



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

BIBDATASHEET

CONFIRMATION NO. 6340

Bib Data Sheet

SERIAL NUMBER 10/414,346	FILING OR 371(c) DATE 04/15/2003 RULE	CLASS 361	GROUP ART UNIT 2835	ATTORNEY DOCKET NO. D2852
------------------------------------	---	---------------------	-------------------------------	-------------------------------------

APPLICANTS
 Harold J. Gorenz JR., Lisle, IL;
 William R. Groves, Naperville, IL;
 Roger W. Ady, Chicago, IL;

**** CONTINUING DATA *******

**** FOREIGN APPLICATIONS *******

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
**** 06/13/2003**

Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no	STATE OR COUNTRY IL	SHEETS DRAWING 4	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 5
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance				
Verified and Acknowledged	Examiner's Signature	Initials		

ADDRESS
 43471

TITLE
 ELECTRONIC CHASSIS AND HOUSING HAVING AN INTEGRATED FORCED AIR COOLING SYSTEM

FILING FEE RECEIVED 1218	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing)
		<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)
		<input type="checkbox"/> 1.18 Fees (Issue)
		<input type="checkbox"/> Other _____
		<input type="checkbox"/> Credit


UNITED STATES PATENT AND TRADEMARK OFFICE

 UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/414,346	04/15/2003	Harold J. Gorenz JR.	D2852

43471
 GENERAL INSTRUMENT CORPORATION DBA THE CONNECTED
 HOME SOLUTIONS BUSINESS OF MOTOROLA, INC.
 101 TOURNAMENT DRIVE
 HORSHAM, PA 19044

CONFIRMATION NO. 6340
OC000000016628367

OC000000016628367

Date Mailed: 07/27/2005

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 07/15/2005.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

John Ingram

 JOHN INGRAM
 PUBS ()-

OFFICE COPY



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/414,346	04/15/2003	Harold J. Gorenz JR.	MOT-D2852

24375
 VOLPE AND KOENIG, P.C.
 DEPT. MOT
 UNITED PLAZA, SUITE 1600
 30 SOUTH 17TH STREET
 PHILADELPHIA, PA 19103

CONFIRMATION NO. 6340
 OC000000016628347
 OC000000016628347

Date Mailed: 07/27/2005

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 07/15/2005.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervned as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

John Ingram

 JOHN INGRAM
 PUBS 0-

OFFICE COPY

PART B - FEE(S) TRANSMITTAL



Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISS **FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All other correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

24375 7590 04/13/2005

VOLPE AND KOENIG, P.C.
 DEPT. MOT
 UNITED PLAZA, SUITE 1600
 30 SOUTH 17TH STREET
 PHILADELPHIA, PA 19103

07/18/2005 WASFAW2 00000149 502117 10414346

01 FC:1501 1400.00 DA
 02 FC:1504 300.00 DA

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

Carol J. Smith (Depositor's name)
 Carol J. Smith (Signature)
 July 13, 2005 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/414,346	04/15/2003	Harold J. Gorenz JR.	MOT-D2852	6340

TITLE OF INVENTION: ELECTRONIC CHASSIS AND HOUSING HAVING AN INTEGRATED FORCED AIR COOLING SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	07/13/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHANG, YEAN HSI	2835	361-681000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
 Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.
2. For printing on the patent front page, list
 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1. Lawrence T. Cullen, 44 489
 2. _____
 3. _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

General Instrument Corporation

Horsham, PA

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. The following fee(s) are enclosed:

- Issue Fee
 Publication Fee (No small entity discount permitted)
 Advance Order - # of Copies _____

4b. Payment of Fee(s):

- A check in the amount of the fee(s) is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 502117 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____
 Typed or printed name Robert P. Marley

Date July 13, 2005
 Registration No. 32, 914

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



REVOCACTION OF POWER OF ATTORNEY AND APPOINTMENT OF NEW POWER OF ATTORNEY	Application Number	10/414,346
	Filing Date	04/15/2003
	First Named Inventor	Harold J. Gorenz Jr.
	Art Unit	2835
	Examiner Name	Chang, Yean Hsi
	Attorney Docket Number	D2852

I hereby revoke all previous powers of attorney given in the above-identified application:

A Power of Attorney is submitted herewith.

OR

I hereby appoint the practitioners at Customer Number : 000043471

Please change the correspondence address for the above-identified application to:

The address associated with Customer Number: 000043471

OR

Firm or Individual Name Motorola, Inc.

Address 101 Tournament Drive

Address _____

City Horsham

State PA Zip 19044

Country United States of America

Telephone 215-323-1907 Fax 215-323-1300

I am the:

Applicant/Inventor.

Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Name	Robert P. Marley, Assistant Secretary General Instrument Corporation
Signature	
Date	July 13, 2005

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

* Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.36. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.



STATEMENT UNDER 37 CFR 3.73 (b)

Applicant/Patent Owner: Harold J. Gorenz Jr. et al
Application No./Patent No.: 10/414,346 Filed/Issue Date: 04/15/2003
Entitled: Electronic Chassis and Housing Having an Integrated Forced Air Cooling System
General Instrument, a Corporation
Corporation
(Name of Assignee) (Type of Assignee e.g., corporation, partnership, university, etc.)

states that it is:

- 1. the assignee of the entire right, title, and interest; or
- 2. an assignee of less than the entire right, title and interest.
The extent (by, percentage) of its ownership interest is _____ %

In the patent application/patent identified above by virtue of either:

A. An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 013981, Frame 0275, or for which a copy thereof is attached.

OR

B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

- 1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____ or for which a copy thereof is attached.
- 2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____ or for which a copy thereof is attached.
- 3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____ or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet.

Copies of assignments or other documents in the chain of title are attached.
[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

July 13, 2005
Date

Robert P. Marley
Typed or printed name

Signature

Assistant Secretary
Title



TRANSMITTAL FORM <small>(to be used for all correspondence after initial filing)</small>	Application Number	10/414,346	
	Filing Date	April 15, 2003	
	First Named Inventor	Harold J. Gorenz Jr.	
	Group Art Unit	2835	
	Examiner Name	Chang, Yeon Hie <i>Hsi</i>	
Total Number of Pages in this Submission	2	Attorney Docket Number	D2852

ENCLOSURES		(check all that apply)
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Part B-Issue Fee <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/Declaration(s) <input type="checkbox"/> Extension of time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Documents <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts Under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-Related papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input checked="" type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CDs	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter with appropriate copies <input type="checkbox"/> Other Enclosure(s) (please identify below) <input type="checkbox"/> Response to Restriction Requirement <input type="checkbox"/> Associate Power of Attorney <input type="checkbox"/> RCE <input type="checkbox"/> Copy of Notice to File Missing Parts
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual	Lawrence T. Cullen	Registration No.	44,489
Signature	<i>LTC</i>		
Date	July 13, 2005		

CERTIFICATE OF TRANSMITTAL/MAILING	
I hereby certify that this correspondence is being facsimile transmitted to facsimile number _____ or deposited with the United States Postal Service with sufficient postage thereon, as first-class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313 on the date listed below:	
Typed or printed name	Carol J. Smith
Signature	<i>Carol J. Smith</i>
Date	July 13, 2005



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

24375 7590 04/13/2005
VOLPE AND KOENIG, P.C.
DEPT. MOT
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

CHANG, YEAN HSI

ART UNIT PAPER NUMBER

2835

DATE MAILED: 04/13/2005

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
10/414,346 04/15/2003 Harold J. Gorenz JR. MOT-D2852 6340

TITLE OF INVENTION: ELECTRONIC CHASSIS AND HOUSING HAVING AN INTEGRATED FORCED AIR COOLING SYSTEM

Table with 6 columns: APPLN. TYPE, SMALL ENTITY, ISSUE FEE, PUBLICATION FEE, TOTAL FEE(S) DUE, DATE DUE
nonprovisional NO \$1400 \$300 \$1700 07/13/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
 or **Fax** **(703) 746-4000**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

24375 7590 04/13/2005

VOLPE AND KOENIG, P.C.
DEPT. MOT
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

_____ (Depositor's name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/414,346	04/15/2003	Harold J. Gorenz JR.	MOT-D2852	6340

TITLE OF INVENTION: ELECTRONIC CHASSIS AND HOUSING HAVING AN INTEGRATED FORCED AIR COOLING SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	07/13/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHANG, YEAN HSI	2835	361-681000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
 Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
 PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.
 (A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent) : Individual Corporation or other private group entity Government

4a. The following fee(s) are enclosed:
 Issue Fee
 Publication Fee (No small entity discount permitted)
 Advance Order - # of Copies _____

4b. Payment of Fee(s):
 A check in the amount of the fee(s) is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)
 a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.
 NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
 Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
10/414,346 04/15/2003 Harold J. Gorenz JR. MOT-D2852 6340

24375 7590 04/13/2005
VOLPE AND KOENIG, P.C.
DEPT. MOT
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

CHANG, YEAN HSI

ART UNIT PAPER NUMBER

2835

DATE MAILED: 04/13/2005

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

AK

Notice of Allowability	Application No.	Applicant(s)	
	10/414,346	GORENZ ET AL.	
	Examiner	Art Unit	
	Yean-Hsi Chang	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to amendment filed Mar. 21, 2005.
- 2. The allowed claim(s) is/are 1-3,5,6 and 8-20.
- 3. The drawings filed on 15 April 2003 are accepted by the Examiner.
- 4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

- 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 - 6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
- 7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
- 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application (PTO-152)
- 6. Interview Summary (PTO-413), Paper No./Mail Date _____
- 7. Examiner's Amendment/Comment
- 8. Examiner's Statement of Reasons for Allowance
- 9. Other _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/21/05 has been entered.
2. Claims 1-3, 5-6 and 8-20 are allowed.
3. The following is an examiner's statement of reasons for allowance: The best prior art of record, Faneuf et al. (US 2003/0002254 A1/US 6,813,149), Casebolt (US 6,525,935 B2), Stalley (US 5,663,868), Frank, Jr. et al. (US 6,389,499 B1), and Moss et al. (US 6,144,549), taken alone or in combination, fails to teach or reasonably suggest a printed circuit board chassis comprising: a housing having a height of one rack-unit, a front wall including an inlet vent, and baffle, a display module, and a jack; wherein the baffle is comprised of at least one blower assembly side wall that extends upwardly beyond a top plane of a blower and contacts a top of the housing, and is positioned within an interior space of the housing so that it directs a flow of air from the inlet vent through a horizontally non-linear path to the blower inlet port as set forth in claim 1; a

Art Unit: 2835

face plate including a billboard surface, display module slot, and a jack slot; and wherein said inlet vent is concealed from view by the billboard surface portion of the face plate as set forth in claims 10, 13-14 and 18. Claims 2-3, 5-6 and 8-9 are dependent claims from independent claim 1; and claims 11-12, 15-17, and 19-20 are dependent claims from independent claims 10, 14, and 18, respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Correspondence


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30 - 16:00.

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFax numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).


Art Unit: 2835

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

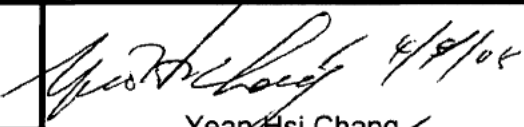
Yean-Hsi Chang
Primary Examiner
Art Unit: 2835
April 9, 2005



YEAN-HSI CHANG
PRIMARY EXAMINER

Issue Classification 	Application No. 10/414,346	Applicant(s) GORENZ ET AL.	
	Examiner Yean-Hsi Chang	Art Unit 2835	

ISSUE CLASSIFICATION												
ORIGINAL						CROSS REFERENCE(S)						
CLASS		SUBCLASS				CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					
361		681				361	688					
INTERNATIONAL CLASSIFICATION						165	80.2					
G	0	6	F	1/16								
				/								
				/								
				/								
				/								

(Assistant Examiner) (Date) <i>Small's Legu</i> 4-1205 (Legal Instruments Examiner) (Date)	 Yean-Hsi Chang (Primary Examiner) (Date)	Total Claims Allowed: 18 <table style="width: 100%;"> <tr> <td style="width: 50%;">O.G. Print Claim(s)</td> <td style="width: 50%;">O.G. Print Fig.</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">4,6</td> </tr> </table>	O.G. Print Claim(s)	O.G. Print Fig.	1	4,6
O.G. Print Claim(s)	O.G. Print Fig.					
1	4,6					

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47	
Final	Original	Final	Original	Final	Original	Final	Original
1	1		31		61		91
2	2		32		62		92
3	3		33		63		93
	4		34		64		94
4	5		35		65		95
5	6		36		66		96
	7		37		67		97
6	8		38		68		98
7	9		39		69		99
8	10		40		70		100
9	11		41		71		101
10	12		42		72		102
11	13		43		73		103
12	14		44		74		104
13	15		45		75		105
14	16		46		76		106
15	17		47		77		107
16	18		48		78		108
17	19		49		79		109
18	20		50		80		110
	21		51		81		111
	22		52		82		112
	23		53		83		113
	24		54		84		114
	25		55		85		115
	26		56		86		116
	27		57		87		117
	28		58		88		118
	29		59		89		119
	30		60		90		120
							121
							122
							123
							124
							125
							126
							127
							128
							129
							130
							131
							132
							133
							134
							135
							136
							137
							138
							139
							140
							141
							142
							143
							144
							145
							146
							147
							148
							149
							150
							151
							152
							153
							154
							155
							156
							157
							158
							159
							160
							161
							162
							163
							164
							165
							166
							167
							168
							169
							170
							171
							172
							173
							174
							175
							176
							177
							178
							179
							180
							181
							182
							183
							184
							185
							186
							187
							188
							189
							190
							191
							192
							193
							194
							195
							196
							197
							198
							199
							200
							201
							202
							203
							204
							205
							206
							207
							208
							209
							210



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov



Bib Data Sheet

CONFIRMATION NO. 6340

SERIAL NUMBER 10/414,346	FILING DATE 04/15/2003 RULE	CLASS 361	GROUP ART UNIT 2835	ATTORNEY DOCKET NO. MOT-D2852
-----------------------------	---------------------------------------	--------------	------------------------	-------------------------------------

APPLICANTS

Harold J. Gorenz JR., Lisle, IL;
 William R. Groves, Naperville, IL;
 Roger W. Ady, Chicago, IL;

** CONTINUING DATA *****

** FOREIGN APPLICATIONS *****

None

IF REQUIRED, FOREIGN FILING LICENSE GRANTED

** 06/13/2003

Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	STATE OR COUNTRY IL	SHEETS DRAWING 4	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 5
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> Met after Allowance				
Verified and Acknowledged Examiner's Signature <i>yhm</i> Initials				

ADDRESS

24375
 VOLPE AND KOENIG, P.C.
 DEPT. MOT
 UNITED PLAZA, SUITE 1600
 30 SOUTH 17TH STREET
 PHILADELPHIA , PA
 19103

TITLE

Electronic chassis and housing having an integrated forced air cooling system

FILING FEE RECEIVED	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time)

918		<input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit
-----	--	---

	Type	Hits	Search Text	DBs	Time Stamp
1	IS&R	14	((("4717216") or ("5216579") or ("5282114") or ("5287244") or ("5505533") or ("6011689") or ("6315655")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 13:42
2	BRS	84	((((361/688-692) or (165/80.2,80.3)).CCLS.) and (rack adj mount\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:56
3	BRS	88	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:56
4	BRS	69	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:57
5	BRS	8	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)) and centrifugal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:50
6	IS&R	2	("20030002254").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 14:26
7	BRS	143	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:15
8	BRS	3	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot and jack	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:30

	Type	Hits	Search Text	DBs	Time Stamp
9	BRS	51	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:15
10	BRS	8	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot) and display	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:51
11	BRS	19	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot) and port	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:34
12	BRS	76	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:39
13	BRS	0	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)) and (slot or opening)) and (billboard or (bill adj board))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:41
14	BRS	46	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)) and (slot or opening)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:01
15	BRS	178	((((rack adj mount\$4) and electronic) and communication) and ((front adj panel) or (face adj plate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:02
16	BRS	121	(((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:06

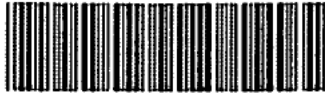
	Type	Hits	Search Text	DBs	Time Stamp
25	BRS	307	(front adj panel) and (display adj module)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:49
26	BRS	85	((front adj panel) and (display adj module)) and slot	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:50
27	BRS	39	((((front adj panel) and (display adj module)) and slot) and port	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:52
28	BRS	1	(PCM adj card) and (display adj module)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:07
29	BRS	9	(PCM adj card) and lcd	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:05
30	BRS	394	(expansion adj card) and lcd	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:06
31	BRS	565	(expan\$4 near function) and lcd	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:54
32	BRS	79	((expan\$4 near function) and lcd) and (display near function)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:17

	Type	Hits	Search Text	DBs	Time Stamp
33	BRS	54	((expan\$4 near function) and lcd) and (display adj function)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:17
34	BRS	0	((expan\$4 near function) and lcd) and (add-on adj display)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:55
35	BRS	0	((expansion adj card) and lcd) and (add-on adj display)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:56
36	BRS	0	((expansion adj card) and lcd) and (add-on adj (time adj piece))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:23
37	BRS	7680	(display adj module)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:23
38	BRS	2045	((display adj module)) and lcd	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:10
39	BRS	35	(((display adj module)) and lcd) and (cd adj player)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:10
40	BRS	9	(((display adj device)) and (time adj piece)) and (front adj panel)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:27

	Type	Hits	Search Text	DBs	Time Stamp
41	BRS	3	(((display adj device)) and (time adj piece)) and (terminal adj device)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:30
42	BRS	307	((display adj module)) and (front adj panel)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:31
43	BRS	5	(((display adj module)) and (front adj panel)) and (rack adj mount\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:52
44	IS&R	2	("20030002254").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:15
45	BRS	8	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)) and centrifugal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:43
46	BRS	6	("5063477" "5168171" "5398161" "5428503" "5432674" "5493474").PN.	US-PGPUB; USPAT; USOCR	2005/01/16 12:55
47	BRS	8	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)) and centrifugal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:50
48	BRS	10	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot) and display	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:51
49	BRS	2	((electronic adj apparatus) and (display adj module)) and ((front adj panel) or (face adj plate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:52

	Type	Hits	Search Text	DBs	Time Stamp
50	BRS	48	((front adj panel) and (display adj module)) and slot) and port	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:52
51	BRS	7	(((display adj module)) and (front adj panel)) and (rack adj mount\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/04/09 13:52

Index of Claims



Application No.

