

1) Family number: 52537123 (US2013115821A)

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Title: DUAL ORIENTATION CONNECTOR WITH EXTERNAL CONTACTS AND CONDUCTIVE FRAME

Abstract: A dual orientation connector having a connector tab with first and second major opposing sides and a plurality of electrical contacts carried by the connector tab. The plurality of contacts includes a first set of external contacts formed at the first major side and a second set of external contacts formed at the second major side. Each individual contact in the first plurality of contacts is electrically connected within the tab or body to a corresponding contact in the second plurality of contacts. In some embodiments contacts in the first and second pluralities of contacts that are directly opposite each other are coupled together. In some other embodiments, contacts in the first and second pluralities of contacts that are in a cater cornered relationship with each other are coupled together. The first plurality of contacts are symmetrically spaced with the second plurality of contacts and the connector tab is shaped to have 180 degree symmetry so that it can be inserted and operatively coupled to a corresponding receptacle connector in either of two insertion orientations.

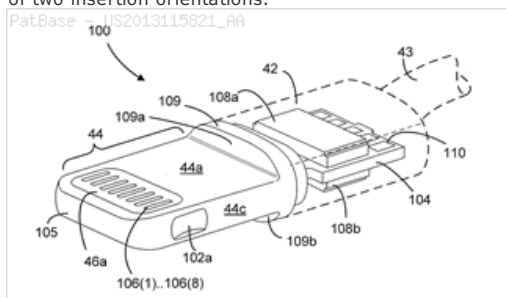
Classifications:

International (IPC 8-9): G06F1/16 G06F13/00 G06F13/10 G06F13/12 G06F13/38 G06F13/42 G06F21/30 G06F21/44 G06F21/85 G06F3/00 H01R H01R11/01 H01R13/00 H01R13/02 H01R13/04 H01R13/11 H01R13/28 H01R13/40 H01R13/46 H01R13/502 H01R13/516 H01R13/518 H01R13/625 H01R13/627 H01R13/631 H01R13/639 H01R13/64 H01R13/641 H01R13/642 H01R13/646 H01R13/6471 H01R13/648 H01R13/652 H01R13/658 H01R13/6582 H01R13/6588 H01R13/66 H01R24/00 H01R24/28 H01R24/38 H01R24/60 H01R24/62 H01R24/64 H01R24/86 H01R25/00 H01R27/00 H01R29/00 H01R31/00 H01R31/06 H01R43/00 H01R43/18 H01R43/20 H01R43/24 H04L12/40 H04L29/06 H04L9/32 H04M1/00 (Advanced/Invention); H01R107/00 H01R13/516 H01R13/642 H01R13/66 H01R24/60 H01R31/06 H04L12/40 (Advanced/Non-invention); H01R13/648 H01R29/00 H01R43/24 (Core/Invention); H01R (Subclass/Invention)

International (IPC 1-7): G06F13/38 G06F21/44 G06F21/85 H01R13/516 H01R13/642 H01R13/648 H01R24/60 H01R29/00 H01R43/24

IPC: G06F13/382 H01R13/00 H01R13/11 H01R13/631 H01R13/6471 H01R43/18 H01R43/205 G06F21/85 H01R31/065 G06F13/102 H01R13/516 H01R29/00 H01R43/24 H01R13/6691 H01R13/6588 G06F21/44 H01R24/60 H01R13/6275 H01R13/6582 H01R24/28 H01R25/00 H01R24/64 H04L12/40013 H01R2107/00 H01R13/6683 H01R13/646 H01R13/642 H01R13/665 H04L12/40078

US: 1/1 340/5.8 439/218 439/350 439/502 439/607.01 439/607.41 439/620.04 439/638 439/660 439/668 439/676 710/316 710/62 710/72 713/300



Family:

Publication number	Publication date	Application number	Application date
AU2012101657 AD	20121206	AU20120101657	20121107
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Priority:

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Probable Assignee: APPLE INC

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Assignee(s): APPLE INC CUPERTINO

