

Search history

- Search 1: distribution and board (Results 39959)
- Search 2: conduct* and bar (Results 90087)
- Search 3: 1 and 2 (Results 768)
- Search 4: insulative and plate (Results 9266)
- Search 5: 3 and 4 (Results 16)

1) Family number: 883742 (US3470421A)

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Title: CONTINUOUS BUS BAR FOR CONNECTOR PLATE BACK PANEL MACHINE WIRING

Abstract: Source: US3470421A ABSTRACT OF THE DISCLOSURE A continuous bus bar for a conductive connector plate that is specifically designed for back-panel wiring by an automatic Wire-Wrap machine. The bus bar, on the front-side, includes a continuous spring clip for sliding pressure electrical contact with male contacts of printed circuit board connectors that are mounted thereby on the connector plate front-side. The bus bar, on the backside, may include one or more conductive strips that are electrically coupled to the spring clip on the front-side by conductive members that, on the back-side, may also function as Wire-Wrap pins. The bus bar may be insulatively mounted on the connector plate to function as a voltage bus or may be directly mounted on the connector plate to function as a ground bus. B

Classifications:

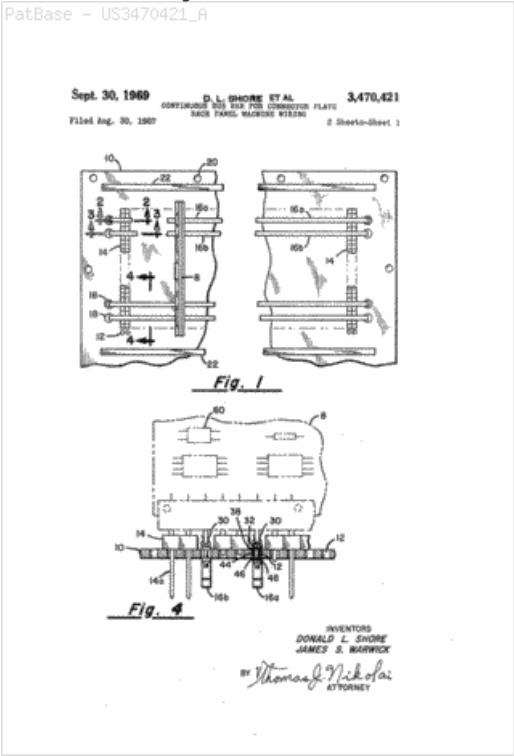
International (IPC 8-9): H01R12/16 H01R12/70 (Advanced/Invention);
H01R12/00 (Core/Invention)

International (IPC 1-7): H01R23/68 H02B1/04 H02B9/00

CPC: H01R12/7088

European: H01R23/68C

US: 317/101 361/775 361/787 361/816 361/826 439/101 439/59
439/61



Family:

Publication number	Publication date	Application number	Application date
US3470421 A	19690930	US19670664489	19670830

Priority:

US19670664489 19670830

Probable Assignee:

SPERRY RAND CORP

Assignee(s): (std):

SPERRY RAND CORP

Inventor(s): (std):

SHORE DONALD L ; WARWICK JAMES S

Inventor(s):

DONALD L SHORE ; JAMES S WARWICK

2) Family number: 721584 (GB1215244A)

© PatBase

Title: IMPROVEMENTS TO ELECTRICAL FUSE UNITS AND THEIR MOUNTINGS IN FUSE DISTRIBUTION BOARDS

Abstract: Source: GB1215244A 1,215,244. Fuse boards. BILL SWITCHGEAR Ltd. and L. S. HUMPHRIES. 7 Feb., 1969 [10 May, 1968], No. 22219/68. Heading H2E. A fuseboard comprises juxtaposed insulative bodies 20 having recesses 25

accommodating, and thus protectively insulating, a bus-bar to which sockets 40 are bolted, sockets 40 and 52 receiving blades of a fuseholder through slotted detachable protective covers 60. Detachable covers (70), (Fig. 1, not shown) are also provided, and the ends of the bus-bar (12) are encased in insulating blocks (14), bolted to mounting straps (10), on which is seated a panel of dielectric. A plurality of bus-bars may be mounted side by side on straps (10), (Fig. 7, not shown). All insulators are preferably of a synthetic resinous material. An input conductor (22), (Fig. 1), which may be protectively insulated, is clamped to the centre of bus-bar (12) and output conductors may be clamped in bores of sockets 52. The ends of recesses 25 are rebated to allow insertions of a resilient sealing gasket 28.

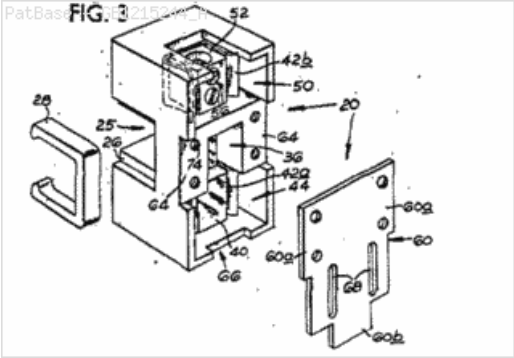
Classifications:

International (IPC 8-9): H01H85/20 H02B1/056 (Advanced/Invention)

International (IPC 1-7): H01H85/02 H01H85/48 H02B9/00

CPC: H01H85/20 H01H2085/2075 H02B1/056

European: H01H85/20 H02B1/056 T01H85/20P



Family:

Publication number	Publication date	Application number	Application date
GB1215244 A	19701209	GB19680022219	19680510

Priority:

GB19680022219 19680510

Probable Assignee: LAURENCE SARGENT HUMPHRIES

Assignee(s): (std): BILL SWITCHGEAR LTD ; LAURENCE SARGENT HUMPHRIES

Assignee(s): BILL SWITCHGEAR LIMITED

3) Family number: 1329458 (US4221445A)

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Title: Cross connect distribution system and apparatus

Abstract: Source: US4221445A A telecommunications distributing system for use in a building requiring a large number of telephone circuits is disclosed. The assembly employs multi-conductor connectors having two rows of terminals attached to the ends of incoming and outgoing telephone cables. A jumper connector assembly for interconnecting corresponding incoming and outgoing wire pairs is also employed. In one embodiment, the jumper connector establishes an edge contact with the terminals in the multi-conductor connector to minimize the width of the jumper connector.

Classifications:

International (IPC 8-9): H01B7/00 H01R12/16 H01R13/04

H01R13/10 H01R13/26 H01R13/40 (Advanced/Invention);

H01R13/627 H01R31/00 H01R4/24 (Advanced/Non-invention);

H01B7/00 H01R12/00 H01R13/02 H01R13/10

H01R13/40 (Core/Invention);

H01R13/627 H01R31/00 H01R4/24 (Core/Non-invention)

International (IPC 1-7): H01B7/00 H01H1/38 H01R11/04 H01R13/04

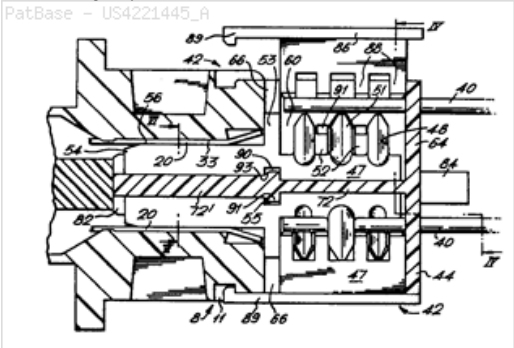
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H04Q1/02 H05K5/00

CPC: H01R4/2445 H01R13/26 H01R13/627 H01R31/00

European: H01R13/26 T01R13/627 T01R31/00 T01R4/24B6

US: 439/391 439/43 439/507



Family:

Publication number	Publication date	Application number	Application date
AU197943208 A1	19790809	AU19790043208	19790108
BR7900575 A	19790828	BR19790000575	19790130
CA1094184 A1	19810120	CA19790320741	19790202
EP0003650 A1	19790822	EP19790300138	19790126
ES477368 A1	19791016	ES19790477368	19790201
JP54113889 A2	19790905	JP19790011349	19790202
US4221445 A	19800909	US19780874678	19780202

Priority:

CA19790320741 19790202 US19780874678 19780202

Probable Assignee: AMP INC

Assignee(s): (std): AMP INC

Assignee(s): AMP INC A NEW JERSEY CORP ; FLEISCHHACKER JAMES E ; ROBERTS LINCOLN E ; WASSERLEIN HENRY G JR

Inventor(s): (std): FLEISCHHACKER J ; FLEISCHHACKER JAMES E ; FLEISCHHACKER JAMES EARL ; HENRII JIYOOJI WATSUSAAREIN JI ; RINKAAN EDOUIN ROBAATSU ; ROBERTS L ; ROBERTS LINCOLN E ; ROBERTS LINCOLN EDWIN ; WASSERLEIN H ; WASSERLEIN HENRY G JR ; WASSERLEIN HENRY GEORGE ; WASSERLEIN HENRY GEORGE JR ; WASSERLEIN JR HENRY G ; JIEIMUSU AARU FURIISHIYUHATSUK

Inventor(s): LINCOLN EDWIN ROBERTS ; WASSERLEIN HENRY G ; HENRY GEORGE WASSERLEIN JR ; JAMES EARL FLEISCHHACKER

Agent(s): SMART AND BIGGAR

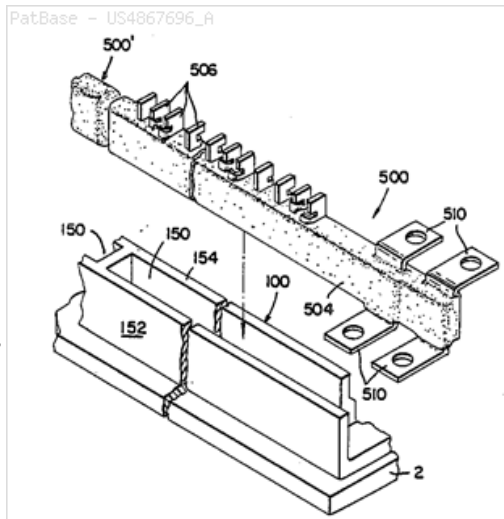
Designated states: BE DE FR GB IT NL SE

Title: LAMINATED BUS BAR WITH POWER TABS

Abstract: Source: US4867696A A backplane connector assembly including a motherboard connector and power and signal daughterboard connectors is disclosed. The motherboard connector has a signal section and a power section. Individual signal contacts are located in the signal section of the motherboard connector. A laminated power bus is located in the power section of the motherboard connector which is on the opposite side of the daughterboard from the signal section. Each of a plurality of separate busses in the laminated power bus has tabs extending from one edge and bent at right angles relative to the bus so that the tabs extend orthogonally relative to the daughterboard. This configuration permits daughterboards having different thicknesses to be mated inserted into the same motherboard connector. The laminated power bus permits power to be delivered externally of the motherboard to the daughterboards.

Classifications:

International (IPC 8-9): H01R12/04 H01R12/16 H01R12/50 H01R12/70 H01R12/73 H01R4/66 H02G5/00 H05K7/14 (Advanced/Invention); H01R12/57 H01R12/70 H01R12/72 H01R12/73 H01R13/652 H01R13/658 H01R13/6585 H01R13/6595 (Advanced/Non-invention); H01R12/00 H01R4/66 H02G5/00 H05K7/14 (Core/Invention); H01R13/652 H01R13/658 (Core/Non-invention)
International (IPC 1-7): H01R13/652 H01R13/658 H01R23/68 H01R25/16 H01R4/66 H01R9/09
CPC: H01R12/7088 H01R12/724 H05K7/1457 H02G5/005 H01R12/57 H01R12/737 H01R13/6585 H01R13/6595 H01R13/652 H01R23/688 H01R12/716
European: H01R23/68C H01R23/68D2 H01R23/68F H01R23/70K H02G5/00C H05K7/14G5 T01R13/652 T01R13/658 T01R23/68C T01R23/72
US: 174/72B 439/101 439/212 439/214 439/578 439/579 439/607.07 439/608 439/79



Family:

Publication number	Publication date	Application number	Application date
JP2072573 A2	19900312	JP19890182338	19890714
JP2759282 B2	19980528	JP19890182338	19890714
US4867696 A	19890919	US19880219946	19880715
US4869676 A	19890926	US19880219949	19880715
US4875865 A	19891024	US19880220141	19880715
US4917616 A	19900417	US19880220045	19880715

Priority:

US19810096792 19810911 US19880219946 19880715 US19880219949 19880715
 US19880220045 19880715 US19880220141 19880715

Probable Assignee: AMP INC PO BOX 3608 HARRISBURG PA 17105

Assignee(s): (std): AMP INC

Assignee(s): AMP INC P O BOX 3608 HARRISBURG PA 17105 ; AMP INC PO BOX 3608 HARRISBURG PA 17105 ; AMUPU INC

Inventor(s): (std): DEMLER JR HENRY W ; DOLA FRANK P ; FURANKU PIITAA DORA ; HENRII DABURIYU DENRAA JIYUNIA ; DEBITSUTO JIYON KINMERU ; KIMMEL DAVID J ; SOTOLONGO THOMAS J ; TOOMASU JIEI SOTORONGO

Inventor(s): TOOMASU JEI SOTORONGO ; DEBITSUTO JON KINMERU ; HENRII DABURYU DENRAA JUNIA

Title: METHOD FOR RECORDING AND REPRODUCING INFORMATION, APPARATUS THEREFOR AND RECORDING MEDIUM

Abstract: Source: US2002005888A In the information recording an reproducing method and apparatus according to the present invention, a piece of picture image information is recorded as an analog quantity or a digital quantity an information carrying medium in a planar manner at a high density, charge potential is read for outputting electric signals to correspond to the recorded picture image information and then the outputted signals are printed out by means of various display unit or output device, with high quality and high resolution as well as ease processing of the information. The information carrying medium provides a long period of storage of information and enables stored picture image information to be repeatedly reproduced with a picture quality according to need. Particularly, it is, according to the present invention, possible to read and output local potential of an information carrying medium with predetermined scanning density at a desired time, and so pictures of high quality may be output as a silver salt photograph is taken and reproduced by optically scanning the film. Thus, the present invention may be applied to a wide field including photographing, copying and printing.

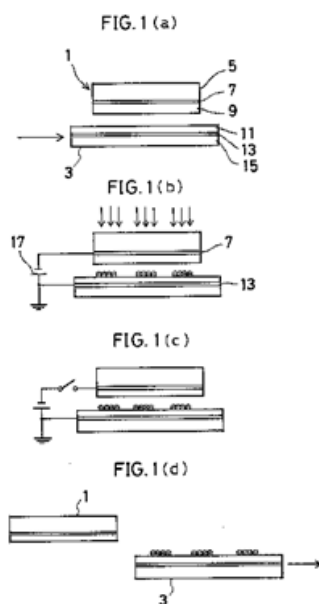
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H04N5/80 (Core/Invention)
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CPC: G03G15/04045 G06K19/06046 G03G5/02 G03G15/05
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European: G03G15/04 G03G15/05 G03G15/18 G03G15/22A
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US: 347/139 347/139P 347/164 348/207 348/207.99 348/259
355/217 355/218 355/77 399/136 399/178 399/207 430/48 G9B/007
G9B/007.010 G9B/007.105 G9B/007.139 G9B/009 G9B/009.024
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PatBase - US2002005888_AA

Patent Application Publication Jan. 17, 2002 Sheet 1 of 61 US 2002/005888 A1



Family:

Publication number	Publication date	Application number	Application date
CA1339151 A1	19970729	CA19890599963	19890517
DE68927280 D1	19961107	DE19896027280	19890517
DE68927280 T2	19970306	DE19896027280T	19890517
DE68929129 D1	20000203	DE19896029129	19890517
DE68929129 T2	20000531	DE19896029129T	19890517
EP0342968 A2	19891123	EP19890305010	19890517
EP0342968 A3	19930127	EP19890305010	19890517
EP0342968 B1	19961002	EP19890305010	19890517
EP0714093 A2	19960529	EP19960100346	19890517
EP0714093 A3	19960605	EP19960100346	19890517
EP0714093 B1	19991229	EP19960100346	19890517
ES2094728 T3	19970201	ES19890305010T	19890517
ES2143097 T3	20000501	ES19960100346T	19890517
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IL90323 A1	19950629	IL19890090323	19890517
JP1289975 A2	19891121	JP19880121593	19880517
JP1290368 A2	19891122	JP19880121594	19880517
JP1293358 A2	19891127	JP19880123600	19880520
JP1293359 A2	19891127	JP19880123601	19880520
JP1293360 A2	19891127	JP19880123602	19880520
JP1298860 A2	19891201	JP19880129310	19880526
JP1298865 A2	19891201	JP19880129309	19880526
JP2001693 A2	19900105	JP19880121591	19880517
JP2077764 A2	19900316	JP19880230475	19880913
JP2077780 A2	19900316	JP19880230476	19880913
JP2093477 A2	19900404	JP19880248579	19880929
JP2153365 A2	19900613	JP19880308159	19881206
JP2230244 A2	19900912	JP19890051369	19890303
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JP2862261 B2	19990303	JP19890066797	19890318
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JP2891462 B2	19990517	JP19880123600	19880520
JP2903503 B2	19990607	JP19900126081	19900515
JP2959636 B2	19991006	JP19900126084	19900515
JP3015081 A2	19910123	JP19900126080	19900515
JP3015087 A2	19910123	JP19900126081	19900515
JP3020755 A2	19910129	JP19900126083	19900515
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KR100223697 B1	19991015	KR19890006572	19890517
KR100290273 B1	20010515	KR19990004635	19990210
KR19900018747 A	19901222	KR19990004635	19990210
US2002005888 AA	20020117	US19970812559	19970307
US5161233 A	19921103	US19890352525	19890516
US5638103 A	19970610	US19950462775	19950605
US5983057 A	19991109	US19950462595	19950605
US6493013 BB	20021210	US19970812559	19970307

Priority:

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US19890352525	19890516	KR19890006572	19890517		

Probable Assignee: DAINIPPON PRINTING CO LTD

Assignee(s): (std): DAI NIPPON PRINTING CO LTD ; DAINIPPON PRINTING CO LTD

Assignee(s): DAI NIPPON PRINTING ; DAI NIPPON PRINTING CO ; DAI NIPPON PRINTING CO LTD TOKIO TOKYO JP ; DAINIPPON INSATSU KK ; DAINIPPON PRINTING CO

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Inventor(s): OBATA HIROYUKI C O DAI NIPPON PRINTING CO ; UTSUMI MINORU C O DAI NIPPON PRINTING CO ; SAITO NORIKAZU C O DAI NIPPON PRINTING CO ; OGUSU CHIHAYA C O DAI NIPPON PRINTING CO ; MUKASA SHUNSUKE C O DAI NIPPON PRINTING CO ; MOHRI HIROSHI C O DAI NIPPON PRINTING CO ; KUDO YOSHIKI C O DAI NIPPON PRINTING CO ; MATSUO MAKOTO C O DAI NIPPON PRINTING CO ; KOIKE MASATO C O DAI NIPPON PRINTING CO ; AONO TAKASHI C O DAI NIPPON PRINTING CO ; AMANO HIDEAKI C O DAI NIPPON PRINTING CO

Agent(s): REINHOLD COHN AND PARTNERS

Designated states: CH DE ES FR GB IT LI NL SE

6) Family number: 3475914 (US4932888A)

© PatBase

Title: MULTI-ROW BOX CONNECTOR

Abstract: Source: US4932888A A multi-row box connector having continuous ground planes formed as part of the connector housing for electrically interconnecting printed circuit boards. The multi-row box connector includes first and second insulative housing members each having thin metallic films deposited on the internal and external sidewalls thereof, respectively, to form the continuous ground planes. The thin metallic films may be deposited on respective housing members by sputtering. The ground planes provide early ground mate as well as EMF shielding and minimization of cross talk between the signal elements of the box connector.

Classifications:

International (IPC 8-9): H01R12/16 H01R13/648 H01R13/658 H01R24/00 (Advanced/Invention);

H01R12/50 H01R12/72 (Advanced/Non-invention);

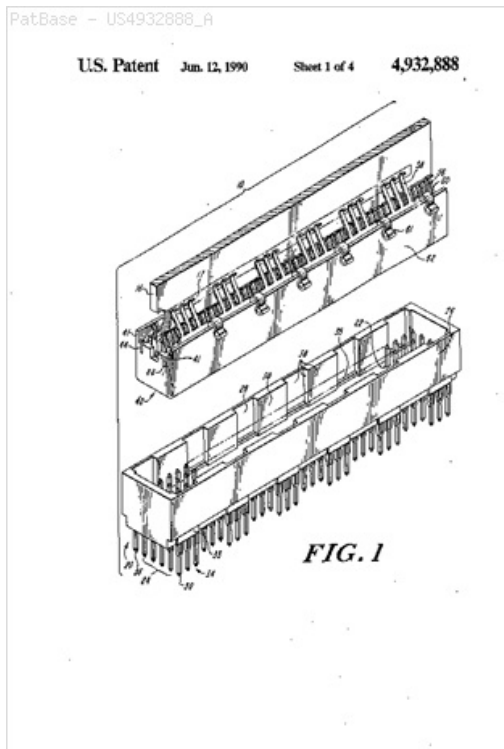
H01R12/00 H01R13/648 H01R13/658 H01R24/00 (Core/Invention)

International (IPC 1-7): H01R13/648 H01R23/02 H01R23/68

CPC: H01R12/721 H01R13/65802

European: H01R13/658B T01R23/70B T01R23/70K

US: 439/108 439/607 439/607.01



Family:

Publication number	Publication date	Application number	Application date
CA2019139 AA	19901216	CA19902019139	19900615
EP0403370 A1	19901219	EP19900401625	19900612
JP3114158 A2	19910515	JP19900157406	19900615
US4932888 A	19900612	US19890367950	19890616

Priority:

CA19902019139 19900615 US19890367950 19890616

Probable Assignee: AUGAT INC**Assignee(s):** (std): AUGAT INC**Assignee(s):** AUGAT INC 89 FORBES BOULEVARD MANSFIED MA 02048 A CORP OF MA ; SENOR RONALD E**Inventor(s):** (std): RONARUDO II SENAA ; SENOR RONALD E**Agent(s):** MALCOLM JOHNSTON AND ASSOCIATES**Designated states:** DE FR GB**7) Family number: 11834079 (US5170100A)**

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Title: ELECTRONIC FLUORESCENT DISPLAY SYSTEM

Abstract: Source: US5170100A A cathodoluminescent device employs elongated grid electrodes such as small gauge wires for addressing and controlling the brightness of the display, thereby increasing the osmotic coefficient of the grid electrodes. End portions of the cathode filaments are bent into springs to reduced cold terminal effects. The edges of the face plate of the device are curved to reduced the visual effects of mosaic slots. The display may be operated at low anode voltage with increased luminescence so that full screen scanning is possible. Different sections of narrow strips forming a staggered structure strengthens the integrity of the device and reduces dark areas in the display.

Classifications:

International (IPC 8-9): A47F11/00 G02F1/13 G02F1/13357 G09F9/30 G09F9/313 G09G3/30 G09G3/34 H01J1/18 H01J29/02 H01J29/04 H01J29/46 H01J29/87 H01J31/12 H01J31/15 H01J31/20 H01J63/06 H01J9/14 H01J9/18 H01J9/24 (Advanced/Invention); G02F1/13357 G09G3/20 G09G3/36 H01J29/87 H01J31/15 H01J9/24 (Advanced/Non-invention); A47F11/00 G02F1/13 H01J1/13 H01J29/02 H01J29/04 H01J29/46 H01J29/87 H01J31/10 H01J31/12 H01J31/15 H01J9/14 H01J9/18 H01J9/24 (Core/Invention); G02F1/13 (Core/Non-invention)

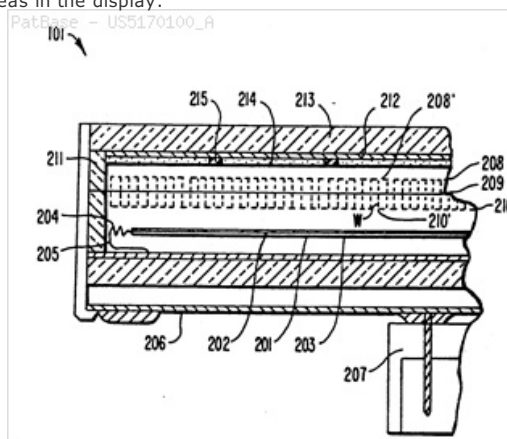
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CPC: H01J9/148 H01J9/185 H01J29/467 H01J31/127 H01J2201/304 H01J2329/863 H01J2329/8645 G02F1/133604 G02F1/133611 G02F2001/133612 G02F2001/133613 G02F2001/133622 G02F2001/133625 G02F2203/30 G09G3/2018 G09G3/342 G09G3/3611 G09G2310/024 G09G2310/08 G09G2320/0633