10/414,346

Examiner

Yean-Hsi Chang

Applicant(s)

GORENZ ET AL.

Art Unit

2835

√	Rejected
=	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date			
Final	Original	1/18/05			
	(1)	√			
	2	√			
	3	√			
	4	√			
	5	√			
	6	√			
	7	√			
	8	√			
	9	√			
	(10)	=			
	11	=			
	12	=			
	(13)	=			
	(14)	=			
	15	=			
	16	=			
	17	=			
	(18)	=			
	19	=			
	20	=			
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				
	36				
	37				
	38				
	39				
	40				
	41				
	42				
	43				
	44				
	45				
	46				
	47				
	48				
	49				
	50				

Claim		Date			
Final	Original				
	51				
	52				
	53				
	54				
	55				
	56				
	57				
	58				
	59				
	60				
	61				
	62				
	63				
	64				
	65				
	66				
	67				
	68				
	69				
	70				
	71				
	72				
	73				
	74				
	75				
	76				
	77				
	78				
	79				
	80				
	81				
	82				
	83				
	84				
	85				
	86				
	87				
	88				
	89				
	90				
	91				
	92				
	93				
	94				
	95				
	96				
	97				
	98				
	99				
	100				

Claim		Date			
Final	Original				
	101				
	102				
	103				
	104				
	105				
	106				
	107				
	108				
	109				
	110				
	111				
	112				
	113				
	114				
	115				
	116				
	117				
	118				
	119				
	120				
	121				
	122				
	123				
	124				
	125				
	126				
	127				
	128				
	129				
	130				
	131				
	132				
	133				
	134				
	135				
	136				
	137				
	138				
	139				
	140				
	141				
	142				
	143				
	144				
	145				
	146				
	147				
	148				
	149				
	150				



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

2800 RCE

Request For Continued Examination (RCE) Transmittal

Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	10/414,346
Filing Date	April 15, 2003
First Named Inventor	Gorenz Jr. et al.
Art Unit	2835
Examiner Name	Yean Hsi Chang
Attorney Docket Number	MOT-D2852

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

 i. Consider the arguments in the Appeal Brief or Rely Brief previously filed on _____

 ii. Other _____

b. Enclosed

 i. Amendment/Reply

 ii. Affidavit(s)/ Declaration(s)

 iii. Information Disclosure Statement (IDS)

 iv. Other _____

2. **Miscellaneous**

a. Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

b. Other _____

3. **Fees** The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed. The Director is hereby authorized to charge any deficiencies or credit any overpayments in the enclosed fees, to Deposit Account No. 22-0493

i. RCE fee required under 37 CFR 1.17(e)

ii. Extension of time fee (37 CFR 1.136 and 1.17)

iii. Other _____

b. Check in the amount of \$ _____ enclosed

c. Payment by credit card in the amount of \$ 790.00 (Form PTO-2038 enclosed).

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print/Type)	Anthony L. Venezia	Registration No. (Attorney/Agent)	48,382
Signature		Date	March 18, 2005

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Name (Print/Type)	Anthony L. Venezia		
Signature		Date	March 18, 2005

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Effective on 12/08/2004. Fees, pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). FEES TRANSMITTAL For FY 2005 MAR 21 2005 <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Complete if Known	
TOTAL AMOUNT OF PAYMENT (\$) 790.00		Application Number 10/414,346	Filing Date April 15, 2003
		First Named Inventor Gorenz Jr. et al.	Examiner Name Yean Hsi Chang
		Art Unit 2835	Attorney Docket No. MOT-D2852

METHOD OF PAYMENT (check all that apply)

Check Credit Card Money Order None Other (please identify): _____

Deposit Account Deposit Account Number: 22-0493 Deposit Account Name: Volpe and Koenig, P.C.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

Charge fee(s) indicated below Charge fee(s) indicated below, except for the filing fee

Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims 18 - 20 = 0 **Extra Claims** 0 **Fee (\$)** 50.00 **Fee Paid (\$)** 0.00
 HP = highest number of total claims paid for, if greater than 20

Indep. Claims 5 - 5 = 0 **Extra Claims** 0 **Fee (\$)** 200.00 **Fee Paid (\$)** 0.00
 HP = highest number of independent claims paid for, if greater than 3

Multiple Dependent Claims
Fee (\$) _____ **Fee Paid (\$)** 0.00

3. APPLICATION SIZE FEE

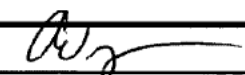
If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____	_____	_____ / 50 = _____ (round up to a whole number)	_____ x _____	0.00

4. OTHER FEE(S)

Description	Fee (\$)	Fees Paid (\$)
Non-English Specification, \$130 fee (no small entity discount)	_____	_____
Other: Request for Continued Examination	_____	790.00

SUBMITTED BY

Signature 	Registration No. 48,382 (Attorney/Agent)	Telephone 215-568-6400
Name (Print/Type) Anthony L. Venezia		Date March 18, 2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Gorenz, Jr. et al.

Application No.: 10/414,346

Confirmation No.: 6340

Filed: April 15, 2003

For: ELECTRONIC CHASSIS AND
HOUSING HAVING AN INTEGRATED
FORCED AIR COOLING SYSTEM

Group: 2835

Examiner: Yean Hsi Chang

Our File: MOT-D2852

Date: March 18, 2005

REPLY PURSUANT TO 37 C.F.R. §1.114

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply is being timely filed in response to the Final Office Action dated January 19, 2005. A Request for Continued Examination (RCE) is filed concurrently herewith.

Please amend the application without prejudice or disclaimer as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An electronic chassis and housing having an integrated force air cooling system, comprising:

a) a housing having a top, a base and front, back, left and right side walls which define an interior space having a predetermined height, as measured between the top and the base, and an inlet vent in at least one side wall and an exhaust vent in an opposed side wall;

b) a centrifugal blower assembly having defined top and bottom planes and perimeter walls; a second predetermined height measured between the top and bottom planes that is less than the predetermined height of the interior space; and inlet and outlet ports; the blower assembly is mounted within the interior space such that its inlet port is in fluid communication with the inlet vent and its exhaust port is in fluid communication with the exhaust vent; and,

c) a baffle, positioned within the interior space so that it directs the flow of air from the inlet vent through a horizontally non-linear path to the blower inlet port, wherein the baffle is comprised of at least one blower assembly side wall that extends upwardly beyond the top plane and contacts the top of the housing.

2. (Original) The invention of claim 1, wherein the baffle is positioned between the housing inlet vent and said blower inlet port.

3. (Original) The invention of claim 1, wherein the baffle is comprised of foam gasket material.

4. (Canceled)

5. (Original) The invention of claim 1, wherein the blower is centrally located within the interior space and includes a fan having a diameter greater than the predetermined height.

6. (Original) The invention of claim 5, wherein the inlet vent is located in one side wall of the housing, the blower inlet port is directed toward another side wall of the housing and the baffle directs air past the blower assembly before it enters the blower inlet port.

7. (Canceled)

8. (Original) The invention of claim 1 further comprising:

d) at least one interior wall dividing the interior space into first and second chambers with the centrifugal blower being in one chamber and both chambers being in fluid communication with the inlet and exhaust vents.

9. (Original) The invention of claim 8 further comprising:

e) an axial fan located in other chamber with an inlet port in fluid communication with the inlet vent and an outlet port in fluid communication with the outlet vent.

10. (Original) A chassis for housing printed circuit boards comprising:

a) a housing having a top, bottom, front, back, left and right side walls, and a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack; and,

b) a face plate including a bill board surface, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively,

wherein said bill board portion and said vent define parallel, spaced apart planes so that said vent is concealed from view, but in fluid communication with the exterior ambient atmosphere.

11. (Original) The chassis recited in claim 10, wherein said front wall includes a plurality of jack, and a pair of installation handles.

12. (Original) The chassis recited in claim 10, wherein said bill board surface includes identifying indicia thereon.

13. (Original) A face plate for a printed circuit board chassis having a top, bottom, front, back, left and right side walls, a height, measured from the bottom wall to the top wall, which is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack, said face plate comprising:

a) a planar logo surface portion arranged to overlay the inlet vent in a parallel, overlapping but offset plane so that said vent is concealed from view from, but is in fluid communication with, the front exterior of said chassis;

b) a display module slot arranged to overlay the display module; and,

c) a jack slot arranged to overlay the jack.

14. (Original) A chassis for housing printed circuit boards comprising:

a) a housing having a top, bottom, front, back, left and right side walls, and having a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack;

b) an exhaust vent in said back side wall;

c) a centrifugal blower inside said chassis housing, said blower having a housing with top, bottom, and side walls, an inlet port in fluid communication with said inlet vent, and an exhaust port in fluid communication with said exhaust vent, said blower housing having a height, measured from the bottom wall to the top wall, that is less than the height of said chassis housing;

d) a partition intermediate said housing inlet vent and said blower inlet port, said partition diverting the flow of air along an indirect path within the housing from said inlet vent to said blower inlet port;

e) a front wall face plate including a planar logo surface portion, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively;

wherein said logo surface portion and said inlet vent are arranged in parallel, overlapping but offset planes so that said vent is concealed from view, but is in fluid communication with, the front exterior of said chassis.

15. (Original) The chassis recited in claim 14, including:

f) a chassis housing interior wall dividing the interior into a first chamber in which the centrifugal blower is located and second chamber, both chambers being in fluid communication with said inlet vent and said exhaust vent; and,

g) an axial fan located in said second chamber, said axial fan having an inlet port in fluid communication with said inlet vent and an outlet port in fluid communication with said outlet vent.

16. (Original) The chassis recited in claim 14, wherein said front wall includes a plurality of jacks, and a pair of installation handles.

17. (Original) The chassis recited in claim 14, wherein said logo surface includes identifying indicia printed or embossed thereon.

18. (Original) A printed circuit board chassis for insertion in a standard communications infrastructure equipment rack, the chassis comprising:

a) a housing having a top, bottom, front, back, left and right side walls, and having a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit of approximately 1.75 inches, said front wall including an inlet vent, a display module, and a jack;

b) an exhaust vent in said back side wall;

c) a centrifugal blower inside said chassis housing, said blower having a housing with top, bottom, and side walls, an inlet port in fluid communication with said inlet vent, and an exhaust port in fluid communication with said exhaust vent, said blower housing having a height, measured from the bottom wall to the top wall, that is less than 1.75 inches;

d) a partition intermediate said housing inlet vent and said blower inlet port, said partition diverting the flow of air along an indirect path within the housing from said inlet vent to said blower inlet port; and

e) a front wall face plate including a planar logo surface portion, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively.

19. (Original) The chassis of claim 18 wherein said logo surface portion and said inlet vent are arranged in parallel, overlapping but offset planes so that said

Applicant: Gorenz, Jr. et al.
Application No.: 10/414,346

vent is concealed from view, but is in fluid communication with, the front exterior of said chassis.

20. (Original) The chassis of claim 18 wherein said front wall includes a pair of installation handles.

Applicant: Gorenz, Jr. et al.
Application No.: 10/414,346

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1-3, 5-6, and 8-20 are currently pending in this application. Claims 4 and 7 have been canceled without prejudice. Claim 1 has been amended to incorporate the limitations of claim 4.

Allowable Subject Matter

The Examiner is thanked for indicating that claims 10-20 contain allowable subject matter.

Objections to the Specification

The Examiner objected to the specification because elements of claim 7 are not disclosed therein. Claim 7 is canceled.

Objections to the Drawings

The Examiner objected to the drawings because elements of claim 7 are not shown. Claim 7 is canceled.

Claim Rejections - 35 USC § 102

Claims 1-2, 4, and 8 stand rejected under 35 USC § 102 as being anticipated by over U.S. Patent No. 6813149 (Faneuf et al.).

Claim 1, as amended, is distinguishable over Faneuf. Faneuf discloses an air cooling system for electronic apparatus. The faceplate of the chassis (1) includes vent intake (6) for fan (11). Faneuf, however, fails to disclose a “a baffle, positioned within the interior space so that it directs the flow of air from the inlet vent through a horizontally non-linear path to the blower inlet port.” As shown in Figures 1 and 9 of Faneuf, the blower fan is positioned directly at the front of the chassis, while the air intake is directly linear from the housing inlet vent to the fan inlet port, in a front to back direction. The Examiner has stated that the air intake is shown as non-linear in Fig. 3. However, the path of air intake is vertically non-linear. In contrast, the claimed horizontally non-linear path of air flow is directed along heat producing circuitry devices in the chassis from side to side in area 60 prior to entering the blower inlet 80, as shown in Figure 6. The advantage of the positionable baffle of claim 1 is that the air can be directed in a variety of horizontally non-linear paths, such as in an “S” pattern as shown in Figure 6.

Claim 4 is canceled as it has been incorporated into claim 1. Claims 2 and 8 are dependent upon claim 1, which the Applicants believes is allowable over the cited prior art of record for the same reasons provided above.

Based on the arguments presented above, withdrawal of the 35 USC 102 rejection of claim 1, 2 and 8 is respectfully requested.

Applicant: Gorenz, Jr. et al.
Application No.: 10/414,346

Claim Rejections - 35 USC 103

Claim 3 is rejected under 35 USC 103(a) unpatentable over Faneuf. Claims 5 and 6 are rejected under 35 USC 103(a) unpatentable over Faneuf in view of U.S. Patent 6525935 (Casebolt). Claims 3 and 5-6 are also dependent upon claim 1, which the Applicants believes is allowable over the cited prior art of record for the same reasons provided above.

Based on the arguments presented above, the withdrawal of the rejection of claims 3, 5-6 under 35 USC 103(a) is respectfully requested.

Conclusion

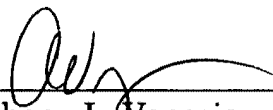
If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

Applicant: Gorenz, Jr. et al.
Application No.: 10/414,346

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1-3, 5-6 and 8-20, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Gorenz, Jr. et al.

By 
Anthony L. Venezia
Registration No. 48,382

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

ALV/slp



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/414,346	04/15/2003	Harold J. Gorenz JR.	MOT-D2852	6340
------------	------------	----------------------	-----------	------

24375	7590	01/19/2005		
-------	------	------------	--	--

VOLPE AND KOENIG, P.C.
DEPT. MOT
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

CHANG, YEAN HSI

ART UNIT	PAPER NUMBER
----------	--------------

2835

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 10/414,346	Applicant(s) GORENZ ET AL.	
Examiner Yean-Hsi Chang	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 December 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 10-20 is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 15 April 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The limitation “wherein the inlet port is located in a blower perimeter walls and the outlet port is located in the top plane of the blower assembly” claimed in claim 7 is not disclosed in the specification.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “the inlet port located in a blower perimeter walls and the outlet port located in the top plane of the blower assembly” claimed in claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure

Art Unit: 2835

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

No rejection of claim 7 is given in this office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Faneuf et al. (US 2003/0002254 A1/US 6,813,149).

