

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,019,658 B1
APPLICATION NO. : 10/677994
DATED : March 28, 2006
INVENTOR(S) : Erickson et al.

Page 1 of 1

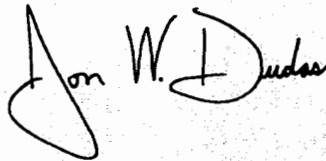
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

Column 11, line 41, Claim 9	Delete "ail", Insert --an--
Column 12, line 13, Claim 11	Delete "device:", Insert --device;--
Column 12, line 16, Claim 11	Delete "coupled Lo", Insert --coupled to--
Column 12, line 30, Claim 11	Delete "comprises", Insert --comprises:--
Column 13, line 10, Claim 16	Delete "least on", Insert --least one--

Signed and Sealed this

Twentieth Day of March, 2007



JON W. DUDAS
Director of the United States Patent and Trademark Office

AMAZON.COM, INC. ET AL.
EXHIBIT 1015



cofe
PATENT
50606/M930

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

U.S. Patent No. : 7,019,658
Issued : March 28, 2006
Inventor(s) : Craig S. Erickson, et al.
Application No. : 10/677,994
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR

Confirmation No. 9246

REQUEST FOR CERTIFICATE OF CORRECTION

Office of Certificates of Correction
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Post Office Box 7068
Pasadena, CA 91109-7068
January 22, 2007

Commissioner:

Attached are two copies of a proposed Certificate of Correction to correct errors by the Patent Office appearing in the above-referenced patent. The errors are identified in detail in the proposed certificate, and the corresponding text in the application is located as follows:

Location in Patent

Location in Application

In the Claims

Column 11, line 41, Claim 9	Amendment filed September 23, 2005, pg. 5, Old Claim 11, line 2
Column 12, line 13, Claim 11	Amendment filed September 23, 2005, pg. 6, Old Claim 12, line 2
Column 12, line 16, Claim 11	Amendment filed September 23, 2005, pg. 6, Old Claim 12, line 5
Column 12, line 30, Claim 11	Amendment filed September 23, 2005, pg. 6, Old Claim 12, line 20
Column 13, line 10, Claim 16	Amendment filed September 23, 2005, pg. 8, Old Claim 18, line 17

Certificate

JAN 26 2007

of Correction

JAN 29 2007

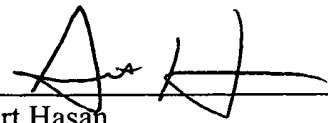
I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on: Jan 22, 2007
(Date of Deposit)

Patent No. 7,019,658

Approval of this certificate is respectfully requested.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By 
Art Hasan
Reg. No. 41,057
626/795-9900

SAH/clv

Enclosures: Certificate of Correction (2)

CLV PAS718433.1-*01/11/07 12:05 PM

JAN 29 2007

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,019,658
APPLICATION NO.: 10/677,994
ISSUE DATE : Mar. 28, 2006
INVENTOR(S) : Erickson et al.

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Column 12, line 30, Claim 11	Delete "comprises", Insert --comprises:--
Column 13, line 10, Claim 16	Delete "least on", Insert --least one--

MAILING ADDRESS OF SENDER (Please do not use customer number below):

CHRISTIE, PARKER & HALE, LLP.
P.O. Box 7068
Pasadena, California 91109-7068

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. 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 1.0 hour 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: Attention Certificate of Corrections Branch, 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.

JAN 29 2007

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,019,658
APPLICATION NO.: 10/677,994
ISSUE DATE : Mar. 28, 2006
INVENTOR(S) : Erickson et al.

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

JAN 29 2007

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 (571) 273-2885

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 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)

23363 7590 10/21/2005

CHRISTIE, PARKER & HALE, LLP
 PO BOX 7068
 PASADENA, CA 91109-7068

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.

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 (571) 273-2885, on the date indicated below.

Lindsey A. Lin (Depositor's name)
 [Signature] (Signature)
 January 11, 2006 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,994	10/02/2003	Craig S. Erickson	50606/JEJ/M930	9246

TITLE OF INVENTION: CABLE TRAFFIC INDICATOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$0	\$700	01/23/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
HUNNINGS, TRAVIS R	2632	340-635000

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.

Christie, Parker & Hale, LLP

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) 01/10/2006 WROCHA2 00000039 10677994

Mobi Technologies, Inc.

Beverly Hills, California

01 FC:2501

700.00 OP

02 FC:8001

30.00 OP

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 10

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 03-1728 (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

Jonathan S. Miller

Date January 11, 2006

Typed or printed name

Jonathan S. Miller

Registration No. 48,534

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.

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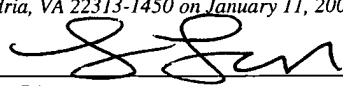


PATENT

Date of Notice
of Allowance : October 21, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 11, 2006.


Lindsey Lin

Applicant : Craig S. Erickson, et al.
Application No. : 10/677,994
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR

Confirmation No. 9246

Grp./Div. : 2632
Examiner : Travis R. Hunnings

Docket No. : 50606/M930

COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

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

Post Office Box 7068
Pasadena, CA 91109-7068
January 11, 2006

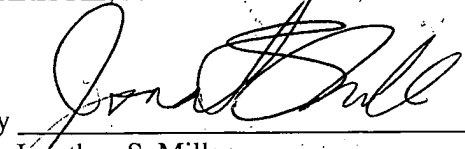
Commissioner:

Reasons for allowance are only warranted in instances in which "the record of the prosecution as a whole does not make clear his or her reasons for allowing a claim or claims." (37 CFR § 1.104(e))

Applicants believe the Examiner's stated reasons for allowance are unnecessary. The applicants do not necessarily agree with each statement in the reasons for allowance. While applicants agree that the claims are allowable, applicants do not acquiesce with each statement in the reasons for allowance, that patentability requires each stated feature exactly as expressed by the Examiner, nor that each stated feature is required for patentability.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By 

Jonathan S. Miller
Reg. No. 48,534
626/795-9900



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

NOTICE OF ALLOWANCE AND FEE(S) DUE

23363 7590 10/21/2005
CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER

HUNNINGS, TRAVIS R

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 10/21/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,994	10/02/2003	Craig S. Erickson	50606/JEJ/M930	9246

TITLE OF INVENTION: CABLE TRAFFIC INDICATOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$0	\$700	01/23/2006

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
(571) 273-2885**

or Fax

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

23363 7590 10/21/2005

**CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068**

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.

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 (571) 273-2885, on the date indicated below.

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,994	10/02/2003	Craig S. Erickson	50606/JEJ/M930	9246

TITLE OF INVENTION: CABLE TRAFFIC INDICATOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$0	\$700	01/23/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
HUNNINGS, TRAVIS R	2632	340-635000

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	_____
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.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,994	10/02/2003	Craig S. Erickson	50606/JEJ/M930	9246
23363	7590	10/21/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			HUNNINGS, TRAVIS R	
			ART UNIT	PAPER NUMBER
			2632	

DATE MAILED: 10/21/2005

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 85 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 85 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.

Notice of Allowability

Application No.

10/677,994

Applicant(s)

ERICKSON ET AL.

Examiner

Travis R. Hunnings

Art Unit

2632

-- 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 23 September 2005.
2. ☒ The allowed claim(s) is/are 1-5, 7-14, 16, 18 and 19.
3. ☐ 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.

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

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-5, 7-14, 16, 18 and 19 are allowed.
2. The following is an examiner's statement of reasons for indicating allowable subject matter: regarding independent claims 1 and 7, the prior art does not disclose nor suggest a cable capable of providing a visual indication of traffic comprising driving circuitry that comprises a driving transistor having a first electrode, a second electrode and a third electrode wherein the first electrode is coupled to said at least one data signal carrying wire, the second electrode is coupled to power and a gate of the transistor, and the third electrode is coupled to ground and wherein the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the detection signal;

Regarding independent claims 12 and 18, the prior art does not disclose nor suggest an adapter for a cable having one or more wires to provide a visual indication of traffic on the cable comprising driving circuitry comprising a driving transistor having a first gate, a second gate and a third gate wherein in use the first gate is coupled to said at least one data signal carrying wire the second gate is coupled to power and a gate of the transistor and the third gate is coupled to ground and wherein in use the transistor turns on when the driving transistor turns off and the transistor turns off when the driving transistor turns on thereby generating the detection signal;

Examiner makes note that even though some grammatical/ambiguous language was changed in dependent claims 7 and 18, the claims as written in independent form in the amendment dated 10 May 2005 are still identical in scope and are therefore still allowable as indicated in the office action dated 25 February 2005.

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."

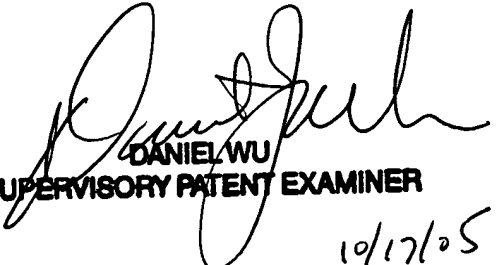
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


DANIEL WU
SUPERVISORY PATENT EXAMINER
10/17/05

Issue Classification 	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/677,994	ERICKSON ET AL.	
	Examiner	Art Unit	
	Travis R. Hunnings	2632	

ISSUE CLASSIFICATION										
ORIGINAL					CROSS REFERENCE(S)					
CLASS	SUBCLASS				CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
340	635				340	654	660	815.45		
INTERNATIONAL CLASSIFICATION										
G	0	8	B	21/00						
				/						
				/						
				/						
				/						
<i>Travis R. Hunnings</i> 10/17/05 (Assistant Examiner) (Date)					<i>Daniel Wu</i> SUPERVISORY PATENT EXAMINER (Primary Examiner) (Date) 10/17/05				Total Claims Allowed: 16	
<i>Williams</i> 10/20/05 (Legal Instruments Examiner) (Date)									O.G. Print Claim(s) 1	O.G. Print Fig. 1

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

Travis R Hunnings

2632

[illegible]

Class	Subclass	Date	Examiner
340	635,654	9/30/05	TRH
	660		
	815.45		

	DATE	EXMR
Inventorship in PALM	2/7/05	TRH
Daniel Wu Benjamin Lee	2/8/05	TRH
PLUS search	2/9/05	TRH
EAST history attached	2/18/05	TRH
Jeff Hofsass	6/27/05	TRH
Updated EAST history attached	6/30/05	TRH
Updated EAST history	9/30/05	TRH

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L6	5	L5 and wrap\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/09/30 09:19
L5	360	(340/654).CCLS.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/09/30 09:19
L4	2239	((340/686.1) or (340/687) or (340/660) or (340/661) or (340/656) or (340/815.45)).CCLS.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/09/30 09:18
L3	31	"340"/\$.ccls. and signal near3 detect\$3 near3 indicat\$3 with cable	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/09/30 09:18
L2	2239	((340/686.1) or (340/687) or (340/660) or (340/661) or (340/656) or (340/815.45)).CCLS.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/09/30 09:18
L1	2239	((340/686.1) or (340/687) or (340/660) or (340/661) or (340/656) or (340/815.45)).CCLS.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/09/30 09:18

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facsimile
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Date: September 23, 2005

No. of Pages: 14 (including this cover sheet)

Fax No.: (571) 273-8300

PLEASE DELIVER THE FOLLOWING PAGES IMMEDIATELY TO:

Name: Commissioner of Patents

Art Unit: 2632

Examiner: Travis R. Hunnings

Phone: (571) 272-3118

From: Jonathan S. Miller
Reg No. 48,534

Re: Application No. 10/677,994
Filed October 2, 2003
Entitled CABLE TRAFFIC INDICATOR

File: 50606/SAH/M930

I HEREBY CERTIFY THAT THIS PAPER IS BEING FACSIMILE TRANSMITTED TO
THE UNITED STATES PATENT AND TRADEMARK OFFICE ON September 23, 2005.


C. Healion

*Correspondence: Amendment; Amendment Transmittal

CAH PAS644771.1--09/23/05 11:38 AM

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Christie, Parker & Hale, LLP
350 West Colorado Boulevard
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626-795-9900
Fax: 626-577-8800

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SEP 23 2005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
AMENDMENT TRANSMITTAL LETTER

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on September 23, 2005.


C. Healion

Applicant : Craig S. Erickson, et al.
Application No. : 10/677,994
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR

Confirmation No. 9246

Grp./Div. : 2632
Examiner : Travis R. Hunnings

Docket No. : 50606/SAH/M930

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

Post Office Box 7068
Pasadena, CA 91109-7068
September 23, 2005

Commissioner:

Enclosed is an amendment to the above-identified application.

CLAIMS AS AMENDED						
	Claims Remaining After Amendment	Highest Number Paid For	Number Extra Claims	Small Entity Rate	Large Entity Rate	FEE
Total Claims Fee	16	*25	0	x \$25.00	x \$50.00	
Independent Claims	4	** 5	0	x \$100.00	x \$200.00	
Multiple Dependent Claims ***				\$180.00	\$360.00	
TOTAL FILING FEE						
NO ADDITIONAL FEE REQUIRED	IF NO FEE REQUIRED, INSERT "0"					0
LIST INDEPENDENT CLAIMS: 1, 7, 12, 18						
* IF HIGHEST NUMBER PREVIOUSLY PAID FOR IS 20 OR LESS, WRITE "20" IN COLUMN 3 ** IF HIGHEST NUMBER PREVIOUSLY PAID FOR IS 3 OR LESS, WRITE "3" IN COLUMN 3 *** PAY THIS FEE ONLY WHEN MULTIPLE DEPENDENT CLAIMS ARE ADDED FOR THE FIRST TIME						

Amendment Transmittal Letter
Application No. 10/677,994

_____ Attached is our check for \$ to pay the fees calculated above.
_____ A Petition for Extension of Time and the required fee are enclosed.
_____ Other enclosures:

The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required by or to give effect to this paper to Deposit Account No. 03-1728. Please show our docket number with any charge or credit to our Deposit Account. **A copy of this letter is enclosed.**

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By 
Jonathan S. Miller
Reg. No. 48,534
626/795-9900

JSM/cah

CAH PAS644765.1-09/23/05 11:33 AM

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SEP 23 2005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

I hereby certify that this correspondence is being facsimile
transmitted to the United States Patent and Trademark Office on
September 23, 2005.

C. Healion
C. Healion

Appl No. : 10/677,994
Applicant : Craig S. Erickson, et al.
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR

Confirmation No. 9246

TC/A.U. : 2632
Examiner : Travis R. Hunnings

Docket No. : 50606/SAH/M930
Customer No. : 23363

AMENDMENT

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

Post Office Box 7068
Pasadena, CA 91109-7068
September 23, 2005

Commissioner:

In response to the Office action of July 13, 2005, please
amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims
which begins on page 2 of this paper.

Remarks/Arguments begin on page 10 of this paper.

Appln No. 10/677,994
Amdt date September 23, 2005
Reply to Office action of July 13, 2005

Amendments to the Claims:

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

Listing of Claims:

1. (Previously presented) A cable capable of providing a visual indication of traffic, said cable comprising:

one or more wires; and

at least one connector connected to the wires, said connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator, and

wherein the driving circuitry comprises:

a driving transistor having a first electrode, a second electrode and a third electrode,

wherein the first electrode is coupled to said at least one data signal carrying wire, the second electrode is

Appln No. 10/677,994

Amdt date September 23, 2005

Reply to Office action of July 13, 2005

coupled to power and a gate of the transistor, and the third electrode is coupled to ground, and

wherein the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the detection signal.