Inventor(s): (std): TIKALSKY TERRY ; NG TONY CHI WANG ; KRUEGER SCOTT ; FRITCHMAN DANIEL J ; SILLMAN DEBRA A ; DANIEL J FRITCHMAN ; SCOTT KRUEGER ; DEBRA A SILLMAN ; TERRY TIKALSKY ; TONY CHI WANG NG ; SCHMIDT MATHIAS W SCHMIDT ; ERIC S JOL ES ; ALBERT J GOLKO AJ ; MATHIAS W SCHMIDT MW ; JEFFREY J TERLIZZI JJ ; ALBERT J GOLKO ; ERIC S JOL ; MATHIAS W SCHMIDT ; JEFFREY J TERLIZZI ; SCHMIDT MATHIAS W ; TERLIZZI JEFFREY J ; GOLKO ALBERT J ; JOL ERIC S ; SHMIDT MATIAS V ; DZHOL ERIK S ; GOLKO ALBERT DZH ; FRITCHMAN DENIEL DZH ; TERLITSTSI DZHEFFRI DZH ; TIKALSKI TERRI ; NG TONI CHI VANG ; KRJUGER SKOTT ; DA DEBRA A SILLMAN ; JJ JEFFREY J TERLIZZI ; TCW TONY CHI WANG NG ; DJ DANIEL J FRITCHMAN ; SCOTT KRUEGER S ; TERRY TIKALSKY T

Inventor(s): ERIC SJOL ; ALBERT JGOLKO ; DEBRA A SILLMAN DA ; TONY CHI WANG NG TCW ; TERLIZZI JEFFREY J CUPERTINO CA ; SCHMIDT MATHIAS W SCHMIDT CUPERTINO CA ; JOL ERIC S CUPERTINO CA ; GOLKO ALBERT J CUPERTINO CA ; DANIEL J FRITCHMAN DJ

Agent(s): FREEHILLS PATENT ATTORNEYS; FPA PATENT ATTORNEYS PTY LTD; RICHES MCKENZIE AND HERBERT LLP; LANG JOHANNES; CLT PATENT AND TRADEMARK HK LTD; OHTSUKA FUMIAKI; DESHIMARU TAKESHI; NISHIJIMA TAKAKI; KUMAKURA YOSHIO; KILPATRICK TOWNSEND AND STOCKTON; KILPATRICK TOWNSEND AND STOCKTON LLP; CONG TY TNHH LE AND LE; SHAFFER WILLIAM L ET AL; ZIGMANT J MATTHEW ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

2) Family number: 29782394 (US2003085621A)

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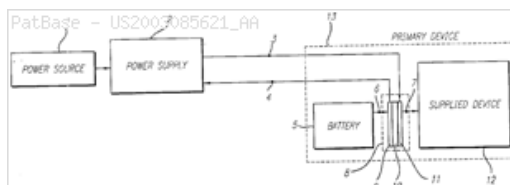
Title: POWER SUPPLY METHODS AND CONFIGURATIONS

Abstract: A power supply detects power requirements of an electrical device and configures itself to provide the correct power to the device. By using a connector that isolates the device from its battery, the power supply can provide power to the device, recharge the battery, recharge the battery while at the same time providing power to the device, or provide power to the device while preventing the battery from being recharged. A switch used with the connector creates various circuits and is controllable by the power supply, the electrical device, by signals from the electrical device, or by a third device. The power supply may provide power to a plurality of devices and may be used with other power supplies to form a power grid. A master control unit receives inputs from each of the power supplies and controls the delivery and supply of power being the power supplies.

Classifications:

International (IPC 8-9): G01K1/02 G01K1/14 G01K7/16 G01K7/22 G01R31/36 G01R31/40 G05D11/00 G05F1/565 G06F1/18 G06F1/26 H01C7/02 H01C7/04 H01M10/42 H01M10/48 H01R13/703 H01R24/58 H01R29/00 H01R9/05 H02J1/00 H02J7/00 H02J7/34 H02J9/06 (Advanced/Invention); C07D207/325 G01R31/40 H01M10/42 (Advanced/Non-invention); G01K1/00 G01K1/14 G01K7/16 G01R31/36 G05D11/00 G06F1/26 H01C7/02 H01C7/04 H01M10/42 H01R13/70 H01R29/00 H02J5/00 H02J7/00 H02J9/06 (Core/Invention); G01R31/40 (Core/Non-invention)

International (IPC 1-7): G01K1/00 G01K1/02 G01R1/00 G05F1/565 G06F1/18 H01C3/04 H01H47/00 H01M10/48 H01M10/50



H01R H01R13/703 H01R24/00 H01R27/00 H01R29/00 H01R9/05 H02J1/10 H02J7/00 H02J7/34 H02J9/00
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Publication number	Publication date	Application number	Application date
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Probable Assignee: LIFESTYLE TECHNOLOGIES

Assignee(s): (std): PATRICK H POTEGA ; PATRICK POTEGA ; POTEGA PATRICK ; POTEGA PATRICK HENRY ; POTEGA PATRICK H ; LIFESTYLE TECHNOLOGIES