Art Unit: 2835

Faneuf teaches an electronic chassis and housing comprising: a housing (1, fig. 1) having a top (26), a base (28) and front (4), back (5), left (2) and right (3) side walls which define an interior space (fig. 1) having a predetermined height (1.75", see page 2, [0025]), as measured between the top and the base, and an inlet vent (6) in at least one side wall (4) and an exhaust vent (in 5, shown fig. 1; not numbered) in an opposed side wall (5), a centrifugal blower assembly (11) having defined top and bottom planes (top of 16 and 31) and perimeter walls (shown in fig. 5), a second predetermined height (height of 16) measured between the top and bottom planes that is less than the predetermined height of the interior space (shown in fig. 3) and inlet and outlet ports (shown in figs. 5 and 6), the blower assembly is mounted within the interior space such that its inlet port is in fluid communication with the inlet vent (fig. 1) and its exhaust port is in fluid communication with the exhaust vent (fig. 1), and a baffle (51, a portion 41 is shown in fig. 3), positioned within the interior space so that it directs the flow of air from the inlet vent through a non-linear path to the blower inlet port (shown in fig. 3) (claim 1); wherein the baffle is positioned between the housing inlet vent and said blower inlet port (shown in fig. 3) (claim 2); wherein the baffle is comprised of at least one blower assembly side wall that extends upwardly beyond the top plane and contacts the top of the housing (contact through 38 in fig. 3) (claim 4); and at least one interior wall (shown in figs. 1-3, 38 may be part of it) dividing the interior space into first and second chambers with the centrifugal blower being in one chamber and both chambers being in fluid communication with the inlet and exhaust vents (claim 8).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faneuf et al.

Faneuf discloses the claimed invention except the baffle being comprised of foam gasket material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the baffle of Faneuf at the junction portions to the housing with foam gasket material for air-tight purposes, since it has been held to be within the general skill in the art to select a known material on the basis of its suitability for the intended purposes of preventing the exhausted air from returning back to the inlet port of the blower. *In re Leshin*, 125 USPQ 416 (CCPA 1960), MPEP §2144, 07.

7. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faneuf et al. in view of Casebolt (US 6,525,935 B2).

Faneuf discloses the claimed invention except the blower is centrally located within the interior space.

Art Unit: 2835

Casebolt teaches an electronic chassis (100, fig. 6) comprising a centrifugal blower (126, fig. 6) being centrally located within the interior space (shown in fig. 6) for letting the components being more easily reached for servicing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Faneuf with the electronic chassis taught Casebolt for letting the components being more easily reached for servicing.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faneuf et al. in view of Stalley (US 5,663,868).

Faneuf discloses the claimed invention except an axial fan located in other chamber with an inlet port in fluid communication with the inlet vent and an outlet port in fluid communication with the outlet vent.

Stalley teaches an electronic housing (fig. 1) comprising an axial fan (13, fig. 1) located in a chamber (6, fig. 1) other than the chamber (5, fig. 1) where the blower (8, fig. 1) is located, with an inlet port (not labeled) in fluid communication with the inlet vent (12, fig. 1) and an outlet port (not labeled) in fluid communication with the outlet vent (at location 19, fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Faneuf with the axial fan taught by Stalley for discharging air more efficiently through a rear opening.

Allowable Subject Matter

9. Claims 10-20 are allowed.
10. The following is a statement of reasons for the indication of allowable subject matter: The best prior art of record, Faneuf et al. (US 2003/0002254 A1/US 6,813,149), Casebolt (US 6,525,935 B2), Stalley (US 5,663,868), Frank, Jr. et al. (US 6,389,499 B1), and Moss et al. (US 6,144,549), taken alone or in combination, fails to teach or reasonably suggest a printed circuit board chassis comprising: a housing having a height of one rack-unit and a front wall including an inlet vent, a display module, and a jack; a face plate including a billboard surface, display module slot, and a jack slot; and wherein said inlet vent is concealed from view by the billboard surface portion of the face plate as set forth in claims 10, 13-14 and 18. Claims 11-12, 15-17, and 19-20 are dependent claims from independent claims 10, 14, and 18, respectively.

Response to Arguments

11. Applicant's arguments filed Dec. 22, 2004 have been fully considered but part of them are not persuasive. The answers to Applicant's arguments are as follows:

1. A baffle 51 of Faneuf directing the flow of air from the inlet vent 6 passing a portion of the blower, to the inlet port 80 in a non-linear path is shown in fig. 3; and it contacts the top plane through element 38 as shown in fig. 3.

2. The air flowing from one region to another as shown in fig. 1 of Faneuf means there is fluid communications between these two regions.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

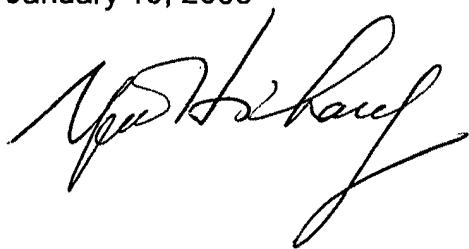
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30 - 16:00.

Art Unit: 2835

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFax numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang
Primary Examiner
Art Unit: 2835
January 16, 2005

A handwritten signature in black ink, appearing to read 'Yean-Hsi Chang', written in a cursive style.

Index of Claims



Application No.

10/414,346

Examiner

Yean-Hsi Chang

Applicant(s)

GORENZ ET AL.

Art Unit

2835

√	Rejected
=	Allowed

-	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date			
Final	Original	1/16/05			
1	√				
2	√				
3	√				
4	√				
5	√				
6	√				
7	√				
8	√				
9	√				
10	=				
11	=				
12	=				
13	=				
14	=				
15	=				
16	=				
17	=				
18	=				
19	=				
20	=				
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					

Claim		Date			
Final	Original				
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					
64					
65					
66					
67					
68					
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					
81					
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					

Claim		Date			
Final	Original				
101					
102					
103					
104					
105					
106					
107					
108					
109					
110					
111					
112					
113					
114					
115					
116					
117					
118					
119					
120					
121					
122					
123					
124					
125					
126					
127					
128					
129					
130					
131					
132					
133					
134					
135					
136					
137					
138					
139					
140					
141					
142					
143					
144					
145					
146					
147					
148					
149					
150					

Search Notes



Application No.

10/414,346

Applicant(s)

GORENZ ET AL.

Examiner

Yean-Hsi Chang

Art Unit

2835

SEARCHED

Class	Subclass	Date	Examiner
361	688-692		
165	80.2-80.3		
	168-170	1/16/2005	YHC

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
Search up-dated and EAST search note attached.	1/16/2005	YHC

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

	Type	Hits	Search Text	DBs	Time Stamp
1	IS&R	14	((("4717216") or ("5216579") or ("5282114") or ("5287244") or ("5505533") or ("6011689") or ("6315655")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 13:42
2	BRS	84	((((361/688-692) or (165/80.2,80.3)).CCLS.) and (rack adj mount\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:56
3	BRS	88	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:56
4	BRS	69	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:57
5	BRS	8	((((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)) and centrifugal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:42
6	IS&R	2	("20030002254").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 14:26
7	BRS	143	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:15
8	BRS	3	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot and jack	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:30

	Type	Hits	Search Text	DBs	Time Stamp
9	BRS	51	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:15
10	BRS	8	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot) and display	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:31
11	BRS	19	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot) and port	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:34
12	BRS	76	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:39
13	BRS	0	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)) and (slot or opening)) and (billboard or (bill adj board))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:41
14	BRS	46	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)) and (slot or opening)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:01
15	BRS	178	((((rack adj mount\$4) and electronic) and communication) and ((front adj panel) or (face adj plate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:02
16	BRS	121	(((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:06

	Type	Hits	Search Text	DBs	Time Stamp
17	BRS	78	(((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate))) and slot	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:07
18	BRS	61	(((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate))) and slot) and display	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:14
19	BRS	57	((((((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate))) and slot) and display) and port	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:01
20	BRS	290	"electronic device" and (display adj module)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:11
21	BRS	15	("electronic device" and (display adj module)) and ((front adj panel) or (face adj plate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:12
22	BRS	118	(electronic adj apparatus) and (display adj module)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:13
23	BRS	2	((electronic adj apparatus) and (display adj module)) and ((front adj panel) or (face adj plate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:12
24	BRS	17	(front adj panel) and (display adj module) and bezel	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:48

	Type	Hits	Search Text	DBs	Time Stamp
25	BRS	307	(front adj panel) and (display adj module)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:49
26	BRS	85	((front adj panel) and (display adj module)) and slot	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:50
27	BRS	39	((((front adj panel) and (display adj module)) and slot) and port	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:51
28	BRS	1	(PCM adj card) and (display adj module)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:07
29	BRS	9	(PCM adj card) and lcd	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:05
30	BRS	394	(expansion adj card) and lcd	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:06
31	BRS	565	(expan\$4 near function) and lcd	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:54
32	BRS	79	((expan\$4 near function) and lcd) and (display near function)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:17
33	BRS	54	((expan\$4 near function) and lcd) and (display adj function)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:17

	Type	Hits	Search Text	DBs	Time Stamp
34	BRS	0	((expan\$4 near function) and lcd) and (add-on adj display)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:55
35	BRS	0	((expansion adj card) and lcd) and (add-on adj display)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:56
36	BRS	0	((expansion adj card) and lcd) and (add-on adj (time adj piece))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:23
37	BRS	7680	(display adj module)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:23
38	BRS	2045	((display adj module)) and lcd	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:10
39	BRS	35	((display adj module)) and lcd) and (cd adj player)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:10
40	BRS	9	((display adj device)) and (time adj piece)) and (front adj panel)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:27
41	BRS	3	((display adj device)) and (time adj piece)) and (terminal adj device)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:30
42	BRS	307	((display adj module)) and (front adj panel)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:31

	Type	Hits	Search Text	DBs	Time Stamp
43	BRS	5	(((display adj module)) and (front adj panel)) and (rack adj mount\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:32
44	IS&R	2	("20030002254").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:15
45	BRS	8	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)) and centrifugal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	2005/01/16 12:43
46	BRS	6	("5063477" "5168171" "5398161" "5428503" "5432674" "5493474").PN.	US-PGPUB; USPAT; USOCR	2005/01/16 12:55

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD
 Substitute for Form PTO-875

Application or Docket Number
10/414346

CLAIMS AS FILED - PART I			SMALL ENTITY		OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE	FEE	RATE	FEE
BASIC FEE (37 CFR 1.16(a))				\$ _____		\$ _____
TOTAL CLAIMS (37 CFR 1.16(c))	minus 20 = *	*	X \$ _____ =		X \$ _____ =	
INDEPENDENT CLAIMS (37 CFR 1.16(b))	minus 3 = *	*	X \$ _____ =		X \$ _____ =	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(d))			+\$ _____ =		+\$ _____ =	
			TOTAL		TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

CLAIMS AS AMENDED - PART II					SMALL ENTITY		OTHER THAN SMALL ENTITY			
AMENDMENT A	(Column 1)	CLAIMS REMAINING AFTER AMENDMENT	(Column 2)	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE	
	Total (37 CFR 1.16(c))	12.22.04	20	Minus	20	=	X \$ 25 =		X \$ 50 =	
	Independent (37 CFR 1.16(b))		5	Minus	5	=	X \$ 100 =		X \$ 200 =	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))						+\$ 150 =		+\$ 300 =	
						TOTAL ADD'L FEE		TOTAL ADD'L FEE		

AMENDMENT B	(Column 1)	CLAIMS REMAINING AFTER AMENDMENT	(Column 2)	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE	
	Total (37 CFR 1.16(c))			Minus		=	X \$ _____ =		X \$ _____ =	
	Independent (37 CFR 1.16(b))			Minus		=	X \$ _____ =		X \$ _____ =	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))						+\$ _____ =		+\$ _____ =	
						TOTAL ADD'L FEE		TOTAL ADD'L FEE		

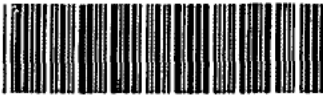
AMENDMENT C	(Column 1)	CLAIMS REMAINING AFTER AMENDMENT	(Column 2)	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE	
	Total (37 CFR 1.16(c))			Minus		=	X \$ _____ =		X \$ _____ =	
	Independent (37 CFR 1.16(b))			Minus		=	X \$ _____ =		X \$ _____ =	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))						+\$ _____ =		+\$ _____ =	
						TOTAL ADD'L FEE		TOTAL ADD'L FEE		

- * If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 - ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 - *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
- The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Index of Claims



Application No.

10/414,346

Examiner

Yean-Hsi Chang

Applicant(s)

GORENZ ET AL.

Art Unit

2835

✓	Rejected
≡	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date			
Final	Original				
	1	✓			
	2	✓			
	3	✓			
	4	✓			
	5	✓			
	6	✓			
	7	✓			
	8	✓			
	9	✓			
	10	✓			
	11	✓			
	12	✓			
	13	✓			
	14	✓			
	15	✓			
	16	✓			
	17	✓			
	18	✓			
	19	✓			
	20	✓			
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				
	36				
	37				
	38				
	39				
	40				
	41				
	42				
	43				
	44				
	45				
	46				
	47				
	48				
	49				
	50				

Claim		Date			
Final	Original				
	51				
	52				
	53				
	54				
	55				
	56				
	57				
	58				
	59				
	60				
	61				
	62				
	63				
	64				
	65				
	66				
	67				
	68				
	69				
	70				
	71				
	72				
	73				
	74				
	75				
	76				
	77				
	78				
	79				
	80				
	81				
	82				
	83				
	84				
	85				
	86				
	87				
	88				
	89				
	90				
	91				
	92				
	93				
	94				
	95				
	96				
	97				
	98				
	99				
	100				

Claim		Date			
Final	Original				
	101				
	102				
	103				
	104				
	105				
	106				
	107				
	108				
	109				
	110				
	111				
	112				
	113				
	114				
	115				
	116				
	117				
	118				
	119				
	120				
	121				
	122				
	123				
	124				
	125				
	126				
	127				
	128				
	129				
	130				
	131				
	132				
	133				
	134				
	135				
	136				
	137				
	138				
	139				
	140				
	141				
	142				
	143				
	144				
	145				
	146				
	147				
	148				
	149				
	150				

RECEIVED
CENTRAL FAX CENTER

DEC 22 2004

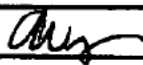
PTO/SB/21 (09-04)

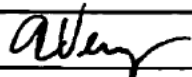
Approved for use through 07/31/2006.
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM <small>(to be used for all correspondence after initial filing)</small>	Application Number	10/414,346
	Filing Date	April 15, 2003
	First Named Inventor	Gorenz Jr. et al.
	Art Unit	2835
	Examiner Name	Yean Hsi Chang
	Attorney Docket Number	MOT-D2852
Total Number of Pages in This Submission		

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks OFFICIAL FACSIMILE		
17 PAGES SENT VIA FACSIMILE TO 703-872-9306. PLEASE IMMEDIATELY DELIVER TO EXAMINER YEAN HSI CHANG, GROUP ART UNIT 2835.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	VOLPE AND KOENIG, P.C.		
Signature			
Printed name	Anthony L. Venezia		
Date	December 22, 2004	Reg. No.	48,382

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being sent Via Facsimile (703-872-9306) addressed to: Examiner Yean Hsi Chang, Group Art Unit 2835, on the date shown below:			
Signature			
Typed or printed name	Anthony L. Venezia	Date	December 22, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

RECEIVED
CENTRAL EXAMINER

DEC 22 2004

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Gorenz, Jr. et al.

Application No.: 10/414,346

Confirmation No.: 6340

Filed: April 15, 2003

For: ELECTRONIC CHASSIS AND
HOUSING HAVING AN INTEGRATED
FORCED AIR COOLING SYSTEM

Group: 2835

Examiner: Yean Hsi Chang

Our File: MOT-D2852

Date: December 22, 2004

REPLY PURSUANT TO 37 C.F.R. §1.111

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply is responsive to the Office Action dated July 22, 2004 and is submitted in conjunction with an appropriate petition for extension of time. Please amend the application without prejudice or disclaimer as follows:

BEST AVAILABLE COPY**Applicant: Gorenz et al.
Application No.: 10/414,346****Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An electronic chassis and housing having an integrated force air cooling system, comprising:

a) a housing having a top, a base and front, back, left and right side walls which define an interior space having a predetermined height, as measured between the top and the base, and an inlet vent in at least one side wall and an exhaust vent in an opposed side wall;

b) a centrifugal blower assembly having defined top and bottom planes and perimeter walls[,]; a second predetermined height measured between the top and bottom planes that is less than the predetermined height of the interior space; and inlet and outlet ports ~~defined in the perimeter walls~~; the blower assembly is mounted within the interior space such that its inlet port is in fluid communication with the inlet vent and its exhaust port is in fluid communication with the exhaust vent; and,

c) a baffle, positioned within the interior space so that it directs the flow of air from the inlet vent through a non-linear path to the blower inlet port.

2. (Original) The invention of claim 1, wherein the baffle is positioned between the housing inlet vent and said blower inlet port.

3. (Original) The invention of claim 1, wherein the baffle is comprised of foam gasket material.

Applicant: Gorenz et al.
Application No.: 10/414,346

4. (Original) The invention of claim 1, wherein the baffle is comprised of at least one blower assembly side wall that extends upwardly beyond the top plane and contacts the top of the housing.

