Switching DC/DC Converter.	Non Provisional	2015-06-08		9,667,264
P00593US	United States of America	14/592,476	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Non Provisional	2015-01-08		9,484,799
P00593USPRO	United States of America	61/928,745	Switched Capacitor DC-DC Converter with Reduced In-Rush Current and Fault Protection.	Provisional	2014-01-17		
P00594US	United States of America	14/199,839	Exponential ROM Table Tuning Using Trim For Frequency Agile Analog Filters.	Non Provisional	2014-03-06	US-2015-0256142-A1	9,306,531
P00596USPRO	United States of America	61/933,674	Class Hysteresis Scheme.	Provisional	2014-01-30		
P00597USABD	United States of America	61/933,683	3-Pair Power Over Ethernet Provisional	Provisional	2014-01-30		
P00598USABD	United States of America	61/933,685	Power Over Ethernet Classification Using Tones.	Provisional	2014-01-30		
P00599USABD	United States of America	61/933,697	Power Over Ethernet – Downstream Midspan Detection.	Provisional	2014-01-30		
P00600US	United States of America	14/607,608	Detection Scheme For Four Wire Pair Power Over Ethernet System.	Non Provisional	2015-01-28		9,634,844
P00600USPRO	United States of America	61/933,707	Detection Scheme For Four Wire Pair Power Over Ethernet System.	Provisional	2014-01-30		
P00601US	United States of America	14/616,192	ARBITRARY PHASE TRAJECTORY FREQUENCY SYNTHESIZER	Non Provisional	2015-02-06	20150229317	9,300,307
P00601USPRO	United States of America	61/937,380	Arbitrary Phase Trajectory Frequency Synthesizer.	Provisional	2014-02-07		
P00602US	United States of America	14/530,358	CANCELLATION OF DISTORTION INDUCED BY ELEVATED OP-AMP BIAS CURRENT	Non Provisional	2014-10-31	20150229277	

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P00602USPRO	United States of America	61/938,875	Cancellation Of Distortion Induced by Elevated OP-AMP Bias Current.	Provisional	2014-02-12		
P00603US	United States of America	14/488,807	BOOTSTRAP SAMPLING CIRCUIT WITH ACCURATELY AVERAGING PRE-CHARGE CIRCUIT	Non Provisional	2014-09-17	2015/0270013	9,287,002
P00603US01	United States of America	15/920,418	Bootstrap Sampling Circuit With Accurately AveragingPre-Charge Circuit.	Non Provisional	2018-03-13		
P00603USABD	United States of America	15/069,553	Bootstrap Sampling Circuit With Accurately Averaging	Non Provisional	2016-03-14		
P00603USPRO	United States of America	61/955,566	Pre-Charge Circuit.	Provisional	2014-03-19		
P00604USPRO	United States of America	61/949,043	Flicker-Free PWM Dimming of LED Drivers with Pseudorandom Spread Spectrum.	Secret Design	2014-03-06		
P00605USPRO	United States of America	61/950,367	High Efficiency Surge Stopper and Power Regulation.	Secret Design	2014-03-10		
P00606USABD	United States of America	61/954,308	PoDL System with Auxiliary Connections for Observing the Voltage and Current of the Single Conductor Pair Connecting a PSE to a PD.	Provisional	2014-03-17		
P00607USABD	United States of America	61/973,548	First Power Source Applied to PD will have Priority over Other Power Sources.	Provisional	2014-04-01		
P00608US	United States of America	14/452,335	BOOST THEN FLOATING BUCK MODE CONVERTER FOR LED DRIVER USING COMMON SWITCH CONTROL SIGNAL	Non Provisional	2014-08-05	20150289325	9,351,352
P00608USPRO	United States of America	61/974,787	Boost Then Floating Buck Mode Converter For Led Driver Using Common Switch Control Signal.	Provisional	2014-04-03		

