OP \$440.00 RE3751

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:	450 Colorado Avenue, Ste. 3000 West	
City:	Santa Monica	
State/Country:	CALIFORNIA	
Postal Code:	90404	

PROPERTY NUMBERS Total: 11

Property Type	Number
Patent Number:	RE37510
Application Number:	12273542
Application Number:	12372659
Application Number:	12404180
Application Number:	12273618
Application Number:	12406687
Application Number:	12534590
Application Number:	12503706
Application Number:	12479642
Application Number:	61178050
Application Number:	61225037

CORRESPONDENCE DATA

Fax Number: (312)863-7865

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

Phone: 312-201-3865

PATENT REEL: 023525 FRAME: 0343

501017902

Email: sharon.patterson@goldbergkohn.com

Correspondent Name: Sharon Patterson

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

Address Line 2: Ste. 3300

Address Line 4: Chicago, ILLINOIS 60603

ATTORNEY DOCKET NUMBER: 1989.187

NAME OF SUBMITTER: Sharon Patterson

Total Attachments: 17

source=Document#page1.tif

source=Document#page2.tif

source=Document#page3.tif

source=Document#page4.tif

source=Document#page5.tif

source=Document#page6.tif

source=Document#page7.tif

source=Document#page8.tif

source=Document#page9.tif

source=Document#page10.tif

source=Document#page11.tif

source=Document#page12.tif

source=Document#page13.tif

source=Document#page14.tif

source=Document#page15.tif

source=Document#page16.tif

source=Document#page17.tif

PATENT REEL: 023525 FRAME: 0344

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").

WITNESSETH:

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. <u>DEFINED TERMS</u>. 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;

2018218v2 11/21/2008 2:36:21 PM

1989.187

PATENT REEL: 023525 FRAME: 0345

- (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. <u>SECURITY FOR OBLIGATIONS.</u> 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. <u>SECURITY AGREEMENT</u>. 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. <u>AUTHORIZATION TO SUPPLEMENT</u>. 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 <u>Schedule I</u> to include any such new patent rights of Grantors. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend <u>Schedule I</u> 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. <u>COUNTERPARTS</u>. 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. <u>CONSTRUCTION</u>. 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

Title: Chief Financial Officer and Treasurer

ACCEPTED AND ACKNOWLEDGED BY:

WELLS FARGO FOOTHILL, LLC, as Agent

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.

corporation
Ву:
Name: Lloyd R. Sorenson
Title: Chief Financial Officer and Treasurer
ACCEPTED AND ACKNOWLEDGED BY:
WELLS FARGO FOOTHILL, LLC, as Agent
By: Ol USClaye
By:
Name: David R. Klages
Title: Vice President

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 Corporatio n	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 Automatio n, 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.

A/72758473.2

PATENT REEL: 023525 FRAME: 0350

NetPower Technolog ies	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 Corporatio n	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