5. (Original) The invention of claim 1, wherein the blower is centrally located within the interior space and includes a fan having a diameter greater than the predetermined height.

6. (Original) The invention of claim 5, wherein the inlet vent is located in one side wall of the housing, the blower inlet port is directed toward another side wall of the housing and the baffle directs air past the blower assembly before it enters the blower inlet port.

7. (Original) The invention of claim 1, wherein the inlet port is located in a blower perimeter walls and the outlet port is located in the top plane of the blower assembly.

8. (Original) The invention of claim 1 further comprising:

d) at least one interior wall dividing the interior space into first and second chambers with the centrifugal blower being in one chamber and both chambers being in fluid communication with the inlet and exhaust vents.

9. (Original) The invention of claim 8 further comprising:

Applicant: Gorenz et al.
Application No.: 10/414,346

e) an axial fan located in other chamber with an inlet port in fluid communication with the inlet vent and an outlet port in fluid communication with the outlet vent.

10. (Original) A chassis for housing printed circuit boards comprising:

a) a housing having a top, bottom, front, back, left and right side walls, and a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack; and,

b) a face plate including a bill board surface, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively,

wherein said bill board portion and said vent define parallel, spaced apart planes so that said vent is concealed from view, but in fluid communication with the exterior ambient atmosphere.

11. (Original) The chassis recited in claim 10, wherein said front wall includes a plurality of jack, and a pair of installation handles.

12. (Original) The chassis recited in claim 10, wherein said bill board surface includes identifying indicia thereon.

13. (Original) A face plate for a printed circuit board chassis having a top, bottom, front, back, left and right side walls, a height, measured from the bottom wall to the top wall, which is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack, said face plate comprising:

Applicant: Gorenz et al.
Application No.: 10/414,346

a) a planar logo surface portion arranged to overlay the inlet vent in a parallel, overlapping but offset plane so that said vent is concealed from view from, but is in fluid communication with, the front exterior of said chassis;

b) a display module slot arranged to overlay the display module; and,

c) a jack slot arranged to overlay the jack.

14. (Original) A chassis for housing printed circuit boards comprising:

a) a housing having a top, bottom, front, back, left and right side walls, and having a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack;

b) an exhaust vent in said back side wall;

c) a centrifugal blower inside said chassis housing, said blower having a housing with top, bottom, and side walls, an inlet port in fluid communication with said inlet vent, and an exhaust port in fluid communication with said exhaust vent, said blower housing having a height, measured from the bottom wall to the top wall, that is less than the height of said chassis housing;

d) a partition intermediate said housing inlet vent and said blower inlet port, said partition diverting the flow of air along an indirect path within the housing from said inlet vent to said blower inlet port;

e) a front wall face plate including a planar logo surface portion, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively;

wherein said logo surface portion and said inlet vent are arranged in parallel, overlapping but offset planes so that said vent is concealed from view, but is in fluid communication with, the front exterior of said chassis.

Applicant: Gorenz et al.
Application No.: 10/414,346

15. (Original) The chassis recited in claim 14, including:
- f) a chassis housing interior wall dividing the interior into a first chamber in which the centrifugal blower is located and second chamber, both chambers being in fluid communication with said inlet vent and said exhaust vent; and,
 - g) an axial fan located in said second chamber, said axial fan having an inlet port in fluid communication with said inlet vent and an outlet port in fluid communication with said outlet vent.
16. (Original) The chassis recited in claim 14, wherein said front wall includes a plurality of jacks, and a pair of installation handles.
17. (Original) The chassis recited in claim 14, wherein said logo surface includes identifying indicia printed or embossed thereon.
18. (Original) A printed circuit board chassis for insertion in a standard communications infrastructure equipment rack, the chassis comprising:
- a) a housing having a top, bottom, front, back, left and right side walls, and having a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit of approximately 1.75 inches, said front wall including an inlet vent, a display module, and a jack;
 - b) an exhaust vent in said back side wall;
 - c) a centrifugal blower inside said chassis housing, said blower having a housing with top, bottom, and side walls, an inlet port in fluid communication with said inlet vent, and an exhaust port in fluid communication with said exhaust vent, said blower housing having a height, measured from the bottom wall to the top wall, that is less than 1.75 inches;

Applicant: Gorenz et al.
Application No.: 10/414,346

d) a partition intermediate said housing inlet vent and said blower inlet port, said partition diverting the flow of air along an indirect path within the housing from said inlet vent to said blower inlet port; and

e) a front wall face plate including a planar logo surface portion, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively.

19. (Original) The chassis of claim 18 wherein said logo surface portion and said inlet vent are arranged in parallel, overlapping but offset planes so that said vent is concealed from view, but is in fluid communication with, the front exterior of said chassis.

20. (Original) The chassis of claim 18 wherein said front wall includes a pair of installation handles.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT OR DRAWING
- BLURRED OR ILLEGIBLE TEXT OR DRAWING
- SKEWED/SLANTED IMAGES
- COLOR OR BLACK AND WHITE PHOTOGRAPHS
- GRAY SCALE DOCUMENTS
- LINES OR MARKS ON ORIGINAL DOCUMENT
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

BEST AVAILABLE COPY**Applicant: Gorenz et al.
Application No.: 10/414,346****REMARKS****Claim Objections**

The Examiner objected to claim 7 for failing to further limit the independent claim. Claim 1 is amended to remove the reference to perimeter walls. Accordingly, claim 7 properly defines a configuration for the inlet and outlet ports of the blower assembly. The withdrawal of the objection to claim 7 is respectfully requested.

Claim Rejections - 35 USC 102(e)

Claims 1-2, 4, and 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application No. 2003/0002254 (Faneuf et al.). The Applicants respectfully disagree.

Faneuf discloses an air cooling system for electronic apparatus. The faceplate of the chassis (1) includes vent intake (6) for fan (11). Faneuf, however, fails to disclose a "a baffle, positioned within the interior space so that it directs the flow of air from the inlet vent through a non-linear path to the blower inlet port." As shown in Figures 1 and 9 of Faneuf, the blower fan is positioned directly at the front of the chassis, while the air intake is directly linear from the housing inlet vent to the fan inlet port, in a front to back direction. In contrast, the claimed non-linear path of air flow is directed along heat producing circuitry devices in area 60 of the chassis prior to entering the blower inlet 80, as shown in Figure 6.

Applicant: Gorenz et al.
Application No.: 10/414,346

Claims 2, 4, 7 and 8 are dependent upon claim 1, which the Applicants believes is allowable over the cited prior art of record for the same reasons provided above.

Furthermore, with respect to claim 4, the baffle portion (38) that contacts the top of the housing in Faneuf is positioned between the baffle exhaust and the blower inlet to prevent recirculation of exhaust air with inlet air. In contrast, the claimed baffle, as stated in independent claim 1, is positioned to direct the flow of air from the inlet vent to the blower inlet port in a non-linear path. Thus, the claimed position of the baffle is not disclosed in Faneuf.

With respect to claim 7, the air flow as shown in Figures 1-3 and 9-10 of Faneuf is into the top plane of the blower and the outlet is at a side perimeter. The claimed air inlet and outlet is just the reverse. Therefore, Faneuf does not anticipate claim 7.

Regarding claim 8, Faneuf does not disclose or suggest an interior wall to divide the interior space into two chambers, as claimed. The baffle portion 38 disclosed by Faneuf acts as a barrier between the exhaust vent of the housing and the intake port of the blower. As such, there is no fluid communication between the two areas separated by baffle portion 38. In contrast, claim 8 includes the limitation

Applicant: Gorenz et al.
Application No.: 10/414,346

in which the dividing interior wall creates two chambers, both being in fluid communication with the inlet and the exhaust vents.

Claim Rejections - 35 USC 103

Claim 3 is rejected under 35 USC 103(a) unpatentable over Faneuf. The Applicants disagree. Faneuf does not suggest or teach that the baffle be constructed of a foam material. Further, the Examiner refers to the intended purpose of Faneuf as to prevent exhausted air from returning back to the inlet port of the blower (par. 0042). This is different from the purpose of the claimed gasket, which is to direct the intake and/or the exhaust air of the blower across heat dissipating devices within the chassis. Claim 3 is also dependent upon claim 1, which the Applicants believes is allowable over the cited prior art of record for the same reasons provided above.

Claims 5 and 6 are rejected under 35 USC 103(a) unpatentable over Faneuf in view of U.S. Patent 6525935 (Casebolt). In order for an obviousness rejection to stand, the cited references must teach all of the claimed limitations. (*In re Vaeck*, 947 F.2d 488, MPEP 706.02j) Since the combination of Faneuf and Casebolt fail to disclose or suggest a cooling system with a baffle positioned to direct air flow in a nonlinear path from the chassis inlet vent to the blower assembly, this combination fails to support an obviousness rejection for claims 5 and 6. Further, Claim 6 is

Applicant: Gorenz et al.
Application No.: 10/414,346

directed to a blower assembly with a baffle that directs the air past the blower prior to entering the inlet port. This is not shown or described in the combination of Faneuf and Casebolt.

Claim 9 is rejected under 35 USC 103(a) as unpatentable over Faneuf in view of U.S. Patent 5663868 (Stalley).

Claims 10-14 and 16-20 are rejected under 35 USC 103(a) as unpatentable over Faneuf in view of U.S. Patent 6389499 (Frank, Jr. et al.) and U.S. Patent 6144549 (Moss et al.).

Frank and Moss fail to disclose or teach a faceplate with billboard display that covers a fan inlet screen on the front perimeter wall, as claimed. Frank discloses a large handle for a chassis larger than one rack unit, whereby a nameplate or logo is not difficult. Also, the vent in Frank is fully visible and not covered by a faceplate. A small logo placed on a handle is hardly suggestive of cosmetically covering the intake fan of Faneuf.

In Moss, the display plate disclosed is intended for a desktop computer chassis, not a one rack unit electronic housing, as claimed. As described in paragraph [0004]:

In addition to reducing the front panel billboard space, the reduction reduced the available space for logos, labels, I/O connectors, user displays, user controls, and cooling vents. Accordingly, there exists a need for a reduced size front panel that is equally function and display oriented.

Applicant: Gorenz et al.
Application No.: 10/414,346

The claimed invention recognizes that a one rack unit can be effectively cooled while still covering the front of the inlet vent with a faceplate. None of the cited references recognize the need for a multi-functional front panel that is equally functional and display oriented, such that the space in front of the housing intake vent is utilized as a bill board surface. Therefore, the combination of Faneuf, Frank, and Moss do not support an obviousness rejection over claims 10, 13 and 14. Claims 11-12 are dependent upon claim 10, which the Applicants believe are allowable over the cited prior art of record for the same reasons provided above.

Further, claims 14 and 18 includes a limitation similar to claim 1, that is, a partition that diverts the intake air in an indirect path to the blower inlet port. For the same reasons presented above for claim 1, claims 14 and 18 are believed to be allowable, along with claims 15-17 and 19-20, which are dependent upon claims 14 and 18.

Based on the arguments presented above, the withdrawal of the rejection of claims 3, 5-6, and 9-20 under 35 USC 103(a) is respectfully requested.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this

Applicant: Gorenz et al.
Application No.: 10/414,346

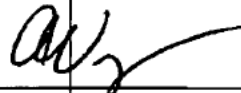
application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1 - 20, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Gorenz et al.

By



Anthony L. Venezia
Registration No. 48,382
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

ALV/
Enclosures

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT OR DRAWING
- BLURRED OR ILLEGIBLE TEXT OR DRAWING
- SKEWED/SLANTED IMAGES
- COLOR OR BLACK AND WHITE PHOTOGRAPHS
- GRAY SCALE DOCUMENTS
- LINES OR MARKS ON ORIGINAL DOCUMENT
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

RECEIVED
CENTRAL FILE CENTER

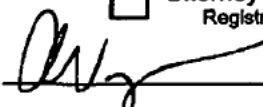
BEST AVAILABLE COPY

DEC 22 2004

PTO/SB/22 (12-04)

Approved for use through 07/31/2008.
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a) FY 2005 <i>(Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).)</i>		Docket Number (Optional) MOT-D2852	
Application Number 10/414,346		Filed April 15, 2003	
For ELECTRONIC CHASIS AND HOUSING HAVING AN INTEGRATED FORCED AIR COOLING SYSTEM			
Art Unit 2835		Examiner Yeon Hsi Chang	
This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.			
The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):			
	<u>Fee</u>	<u>Small Entity Fee</u>	
<input type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$120	\$60	\$ _____
<input checked="" type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$450	\$225	\$ 450.00
<input type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$1020	\$510	\$ _____
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$1590	\$795	\$ _____
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$2160	\$1080	\$ _____
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.			
<input type="checkbox"/> A check in the amount of the fee is enclosed.			
<input checked="" type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.			
<input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.			
<input checked="" type="checkbox"/> The Director is hereby authorized to charge any underpayments, or credit any overpayment, to Deposit Account Number <u>22-0493</u> . I have enclosed a duplicate copy of this sheet.			
WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.			
I am the <input type="checkbox"/> applicant/inventor.			
<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96).			
<input checked="" type="checkbox"/> attorney or agent of record. Registration Number <u>48,382</u>			
<input type="checkbox"/> attorney or agent under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____			
 Signature		<u>12/22/04</u> Date	
Anthony L. Venezia Typed or printed name		215-568-6400 Telephone Number	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.			
<input checked="" type="checkbox"/> Total of <u>1</u> forms are submitted.			

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/17 (12-04)

Approved for use through 07/31/2008.
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)**450.00**

Complete if Known

Application Number **10/414,346**
 Filing Date **April 15, 2003**
 First Named Inventor **Gorenz Jr. et al.**
 Examiner Name **Yean Hsi Chang**
 Art Unit **2835**
 Attorney Docket No. **MOT-D2852**

METHOD OF PAYMENT (check all that apply)

Check Credit Card Money Order None Other (please identify): _____

Deposit Account Deposit Account Number: **22-0493** Deposit Account Name: **Volpe and Koenig, P.C.**

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

Charge fee(s) indicated below Charge fee(s) indicated below, except for the filing fee

Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
- 20	=	x 50.00	= 0.00			
HP = highest number of total claims paid for, if greater than 20						
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)			
- 3	=	x 200.00	= 0.00			
HP = highest number of independent claims paid for, if greater than 3						

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100	=	/ 50 =	(round up to a whole number) x	= 0.00

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)
 Other: Two Month Extension of Time **450.00**

SUBMITTED BY

Signature  Registration No. **48,382** Telephone **215-568-6400**
 Name (Print/Type) **Anthony L. Venezia** Date **December 22, 2004**

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

lu

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/414,346	04/15/2003	Harold J. Gorenz JR.	MOT-D2852	6340

24375 7590 07/22/2004

VOLPE AND KOENIG, P.C.
DEPT. MOT
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

CHANG, YEAN HSI

ART UNIT	PAPER NUMBER
----------	--------------

2835

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 10/414,346	Applicant(s) GORENZ ET AL.	
Examiner Yean-Hsi Chang	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 April 2003.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 15 April 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/15/03.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Claim Objections

1. Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In claim 7, "the outlet port is located in the top plane of the blower assembly" is in contradiction with claim 1 from which claim 7 depends.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 4, and 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Faneuf et al. (US 2003/0002254 A1).

Faneuf teaches an electronic chassis and housing comprising:

Art Unit: 2835

- a housing (1, fig. 1) having a top (26, fig. 3), a base (28, fig. 3) and front (4, fig. 1), back (5, fig. 1), left (2, fig. 1) and right (3, fig. 1) side walls which define an interior space having a predetermined height (1.75", see page 2, [0025]), as measured between the top and the base, and an inlet vent (6, fig. 1) in at least one side wall (4) and an exhaust vent (in 5, shown fig. 1; not numbered) in an opposed side wall (5), a centrifugal blower assembly (11, fig. 1) having defined top and bottom planes (top of 16 and 31, fig. 3) and perimeter walls (shown in fig. 5), a second predetermined height (height of 16, fig. 3) measured between the top and bottom planes that is less than the predetermined height of the interior space (shown in fig. 3) and inlet and outlet ports (shown in figs. 5 and 6) defined in the perimeter walls, the blower assembly is mounted within the interior space such that its inlet port is in fluid communication with the inlet vent and its exhaust port is in fluid communication with the exhaust vent (shown in fig. 1), and a baffle (51, part of 100, fig. 1), positioned within the interior space so that it directs the flow of air from the inlet vent through a non-linear path to the blower inlet port (shown in fig. 1, also see page 3, [0038]) (claim 1)
- wherein the baffle is positioned between the housing inlet vent and said blower inlet port (shown in fig. 1) (claim 2)
- wherein the baffle is comprised of at least one blower assembly side wall that extends upwardly beyond the top plane and contacts the top of the housing (38 in fig. 3 indicating this feature) (claim 4)

Art Unit: 2835

- wherein the inlet port is located in a blower perimeter walls and the outlet port is located in the top plane of the blower assembly (if top plane is also considered as part of perimeter walls; and the centrifugal blower does not rotate in a reversed direction) (claim 7)
- at least one interior wall (shown in figs. 1-3, 38 may be part of it) dividing the interior space into first and second chambers with the centrifugal blower being in one chamber and both chambers being in fluid communication with the inlet and exhaust vents (claim 8).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faneuf et al.