2. (Original) The cable of claim 1, wherein said cable is selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

3. (Original) The cable of claim 1, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering.

4. (Original) The cable of claim 1, wherein at least one of the wires carries power, and the traffic indicator receives power from said at least one of the wires that carries power.

5. (Original) The cable of claim 1, wherein the driving circuitry comprises a diode.

6. (Canceled)

7. (Previously presented) A cable capable of providing a visual indication of traffic, said cable comprising:
one or more wires; and

Appln No. 10/677,994

Amdt date September 23, 2005

Reply to Office action of July 13, 2005

at least one connector connected to the wires, said connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator, and wherein the driving circuitry comprises:

first and second driving transistors, each having a first electrode, a second electrode and a third electrode,

wherein for the first driving transistor, the first electrode is coupled to said at least one data signal carrying wire, the second electrode is coupled to power, and the third electrode is coupled to ground,

wherein for the second driving transistor, the first electrode is coupled to the second electrode of the first transistor, the second electrode is coupled to power and a gate of the transistor, and the third electrode is coupled to ground, and

wherein the transistor turns on when the first driving transistor turns on, and the transistor turns off when the first

Appln No. 10/677,994
Amdt date September 23, 2005
Reply to Office action of July 13, 2005

driving transistor turns off, thereby generating the detection signal.

8. (Original) The cable of claim 1, wherein said at least one connector comprises an inner casing, an outer casing and a plug, wherein the inner casing at least partially envelopes the detection circuitry, the outer casing at least partially envelopes the inner casing, and the plug is coupled to said one or more wires and the detection circuitry.

9. (Original) The cable of claim 8, wherein the inner casing has an opening formed thereon for allowing light generated by the traffic indicator to exit the inner casing.

10. (Original) The cable of claim 8, wherein at least a portion of at least one of the inner casing and the outer casing is either transparent or semi-transparent to allow at least a portion of light generated by the traffic indicator to exit the connector.

11. (Original) The cable of claim 1, wherein the driving circuitry comprises an amplifier for amplifying the data signal.

12. (Previously presented) An adapter for a cable having one or more wires to provide a visual indication of traffic on the cable, said adapter comprising:

a first plug for interfacing with the cable;

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Amdt date September 23, 2005

Reply to Office action of July 13, 2005

a second plug for interfacing between the first plug and an electronic device; and

detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire in use, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry in use drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator,

wherein at least one of the wires carries power, and the traffic indicator in use receives power from said at least one wire that carries power, and

wherein the driving circuitry comprises:

a driving transistor having a first gate, a second gate and a third gate,

wherein, in use, the first gate is coupled to said at least one data signal carrying wire, the second gate is coupled to power and a gate of the transistor, and the third gate is coupled to ground, and

wherein, in use, the transistor turns on when the driving transistor turns off, and the transistor turns off when

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Amdt date September 23, 2005

Reply to Office action of July 13, 2005

the driving transistor turns on, thereby generating the detection signal.

13. (Original) The adapter of claim 12, wherein said adapter is capable of interfacing with a cable selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

14. (Original) The adapter of claim 12, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering.

15. (Canceled)

16. (Previously presented) The adapter of claim 12, wherein the driving circuitry comprises a diode.

17. (Canceled)

18. (Previously presented) An adapter for a cable having one or more wires to provide a visual indication of traffic on the cable, said adapter comprising:

a first plug for interfacing with the cable;

a second plug for interfacing between the first plug and an electronic device; and

detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection

Appln No. 10/677,994

Amdt date September 23, 2005

Reply to Office action of July 13, 2005

circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire in use, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry in use drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator, and

wherein the driving circuitry comprises:

first and second driving transistors, each having a first electrode, a second electrode and a third electrode,

wherein, in use, for the first driving transistor, the first electrode is coupled to said at least one data signal carrying wire, the second electrode is coupled to power, and the third electrode is coupled to ground,

wherein, in use, for the second driving transistor, the first electrode is coupled to the second electrode of the first transistor, the second electrode is coupled to power and a gate of the transistor, and the third electrode is coupled to ground, and

wherein, in use, the transistor turns on when the first driving transistor turns on, and the transistor turns off when the first driving transistor turns off, thereby generating the detection signal.

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Amdt date September 23, 2005

Reply to Office action of July 13, 2005

19. (Original) The adapter of claim 12, wherein the driving circuitry comprises an amplifier for amplifying the data signal.

20-25. (Canceled)

Appln No. 10/677,994

Amdt date September 23, 2005

Reply to Office action of July 13, 2005

REMARKS/ARGUMENTS

The above identified patent application has been amended and reconsideration is hereby requested. Claims 20-23 have been canceled. No claims have been added or amended. Claims 1-5, 7-14, 16, 18 and 19 are now pending in the application.

I. Claims rejected under 35 U.S.C. § 112

The Examiner has rejection claim 20 under 35 U.S.C. § 112 as allegedly indefinite. This claim has been canceled.

II. Claims rejected under 35 U.S.C. §§ 102 and 103

The Examiner has rejected Claims 20-23 under 35 U.S.C. §§ 102 and 103 as being allegedly anticipated by or obvious over US Patent No. 5,051,733 issued to Neuhouser, et al. These claims have been canceled.

III. Allowable Subject Matter

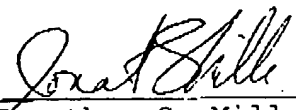
Applicants note with appreciation that claims 1-5, 7-14, 16, 18 and 19 have been allowed. The remaining claims 20-23 have been canceled and therefore the Application as a whole is in condition for allowance.

Appln No. 10/677,994
Amdt date September 23, 2005
Reply to Office action of July 13, 2005

Conclusion

In view of the foregoing, it is believed that all claims now pending, namely claims 1-5, 7-14, 16, 18 and 19, patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (626) 795-9900.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
Jonathan S. Miller
Reg. No. 48,534
626/795-9900

CAH PAS643991.2--09/23/05 11:23 AM

PATENT APPLICATION FEE DETERMINATION RECORD

Effective October 1, 2003

Application or Docket Number

10/677994
~~10/677994~~

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	24	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	24 minus 20 =	4
INDEPENDENT CLAIMS	4 minus 3 =	1
MULTIPLE DEPENDENT CLAIM PRESENT ☐		

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

CLAIMS AS AMENDED - PART II

5-10-05

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	20	24	
Independent	5	4	1
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM ☐			

9-23-05

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	16	20	
Independent	4	5	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM ☐			

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total			
Independent			
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM ☐			

SMALL ENTITY TYPE ☐ OR

OTHER THAN SMALL ENTITY

RATE	FEE
BASIC FEE	385.00
X\$ 9=	45
X43=	43
+145=	
TOTAL	477

RATE	FEE
BASIC FEE	770.00
X\$18=	
X86=	
+290=	
TOTAL	

SMALL ENTITY OR

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	100
+145=	
TOTAL ADDIT. FEE	100

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	
+145=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	
+145=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
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.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,994	10/02/2003	Craig S. Erickson	50606/JEJ/M930	9246
23363	7590	07/13/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			HUNNINGS, TRAVIS R	
			ART UNIT	PAPER NUMBER

2632

DATE MAILED: 07/13/2005

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

sm

Office Action Summary

Application No.

10/677,994

Applicant(s)

ERICKSON ET AL.

Examiner

Travis R. Hunnings

Art Unit

2632

-- 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 10 May 2005.
- 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) 1-5, 7-14, 16 and 18-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 7-14, 16, 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 20-23 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 02 October 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

1. The indicated allowability of claims 6, 17 and 24 are withdrawn in view of the newly discovered reference(s) to Neuhouser. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claim 20, the phrase "can be" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Neuhouser (US Patent 5,051,733).

Regarding claim 20, Neuhouser discloses *High Voltage Indicator Device* that has the following claimed limitations:

The claimed detection circuitry capable of detecting electromagnetic radiation generated by the traffic in at least one of the wires, and of generating a detection signal in response is met by the electrically conductive sheath consisting of a plurality of turns of wire wrapped around an insulated electrical conductor and establishing a capacitive alternating current in the wire when there is current on the insulated electrical conductor (abstract);

The claimed traffic indicator capable of receiving the detection signal, and of providing a visual indication of the traffic responsive to the detection signal is met by the fluorescent tube being lit (abstract);

The claimed traffic detector comprises a flexible portion that can be wrapped around the cable is met by the layer of semi-conducting tape, electrically conductive sheath, layer of stress-relieving tape and the outer layer of electrical insulating tape wrapped around the insulated electrical conductor (abstract).

The claimed term 'traffic' is interpreted as any form of electricity flowing through the cable that can either be present or absent with the presence/absence being detectable.

The claimed phrase 'connecting a computer to a peripheral device' is not given any weight because it does not breathe into the body of the claim.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhouser.

Regarding claims 21 and 23, it would have been obvious to one of ordinary skill in the art to modify the device to be able to detect traffic (be it power or data) on any form of wire including USB, FireWire, COM, LPT and SCSI cables. Even though the device of Neuhouser requires a larger amount of voltage to induce a indication in the lamp, this would be due to the large amount of insulation covering the wire carrying the voltage and therefore on smaller wires, such as USB etc., the voltage required to induce an indication would be reduced because of the reduced insulation. Detecting traffic as data would be the same as detecting traffic as voltage. The data that would be sent across the wire would be done using intermittent voltage which would be detected the same as power that is constantly on the wire.

Regarding claim 22, it would have been obvious to one of ordinary skill in the art to substitute a different indicator (e.g. LED) for the fluorescent tube disclosed by Neuhouser.

Allowable Subject Matter

8. Claims 1-5, 7-14, 16, 18 and 19 are allowed.

9. The following is an examiner's statement of reasons for indicating allowable subject matter: regarding independent claims 1 and 7, the prior art does not disclose nor suggest a cable capable of providing a visual indication of traffic comprising driving circuitry that comprises a driving transistor having a first electrode, a second electrode and a third electrode wherein the first electrode is coupled to said at least one data signal carrying wire, the second electrode is coupled to power and a gate of the transistor, and the third electrode is coupled to ground and wherein the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the detection signal;

Regarding independent claims 12 and 18, the prior art does not disclose nor suggest an adapter for a cable having one or more wires to provide a visual indication of traffic on the cable comprising driving circuitry comprising a driving transistor having a first gate, a second gate and a third gate wherein in use the first gate is coupled to said at least one data signal carrying wire the second gate is coupled to power and a gate of the transistor and the third gate is coupled to ground and wherein in use the transistor turns on when the driving transistor turns off and the transistor turns off when the driving transistor turns on thereby generating the detection signal;

Examiner makes note that even though some grammatical/ambiguous language was changed in dependent claims 7 and 18, the claims as written in independent form

in the amendment dated 10 May 2005 are still identical in scope and are therefore still allowable as indicated in the office action dated 25 February 2005.

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."

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Green, Voltage Pickup Circuit And Flashing Display For High Voltage Indicator Device, And Input Electrode Therefor, US Patent 5,065,142;

Dunk et al. Faulted Circuit Detector Having Isolated Indicator, US Patent 5,475,371;

Wiesman et al. Self-Powered Powerline Sensor, US Patent 5,892,430.

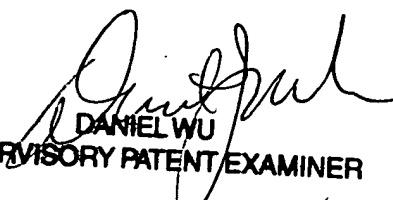
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2632

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


DANIEL WU
SUPERVISORY PATENT EXAMINER
2/09/05

Interview Summary	Application No.	Applicant(s)	
	10/677,994	ERICKSON ET AL.	
	Examiner	Art Unit	
	Travis R. Hunnings	2632	

All participants (applicant, applicant's representative, PTO personnel):

(1) Travis R. Hunnings. (3)_____.

(2) Jonathan Miller. (4)_____.

Date of Interview: 01 June 2005.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.
If Yes, brief description: _____.

Claim(s) discussed: 7 and 18.

Identification of prior art discussed: _____.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Mr. Miller wanted to make sure that even though some grammatical/ambiguous language was changed in the claims that the claim would still be allowable when written in independent form.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

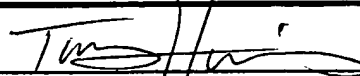
FORM PTO/SB/08A/B (10-01) Substitute for PTO-1449A/B INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Attorney Docket Number 50606/JEJ/M930
	Application Number 10/677,994
	Filing Date October 2, 2003
	Applicant(s) Craig S. Erickson, et al.
	Group Art Unit 2833
	Examiner Name Travis R. Hunnings

U.S. PATENT DOCUMENTS				
EXAMINER INITIALS	Cite No. ¹	DOCUMENT NUMBER Number - Kind Code ² (If Known)	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE

FOREIGN PATENT DOCUMENTS					
EXAMINER INITIALS	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (If Known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶ (✓)

OTHER DOCUMENTS		
EXAMINER INITIALS	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Monster Computer - Monster Home Theatre® Series USB Cable with PowerFlow Indicator, http://www.monstercable.com/computer/productPageComputer.asp?pin=1784 , pages 1-3.
TRH		Monster Cable - Computer, http://www.monstercable.com/computer/ , 1 page.
TRH		Monster Computer, http://www.monstercable.com/computer/printer.asp , pages 1-2.
TRH		Monster Computer - High Speed, Maximum Performance DataSafe™ Printer to PC IEEE 1284 Connection, http://www.monstercable.com/computer/productPageComputer.asp?pin=383 , pages 1-2.
TRH		Monster Computer - Printer to PC IEEE 1284 Connection with Winky Blinky, http://www.monstercable.com/computer/productPageComputer.asp?pin=917 , pages 1-2.
TRH		Printer to PC IEEE 1284 Connection with Winky Blinky, http://www.monstercable.com/ProductPopup.asp?pin=917&holder=photoLrg , 1 page.
TRH		Printer to PC IEEE 1284 Connection with Winky Blinky, http://www.monstercable.com/productPopup.asp?pin=917&holder=photoAlt1 , 1 page.

VDW PAS607771.1.-02/9/05 3:15 PM

EXAMINER SIGNATURE		DATE CONSIDERED	4/18/2005
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EXAMINER: Initial if reference 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. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.pto.gov or MPEP 901.4. ³Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English Language Translation is attached.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

JEJ/vdw

Sheet 1 of 1

Page 43 of 156

Notice of References Cited	Application/Control No. 10/677,994	Applicant(s)/Patent Under Reexamination ERICKSON ET AL.	
	Examiner Travis R. Hunnings	Art Unit 2632	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,051,733	09-1991	Neuhouser, Donald	340/660
	B	US-5,065,142	11-1991	Green, Peter J.	340/660
	C	US-5,475,371	12-1995	Dunk et al.	340/660
	D	US-5,892,430	04-1999	Wiesman et al.	340/310.01
	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	
	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.

10/677,994

Examiner

Travis R Hunnings

Applicant(s)

ERICKSON ET AL.

Art Unit

2632

✓	Rejected
=	Allowed

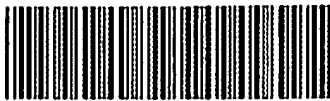
-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date		Claim		Date		Claim		Date	
Final	Original			Final	Original			Final	Original		
	✓	2/18/05		51				101			
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4	✓	2/18/05		55				105			
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49	✓	2/18/05		100				150			
50	✓	2/18/05									

Search Notes



Application No.

10/677,994

Examiner

Travis R Hunnings

Applicant(s)

ERICKSON ET AL.