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European: G02F1/1336B2 G02F1/1336B8 G02F1/1336Q G09G3/34B4 H01J1/18 H01J29/02 H01J29/02K H01J29/04 H01J29/46D H01J31/12F H01J31/12F4B H01J31/12F4D H01J31/15 H01J63/06 H01J9/14D H01J9/18B S02F1/1336B21 S02F1/1336B22 S02F1/1336Q2 S02F1/1336S S02F203/30 S09G3/20G6 S09G3/20G6F2 S09G3/36C S09G310/02F S09G310/02L S09G310/08 S09G320/06L2 S09G320/06L4 T01J201/304 T01J329/30 T01J329/86D T01J329/86D4 T01J329/86D6

US: 313/257 313/292 313/309 313/336 313/422 315/169.1 315/366 345/102 345/5 345/75.1

**Family:**

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JP7028414 A2	19950131	JP19910065516	19910306
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US5229691 A	19930720	US19910730110	19910715
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US5621284 A	19970415	US19950402313	19950310
US5859508 A	19990112	US19970846029	19970425
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WO1996US17190	19961025	WO1992US10925	19921218		

Probable Assignee: PIXTECH INC

Assignee(s): (std): HANKIYO UNIV ; HUANG XI ; LAM VICTOR ; PANOCORP DISPLAY SYSTEMS ; PANOCORP DISPLAY SYSTEMS INC ; LEUNG CHARLES S ; UNIV HANGZHOU ; PIXTECH INC ; XU YI ; PANOKOOPU DEISUPUREE SYST ; GE SHICHAO

Assignee(s): HANGZHOU UNIV ; HANGZHOU UNIVERSITY ; PANOCORP DISPLAY SYSTEMS SUNNYVALE CALIF US ; PIXTECH INC A OF CALIFORNIA CORP ; PANOCORP DISPLAY SYSTEMS SUNNYVALE CALIF ; PANOCORP DISPLAY SYSTEMS A CA CORP ; PANOCORP DISPLAY SYSTEMS A CORP ; PANOCORP DISPLAY SYSTEMS A CORP OF CALIFORNIA ; PANOCORP DISPLAY SYSTEMS A CORP ; PANOCORP DISPLAY SYSTEMS A CORP OF CALIFORNIA

Inventor(s): (std): FUAN SHI ; GE SHICHAO ; GE SHISHIYO ; HUANG XI ; BIKUTAA RAMU ; JIN UEICHEN ; JIN WEICHENG ; LEUNG CHARLES S ; LIANG JAMM ; LIANG JEMM ; LIANG JEMM Y ; RUAN SHIPI ; SHICHAO GE ; LAM VICTOR ; SHIPING RUAN ; WEICHENG JIN ; XI HUANG ; XU YI ; YAM LAP MAN ; YAN LAP MAN ; YI XU

Inventor(s): VICTOR LAM ; LAM VICTOR SARATOGA CA 95070 US ; LAP MAN YAN ; SHICHAO GE SANTA CLARA CA 95050 US ; JIN WEICHENG ET AL ; CHARLES S LEUNG ; JAMM LIANG ; JEMM LIANG ; JEMM Y LIANG

Designated states: AM AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CS CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IS IT JP KE KG KP KR KZ LK LR LT LU LV MC MD MG ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SN SZ TD TG TJ TM TT UA UG US UZ VN

8) Family number: 30419992 (US5260009A)

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Title: SYSTEM, METHOD, AND PROCESS FOR MAKING THREE-DIMENSIONAL OBJECTS

Abstract: Source: US5260009A A method and process for computer-controlled manufacture of three-dimensional objects involves dispensing a layer of liquid, insoluble material onto a platform at predetermined locations, which then hardens. A second media, preferably water soluble, is then sprayed onto this layer to thereby encapsulate the hardened insoluble media. The uppermost surface of this encapsulant is planed, thus removing a portion of the encapsulant to expose the underlying insoluble material for new pattern deposition. After the resulting planing residue is removed, another layer of liquid, insoluble media is dispensed onto the planed surface. The insoluble media can be of any color and may vary from layer to layer, and from location within a layer to location within a layer. These steps are repeated, until the desired three-dimensional object, surrounded by a mold, is completed. At this point, the object is either heated or immersed in a solvent, thereby dissolving the mold and leaving the three-dimensional object intact. Other systems, methods and processes are also disclosed.

Classifications:

International (ipc 8-9): B22C7/02 B28B17/00 B29C35/08 B29C39/12 B29C67/00 B29C67/24 B29C69/00 B29C70/02 B29C70/68 G02F1/133 G03F7/00 G05B15/00 G05B15/02 G05B19/19 G05B19/4097 G05B19/418 G06F17/50 G06T17/00 G09G3/20 G09G3/36 H04N1/192 H04N5/66 H05K3/12 H05K3/46 (Advanced/Invention);

B28B17/00 B29C35/08 G03F7/00 G05B19/4097 G06F17/50 H05K3/46 (Advanced/Non-invention);

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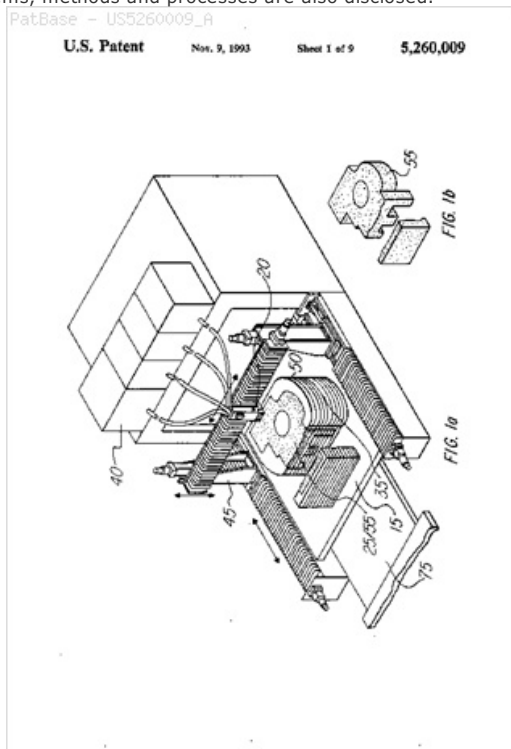
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European: B29C67/00R2B B29C67/00R8D H05K3/12C2 H05K3/46C6 L29C793/00 L29K995/00E2B S05B219/49016 T05K203/01A5 T05K203/01A6 T05K3/46C6

US: 118/100 118/120 118/313 118/314 118/323 264/245 264/246 264/255 264/308 264/317 264/40.1 264/401 345/419 345/424 347/1 358/1.1 358/1.8 358/18 364/468 364/468.26 364/476 395/119 395/124 425/135 425/150 425/375 427/356 427/358 427/421 700/119 700/120 700/197



Family:

Publication number	Publication date	Application number	Application date
AT131111 E	19951215	AT19920300760T	19920129
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NO932746 A	19940201	NO19930002746	19930730
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Probable Assignee: TEXAS INSTRUMENTS INC

Assignee(s): (std): EMBREE MICHAEL E ; JONES DAVID N ; PENN STEVEN M ; TEXAS INSTRUMENTS INC

Assignee(s): TEXAS INSTRUMENTS INC DALLAS TEX US ; TEXAS INSTRUMENTS INCORPORATEDUS ; TEXAS INSTR INC

Inventor(s): (std): DAVID N JONES ; DEBITSUDO ENU JIYONZU ; JONES DAVID N ; EMBREE MICHAEL E ; MAIKURU II ENBURII ; MICHAEL E EMBREE ; PENN STEVEN M ; STEVEN M PENN ; SUCHIIBUN EMU PEN

Agent(s): COLLISON AND CO; KIRBY EADES GALE BAKER

Designated states: AT BE CH DE DK ES FR GB GR IT LI LU NL SE

9) Family number: 29378723 (US5657066A)

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Title: THERMAL DEMAND PRINTER

Abstract: Source: US5657066A A thermal demand printer for printing on media is a novel system which includes a case structure including a hinged cover panel, easily removable guide structures and media hanger, and a single central support wall to which the various components are attached. The printer includes a power supply circuit for receiving power from an external source and conditioning it for operation of the printer. An input device is provided for receiving command signals related to the operation of the printer. A control circuit for processing the command signals and generating corresponding control signals for controlling the operation of the printer and a printhead assembly for processing the control signals and generating corresponding control signals for controlling the operation of the printer are mounted in the case structure and coupled to the input device and the power supply circuit. The printhead assembly includes a printhead support structure which controls the printhead. A ribbon take-up spindle, method of operating the take-up spindle using a PMDC motor, and a spring wrap clutch device help to control the tension in the transfer ribbon used in the printer. The printer also includes a medial sensor and a method of sensing media by way of detecting the opacity of the media passing through the sensor. The printer includes a method of printhead control using double data loading and a method of accelerating and decelerating media relative to the printhead using pulse width modulation.