Faneuf discloses the claimed invention except the baffle being comprised of foam gasket material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the baffle of Faneuf at the junction portions to the housing with foam gasket material for air-tight purposes, since it has been held to be within the general skill in the art to select a known material on the basis

Art Unit: 2835

of its suitability for the intended purposes of preventing the exhausted air from returning back to the inlet port of the blower. *In re Leshin*, 125 USPQ 416 (CCPA 1960), MPEP §2144, 07.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faneuf et al. in view of Casebolt (US 6,525,935 B2).

Faneuf discloses the claimed invention except the blower is centrally located within the interior space.

Casebolt teaches an electronic chassis (100, fig. 6) comprising a centrifugal blower (126, fig. 6) being centrally located within the interior space (shown in fig. 6) for letting the components being more easily reached for servicing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Faneuf with the electronic chassis taught Casebolt for letting the components being more easily reached for servicing.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faneuf et al. in view of Stalley (US 5,663,868).

Faneuf discloses the claimed invention except an axial fan located in other chamber with an inlet port in fluid communication with the inlet vent and an outlet port in fluid communication with the outlet vent.

Stalley teaches an electronic housing (fig. 1) comprising an axial fan (13, fig. 1) located in a chamber (6, fig. 1) other than the chamber (5, fig. 1) where the blower (8,

Art Unit: 2835

fig. 1) is located, with an inlet port (not labeled) in fluid communication with the inlet vent (12, fig. 1) and an outlet port (not labeled) in fluid communication with the outlet vent (at location 19, fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Faneuf with the axial fan taught by Stalley for discharging air more efficiently through a rear opening.

8. Claims 10-14 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faneuf et al. in view of Frank, Jr. et al. (US 6,389,499 B1) and Moss et al. (US 6,144,549).

Faneuf discloses the claimed invention as stated in §3, hereinabove, and a pair of installation handles (shown in fig. 1, not labeled) in addition, except a face plate including a bill board surface, display module slot, and a jack slot, arranged to overlay the inlet vent, a display module, and a jack, respectively.

Frank teaches an electronic chassis (110, fig. 4) comprising: a inlet vent (107, fig. 4), a display module (160, fig. 4; see Moss for a display module), a jack (158, fig. 4), and a face plate (181, fig. 4) including a bill board surface (182, fig. 4), display module slot 184, fig. 4), and a jack slot (184, fig. 4), arranged to overlay the inlet vent, the display module, and the jack, respectively.

Moss teaches a display module (140, fig. 1) together with a tray (160, fig. 1) being able to be plugged in a slot (170, fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Faneuf with the face plate taught by Frank and Moss for a nice front appearance.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faneuf et al. in view of Frank, Jr. et al. and Moss et al., further in view of Stalley.

Faneuf in view of Frank and Moss discloses the claimed invention except an axial fan located in a second chamber with an inlet port in fluid communication with the inlet vent and an outlet port in fluid communication with the outlet vent.

Stalley teaches an electronic housing (fig. 1) comprising an axial fan (13, fig. 1) located in a chamber (6, fig. 1) other than the chamber (5, fig. 1) where the blower (8, fig. 1) is located, with an inlet port (not labeled) in fluid communication with the inlet vent (12, fig. 1) and an outlet port (not labeled) in fluid communication with the outlet vent (at location 19, fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Faneuf modified by Frank and Moss with the axial fan taught by Stalley for discharging air more efficiently through a rear opening.

Correspondence

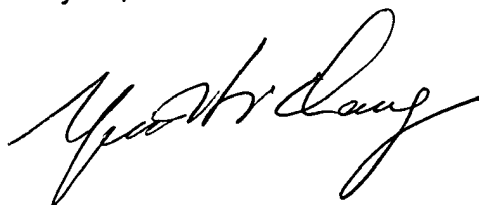
Art Unit: 2835

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFax numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang
Patent Examiner
Art Unit: 2835
July 20, 2004

A handwritten signature in black ink, appearing to read 'Yean-Hsi Chang', written in a cursive style.



<p style="text-align: center;">FORM PTO-1449</p> <p style="text-align: center;">U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE</p> <p style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p style="text-align: center;">(Use several sheets if necessary)</p>	<p>ATTY. DOCKET NO. MOT-D2852</p>	<p>SERIAL NO. 10/414,346</p>
<p>APPLICANT Gorenz et al.</p>		
<p>FILING DATE April 15, 2003</p>		<p>GROUP Not Yet Known</p>

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>sp</i>	AA	4	7	1	7	2	1	6	01/1988	Homak			
	AB	5	2	1	6	5	7	9	06/1993	Basara et al.			
	AC	5	2	8	2	1	1	4	01/1994	Stone			
	AD	5	2	8	7	2	4	4	02/1994	Hileman et al.			
	AE	5	5	0	5	5	3	3	04/1996	Kammersgard et al.			
	AF	6	0	1	1	6	8	9	01/2000	Wrycraft			
<i>sp</i>	AG	6	3	1	5	6	5	5	11/2001	McEwan et al.			
	AH												
	AI												
	AJ												
	AK												
	AL												

RECEIVED
 JUN 24 2003
 10 28 00 MAIL ROOM

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<p>EXAMINER <i>Spencer Chang</i></p>	<p>DATE CONSIDERED <i>7/20/04</i></p>
--	---

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Notice of References Cited	Application/Control No. 10/414,346	Applicant(s)/Patent Under Reexamination GORENZ ET AL.	
	Examiner Yean-Hsi Chang	Art Unit 2835	Page 1 of 1

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
A	US-6,525,935 B2	02-2003	Casebolt, Matthew P.	361/687
B	US-5,663,868	09-1997	Stalley, Anthony Donald	361/695
C	US-6,144,549	11-2000	Moss et al.	361/681
D	US-6,389,499 B1	05-2002	Frank et al.	710/300
E	US-			
F	US-			
G	US-			
H	US-			
I	US-			
J	US-			
K	US-			
L	US-			
M	US-			

FOREIGN PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
N					
O					
P					
Q					
R					
S					
T					

NON-PATENT DOCUMENTS

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
U	Faneuf et al. (US 2003/0002254 A1), "HIGH CAPACITY AIR-COOLING SYSTEMFOR ELECTRONIC APPARATUS AND ASSOCIATED METHOD", Jan. 2, 2003.
V	
W	
X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims



Application No.

10/414,346

Examiner

Yean-Hsi Chang

Applicant(s)

GORENZ ET AL.

Art Unit

2835

√	Rejected
=	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date			
Final	Original	7/20/04			
	1	√			
	2	√			
	3	√			
	4	√			
	5	√			
	6	√			
	7	√			
	8	√			
	9	√			
	10	√			
	11	√			
	12	√			
	13	√			
	14	√			
	15	√			
	16	√			
	17	√			
	18	√			
	19	√			
	20	√			
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				
	36				
	37				
	38				
	39				
	40				
	41				
	42				
	43				
	44				
	45				
	46				
	47				
	48				
	49				
	50				

Claim		Date			
Final	Original				
	51				
	52				
	53				
	54				
	55				
	56				
	57				
	58				
	59				
	60				
	61				
	62				
	63				
	64				
	65				
	66				
	67				
	68				
	69				
	70				
	71				
	72				
	73				
	74				
	75				
	76				
	77				
	78				
	79				
	80				
	81				
	82				
	83				
	84				
	85				
	86				
	87				
	88				
	89				
	90				
	91				
	92				
	93				
	94				
	95				
	96				
	97				
	98				
	99				
	100				

Claim		Date			
Final	Original				
	101				
	102				
	103				
	104				
	105				
	106				
	107				
	108				
	109				
	110				
	111				
	112				
	113				
	114				
	115				
	116				
	117				
	118				
	119				
	120				
	121				
	122				
	123				
	124				
	125				
	126				
	127				
	128				
	129				
	130				
	131				
	132				
	133				
	134				
	135				
	136				
	137				
	138				
	139				
	140				
	141				
	142				
	143				
	144				
	145				
	146				
	147				
	148				
	149				
	150				

Search Notes



Application No.

10/414,346

Applicant(s)

GORENZ ET AL.

Examiner

Yean-Hsi Chang

Art Unit

2835

SEARCHED

Class	Subclass	Date	Examiner
361	688-692		
165	80.2,80.3	7/19/2004	YHC

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
EAST search note attached.	7/19/2003	YHC

	Type	Hits	Search Text	DBs	Time Stamp
1	IS&R	14	((("4717216") or ("5216579") or ("5282114") or ("5287244") or ("5505533") or ("6011689") or ("6315655")).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 13:42
2	IS&R	4038	((361/688-692) or (165/80.2,80.3)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:48
3	IS&R	0	("2and(rackadjmout\$4)").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:43
4	BRS	84	((((361/688-692) or (165/80.2,80.3)).CCLS.) and (rack adj mount\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:56
5	IS&R	6200	((361/688-692) or (165/80.2,80.3,168-170)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:14
6	BRS	88	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:56
7	BRS	69	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 13:57
8	BRS	8	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (rack adj mount\$4)) and (fan or blower)) and centrifugal	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 14:26
9	IS&R	2	("20030002254").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/19 14:26
10	IS&R	6207	((361/688-692) or (165/80.2,80.3,168-170)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:14

	Type	Hits	Search Text	DBs	Time Stamp
11	BRS	143	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:05
12	BRS	3	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot and jack	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:30
13	BRS	51	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:40
14	BRS	8	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot) and display	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:31
15	BRS	19	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (front adj panel)) and slot) and port	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:34
16	BRS	76	((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:39
17	BRS	0	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)) and (slot or opening)) and (billboard or (bill adj board))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 08:41
18	BRS	46	(((((361/688-692) or (165/80.2,80.3,168-170)).CCLS.) and (face adj plate)) and (slot or opening)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:01
19	BRS	8264	rack adj mount\$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:02
20	BRS	2084	(rack adj mount\$4) and electronic	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:03

	Type	Hits	Search Text	DBs	Time Stamp
21	BRS	871	((rack adj mount\$4) and electronic) and communication	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:04
22	BRS	486	((((rack adj mount\$4) and electronic) and communication) and module	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:04
23	BRS	178	((((rack adj mount\$4) and electronic) and communication) and ((front adj panel) or (face adj plate)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:02
24	BRS	121	(((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:06
25	BRS	78	((((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate)))) and	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:07
26	BRS	61	((((((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate)))) and slot) and display	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 09:08
27	BRS	57	(((((((((rack adj mount\$4) and electronic) and communication) and module) and ((front adj panel) or (face adj plate)))) and slot) and display) and port	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:01
28	BRS	290	"electronic device" and (display adj module)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:11
29	BRS	15	("electronic device" and (display adj module)) and ((front adj panel) or (face adj plate))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:12

	Type	Hits	Search Text	DBs	Time Stamp
30	BRS	118	(electronic adj apparatus) and (display adj module)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:13
31	BRS	2	((electronic adj apparatus) and (display adj module)) and ((front adj panel) or (face adj plate))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:12
32	BRS	17	(front adj panel) and (display adj module) and bezel	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:48
33	BRS	307	(front adj panel) and (display adj module)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:49
34	BRS	85	((front adj panel) and (display adj module)) and slot	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:50
35	BRS	39	((front adj panel) and (display adj module)) and slot) and port	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 10:51
36	BRS	1	(PCM adj card) and (display adj module)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:07
37	BRS	9	(PCM adj card) and lcd	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:05
38	BRS	394	(expansion adj card) and lcd	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:06
39	BRS	565	(expan\$4 near function) and lcd	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:54

	Type	Hits	Search Text	DBs	Time Stamp
40	BRS	79	((expan\$4 near function) and lcd) and (display near function)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:17
41	BRS	54	((expan\$4 near function) and lcd) and (display adj function)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:17
42	BRS	0	((expan\$4 near function) and lcd) and (add-on adj display)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:55
43	BRS	0	((expansion adj card) and lcd) and (add-on adj display)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 14:56
44	BRS	0	((expansion adj card) and lcd) and (add-on adj (time adj piece))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:23
45	BRS	7680	(display adj module)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:23
46	BRS	2045	((display adj module)) and lcd	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:10
47	BRS	35	(((display adj module)) and lcd) and (cd adj player)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:10
48	BRS	34993 3	(display adj device)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:23
49	BRS	227	((display adj device)) and (time adj piece)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:25

	Type	Hits	Search Text	DBs	Time Stamp
50	BRS	9	(((display adj device)) and (time adj piece)) and (front adj panel)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:27
51	BRS	3	(((display adj device)) and (time adj piece)) and (terminal adj device)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:30
52	BRS	307	((display adj module)) and (front adj panel)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:31
53	BRS	5	(((display adj module)) and (front adj panel)) and (rack adj mount\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/20 15:32



2835

PTO/SB/21 (05-03)

Approved for use through 04/30/2003. OMB 0651-0031

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/414,346
	Filing Date	April 15, 2003
	First Named Inventor	Gorenz et al.
	Art Unit	Not Yet Known
	Examiner Name	Not Yet Known
	Attorney Docket Number	MOT-D2852
Total Number of Pages in This Submission		

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	Form PTO-1449; and 7 references cited thereon
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)	Remarks	
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

RECEIVED
 JUN 24 2003
 T 2800 MAIL ROOM

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Anthony S. Volpe Volpe and Koenig, P.C. Reg. No. 28,377
Signature	<i>Anthony S. Volpe</i>
Date	June 18, 2003

CERTIFICATE OF TRANSMISSION/MAILING	
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.	
Typed or printed name	Anthony S. Volpe
Signature	<i>Anthony S. Volpe</i>
Date	June 18, 2003

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Gorenz et al.

Application No.: 10/414,346

Confirmation No.: Not Yet Known

Filed: April 15, 2003

For: ELECTRONIC CHASSIS AND HOUSING HAVING AN INTEGRATED FORCED AIR COOLING SYSTEM

Group: Not Yet Known

Examiner: Not Yet Known

Our File: MOT-D2852

Date: June 18, 2003

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RECEIVED
JUN 24 2003
TC 2900 MAIL ROOM

Sir:

Further to Applicants' Duty of Disclosure pursuant to 37 C.F.R. §1.56, Applicants wish to bring to the Examiner's attention the material cited on the enclosed PTO-1449 form.

It is respectfully requested that the Examiner consider these documents and return an initialed copy of the PTO-1449 form indicating his consideration of the cited materials.

Respectfully submitted,

Gorenz et al.