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P00609US	United States of America	14/332,830	Floating Output Voltage Boost Regulator Driving LEDs Using a Buck Controller.	Non Provisional	2014-07-16		9,078,317
P00609USPRO	United States of America	61/975,369	Floating Output Voltage Boost Regulator Driving LEDs Using a Buck Controller.	Provisional	2014-04-04		
P00610US	United States of America	14/682,054	HARDWARE-BASED LICENSING FOR WIRELESS NETWORKS	Non Provisional	2015-04-08	20150295786	10,033,596
P00610US01	United States of America	16/024,461	SELECTIVE DISABLING OF COMMUNICATION SERVICES PROVIDED BY A WIRELESS NETWORK	Non Provisional	2018-06-29	2018309643	10,469,339
P00610USPRO	United States of America	61/977,486	Hardware-Based Licensing for Wireless Networks.	Provisional	2014-04-09		
P00611US	United States of America	14/681,529	BROADBAND POWER COUPLING/DECOUPLING NETWORK FOR PoDL	Non Provisional	2015-04-08	20150295735	9,780,974
P00611USPRO	United States of America	61/977,299	Broadband Power Decoupling Networks for PoDL.	Provisional	2014-04-09		
P00612USABD	United States of America	61/977,306	PD Detection and Classification Schemes for PoDL.	Provisional	2014-04-09		
P00613US	United States of America	14/669,508	Converting Time-Encoded Signal Into Analog Output.	Non Provisional	2015-03-26	US-2015-0295589-A1	9,374,105
P00613USPRO	United States of America	61/977,351	Converting Time-Encoded Signal Into Analog Output.	Non Provisional	2014-04-09		
P00614US	United States of America	14/472,160	Suppressing Dielectric Absorption Effects in Sample-And-Hold Systems.	Non Provisional	2014-08-28	US-2015-0295588-A1	9,197,235
P00614USPRO	United States of America	61/979,139	Suppressing Dielectric Absorption Effects in Sample-And-Hold Systems.	Provisional	2014-04-14		
P00615US	United States of America	14/531,520	Voltage Regulation of Resonant Power Wireless Receiver.	Non Provisional	2014-11-03	US-2015-0303824-A1	9,825,553
P00615USPRO	United States of America	61/980,891	Voltage Regulation of Resonant Power Wireless Receiver.	Provisional	2014-04-17		
P00616US	United States of America	14/705,849	PSE Controller in PoE System Detects Different PDs on Data Pairs and Spare Pairs.	Non Provisional	2015-05-06		9,667,429

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P00616USPRO	United States of America	61/989,316	PSE Controller in PoE System Detects Different PDs on Data Pairs and Spare Pairs.	Provisional	2014-05-06		
P00617US	United States of America	14/335,696	Trimming gain and CMIMR in difference amplifier.	Non Provisional	2014-07-18		9,337,792
P00618US	United States of America	14/670,031	Low-Voltage Analog Variable Gain Amplifier With Enhanced Linearity.	Non Provisional	2015-03-26		9,391,577
P00618USPRO	United States of America	61/989,908	Low-Voltage Analog Variable Gain Amplifier With Enhanced Linearity.	Provisional	2014-05-07		
P00619US	United States of America	14/714,155	Radio Receiver.	Non Provisional	2015-05-15		9,496,840
P00619USPRO	United States of America	61/994,671	Radio Receiver.	Provisional	2014-05-16		
P00620US	United States of America	14/336,653	Transconductance (gm) boosting transistor arrangement.	Non Provisional	2014-07-21		9,571,052
P00621US	United States of America	14/712,539	Configuring Signal-Progressing Systems.	Non Provisional	2015-05-14	US-2016-0332785-A1	9,472,304
P00621USPRO	United States of America	61/994,537	Configuring Signal-Progressing Systems.	Provisional	2014-05-16		
P00622US	United States of America	14/477,534	Linear Broadband PNP Amplifier.	Non Provisional	2014-09-04		9,236,840
P00623US	United States of America	14/712,855	PoDL SYSTEM WITH ACTIVE dV/dt and dI/dt CONTROL	Non Provisional	2015-05-14	20150333935	9,853,838
P00623USPRO	United States of America	61/993,526	PoDL System With Active dV/dt and dI/dt Control.	Provisional	2014-05-15		
P00624US	United States of America	14/632,692	Broadband Integrated RF/Microwave/Millimeter Mixer with Integrated Balun(s)	Non Provisional	2015-02-26	20150341014	9,312,815
P00624USPRO	United States of America	62/002,473	Broadband Integrated RF/Microwave/Millimeter Mixer with Integrated Balun(s).	Provisional	2014-05-23		
P00625USABD	United States of America	62/003,361	Self Adjusting Maximum (Safe) Power Limiting Circuit.	Provisional	2014-05-27		
P00626USABD	United States of America	62/003,371	4-Pair Classification Techniques	Provisional	2014-05-27		