Assignee(s): LIFESTYLE TECHNOLOGIES INC

Inventor(s): (std): POTEGA PATRICK HENRY ; POTEGA PATRICK H ; POTEGA PATRICK ; PATRICK H POTEGA ; PATRICK POTEGA

Agent(s): MARKS AND CLERK; PATRICK H POTEGA

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Title: ENABLEMENT OF DEVICE POWER-ON WITH PROPER ASSEMBLY

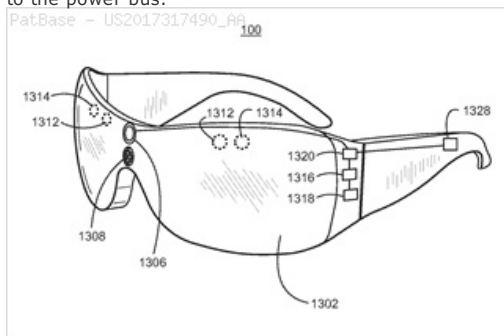
Abstract: An electronic device is configured with sub-assemblies including a main logic board, flexible printed circuit, and dual battery packs that are assembled together with electrical connectors to enable power from the battery packs to flow over a power bus that is distributed along the flexible printed circuit and main logic board. A protection circuit module (PCM) in each battery pack is configured to determine a state of each of the connections among the sub-assemblies (i.e., whether or not properly assembled to provide electrical continuity through the connector) so that power from the battery packs is switched on to the power bus only when electrical continuity is verified at each of the connectors. In the event that any connection is faulty, for example due to a misalignment of a connector during assembly that prevents electrical continuity to be established through a connector, neither PCM will switch power on to the power bus.

Classifications:

International (IPC 8-9): G01R31/02 G01R35/00 G02B27/01 H02H H02H11/00 H02H7/18 H02J1/00 H02J7/00 H02J7/02 H04N5/64 (Advanced/Invention); H02H (Subclass/Invention)

International (IPC 1-7): G01R35/00 H02H11/00 H02H7/18
CPC: H02H11/003 H02J7/0042 G02B27/017 G02B2027/0178 G01R35/00 H02H7/18 H02H11/006 H02J7/0036 H02J7/0029 G01R31/026

US: 359/630

**Family:**

Publication number	Publication date	Application number	Application date
AU2017259146 AA	20181025	AU20170259146	20170428
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EP3453092 A1	20190313	EP20170722340	20170428
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IL262521 A0	20181231	IL20170262521	20170428
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JP2019515622 T2	20190606	JP20180557130T	20170428
KR20190002581 A	20190108	KR20187034218	20170428
MX2018012953 A1	20190311	MX20180012953	20170428
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US2017317490 AA	20171102	US20160144088	20160502
US9991699 BB	20180605	US20160144088	20160502
WO17192363 A1	20171109	WO2017US29990	20170428

Priority:

US20160144088 20160502 WO2017US29990 20170428

Probable Assignee: MICROSOFT CORP

Assignee(s): (std): LUKOFSKY DAVID ; MEHTA AGUSTYA ; MICROSOFT CORP ; MICROSOFT TECH LICENSING LLC ; SHOYKHET EUGENE ; PENNY JUNIUS ; MICROSOFT TECHNOLOGY LICENSING LLC

Inventor(s): (std): SHOYKHET EUGENE ; MEHTA AGUSTYA ; LUKOFSKY DAVID ; PENNY JUNIUS ; JUNIUS PENNY ; AGUSTYA MEHTA ; DAVID LUKOFSKY ; EUGENE SHOYKHET

Agent(s): DAVIES COLLISON CAVE PTY LTD; SMART AND BIGGAR; ESTUDIO VILLASECA Y CIA; CMS CAMERON MCKENNA NABARRO OLSWANG LLP; LANNY SETIAWAN MBA MGMT MA LPC MA LMFT; ITOH TADASHIGE; ITOH TADASHI; OHNOKI SHINSUKE; MAYER AND WILLIAMS PC; MARK K; MINHAS SANDIP ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METAL-AIR FUEL CELL BATTERY SYSTEM EMPLOYING A PLURALITY OF MOVING CATHODE STRUCTURES FOR IMPROVED VOLUMETRIC POWER DENSITY

Abstract: In an air-metal fuel cell battery (FCB) system, wherein a plurality of movable cathode structures are mounted within a compact housing through which metal-fuel tape is transported along a predetermined path while an ionically-conductive medium is disposed between the metal-fuel tape and each movable cathode structure at points of contact. In illustrative embodiments, the movable cathode structures are realized as rotatable cathode cylinders, and transportable cathode belts. The ionically-conductive medium is realized as a solid-state ionically-conductive film applied to the cathode structures and/or metal-fuel tape, as well as ionically-conductive belt structures transported at the same velocity as corresponding cathode structures (e.g. cathode cylinders or belts) at the locus of points at which the ionically-conductive medium contacts the moving cathode structure and the moving metal-fuel tape. By virtue of the present invention, the volumetric power density characteristics of FCB systems can be significantly improved, while the likelihood of damage to the cathode structures and metal-fuel tape is substantially reduced.