By *Anthony S. Volpe*
Anthony S. Volpe
Registration No. 28,377
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

ASV/lhc



FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. MOT-D2852	SERIAL NO. 10/414,346
APPLICANT Gorenz et al.		
FILING DATE April 15, 2003		GROUP Not Yet Known

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER								DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA	4	7	1	7	2	1	6	01/1988	Hornak				
AB	5	2	1	6	5	7	9	06/1993	Basara et al.				
AC	5	2	8	2	1	1	4	01/1994	Stone				
AD	5	2	8	7	2	4	4	02/1994	Hileman et al.				
AE	5	5	0	5	5	3	3	04/1996	Kammersqard et al.				
AF	6	0	1	1	6	8	9	01/2000	Wrycraft				
AG	6	3	1	5	6	5	5	11/2001	McEwan et al.				
AH													
AI													
AJ													
AK													
AL													

RECEIVED
 JUN 24 2003
 TC 2800 MAIL ROOM

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER								DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
													YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1c882 U.S. PTO
04/15/03

4-16-03 10414345 041503
 PTO/SB/05 (03-01)
 Approved for use through 10/31/2002. OMB 0651-0032
 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.
 11016 U.S. PTO
 10/414346
 04/15/03

UTILITY PATENT APPLICATION TRANSMITTAL (Only for new nonprovisional applications under 37 CFR 1.53(b))	Attorney Docket No. MOT-D2852
	First Inventor Gorenz et al.
	Title ELECTRONIC CHASSIS AND HOUSING HAVING AN INTEGRATED FORCED AIR COOLING SYSTEM
	Express Mail Label No. EV202560842US

<p style="text-align: center;">APPLICATION ELEMENTS</p> <p>See MPEP chapter 600 concerning utility patent application contents.</p> <p>1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g., PTO/SB/17) <i>(Submit an original and a duplicate for fee processing)</i></p> <p>2. <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.</p> <p>3. <input checked="" type="checkbox"/> Specification [Total Pages 16] <i>(preferred arrangement set forth below)</i> - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure</p> <p>4. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets 4]</p> <p>5. Oath or Declaration [Total Pages 3] a. <input checked="" type="checkbox"/> Newly executed (original or copy) <input type="checkbox"/> Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed) i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).</p> <p>6. <input checked="" type="checkbox"/> Application Data Sheet. See 37 CFR 1.76</p>	<p>ADDRESS TO: Commissioner for Patents Box Patent Application Washington, DC 20231</p> <p>7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)</p> <p>8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. <input type="checkbox"/> Computer Readable Form (CRF) b. Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> paper c. <input type="checkbox"/> Statements verifying identity of above copies</p> <p style="text-align: center;">ACCOMPANYING APPLICATION PARTS</p> <p>9. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & document(s))</p> <p>10. <input type="checkbox"/> 37 CFR 3.73(b) Statement of Attorney (when there is an assignee) <input type="checkbox"/> Power of Attorney</p> <p>11. <input type="checkbox"/> English Translation Document (if applicable)</p> <p>12. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations</p> <p>13. <input type="checkbox"/> Preliminary Amendment</p> <p>14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)</p> <p>15. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed)</p> <p>16. <input type="checkbox"/> Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.</p> <p>17. <input type="checkbox"/> Other:</p>
--	---

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation Divisional Continuation-in-part (CIP) of prior application No.: _____

Prior application information: Examiner: _____ Group Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

Customer Number or Bar Code Label **3624** or Correspondence address below
(Insert Customer No. or Attach bar code label here)

Name VOLPE AND KOENIG, P.C.			
Address			
City	State	Zip Code	
Country	Telephone	Fax	

Name (Print/Type) Anthony S. Volpe	Registration No. (Attorney/Agent) 28,377
Signature <i>Anthony S. Volpe</i>	Date April 15, 2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

Express Mail Label No. EV202560842US

PTO/SB/17 (01-03)

Approved for use through 01/31/2003. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL		<i>Complete if Known</i>	
for FY 2003		Application Number	Not Yet Known
<i>Patent fees are subject to annual revision.</i>		Filing Date	Not Yet Known
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		First Named Inventor	Gorenz et al.
TOTAL AMOUNT OF PAYMENT (\$) 958		Examiner Name	Not Yet Known
		Art Unit	Not Yet Known
		Attorney Docket No.	MOT-D2852

<p>METHOD OF PAYMENT (check all that apply)</p> <p><input type="checkbox"/> Check <input checked="" type="checkbox"/> Credit card <input type="checkbox"/> Money Order <input type="checkbox"/> Other <input type="checkbox"/> None</p> <p><input type="checkbox"/> Deposit Account: Deposit Account Number: 22-0493 Deposit Account Name: Volpe and Koenig, P.C.</p> <p>The Commissioner is authorized to: (check all that apply) <input type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments charge any deficiencies <input checked="" type="checkbox"/> Charge any additional fee(s) during the pendency of this application <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.</p>	<p>FEE CALCULATION (continued)</p> <p>3. ADDITIONAL FEES</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For filing a request for <i>ex parte</i> reexamination</td><td></td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>1805</td><td>1,840*</td><td>1805</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>1252</td><td>410</td><td>2252</td><td>205</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>1253</td><td>930</td><td>2253</td><td>465</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>1254</td><td>1,450</td><td>2254</td><td>725</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>1255</td><td>1,970</td><td>2255</td><td>985</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>1401</td><td>320</td><td>2401</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>1402</td><td>320</td><td>2402</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>1403</td><td>280</td><td>2403</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>1453</td><td>1,300</td><td>2453</td><td>650</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>1501</td><td>1,300</td><td>2501</td><td>650</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>1502</td><td>470</td><td>2502</td><td>235</td><td>Design issue fee</td><td></td></tr> <tr><td>1503</td><td>630</td><td>2503</td><td>315</td><td>Plant issue fee</td><td></td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Processing fee under 37 CFR 1.17(q)</td><td></td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td style="text-align: center;">40</td></tr> <tr><td>1809</td><td>750</td><td>2809</td><td>375</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>1810</td><td>750</td><td>2810</td><td>375</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> <tr><td>1801</td><td>750</td><td>2801</td><td>375</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>1802</td><td>900</td><td>1802</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> </tbody> </table> <p>Other fee (specify) _____ *Reduced by Basic Filing Fee Paid</p>	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - late filing fee or oath		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet		1053	130	1053	130	Non-English specification		1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action		1251	110	2251	55	Extension for reply within first month		1252	410	2252	205	Extension for reply within second month		1253	930	2253	465	Extension for reply within third month		1254	1,450	2254	725	Extension for reply within fourth month		1255	1,970	2255	985	Extension for reply within fifth month		1401	320	2401	160	Notice of Appeal		1402	320	2402	160	Filing a brief in support of an appeal		1403	280	2403	140	Request for oral hearing		1451	1,510	1451	1,510	Petition to institute a public use proceeding		1452	110	2452	55	Petition to revive - unavoidable		1453	1,300	2453	650	Petition to revive - unintentional		1501	1,300	2501	650	Utility issue fee (or reissue)		1502	470	2502	235	Design issue fee		1503	630	2503	315	Plant issue fee		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Processing fee under 37 CFR 1.17(q)		1806	180	1806	180	Submission of Information Disclosure Stmt		8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40	1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))		1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))		1801	750	2801	375	Request for Continued Examination (RCE)		1802	900	1802	900	Request for expedited examination of a design application	
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																																														
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																
1051	130	2051	65	Surcharge - late filing fee or oath																																																																																																																																																																															
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet																																																																																																																																																																															
1053	130	1053	130	Non-English specification																																																																																																																																																																															
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination																																																																																																																																																																															
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action																																																																																																																																																																															
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action																																																																																																																																																																															
1251	110	2251	55	Extension for reply within first month																																																																																																																																																																															
1252	410	2252	205	Extension for reply within second month																																																																																																																																																																															
1253	930	2253	465	Extension for reply within third month																																																																																																																																																																															
1254	1,450	2254	725	Extension for reply within fourth month																																																																																																																																																																															
1255	1,970	2255	985	Extension for reply within fifth month																																																																																																																																																																															
1401	320	2401	160	Notice of Appeal																																																																																																																																																																															
1402	320	2402	160	Filing a brief in support of an appeal																																																																																																																																																																															
1403	280	2403	140	Request for oral hearing																																																																																																																																																																															
1451	1,510	1451	1,510	Petition to institute a public use proceeding																																																																																																																																																																															
1452	110	2452	55	Petition to revive - unavoidable																																																																																																																																																																															
1453	1,300	2453	650	Petition to revive - unintentional																																																																																																																																																																															
1501	1,300	2501	650	Utility issue fee (or reissue)																																																																																																																																																																															
1502	470	2502	235	Design issue fee																																																																																																																																																																															
1503	630	2503	315	Plant issue fee																																																																																																																																																																															
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																																																															
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)																																																																																																																																																																															
1806	180	1806	180	Submission of Information Disclosure Stmt																																																																																																																																																																															
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40																																																																																																																																																																														
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))																																																																																																																																																																															
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))																																																																																																																																																																															
1801	750	2801	375	Request for Continued Examination (RCE)																																																																																																																																																																															
1802	900	1802	900	Request for expedited examination of a design application																																																																																																																																																																															
<p>1. BASIC FILING FEE</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1001</td><td>750</td><td>2001</td><td>375</td><td>Utility filing fee</td><td style="text-align: center;">750</td></tr> <tr><td>1002</td><td>330</td><td>2002</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>1003</td><td>520</td><td>2003</td><td>260</td><td>Plant filing fee</td><td></td></tr> <tr><td>1004</td><td>750</td><td>2004</td><td>375</td><td>Reissue filing fee</td><td></td></tr> <tr><td>1005</td><td>160</td><td>2005</td><td>80</td><td>Provisional filing fee</td><td></td></tr> </tbody> </table> <p style="text-align: right;">SUBTOTAL (1) (\$) 750</p>	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1001	750	2001	375	Utility filing fee	750	1002	330	2002	165	Design filing fee		1003	520	2003	260	Plant filing fee		1004	750	2004	375	Reissue filing fee		1005	160	2005	80	Provisional filing fee		<p>2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Total Claims</td> <td style="text-align: center;">20</td> <td>- 20 =</td> <td style="text-align: center;">0</td> <td>x</td> <td style="text-align: center;">18</td> <td>=</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Independent Claims</td> <td style="text-align: center;">5</td> <td>- 3 =</td> <td style="text-align: center;">2</td> <td>x</td> <td style="text-align: center;">84</td> <td>=</td> <td style="text-align: center;">168</td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td style="text-align: center;">0</td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>1201</td><td>84</td><td>2201</td><td>42</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>1203</td><td>280</td><td>2203</td><td>140</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>1204</td><td>84</td><td>2204</td><td>42</td><td>** Reissue independent claims over original patent</td><td></td></tr> <tr><td>1205</td><td>18</td><td>2205</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr> </tbody> </table> <p style="text-align: right;">SUBTOTAL (2) (\$) 168</p> <p><small>**or number previously paid, if greater; For Reissues, see above</small></p>	Total Claims	20	- 20 =	0	x	18	=	0	Independent Claims	5	- 3 =	2	x	84	=	168	Multiple Dependent			0				0	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1202	18	2202	9	Claims in excess of 20		1201	84	2201	42	Independent claims in excess of 3		1203	280	2203	140	Multiple dependent claim, if not paid		1204	84	2204	42	** Reissue independent claims over original patent		1205	18	2205	9	** Reissue claims in excess of 20 and over original patent																																																																											
Large Entity		Small Entity		Fee Description			Fee Paid																																																																																																																																																																												
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																
1001	750	2001	375	Utility filing fee	750																																																																																																																																																																														
1002	330	2002	165	Design filing fee																																																																																																																																																																															
1003	520	2003	260	Plant filing fee																																																																																																																																																																															
1004	750	2004	375	Reissue filing fee																																																																																																																																																																															
1005	160	2005	80	Provisional filing fee																																																																																																																																																																															
Total Claims	20	- 20 =	0	x	18	=	0																																																																																																																																																																												
Independent Claims	5	- 3 =	2	x	84	=	168																																																																																																																																																																												
Multiple Dependent			0				0																																																																																																																																																																												
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																																														
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																
1202	18	2202	9	Claims in excess of 20																																																																																																																																																																															
1201	84	2201	42	Independent claims in excess of 3																																																																																																																																																																															
1203	280	2203	140	Multiple dependent claim, if not paid																																																																																																																																																																															
1204	84	2204	42	** Reissue independent claims over original patent																																																																																																																																																																															
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent																																																																																																																																																																															
SUBTOTAL (3) (\$) 40																																																																																																																																																																																			

SUBMITTED BY		<i>(Complete if applicable)</i>	
Name (Print/Type)	Anthony S. Volpe	Registration No. (Attorney/Agent)	28,377
Signature	<i>Anthony S. Volpe</i>	Telephone	215-568-6400
		Date	April 15, 2003

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Express Mail Label No. EV202560842US

**APPLICATION DATA SHEET
UNDER 37 CFR §1.76**

(1) Inventor Information

Inventor One Given Name:: Harold J.
Family Name:: Gorenz, Jr.
Postal Address Line One:: 580 Spruce Lane
City:: Lisle
State or Province:: IL
Postal or ZIP Code:: 60532
Citizenship Country:: United States of America
Residence:: Lisle, IL, United States of America

Inventor Two Given Name:: William R.
Family Name:: Groves
Postal Address Line One:: 730 Torrington Drive
City:: Naperville
State or Province:: IL
Postal or ZIP Code:: 60565
Citizenship Country:: United States of America
Residence:: Naperville, IL, United States of America

Inventor Three Given Name:: Roger W.
Family Name:: Ady
Postal Address Line One:: 728 W. Jackson, Unit 1102
City:: Chicago
State or Province:: IL
Postal or ZIP Code:: 60661
Citizenship Country:: United States of America
Residence:: Chicago, IL, United States of America

(2) Assignee Information

Name Line One:: General Instrument Corporation
Address Line One:: 101 Tournament Drive
City:: Horsham
State or Province:: PA, U.S.A.
Postal or ZIP Code:: 19044

(3) Correspondence Information

(3) Correspondence Information

Customer No.: 24375
Name Line One: Anthony S. Volpe
Name Line Two: Volpe and Koenig, P.C., DEPT MOT
Telephone No.: 215-568-6400

(4) Application Information

Title Line One: ELECTRONIC CHASSIS AND HOUSING
Title Line Two: HAVING AN INTEGRATED FORCED AIR
Title Line Three: COOLING SYSTEM
Total Drawing Sheets: 4
Drawing Type: Formal
Application Type: Utility
Docket No.: MOT-D2852

(5) Representative Information

Representative Customer No.: 24375

MOT-D2852

Express Mail Label No. EV202560842US

[0001] ELECTRONIC CHASSIS AND HOUSING HAVING
 AN INTEGRATED FORCED AIR COOLING SYSTEM

[0002] BACKGROUND OF THE INVENTION

[0003] The present invention relates generally to rack-mounted electronics chassis systems and, more particularly, to a chassis and housing having an integrated forced air cooling system that preserves the front panel and display appearance generally associated with a rack-mounted electronics chassis system.

[0004] There exists a trend toward a more compact chassis for a cable modem termination system (CMTS). The reduction in the overall size of the chassis causes two distinct problems. One, a reduction in the size of the chassis requires a corresponding reduction in the size of the front panel and display module. Most chassis manufacturers use variations of material finish (i.e. paint), printed logos, labels, etc. on the front panel to differentiate their products. In addition to reducing the front panel billboard space, the reduction reduced the available space for logos, labels, I/O connectors, user displays, user controls, and cooling vents. Accordingly, there exists a need for a reduced size front panel that is equally function and display oriented. Two, the reduced size is an obstacle to maintaining the internal circuitry at a suitable operating temperature. The internal circuitry is electrically driven and generates substantial amounts of heat energy. Larger chassis systems are able to maintain the desired operating temperature by having more space for fans and vents located on the

MOT-D2852

exterior walls. However, a reduction in the size creates an associated reduction in room for such airflow features.

[0005] Chassis cooling systems in the prior art that provide for front-to-back cooling typically feature 40mm axial fans that do not have the strength or capacity to pull and/or push air through the high static pressure for a 1 rack-unit (herein after "1U") chassis. Existing chassis designs have placed the axial fans adjacent to the front or rear panels which is not feasible for a 1U chassis that requires substantial area for I/O connectors, user interface, and various other components.

[0006] The prior art also discloses cooling systems for conventionally-sized chassis (e.g. 2U or larger) with centrally located blowers designed to create a low pressure on one side of an internal wall, and high pressure on the other side to achieve front-to-back cooling. However, the prior art centrally located blowers do not direct the path of air intake or divide the airflow exiting the blower.

[0007] BRIEF DESCRIPTION OF THE DRAWING(S)

[0008] The present invention will hereinafter be described in conjunction with the appended drawing figures wherein like numerals denote like elements.

[0009] FIG. 1 is a front perspective view of the chassis of the present invention with the front panel and display module in place.

[0010] FIG.2 is a perspective view of the front panel and display module portions detached from the chassis and each other.

MOT-D2852

[0011] FIG. 3 is a partial top view of the front portion of the chassis with the front panel and display module attached and the top panel removed, showing the internal circuitry and the air intake slot.

[0012] FIG. 4 is a front perspective view of the chassis with the front panel partially installed.

[0013] FIG. 5 is a top perspective view of the chassis without the front and top panels, but with the display module, showing the internal components and centrifugal blower.

[0014] FIG. 6 is a top plain view of the chassis illustrating the internal air flow through the chassis.

[0015] FIG. 7 is a rear perspective view of the chassis illustrating the exhaust ports and vents.

[0016] SUMMARY OF THE INVENTION

The invention provides a chassis for housing printed circuit boards comprising: a housing having a top, bottom, front, back, left and right side walls, and having a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit. The front wall includes an inlet vent, a display module, and a jack and the back side wall includes an exhaust vent. A centrifugal blower is provided inside the chassis housing to establish the air flow pattern. A front wall face plate

MOT-D2852

overlies the inlet vent, display module and jack, respectively so the inlet vent are arranged in parallel, overlapping but offset planes.

[0017] DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

[0018] The ensuing detailed description provides preferred exemplary embodiments only, and is not intended to limit the scope, applicability, or configuration of this invention. Rather, the ensuing detailed description of the preferred exemplary embodiments will provide those skilled in the art with an enabling description for implementing the invention. It being understood that various changes may be made in the function and arrangement of elements without departing from the spirit and scope of the invention as set forth in the appended claims.