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P00627USABD	United States of America	62/009,827	Methods and Circuits to Multiplex a High-Side Current Sense Amplifier.	Provisional	2014-06-09		
P00628US	United States of America	14/706,527	Class AB Inverting Driver for PNP Bipolar Transistor LDO Regulator.	Non Provisional	2015-05-07		9,632,519
P00628USPRO	United States of America	62/013,428	Class AB Inverting Driver for PNP Bipolar Transistor LDO Regulator.	Provisional	2014-06-17		
P00629US	United States of America	14/706,555	LDO Regulator Powered by Its Regulated Output Voltage For High PSRR.	Non Provisional	2015-05-07		9,454,168
P00629USPRO	United States of America	62/012,661	LDO Regulator Powered by Its Regulated Output Voltage For High PSRR.	Provisional	2014-06-16		
P00630USABD	United States of America	62/012,034	Scheme for Detecting and Classifying an Ethernet PD Using the PD's Regulated Voltage.	Provisional	2014-06-13		
P00631USABD	United States of America	62/013,946	Scheme for Detecting and Classifying an Ethernet PD Using the PD's Regulated Voltage.	Provisional	2014-06-18		
P00632US	United States of America	14/610,597	Level-Shifting Amplifier.	Non Provisional	2015-01-30		9,374,050
P00632USPRO	United States of America	62/022,102	Level-Shifting Amplifier.	Provisional	2014-07-08		
P00634USPRO	United States of America	62/030,486	System and Method for Clock Generation With an Output Fractional Frequency Divider.	Provisional	2014-07-29		
P00634USRCE	United States of America	14/660,711	System and Method for Clock Generation With an Output Fractional Frequency Divider.	Non Provisional	2015-03-17	US-2016-0036455-A1	9,698,800
P00635USD01	United States of America	15/154,489	Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Non Provisional	2016-05-13	US-2016-0260652-A1	9,691,681
P00635USPRO	United States of America	62/032,347	Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Provisional	2014-08-01		

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P00635USRCE	United States of America	14/630,239	Exposed, Solderable Heat Spreader for Integrated Circuit Packages.	Non Provisional	2015-02-24		9,431,319
P00636US	United States of America	14/831,632	1-WIRE BUS PD DETECTION AND CLASSIFICATION SCHEME FOR ETHERNET PoDL	Non Provisional	2015-08-20	20160054777	9,851,772
P00636USPRO	United States of America	62/040,592	1-Wire Bus PD Detection and Classification Scheme for Ethernet PoDL.	Provisional	2014-08-22		
P00637US	United States of America	14/669,863	Notch Filter for Ripple Reduction.	Non Provisional	2015-03-26		9,685,933
P00637US01	United States of America	16/043,486	NOTCH FILTER FOR RIPPLE REDUCTION	Non Provisional	2018-07-24		
P00637USPRO	United States of America	62/041,388	Notch Filter for Ripple Reduction.	Provisional	2014-08-25		
P00638US	United States of America	14/638,868	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Non Provisional	2015-03-04		9,178,427
P00638USPRO	United States of America	62/042,094	Floating output voltage boost-buck regulator using a buck controller with low input and low output ripple.	Provisional	2014-08-26		
P00639USABD	United States of America	62/043,171	Ethernet PoDL Overcurrent and dI/dt Protection Scheme.	Provisional	2014-08-28		
P00640US	United States of America	14/593,813	High Voltage Maximum Voltage Selector Circuit With no Quiescent Current. SEE REMARKS FOR OTHER TITLE	Non Provisional	2015-01-09		9,306,552
P00640USC01	United States of America	15/019,394	High Voltage Maximum Voltage Selector Circuit With no Quiescent Current. SEE REMARKS FOR OTHER TITLE	Non Provisional	2016-02-09	US-2016-0156341-A1	9,685,938
P00640USPRO	United States of America	62/047,432	High Voltage Maximum Voltage Selector Circuit With no Quiescent Current. SEE REMARKS FOR OTHER TITLE	Provisional	2014-09-08		