Classifications:

International (IPC 8-9): B41J15/16 B41J17/02 B41J17/24 B41J17/32

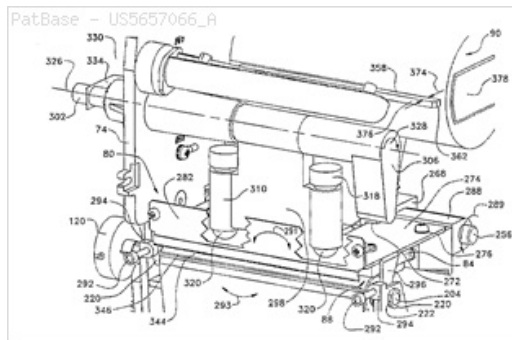
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B41J29/38 B41J29/393 B41J29/46 B41J3/36 B41J3/407 B41J33/14
B41J33/16 B41J33/22 B41J33/34 B41J35/08 B41J5/30 B65C11/02
B65H18/00 B65H19/12 B65H75/22 G07B1/00 (Advanced/Invention);
B41J29/393 B41J35/04 (Core/Invention)

International (IPC 1-7): B41J11/42 B41J11/46 B41J15/16 B41J17/02
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CPC: B41J29/393 B41J35/08 B41J3/407 Y10T16/525 Y10T16/5257
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B41J25/304 B41J25/316 B41J29/02 B41J29/38 B65C11/0289
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European: B41J17/02 B41J17/24 B41J17/42 B41J2/325 B41J2/355 B41J2/365 B41J25/304 B41J25/316 B41J29/02 B41J29/38
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US: 16/225 16/227 242/415.1 242/571 242/571.4 242/571.5 242/573.9 347/171 347/186 347/188 347/194 347/198 347/217
347/218 347/222 400/225 400/234 400/236 400/236.2 400/692 400/693 400/708 400/709 D8/325



Family:

Publication number	Publication date	Application number	Application date
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US19870789166 19870124	US19920957262 19921002	

Probable Assignee: ZIH CORP

Assignee(s): (std): ADAMS VINCENT C ; DONATO DANIEL F ; ENSINGER JAMES W ; HAMMAN WILLIAM J ; KAUFMAN JEFFREY R ; MONNIER DAN E ; NAEGELE KENNETH V ; PLATT MICHAEL K ; POOLE DAVID L ; WEST DAVID A ; ZEBRA TECHNOLOGIES CORP ; ZIH CORP ; ZEBRA TECHNOL CORP ; ZUBRISKI DAVID S ; ZWIER THOMAS P

Assignee(s): ZIH CORP WILMINGTON ; ZEBRA TECHNOLOGIES CORP VERNON HILLS ILL US ; MORGAN STANLEY SENIOR FUNDING INC COLLATERAL AGENT AS

Inventor(s): (std): ADAMS VINCENT C ; DONATO DANIEL F ; ENSINGER JAMES W ; HAMMAN WILLIAM J ; KAUFMAN JEFFREY R ; MONNIER DAN E ; NAEGELE KENNETH V ; PLATT MICHAEL K ; POOLE DAVID L ; WEST DAVID A ; ZUBRISKI DAVID S ; ZUBRISKI DAVIS S ; ZWIER THOMAS P ; ZWIR THOMAS P

Inventor(s): ZUBRISKI S ; MONNIER E ; KAUFMAN R

Agent(s): SMART AND BIGGAR

Designated states: AT BE CA CH DE DK ES FR GB GR IE IT JP LU MC NL PT SE

10) Family number: 30378312 (US6015302A)

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Title: POWER DISTRIBUTION CENTER

Abstract: Source: US6015302A A Power Distribution Center (PDC) for a motor vehicle distributes power through relays and fuses to connectors for distribution of power throughout the motor vehicle. The PDC includes a housing/connector plate, a printed circuit board, a leadframe assembly, an insulator, a B+ buss bar, an alignment plate and a cover. The PDC utilizes the B+ Buss bar assembly for receiving power into the PDC. The leadframe assembly is utilized to distribute power within the PDC to particular circuits. The printed circuit board is employed to distribute power and signals within the PDC. Terminal clips are used to interconnect between the PDC and associated relays and fuses. The PDC is configured to allow simple addition of electronic modules by providing an interface as part of the PDC, thereby allowing modules to be added to the network without requiring a separate wiring harness for each module.

Classifications:

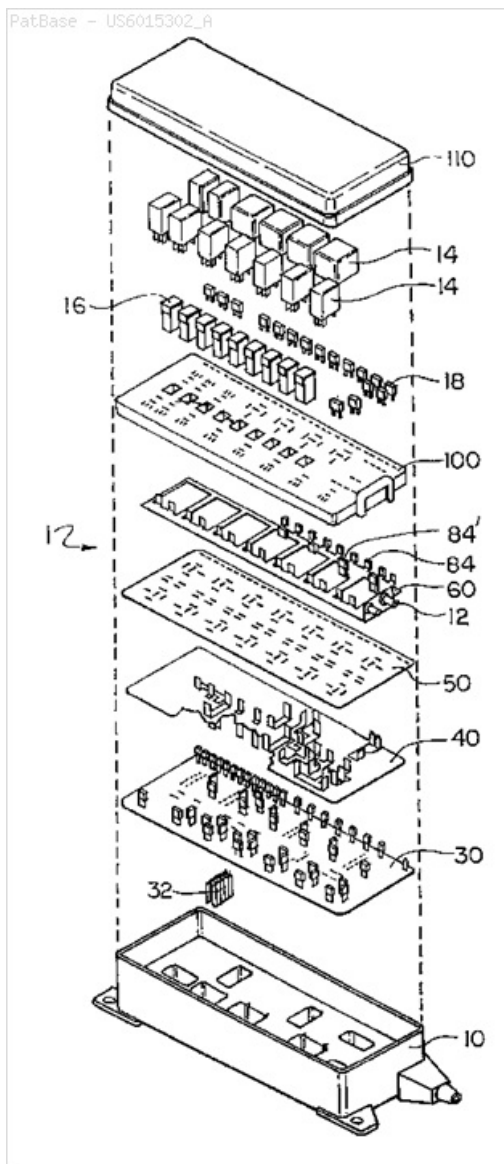
International (ipc 8-9): B60R16/02 B60R16/023 H01R12/04 H01R13/10 H01R24/00 H01R9/22 H01R9/24 H01R9/26 H02G3/16 H05K7/02 (Advanced/Invention)

International (ipc 1-7): B60R16/02 H01R12/00 H01R12/32 H01R13/10 H01R24/00 H01R9/09 H01R9/24 H01R9/26 H02G3/16

CPC: Y10S439/949 B60R16/0238 H01R9/22 H01R9/2491

European: B60R16/023K B60R16/02B12 H01R9/22 H01R9/24P

US: 439/76.2 439/850 439/949



Family:

Publication number	Publication date	Application number	Application date
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CA2240905 AA	19980618	CA19972240905	19971022
CA2240905 C	20020416	CA19972240905	19971022
DE69734095 D1	20051006	DE19976034095	19971022
DE69734095 T2	20060713	DE19976034095T	19971022
EP0876692 A1	19981111	EP19970912804	19971022
EP0876692 A4	20001122	EP19970912804	19971022
EP0876692 B1	20050831	EP19970912804	19971022
JP2000502560 T2	20000229	JP19980519540T	19971022
US6015302 A	20000118	US19970955643	19971022
WO9818180 A1	19980430	WO1997US18914	19971022