[0019] FIGS. 1 and 3 through 5 show a chassis 10 for a single "rack-unit" which is commonly referred to as a 1RU cable modem termination system (CMTS). Under current industry standard a "rack-unit" equals approximately 1.75 inches, 2RU equals approximately 3.5 inches and etcetera. As seen best in FIGS. 1 and 4, the chassis 10 includes a base 12 having a rear 14, left 16 and right 18 side walls, a front panel 20, and a top 22, combined to form the base enclosure or housing 24. As shown in FIG. 2, the front panel 20 includes a display module slot 26, an air inlet vent 30 and jack slots 32, 33. In this embodiment, the front panel 20 includes left and right handles, 36 and 37 respectively, to aid the user with inserting and removing the chassis 10 from an industry standard communications infrastructure equipment rack (not shown). A

MOT-D2852

display module 28 is detachably secured to the front panel 20 to house a module such as an LCD, and functional switches 27, such scroll, enter select, abort and mode selection, and displays 29, such as LEDs for indicating status or warning signals (thermal conditions or power) for various modules and functions within the chassis.

[0020] As shown in FIG. 4, the preferred face bar 38 is detachable from the front panel 20 to ease access for service and cleaning. The face bar 38 may display a logo on the billboard surface 40. The face bar 38 includes a slot 39 for the display module 28 and cut out 41 around jack slots 32 and 33. The face bar 38 also serves to cover and conceal the air inlet vent 30. In this embodiment, the face bar 38 is removably secured to the front panel 20 by outwardly biased exterior tabs, 44 and 45, which engage behind a respective handle 36 or 37. The face bar 38 is additionally secured by mounting clips, 48 and 49 which mate to the display module with a respective tab, 50 or 51. As best shown in FIGS. 1 and 3, an air intake slot 52 is formed by spacing the face bar 38 when it is secured to the front panel 20. The air intake slot 52 permits air from above and below the face bar 38 ingress into the air inlet vent 30 (see FIG. 4). The design of the face bar 38 accommodates the preferred functional requirements for the front of the chassis 10 while maintaining an attractive appearance.

[0021] FIGS. 5 through 7 show an internal view of the chassis 10 with the face bar 38 and top plate 22 removed. As best shown in FIG. 6, the chassis 10 is preferably divided into three (3) internal chambers, 58, 60, and 62, by an intake dividing wall 54 and a central dividing wall 56. In this embodiment, the chambers include a power

MOT-D2852

supply circuitry chamber 58, a digital printed wiring assembly (PWA) chamber 60, and a radio frequency ("RF") PWA chamber 62. The RF PWA chamber 62 may be further divided by an exhaust dividing wall 64 into a receiving PWA chamber 66 and a transmitting PWA chamber 68. The RF PWA chamber 62 may be divided into additional chambers by the use of exhaust dividing walls.

[0022] As best shown in FIG. 6, the intake air flowing into the air inlet vent 30 initially enters the power supply circuitry chamber 58 and the digital PWA chamber 60. One or more axial fans 70, 71 secured to the base plate 12 and located within the power supply circuitry chamber 58, sweep air from the front of the chamber 58 to the rear of the chamber 58 to cool the internal circuitry of the chamber 58, including power supply circuitry 72. One example of an axial fan is the Panasonic model 4Bko4f.

[0023] As shown in FIG. 6, the path of air entering the digital PWA chamber 60 is influenced by the centrifugal blower 74. The centrifugal blower 74 is centrally located within the digital PWA chamber 60 with its blower facing up. One acceptable blower is available from Comair Rotron as model BD12B7, also known as Biscuit (r) DC. This unit occupies a footprint of no more than 4.75 inches squared and has a height or thickness of 1.25 inches. A digital PWA 76 (see FIG. 5) is located within the digital PWA chamber 60. The digital PWA 76 is the most temperature sensitive component within the chassis 10, and accordingly requires a sufficient flow of air to maintain its operating temperature. One or more baffles 78, 79, may be secured to the top plate 22 to direct air flowing through the digital PWA chamber 60 over as much of

MOT-D2852

the circuitry as possible. In this embodiment, the baffles are made of foam and are carried by the top plate 22. By placing the baffles 78, 79 in an L-shape, the centrifugal blower 74 pulls the intake air in a non-linear path through the circuitry within the digital PWA chamber 60. Of course, the baffles 78, 79 may be placed in the required configuration for the desired airflow to cool each particular circuit design.

[0024] The centrifugal blower 74 pulls the intake air into its intake port 80. The blower intake port 80 faces upward to move the hotter air outwardly through the blower exhaust ports 82, 83 and into the RF PWA chamber 62 (see FIG. 7). Air exiting the centrifugal blower 74 is forced into the RF PWA chamber 62 at a high velocity to cool receiving PWA 84 and transmitting PWA 86 (see FIG. 5). Air exiting the centrifugal blower 74 may be separately directed by wall 64 into the receiving PWA chamber 66 and transmitting PWA chamber 68 (see FIG. 7). The exhaust dividing wall 64 may also be located to direct a higher volume of air to either the receiving PWA chamber 66 or transmitting PWA chamber 68. The final air egress from the RF PWA chamber 62 is through one or more exhaust vents 88, 89 located on the rear wall 14 (see FIG. 7). The use of a dividing wall 64 and multiple ports on the exhaust side of the blower 74 allows the cooling system of the present invention to effectively cool many different components of the internal circuitry.

[0025] While principles of the invention have been described above in connection with the specific apparatus, it is to be clearly understood that this description is made only by way of example and not as a limitation on the scope of the invention.

MOT-D2852

*

*

*

MOT-D2852

CLAIMS

What we claim is:

1. An electronic chassis and housing having an integrated force air cooling system, comprising:
 - a) a housing having a top, a base and front, back, left and right side walls which define an interior space having a predetermined height, as measured between the top and the base, and an inlet vent in at least one side wall and an exhaust vent in an opposed side wall;
 - b) a centrifugal blower assembly having defined top and bottom planes and perimeter walls, a second predetermined height measured between the top and bottom planes that is less than the predetermined height of the interior space and inlet and outlet ports defined in the perimeter walls; the blower assembly is mounted within the interior space such that its inlet port is in fluid communication with the inlet vent and its exhaust port is in fluid communication with the exhaust vent; and,
 - c) a baffle, positioned within the interior space so that it directs the flow of air from the inlet vent through a non-linear path to the blower inlet port.

2. The invention of claim 1, wherein the baffle is positioned between the housing inlet vent and said blower inlet port.

MOT-D2852

3. The invention of claim 1, wherein the baffle is comprised of foam gasket material.
4. The invention of claim 1, wherein the baffle is comprised of at least one blower assembly side wall that extends upwardly beyond the top plane and contacts the top of the housing.
5. The invention of claim 1, wherein the blower is centrally located within the interior space and includes a fan having a diameter greater than the predetermined height.
6. The invention of claim 5, wherein the inlet vent is located in one side wall of the housing, the blower inlet port is directed toward another side wall of the housing and the baffle directs air past the blower assembly before it enters the blower inlet port.
7. The invention of claim 1, wherein the inlet port is located in a blower perimeter walls and the outlet port is located in the top plane of the blower assembly.

MOT-D2852

8. The invention of claim 1 further comprising:

d) at least one interior wall dividing the interior space into first and second chambers with the centrifugal blower being in one chamber and both chambers being in fluid communication with the inlet and exhaust vents.

9. The invention of claim 8 further comprising:

e) an axial fan located in other chamber with an inlet port in fluid communication with the inlet vent and an outlet port in fluid communication with the outlet vent.

10. A chassis for housing printed circuit boards comprising:

a) a housing having a top, bottom, front, back, left and right side walls, and a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack; and,

b) a face plate including a bill board surface, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively,

wherein said bill board portion and said vent define parallel, spaced apart planes so that said vent is concealed from view, but in fluid communication with the exterior ambient atmosphere.

MOT-D2852

11. The chassis recited in claim 10, wherein said front wall includes a plurality of jack, and a pair of installation handles.

12. The chassis recited in claim 10, wherein said bill board surface includes identifying indicia thereon.

13. A face plate for a printed circuit board chassis having a top, bottom, front, back, left and right side walls, a height, measured from the bottom wall to the top wall, which is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack, said face plate comprising:

- a) a planar logo surface portion arranged to overlay the inlet vent in a parallel, overlapping but offset plane so that said vent is concealed from view from, but is in fluid communication with, the front exterior of said chassis;
- b) a display module slot arranged to overlay the display module; and,
- c) a jack slot arranged to overlay the jack.

14. A chassis for housing printed circuit boards comprising:

- a) a housing having a top, bottom, front, back, left and right side walls, and having a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit, said front wall including an inlet vent, a display module, and a jack;
- b) an exhaust vent in said back side wall;

MOT-D2852

c) a centrifugal blower inside said chassis housing, said blower having a housing with top, bottom, and side walls, an inlet port in fluid communication with said inlet vent, and an exhaust port in fluid communication with said exhaust vent, said blower housing having a height, measured from the bottom wall to the top wall, that is less than the height of said chassis housing;

d) a partition intermediate said housing inlet vent and said blower inlet port, said partition diverting the flow of air along an indirect path within the housing from said inlet vent to said blower inlet port;

e) a front wall face plate including a planar logo surface portion, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively;

wherein said logo surface portion and said inlet vent are arranged in parallel, overlapping but offset planes so that said vent is concealed from view, but is in fluid communication with, the front exterior of said chassis.

15. The chassis recited in claim 14, including:

f) a chassis housing interior wall dividing the interior into a first chamber in which the centrifugal blower is located and second chamber, both chambers being in fluid communication with said inlet vent and said exhaust vent; and,

MOT-D2852

g) an axial fan located in said second chamber, said axial fan having an inlet port in fluid communication with said inlet vent and an outlet port in fluid communication with said outlet vent.

16. The chassis recited in claim 14, wherein said front wall includes a plurality of jacks, and a pair of installation handles.

17. The chassis recited in claim 14, wherein said logo surface includes identifying indicia printed or embossed thereon.

18. A printed circuit board chassis for insertion in a standard communications infrastructure equipment rack, the chassis comprising:

a) a housing having a top, bottom, front, back, left and right side walls, and having a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit of approximately 1.75 inches, said front wall including an inlet vent, a display module, and a jack;

b) an exhaust vent in said back side wall;

c) a centrifugal blower inside said chassis housing, said blower having a housing with top, bottom, and side walls, an inlet port in fluid communication with said inlet vent, and an exhaust port in fluid communication with said exhaust vent,

MOT-D2852

said blower housing having a height, measured from the bottom wall to the top wall, that is less than 1.75 inches;

d) a partition intermediate said housing inlet vent and said blower inlet port, said partition diverting the flow of air along an indirect path within the housing from said inlet vent to said blower inlet port; and

e) a front wall face plate including a planar logo surface portion, display module slot, and a jack slot, arranged to overlay said inlet vent, display module and jack, respectively.

19. The chassis of claim 18 wherein said logo surface portion and said inlet vent are arranged in parallel, overlapping but offset planes so that said vent is concealed from view, but is in fluid communication with, the front exterior of said chassis.

20. The chassis of claim 18 wherein said front wall includes a pair of installation handles.

MOT-D2852

ABSTRACT

The invention provides a chassis for housing printed circuit boards comprising: a housing having a top, bottom, front, back, left and right side walls, and having a height, measured from the bottom wall to the top wall, that is equal to a 1 rack-unit. The front wall includes an inlet vent, a display module, and a jack and the back side wall includes an exhaust vent. A front wall face plate overlies the inlet vent, display module and jack, with the inlet vent arranged in parallel, overlapping but offset planes. A centrifugal blower is provided inside the chassis housing.