2029056v2 11/16/2009 10:10:38 AM

1989.187

REEL: 023525 FRAME: 0352

PATENT	PATENT NUMBER	REGIS. DATE	OWNER INFORMATION
method of providing drive signals thereto and	AUAADZA	- Landa Assertant III. C. Carlos	# Zaliga (1999) 1 1 1 2 2 2 2 2 2 2
power converter incorporating the same			
Controller for a power factor corrector and	7012413	3/14/06	Lineage Power Corporation
method of regulating the power factor corrector			
Buck converter with multiple outputs and	7009849	3/7/06	Lineage Power Corporation
method of operation thereof			
System and method for increasing effective	6965260	11/15/05	Lineage Power Corporation
pulse-width modulated drive signal resolution			
and converter controller incorporating the same			
Environmental control system for use with a	6936372	8/30/05	Lineage Power Corporation
battery cabinet and method of operating a fan			
therein			
Magnetic device having a springable winding	6927667	8/9/05	Lineage Power Corporation
Auxiliary active clamp circuit, a method of	6882548	4/19/05	Lineage Power Corporation
clamping a voltage of a rectifier switch and a			2.1
power converter employing the circuit or			
method	COTTO 5 4	4/5/05	T
Contamination prevention between two	6875054	4/5/05	Lineage Power Corporation
electrical components Gate driver with a DC offset bias circuit and a	(022002	11/22/04	l I i i i i i i i i i i i i i i i i i i
	6822882	11/23/04	Lineage Power Corporation
power converter employing the same	(701407	0/04/04	1
Apparatus and method for situating an inductive element onto a rod in an electrical	6781497	8/24/04	Lineage Power Corporation
circuit			
Method and apparatus for predicting stability of	6760633	7/6/04	Linean Dawer Company
a closed loop apparatus	0700055	//0/04	Lineage Power Corporation
Apparatus for establishing inductive coupling	6727794	4/27/04	Lineage Power Corporation
in an electrical circuit and method of	0/2//94	4/2//04	Lineage Fower Corporation
manufacture therefor			
System and method for fixing a first component	6711859	3/30/04	Lineage Power Corporation
with a second component	0,11023	3/30/01	Emeage 1 ower corporation
Bias supply selection circuit, method of	6693812	2/17/04	Lineage Power Corporation
operation thereof and power supply employing	0000012	2/1//01	2 meage 10 wer corporation
the same			· ·
Integrated controller, method of operation	6693811	2/17/04	Lineage Power Corporation
thereof and power supply employing the same			
Apparatus and method for effecting electrical	6676424	1/13/04	Lineage Power Corporation
connection between a power source and			
equipment			
Bias supply circuit and a switching power	6646895	11/11/03	Lineage Power Corporation
supply employing the same			
Battery servicing system with bridging	6643122	11/4/03	Lineage Power Corporation
protection			
Voltage reference translation system and an	6606258	8/12/03	Lineage Power Corporation
electronic circuit employing the same			
Electromagnetic apparatus having adjusting	6597271	7/22/03	Lineage Power Corporation
effective core gap			
Method for predicting stability characteristics	6519538	2/11/03	Lineage Power Corporation
of power supplies	72.2		
Apparatus and method for controlled preload	6519166	2/11/03	Lineage Power Corporation
operation of an electrical converter	723232		
Apparatus and method for effecting controlled	6515459	2/4/03	Lineage Power Corporation
start up of a plurality of supply voltage signals			

PATENT	PATENT	REGIS. DATE	OWNER INFORMATION
	NUMBER		rendra Millagent fervar fra affiliali Millagent strategick
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	TOTAL	E1.30 603 Ugb904735 8747	■ 公司公司 (1992年) 「日本の日本日本の日本日本の日本日本日本日本日本日本日本日本日本日本日本日本日本
Surface mount thermal connections	6175500	1/16/01	Lineage Power Corporation
Snubber circuit for a power switch and	6169671	1/2/01	Lineage Power Corporation
recitifying diode and power converter	0107071	1/2/01	Emeage 1 ower corporation
employing the same			
Detection circuit for circuit protection devices	6169649	1/2/01	Lineage Power Corporation
of a power supply and method of operation	0109049	1/2/01	Lineage Fower Corporation
thereof			
EMI filter for an inrush relay	6163470	12/19/00	Lineage Power Corporation
Asymmetrical DC/DC converter having output	6163466	12/19/00	
current doubler			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	6160699	12/12/00	Lineage Power Corporation
manufacture thereof			
Mode selection circuit for a battery, a method	6160379	12/12/00	Lineage Power Corporation
of selecting modes for the battery and a battery			
back-up power supply employing the circuit			
and method			
Self-locking conductive pin for printed wiring	6144557	11/7/00	Lineage Power Corporation
substrate electronics case			
Board mountable power supply module with	6141231	10/31/00	Lineage Power Corporation
current sharing circuit and a method of current			
sharing between parallel power supplies			
Methods of manufacturing a magnetic device	6138344	10/31/00	Lineage Power Corporation
and tool for manufacturing the same			
Self-adjusting battery diagnostic method for	6137292	10/24/00	Lineage Power Corporation
continuously providing best prediction of			
battery reserve time			
Integrated voltage and current mode controller	6134122	10/17/00	Lineage Power Corporation
for a power converter and method of operation			
thereof			
System and method for paralleling power	6130830	10/10/00	Lineage Power Corporation
converter systems and power supply employing			
the same			
Multiple output converter having self-	6130828	10/10/00	Lineage Power Corporation
synchronized pulse width modulation			
regulation			
Secondary output holdover circuit for a switch-	6130529	10/10/00	Lineage Power Corporation
mode power supply			
Method of manufacturing a power magnetic	6128817	10/10/00	Lineage Power Corporation
device mounted on a printed circuit board			
System and method for determining battery	6124701	9/26/00	Lineage Power Corporation
condition and telecommunications equipment			
incorporating the same			
Line-replaceable battery disconnect module and	6107778	8/22/00	Lineage Power Corporation
method of manufacture thereof	(104600	0/45/00	1
Multiple output converter having secondary	6104623	8/15/00	Lineage Power Corporation
regulator using self-driven synchronous			
rectifiers Note of the delivery to the delive	(104501	0.14.5.10.0	
Voltage feedback inrush current limit circuit	6104584	8/15/00	Lineage Power Corporation
having increased tolerance for component value			
variation			