Art Unit

2632

SEARCHED

Class	Subclass	Date	Examiner
340	635, 686.1 687, 660 661, 656	2/8/05	TRH
340	815.45, 664	2/8/05	TRH
340	654	6/27/05	TRH

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

SEARCH NOTES (INCLUDING SEARCH STRATEGY)

	DATE	EXMR
Inventorship in PALM	2/7/05	TRH
Daniel Wu Benjamin Lee	2/8/05	TRH
PLUS search	2/9/05	TRH
EAST history attached	2/18/05	TRH
Jeff Hofsass	6/27/05	TRH
Updated EAST history attached	6/30/05	TRH

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S73	2	("6766145").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/21 15:36
S77	0	S74 and electromagnetic near3 radiation near3 detection same flexible	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/21 15:39
S76	0	S74 and electromagnetic near3 radiation near3 detection same wrap near3 cable	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/21 15:39
S75	0	S74 and "wrapped around" near3 (cable wire) same indicator	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/21 15:39
S74	2195	((340/686.1) or (340/687) or (340/660) or (340/661) or (340/656) or (340/815.45)).CCLS.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/21 15:39
S65	32	"wrapped around" near3 (cable wire) same indicator	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/21 15:39
S62	0	electromagnetic near3 radiation near3 detection same wrap near3 cable	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/21 15:39
S61	4	electromagnetic near3 radiation near3 detection same flexible	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/21 15:39
S80	6	S78 and indicator near3 (cable wire)	USPAT	OR	OFF	2005/06/21 15:40
S79	97	S78 and indicator	USPAT	OR	OFF	2005/06/21 15:40
S78	218	S74 and flexible	USPAT	OR	OFF	2005/06/21 15:40
S67	9	S66 and flexible	USPAT	OR	OFF	2005/06/21 15:40
S1	2	("6456204").PN.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/27 07:46
S82	5	S81 and wrap\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/27 07:57
S81	360	(340/654).CCLS.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/27 07:57

S83	21	("1913155" "3039013" "3178697" "3229274" "3328690" "3524133" "3692922" "3744045" "3964039" "3970932" "3991367" "4197484" "4609914" "4755805" "4814933").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/06/27 08:26
S84	6	("5051733").URPN.	USPAT	OR	OFF	2005/06/27 08:29



COPY
PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
AMENDMENT TRANSMITTAL LETTER**

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 6, 2005.

C. Healion
C. Healion

Applicant : Craig S. Erickson, et al.
Application No. : 10/677,994
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR

Confirmation No. 9246

Grp./Div. : 2632
Examiner : Travis R. Hunnings

Docket No. : 50606/SAH/M930

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

Post Office Box 7068
Pasadena, CA 91109-7068
May 6, 2005

Commissioner:

Enclosed is an amendment to the above-identified application.

CLAIMS AS AMENDED						
	Claims Remaining After Amendment	Highest Number Paid For	Number Extra Claims	Small Entity Rate	Large Entity Rate	FEE
Total Claims Fee	20	*25	0	x \$25.00	x \$50.00	
Independent Claims	5	** 4	1	1 x \$100.00	x \$200.00	100
Multiple Dependent Claims ***				\$180.00	\$360.00	
TOTAL FILING FEE						100
NO ADDITIONAL FEE REQUIRED	IF NO FEE REQUIRED, INSERT "0"					
LIST INDEPENDENT CLAIMS: 1, 7, 12, 18, 20						
* IF HIGHEST NUMBER PREVIOUSLY PAID FOR IS 20 OR LESS, WRITE "20" IN COLUMN 3 ** IF HIGHEST NUMBER PREVIOUSLY PAID FOR IS 3 OR LESS, WRITE "3" IN COLUMN 3 *** PAY THIS FEE ONLY WHEN MULTIPLE DEPENDENT CLAIMS ARE ADDED FOR THE FIRST TIME						

X _____ Attached is our check for \$100 to pay the fees calculated above.
_____ A Petition for Extension of Time and the required fee are enclosed.
X _____ Other enclosures: Appendix: replacement Abstract

Amendment Transmittal Letter
Application No. 10/677,994

The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required by or to give effect to this paper to Deposit Account No. 03-1728. Please show our docket number with any charge or credit to our Deposit Account. **A copy of this letter is enclosed.**

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By


Jonathan S. Miller
Reg. No. 48,534
626/795-9900

JSM/cah

CAH PAS621911.1-*05/6/05 8:49 AM

Amendment Transmittal Letter
Application No. 10/677,994

The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required by or to give effect to this paper to Deposit Account No. 03-1728. Please show our docket number with any charge or credit to our Deposit Account. **A copy of this letter is enclosed.**

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By



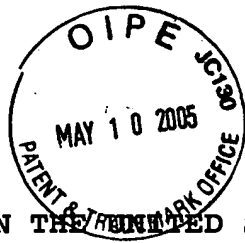
Jonathan S. Miller

Reg. No. 48,534

626/795-9900

JSM/cah

CAH PAS621911.1-05/6/05 8:49 AM



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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C. Acalio

Signature

Appl No. : 10/677,994 Confirmation No. 9246
Applicant : Craig S. Erickson, et al.
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR

TC/A.U. : 2632
Examiner : Travis R. Hunnings

Docket No. : 50606/SAH/M930
Customer No. : 23363

AMENDMENT

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

Post Office Box 7068
Pasadena, CA 91109-7068
May 6, 2005

Commissioner:

In response to the Office action of February 25, 2005,
please amend the above-identified application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims
which begins on page 3 of this paper.

Amendments to the Abstract begin on page 12 of this paper.

Remarks/Arguments begin on page 13 of this paper.

05/11/2005 CCHAU1 00000012 10677994

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100.00 OP

Appln No. 10/677,994

Amdt date May 6, 2005

Reply to Office action of February 25, 2005

Amendments to the Specification:

Please amend the paragraph on page 15, lines 15-22 to read as follows:

The data is received by an amplifier 219 in the connector 200 for amplification of the data signal. The amplifier 219, for example, may be an op-amp. The amplified data is then applied through a resistor 218 at a base of a transistor, such as 2N3904. In other embodiments, the ~~amplified~~ amplifier 219 may not be used and the received data may be directly applied to the resistor 218.

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Amdt date May 6, 2005
Reply to Office action of February 25, 2005

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) A cable capable of providing a visual indication of traffic, said cable comprising:

one or more wires; and

at least one connector connected to the wires, said connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator[[.]], and

wherein the driving circuitry comprises:

a driving transistor having a first electrode, a second electrode and a third electrode,

wherein the first electrode is coupled to said at least one data signal carrying wire, the second electrode is

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Amdt date May 6, 2005

Reply to Office action of February 25, 2005

coupled to power and a gate of the transistor, and the third electrode is coupled to ground, and

wherein the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the detection signal.

2. (Original) The cable of claim 1, wherein said cable is selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

3. (Original) The cable of claim 1, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering.

4. (Original) The cable of claim 1, wherein at least one of the wires carries power, and the traffic indicator receives power from said at least one of the wires that carries power.

5. (Original) The cable of claim 1, wherein the driving circuitry comprises a diode.

6. (Canceled)

7. (Currently amended) ~~The cable of claim 1,~~ A cable capable of providing a visual indication of traffic, said cable comprising:

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Amdt date May 6, 2005

Reply to Office action of February 25, 2005

one or more wires; and
at least one connector connected to the wires, said
connector having detection circuitry capable of detecting the
traffic on the cable and generating a detection signal
responsive to the traffic, and a traffic indicator coupled to
the detection circuitry to provide the visual indication of the
traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said
wire, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and
the traffic indicator,

wherein the driving circuitry drives the transistor
responsive to the data signal to generate the detection signal,
which is used to drive the traffic indicator[[]], and wherein
the driving circuitry comprises:

first and second driving transistors, each having a
first [[gate]] electrode, a second [[gate]] electrode and a third
[[gate]] electrode,

wherein for the first driving transistor, the first
[[gate]] electrode is coupled to said at least one data signal
carrying wire, the second [[gate]] electrode is coupled to
power, and the third [[gate]] electrode is coupled to ground,

wherein for the second driving transistor, the first
[[gate]] electrode is coupled to the second [[gate]] electrode
of the first transistor, the second [[gate]] electrode is
coupled to power and a gate of the transistor, and the third
[[gate]] electrode is coupled to ground, and

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Reply to Office action of February 25, 2005

wherein the transistor turns on when the first driving transistor turns on, and the transistor turns off when the first driving transistor turns off, thereby generating the detection signal.

8. (Original) The cable of claim 1, wherein said at least one connector comprises an inner casing, an outer casing and a plug, wherein the inner casing at least partially envelopes the detection circuitry, the outer casing at least partially envelopes the inner casing, and the plug is coupled to said one or more wires and the detection circuitry.

9. (Original) The cable of claim 8, wherein the inner casing has an opening formed thereon for allowing light generated by the traffic indicator to exit the inner casing.

10. (Original) The cable of claim 8, wherein at least a portion of at least one of the inner casing and the outer casing is either transparent or semi-transparent to allow at least a portion of light generated by the traffic indicator to exit the connector.

11. (Original) The cable of claim 1, wherein the driving circuitry comprises an amplifier for amplifying the data signal.

12. (Currently amended) An adapter for a cable having one or more wires to provide a visual indication of traffic on the cable, said adapter comprising:

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Amdt date May 6, 2005

Reply to Office action of February 25, 2005

a first plug for interfacing with the cable;

a second plug for interfacing between the first plug and an electronic device; and

detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire in use, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry in use drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator[[.]],

wherein at least one of the wires carries power, and the traffic indicator in use receives power from said at least one wire that carries power, and

wherein the driving circuitry comprises:

a driving transistor having a first gate, a second gate and a third gate,

wherein, in use, the first gate is coupled to said at least one data signal carrying wire, the second gate is coupled to power and a gate of the transistor, and the third gate is coupled to ground, and

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Amdt date May 6, 2005

Reply to Office action of February 25, 2005

wherein, in use, the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the detection signal.

13. (Original) The adapter of claim 12, wherein said adapter is capable of interfacing with a cable selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

14. (Original) The adapter of claim 12, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering.

15. (Canceled)

16. (Currently amended) The adapter of claim ~~[[15]]~~ 12, wherein the driving circuitry comprises a diode.

17. (Canceled)

18. (Currently amended) ~~The adapter of claim 15,~~ An adapter for a cable having one or more wires to provide a visual indication of traffic on the cable, said adapter comprising:

a first plug for interfacing with the cable;

a second plug for interfacing between the first plug and an electronic device; and

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detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire in use, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry in use drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator, and

wherein the driving circuitry comprises:

first and second driving transistors, each having a first [[gate]] electrode, a second [[gate]] electrode and a third [[gate]] electrode,

wherein, in use, for the first driving transistor, the first [[gate]] electrode is coupled to said at least one data signal carrying wire, the second [[gate]] electrode is coupled to power, and the third [[gate]] electrode is coupled to ground,

wherein, in use, for the second driving transistor, the first [[gate]] electrode is coupled to the second [[gate]] electrode of the first transistor, the second [[gate]] electrode is coupled to power and a gate of the transistor, and the third [[gate]] electrode is coupled to ground, and

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Amdt date May 6, 2005

Reply to Office action of February 25, 2005

wherein, in use, the transistor turns on when the first driving transistor turns on, and the transistor turns off when the first driving transistor turns off, thereby generating the detection signal.

19. (Original) The adapter of claim 12, wherein the driving circuitry comprises an amplifier for amplifying the data signal.

20. (Currently amended) A traffic detector that can detect traffic in a cable having one or more wires for connecting a computer to a peripheral device, said traffic detector comprising:

detection circuitry capable of detecting electromagnetic radiation generated by the traffic in at least one of the wires, and of generating a detection signal in response; and

a traffic indicator capable of receiving the detection signal, and of providing a visual indication of the traffic responsive to the detection signal[[.]],

wherein said traffic detector comprises a flexible portion that can be wrapped around the cable.

21. (Original) The traffic detector of claim 20, wherein said cable is selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

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Amdt date May 6, 2005

Reply to Office action of February 25, 2005

22. (Original) The traffic detector of claim 20, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electroluminescent lamp, a translucent connector end and a translucent wire covering.

23. (Original) The traffic detector of claim 20, wherein at least one of the wires carries data, and the detection circuitry detects traffic through monitoring the electromagnetic radiation generated by said at least one wire that carries data.

Claims 24-25. (Canceled)

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Amdt date May 6, 2005

Reply to Office action of February 25, 2005

Amendments to the Abstract

The Abstract, on page 30 of the application, has been amended as follows. Submitted herewith in the Appendix, is a replacement Abstract on a separate sheet. Entry is requested.

ABSTRACT

A cable ~~capable of~~ providing a visual indication of traffic ~~includes one or more~~ including a ~~[[wires]]~~ wire and ~~at least one~~ connector ~~connected to the wires~~. The ~~at least one~~ connector ~~[[has]]~~ includes detection circuitry capable of detecting ~~[[the]]~~ traffic on the cable and generating a detection signal responsive to the traffic~~[[,]]~~. ~~[[and a]]~~ A traffic indicator ~~coupled to the detection circuitry to provide~~ provides the visual indication of the traffic responsive to the detection signal. The detection circuitry includes driving circuitry coupled to ~~at least one said~~ the wire, ~~said at least one said~~ wire carrying that carries a data signal. The detection circuitry also includes a transistor ~~coupled to the driving circuitry and the traffic indicator~~. The driving circuitry drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator. The ~~at least one~~ connector may have an inner casing for ~~at least~~ partially enveloping the detection circuitry, and an outer casing for ~~at least~~ partially enveloping the inner casing.

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Amdt date May 6, 2005

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REMARKS/ARGUMENTS

The above identified patent application has been amended and reconsideration and reexamination are hereby requested. Claims 6, 15, 17, 24 and 25 have been cancelled. Claims 1, 7, 12, 16, 18, 20 have been amended. No claims have been added. Claims 1-5, 7-14, 16 and 18-23 are now pending in the application.

Applicants note that the Examiner has not acknowledged the information disclosure statement submitted on February 9, 2005 by returning an initialed copy of form PTO/SB/08A/B. Applicants respectfully request that the Examiner acknowledge this IDS. An additional copy of the IDS may be submitted for the Examiner's convenience upon request.

I. Objections to the Abstract

The Examiner has objected to the format of the Abstract of the disclosure. Applicants have submitted a replacement Abstract herewith on a separate sheet of paper. The length of the Abstract has been reduced and an effort has been made to remove legal phraseology and repetitive information. Entry of the new Abstract is requested. Accordingly, reconsideration and withdrawal of the objection to the Abstract are requested.

II. Objections to the Specification

The Examiner has objected to the specification for allegedly including informalities. Applicants have amended the specification as requested by the Examiner. Accordingly,

Appln No. 10/677,994
Amdt date May 6, 2005
Reply to Office action of February 25, 2005

reconsideration and withdrawal of the objection to the Specification are requested.

III. Claims rejected under 35 U.S.C. §§ 102 and 103

The Examiner has rejected Claims 1, 3-5, 12 and 14-16 under 35 U.S.C. §102(b) as being allegedly anticipated by Yu (US Patent 5,081,621). In addition, the Examiner has rejected Claims 2, 13 and 25 under 35 U.S.C. §103 as allegedly being unpatentable over Yu in view of Oliphant et al. (US Patent 6,483,712).