Classifications:

International (IPC 8-9): G06K7/10 H01M10/04 H01M10/40 H01M10/42 H01M10/44 H01M10/46 H01M10/48 H01M12/06 H01M12/08 H01M16/00 H01M2/02 H01M2/12 H01M2/20 H01M2/26 H01M2/36 H01M2/38 H01M4/00 H01M4/02 H01M4/42 H01M4/70 H01M4/86 H01M4/92 H01M4/96 H01M6/12 H01M6/42 H01M6/50 H01M8/00 H01M8/04 H01M8/10 H01M8/18 H01M8/22 H01M8/24 H02J7/00 H02M1/14 (Advanced/Invention); H01M10/04 H01M10/42 H01M10/44 H01M10/46 H01M12/06

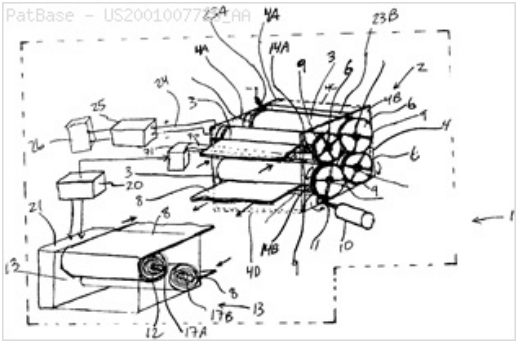
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invention);
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H01M4/96 H01M8/00 H01M8/04 (Core/Invention);
H01M8/18 (Core/Non-invention)

International (IPC 1-7): C07D231/54 C07D403/04 G06K7/10
H01M10/04 H01M10/40 H01M10/42 H01M10/44 H01M10/46
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CPC: Y02T90/168 Y04S30/12 Y02E60/12 G06K7/10891 Y02T10/7241
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European: B60L11/18R B60L11/18R12 B60L11/18R8D G06K7/10S9F2 H01M10/04B H01M10/04G H01M10/42 H01M10/42C
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US: 204/57 235/462.01 235/462.44 235/462.45 235/472.01 235/472.02 29/623.5 307/10.1 307/10.7 307/9.1 318/139
320/101 320/124 324/434 363/44 427/115 429/127 429/127S 429/128 429/128S 429/13 429/161 429/161S 429/208 429/21
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Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: REVEO INC

Assignee(s): (std): BASF AKTIENGESELLSCHAFT ; CHANG YUEN MING ; CHEN MUGUO ; FARIS SADEG M ; REVEO INC ; YAO WAYNE ; TSAI TSEPIN ; LEGBANDT THOMAS J ; REVCO INC ; REVO INC ; SYMBOL TECHNOLOGIES INC

Assignee(s): MORGAN STANLEY SENIOR FUNDING INC COLLATERAL AGENT AS ; SYMBOL TECHNOLOGIES LLC ; RIBE O INN KO PO RAY LTD ; YAO WENBIN ; ABBOTT GMBH ; TSAI TSPIN ; JPMORGAN CHASE BANK NA

Inventor(s): (std): CHANG YUEN MING ; YAO WAYNE ; YUEN MING CHANG ; YAO WENBIN ; LEGBANDT THOMAS J ; CHEN MUGUO ; TSAI TSPIN ; TSEPIN ; TSAI ; SADEG ; FARIS M ; FARIS SEADEG M ; WENBIN YAO ; DANIEL ARON BONNEVILLE ; ANDRZEJ K DRUKIER ; L D ARNOLD ; ALLYSON TURNER ; M FARIS ; MICHAEL HOCKLEY ; T BARLOZZARI ; PAUL RAFFERTY ; SADEG M FARIS TSEPIN TSAI THOMAS J LEGBANDT ; ANNE LOUISE KILLAM ; TERESA BARLOZZARI ; LEE D ARNOLD ; YIGAL GREENER ; MARY THERESE KUELAS ; SEADEG M FARIS ; JEFFREY JOHN MILLER ; PATEL MEHUL ; HILLER CRAIG ; LEGBANDT SADEG M FARIS TSEPIN ; CHEN MU GUO ; YAO WAY NE ; TSAI TSE PIN ; TSAI TSEPIN ; FARIS SADEG M ; MUGUO CHEN ; WAYNE YAO ; THOMAS J LEGBANDT ; TSEPIN TSAI ; SADEG M FARIS

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW