PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
Lineage Power Corporation	11/21/2008

RECEIVING PARTY DATA

Name:	Wells Fargo Foothill, LLC, as Agent
Street Address:	2450 Colorado Avenue, Suite 3000 West
City:	Santa Monica
State/Country:	CALIFORNIA
Postal Code:	90404

PROPERTY NUMBERS Total: 217

Property Type	Number
Patent Number:	RE37738
Patent Number:	RE37592
Patent Number:	RE37221
Patent Number:	RE37182
Patent Number:	RE36571
Patent Number:	7432692
Patent Number:	7432688
Patent Number:	7372711
Patent Number:	7324331
Patent Number:	7310233
Patent Number:	7304862
Patent Number:	7271695
Patent Number:	7270176
Patent Number:	7257881
Patent Number:	7256984

OP $8680.00 RE37738

Patent Number:	7221140
Patent Number:	7196919
Patent Number:	7189047
Patent Number:	7187531
Patent Number:	7180397
Patent Number:	7129677
Patent Number:	7095638
Patent Number:	7082043
Patent Number:	7012413
Patent Number:	7009849
Patent Number:	6965260
Patent Number:	6936372
Patent Number:	6927667
Patent Number:	6882548
Patent Number:	6875054
Patent Number:	6822882
Patent Number:	6781497
Patent Number:	6760633
Patent Number:	6727794
Patent Number:	6711859
Patent Number:	6693812
Patent Number:	6693811
Patent Number:	6676424
Patent Number:	6646895
Patent Number:	6643122
Patent Number:	6606258
Patent Number:	6597271
Patent Number:	6519538
Patent Number:	6519166
Patent Number:	6515459
Patent Number:	6496396
Patent Number:	6473304
Patent Number:	6445597
Patent Number:	6438008
Patent Number:	6438007

Patent Number:	6437547
Patent Number:	6436570
Patent Number:	6414582
Patent Number:	6411911
Patent Number:	6401946
Patent Number:	6400580
Patent Number:	6396725
Patent Number:	6388429
Patent Number:	6377476
Patent Number:	6377150
Patent Number:	6362517
Patent Number:	6359784
Patent Number:	6351396
Patent Number:	6342778
Patent Number:	6320762
Patent Number:	6320749
Patent Number:	6317341
Patent Number:	6317324
Patent Number:	6312978
Patent Number:	6310301
Patent Number:	6302781
Patent Number:	6288920
Patent Number:	6276952
Patent Number:	6264093
Patent Number:	6262893
Patent Number:	6262649
Patent Number:	6259239
Patent Number:	6249447
Patent Number:	6239993
Patent Number:	6239683
Patent Number:	6205029
Patent Number:	6201719
Patent Number:	6201699
Patent Number:	6194880
Patent Number:	6191964

Patent Number:	6191960
Patent Number:	6191569
Patent Number:	6191564
Patent Number:	6191559
Patent Number:	6189203
Patent Number:	6181577
Patent Number:	6181561
Patent Number:	6178098
Patent Number:	6175500
Patent Number:	6169671
Patent Number:	6169649
Patent Number:	6163470
Patent Number:	6163466
Patent Number:	6163266
Patent Number:	6160699
Patent Number:	6160379
Patent Number:	6144557
Patent Number:	6141231
Patent Number:	6138344
Patent Number:	6137292
Patent Number:	6134122
Patent Number:	6130830
Patent Number:	6130828
Patent Number:	6130529
Patent Number:	6128817
Patent Number:	6124701
Patent Number:	6107778
Patent Number:	6104623
Patent Number:	6104584
Patent Number:	6101111
Patent Number:	6094123
Patent Number:	6094087
Patent Number:	6091616
Patent Number:	6091610
Patent Number:	6083772

Patent Number:	6078511
Patent Number:	6075716
Patent Number:	6069807
Patent Number:	6069799
Patent Number:	6060867
Patent Number:	6058026
Patent Number:	6055164
Patent Number:	6049459
Patent Number:	6038154
Patent Number:	6038145
Patent Number:	6034513
Patent Number:	6011703
Patent Number:	6005773
Patent Number:	5969503
Patent Number:	5956245
Patent Number:	5943224
Patent Number:	5940287
Patent Number:	5926383
Patent Number:	5926373
Patent Number:	5920475
Patent Number:	5917312
Patent Number:	5914588
Patent Number:	5912810
Patent Number:	5903448
Patent Number:	5894415
Patent Number:	5877611
Patent Number:	5874826
Patent Number:	5872705
Patent Number:	5872403
Patent Number:	5870299
Patent Number:	5870291
Patent Number:	5861734
Patent Number:	5847949
Patent Number:	5847548
Patent Number:	5844790

Patent Number:	5844787
Patent Number:	5838552
Patent Number:	5835350
Patent Number:	5831846
Patent Number:	5822199
Patent Number:	5822198
Patent Number:	5821643
Patent Number:	5777866
Patent Number:	5764037
Patent Number:	5742491
Patent Number:	5740023
Patent Number:	5731692
Patent Number:	5703471
Patent Number:	5691891
Patent Number:	5689410
Patent Number:	5687070
Patent Number:	5663876
Patent Number:	5648896
Patent Number:	5646816
Patent Number:	5646463
Patent Number:	5646462
Patent Number:	5635867
Patent Number:	5625541
Patent Number:	5590032
Patent Number:	5588848
Patent Number:	5550458
Patent Number:	5541828
Patent Number:	5528482
Patent Number:	5481219
Patent Number:	5457620
Patent Number:	5375036
Patent Number:	5363289
Patent Number:	5349743
Patent Number:	5303138
Patent Number:	5274543