Applicants have amended independent claims 1, 12 and 20 to include the elements of dependent claims 6, 17 and 24, respectively. The Examiner indicated in the Office action mailed February 25, 2005 that claims 6, 7, 17, 18 and 24 contained allowable subject matter and would be allowed if amended to be in independent form. Amended claims 1, 12 and 20 now correspond to such independent claims based on claims 6, 17 and 24. Thus, Applicants believe claims 1, 12 and 20 are in condition for allowance and such action is requested at the earliest possible date.

In addition, Applicants have amended claims 7 and 18 to be in independent form. The remaining claims 2-5, 8-11, 13-16, and 21-23 depend from independent claims 1, 12 and 20 and incorporate the limitations therein, in addition to other limitations in each of these claims, which together further patentably distinguish them over the cited references. Thus, at least for the reasons mentioned above in regard to amended independent claims 1, 12 and 20, Applicants believe these

Appln No. 10/677,994

Amdt date May 6, 2005

Reply to Office action of February 25, 2005

dependent claims are in condition for allowance. Accordingly, reconsideration and withdrawal of the anticipation and obviousness rejections of all pending claims are requested.

Appln No. 10/677,994

Amdt date May 6, 2005

Reply to Office action of February 25, 2005

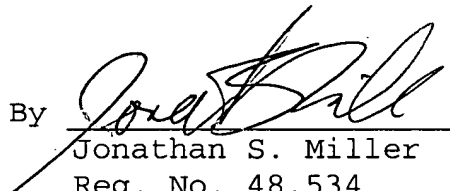
Conclusion

In view of the foregoing, it is believed that all claims now pending, namely claims 1-5, 7-14, 16 and 18-23, patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (626) 795-9900.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By


Jonathan S. Miller

Reg. No. 48,534

626/795-9900

CAH PAS617063.1-*-05/6/05 8:38 AM



ABSTRACT

A cable providing a visual indication of traffic including a wire and connector. The connector includes detection circuitry capable of detecting traffic on the cable and
5 generating a detection signal responsive to the traffic. A traffic indicator provides the visual indication of the traffic responsive to the detection signal. The detection circuitry includes driving circuitry coupled to the wire, that carries a data signal. The detection circuitry also includes a
10 transistor. The driving circuitry drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator. The connector may have an inner casing for partially enveloping the detection circuitry, and an outer casing for partially enveloping the
15 inner casing.

CAH PAS621862.1--05/5/05 4:09 PM

PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 2003

Application or Docket Number

10/677994
Sub 10/15/2003

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	24	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	24 minus 20 = *	4
INDEPENDENT CLAIMS	4 minus 3 = *	1
MULTIPLE DEPENDENT CLAIM PRESENT ☐		

SMALL ENTITY
TYPE ☐

OTHER THAN
SMALL ENTITY

RATE	FEE		RATE	FEE
BASIC FEE	385.00	OR	BASIC FEE	770.00
X\$ 9=	45	OR	X\$18=	
X43=	43	OR	X86=	
+145=		OR	+290=	
TOTAL	473	OR	TOTAL	

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

CLAIMS AS AMENDED - PART II

S-10-05

	(Column 1)		(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	* 20	Minus	** 24	=
Independent	* 5	Minus	*** 4	= 1
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM ☐				

SMALL ENTITY OR

OTHER THAN
SMALL ENTITY

RATE	ADDI- TIONAL FEE		RATE	ADDI- TIONAL FEE
X\$ 9=		OR	X\$18=	
X43=	100	OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE	100	OR	TOTAL ADDIT. FEE	

	(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 ☐				

RATE	ADDI- TIONAL FEE		RATE	ADDI- TIONAL FEE
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	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 ☐				

RATE	ADDI- TIONAL FEE		RATE	ADDI- TIONAL FEE
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	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.



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,994	10/02/2003	Craig S. Erickson	50606/JEJ/M930	9246
23363	7590	02/25/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			HUNNINGS, TRAVIS R	
			ART UNIT	PAPER NUMBER
			2632	

DATE MAILED: 02/25/2005

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

Office Action Summary

Application No.

10/677,994

Applicant(s)

ERICKSON ET AL.

Examiner

Travis R Hunnings

Art Unit

2632

-- 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 02 October 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) 1-25 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) 1-5, 8-16, 19-23 and 25 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 17, 18 and 24 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 02 October 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) | 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) ☐ Notice of Informal Patent Application (PTO-152) |
| 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The disclosure is objected to because of the following informalities: the word "amplified" should be changed to "amplifier" in line 21 of page 15.

Appropriate correction is required.

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 –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-5, 12 and 14-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yu (US Patent 5,081,627).

Regarding claim 1, Yu discloses *Status And Activity Monitor For Contention Type Local Area Networks* that has the following claimed subject matters:

The claimed cable comprising one or more wires is met by the cable including a plurality of wires (col2 15-32 and 37-68);

The claimed cable comprising at least one connector connected to the wires is met by the connector 18 in figure 3;

The claimed connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic is met by the sampling and triggering means connected to the connecting wire and producing a trigger output when a binary signal is sensed on the cable (col2 15-32);

The claimed traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal is met by the

illuminatable visible indicator that is illuminated in response to the trigger output signal (col2 15-32);

The claimed detection circuitry comprising driving circuitry coupled to at least one said wire, said at least one wire carrying a data signal is met by the signal sampling and triggering means connected to the connecting wire and producing a trigger output when a binary signal is sensed on the cable (col2 15-32);

The claimed transistor coupled to the driving circuitry and the traffic indicator is met by the transistors U2-U4 as seen in figure 4;

The claimed driving circuitry wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal which is used to drive the traffic indicator is met by the transistor being used to do the signal detection, once a signal is detected the transistor sends a signal to the rest of the circuitry that in turn illuminates the illuminatable device (col4 21-56).

Regarding claim 3, Yu discloses all of the claimed limitations. The claimed cable wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering is met by the illuminatable device being an LED (col2 49-68).

Regarding claim 4, Yu discloses all of the claimed limitations. The claimed cable wherein at least one of the wires carries power, and the traffic indicator receives power from said at least one of the wires that carries power is met by the cable including a

plurality of wires including one providing power from the first device to the second device along with means to provide power from the cable to the sampling and triggering means (col2 37-48).

Regarding claim 5, Yu discloses all of the claimed limitations. The claimed cable wherein the driving circuitry comprises a diode is met by the LEDs of the driving circuitry. The LEDs, while they do not directly provide the driving portion of the circuit, they are indeed connected with the driving circuitry and would therefore conventionally be considered to be a part of the driving circuitry as interpreted herein.

Regarding claim 12, Yu discloses the following claimed subject matters:

The claimed first plug for interfacing with the cable is met by the plug shown in figure 3, element 24;

The claimed second plug for interfacing between the first plug and an electronic device is met by the plug shown in figure 3, element 20;

The claimed connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic is met by the sampling and triggering means connected to the connecting wire and producing a trigger output when a binary signal is sensed on the cable (col2 15-32);

The claimed traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal is met by the

illuminatable visible indicator that is illuminated in response to the trigger output signal (col2 15-32);

The claimed detection circuitry comprising driving circuitry coupled to at least one said wire, said at least one wire carrying a data signal is met by the signal sampling and triggering means connected to the connecting wire and producing a trigger output when a binary signal is sensed on the cable (col2 15-32);

The claimed transistor coupled to the driving circuitry and the traffic indicator is met by the transistors U2-U4 as seen in figure 4;

The claimed driving circuitry wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal which is used to drive the traffic indicator is met by the transistor being used to do the signal detection, once a signal is detected the transistor sends a signal to the rest of the circuitry that in turn illuminates the illuminatable device (col4 21-56).

Regarding claim 14, the claim is interpreted and rejected as claim 3 stated above.

Regarding claim 15, the claim is interpreted and rejected as claim 4 stated above.

Regarding claim 16, the claim is interpreted and rejected as claim 5 stated above.

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. Claims 2, 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Oliphant et al. (Oliphant; US Patent 6,483,712).

Regarding claim 2, Yu discloses all of the claimed limitations except for the claimed cable wherein the cable is selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables. Oliphant discloses *Illumination Electrical Jack System* that teaches a data signaling system that can be utilized in different kind of cables, including USB cables (col6 38-52). Allowing the device to be used in USB and other cables would increase the marketability of the device because it would be used in many different applications. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Oliphant to be used in a USB cable.

Regarding claim 13, the claim is interpreted and rejected as claim 2 stated above.

Regarding claim 25, Yu discloses all of the claimed limitations except for the claimed circuitry being housed in a hub/switch. Oliphant teaches a cable traffic indicator system that can be housed in a housing that has multiple sockets, which show cable traffic indication (col4 8-10). Putting the circuitry of Yu in a housing as disclosed by Oliphant would allow multiple cables to be connected to a particular device, each of which having an indication of traffic along the cable. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Oliphant to contain the detection circuitry in a hub/switch housing.

7. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Yeh et al. (Yeh; US Patent 6,165,006).

Regarding claim 8, Yu discloses all of the claimed limitations except for the claimed cable wherein said at least one connector comprises an inner casing, an outer casing and a plug, wherein the inner casing at least partially envelopes the detection circuitry, the outer casing at least partially envelopes the inner casing, and the plug is coupled to said one or more wires and the detection circuitry. Yeh discloses *Cable Connector* that has an LED for indicating cable traffic and has an inner and outer casing disposed as claimed and is shown in figure 3 (col2 62-67 and col3 1-13). Modifying the casing of Yu as taught by Yeh would allow the device to be used for the particular

purpose of connecting to PCMCIA cards and would allow the device to be used by more customers, especially those using laptops that commonly have PCMCIA cards.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Yeh to have the connector comprise an inner casing, an outer casing and a plug, wherein the inner casing at least partially envelopes the detection circuitry, the outer casing at least partially envelopes the inner casing, and the plug is coupled to said one or more wires and the detection circuitry.

Regarding claim 9, Yu discloses all of the claimed limitations except for the claimed cable wherein the inner casing has an opening formed thereon for allowing light generated by the traffic indicator to exit the inner casing. Yeh teaches an inner casing having an opening comprised by the ends of a light pipe that allows the light of the traffic indicator to exit the inner casing (col3 22-33). Modifying the casing of Yu to include a hole that allows the light from the traffic indicators to exit the inner casing would allow the user to better see the light emitted by the device. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Yeh to include an opening in the inner casing of the connector.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Yeh and further in view of Oliphant.

Regarding claim 10, Yu and Yeh disclose all of the claimed limitations except for the claimed cable wherein at least a portion of at least one of the inner casing and the outer casing is either transparent or semi-transparent to allow at least a portion of light generated by the traffic indicator to exit the connector. Oliphant teaches a plug connector that is at least partially transparent to allow at least some light to be transmitted through the plug. Modifying the casing of Yu and Yeh to be at least partially transparent to allow the light from the traffic indicators to be seen through the casing would allow the user to better see the light emitted by the device. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu and Yeh according to the teachings of Oliphant to make the casing at least partially transparent to allow a portion of the light to escape.

9. Claims 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Riley et al. (Riley; US Patent 6,456,204).

Regarding claim 11, Yu discloses all of the claimed limitations except for the claimed cable wherein the driving circuitry comprises an amplifier for amplifying the data signal. Riley discloses *Data Transfer Indicator Circuit* that teaches using an amplifier to pull the data off the signal line without interfering with the signal being transmitted (col2 10-17). It would be beneficial to add an amplifier to the device of Yu in order to preserve the signal being sent across the cable when trying to detect it's presence.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Riley to add an amplifier to the circuitry to amplify the data signal.

Regarding claim 19, the claim is interpreted and rejected as claim 11 stated above.

10. Claims 20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Diamant et al. (Diamant; US Patent 5,969,632).

Regarding claim 20, Yu discloses the claimed traffic detector comprising a traffic indicator capable of receiving the detection signal and of providing a visual indication of the traffic responsive to the detection signal by the sampling and triggering means detecting a signal and providing a trigger signal to an illuminatable device to provide visual indication of traffic on the cable (col2 15-32).

However, Yu does not specifically disclose the claimed traffic detector comprising detection circuitry capable of detecting electromagnetic radiation generated by the traffic in at least one of the wires and of generating a detection signal in response. Diamant discloses *Information Security Method And Apparatus* that teaches detecting the communication signal on a cable by sensing the electromagnetic field produced in the vicinity of the communication cable (col12 1-16). Modifying the circuitry of Yu to be able to detect the electromagnetic field produced by data being sent across a cable would be

beneficial because the device would not have to be intrusive to the cable itself because it would be able to be near the cable and detect the electromagnetic field and produce a traffic detection signal in response to that detection. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Diamant to be able to detect electromagnetic radiation generated by the traffic in at least one of the wires in the cable.

Regarding claim 22, Yu and Diamant disclose all of the claimed limitations. The claimed cable wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering is met by the illuminatable device being an LED (col2 49-68).

Regarding claim 23, the claim is interpreted and rejected as claim 20 stated above.

11. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Diamant and further in view of Oliphant.

Regarding claim 21, Yu and Diamant disclose all of the claimed limitations except for the claimed cable wherein the cable is selected from a group consisting of USB,

FireWire, COM, LPT and SCSI cables. Oliphant teaches a data signaling system that can be utilized in different kind of cables, including USB cables (col6 38-52). Allowing the device to be used in USB and other cables would increase the marketability of the device because it would be used in many different applications. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu and Diamant according to the teachings of Oliphant to be used in a USB cable.

Allowable Subject Matter

12. Claims 6, 7, 17, 18 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arndt, US 3,471,784

Buttimer, US 4,945,341

Steward, US 6,765,479

Lebby et al. US 5,225,816

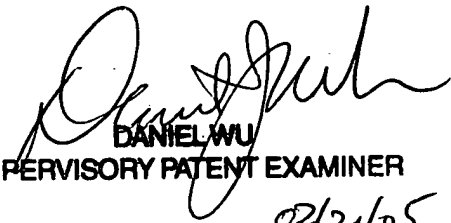
O'Callaghan et al. US 6,256,318

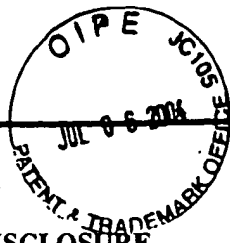
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


DANIEL WU
SUPERVISORY PATENT EXAMINER
02/21/05



FORM PTO/SB/08A/B (10-01)
Substitute for PTO-1449A/B

INFORMATION DISCLOSURE

STATEMENT BY APPLICANT

(use as many sheets as necessary)

Attorney Docket Number	50606/JEJ/M930
Application Number	10/677,994
Filing Date	October 2, 2003
Applicant(s)	Craig S. Erickson, et al.
Group Art Unit	2833
Examiner Name	To be assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	DOCUMENT NUMBER Number - Kind Code ² (If Known)	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE
TRH		3,471,784	10-07-1969	Arndt et al.
		4,890,102	12-26-1989	Oliver
		5,225,816	07-06-1993	Lebby et al.
		5,081,627	01-14-1992	Yu
		6,095,851	08-01-2000	Laity et al.
		6,159,037	12-12-2000	Madsen et al.
		6,165,006	12-26-2000	Yeh et al.
		6,241,550 B1	06-05-2001	Laity et al.
		6,259,170 B1	07-10-2001	Limoge et al.
		6,300,877 B1	10-09-2001	Schannach et al.
		6,361,357 B1	03-26-2002	Stillwell et al.
		6,428,361 B1	08-06-2002	Imschweiler et al.
		6,431,906 B1	08-13-2002	Belopolsky
		6,448,901 B1	09-10-2002	Adams et al.
		6,456,091 B1	09-24-2002	Lee et al.
TRH		6,456,204 B1	09-24-2002	Riley et al.
		6,483,712 B1	11-19-2002	Oliphant et al.
		6,577,243 B1	06-10-2003	Dannenmann et al.