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P006441US	United States of America	14/835,549	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Non Provisional	2015-08-25		9,467,303
P006441USPRO	United States of America	62/056,240	Controller Area Network BUS Transmitter with Complementary Source Follower Driver.	Provisional	2014-09-26		
P00642US	United States of America	14/677,794	DCR Inductor Current-Sensing in Four-Switch Buck-Boost Converters.	Non Provisional	2015-04-28	US-2016-0087531-A1	9,748,843
P00642USD01	United States of America	15/654,568	DCR Inductor Current-Sensing in Four-Switch Buck-Boost Converters.	Non Provisional	2017-07-19	US-2017-0324331-A1	10,084,381
P00642USPRO	United States of America	62/054,587	DCR Inductor Current-Sensing in Four-Switch Buck-Boost Converters.	Provisional	2014-09-24		
P00643USABD	United States of America	62/054,594	Fast Transient Response with Dynamic Offset Adjustment for Current-Mode-Controlled Power Converter.	Provisional	2014-09-24		
P00644US	United States of America	14/945,260	DETECTING GROUND ISOLATION FAULT IN ETHERNET PoDL SYSTEM	Non Provisional	2015-11-18	20160142217	9,967,104
P00644USPRO	United States of America	62/081,724	Detecting Ground Isolation Fault in Ethernet PoDL System (PoDL).	Provisional	2014-11-20		
P00645US	United States of America	14/574,893	System and method for providing programmable synchronous output delay in a clock generation or distribution device.	Non Provisional	2014-12-18		9,397,668
P00646USABD	United States of America	14/630,302	Exposed, Solderable Heat Spreader For Flipchip Package.	Non Provisional	2015-02-24		
P00646USD01	United States of America	15/167,345	Exposed, Solderable Heat Spreader For Flipchip Package.	Non Provisional	2016-05-27	2017-0345744	
P00646USPRO	United States of America	62/032,347	Exposed, Solderable Heat Spreader For Flipchip Package.	Provisional	2014-08-01		

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P00647US	United States of America	14/660,739	PEAK-BUCK PEAK-BOOST CURRENT-MODE CONTROL FOR SWITCHED STEP-UP STEP-DOWN REGULATORS	Non Provisional	2015-03-17	20160164411	
P00647USPRO	United States of America	62/088,433	Peak-Buck Peak-Boost Current Mode Control for Switched Step-Up Step-Down Regulators.	Provisional	2014-12-05		
P00648US	United States of America	14/956,308	CIRCUIT ARCHITECTURES FOR PROTECTING AGAINST PoDL WIRE FAULTS	Non Provisional	2015-12-01	20160156173	10,090,666
P00648USPRO	United States of America	62/086,008	Circuit Architectures for Protecting Against PoDL.	Provisional	2014-12-01		
P00649USABD	United States of America	62/087,094	Novel Current Sensing Methods for Power Converters.	Provisional	2014-12-03		
P00650US	United States of America	14/869,114	SPREAD SPECTRUM FOR SWITCH MODE POWER SUPPLIES	Non Provisional	2015-09-29	20160276839	
P00650USPRO	United States of America	62/135,553	Spread Spectrum For Switch Mode Power Supplies.	Provisional	2015-03-19		
P00651USPRO	United States of America	62/120,711	Distortion Compensation Circuit.	Provisional	2015-02-25		
P00651USPRO2	United States of America	62/134,389	Distortion Compensation Circuit.	Provisional	2015-03-17		
P00651USRCE	United States of America	14/806,492	Distortion Compensation Circuit.	Non Provisional	2015-07-22	US2016-0248617A1	9,660,856
P00652US	United States of America	14/806,478	Phase Error Compensation Circuit.	Non Provisional	2015-07-22	US2016-0301388A1	9,479,142
P00652USPRO	United States of America	62/120,717	Phase Error Compensation Circuit.	Provisional	2015-02-25		
P00653US	United States of America	15/048,511	Control Architecture With Improved Transient Response.	Non Provisional	2016-02-19	US-2016-0248327-A1	9,627,976
P00653USC01	United States of America	15/463,200	CONTROL ARCHITECTURE WITH IMPROVED TRANSIENT RESPONSE	Non Provisional	2017-03-20	20170194863	10,135,336
P00653USPRO	United States of America	62/119,078	Control Architecture With Improved Transient Response.	Provisional	2015-02-20		
P00654US	United States of America	15/048,591	Fast Transient Power Supply With a Separated Higher	Non Provisional	2016-02-19	US-2016-0248328-A1	9,831,781