Priority:

US19960029247P 19961024 US19970955643 19971022 WO1997US18914 19971022

Probable Assignee: THOMAS AND BETTS INT INC

Assignee(s): (std): THOMAS AND BETTS INT

Assignee(s): THOMAS AND BETTS INT INC ; THOMAS AND BETTS INTERNATIONAL INC ; THOMAS AND BETTS INTERNATIONAL INC SPARKS ; BUTTS LAWRENCE D ; DERY JOSEPH L ; ROBINSON CHARLES L ; SIMPSON DOUGLAS

Inventor(s): (std): SIMPSON DOUGLAS ; ROBINSON L ; ROBINSON CHARLES L ; DERY L ; DERY JOSEPH L ; BUTTS LAWRENCE D ; BUTTS D

Agent(s): MACRAE AND CO

Designated states: AT BE CA CH DE DK ES FI FR GB GR IE IT JP LU MC NL PT SE

11) Family number: 43792781 (WO0198793A2)

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Title: SYSTEMS FOR TESTING AND PACKAGING INTEGRATED CIRCUITS

Abstract: Several embodiments of stress metal springs are disclosed, which typically comprise a plurality of stress metal layers that are established on a substrate, which are then controllably patterned and partially released from the substrate. An effective rotation angle is typically created in the formed stress metal springs, defining a looped spring structure. The formed springs provide high pitch compliant electrical contacts for a wide variety of interconnection systems, including chip scale semiconductor packages, high density interposer connectors, and probe contactors. Several embodiments of massively parallel interface integrated circuit test assemblies are also disclosed, comprising one or more substrates having stress metal spring contacts, to establish connections between one or more separated integrated circuits on a compliant wafer carrier.

Classifications:

International (IPC 8-9): G01R1/067 G01R1/073 G01R31/26

H01L21/66 H01L23/12 H01L23/31 H01L23/32 H01L23/48

H01L23/485 (Advanced/Invention);

H01L21/66 (Advanced/Non-invention)

International (IPC 1-7): G01R1/073 G01R3/00 G01R31/26

H01L21/66 H01L23/12 H01L23/32

CPC: H01L2924/10253 H01L23/3114 G01R1/06711 G01R1/07307

H01L24/10 H01L24/72 H01L2224/13099 H01L2224/274

H01L2224/75251 H01L2924/01005 H01L2924/01006 H01L2924/01013

H01L2924/01015 H01L2924/01019 H01L2924/0102 H01L2924/01022

H01L2924/01023 H01L2924/01027 H01L2924/01029 H01L2924/01033

H01L2924/01039 H01L2924/01045 H01L2924/01046 H01L2924/01047

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H01L2924/3011 H01L2924/3025 G01R1/06727 H01L24/13

H01L2924/351 H01L2224/13

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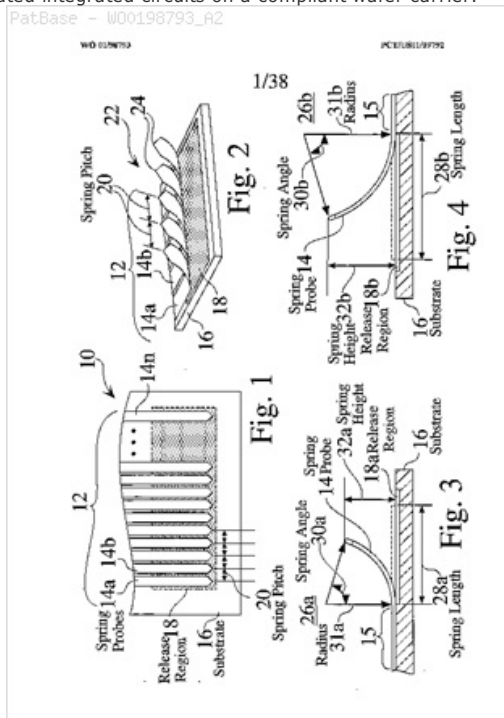
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T01L924/30105 T01L924/30107 T01L924/30110 T01L924/30250



Family:

Publication number	Publication date	Application number	Application date
AT311604 E	20051215	AT20010946604T	20010620
AU2001268630 AA	20020102	AU20010268630	20010620
AU200168630 A5	20020102	AU20010068630	20010620
DE60115437 D1	20060105	DE20016015437	20010620
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EP1292834 A2	20030319	EP20010946604	20010620
EP1292834 B1	20051130	EP20010946604	20010620
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WO0198793 A2	20011227	WO2001US19792	20010620
WO0198793 A3	20020725	WO2001US19792	20010620

Priority:

US20000212923P 20000620 US20000213729P 20000622 WO2001US19792 20010620

Probable Assignee: NANONEXUS INC

Assignee(s): (std): CHONG FU CHIUNG ; MOK SAMMY ; NANONEXUS INC
Assignee(s): VERIGY SINGAPORE PTE LTD
Inventor(s): (std): CHONG CHIUNG ; CHONG FU CHIUNG ; MOK SAMMY
Inventor(s): SAMMY MOK ; FU CHIUNG CHONG
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 MZ 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

12) Family number: 28644941 (US2003137813A)

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Title: CIRCUIT-CONSTITUTING UNIT AND METHOD OF PRODUCING THE SAME

Abstract: Source: US2003137813A A circuit-constituting unit forming a distribution circuit or the like in a vehicle. The circuit-constituting unit includes a plurality of bus bars for constituting a power circuit; a semiconductor switching device provided in the power circuit; and a control circuit board. The bus bars are bonded to a surface of the control circuit board such that the bus bars are arranged to be generally coplanar with each other. The semiconductor switching device is mounted on both of the corresponding bus bars and the control circuit board. An opening may be formed through the control circuit board. In this case, one of terminals of the semiconductor switching device may be connected to a surface of the control circuit board facing away from the surface to which the bus bars are bonded. The other terminals may be connected respectively to the bus bar through the opening.

Classifications:

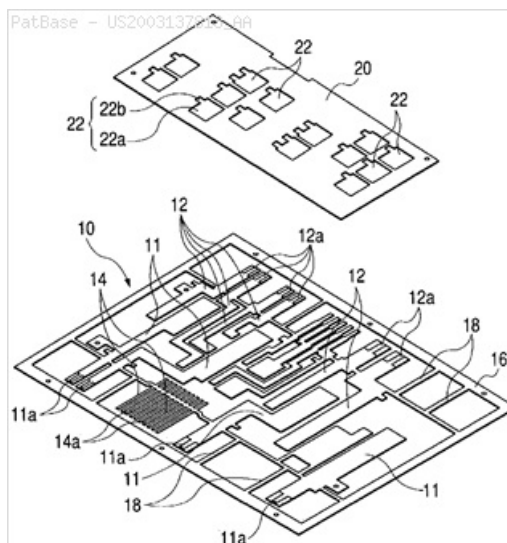
International (IPC 8-9): H01L25/07 H01L25/18 H01R9/00 H02G3/16 H05K1/02 H05K3/20 H05K7/02 H05K7/06 (Advanced/Invention); H05K1/14 H05K1/18 (Advanced/Non-invention); H01L25/07 H01L25/18 H02G3/16 H05K1/02 H05K3/20 H05K7/02 (Core/Invention); H05K1/14 H05K1/18 (Core/Non-invention)

International (IPC 1-7): H01L25/07 H01L25/18 H02G3/16 H05K7/02 H05K7/06 H05K7/08 H05K7/10

CPC: H05K1/0203 H05K1/0263 H05K1/144 H05K1/183 H05K3/202 H05K7/026 H05K2201/0352 H05K2201/0391 H05K2201/10166 H05K2201/10272 H05K2201/10969

European: H05K1/02C8 H05K3/20B H05K7/02C T05K1/02B2 T05K1/14D T05K1/18C2 T05K201/03C1F T05K201/03C3A T05K201/10A21 T05K201/10B6 T05K201/10D3B

US: 361/772 361/773 361/775 361/777 361/777P 439/76.2



Family:

Publication number	Publication date	Application number	Application date
DE10254910 A1	20030703	DE20021054910	20021125
DE10254910 B4	20081224	DE20021054910	20021125
JP2003164039 A2	20030606	JP20010359281	20011126
JP2003224918 A2	20030808	JP20020018151	20020128
JP3927017 B2	20070606	JP20010359281	20011126
JP3929781 B2	20070613	JP20020018151	20020128
US2003137813 AA	20030724	US20020302968	20021125
US7167377 BB	20070123	US20020302968	20021125

Priority:

JP20010359281 20011126 JP20020018151 20020128

Probable Assignee: AUTONETWORKS TECHNOLOGIES LTD

Assignee(s): (std): AUTO NETWORK GIJUTSU KENKYUSHO ; AUTONETWORKS TECHNOLOGIES LTD ; SUMITOMO ELECTRIC IND ; SUMITOMO WIRING SYSTEMS ; SUMITOMO ELECTRIC INDUSTRIES

Assignee(s): SUMITOO WIRING SYSTEMS LTD ; SUMITOMO WIRING SYSTEMS LTD ; SUMITOMO ELECTRIC INDUSTRIES LTD ; SUMITOMO WIRING SYST LTD ; SUMITOMO ELECTRIC IND LTD ; AUTO NETWORK GIJUTSU KENKYUSHO KK

Inventor(s): (std): CHIN NOBORU ; CHIN TOU ; ISSHIKI ISAO ; ISSHIKI NORIO ; NAKANISHI RYUJI ; ONIZUKA TAKAHIRO ; TAKAGI KOICHI ; TAKAGI KOUICHI ; YAMANE SHIGEKI

Agent(s): OLIFF AND BERRIDGE PLC

13) Family number: 28846227 (US2003136894A)

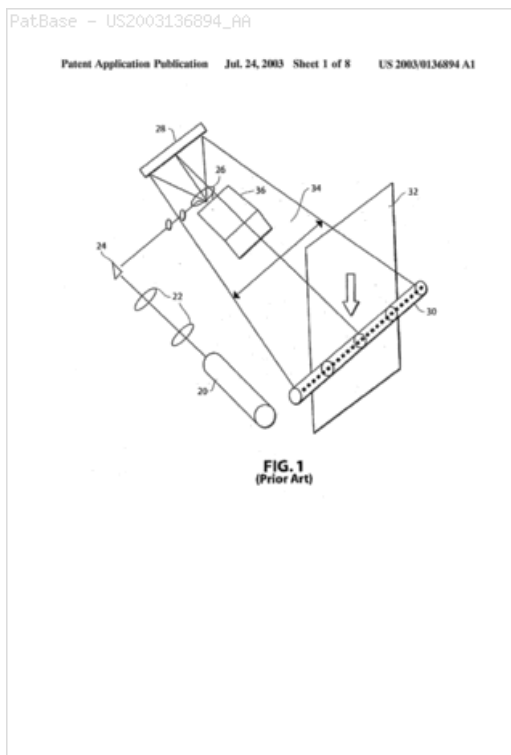
© PatBase

Title: LIGHT RECEIVING AND DETECTION SYSTEM FOR READING A RADIOGRAPHIC IMAGE

Abstract: Source: US2003136894A An apparatus and a method for receiving and detecting light from a plurality of light scanning operations on each scan line of a document, such as a radiographic image, which is being read. The light is detected by means of a photo-diode detector arrangement. Prior to detection, however, this light is received in an integrating arrangement. In effect, a progressive point of light from each optical fiber used for delivering of the light occurs from one end of a scan line to the other sequentially, from scan operation to scan operation. When the light emits from each of a plurality of optical fibers, the light then spreads somewhat into a cone. A reconcentrating and refocusing lens, such as a Selfoc lens, refocuses the spreading light into a point in the image plane of the radiographic film being scanned and essentially refocuses that light at that image plane. Detection of the light is made on a clock time basis so that the light content at each scan operation in a scan line so that recreation of the document is readily made.

Classifications:

International (IPC 8-9): H04N1/028 (Advanced/Invention);
H04N1/028 (Core/Invention)
International (IPC 1-7): G01J1/20
CPC: H04N1/0281 H04N1/02815 H04N1/02835 H04N1/02895
H04N2201/0412
European: H04N1/028C H04N1/028E H04N1/028E2C H04N1/028E6
T04N201/04B3E
US: 250/201.1 250/201.100P



Family:

Publication number	Publication date	Application number	Application date
US2003136894 AA	20030724	US20030342091	20030113

Priority:

US20020351210P 20020122 US20030342091 20030113

Probable Assignee: ERADLINK

Assignee(s): ERADLINK ; GERLACH RICHARD

Inventor(s): (std): GERLACH RICHARD

14) Family number: 32584121 (US2008310121A)

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Title: ELECTRICAL JUNCTION BOX

Abstract: Source: US2008310121A The present invention improves heat dissipation of an electrical junction box. An electrical junction box includes a housing which houses a control circuit board disposed perpendicular to a power distribution board. The control circuit board includes a control circuit constructed on one side of an insulating substrate, electrical components mounted on the control circuit, and a heat dissipating means mounted on the other side. The power distribution board includes a plurality of bus bars laminated via a plurality of insulating layers. Consequently, heat generated by the electrical components can be dissipated efficiently by the heat dissipating means, thereby improving heat dissipation of the electrical junction box.

Classifications:

International (IPC 8-9): B60R16/02 H02G3/16

H05K7/20 (Advanced/Invention);

H05K7/20 (Core/Invention)

International (IPC 1-7): H02G3/16

CPC: H01R9/226 H05K1/14 H05K3/0061 H05K3/202 H05K3/366

H05K7/026

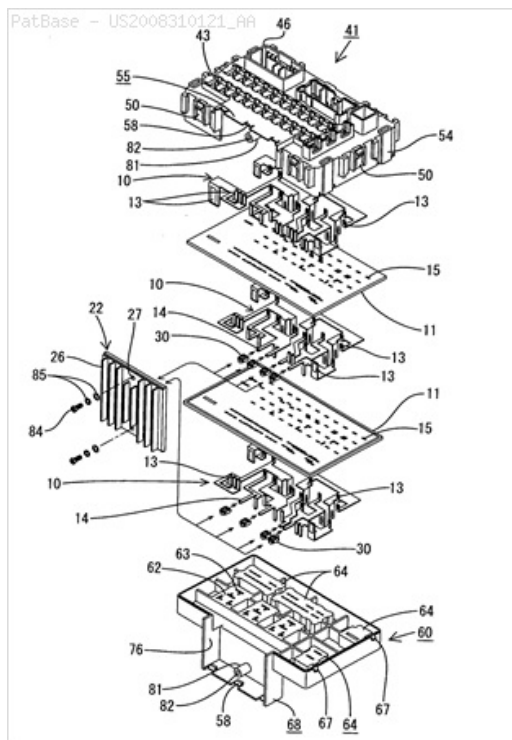
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T05K3/20B T05K3/36C

US: 165/80.3 174/17.05 174/17A 174/17R 174/50 174/52.1 174/548

361/611 361/637 361/648 361/719 361/720 361/720P 439/76.1

439/76.2



Family:

Publication number	Publication date	Application number	Application date
JP2006011478 A1	20080501	JP20060529338T	20050726
US2008310121 AA	20081218	US20050658565	20050726
US7619896 BB	20091117	US20050658565	20050726
WO06011478 A1	20060202	WO2005JP13646	20050726

Priority:

JP20040219031 20040727 WO2005JP13646 20050726

Probable Assignee: AUTONETWORKS TECHNOLOGIES LTD

Assignee(s): (std): AUTONETWORKS TECHNOLOGIES LTD ; MIYAZAKI KUNIHIRO ; SUMITOMO ELECTRIC IND ; SUMITOMO ELECTRIC INDUSTRIES ; SUMITOMO WIRING SYSTEMS ; YAMASHITA SUMINOBU

Assignee(s): SUMITOMO ELECTRIC INDUSTRIES LTD ; SUMITOMO WIRING SYSTEMS LTD ; SUMITOMO ELECTRIC IND LTD

Inventor(s): (std): MIYAZAKI KUNIHIRO ; YAMASHITA SUMINOBU ; YAMASHITA HISANOBU

Agent(s): GORO KAZUO; OLIFF AND BERRIDGE PLC

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

15) Family number: 42025364 (US7402065B)

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Title: SOCKET CONNECTOR FOR CARRYING INTEGRATED CIRCUIT PACKAGE

Abstract: Source: US7402065B A socket connector includes a metallic stiffener, an insulative housing, a load plate, a load lever and a plurality of washers. The stiffener defines a central opening in a middle portion thereof, the opening being surrounded by two pairs of inner surfaces. The housing defines a recessed conductive zone surrounded by sidewalls. The housing partially received in the opening of stiffener, and sidewalls interferentially engage with the inner surfaces in a direction parallel to the opening. The stiffener defines a plurality of through holes around the opening. Each of the through holes has two washers assembled therein from both sides of the stiffener; and every two washers assembled in a same through hole define a passageway in the middle thereof.

Classifications:

International (IPC 8-9): H01L23/32 H01R12/22 H01R13/62

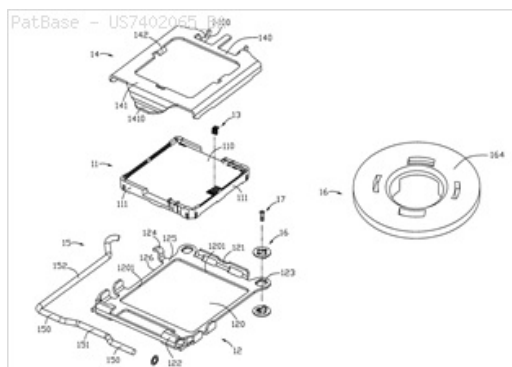
H01R13/625 H01R33/76 H01R33/97 (Advanced/Invention);

H01R13/62 H01R33/76 (Core/Invention)

CPC: H01R12/7029 H01R12/88 H01R13/24

European: H01R23/70A2A4 T01R13/24 T01R23/68B4B

US: 411/531 411/532 411/536 439/331



Family:

Publication number	Publication date	Application number	Application date
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CN201266776 Y	20090701	CN200820133740U	20080827
JP3146843 U	20081204	JP20080006640U	20080919
TWM357770 Y	20090521	TW20080217522U	20080930
US7402065 BA	20080722	US20070906861	20071003

Priority:

US20070906861 20071003

Probable Assignee: HON HAI PRECISION IND CO LTD

Assignee(s): (std): FOXCONN KUNSHAN COMP INTERFACE ; FOXCONN KUNSHAN COMPUTER CONNECTOR CO LTD ; HON HAI PREC IND CO LTD ; HON HAI PRECISION IND CO LTD ; HONHAI PRECISION IND CO LTD

Assignee(s): HON HAI PRECISION INDUSTRY CO LTD ; HON HAI PRECISION IND CO ; FOXCONN KUNSHAN COMPUTER INTERFACES CO ; FOXCONN KUNSHAN COMPUTER INTERFACES CO LTD

Inventor(s): (std): BONI YIGUO ; POLNYI IGOR

Inventor(s): YIGUO BONI ; IGOR POLNYI

Agent(s): CHUNG WEI TE; WEI TE

16) Family number: 65564376 (US2017120181A)

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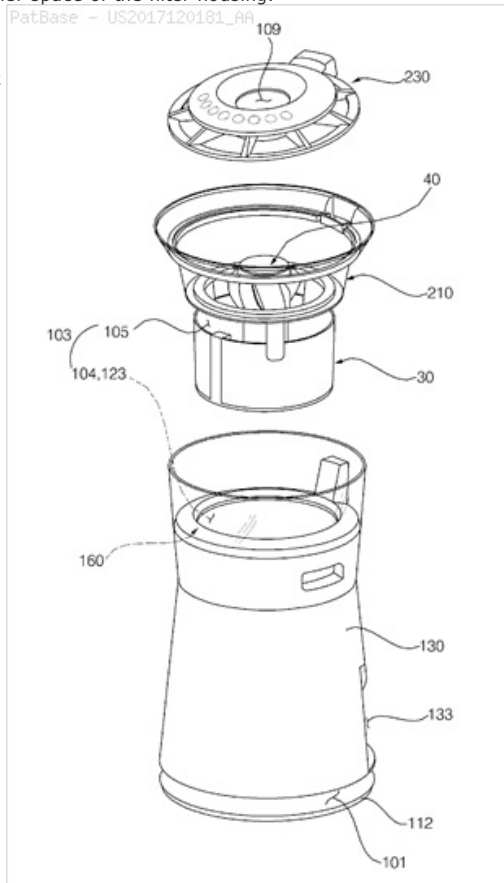
Title: AIR FRESHENER

Abstract: Source: US2017120181A An air freshener is disclosed. The air freshener includes a body case defining the air freshener, the body case having a filter installation opening formed in one side thereof, a filter housing disposed in the body case, the filter housing having a power terminal disposed therein, a drawer configured to be withdrawn from the inner space of the filter housing through the filter installation opening, and an electric dust collector separably located in the drawer, the electric dust collector having a power-receiving terminal disposed therein, wherein the power terminal contacts the power-receiving terminal in the state in which the drawer is settled in the inner space of the filter housing.

Classifications:

International (IPC 8-9): A61L27/10 A61L27/36 A61L27/38 A61L27/44 A61L27/46 A61L27/54 A61L9/22 B01D46/00 B01D46/10 B01D46/42 B01D46/44 B01D46/48 B01D47/02 B01D47/16 B03C3/017 B03C3/02 B03C3/04 B03C3/08 B03C3/32 B03C3/34 B03C3/38 B03C3/40 B03C3/41 B03C3/45 B03C3/47 B03C3/53 B03C3/68 B03C3/82 B03C3/86 B05B12/08 B05B7/00 B05B7/24 F04D17/16 F04D25/08 F04D29/28 F04D29/42 F04D29/44 F04D29/70 F24F1/00 F24F1/02 F24F11/00 F24F13/08 F24F13/20 F24F13/24 F24F13/28 F24F3/14 F24F3/16 F24F6/00 F24F6/02 F24F6/04 F24F6/06 F24F6/12 F24F6/14 F24F6/16 F24F6/18 G01F23/00 G01F23/30 G01F23/72 H01H13/14 H01H13/26 H01R33/05 H01R43/26 (Advanced/Invention)

CPC: B01D46/4245 B03C3/02 B03C3/32 B03C3/68 B03C3/40 B01D46/48 B01D46/0006 H01R43/26 B01D2265/025 B03C3/41 B03C3/45 H01R33/05 B03C2201/04 B03C3/82 F04D25/08 F04D17/16 F04D29/281 F04D29/4226 F04D29/701 B01D46/10 B01D2279/50 B01D46/4254 B01D46/442 F24F2011/0023 F24F11/0008 B05B7/2402 B05B7/0081 F24F2006/006 B05B12/081 G01F23/72 G01F23/30 G01F23/0007 F24F2006/146 F24F11/0079 A61L27/10 F24F13/082 F24F3/1603 F24F2006/001 F24F6/14 F24F11/0086 F24F2003/1664 F24F2003/1667 F24F2003/1682 F24F1/02 F24F11/001 F24F2003/1617 B01D47/022 B01D47/16 F24F6/12 B03C3/47 B03C3/04 B03C3/53 F24F3/1607 F24F2013/205 F24F1/025 F24F6/02 F24F2006/003 B03C3/017 B03C3/34 F24F11/0017 A61L9/22 F24F3/14 A61L2209/11 A61L2209/134 A61L2209/14 B03C3/08 B03C3/38 H01H13/14 H01H13/26 B03C2201/20 F24F2003/1635 F24F2221/34 F24F6/16 F24F2006/008 F04D29/444 F24F1/0025 F24F2006/046 F24F2011/0091 A61L2202/14 F24F3/166 F24F6/00 F24F2011/0073 F24F6/06 F24F3/16 B03C3/86 A61L27/38 A61L27/3675 A61L27/446 A61L27/46 A61L27/54 A61L2300/414 A61L2430/32 B03C3/12 F24F6/04 F24F13/28 G01F23/0046 B01D46/0035 F24F13/20 Y02B30/78 Y02B30/545 A61L2300/43



Family:

Publication number	Publication date	Application number	Application date
CN106801961 A	20170606	CN201610998447	20161031
CN106871303 A	20170620	CN201610996843	20161028
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EP3163178 A1	20170503	EP20160196354	20161028
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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 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