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (If Known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶ (✓)

EXAMINER
SIGNATURE

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2/8/2005

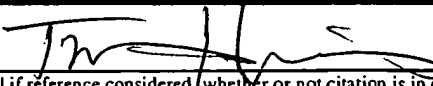
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.pto.gov or MPEP 901.4. ³Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English Language Translation is attached.

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

FORM PTO/SB/08A/B (10-01) Substitute for PTO-1449A/B INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Attorney Docket Number	50606/JEJ/M930
	Application Number	10/677,994
	Filing Date	October 2, 2003
	Applicant(s)	Craig S. Erickson, et al.
	Group Art Unit	2833
	Examiner Name	To be assigned

OTHER DOCUMENTS		
EXAMINER INITIALS	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

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EXAMINER SIGNATURE		DATE CONSIDERED	2/8/2005
EXAMINER: Initial if reference 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. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.pto.gov or MPEP 901.4. ³Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English Language Translation is attached.			

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JEJ/vdw

Sheet 2 of 2

Page 86 of 156

Notice of References Cited	Application/Control No. 10/677,994	Applicant(s)/Patent Under Reexamination ERICKSON ET AL.	
	Examiner Travis R Hunnings	Art Unit 2632	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,081,627	01-1992	Yu, Hong	714/46
	B	US-6,165,006	12-2000	Yeh et al.	439/490
	C	US-6,456,204	09-2002	Riley et al.	340/815.45
	D	US-5,969,632	10-1999	Diamant et al.	340/5.3
	E	US-6,483,712	11-2002	Oliphant et al.	361/737
	F	US-3,471,784	10-1969	ARNDT RICHARD H; et. al.	324/126
	G	US-4,945,341	07-1990	Buttimer, Gregory J.	340/568.3
	H	US-6,765,479	07-2004	Stewart, William L.	340/310.01
	I	US-5,225,816	07-1993	Lebby et al.	340/653
	J	US-6,256,318	07-2001	O'Callaghan et al.	370/447
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
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	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.

10/677,994

Examiner

Travis R Hunnings

Applicant(s)

ERICKSON ET AL.

Art Unit

2632

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date			
Final	Original				
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Search Notes

Application No.

10/677,994

Examiner

Travis R Hunnings

Applicant(s)

ERICKSON ET AL.

Art Unit

2632

SEARCHED

Class	Subclass	Date	Examiner
340	635, 686.1 687, 660 661, 656	2/8/05	TRH
340	815.45, 654	2/8/05	TRH

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
Inventorship in PALM	2/7/05	TRH
Daniel Wu Benjamin Lee	2/8/05	TRH
PLUS search	2/9/05	TRH
EAST history attached	2/18/05	TRH



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BIBDATASHEET

CONFIRMATION NO. 9246

Bib Data Sheet

SERIAL NUMBER 10/677,994	FILING DATE 10/02/2003 RULE	CLASS 340	GROUP ART UNIT 2632	ATTORNEY DOCKET NO. 50606/JEJ/M930
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APPLICANTS

Craig S. Erickson, Stevenson Ranch, CA;

David Naghi, Los Angeles, CA;
Herschel Naghi, Los Angeles, CA;

** CONTINUING DATA *****

This appln claims benefit of 60/451,833 03/04/2003

OK.

** FOREIGN APPLICATIONS *****

TCH 2/7/05

None.

IF REQUIRED, FOREIGN FILING LICENSE GRANTED

** SMALL ENTITY **

** 12/23/2003

Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and Acknowledged	☐ yes ☒ no ☐ yes ☒ no ☐ Met after Allowance Examiner's Signature <i>[Signature]</i> Initials <i>TCH</i>	STATE OR COUNTRY CA	SHEETS DRAWING 11	TOTAL CLAIMS 25	INDEPENDENT CLAIMS 4
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ADDRESS

23363
 CHRISTIE, PARKER & HALE, LLP
 PO BOX 7068
 PASADENA, CA
 91109-7068

TITLE

Cable traffic indicator

FILING FEE

FEES: Authority has been given in Paper
 No. _____ to charge/credit DEPOSIT ACCOUNT
 No. _____ for following:

RECEIVED
 473

☐ All Fees
☐ 1.16 Fees (Filing)
☐ 1.17 Fees (Processing Ext. of time)
☐ 1.18 Fees (Issue)

☐ Other

☐ Credit

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	("6456204").PN.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 10:03
S2	6	("5081627" "5675524" "5886642" "6161140" "6191699" "6198405").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 10:03
S3	5	("3707714" "4498716" "4814754" "4829244" "4890102").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 10:06
S4	18	((("3471784") or ("4890102") or ("5225816") or ("5081627") or ("6095851") or ("6159037") or ("6165006") or ("6241550") or ("6259170") or ("6300877") or ("6361357") or ("6426361") or ("6431906") or ("6448901") or ("6456091") or ("6456204") or ("6483712") or ("6577243"))).PN.	USPAT	OR	OFF	2005/02/08 10:10
S5	1	("6428361").PN.	USPAT	OR	OFF	2005/02/08 10:10
S6	2154	((340/686.1) or (340/687) or (340/660) or (340/661) or (340/656) or (340/815.45)).CCLS.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 12:21
S7	9	(US-6456204-\$ or US-5081627-\$ or US-4890102-\$ or US-6483712-\$ or US-6361357-\$ or US-6241550-\$ or US-6165006-\$ or US-5225816-\$ or US-3471784-\$).did.	USPAT	OR	OFF	2005/02/08 16:01
S8	2	S7 and amplifier	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:01
S9	16	("3701945" "3826908" "4080569" "4255748" "4384363" "4481626" "4498716" "4580274" "4594705" "4602364" "4610010" "4631698" "4631733" "4649548" "4663757" "4665519").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:07
S10	2154	((340/686.1) or (340/687) or (340/660) or (340/661) or (340/656) or (340/815.45)).CCLS.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:08

S11	18	((("3471784") or ("4890102") or ("5225816") or ("5081627") or ("6095851") or ("6159037") or ("6165006") or ("6241550") or ("6259170") or ("6300877") or ("6361357") or ("6426361") or ("6431906") or ("6448901") or ("6456091") or ("6456204") or ("6483712") or ("6577243"))).PN.	USPAT	OR	OFF	2005/02/08 16:08
S13	4	S11 and electromagnetic	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:09
S15	163	S10 and electromagnetic	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:09
S16	90	S15 and (Indicator LED "light emitting diode")	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:09
S17	44	S16 and cable	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:09
S18	57	S16 and (cable wire)	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:09
S19	0	S18 and traffic near3 indicat\$3	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:09
S20	4	S18 and (traffic data) near3 indicat\$3	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:13
S21	26	(traffic data signal) near3 indicat\$3 same (cable wire) same electromagnetic adj radiation	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:21
S22	207	signal near3 detect\$3 near3 indicat\$3 with cable	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:22
S23	31	"340"/\$.ccls. and signal near3 detect\$3 near3 indicat\$3 with cable	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 16:22
S24	6	("5081627" "5675524" "5886642" "6161140" "6191699" "6198405").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:25
S25	0	("6456204").URPN.	USPAT	OR	OFF	2005/02/08 16:26
S26	5	("3707714" "4498716" "4814754" "4829244" "4890102").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:26
S27	14	("5081627").URPN.	USPAT	OR	OFF	2005/02/08 16:26

S28	16	("3701945" "3826908" "4080569" "4255748" "4384363" "4481626" "4498716" "4580274" "4594705" "4602364" "4610010" "4631698" "4631733" "4649548" "4663757" "4665519").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:27
S29	9	("4890102").URPN.	USPAT	OR	OFF	2005/02/08 16:28
S30	84	("2916720" "3500293" "4136357" "4186988" "4241974" "4303296" "4352492" "4386818" "4407559" "4428636" "4564728" "4566769" "4620070" "4710136" "4778410" "4789224" "4800466" "4887876" "4915648" "4978317" "5035641" "5051099" "5062807" "5139439" "5183404" "5184282" "5319527" "5336099" "5338210" "5345367" "5359165" "5391094" "5411405" "5457600" "5474463" "5481616" "5487123" "5499923" "5505633" "5509811" "5513373" "5538442" "5547401" "5561727" "5562504" "5597227" "5608607" "5613873" "5634802" "5645577" "5646816" "5654873" "5660568" "5667395" "5668654" "5679013" "5692914" "5697815" "5704802" "5727972" "5741152" "5759067" "5767623" "5773332" "5790041" "5797771" "5816832" "5876239" "5885100" "5915060" "5915993" "5938324" "5967817" "5971558" "6062908" "6075215" "6095851" "6113422" "6116962" "6217391" "6224417" "D291071").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:29
S31	0	("6483712").URPN.	USPAT	OR	OFF	2005/02/08 16:31

S32	53	("2916720" "4186988" "4241974" "4303296" "4352492" "4407559" "4428636" "4564728" "4620070" "4710136" "4778410" "4915648" "5035641" "5051099" "5139439" "5183404" "5184282" "5336099" "5338210" "5391094" "5411405" "5481440" "5481616" "5499923" "5505633" "5509811" "5513373" "5521725" "5538442" "5547401" "5561727" "5562504" "5608607" "5634802" "5646816" "5660568" "5667395" "5679013" "5692914" "5727972" "5741152" "5767623" "5773332" "5790041" "5797771" "5816832" "5876239" "5885100" "6159037" "6229585" "6257906" "D291071").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:32
S33	5	("6361357").URPN.	USPAT	OR	OFF	2005/02/08 16:33
S34	15	("4271455" "4379606" "4457570" "4978317" "5222164" "5268823" "5327328" "5345367" "5727862" "5755822" "5773332" "5775946" "5790041" "5876239" "5885100").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:33
S35	0	("6241550").URPN.	USPAT	OR	OFF	2005/02/08 16:34
S36	6	("4386818" "5320560" "5780775" "5797771" "5876240" "5885100").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:34
S37	3	("6165006").URPN.	USPAT	OR	OFF	2005/02/08 16:34
S38	2	("4155082" "5101152").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:34
S39	6	("5225816").URPN.	USPAT	OR	OFF	2005/02/08 16:35
S40	40	("3471784").URPN.	USPAT	OR	OFF	2005/02/08 16:35
S41	4	("3685035" "4890102" "5081627" "5903553").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 16:41
S42	1	("6256318").URPN.	USPAT	OR	OFF	2005/02/08 16:41

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S44	1	("6049896").URPN.	USPAT	OR	OFF	2005/02/08 17:13
S45	0	"371".S35.S7.ccls.	USPAT	OR	OFF	2005/02/08 17:13
S46	0	371/29.1.ccls.	USPAT	OR	OFF	2005/02/08 17:14
S47	395	714/46.ccls.	USPAT	OR	OFF	2005/02/08 17:14
S48	7	S47 and electromagnetic	USPAT	OR	OFF	2005/02/08 17:15
S49	2	("3665111").PN.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 17:15
S50	4	("2461241" "2780676").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 17:15
S51	6	("3665111").URPN.	USPAT	OR	OFF	2005/02/08 17:17
S52	2	("4945341").PN.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 17:17
S53	19	("3149317" "3289194" "3425050" "3500376" "3550110" "3633199" "3786468" "3956697" "4121201" "4237450" "4284983" "4293852" "4337462" "4580125").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 17:17
S54	10	("4945341").URPN.	USPAT	OR	OFF	2005/02/08 17:19
S55	2	("6765479").PN.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 17:19
S56	7	("4471399" "4661783" "5554968" "5559377" "5670931" "5684450" "5982276").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/08 17:19
S57	0	data near3 detection near3 "in a cable" same (electromagnetic inductive)	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 17:28
S58	2	data near3 detection near3 "cable" same (electromagnetic inductive)	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/08 17:32
S59	2	("5969632").PN.	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/09 08:45

S60	50	("5766020" "6631434" "4483577" "4485276" "6088446" "6188764" "6229538" "5554049" "5012689" "5697695" "5982125" "6231207" "5304919" "4370610" "5608756" "5561346" "5735492" "5954299" "5467420" "4875753" "5659305" "5938754" "4248493" "4256359" "4270833" "4289370" "4366566" "4399877" "4402114" "4517705" "4533816" "4603929" "4615063" "4770644" "4775121" "4800384" "4820168" "4916621" "5301969" "5326931" "5452075" "5457470" "5486988" "5541582" "5632637" "5645255" "5725228" "5727873" "5752216" "5953340").pn.	USPAT	OR	OFF	2005/02/09 08:45
S61	4	electromagnetic near3 radiation near3 detection same flexible	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/09 08:52
S62	0	electromagnetic near3 radiation near3 detection same wrap near3 cable	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/09 09:13
S63	317	flexible near3 attachment near3 (cable wire)	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/09 09:13
S64	17	S63 and indicator	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/09 09:14
S65	32	"wrapped around" near3 (cable wire) same indicator	USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/09 09:15
S66	40	("3471784").URPN.	USPAT	OR	OFF	2005/02/09 09:16
S67	9	S66 and flexible	USPAT	OR	OFF	2005/02/09 09:17
S68	0	monitor\$3 near3 device with clamp\$3 near3 (cable wire) same indicator	USPAT	OR	OFF	2005/02/09 09:18
S69	8	monitor\$3 near3 device with clamp\$3 near3 (cable wire)	USPAT	OR	OFF	2005/02/09 09:25
S70	1	computer near3 cable near3 leash	USPAT	OR	OFF	2005/02/09 09:26
S71	52	computer near3 dongle	USPAT	OR	OFF	2005/02/09 09:26
S72	40	("3471784").URPN.	USPAT	OR	OFF	2005/02/09 09:35



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I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 9, 2005.


Vickie D. Wall

Applicant : Craig S. Erickson, et al.
Application No. : 10/677,994
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR
Grp./Div. : 2833
Examiner : Travis R. Hunnings
Docket No. : 50606/JEJ/M930

Confirmation No. 9246

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT
37 CFR § 1.97(b)

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

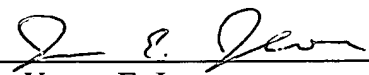
Post Office Box 7068
Pasadena, CA 91109-7068
February 9, 2005

Commissioner:

In compliance with the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, and in accordance with the provisions in the Manual of Patent Examining Procedure §§ 609 and 707.05(b), enclosed is FORM PTO/SB/08A/B listing the references that are known to applicant. Copies of each of the listed references are enclosed. This filing is timely because it is made during one of the periods described in 37 CFR § 1.97(b).

It is respectfully requested that the listed references be considered in the examination of this application and identified on the list of references cited on the patent issuing for this application. Applicant also requests that an initialed copy of FORM PTO/SB/08A/B be entered in the application file and returned to applicant with the next communication from the Office in accordance with MPEP § 609.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
Jun-Young E. Jeon
Reg. No. 43,693
626/795-9900

JEJ/vdw
Enclosures: PTO/SB/08A/B, w/references (7)

VDW PAS607776.1-0-02/9/05 3:12 PM

FORM PTO/SB/08A/B (10-01)
Substitute for PTO-1449A/B

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Attorney Docket Number

50606/JEJ/M930

Application Number

10/677,994

Filing Date

October 2, 2003

Applicant(s)

Craig S. Erickson, et al.