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			Frequency Current and Low Frequency Path Signal.				
P00654USPRO	United States of America	62/119,042	Fast Transient Power Supply With a Separated Higher Frequency Current and Low Frequency Path Signal.	Provisional	2015-02-20		
P00655US	United States of America	14/755,336	Inductor current sensing in a buck converter using multiple filters.	Non Provisional	2015-06-30		9,525,351
P00655USPRO	United States of America	62/119,652	Inductor current sensing in a buck converter using multiple filters.	Provisional	2015-02-23		
P00656US	United States of America	14/805,757	INPUT CURRENT CONDITIONER FOR PRECISION COULOMB COUNTING	Non Provisional	2015-07-22	20160259009	9,846,196
P00656USPRO	United States of America	62/126,833	Input Current Conditioner for Precision Coulomb Counting.	Provisional	2015-03-02		
P00657US	United States of America	15/061,715	ACCURATELY DETECTING LOW CURRENT THRESHOLD	Non Provisional	2016-03-04	20160261255	
P00657USPRO	United States of America	62/128,877	Accurately Detecting Low Current Threshold.	Provisional	2015-03-05		
P00658USPRO	United States of America	62/126,421	Control Architecture with Improved Transient Response.	Provisional	2015-02-27		
P00659USPRO	United States of America	62/126,418	Fast Transient Power Supply With a First Control Signal for a Higher Frequency Current and a Second Control Signal for a Lower Frequency Current.	Provisional	2015-02-27		
P00660USPRO	United States of America	62/140,080	Multiplexed dynamic read fuse cell.	Provisional	2015-03-30		
P00661USPRO	United States of America	62/141,637	Scheme for Auxiliary Signaling Between Sleeping Single Wire Pair Ethernet PHYs in the Absence of PoDL.	Provisional	2015-04-01		
P00662USABD	United States of America	62/158,902	Circuit Architectures for Minimizing PoDL Coupling Inductor Core Flux.	Provisional	2015-05-08		

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P00663US	United States of America	15/134,117	SYSTEM WITH SLEEP AND WAKE UP CONTROL OVER DC PATH	Non Provisional	2016-04-20	20160337138	9,860,072
P00663USPRO	United States of America	62/160,369	System With Sleep and Wake up Control Over DC Path.	Provisional	2015-05-12		
P00664US	United States of America	15/160,502	Blink Mode Sensor Node Operation for Wireless Networks.	Non Provisional	2016-05-20	US20160345317	
P00664USPRO	United States of America	62/165,873	Blink Mode Sensor Node Operation for Wireless Networks.	Provisional	2015-05-22		
P00665US	United States of America	15/147,834	Maintaining LED driver operating point during PWM off times.	Non Provisional	2016-05-05	20160353537	9,642,200
P00665USPRO	United States of America	62/168,156	Maintaining LED driver operating point during PWM off times.	Provisional	2015-05-29		
P00666US	United States of America	15/147,842	Maintaining output capacitance voltage in LED driver systems during PWM off times.	Non Provisional	2016-05-05	US2016-0353532-A1	9,596,728
P00666USPRO	United States of America	62/168,234	Maintaining output capacitance voltage in LED driver systems during PWM off times.	Provisional	2015-05-29		
P00667US	United States of America	15/243,335	MULTIPLE ACCESS POINT WIRELESS MESH NETWORK	Non Provisional	2016-08-22	20170055236	
P00667USPRO	United States of America	62/208,196	Multiple Access Point Wireless Mesh Network.	Provisional	2015-08-21		
P00668US01	United States of America	15/672,171	Multiple Temperature Testing of Non-Volatile Memory Data Retention Time.	Non Provisional	2017-08-08	2018-0040384	
P00668USPRO	United States of America	62/207,841	Method for Production Testing of Non-Volatile Memory Data Retention Time.	Provisional	2015-08-20		
P00668USPRO2	United States of America	62/372,103	Method for Production Testing of Non-Volatile Memory Data Retention Time.	Provisional	2016-08-08		
P00669US	United States of America	15/176,022	Adaptive In-Rush Current Control for Minimizing MOSFET	Non Provisional	2016-06-07	2017/0063076	10,263,414