Patent Number:	5214370
Patent Number:	5036452
Patent Number:	4903182
Patent Number:	4849874
Patent Number:	4814962
Patent Number:	D410912
Patent Number:	D407697
Patent Number:	D390572
Application Number:	12058437
Application Number:	11775760
Application Number:	11751774
Application Number:	11566536
Application Number:	11532432
Application Number:	11460027
Application Number:	11452557
Application Number:	11315545
Application Number:	11299573
Application Number:	11147730
Application Number:	11109510
Application Number:	11089780
Application Number:	11079841
Application Number:	10202418
Application Number:	11954604
Application Number:	12212626
Application Number:	12257363
Application Number:	12250610
Application Number:	10853456

CORRESPONDENCE DATA

Fax Number: (312)863-7865

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 312-201-3865

Email: sharon.patterson@goldbergkohn.com

Correspondent Name: Sharon Patterson

Address Line 1: c/o Goldberg Kohn, 55 E. Monroe St.

Address Line 2: Suite 3300

Address Line 4: Chicago, ILLINOIS 60603

ATTORNEY DOCKET NUMBER:	1989.187
NAME OF SUBMITTER:	Sharon Patterson

Total Attachments: 17
source=lineage patent#page1.tif
source=lineage patent#page2.tif
source=lineage patent#page3.tif
source=lineage patent#page4.tif
source=lineage patent#page5.tif
source=lineage patent#page6.tif
source=lineage patent#page7.tif
source=lineage patent#page8.tif
source=lineage patent#page9.tif
source=lineage patent#page10.tif
source=lineage patent#page11.tif
source=lineage patent#page12.tif
source=lineage patent#page13.tif
source=lineage patent#page14.tif
source=lineage patent#page15.tif
source=lineage patent#page16.tif
source=lineage patent#page17.tif

PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this "Patent Security Agreement") is made this 21st day of November, 2008, among the Grantors listed on the signature pages hereof (collectively, jointly and severally, "Grantors" and each individually "Grantor"), and WELLS FARGO FOOTHILL, LLC, in its capacity as administrative agent for the Lender Group and the Bank Product Providers (together with its successors, "Agent").

W I T N E S S E T H:

WHEREAS, pursuant to that certain Credit Agreement dated as of November 21, 2008 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement") among LINEAGE POWER HOLDINGS, INC., as the parent, LINEAGE POWER CORPORATION, as a borrower ("Lineage"), CHEROKEE INTERNATIONAL CORPORATION, as a borrower ("Cherokee"; together with Lineage, each a "Borrower" and collectively the "Borrowers"), the lenders party thereto as "Lenders" ("Lenders"), and Agent, the Lender Group is willing to make certain financial accommodations available to the Borrowers pursuant to the terms and conditions thereof; and

WHEREAS, the members of Lender Group are willing to make the financial accommodations to Borrowers as provided for in the Credit Agreement, but only upon the condition, among others, that the Grantors shall have executed and delivered to Agent, for the benefit of the Lender Group and the Bank Product Providers, that certain Security Agreement of even date herewith (including all annexes, exhibits or schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the "Security Agreement");

WHEREAS, pursuant to the Security Agreement, Grantors are required to execute and deliver to Agent, for the benefit of the Lender Group and the Bank Product Providers, this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby agrees as follows:

1. DEFINED TERMS. All capitalized terms used but not otherwise defined herein have the meanings given to them in the Security Agreement or the Credit Agreement.

2. GRANT OF SECURITY INTEREST IN PATENT COLLATERAL. Each Grantor hereby grants to Agent, for the benefit of the Lender Group and the Bank Product Providers, a continuing first priority security interest in all of such Grantor's right, title and interest in, to and under the following, whether presently existing or hereafter created or acquired (collectively, the "Patent Collateral"):

(a) all of its Patents and Patent Intellectual Property Licenses to which it is a party including those referred to on Schedule I hereto;

(b) all reissues, continuations or extensions of the foregoing; and

(c) all products and proceeds of the foregoing, including any claim by such Grantor against third parties for past, present or future infringement or dilution of any Patent or any Patent licensed under any Intellectual Property License.

3. SECURITY FOR OBLIGATIONS. This Patent Security Agreement and the Security Interest created hereby secures the payment and performance of all the Secured Obligations, whether now existing or arising hereafter. Without limiting the generality of the foregoing, this Patent Security Agreement secures the payment of all amounts which constitute part of the Obligations and would be owed by Grantors, or any of them, to Agent, the Lender Group, the Bank Product Providers or any of them, whether or not they are unenforceable or not allowable due to the existence of an Insolvency Proceeding involving any Grantor.

4. SECURITY AGREEMENT. The security interests granted pursuant to this Patent Security Agreement are granted in conjunction with the security interests granted to Agent, for the benefit of the Lender Group and the Bank Product Providers, pursuant to the Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

5. AUTHORIZATION TO SUPPLEMENT. If any Grantor shall obtain rights to any new patentable inventions or become entitled to the benefit of any patent application or patent for any reissue, division, or continuation, of any patent, the provisions of this Patent Security Agreement shall automatically apply thereto. Grantors shall give prompt notice in writing to Agent with respect to any such new patent rights. Without limiting Grantors' obligations under this Section, Grantors hereby authorize Agent unilaterally to modify this Agreement by amending Schedule I to include any such new patent rights of Grantors. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend Schedule I shall in any way affect, invalidate or detract from Agent's continuing security interest in all Collateral, whether or not listed on Schedule I.

6. COUNTERPARTS. This Patent Security Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such separate counterparts shall together constitute but one and the same instrument. In proving this Patent Security Agreement or any other Loan Document in any judicial proceedings, it shall not be necessary to produce or account for more than one such counterpart signed by the party against whom such enforcement is sought. Any signatures delivered by a party by facsimile transmission or by e-mail transmission shall be deemed an original signature hereto.

7. CONSTRUCTION. Unless the context of this Patent Security Agreement or any other Loan Document clearly requires otherwise, references to the plural include the singular, references to the singular include the plural, the terms "includes" and "including" are not limiting, and the term "or" has, except where otherwise indicated, the inclusive

meaning represented by the phrase "and/or." The words "hereof," "herein," "hereby," "hereunder," and similar terms in this Patent Security Agreement or any other Loan Document refer to this Patent Security Agreement or such other Loan Document, as the case may be, as a whole and not to any particular provision of this Patent Security Agreement or such other Loan Document, as the case may be. Section, subsection, clause, schedule, and exhibit references herein are to this Patent Security Agreement unless otherwise specified. Any reference in this Patent Security Agreement or in any other Loan Document to any agreement, instrument, or document shall include all alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements, thereto and thereof, as applicable (subject to any restrictions on such alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements set forth herein). Any reference herein or in any other Loan Document to the satisfaction or repayment in full of the Obligations shall mean the repayment in full in cash (or cash collateralization in accordance with the terms of the Credit Agreement) of all Obligations other than unasserted contingent indemnification Obligations and other than any Bank Product Obligations that, at such time, are allowed by the applicable Bank Product Providers to remain outstanding and that are not required by the provisions of the Credit Agreement to be repaid or cash collateralized. Any reference herein to any Person shall be construed to include such Person's successors and assigns. Any requirement of a writing contained herein or in any other Loan Document shall be satisfied by the transmission of a Record and any Record so transmitted shall constitute a representation and warranty as to the accuracy and completeness of the information contained therein.

[signature page follows]

IN WITNESS WHEREOF, each Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

LINEAGE POWER CORPORATION, a Nevada corporation

By:_____
Name: Lloyd R. Sorenson
Title: Chief Financial Officer and Treasurer

ACCEPTED AND ACKNOWLEDGED BY:

WELLS FARGO FOOTHILL, LLC, as Agent

By:_____
Name: David R. Klages
Title: Vice President

IN WITNESS WHEREOF, each Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

LINEAGE POWER CORPORATION, a Nevada corporation

By:_____
Name: Lloyd R. Sorenson
Title: Chief Financial Officer and Treasurer

ACCEPTED AND ACKNOWLEDGED BY:

WELLS FARGO FOOTHILL, LLC, as Agent

By:_____
Name: David R. Klages
Title: Vice President

SCHEDULE I
to
PATENT SECURITY AGREEMENT

PATENTS

See attached Appendix 1.

PATENT LICENSES

Licensor	Licensee	Products	License Agreement
Artesyn	Lineage	Artesyn Product Name - IBC17AEW4812J / IBC20AES4812J / IBC25AET4812J / LQS30A24-3V3J / LQS30A24-1V8J / LES20A24-3V3J / LES20A24-1V8J / ATC210	Power Module Second Source License Agreement, effective April 3, 2006 between Aztec North America, Inc. and Tyco Electronics Power Systems, Inc.
[Not known at closing, however, Lineage believes it is a TYCO affiliate]	Astec	DC-DC power converters that use patents U.S. 5,872,705; U.S. 5,625,541; U.S. 5,303,138; U.S. RE36,571; U.S. RE37,889; JP 2758137; EP 1052763; EP 0622891	License Agreement, effective July 1, 2006 between Astec International Limited and Tyco Electronics Logistics A.G.
Lineage Power Corporation	CISCO Systems, Inc.	El Cap Shelves shown on Licensed Drawings as PS6000 (comcode 108548272) and PS8000 (comcode 108631995)	License Agreement, effective March 31, 2006 between Cisco Systems, Inc. and Tyco Electronics Power Systems, Inc.
Design Automation, Inc.	Lineage	dc/dc converters, U.S. Patent 5,198,969 and any reissue patents granted thereon to produce dc/dc converters covered by such patents	License Agreement, effective December 3, 2001 between Design Automation, Inc. and Tyco Electronics Power Systems, Inc.
Midtronics	Lineage	their patents used in our products (U.S. Patent No's: 5,140,269 / 5,945,829 / 6,172,505	License Agreement, effective February 2, 2004 between Midtronics, Inc. and Tyco Electronics Power Systems, Inc.

NetPower Technologies	Lineage	1. Bias Schemes in Single-Ended DC/DC Converters - 075737.00002 2. Drive Schemes for Synchronous Rectifiers in DC/DC Converters - 075737.00001 3. Bias Power Control in DC/DC Converters - 075737.00006 4. Current Sense and Control in DC/DC Converters - 075737.00005 5. Startup Schemes for Synchronous Rectifiers in DC/DC Converters - 075737.00007	Exclusive Patent, Product, and Technology License Agreement, effective September 17, 2001 between NetPower Techonolgies, Inc. and Tyco Electronics Power Systems, Inc.
Lineage Power Corporation	Portugal Telecom Inovacao, SA	Schematic drawings, Stock List (Bill of Material) Manufacturing Test Records	License Agreement, effective January 6, 2005 between Portugal Telecom Inovação and Tyco Electronics Power Systems, Inc.

APPENDIX 1
to
PATENT SECURITY AGREEMENT

REGISTERED PATENTS

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
Simple and efficient switching regulator for fast transient loads such as microprocessors	RE 37738	6/11/02	Lineage Power Corporation
Identification icon indicia for plug-in units of a power distribution system	RE 37592	3/19/02	Lineage Power Corporation
Power converter adaptively driven	RE 37221	6/12/01	Lineage Power Corporation
Bus structure for power system	RE 37182	5/22/01	Lineage Power Corporation
Low loss synchronous rectifier for application to clamped-mode power converters	RE 36571	2/15/00	Lineage Power Corporation
Circuit and method for changing transient response characteristics of a DC/DC converter module	7432692	10/7/08	Lineage Power Corporation
Soft-transition controller of a synchronous converter	7432688	10/7/08	Lineage Power Corporation
Circuit and method for reducing voltage spikes due to magnetizing current imbalances and power converter employing the same	7372711	5/13/08	Lineage Power Corporation
System and method for providing and receiving electric power through telephone wire-pairs	7324331	1/29/08	Lineage Power Corporation
Apparatus and method for transferring heat from an electrical module	7310233	12/18/07	Lineage Power Corporation
Printed wiring board having edge plating interconnects	7304862	12/4/07	Lineage Power Corporation
Electromagnetic apparatus and method for making a multi-phase high frequency electromagnetic apparatus	7271695	9/18/07	Lineage Power Corporation
System and apparatus for fixing a substrate with a heat transferring device	7270176	9/18/07	Lineage Power Corporation
Method and structure for assembling electrical windings about a central member	7257881	8/21/7	Lineage Power Corporation
Reconfigurable power distribution panel	7256984	8/14/07	Lineage Power Corporation
Circuit, method and system for providing one or more phase voltages from input voltages	7221140	5/22/07	Lineage Power Corporation
Neutral point controller, method of controlling and rectifier system employing the controller and the method	7196919	3/27/07	Lineage Power Corporation
Apparatus for moving a battery	7189047	3/13/07	Lineage Power Corporation
Transient suppressor and power converter employing the same	7187531	3/6/07	Lineage Power Corporation
Printed wiring board having edge plating interconnects	7180397	2/20/07	Lineage Power Corporation
Vector controller, a polyphase synchronous rectifier, and a method of vector-controlling thereof	7129677	10/31/06	Lineage Power Corporation
Controller for complementary switches of a power converter and method of operation thereof	7095638	8/22/06	Lineage Power Corporation
Drive circuit for a synchronous rectifier,	7082043	7/25/06	Lineage Power Corporation

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
method of providing drive signals thereto and power converter incorporating the same			
Controller for a power factor corrector and method of regulating the power factor corrector	7012413	3/14/06	Lineage Power Corporation
Buck converter with multiple outputs and method of operation thereof	7009849	3/7/06	Lineage Power Corporation
System and method for increasing effective pulse-width modulated drive signal resolution and converter controller incorporating the same	6965260	11/15/05	Lineage Power Corporation
Environmental control system for use with a battery cabinet and method of operating a fan therein	6936372	8/30/05	Lineage Power Corporation
Magnetic device having a springable winding	6927667	8/9/05	Lineage Power Corporation
Auxiliary active clamp circuit, a method of clamping a voltage of a rectifier switch and a power converter employing the circuit or method	6882548	4/19/05	Lineage Power Corporation
Contamination prevention between two electrical components	6875054	4/5/05	Lineage Power Corporation
Gate driver with a DC offset bias circuit and a power converter employing the same	6822882	11/23/04	Lineage Power Corporation
Apparatus and method for situating an inductive element onto a rod in an electrical circuit	6781497	8/24/04	Lineage Power Corporation
Method and apparatus for predicting stability of a closed loop apparatus	6760633	7/6/04	Lineage Power Corporation
Apparatus for establishing inductive coupling in an electrical circuit and method of manufacture therefor	6727794	4/27/04	Lineage Power Corporation
System and method for fixing a first component with a second component	6711859	3/30/04	Lineage Power Corporation
Bias supply selection circuit, method of operation thereof and power supply employing the same	6693812	2/17/04	Lineage Power Corporation
Integrated controller, method of operation thereof and power supply employing the same	6693811	2/17/04	Lineage Power Corporation
Apparatus and method for effecting electrical connection between a power source and equipment	6676424	1/13/04	Lineage Power Corporation
Bias supply circuit and a switching power supply employing the same	6646895	11/11/03	Lineage Power Corporation
Battery servicing system with bridging protection	6643122	11/4/03	Lineage Power Corporation
Voltage reference translation system and an electronic circuit employing the same	6606258	8/12/03	Lineage Power Corporation
Electromagnetic apparatus having adjusting effective core gap	6597271	7/22/03	Lineage Power Corporation
Method for predicting stability characteristics of power supplies	6519538	2/11/03	Lineage Power Corporation
Apparatus and method for controlled preload operation of an electrical converter	6519166	2/11/03	Lineage Power Corporation
Apparatus and method for effecting controlled start up of a plurality of supply voltage signals	6515459	2/4/03	Lineage Power Corporation

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
Reverse recovery circuit, method of operation thereof and asymmetrical half-bridge power converter	6496396	12/17/02	Lineage Power Corporation
Thermally conductive case for electrical components and method of manufacture therefor	6473304	10/29/02	Lineage Power Corporation
Local loop control system for a multiple output power converter	6445597	9/3/02	Lineage Power Corporation
Transient current suppression circuitry for reducing noise of battery floating across input of voltage polarity switch	6438008	8/20/02	Lineage Power Corporation
Control circuit for paralleling power supplies and method of operation thereof	6438007	8/20/02	Lineage Power Corporation
Board mountable power supply module with multi-function control pin	6437547	8/20/02	Lineage Power Corporation
Electrical distribution system for composite battery stand and composite battery stand incorporating the same	6436570	8/20/02	Lineage Power Corporation
Low profile surface mount magnetic devices with controlled nonlinearity	6414582	7/2/02	Lineage Power Corporation
Battery diagnostic method utilizing a universal normalized discharge curve for predicting battery reserve time	6411911	6/25/02	Lineage Power Corporation
Composite battery stand with integral spill containment	6401946	6/11/02	Lineage Power Corporation
System and method for reducing a DC magnetic flux bias in a transformer and power converter employing the same	6400580	6/4/02	Lineage Power Corporation
System and method for improving control loop response of a power supply	6396725	5/28/02	Lineage Power Corporation
Controller for power factor corrector and method of operation thereof	6388429	5/14/02	Lineage Power Corporation
Protection circuit for active switches in clamp-mode topologies, and power converter employing the same	6377476	4/23/02	Lineage Power Corporation
Apparatus and method for facilitating heat dissipation in an electrical device	6377150	4/23/02	Lineage Power Corporation
High voltage package for electronic device	6362517	3/26/02	Lineage Power Corporation
Package for an electrical apparatus and method of manufacturing therefore	6359784	3/19/02	Lineage Power Corporation
Method and apparatus for dynamically altering operation of a converter device to improve conversion efficiency	6351396	2/26/02	Lineage Power Corporation
Low profile, surface mount magnetic devices	6342778	1/29/02	Lineage Power Corporation
Fixed conductive pin for printed wiring substrate electronics case and method of manufacture therefor	6320762	11/20/01	Lineage Power Corporation
Zero height power unit shelf system	6320749	11/20/01	Lineage Power Corporation
Switching circuit, method of operation thereof and single stage power factor corrector employing the same	6317341	11/13/01	Lineage Power Corporation
Encapsulated power supply with a high thermal conductivity molded insert	6317324	11/13/01	Lineage Power Corporation

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
Method for leadless die interconnect without substrate cavity	6312978	11/6/01	Lineage Power Corporation
Inter-substrate conductive mount for a circuit board, circuit board and power magnetic device employing the same	6310301	10/30/01	Lineage Power Corporation
Fan-mounting faceplate for a chassis and methods of manufacture and assembly therefor	6302781	10/16/01	Lineage Power Corporation
Drive compensation circuit for synchronous rectifier and method of operating the same	6288920	9/11/01	Lineage Power Corporation
Line cord retention bracket for electronics chassis and method use thereof	6276952	8/21/01	Lineage Power Corporation
Lead-free solder process for printed wiring boards	6264093	7/24/01	Lineage Power Corporation
Heat sink with integral component clip	6262893	7/17/01	Lineage Power Corporation
Power magnetic device employing a leadless connection to a printed circuit board and method of manufacture thereof	6262649	7/17/01	Lineage Power Corporation
Circuit and method for conditioning an average AC signal for use with a controller adapted to receive peak input signals	6259239	7/10/01	Lineage Power Corporation
System and method for determining output current and converter employing the same	6249447	6/19/01	Lineage Power Corporation
Circuit associated with a power converter and method of operation thereof	6239993	5/29/01	Lineage Power Corporation
Post-mountable planar magnetic device and method of manufacture thereof	6239683	5/29/01	Lineage Power Corporation
Modular power supply chassis employing a bus bar assembly	6205029	3/20/01	Lineage Power Corporation
Controller for power supply and method of operation thereof	6201719	3/13/01	Lineage Power Corporation
Transverse mountable heat sink for use in an electronic device	6201699	3/13/01	Lineage Power Corporation
Boost converter, method of converting power and power supply employing the same	6194880	2/27/01	Lineage Power Corporation
Circuit and method for controlling a synchronous rectifier converter	6191964	2/20/01	Lineage Power Corporation
Active clamp for isolated power converter and method of operating thereof	6191960	2/20/01	Lineage Power Corporation
Circuit and method for generating estimated feedback for the controller of a slave power module in a master/slave paralleling scheme	6191569	2/20/01	Lineage Power Corporation
Power factor correcting electrical converter apparatus	6191564	2/20/01	Lineage Power Corporation
Battery capacity calculator and method of calculating battery capacity	6191559	2/20/01	Lineage Power Corporation
Method of manufacturing a surface mountable power supply module	6189203	2/20/01	Lineage Power Corporation
Auxiliary bias circuit for a power supply and a method of operation thereof	6181577	1/30/01	Lineage Power Corporation
Heat sink having standoff buttons and a method of manufacturing therefor	6181561	1/30/01	Lineage Power Corporation
Phase-shifted post-regulator, method of operation thereof and power converter	6178098	1/23/01	Lineage Power Corporation

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
employing the same			
Surface mount thermal connections	6175500	1/16/01	Lineage Power Corporation
Snubber circuit for a power switch and recitifying diode and power converter employing the same	6169671	1/2/01	Lineage Power Corporation
Detection circuit for circuit protection devices of a power supply and method of operation thereof	6169649	1/2/01	Lineage Power Corporation
EMI filter for an inrush relay	6163470	12/19/00	Lineage Power Corporation
Asymmetrical DC/DC converter having output current doubler	6163466	12/19/00	Lineage Power Corporation
Fan operation detection circuit for a DC fan and method of operation thereof	6163266	12/19/00	Lineage Power Corporation
Equipment module and cabinet and methods of manufacture thereof	6160699	12/12/00	Lineage Power Corporation
Mode selection circuit for a battery, a method of selecting modes for the battery and a battery back-up power supply employing the circuit and method	6160379	12/12/00	Lineage Power Corporation
Self-locking conductive pin for printed wiring substrate electronics case	6144557	11/7/00	Lineage Power Corporation
Board mountable power supply module with current sharing circuit and a method of current sharing between parallel power supplies	6141231	10/31/00	Lineage Power Corporation
Methods of manufacturing a magnetic device and tool for manufacturing the same	6138344	10/31/00	Lineage Power Corporation
Self-adjusting battery diagnostic method for continuously providing best prediction of battery reserve time	6137292	10/24/00	Lineage Power Corporation
Integrated voltage and current mode controller for a power converter and method of operation thereof	6134122	10/17/00	Lineage Power Corporation
System and method for paralleling power converter systems and power supply employing the same	6130830	10/10/00	Lineage Power Corporation
Multiple output converter having self-synchronized pulse width modulation regulation	6130828	10/10/00	Lineage Power Corporation
Secondary output holdover circuit for a switch-mode power supply	6130529	10/10/00	Lineage Power Corporation
Method of manufacturing a power magnetic device mounted on a printed circuit board	6128817	10/10/00	Lineage Power Corporation
System and method for determining battery condition and telecommunications equipment incorporating the same	6124701	9/26/00	Lineage Power Corporation
Line-replaceable battery disconnect module and method of manufacture thereof	6107778	8/22/00	Lineage Power Corporation
Multiple output converter having secondary regulator using self-driven synchronous rectifiers	6104623	8/15/00	Lineage Power Corporation
Voltage feedback inrush current limit circuit having increased tolerance for component value variation	6104584	8/15/00	Lineage Power Corporation

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
Output power control circuit for a flyback converter	6101111	8/8/00	Lineage Power Corporation
Low profile surface mount chip inductor	6094123	7/25/00	Lineage Power Corporation
Gate drive circuit for isolated gate devices and method of operation thereof	6094087	7/25/00	Lineage Power Corporation
Drive compensation circuit for synchronous rectifier and method of operating the same	6091616	7/18/00	Lineage Power Corporation
System and method for reducing transient switch currents in an asymmetrical half bridge converter	6091610	7/18/00	Lineage Power Corporation
Method of mounting a power semiconductor die on a substrate	6083772	7/4/00	Lineage Power Corporation
Temperature protection circuit for power converter and method of operation thereof	6078511	6/20/00	Lineage Power Corporation
Two-stage, three phase boost converter with reduced total harmonic distortion	6075716	6/13/00	Lineage Power Corporation
Compensation circuit method of operations thereof and converter employing the same	6069807	5/30/00	Lineage Power Corporation
Self-synchronized drive circuit for a synchronous rectifier in a clamped-mode power converter	6069799	5/30/00	Lineage Power Corporation
Switch driver for a snubber circuit, method of operation thereof and power converter employing the same	6060867	5/9/00	Lineage Power Corporation
Multiple output converter having a single transformer winding and independent output regulation	6058026	5/2/00	Lineage Power Corporation
System and method for attenuating induced EMI and power converter employing the same	6055164	4/25/00	Lineage Power Corporation
Nesting clamps for electrical components	6049459	4/11/00	Lineage Power Corporation
Circuit and method for controlling a synchronous rectifier converter	6038154	3/14/00	Lineage Power Corporation
Controller for a power switch and method of operation thereof	6038145	3/14/00	Lineage Power Corporation
System and method for controlling power factor and power converter employing the same	6034513	3/7/00	Lineage Power Corporation
Self-synchronized gate drive for power converter employing self-driven synchronous rectifier and method of operation thereof	6011703	1/4/00	Lineage Power Corporation
Board-mountable power supply module	6005773	12/21/99	Lineage Power Corporation
Unified contactor control system for battery plant and method of operation thereof	5969503	10/19/99	Lineage Power Corporation
Circuit and method for controlling a synchronous rectifier converter	5956245	9/21/99	Lineage Power Corporation
Post regulator with energy recovery snubber and power supply employing the same	5943224	8/24/99	Lineage Power Corporation
Controller for a synchronous rectifier and power converter employing the same	5940287	8/17/99	Lineage Power Corporation
Integrated protection circuit for a power converter and method of operation thereof	5926383	7/20/99	Lineage Power Corporation
Encapsulated, board-mountable power supply and method of manufacture	5926373	7/20/99	Lineage Power Corporation
Circuit and method for controlling a	5920475	7/6/99	Lineage Power Corporation

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
synchronous rectifier converter			
System and method for voltage positioning a regulator and regulator employing the same	5917312	6/29/99	Lineage Power Corporation
DC/DC converters having dual, EMI-quiet outputs	5914588	6/22/99	Lineage Power Corporation
Controller for a power switch and method of operation thereof	5912810	6/15/99	Lineage Power Corporation
Four quadrant flyback converter, method of operation thereof and power plant employing the same	5903448	5/11/99	Lineage Power Corporation
Fault tolerant power supply including a switching mechanism for controlling the operation of plural voltage converters in response to changing input voltage levels	5894415	4/13/99	Lineage Power Corporation
Simple and efficient switching regulator for fast transient loads such as microprocessors	5877611	3/2/99	Lineage Power Corporation
Encapsulated modular boost converter and method of manufacture therefor	5874826	2/23/99	Lineage Power Corporation
Low loss synchronous rectifier for application to clamped-mode power converters	5872705	2/16/99	Lineage Power Corporation
Package for a power semiconductor die and power supply employing the same	5872403	2/16/99	Lineage Power Corporation
Method and apparatus for damping ringing in self-driven synchronous rectifiers	5870299	2/9/99	Lineage Power Corporation
Asymmetrical half-bridge converter having adjustable parasitic resistances to offset output voltage DC bias	5870291	2/9/99	Lineage Power Corporation
Control architecture for interleaved converters	5861734	1/19/99	Lineage Power Corporation
Boost converter having multiple outputs and method of operation thereof	5847949	12/8/98	Lineage Power Corporation
Current-sharing passive snubber for parallel-connected switches and high power boost converter employing the same	5847548	12/8/98	Lineage Power Corporation
Split-boost converter having damped EMI isolation filter and method of operation thereof	5844790	12/1/98	Lineage Power Corporation
Isolated flyback secondary inductor convertor Isolated flyback secondary inductor convertor	5844787	12/1/98	Lineage Power Corporation
Asymmetrical power converter and method of operation thereof	5838552	11/17/98	Lineage Power Corporation
Encapsulated, board-mountable power supply and method of manufacture therefor	5835350	11/10/98	Lineage Power Corporation
Dual mode boost converter and method of operation thereof	5831846	11/3/98	Lineage Power Corporation
Controller for a power switch and method of operation thereof	5822199	10/13/98	Lineage Power Corporation
Single stage power and method of operation thereof	5822198	10/13/98	Lineage Power Corporation
Synchronization control scheme for a plurality of switching circuits, method of operation therefor and battery plant employing the same	5821643	10/13/98	Lineage Power Corporation
Power factor control for switched mode rectifiers with improved representing of currents in EMI capacitive elements	5777866	7/7/98	Lineage Power Corporation