PATENT	PATENT	REGIS. DATE	OWNER INFORMATION
	NUMBER	Section 1 and 1 an	And the state of t
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

synchronous rectifier converter System and method for voltage positioning a regulator and regulator employing the same DC/DC converters having dual, EMI-quiet outputs Controller for a power switch and method of operation thereof	5917312 5914588	6/29/99	Lineage Power Corporation
System and method for voltage positioning a regulator and regulator employing the same DC/DC converters having dual, EMI-quiet outputs Controller for a power switch and method of		6/29/99	Lineage Power Corporation
regulator and regulator employing the same DC/DC converters having dual, EMI-quiet outputs Controller for a power switch and method of		6/29/99	Lineage Power Corporation
DC/DC converters having dual, EMI-quiet outputs Controller for a power switch and method of	5914588		,
outputs Controller for a power switch and method of	5914588		
Controller for a power switch and method of		6/22/99	Lineage Power Corporation
operation thereof	5912810	6/15/99	Lineage Power Corporation
Four quadrant flyback converter, method of	5903448	5/11/99	Lineage Power Corporation
operation thereof and power plant employing			
the same			
Fault tolerant power supply including a	5894415	4/13/99	Lineage Power Corporation
switching mechanism for controlling the			
operation of plural voltage converters in			
response to changing input voltage levels			
Simple and efficient switching regulator for fast	5877611	3/2/99	Lineage Power Corporation
transient loads such as microprocessors			
Encapsulated modular boost converter and	5874826	2/23/99	Lineage Power Corporation
method of manufacture therefor			
Low loss synchronous rectifier for application	5872705	2/16/99	Lineage Power Corporation
to clamped-mode power converters			
Package for a power semiconductor die and	5872403	2/16/99	Lineage Power Corporation
power supply employing the same			
Method and apparatus for damping ringing in	5870299	2/9/99	Lineage Power Corporation
self-driven synchronous rectifiers			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Asymmetrical half-bridge converter having	5870291	2/9/99	Lineage Power Corporation
adjustable parasitic resistances to offset output			i
voltage DC bias			
Control architecture for interleaved converters	5861734	1/19/99	Lineage Power Corporation
Boost converter having multiple outputs and	5847949	12/8/98	Lineage Power Corporation
method of operation thereof			8 F
Current-sharing passive snubber for parallel-	5847548	12/8/98	Lineage Power Corporation
connected switches and high power boost			
converter employing the same			
Split-boost converter having damped EMI	5844790	12/1/98	Lineage Power Corporation
isolation filter and method of operation thereof			===-gg rower corporation
Isolated flyback secondary inductor convertor	5844787	12/1/98	Lineage Power Corporation
Isolated flyback secondary inductor convertor			
Asymmetrical power converter and method of	5838552	11/17/98	Lineage Power Corporation
operation thereof			
Encapsulated, board-mountable power supply	5835350	11/10/98	Lineage Power Corporation
and method of manufacture therefor		12/15/20	Emerge 1 ewer corporation
Dual mode boost converter and method of	5831846	11/3/98	Lineage Power Corporation
operation thereof		12.5.75	====uge remer corporation
Controller for a power switch and method of	5822199	10/13/98	Lineage Power Corporation
operation thereof		10/15/50	Emeage 1 ower corporation
Single stage power and method of operation	5822198	10/13/98	Lineage Power Corporation
thereof		10/15/70	Emenge I o wer Corporation
Synchronization control scheme for a plurality	5821643	10/13/98	Lineage Power Corporation
of switching circuits, method of operation	JU2107J	10/15/90	Emeage I ower Corporation
therefor and battery plant employing the same			
Power factor control for switched mode	5777866	7/7/98	Lineage Power Companying
rectifiers with improved representing of	3111000	111170	Lineage Power Corporation
currents in EMI capacitive elements			

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	5740023	4/14/98	Lineage Power Corporation
method of operation thereof	3740023	4/14/30	Emeage Fower Corporation
System and method for limiting overshoot in a	5731692	3/24/98	Lineage Power Corporation
voltage and current control circuit	3731092	3/24/90	Emeage Fower Corporation
Battery protection circuitry for limiting	5703471	12/30/97	Lineage Power Corporation
charging parameters of a battery plant	3703471	12/30/7/	Lineage I ower corporation
Current balancing arrangement for paralleled	5691891	11/25/97	Lineage Power Corporation
diode arrangements	3071071	11/25/7/	Emeage 1 ower corporation
Split-boost circuit having imbalance protection	5689410	11/18/97	Lineage Power Corporation
circuitry	3005410	11/10/5/	Emeage 1 ower corporation
Power factor control for switched mode	5687070	11/11/97	Lineage Power Corporation
rectifiers	3007070		Emeage 1 ower corporation
Circuit and method for achieving zero ripple	5663876	9/2/97	Lineage Power Corporation
current in the output of a converter]),2,71	Imeage I ower Corporation
Inverter device using capacitance for	5648896	7/15/97	Lineage Power Corporation
controlling waveform slew during voltage	3040030	1/13/97	Lineage I ower Corporation
polarity transitions			
Identification icon indicia for plug-in units of a	5646816	7/8/97	Lineage Power Corporation
power distribution system	3040010	110/91	Lineage Fower Corporation
Synchronization control for interrelated DC	5646463	7/8/97	Lineage Power Corporation
voltage/battery polarity switching circuits	3040403	1/0/3/	Lineage Fower Corporation
DC voltage bypass power system architecture	5646462	7/8/97	Lineage Power Corporation
High performance drive structure for MOSFET	5635867	6/3/97	Lineage Power Corporation
power switches	3033807	0/3/9/	Lineage Power Corporation
Low loss synchronous rectifier for application	5625541	4/29/97	Lineage Power Corporation
to clamped-mode power converters	3023341	4/23/37	Lineage Fower Corporation
Self-synchronized drive circuit for a	5590032	12/31/96	Lineage Power Corporation
synchronous rectifier in a clamped-mode power	3390032	12/31/90	Lineage Fower Corporation
converter			
Low inductance surface-mount connectors for	5588848	12/31/96	Lineage Power Corporation
interconnecting circuit devices and method for	3300040	12/31/90	Lineage Fower Corporation
using same			
Low-loss snubber for a power factor corrected	5550458	8/27/96	Lineage Power Corporation
boost converter	3330130	0/2//90	Emeage 1 ower corporation
Multiple output converter with continuous	5541828	7/30/96	Lineage Power Corporation
power transfer to an output and with multiple	33,1020	1750750	Emeage rower corporation
output regulation			
Low loss synchronous rectifier for application	5528482	6/18/96	Lineage Power Corporation
to clamped-mode power converters	,020102	0,10,70	Emerge Fower Corporation
Apparatus and method for generting negative	5481219	1/2/96	Lineage Power Corporation
bias for isolated MOSFET gate-drive circuits	3,01213	1,2,50	Emeage Fower Corporation
Current estimating circuit for switch mode	5457620	10/10/95	Lineage Power Corporation
power supply	3.57020	10,10,73	Difficulties Ower Corporation
Current transfer bus and assembly	5375036	12/20/94	Lineage Power Corporation
Control apparatus for limiting voltage on a core	5363289	11/8/94	Lineage Power Corporation
reset capacitor		11,0,54	Zincage i o wei Corporation
Method of making a multilayer monolithic	5349743	9/27/94	Lineage Power Corporation
magnet component	22.57.15	1 2//2//	Zimbage 1 0 wer Corporation
Low loss synchronous rectifier for application	5303138	4/12/94	Lineage Power Corporation
to clamped-mode power converters		1	