1/4

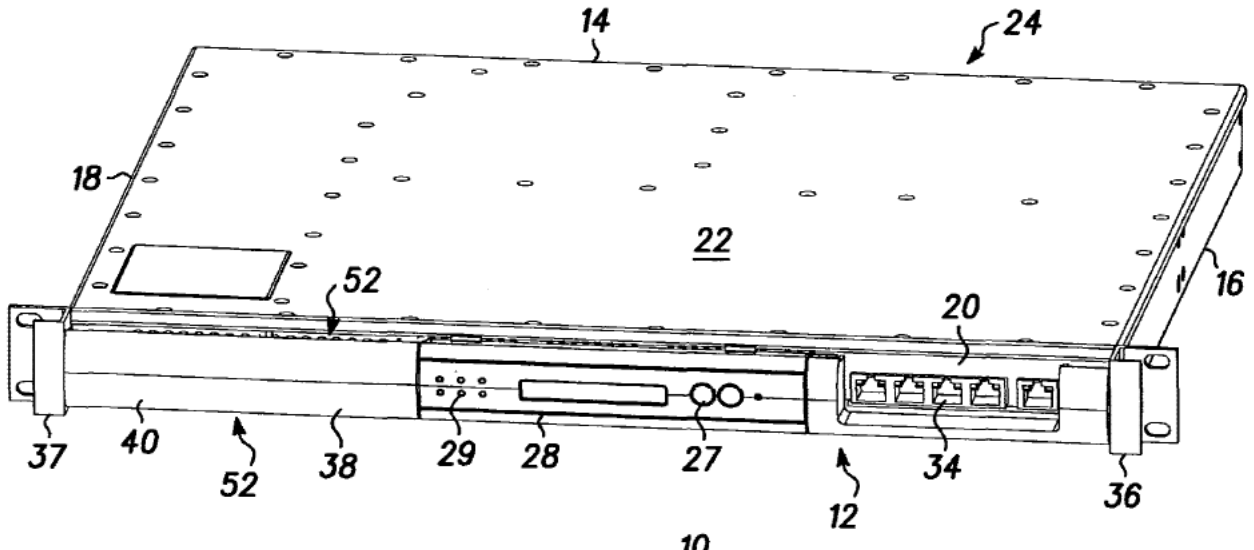


FIG. 1

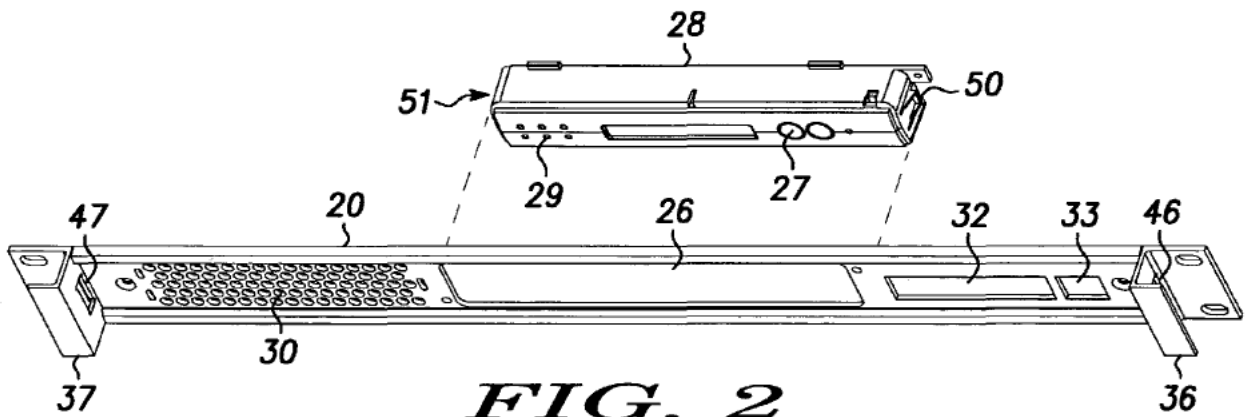


FIG. 2

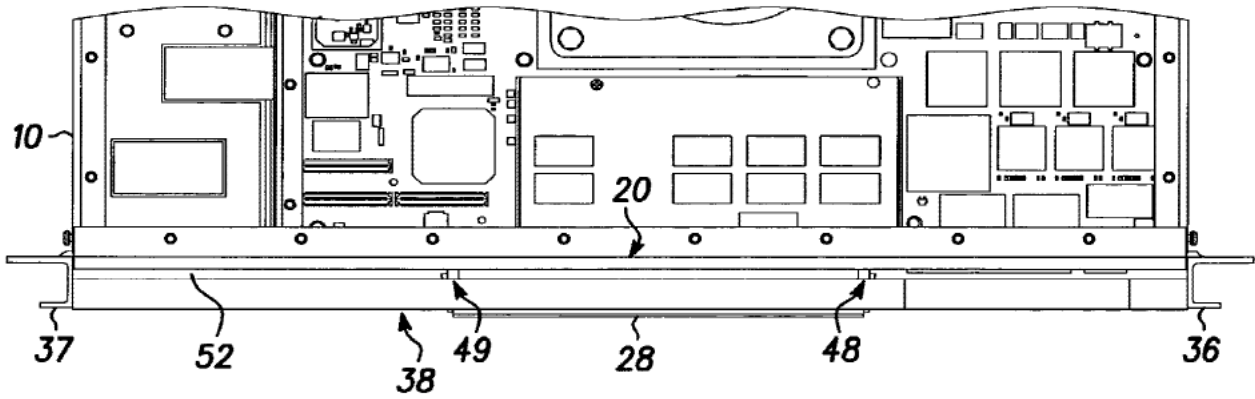


FIG. 3

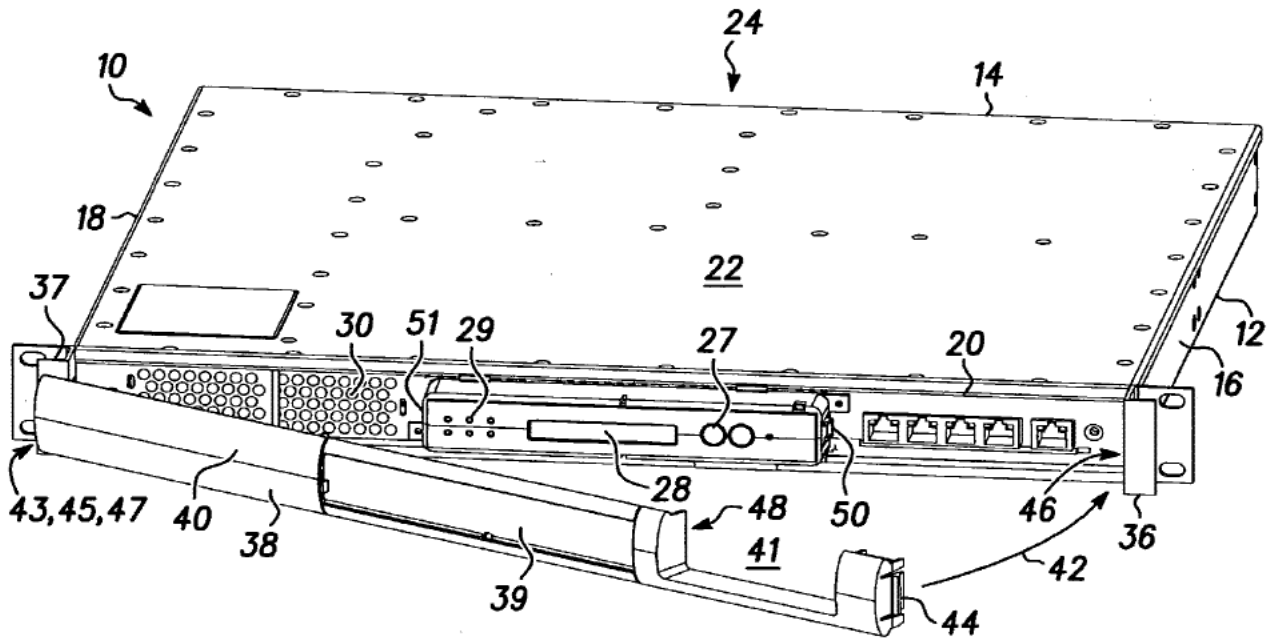


FIG. 4

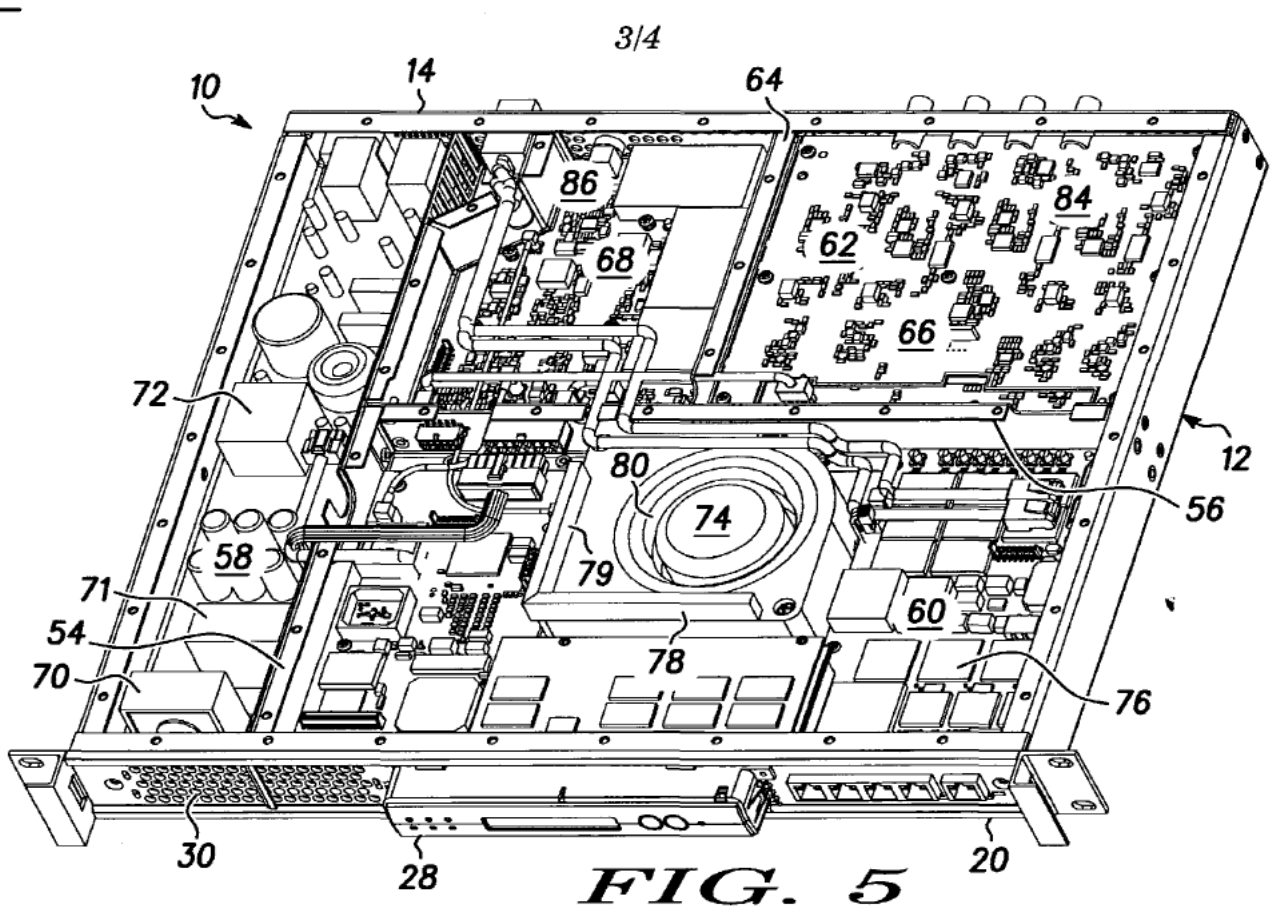


FIG. 5

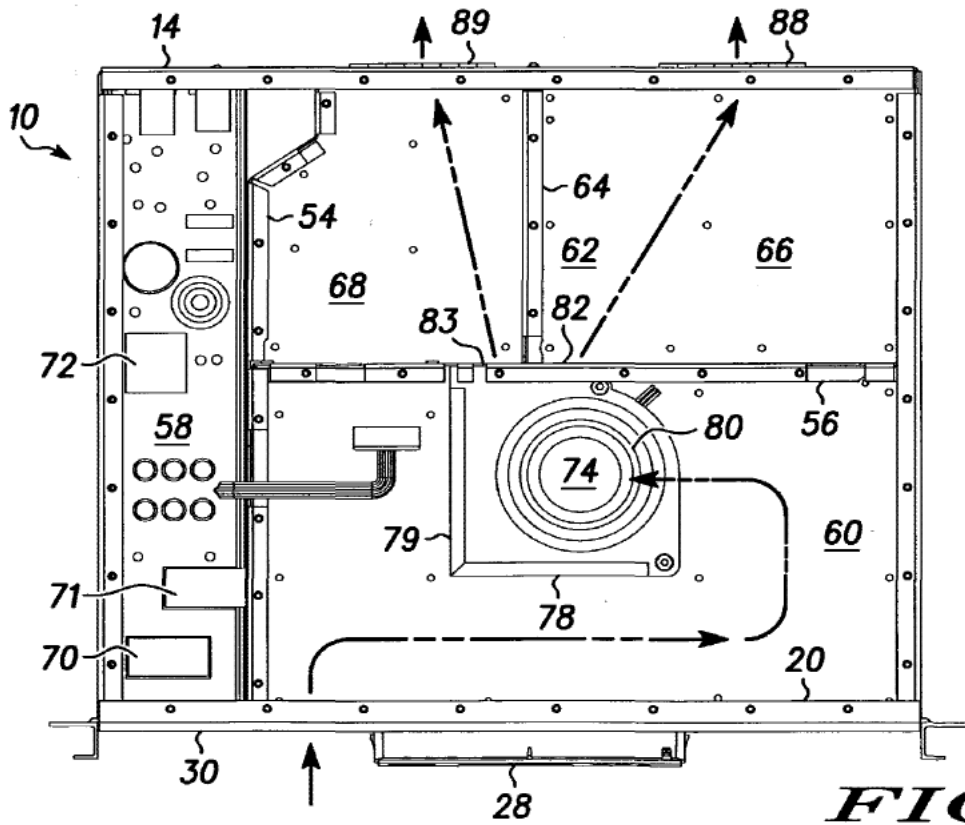


FIG. 6

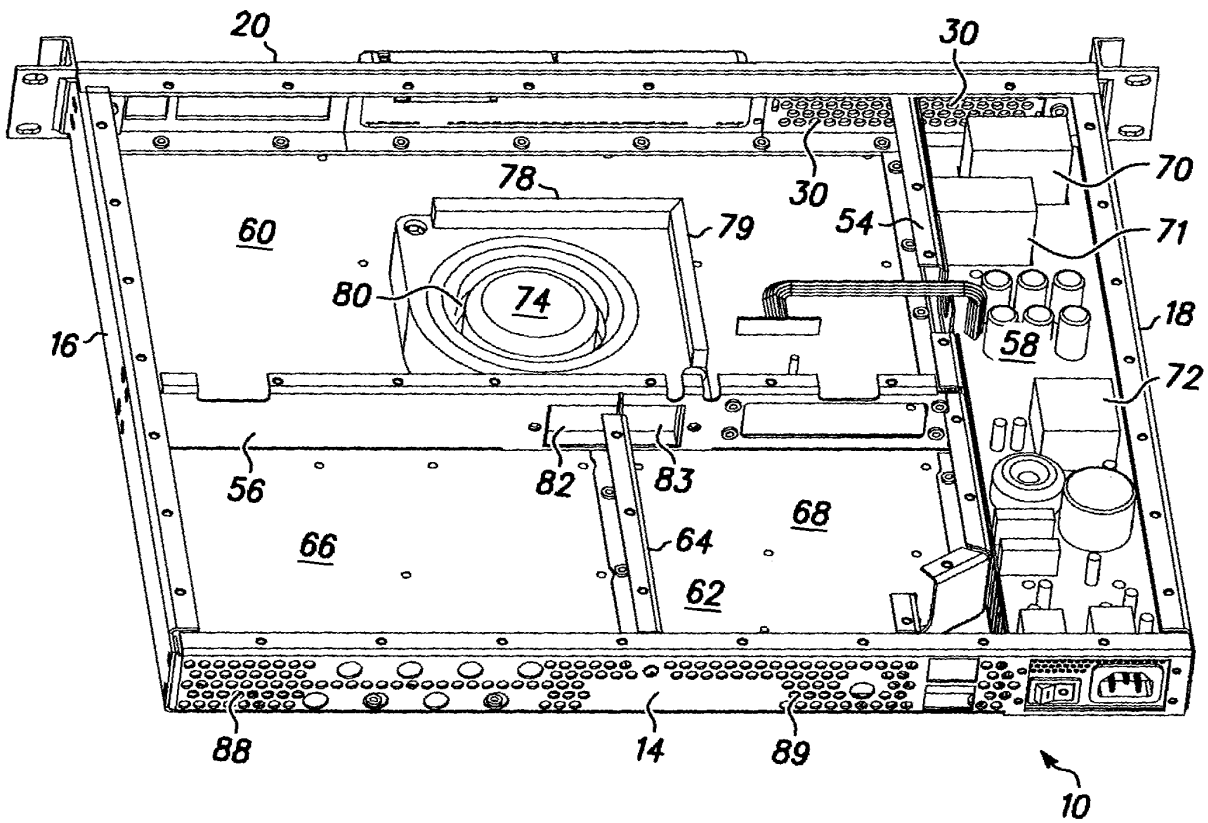


FIG. 7

Express Mail Label No. EV202560842

Please type a plus sign (+) inside this box →

PTO/SB/01 (12-97)
Approved for use through 9/30/00. OMB 0851-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)</p> <p><input checked="" type="checkbox"/> Declaration Submitted with Initial Filing OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)</p>	Attorney Docket Number	MOT-D2852
	First Named Inventor	Gorenz et al.
	<i>COMPLETE IF KNOWN</i>	
	Application Number	Not Yet Known
	Filing Date	Not Yet Known
	Group Art Unit	Not Yet Known
	Examiner Name	Not Yet Known

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ELECTRONIC CHASSIS AND HOUSING HAVING AN INTEGRATED FORCED AIR COOLING SYSTEM

the specification of which (Title of the Invention)

is attached hereto
OR
 was filed on (MM/DD/YYYY) _____ as United States Application Number or PCT International Application Number _____ and was amended on (MM/DD/YYYY) _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.58.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
	USA		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)

Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

(Page 1 of 2)

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box +

PTO/SB/01 (12-87)
Approved for use through 9/30/00. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Customer Number 24375 OR Registered practitioner(s) name/registration number listed below

Place Customer Number Bar Code Label here

Name	Registration Number	Name	Registration Number
Namely, the Attorneys of Volpe and Koenig, P.C.			

Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to: Customer Number or Bar Code Label 24375 OR Correspondence address below

Name	VOLPE AND KOENIG, P.C. DEPT MOT				
Address					
Address					
City		State		ZIP	
Country		Telephone		Fax	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor: A petition has been filed for this unsigned inventor

Given Name (first and middle [if any]) Family Name or Surname

Harold J. Gorenz, Jr.

Inventor's Signature Harold J. Gorenz, Jr. Date 4/14/03

Residence: City Liste State IL Country USA Citizenship USA

Post Office Address 580 Spruce Lane

Post Office Address

City Liste State IL ZIP 60532 Country USA

Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto

Please type a plus sign (+) inside this box →

PTO/SB/02A (11-00)
 Approved for use through 10/31/2002. OMB 0851-0032
 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION	ADDITIONAL INVENTOR(S) Supplemental Sheet Page <u>1</u> of <u>1</u>
--------------------	--

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
William R.		Groves	
Inventor's Signature <i>William R. Groves</i>		Date <i>4/15/03</i>	
Residence: City Naperville	State IL	Country USA	Citizenship USA
Mailing Address 730 Torrington Drive			
Mailing Address			
City Naperville	State IL	ZIP 60565	Country USA
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Roger W.		Ady	
Inventor's Signature <i>Roger W. Ady</i>		Date <i>4/15/03</i>	
Residence: City Chicago	State IL	Country USA	Citizenship USA
Mailing Address 728 W. Jackson, Unit 1102			
Mailing Address			
City Chicago	State IL	ZIP 60661	Country USA
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Mailing Address			
Mailing Address			
City	State	ZIP	Country

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PATENT APPLICATION FEE DETERMINATION RECORD
Effective January 1, 2003

Application or Docket Number

10,414,346

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	20	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	20 minus 20 = *	
INDEPENDENT CLAIMS	5 minus 3 = *	2
MULTIPLE DEPENDENT CLAIM PRESENT <input type="checkbox"/>		

SMALL ENTITY TYPE OR

OTHER THAN SMALL ENTITY

RATE	FEE
BASIC FEE	375.00
X\$ 9=	
X42=	
+140=	
TOTAL	

RATE	FEE
BASIC FEE	750.00
X\$18=	
X84=	168
+280=	
TOTAL	918

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

SMALL ENTITY OR

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$ 9=	
X42=	
+140=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X84=	
+280=	
TOTAL ADDIT. FEE	

1, 10 13 14 15

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE
X\$ 9=	
X42=	
+140=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X84=	
+280=	
TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE
X\$ 9=	
X42=	
+140=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X84=	
+280=	
TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

04/17/2003 SDIRETA1 00000043 10414346

01 FC:1001	750.00 DP
02 FC:1201	168.00 DP
03 FC:8021	40.00 DP

**MULTIPLE DEPENDENT CLAIM
FEE CALCULATION SHEET**

SERIAL NO.

FILING DATE

APPLICANT(S)

CLAIMS

	AS FILED		AFTER 1ST AMENDMENT		AFTER 2ND AMENDMENT	
	IND	DEP	IND	DEP	IND	DEP
1	1					
2						
3						
4						
5						
6						
7						
8						
9						
10	1					
11						
12						
13	1					
14	1					
15						
16						
17						
18	1					
19						
20	→ 4					
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
TOTAL IND.	5					
TOTAL DEP.	15					
TOTAL CLAIMS	20					

	IND	DEP	IND	DEP	IND	DEP
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
TOTAL IND.						
TOTAL DEP.						
TOTAL CLAIMS						