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			Peak Temperature Upon Voltage Step				
P00669USPRO	United States of America	62/212,202	Adaptive In-Rush Current Control for Minimizing MOSFET Peak Temperature Upon Voltage Step	Provisional	2015-08-31		
P00670USPRO	United States of America	62/219,873	Low Jitter and Short On-Time Peak Current Mode Controller.	Secret Design	2015-09-17		
P00671US	United States of America	15/175,974	CIRCUIT AND ARRANGEMENT FOR 3-WIRE MEASUREMENTS WITH INPUT PROTECTION	Non Provisional	2016-06-07	2017/0102272	10,024,728
P00671USPRO	United States of America	62/239,632	Circuit and Arrangement for 3-wire Measurements With Input Protection.	Provisional	2015-10-09		
P00672US	United States of America	15/236,365	ACTIVE DIFFERENTIAL RESISTORS WITH REDUCED NOISE	Non Provisional	2016-08-12	2017/0141773	9,866,245
P00672US01	United States of America	15/834,047	ACTIVE DIFFERENTIAL RESISTORS WITH REDUCED NOISE	Non Provisional	2017-12-06	2018/0102800	10,218,394
P00672USPRO	United States of America	62/257,058	Active Resistor With Reduced Noise.	Provisional	2015-11-18		
P00673USPRO	United States of America	62/248,700	SRAM Retention Current Reduction.	Secret Design	2015-10-30		
P00674USPRO	United States of America	62/247,657	Low Power Oscillator.	Secret Design	2015-10-28		
P00675US	United States of America	15/208,482	System and Method for Synchronization Among Multiple PLL-Based Clock Signals.	Non Provisional	2016-07-12		9,811,113
P00675USPRO	United States of America	62/254,037	System and Method for Synchronization Among Multiple PLL-Based Clock Signals.	Provisional	2015-11-11		
P00676USABD	United States of America	62/249,751	Hierarchical Serial Interface.	Provisional	2015-11-02		
P00677US	United States of America	15/158,339	Double Balanced Field-Effect Transistor Mixer With Direct	Non Provisional	2016-05-18	US 2017/0141730	9,774,297

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			Single-Ended Intermediate Frequency Output.				
P00677USPRO	United States of America	62/255,043	Double Balanced Field-Effect Transistor Mixer With Direct Single-Ended Intermediate Frequency Output.	Provisional	2015-11-13		
P00678US	United States of America	15/153,222	RIPPLE MONITORING	Non Provisional	2016-05-12	20170153296	
P00678USPRO	United States of America	62/261,032	Ripple Monitoring.	Provisional	2015-11-30		
			Fast Transient Power Supply With a Separated High Frequency and Low Frequency Path Signals.				
P00679USPRO	United States of America	62/280,878	FAST TRANSIENT SUPPLY WITH A SEPARATED HIGH FREQUENCY AND LOW FREQUENCY PATH SIGNALS	Provisional	2016-01-20		
P00680US	United States of America	15/407,749	POWER INTERFACE SYSTEM FOR REDUCING POWER VARIATIONS IN AN OUTPUT POWER OF SWITCHING REGULATORS	Non Provisional	2017-01-17	20170207723	10,033,301
P00680US01	United States of America	16/043,062	Control Architecture With Improved Transient Response	Non Provisional	2018-07-23	2018351473	
P00680USPRO	United States of America	62/280,897	High Efficiency Charge Pump with Auxiliary Input to Optimize Conversion Ratio.	Provisional	2016-01-20		
P00681US	United States of America	15/432,621	High Efficiency Charge Pump with Auxiliary Input to Optimize Conversion Ratio.	Non Provisional	2017-02-14	US2017279349	
P00681USPRO	United States of America	62/312,889	ENERGY STORAGE DEVICE STACK BALANCING USING SWITCHED INDUCTOR BACKGROUND	Provisional	2016-03-24		
P00682US	United States of America	15/135,359	Externally Mounted Active and Passive Components on Molded and Unmolded Packages For	Non Provisional	2016-04-21	2017/0310127	10,177,580
P00683US01	United States of America	15/495,405		Non Provisional	2017-04-24	2017-0311447	