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
Self-synchronized drive circuit for a synchronized recitifer in a clamped-mode power converter	RE37510	1/15/02	Lineage Power Corporation

PATENT APPLICATIONS

PATENT APPLICATION	APPLICATION	FILE DATE	OWNER INFORMATION
	NUMBER	A. A. St. Dillings	The first state of the state of
FAULT DETECTOR FOR A TIP AND RING	12058437	03/28/2008	Lineage Power Corporation
CIRCUIT, A METHOD OF PROTECTING			
SUCH A CIRCUIT AND A POWER SUPPLY			
INCLUDING THE FAULT DETECTOR			
STRUCTURE FOR ASSEMBLING	11775760	07/10/2007	Lineage Power Corporation
ELECTRICAL WINDINGS ABOUT A			
CENTRAL MEMBER	L		
APPARATUS FOR PROVIDING WINDINGS	11751774	05/22/2007	Lineage Power Corporation
IN AN ELECTROMAGNETIC DEVICE AND			
METHOD FOR MAKING THE APPARATUS			
APPARATUS AND METHOD FOR	11566536	12/04/2006	Lineage Power Corporation
HOLDING A COVER IN A CLOSED			Zmougo i ower corporation
ORIENTATION	1		
SYSTEM AND METHOD OF	11532432	09/15/2006	Lineage Power Corporation
DETERMINING LATENT FAILURES IN		03, 10, 2000	Dineage 1 o wer corporation
TELEPHONE WIRE-PAIR POWER			
DISTRIBUTION			
SITE-ADAPTIVE AC CURRENT	11460027	07/26/2006	Lineage Power Corporation
LIMITING FOR RECTIFIERS AND DC	11.0002/	07/20/2000	Emeage 1 ower corporation
POWER PLANTS			
Apparatus and method for distributing electrical	11452557	06/13/2006	Lineage Power Corporation
power from a plurality of power sources among	11.0200,	00/15/2000	Emeage 1 ower corporation
a plurality of electrical conductors			
Apparatus and method securing a component in	11315545	12/22/2005	Lineage Power Corporation
a receiver structure	11515515		Emeage Fower Corporation
Apparatus and method for establishing a	11299573	12/12/2005	Lineage Power Corporation
magnetic circuit	112//5/5	12/12/2003	Dineage 1 ower Corporation
EJECTOR FACEPLATE FOR	11147730	06/08/2005	Lineage Power Corporation
	11147730	00/00/2003	Lineage rower Corporation