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
High efficiency boost topology with two outputs	5764037	6/9/98	Lineage Power Corporation
Power converter adaptively driven	5742491	4/21/98	Lineage Power Corporation
Control system for a modular power supply and method of operation thereof	5740023	4/14/98	Lineage Power Corporation
System and method for limiting overshoot in a voltage and current control circuit	5731692	3/24/98	Lineage Power Corporation
Battery protection circuitry for limiting charging parameters of a battery plant	5703471	12/30/97	Lineage Power Corporation
Current balancing arrangement for paralleled diode arrangements	5691891	11/25/97	Lineage Power Corporation
Split-boost circuit having imbalance protection circuitry	5689410	11/18/97	Lineage Power Corporation
Power factor control for switched mode rectifiers	5687070	11/11/97	Lineage Power Corporation
Circuit and method for achieving zero ripple current in the output of a converter	5663876	9/2/97	Lineage Power Corporation
Inverter device using capacitance for controlling waveform slew during voltage polarity transitions	5648896	7/15/97	Lineage Power Corporation
Identification icon indicia for plug-in units of a power distribution system	5646816	7/8/97	Lineage Power Corporation
Synchronization control for interrelated DC voltage/battery polarity switching circuits	5646463	7/8/97	Lineage Power Corporation
DC voltage bypass power system architecture	5646462	7/8/97	Lineage Power Corporation
High performance drive structure for MOSFET power switches	5635867	6/3/97	Lineage Power Corporation
Low loss synchronous rectifier for application to clamped-mode power converters	5625541	4/29/97	Lineage Power Corporation
Self-synchronized drive circuit for a synchronous rectifier in a clamped-mode power converter	5590032	12/31/96	Lineage Power Corporation
Low inductance surface-mount connectors for interconnecting circuit devices and method for using same	5588848	12/31/96	Lineage Power Corporation
Low-loss snubber for a power factor corrected boost converter	5550458	8/27/96	Lineage Power Corporation
Multiple output converter with continuous power transfer to an output and with multiple output regulation	5541828	7/30/96	Lineage Power Corporation
Low loss synchronous rectifier for application to clamped-mode power converters	5528482	6/18/96	Lineage Power Corporation
Apparatus and method for generting negative bias for isolated MOSFET gate-drive circuits	5481219	1/2/96	Lineage Power Corporation
Current estimating circuit for switch mode power supply	5457620	10/10/95	Lineage Power Corporation
Current transfer bus and assembly	5375036	12/20/94	Lineage Power Corporation
Control apparatus for limiting voltage on a core reset capacitor	5363289	11/8/94	Lineage Power Corporation
Method of making a multilayer monolithic magnet component	5349743	9/27/94	Lineage Power Corporation
Low loss synchronous rectifier for application to clamped-mode power converters	5303138	4/12/94	Lineage Power Corporation

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
Zero-voltage switching power converter with lossless synchronous rectifier gate drive	5274543	12/28/93	Lineage Power Corporation
Battery charger with thermal runaway protection	5214370	5/25/93	Lineage Power Corporation
Current sharing control with limited output voltage range for paralleled power converters	5036452	7/30/91	Lineage Power Corporation
Self-oscillating converter with light load stabilizer	4903182	2/20/90	Lineage Power Corporation
Single mag amp control system for regulating bipolar voltage output of a power converter	4849874	7/18/89	Lineage Power Corporation
Zero voltage switching half bridge resonant converter	4814962	3/21/89	Lineage Power Corporation
Faceplate for a module	D410912	6/15/99	Lineage Power Corporation
Faceplate for a module	D407697	4/6/99	Lineage Power Corporation
Faceplate for a chassis	D390572	2/10/98	Lineage Power Corporation

PATENT APPLICATIONS

PATENT APPLICATION	APPLICATION NUMBER	FILE DATE	OWNER INFORMATION
FAULT DETECTOR FOR A TIP AND RING CIRCUIT, A METHOD OF PROTECTING SUCH A CIRCUIT AND A POWER SUPPLY INCLUDING THE FAULT DETECTOR	12058437	03/28/2008	Lineage Power Corporation
STRUCTURE FOR ASSEMBLING ELECTRICAL WINDINGS ABOUT A CENTRAL MEMBER	11775760	07/10/2007	Lineage Power Corporation
APPARATUS FOR PROVIDING WINDINGS IN AN ELECTROMAGNETIC DEVICE AND METHOD FOR MAKING THE APPARATUS	11751774	05/22/2007	Lineage Power Corporation
APPARATUS AND METHOD FOR HOLDING A COVER IN A CLOSED ORIENTATION	11566536	12/04/2006	Lineage Power Corporation
SYSTEM AND METHOD OF DETERMINING LATENT FAILURES IN TELEPHONE WIRE-PAIR POWER DISTRIBUTION	11532432	09/15/2006	Lineage Power Corporation
SITE-ADAPTIVE AC CURRENT LIMITING FOR RECTIFIERS AND DC POWER PLANTS	11460027	07/26/2006	Lineage Power Corporation
Apparatus and method for distributing electrical power from a plurality of power sources among a plurality of electrical conductors	11452557	06/13/2006	Lineage Power Corporation
Apparatus and method securing a component in a receiver structure	11315545	12/22/2005	Lineage Power Corporation
Apparatus and method for establishing a magnetic circuit	11299573	12/12/2005	Lineage Power Corporation
EJECTOR FACEPLATE FOR ELECTRONICS MODULE	11147730	06/08/2005	Lineage Power Corporation
Central current share coordinator, method of current sharing and battery plant employing the same	11109510	04/19/2005	Lineage Power Corporation

MODULATION CONTROLLER, METHOD OF CONTROLLING AND THREE PHASE CONVERTER SYSTEM EMPLOYING THE SAME	11089780	03/25/2005	Lineage Power Corporation
Z-axis component connections for use in a printed wiring board	11079841	03/14/2005	Lineage Power Corporation
Low Loss Synchronous Rectifier For Application To Clamped-Mode Power Converters	10202418	01/01/01	Lineage Power Corporation
A Reverse Biasing Active Snubber	11954604	12/12/07	Lineage Power Corporation
Controller And Method For Controlling Converters Of A Disparate Type	12212626	09/17/08	Lineage Power Corporation
LLC Converter With Synchronous FET Control	12257363	10/23/08	Lineage Power Corporation
An Apparatus To Predict Fan Wear-Out And Impending Failure And Method Of Manufacturing The Same	12250610	10/14/08	Lineage Power Corporation
A Multi-Connection Via	10853456	05/25/04	Lineage Power Corporation