Group Art Unit

2833

Examiner Name

Travis R. Hunnings

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	DOCUMENT NUMBER Number - Kind Code ² (If Known)	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (If Known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶ (✓)

OTHER DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Monster Computer - Monster Home Theatre® Series USB Cable with PowerFlow Indicator, http://www.monstercable.com/computer/productPageComputer.asp?pin=1784 , pages 1-3.
		Monster Cable - Computer, http://www.monstercable.com/computer/ , 1 page.
		Monster Computer, http://www.monstercable.com/computer/printer.asp , pages 1-2.
		Monster Computer - High Speed, Maximum Performance DataSafe™ Printer to PC IEEE 1284 Connection, http://www.monstercable.com/computer/productPageComputer.asp?pin=383 , pages 1-2.
		Monster Computer - Printer to PC IEEE 1284 Connection with Winky Blinky, http://www.monstercable.com/computer/productPageComputer.asp?pin=917 , pages 1-2.
		Printer to PC IEEE 1284 Connection with Winky Blinky, http://www.monstercable.com/ProductPopup.asp?pin=917&holder=photoLrg , 1 page.
		Printer to PC IEEE 1284 Connection with Winky Blinky, http://www.monstercable.com/productPopup.asp?pin=917&holder=photoAlt1 , 1 page.

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EXAMINER SIGNATURE	DATE CONSIDERED
EXAMINER: Initial if reference 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. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.pto.gov or MPEP 901.4. ³ Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.	

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

JEJ/vdw

ARTIFACT SHEET

Enter artifact number below. Artifact number is application number – artifact type code (see list below) – sequential letter (A, B, C ...). The first artifact folder for an artifact type receives the letter A, the second B, etc.. Examples: 59123456PA, 59123456PB, 59123456ZA, 59123456ZB

Indicate quantity of a single type of artifact received but not scanned. Create individual artifact folder box and artifact number for each Artifact Type.

☐ CD(s) containing:
computer program listing ☐
Doc Code: Computer Artifact Type Code: P
pages of specification
and/or sequence listing ☐
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content unspecified or combined ☐
Doc Code: Artifact Artifact Type Code: U

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Doc Code: Artifact Artifact Type Code: C

☐ Microfilm(s)
Doc Code: Artifact Artifact Type Code: F

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Doc Code: Artifact Artifact Type Code: V

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Doc Code: Artifact Artifact Type Code: M

☐ Bound Document(s)
Doc Code: Artifact Artifact Type Code: B

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Doc Code: Artifact Artifact Type Code X

☐ Other, description: NP
Doc Code: Artifact Artifact Type Code: Z

PLUS Search Results for S/N 10677994, Searched February 08, 2005

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

5766020
6631434
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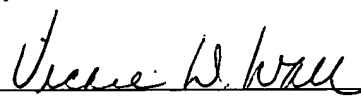
Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L9	2	(electromagnetic\$4 or magnetic\$4) near15 traffic near3 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4).ab.	USPAT	OR	OFF	2005/02/08 17:14
L10	19	(electromagnetic\$4 or magnetic\$4) near15 traffic near3 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4) not 9	USPAT	OR	OFF	2005/02/08 17:18
L11	463	(electromagnetic\$4 or magnetic\$4) near15 (isage\$1 or presence\$1) near3 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4) not 9 not 10	USPAT	OR	OFF	2005/02/08 17:19
L12	482	(electromagnetic\$4 or magnetic\$4) near15 (usage\$1 or presence\$1) near3 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4) not 9 not 10	USPAT	OR	OFF	2005/02/08 17:19
L13	50	(electromagnetic\$4 or magnetic\$4) near15 (usage\$1 or presence\$1) near3 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4).ab. not 9 not 10	USPAT	OR	OFF	2005/02/08 17:19
L14	49	(electromagnetic\$4 or magnetic\$4) near15 (presence\$1) near3 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4).ab. not 9 not 10	USPAT	OR	OFF	2005/02/08 17:20
L15	13	(electromagnetic\$4 or magnetic\$4) adj (field\$1 or radiation\$1 or emanat\$4) near15 (presence\$1) near3 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4).ab. not 9 not 10	USPAT	OR	OFF	2005/02/08 17:20
L16	13	(electromagnetic\$4 or magnetic\$4) adj (field\$1 or radiat\$4 or emanat\$4) near15 (presence\$1) near3 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4).ab. not 9 not 10	USPAT	OR	OFF	2005/02/08 17:23
L17	562	(electromagnetic\$4 or magnetic\$4) adj (field\$1 or radiat\$4 or emanat\$4) near8 (presence\$1 or indicat\$4 or characteristic\$1) near8 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4)	USPAT	OR	OFF	2005/02/08 17:24

L18	216	(electromagnetic\$4 or magnetic\$4) adj (field\$1 or radiat\$4 or emanat\$4) near8 (presence\$1 or indicat\$4 or characteristic\$1) near8 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4) same (computer\$1 or data)	USPAT	OR	OFF	2005/02/08 17:25
L19	17	(electromagnetic\$4 or magnetic\$4) adj (field\$1 or radiat\$4 or emanat\$4) near8 (presence\$1 or indicat\$4 or characteristic\$1) near8 (data or communication\$1 or transmi\$) same (monitor\$4 or detect\$4 or sens\$4) same (computer\$1 or data).ab.	USPAT	OR	OFF	2005/02/08 17:27
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L21	0	20 not 19	USPAT	OR	OFF	2005/02/08 17:28
L22	103	(electromagnetic\$4 or magnetic\$4) near5 (field\$1 or radiat\$4 or emanat\$4 or coil\$1 or sens\$4 or detect\$4) near8 (presence\$1 or indicat\$4 or characteristic\$1) near8 (data or communication\$1 or transmi\$) same (computer\$1)	USPAT	OR	OFF	2005/02/08 17:28
L23	101	22 not 19	USPAT	OR	OFF	2005/02/08 17:29
L24	4	23 and (status or progress\$).ab.	USPAT	OR	OFF	2005/02/08 17:29

2FW
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Vickie D. Wall

Applicant : Craig S. Erickson, et al.
Application No. : 10/677,994
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR
Grp./Div. : 2833
Examiner : To be assigned
Docket No. : 50606/JEJ/M930

INFORMATION DISCLOSURE STATEMENT
37 CFR § 1.97(b)

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

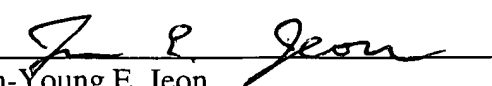
Post Office Box 7068
Pasadena, CA 91109-7068
June 30, 2004

Commissioner:

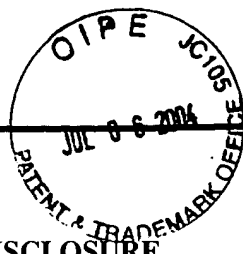
In compliance with the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, and in accordance with the provisions in the Manual of Patent Examining Procedure §§ 609 and 707.05(b), enclosed is FORM PTO/SB/08A/B listing the references that are known to applicant. This filing is timely because it is made during one of the periods described in 37 CFR § 1.97(b).

It is respectfully requested that the listed references be considered in the examination of this application and identified on the list of references cited on the patent issuing for this application. Applicant also requests that an initialed copy of FORM PTO/SB/08A/B be entered in the application file and returned to applicant with the next communication from the Office in accordance with MPEP § 609.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
Jun-Young E. Jeon
Reg. No. 43,693
626/795-9900

JEJ/vdw
Enclosures: PTO/SB/08A/B
VDW PAS572358.1-*06/30/04 9:23 AM



INFORMATION DISCLOSURE

STATEMENT BY APPLICANT

(use as many sheets as necessary)

Attorney Docket Number	50606/JEJ/M930
Application Number	10/677,994
Filing Date	October 2, 2003
Applicant(s)	Craig S. Erickson, et al.
Group Art Unit	2833
Examiner Name	To be assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	DOCUMENT NUMBER Number - Kind Code ² (If Known)	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE
		3,471,784	10-07-1969	Arndt et al.
		4,890,102	12-26-1989	Oliver
		5,225,816	07-06-1993	Lebby et al.
		5,081,627	01-14-1992	Yu
		6,095,851	08-01-2000	Laity et al.
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		6,300,877 B1	10-09-2001	Schannach et al.
		6,361,357 B1	03-26-2002	Stillwell et al.
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		6,448,901 B1	09-10-2002	Adams et al.
		6,456,091 B1	09-24-2002	Lee et al.
		6,456,204 B1	09-24-2002	Riley et al.
		6,483,712 B1	11-19-2002	Oliphant et al.
		6,577,243 B1	06-10-2003	Dannenmann et al.

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (If Known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶ (✓)

EXAMINER SIGNATURE	DATE CONSIDERED
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EXAMINER: Initial if reference 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. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.pto.gov or MPEP 901.4. ³Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English Language Translation is attached.

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

FORM PTO/SB/08A/B (10-01) Substitute for PTO-1449A/B INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Attorney Docket Number	50606/JEJ/M930
	Application Number	10/677,994
	Filing Date	October 2, 2003
	Applicant(s)	Craig S. Erickson, et al.
	Group Art Unit	2833
	Examiner Name	To be assigned

OTHER DOCUMENTS		
EXAMINER INITIALS	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

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EXAMINER SIGNATURE		DATE CONSIDERED	
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EXAMINER: Initial if reference 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. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.pto.gov or MPEP 901.4. ³Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English Language Translation is attached.

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

UTILITY PATENT APPLICATION TRANSMITTAL
(Only for new nonprovisional applications under 37 CFR 1.53(b))

22154 U.S. PTO
10/677994
 100203

Docket No. : 50606/JEJ/M930
Inventor(s) : Craig S. Erickson, David Naghi And Herschel Naghi
Title : CABLE TRAFFIC INDICATOR
Express Mail Label No. : EV 083061402 US

ADDRESS TO: Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

October 2, 2003

1. X **FEE TRANSMITTAL FORM** *(Submit an original, and a duplicate for fee processing).*

2. **IF A CONTINUING APPLICATION**

 This application is a of patent application No. .

Prior application information: Examiner ; Group Art Unit: .

 X This application claims the benefit of Provisional Application No. 60/451,833 pursuant to 35 U.S.C. §119(e) and 37 CFR §1.78(a)(4).

3. **APPLICATION COMPRISED OF**

Specification

 30 Specification, claims and Abstract (total pages)

Drawings

 11 Sheets of formal drawing(s) (FIGS. 1 to 12)

Declaration and Power of Attorney

 X Newly executed
 Unexecuted declaration
 Copy from a prior application (37 CFR 1.63(d))(for continuation and divisional)

4. **Microfiche Computer Program** *(Appendix)*

5. **Nucleotide and/or Amino Acid Sequence Submission** *(if applicable, all necessary)*

 Computer Readable Copy
 Paper Copy (identical to computer copy)
 Statement verifying identity of above copies



23363

PATENT TRADEMARK OFFICE

UTILITY PATENT APPLICATION TRANSMITTAL
(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.: 50606/JEJ/M930

6. APPLICANT(S) STATUS UNDER 37 CFR §1.27

 X Applicant(s) and any others associated with it/them under §1.27(a) are a SMALL ENTITY

7. ALSO ENCLOSED ARE

 X Request and Certificate under 35 U.S.C. §122(b)(2)(B)(i) **Request for Non-Publication**
 Preliminary Amendment
 Includes "Cross-Reference to Related Applications"
 A Petition for Extension of Time for the parent application and the required fee are enclosed
 X An Assignment of the invention with the Recordation Cover Sheet and the recordation fee are enclosed (2 Assignments)
 This application is owned by pursuant to an Assignment recorded at Reel , Frame
 Information Disclosure Statement (IDS)/PTO/SB/08A/B
 Copies of IDS Citations
 Certified copy of Priority Document(s) (*if foreign priority is claimed*)
 English Translation Document (*if applicable*)
 X Return Receipt Postcard (MPEP 503) (should be specifically itemized).
 Other:

8. CORRESPONDENCE ADDRESS

CHRISTIE, PARKER & HALE, LLP, P.O. BOX 7068, PASADENA, CA 91109-7068
Customer Number: 23363

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By Jun Young E. Jeon
Jun Young E. Jeon
Reg. No. 43,693
626/795-9900

**FEE TRANSMITTAL
UTILITY PATENT APPLICATION**

DATE: October 2, 2003

Docket No. : 50606/JEJ/M930
Inventor(s) : Craig S. Erickson, David Naghi And Herschel Naghi
Title : CABLE TRAFFIC INDICATOR Duplicate X

FEE DETERMINATION

CLAIMS AS FILED					
	NUMBER FILED	NUMBER EXTRA	SMALL ENTITY RATE	LARGE ENTITY RATE	FEE
TOTAL CLAIMS	25 - 20	= 5	5 x \$9.00	x \$18.00	\$45.00
INDEPENDENT CLAIMS	4 - 3	= 1	1 x \$43.00	x \$86.00	\$43.00
MULTIPLE-DEPENDENT CLAIMS FEE			\$145.00	\$290.00	
BASIC FEE			\$385.00	\$770.00	\$385.00
TOTAL FILING FEE					\$473.00
List Independent Claims: 1, 12, 20 and 25					

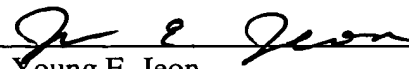
METHOD OF PAYMENT

X Payment Enclosed: Check for \$473.00.

X The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required during the **entire pendency** of the application to Deposit Account No. 03-1728. Please show our docket number with any charge or credit to our Deposit Account. **A duplicate copy of this sheet is enclosed.**

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By 
Jun-Young E. Jeon
Reg. No. 43,693
626/795-9900

JEJ/sd

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

EXPRESS MAIL NO. EV 083061402 US

Applicant : Craig S. Erickson, et al.
Filed : October 2, 2003
Title : CABLE TRAFFIC INDICATOR
Docket No. : 50606/JEJ/M930

REQUEST AND CERTIFICATION
UNDER 35 U.S.C. 122(b)(2)(B)(i)

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

Post Office Box 7068
Pasadena, CA 91109-7068
October 2, 2003

Commissioner:

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing. I hereby request that the attached application not be published under 35 U.S.C. 122(b).

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
Jun-Young E. Jeon
Reg. No. 43,693
626/795-9900

JEJ/sd
SD PAS529540.1.*-10/2/03 2:26 PM

CABLE TRAFFIC INDICATOR

CROSS-REFERENCE TO RELATED APPLICATION(S)

This application claims priority of U.S. Provisional
5 Application No. 60/451,833 entitled "Cable Traffic
Indicator" filed March 4, 2003, the contents of which are
fully incorporated by reference herein.

FIELD OF THE INVENTION

10 The present application relates generally to
communication systems, and more particularly to an
indicator for detecting traffic in a cable.

BACKGROUND

15 There typically is no way to visually monitor traffic
or activity in parallel or serial cables. Hence, it is
possible for a user to inadvertently interrupt data traffic
by unplugging the cable while there is an on-going traffic
in the cable. Further, there typically is no way of
20 visually checking whether or not a port is functional.
Therefore, it is desirable to provide an apparatus and
method for visibly checking port status and/or traffic on a
cable.

25 SUMMARY

In an exemplary embodiment according to the present
invention, a cable capable of providing a visual indication
of traffic is provided. The cable includes: one or more
wires; and at least one connector connected to the wires,
30 said connector having detection circuitry capable of
detecting the traffic on the cable and generating a
detection signal responsive to the traffic, and a traffic

indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal. The detection circuitry includes: driving circuitry coupled to at least one said wire, said
5 at least one said wire carrying a data signal; and a transistor coupled to the driving circuitry and the traffic indicator, wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic
10 indicator.