PATENT

REEL: 023525 FRAME: 0360

ELECTRONICS MODULE			
Central current share coordinator, method of	11109510	04/19/2005	Lineage Power Corporation
current sharing and battery plant employing the	11109310	04/19/2003	Lineage Fower Corporation
, , , , ,			
same	44000000	00/05/0005	
MODULATION CONTROLLER, METHOD	11089780	03/25/2005	Lineage Power Corporation
OF CONTROLLING AND THREE PHASE			
CONVERTER SYSTEM EMPLOYING THE			
SAME			
Z-axis component connections for use in a	11079841	03/14/2005	Lineage Power Corporation
printed wiring board			
Low Loss Synchronous Rectifier For	10202418	01/01/01	Lineage Power Corporation
Application To Clamped-Mode Power			
Converters			
A Reverse Biasing Active Snubber	11954604	12/12/07	Lineage Power Corporation
Trace of the Diagnatic Property of Strategical	11754004	12/12/07	Emeage 1 ower corporation
Controller And Method For Controlling	12212626	00/17/09	Linear Parrier Control
	12212626	09/17/08	Lineage Power Corporation
Converters Of A Disparate Type			
TI C C			
LLC Converter With Synchronous FET Control	12257363	10/23/08	Lineage Power Corporation
An Apparatus To Predict Fan Wear-Out And	12250610	10/14/08	Lineage Power Corporation
Impending Failure And Method Of			
Manufacturing The Same			
A Multi-Connection Via	10853456	05/25/04	Lineage Power Corporation
		00,20,01	2 meage 1 ower corporation
Interleaved LLC Power Converters And	12273542	11/19/08	Lineage Power Corporation
Method Of Manufacturing Thereof	12213372	11/15/00	Emcage I ower Corporation
DC Plant Controller And Method For Selecting	12272(50	2/17/00	T' B C
Among Multiple Governor And DC Plant	12372659	2/17/09	Lineage Power Corporation
Among Multiple Sources And DC Plant			
Employing The Same			
Adaptive Low Voltage Disconnect Controller,	12404180	3/13/09	Lineage Power Corporation
A Method Of Protecting Battery And A Power			
System Manager			
A Printed Wiring Board Connector Pin Having	12273618	11/19/08	Lineage Power Corporation
An Acircular Profile			
A Pluggable Power Management Module For A	12406687	3/18/09	Lineage Power Corporation
Distribution Panel	12 100001	3,10,05	Emeage rower corporation
Apparatus And Method For Effecting Inductive	12534590	8/3/09	Lineage Power Corporation
	14334370	0/3/09	Lineage Fower Corporation
		i	
Coupling Among A Plurality Of Electrical			
Elements	10500505	714 7100	
Elements An Interrupter, A Method Of Responding A	12503706	7/15/09	Lineage Power Corporation
Elements An Interrupter, A Method Of Responding A Monitored Event	12503706	7/15/09	Lineage Power Corporation
An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An	12503706	7/15/09	Lineage Power Corporation
Elements An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An Interrupter		7/15/09	Lineage Power Corporation
Elements An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An Interrupter AC Consumption Controller, Method Of	12503706 12479642	7/15/09 6/5/09	
Elements An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An Interrupter			Lineage Power Corporation Lineage Power Corporation
Elements An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An Interrupter AC Consumption Controller, Method Of Managing AC Power Consumption And A			
Elements An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An Interrupter AC Consumption Controller, Method Of Managing AC Power Consumption And A Battery Plant Employing The Same	12479642	6/5/09	Lineage Power Corporation
Elements An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An Interrupter AC Consumption Controller, Method Of Managing AC Power Consumption And A Battery Plant Employing The Same High Efficiency Power Amplifier Power			
Elements An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An Interrupter AC Consumption Controller, Method Of			
Elements An Interrupter, A Method Of Responding A Monitored Event And An Integrated Circuit Including An Interrupter AC Consumption Controller, Method Of Managing AC Power Consumption And A Battery Plant Employing The Same	12479642	6/5/09	Lineage Power Corporation

RECORDED: 11/17/2009