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			High Current Connections and High Thermal Heat Dissipation.				
P00683US02	United States of America	16/095,276	MECHANICALLY-COMPLIANT AND ELECTRICALLY AND THERMALLY CONDUCTIVE LEADFRAMES FOR COMPONENT-ON-PACKAGE CIRCUITS	Non Provisional	2017-04-11	US 2019-0141834	
			Externally Mounted Active and Passive Components on Molded and Unmolded Packages For High Current Connections and High Thermal Heat Dissipation.	Provisional	2016-04-26		
P00683USPRO	United States of America	62/327,875	Switchable Termination with Multiple Resistance Selections.	Non Provisional	2017-04-21	2017-0310306	9,960,752
P00684US	United States of America	15/493,495	Switchable Termination with Multiple Resistance Selections.	Provisional	2016-04-22		
P00684USPRO	United States of America	62/326,334	Multi-phase Switching Power Supply with Robust Current Sensing and Shared Amplifier.	Non Provisional	2017-04-04		9,793,800
P00685US	United States of America	15/479,162	Robust Current Sensing with Shared Amplifier for Multi-phase Switching Converter.	Provisional	2016-04-15		
P00685USPRO	United States of America	62/323,490	Power over Data Lines System with Redundant Power Connections	Non Provisional	2017-04-04		10,313,139
P00686US	United States of America	15/479,187	Power over Data Lines (PoDL) Architectures with Redundant Power Connections.	Provisional	2016-04-20		
P00686USPRO	United States of America	62/325,364	Inverting Amplifier Receiving Negative Feedback Voltage in Voltage Regulator	Non Provisional	2017-05-11		9,977,446
P00687US	United States of America	15/593,266	Inverting Amplifier Receiving Negative Feedback Voltage in Voltage Regulator	Provisional	2016-05-18		
P00687USPRO	United States of America	62/338,422	Maintain Power Signature Controller at Power Interface of PoE or PoDL System	Non Provisional	2017-04-28	2017/0338969	10,263,794
P00688US	United States of America	15/582,445					

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P00688USPRO	United States of America	62/338,963	Method for Monitoring Bridge Circuitry and Presenting Maintain Power Signature.	Provisional	2016-05-19		
P00689US	United States of America	15/611,003	Transformer-Based Hybrid Power Converters.	Non Provisional	2017-06-01	20170353116	10,284,099
P00689USPRO	United States of America	62/346,881	Transformer-Based Hybrid Power Converters.	Provisional	2016-06-07		
P00690US	United States of America	15/199,693	CONTROL ARCHITECTURE WITH IMPROVED TRANSIENT RESPONSE	Non Provisional	2016-06-30	20170207721	10,050,559
P00691US	United States of America	16/312,125	Wireless Sensing and Battery Storage System.	Non Provisional	2018-12-20	US 2019-0242949	
P00691USPRO	United States of America	62/355,733	Wireless Sensing and Battery Storage System.	Provisional	2016-06-28		
P00692US	United States of America	15/465,339	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	US-2018-0019665-A1	9,998,000
P00692US01	United States of America	16/005,594	Balancing Charge Pump Circuits	Non Provisional	2018-06-11	20180294717	
P00692USC01	United States of America	15/465,504	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	US20180019666	10,447,152
P00692USP01	United States of America	15/465,487	Balancing Charge Pump Circuits	Non Provisional	2017-03-21	US20180019669	10,468,978
P00692USPRO	United States of America	62/363,025	Balancing Charge Pump Circuits	Provisional	2016-07-15		
P00693USABD	United States of America	62/366,287	Planar Transformer with Open Magnetic Path	Provisional	2016-07-25		
P00694US	United States of America	15/653,058	COMMUNICATIONS SYSTEM USING HYBRID COMMON MODE CHOKE AND KELVIN SENSING OF VOLTAGE	Non Provisional	2017-07-18	US-2018-0024620-A1	10,444,823
P00694USPRO	United States of America	62/366,308	Technique for Kelvin Sensing Connector Voltage in One-Pair Data PoDL Applications	Provisional	2016-07-25		
P00695US01	United States of America	15/723,631	Fault-Tolerant Power Network	Non Provisional	2017-10-03	2018115191	
P00695USPRO	United States of America	62/411,431	Fault-Tolerant Power Node	Provisional	2016-10-21		