In another exemplary embodiment according to the present invention, an adapter for a cable having one or more wires to provide a visual indication of traffic on the cable is provided. The adapter includes: a first plug for
15 interfacing with the cable; a second plug for interfacing between the first plug and an electronic device; and detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection
20 circuitry to provide the visual indication of the traffic responsive to the detection signal. The detection circuitry includes: driving circuitry coupled to at least one said wire in use, said at least one said wire carrying a data signal; and a transistor coupled to the driving
25 circuitry and the traffic indicator, wherein the driving circuitry in use drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator.

In yet another exemplary embodiment according to the
30 present invention, a traffic detector that can detect traffic in a cable having one or more wires for connecting a computer to a peripheral device is provided. The traffic

detector includes: detection circuitry capable of detecting electromagnetic radiation generated by the traffic in at least one of the wires, and of generating a detection signal in response; and a traffic indicator capable of
5 receiving the detection signal, and of providing a visual indication of the traffic responsive to the detection signal.

In still another exemplary embodiment according to the present invention, hub/switch capable of providing a visual
10 indication of traffic on at least one cable is provided. The hub/switch includes: detection circuitry capable of detecting the traffic on said at least one cable and generating a detection signal responsive to the traffic; and at least one traffic indicator coupled to the detection
15 circuitry to provide the visual indication of the traffic responsive to the detection signal. The detection circuitry includes: driving circuitry coupled to at least one wire of said at least one cable, said at least one wire carrying a data signal; and a transistor coupled to the
20 driving circuitry and said at least one traffic indicator, wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal, which is used to drive said at least one traffic indicator.

25 These and other aspects of the invention will be more readily comprehended in view of the discussion herein and accompanying drawings, in which like reference numerals denote like elements.

30 BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a system diagram of a computer and a peripheral device connected by a cable having a traffic

indicator in an exemplary embodiment in accordance with aspects of the present invention;

FIG. 2 is a schematic diagram of a connector in an exemplary embodiment in accordance with aspects of the present invention;

FIG. 3 is a schematic diagram of a connector in another exemplary embodiment in accordance with aspects of the present invention;

FIG. 4 is a system diagram of a computer and a peripheral device connected over a cable and an adapter having traffic indicator in an exemplary embodiment in accordance with aspects of the present invention;

FIG. 5 is a system diagram of a computer and a peripheral device connected by a cable whose traffic is detected by a traffic detector in an exemplary embodiment in accordance with aspects of the present invention;

FIG. 6 is a schematic diagram of a connector in yet another exemplary embodiment in accordance with aspects of the present invention;

FIG. 7 is a perspective view of a cable connector according to an exemplary embodiment of the present invention;

FIG. 8 is a perspective view of a cable connector according to another exemplary embodiment of the present invention;

FIG. 9 is a perspective view of a cable connector according to yet another exemplary embodiment of the present invention;

FIG. 10 is a schematic diagram of a connector in still another exemplary embodiment in accordance with aspects of the present invention;

FIG. 11 is a hub/switch in an exemplary embodiment in accordance with aspects of the present invention; and

FIG. 12 is a hub/switch in another exemplary embodiment in accordance with aspects of the present invention.

DETAILED DESCRIPTION

FIG. 1 is a system diagram of a computer 102 and a peripheral device 104 connected by a cable 106 having traffic indicators 110 and 111 in an exemplary embodiment in accordance with aspects of the present invention. The cable 106 is a parallel or serial communication cable, such as, a USB (Universal Serial Bus), FireWire, COM, LPT, SCSI cable or the like. The computer 102 is also coupled to a display device 100 (which may be a computer monitor, for example).

In the exemplary embodiment, the traffic indicator 110 is mounted on and integrated with a connector 108 of the cable 106. Similarly, the traffic indicator 111 is mounted on and integrated with a connector 109 of the cable 106. In other embodiments, the traffic indicators may be integrated with the cable at any point on the cable without being limited to the ends (i.e., at the connectors). The traffic indicators 110 and 111 provide a visual indication (e.g., light flashing) when there is traffic (or activity) in the cable 106. The traffic may include video, audio (such as voice) and data traffic, and may be a high speed traffic (e.g., > 10 Mb/s (Mega bits per second)).

In the exemplary embodiment, each of the traffic indicators 110 and 111 includes one or more light emitting diodes (LEDs) that flash in response to traffic in the cable. The LEDs may have red, yellow, green, blue or any

other available colors. When the communication signals are running at high speeds (e.g., > 10 Mb/s), the user may not be able to see the flashing taking place. Hence, the LEDs may also include one or more auto-flashing LEDs. This way, the LEDs may also be flashing to provide a clearer indication to the user during high speed communications. Other types of indicators may alternatively be used.

In the exemplary embodiment of FIG. 1, a traffic indicator 120 (e.g., one or more LEDs) is mounted on the display device 100 so that it is easily visible to the user. The traffic indicator 120, for example, is electrically connected to the connector 109 to receive a detection signal used to operate the traffic indicator 120. The traffic indicator 120 may also be located at other visible locations.

The LED-based traffic indicators are desirable in low power applications since LEDs consume little power. However, in other embodiments, the traffic indicators may include other types of illuminating devices, such as, electro-luminescent lamps, a translucent end of the cable (or connector), or the like. Translucent connector ends or translucent wire coverings would allow light to be dispersed within and appear, respectively, as though entire ends of a cable is glowing or the wire coverings are conducting the light. The translucent connector ends or the wire coverings may be clear or colored/tinted.

FIG. 1 illustrates an exemplary embodiment in which the traffic indicators 110 and 111 are on both the peripheral device side and the computer side, respectively of the cable. In other embodiments, the traffic indicator may be mounted on the connector on the computer side or the peripheral device side, but not on both sides. The traffic

indicators in the exemplary embodiments generate a visual indication in response to traffic detected through monitoring data on at least one of the wires (that carries data) in the cable that are connected to pins of the
5 connectors.

In addition to showing communications taking place on cables that normally do not have status indicator on them, and providing capabilities to visually check whether or not a port is functional, the traffic indicators in exemplary
10 embodiments of the present invention add 'visual accent' to otherwise dull and plain cables, so as to make them aesthetically appealing to the users.

FIG. 2 is a schematic diagram of a connector 128 of a cable in an exemplary embodiment in accordance with aspects
15 of the present invention. The schematic diagram of FIG. 2 is a simplified representation of a connector; in practice, of course, a connector would contain other components, such as pins, wires and the like. The circuitry illustrated on the schematic diagram of FIG. 2 is mounted on a printed
20 circuit board (PCB), and may also be referred to as a filtering circuit or detection circuitry.

The connector 128, for example, may be applied as the connector 108 and/or the connector 109 of FIG. 1. The connector 128 has a traffic indicator in the form of an LED
25 130. Hence, the LED 130 may correspond to the traffic indicator 110 and/or the traffic indicator 111. If the cable carries power in one of its wires, the voltage source V_{DD} for the LED 130 may be provided by the power in the cable. For example, if the connector 128 is a USB
30 connector, voltage source V_{DD} may be supplied by its power pin/wire. If power is not available in any of the wires, the V_{DD} may be supplied by an external battery/AC power.

Further, in case of a USB cable, data received by the connector 128 may be a USB DP (Data +) signal. Here and elsewhere in this application, the term "data" is used broadly to include video, audio and/or other data.

5 Further, the wire that carries data may be referred to as a data line.

In the connector 128, the LED 130 is disposed between the voltage source V_{DD} and a resistor 132. The other end of the resistor 132 is coupled to a drain of a transistor 134, 10 which is a field effect transistor (FET), such as NDS7002 available from Fairchild Semiconductor. In other embodiments, other types of suitable transistors may be used.

The transistor 134 detects (i.e., senses) the 15 communications taking place on the data line without creating a significant signal drain on the line so as to attenuate the data signal. A source of the transistor 134 is coupled to ground. The data is received by an amplifier 141 in the connector 128 for amplification of the data 20 signal. The amplifier 141, for example, may be an operational amplifier (op-amp). The amplified data is then passed through a resistor 140 and a diode 138 to be applied at a gate of the transistor 134. The gate of the transistor 134 is also coupled to ground via a resistor 25 142. In other embodiments, the amplifier 141 may not be used, and the received data may be directly applied to the resistor 140.

In operation, the data transitions between high and low, and thereby drives the transistor 134 at its gate. 30 When the data signal is high, the transistor 134 turns on and conducts current. As the current flows through the transistor 134, it flows through the LED 130 and the

resistor 132, voltage drop occurs across the LED 130, and the LED 130 lights up. When the data signal is low, the transistor 134 turns off, and substantially no current flow through it or the LED 130. Therefore, the LED does not
5 light up. Hence, with the data transitioning between high and low, the LED turns on and off (or flashes) to indicate that there is traffic in the cable connected to the connector 128. If there is no data signal, the LED 130 will not be activated and will not light up. In other
10 embodiments, the LED 130 may flash (e.g., at a dimmer level) when there is no data signal.

FIG. 3 is a schematic diagram of a connector 158 of a cable in another exemplary embodiment in accordance with aspects of the present invention. The schematic diagram of
15 FIG. 3 is a simplified representation of a connector; in practice, of course, a connector would contain other components, such as pins, wires and the like. The circuitry illustrated on the schematic diagram of FIG. 3 is mounted on a PCB, and may also be referred to as a filtering
20 circuit or detection circuitry.

The connector 158, for example, may be applied as the connector 108 and/or the connector 109 of FIG. 1. The connector 158 has a traffic indicator in a form of LED 160. Hence, the LED 160 may correspond to the traffic indicator
25 110 and/or the traffic indicator 111. If the cable carries power in one of its wires, the voltage source V_{DD} for the LED 160 may be provided by the power in the cable. For example, if the connector 158 is a USB connector, voltage source V_{DD} may be supplied by its power pin/wire. If power
30 is not available in any of the wires, the V_{DD} may be supplied by an external battery/AC power. Further, in case of a USB cable, data received by the connector 158 may be a

USB DM (Data -) signal. The wire that carries data may be referred to as a data line.

In the connector 158, the LED 160 is disposed between the voltage source V_{DD} and a resistor 162. The other end of
5 the resistor 162 is coupled to a drain of a transistor 164, which is a FET, such as NDS7002 available from Fairchild Semiconductor. In other embodiments, other types of suitable transistors may be used.

A source of the transistor 164 is coupled to ground.
10 The data is received by an amplifier 173 in the connector 158 for amplification of the data signal. The amplifier 173, for example, may be an op-amp. The amplified data is then applied through a resistor 172 at a gate of a transistor 170, which is also a FET, such as NDS7002. In
15 other embodiments, the amplifier 173 may not be used, and the received data may be directly applied to the resistor 172.

The transistor 170 detects (i.e., senses) the communications taking place on the data line without
20 creating a significant signal drain on the line so as to attenuate the data signal. A source of the transistor 170 is coupled to ground, and a drain of the transistor 170 is coupled to V_{DD} via a resistor 168. The drain is also coupled to a gate of the transistor 164 so as to drive it,
25 and to ground via a capacitor 166.

In operation, the data turns the transistor 170 on and off, which in turn, results in the transistor 164 being turned on and off. For example, when the data signal is high, the transistor 170 turns on, and pulls down the
30 voltage (towards ground) at the gate of the transistor 164, thereby turning it off. Hence, when the data signal is

high, substantially no current flows in the LED 160, and no light is generated.

When the data signal is low, the transistor 170 turns off, and its drain is pulled high (towards V_{DD}), thereby
5 applying a high voltage at the gate of the transistor 164 so as to turn it on. Therefore, when the data signal is low, current flows through the LED 160, and light is generated to indicate that there is traffic in the cable connected to the connector 158. If there is no data
10 signal, the LED 160 will not be activated and will not light up. In other embodiments, the LED 160 may flash (e.g., at a dimmer level) when there is no data signal.

FIG. 4 is a system diagram of a computer 102 and a peripheral device 104 connected by a cable 176, an adapter
15 178 having a traffic indicator 180, and an adapter 182 having a traffic indicator 184 in another exemplary embodiment in accordance with aspects of the present invention. The cable 176 is a standard cable having standard connectors 177 and 181 that meet parallel or
20 serial communication standard, such as, USB (Universal Serial Bus), FireWire, COM, LPT, SCSI standard or the like. Use of the standard cable may be desirable in some cases over using the cable 106 having a traffic indicator of FIG. 1 because cost associated with acquiring new cables may be
25 avoided if existing standard cables are used.

Instead of replacing the standard cable 176, the adapter 178 is placed between the connector 177 on the cable 176 and the peripheral device 104. Similarly, the adapter 182 is placed between the connector 181 on the
30 cable 176 and the computer 102. The adapters 178 and 182 may, for example, receive power from the cable to which it is connected. While the adapters are coupled to both ends

of the cable 176 in the system illustrated in FIG. 4, in practice, an adapter may be coupled to either end, but not both, of the cable to give a visual indication (e.g., light flashing) of traffic in the cable 176.

5 The adapters 178 and 182 should each have a first plug that is capable of interfacing (e.g., electrically and physically coupling) with the cable 176 (through the connector 177 and the connector 181, respectively) and a second plug that is capable of interfacing with a connector
10 on the peripheral device 104 and the computer 102, respectively.

 The circuitry for detecting and visually indicating the data signal in the adapters 178 and 182, for example, may be similar to the schematic diagram illustrated in the
15 connector 128 of FIG. 2 and/or the connector 158 of FIG. 3. For example, the signals between the connector 177 and the peripheral device 104 may pass through the adapter 178. Similarly, the signal between the connector 181 and the computer 102 may pass through the adapter 182.

20 The data signal at either or both ends of the cable, for example, may be coupled to adapter circuitry that is substantially the same as the circuitry illustrated in FIG. 2 and/or FIG. 3. This way, the traffic indicator 180 and/or the traffic indicator 184 can visually indicate the
25 traffic on the cable 176. Here, the traffic indicators 180 and/or 184 may correspond to either the LED 130 of FIG. 2 or the LED 160 of FIG. 3.

 In the exemplary embodiment of FIG. 4, a traffic indicator 120 (e.g., one or more LEDs) is mounted on the
30 display device 100 so that it is easily visible to the user. The traffic indicator 120, for example, is electrically connected to the adapter 182 to receive a

detection signal used to operate the traffic indicator 120. The traffic indicator 120 may also be located at other visible locations.

FIG. 5 is a system diagram of a computer 102 and a peripheral device 104 connected by the cable 176 whose traffic is detected by a traffic indicator 190 on a traffic detector 188 in an exemplary embodiment in accordance with aspects of the present invention. The traffic detector 188 may be formed at least partly from a flexible material that can wrap around the cable 176. In the system diagram of FIG. 5, the standard cable 176 is used without any adapter between the connector 177 and the peripheral device 104. Of course, such adapter may also be used in addition to the traffic detector 188 if desired.

When there is traffic in the cable 176, the signals in the cable generate electromagnetic radiation that can be detected by the traffic detector 188. The traffic detector 188 may have detection circuitry therein for such detection of electromagnetic radiation. Such detection circuitry should generate a detection signal in response to traffic (or activity) in the cable 176, and provide it to the traffic indicator 190. In response, the traffic indicator 190 flashes in accordance with the level of the signals in the traffic. Detection of electromagnetic radiation is well known to those skilled in the art.