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P00696US	United States of America	15/445,926	METHODS AND SYSTEMS OF REDUCING CHARGE PUMP SUBSTRATE NOISE	Non Provisional	2017-02-28	US 2018/0248476 A1	
P00697US	United States of America	15/446,702	Analog to Digital Conversion Yielding Exponential Results.	Non Provisional	2017-03-01		9,859,909
P00701US	United States of America	15/422,373	Adaptive Slope Compensation for Current Mode Switching Power Supply.	Non Provisional	2017-02-01		9,899,921
P00702US01	United States of America	15/590,305	Predictive Ripple-Cancelling Signal Into Error Amplifier of Switch Mode Power Supply.	Non Provisional	2017-05-09		9,966,832
P00702US02	United States of America	15/970,569	Predictive Ripple-Cancelling Signal Into Error Amplifier of Switch Mode Power Supply	Non Provisional	2018-05-03	2018/0331618	10,270,330
P00704US	United States of America	15/473,533	Trans-impedance Amplifier with Fast Overdrive Recovery	Non Provisional	2017-03-29	US20180284272	
P00705US	United States of America	15/465,562	Unity Gain Buffer With Two States	Non Provisional	2017-03-21	US20180275250	
P00706US	United States of America	15/653,170	Communication System Using Hybrid Common Mode Choke and Kelvin Sensing of Voltage.	Non Provisional	2017-07-18	US-2018-0026525-A1	10,382,005
P00706USPRO	United States of America	62/458,522	Communication System Using Hybrid Common Mode Choke and Kelvin Sensing of Voltage.	Provisional	2017-02-13		
P00707US01	United States of America	15/908,418	COMMON MODE NOISE ATTENUATION TECHNIQUES FOR TWISTED WIRE PAIR	Non Provisional	2018-02-28	20180254931	10,404,502
P00707USPRO	United States of America	62/465,737	Common Mode Choke and Differential Mode Choke Combination for Data Transmission over Twisted Pair Cable	Provisional	2017-03-01		
P00708USPRO	United States of America	62/465,745	One-Pair Ethernet with Power over Data Lines (PoDL) for Coaxial Cables.	Provisional	2017-03-01		
P00709USPRO	United States of America	62/467,036	Circuit Techniques for Enhancing Common Mode Choke Performance of	Provisional	2017-03-03		

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			Balanced, Twisted-Pair Cable PHYS				
P00710USP01	United States of America	15/585,399	CURRENT MODE SWITCHING REGULATOR AND OPERATING METHOD WITH OFFSET CIRCUITRY TO EMULATE A TRANSIENT LOAD STEP RESPONSE	Non Provisional	2017-05-03	20170237345	
P00712US01	United States of America	15/963,055	DISJOINT SECURITY IN WIRELESS NETWORKS WITH MULTIPLE MANAGERS OR	Non Provisional	2018-04-25	US20180317089	
P00712USPRO	United States of America	62/492,640	Disjoint Manager Security for Wireless Networks.	Provisional	2017-05-01		
P00713US01	United States of America	15/963,987	FAST JOINING IN WIRELESS MESH NETWORKS WITH PREDETERMINED PHYSICAL TOPOLOGIES	Non Provisional	2018-04-26	US20180316558	
P00713USPRO	United States of America	62/492,636	Fixed Topology Schedules for Fast Joining in Time- Synchronized Channel-Hopping Wireless Networks.	Provisional	2017-05-01		
P00755US01	United States of America	62/688,328	REVERSE CAPACITOR VOLTAGE BALANCING FOR HIGH CURRENT HIGH VOLTAGE CHARGE PUMP CIRCUITS	Provisional	2018-06-21		
P00755US02	United States of America	16/132,065	REVERSE CAPACITOR VOLTAGE BALANCING FOR HIGH CURRENT HIGH VOLTAGE CHARGE PUMP CIRCUITS	Non Provisional	2018-09-14		10,340,794

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