In the exemplary embodiment of FIG. 5, a traffic indicator 120 (e.g., one or more LEDs) is mounted on the display device 100 so that it is easily visible to the user. The traffic indicator 120, for example, is electrically connected to the traffic detector 188 to receive a detection signal used to operate the traffic

indicator 120. The traffic indicator 120 may also be located at other visible locations.

FIG. 6 is a schematic diagram of a connector 200 of a cable in an exemplary embodiment in accordance with aspects of the present invention. The schematic diagram of FIG. 6 is a simplified representation of a connector; in practice, of course, a connector would contain other components, such as pins, wires and the like. The circuitry illustrated on the schematic diagram of FIG. 6 is mounted on a PCB, and may also be referred to as a filtering circuit or detection circuitry. The connector 200, for example, may be a standard USB connector having pins for V_{DD} , DP, DM and GND, respectively.

The connector 200, for example, may be applied as the connector 108 and/or the connector 109 of FIG. 1. The schematic diagram of FIG. 6, for example, may also be applied in an adapter for detecting and visually indicating traffic in the cable. For example, adapter circuitry for detecting and visually indicating traffic in the adapter 178 and/or the adapter 182 of FIG. 4 may be substantially the same as the circuitry of FIG. 6.

The connector 200 has a traffic indicator in a form of LED 202. Hence, the LED 202 may correspond to the traffic indicator 110 and/or the traffic indicator 111 of FIG. 1. Further, when the circuitry of FIG. 6 is used in the adapter 178 and/or the adapter 182 of FIG. 4, the LED 202 may correspond to the traffic indicator 180 and/or the traffic indicator 184 of FIG. 4. If the cable carries power in one of its wires, the voltage source V_{DD} for the LED 202 may be provided by the power in the cable. For example, if the connector 200 is a USB connector, voltage source V_{DD} may be supplied by its power pin/wire. If power

is not available in any of the wires, the V_{DD} may be supplied by an external battery/AC power. Further, in case of a USB cable, data received by the connector 200 may be a USB DP signal. The wire that carries data may be referred to as a data line.

In the connector 200, the LED 202 is disposed between the voltage source V_{DD} and a resistor 204. The other end of the resistor 204 is coupled to a collector of a transistor 210, which is a bipolar transistor, such as 2N3904 NPN switching transistor available from Philips Semiconductors. An emitter of the transistor 210 is coupled to ground. The resistor 204, for example, may have a value of 510Ω or one of other suitable values. In other embodiments, other types of suitable transistors may be used.

The data is received by an amplifier 219 in the connector 200 for amplification of the data signal. The amplifier 219, for example, may be an op-amp. The amplified data is then applied through a resistor 218 at a base of a transistor 216, which is also a bipolar transistor, such as 2N3904. In other embodiments, the amplified 219 may not be used and the received data may be directly applied to the resistor 218.

The transistor 216 detects (i.e., senses) the communications taking place on the data line without creating a significant signal drain on the line so as to attenuate the data signal. An emitter of the transistor 216 is coupled to ground, and a collector of the transistor 216 is coupled to V_{DD} via a resistor 208. For example, the resistors 218 and 208 may have values of $5.1K\Omega$ and $10K\Omega$, respectively. These resistors may also have other suitable values.

The collector of the transistor 216 is also coupled to a base of a transistor 214 so as to drive it. The transistor 214 is also a bipolar transistor, such as 2N3904. A collector of the transistor 214 is coupled to V_{DD} through a resistor 206, which for example, may have a value of $10K\Omega$. The resistor 206 may also have one of other suitable values. The collector of the transistor 214 is also coupled to a base of the transistor 210 and also to a capacitor 212, which for example may have a value of 1000 pico farad (pF) or any other suitable value. The other side of the capacitor 212 is coupled to ground. Further, an emitter of the transistor 214 is coupled to ground.

In operation, the DP signal turns the transistor 216 on and off, which in turn, results in the transistor 214 being turned on and off. For example, when the data signal is high, the transistor 216 turns on, and pulls down the voltage (towards ground) at the base of the transistor 214, thereby turning it off. When the transistor 214 is in an off-state, the base of the transistor 210 is pulled high, thereby turning on the transistor 210. Hence, when the data signal is high, current flows through the LED 202, and light is generated to indicate that there is traffic in the cable connected to the connector 200.

When the data signal is low, the transistor 216 turns off, and its collector is pulled high (towards V_{DD}), thereby applying a high voltage at the base of the transistor 214 so as to turn it on. When the transistor 214 is in an on-state, current flows through the resistor 206, thereby lowering voltage at the collector of the transistor 214. When the voltage at the collector of the transistor 214 is lowered, the voltage applied at the base of the transistor

210 is lowered also, thereby turning the transistor 210 off. Therefore, when the data signal is low, current does not flow through the LED 202, and light is not generated. If there is no data signal, the LED 202 will not be
5 activated and will not light up. In other embodiments, the LED 202 may flash (e.g., at a dimmer level) when there is no data signal.

The transistors in FIG. 6 are illustrated as NPN bipolar transistors. In other embodiments, the transistors
10 may be PNP bipolar transistors or any other suitable transistors.

FIG. 7 is a perspective view of a cable connector 300 according to an exemplary embodiment of the present invention. The connector 300 includes a generally
15 rectangular shaped socket 306, which is configured as a female connector. The socket 306 interfaces with a printed circuit board (PCB) 314 (shown as a box with dotted lines), which is adjacent to and coupled to the socket 306. The PCB 314 has mounted thereon an LED 308. The PCB 314 also
20 has mounted thereon circuitry (not shown; e.g., detection circuitry of FIG. 2, 3 or 6) for sensing the data traffic on a cable 310, and also for lighting the LED 308 when there is traffic on the cable 310. The circuitry on the PCB 314 is also coupled to wires 312 of the cable 310. The
25 LED 308 may be a flashing LED or any other type of LED.

The connector 300 includes an outer casing 302 and a generally rectangular shaped inner casing 304. The inner casing 304 has a tapered end on the side of the cable 310. The inner casing 304 is first used to encase the PCB 314.
30 Since the LED 308 is mounted on the PCB 314, an opening 305 is formed on the inner casing 304 to allow the visible light to exit through the opening. In other embodiments,

the opening 305 may be covered with a transparent or semi-transparent material. In still other embodiments, the inner casing may be made of a transparent or semi-transparent material such that the opening is not needed to
5 allow the visible light to exit the inner casing.

The outer casing 302 is made of a transparent or semi-transparent material such that the light generated by the LED 308 can be seen through the outer casing 302. By encasing the PCB 314 in the inner casing 304 and by
10 enveloping both the inner casing 304 and a portion of the socket 306 using the outer casing 302, a cable connector having a sturdy design is provided.

FIG. 8 is a perspective view of a cable connector 320 according to another exemplary embodiment of the present
15 invention. The connector 320 is similar to the connector 300 of FIG. 7, except that the connector 320 includes a generally rectangular shaped plug 326, which is configured as a male connector. The plug 326 interfaces with a printed circuit board (PCB) 334 (shown as a box with dotted
20 lines), which is adjacent to and connected to the plug 326. The PCB 334 has mounted thereon an LED 328. The PCB 334 also has mounted thereon circuitry (not shown; e.g., detection circuitry of FIG. 2, 3 or 6) for sensing the data traffic on a cable 330, and also for lighting the LED 328
25 when there is traffic on the cable 330. The circuitry on the PCB 334 is also coupled to wires 332 of the cable 330. The LED 328 may be a flashing LED or any other type of LED.

The connector 320 includes an outer casing 322 and a generally rectangular shaped inner casing 324. The inner
30 casing 324 has a tapered end on the side of the cable 330. The inner casing 324 is first used to encase the PCB 334. Since the LED 328 is mounted on the PCB 334, an opening 325

is formed on the inner casing 324 to allow the visible light to exit through the opening. In other embodiments, the opening 325 may be covered with a transparent or semi-transparent material. In still other embodiments, the
5 inner casing may be made of a transparent or semi-transparent material such that the opening is not needed to allow the visible light to exit the inner casing.

The outer casing 322 is made of a transparent or semi-transparent material such that the light generated by the
10 LED 328 can be seen through the outer casing 322. By encasing the PCB 334 in the inner casing 324 and by enveloping both the inner casing 324 and a portion of the socket 326 using the outer casing 322, a cable connector having a sturdy design is provided.

15 FIG. 9 is a perspective view of a cable connector 340 according to yet another exemplary embodiment of the present invention. The connector 340 includes a plug 346, which is configured as a male connector. The plug 346 interfaces with a printed circuit board (PCB) 352, which is
20 adjacent to and coupled to the plug 346. The PCB 352 has mounted thereon an LED 348. The PCB 352 also has mounted thereon circuitry (not shown; e.g., detection circuitry of FIG. 2, 3 or 6) for sensing the data traffic on a cable 350, and also for lighting the LED 348 when there is
25 traffic on the cable 350. The circuitry on the PCB 352 is also coupled to wires of the cable 350. The LED 348 may be a flashing LED or any other type of LED.

The connector 340 includes a generally rectangular shaped casing 342, which has a first section 345 around the
30 LED 348 and a second section 344. The first section 345 is either transparent or semi-transparent, and allows the light generated by the LED 348 to exit the casing 342. The

second section 344 surrounds the first section 345, and is transparent, semi-transparent, or transparent with texture. The casing 342, for example, may be used as an inner casing for the connector of FIG. 7 and/or FIG. 8.

5 FIG. 10 is a schematic diagram of a connector 400 in still another exemplary embodiment in accordance with aspects of the present invention. The connector 400 of FIG. 10 is similar to the connector 200 of FIG. 6, except that the connector 400 has FETs 410, 414 and 416 instead of
10 the NPN bipolar transistors 210, 214 and 216 in the connector 200 of FIG. 6. The FETs 410, 414 and 416, for example, may be 2N7002 N-Channel Enhancement-Mode Vertical DMOS FETs available from Supertex Inc.

 The FET 410 is coupled via an LED 402 and a resistor
15 404 (e.g., 510 Ω) to Vcc. The FETs 414 and 416 are coupled via resistors 406 (e.g., 10 k Ω) and 408 (e.g., 10 k Ω), respectively, to Vcc. A gate of the transistor 414 is coupled to a node between the resistor 408 and the FET 416. A capacitor 412 (e.g., 1000pF/25V) is coupled between a
20 gate of the FET 410 and ground, and to a node between the resistor 406 and the FET 414. A gate of the transistor 416 is coupled via a resistor 418 (e.g., 5.1 k Ω) to an op-amp 422. The op-amp 422, for example, may be LM358 low power dual op-amp available from National Semiconductor. In
25 other embodiments, other types of transistors and/or an op-amp may be used. Also, various different suitable values may be used for the discrete components, such as the resistors and capacitors as those skilled in the art would appreciate.

30 The positive data signal (DP) is received by the connector 400 and applied through a capacitor 430 (e.g.,

0.1 μ F/25V) at a resistor 426 (e.g., 2.4 k Ω). The capacitor 430, hence, operates as a high pass filter to filter out low frequency. The other end of the resistor 426 is coupled to ground via a resistor 428 (e.g., 1 M Ω), and also
5 applied at a positive input of the op-amp 422. An output of the op-amp 422 is fed back via a resistor 420 (e.g., 1 M Ω) into its negative input. The negative input is also coupled to ground via a resistor 424 (e.g., 10 k Ω).

The circuitry of the connector 400, for example, may
10 be applied to the connectors 108, 109 of FIG. 1, the adapters 178, 182 of FIG. 4 and/or the traffic detector 188 of FIG. 5.

FIGs. 11 and 12 are two exemplary embodiments of a hub or a switch in accordance with aspects of the present
15 invention. To the hub/switch 450 and the hub/switch 470 of FIGs. 11 and 12, a number of USB, FireWire and/or other types of cables may be connected. These cables may also be connected at the other end to various different computers, peripheral devices, and the like, for exchanging data with
20 one or more other connected devices via the hub/switch 450 or 470.

The hub/switch 460 includes a plurality of detection circuitry/traffic indicators 460, one per cable. However, the hub/switch 470 includes only one detection
25 circuitry/traffic indicator 480. For example, the cables connected to the hub/switch 470 may be coupled in series and/or chained such that only one detection circuitry/traffic indicator may be sufficient. In other embodiments, the number of detection circuitry/traffic
30 indicators may be more than one but less than the total number of connected cables. The detection

circuitry/traffic indicators 460 or 480 may be the same as or similar to the circuitry of FIGs. 2, 3, 6 and/or 10.

It will be appreciated by those of ordinary skill in the art that the invention can be embodied in other
5 specific forms without departing from the spirit or essential character thereof. The present description is therefore considered in all respects to be illustrative and not restrictive, the scope of the invention to be determined by the appended claims and their equivalents.

Claims:

1. A cable capable of providing a visual indication of traffic, said cable comprising:

one or more wires; and

5 at least one connector connected to the wires, said connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the
10 visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire, said at least one said wire carrying a data
15 signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry drives the transistor responsive to the data signal to generate the
20 detection signal, which is used to drive the traffic indicator.

2. The cable of claim 1, wherein said cable is selected from a group consisting of USB, FireWire, COM, LPT
25 and SCSI cables.

3. The cable of claim 1, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp,
30 a translucent connector end and a translucent wire covering.

4. The cable of claim 1, wherein at least one of the wires carries power, and the traffic indicator receives power from said at least one of the wires that carries power.

5

5. The cable of claim 1, wherein the driving circuitry comprises a diode.

6. The cable of claim 1, wherein the driving
10 circuitry comprises:

a driving transistor having a first gate, a second gate and a third gate,

wherein the first gate is coupled to said at least one data signal carrying wire, the second gate is
15 coupled to power and a gate of the transistor, and the third gate is coupled to ground, and

wherein the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the
20 detection signal.

7. The cable of claim 1, wherein the driving circuitry comprises:

first and second driving transistors, each having
25 a first gate, a second gate and a third gate,

wherein for the first driving transistor, the first gate is coupled to said at least one data signal carrying wire, the second gate is coupled to power, and the third gate is coupled to ground,

30 wherein for the second driving transistor, the first gate is coupled to the second gate of the first transistor, the second gate is coupled to power and a gate

of the transistor, and the third gate is coupled to ground,
and

wherein the transistor turns on when the first
driving transistor turns on, and the transistor turns off
5 when the first driving transistor turns off, thereby
generating the detection signal.

8. The cable of claim 1, wherein said at least one
connector comprises an inner casing, an outer casing and a
10 plug, wherein the inner casing at least partially envelopes
the detection circuitry, the outer casing at least
partially envelopes the inner casing, and the plug is
coupled to said one or more wires and the detection
circuitry.

15

9. The cable of claim 8, wherein the inner casing
has an opening formed thereon for allowing light generated
by the traffic indicator to exit the inner casing.

20 10. The cable of claim 8, wherein at least a portion
of at least one of the inner casing and the outer casing is
either transparent or semi-transparent to allow at least a
portion of light generated by the traffic indicator to exit
the connector.

25

11. The cable of claim 1, wherein the driving
circuitry comprises an amplifier for amplifying the data
signal.

30 12. An adapter for a cable having one or more wires
to provide a visual indication of traffic on the cable,
said adapter comprising:

a first plug for interfacing with the cable;
a second plug for interfacing between the first
plug and an electronic device; and

detection circuitry capable of detecting the
5 traffic on the cable and generating a detection signal
responsive to the traffic, and a traffic indicator coupled
to the detection circuitry to provide the visual indication
of the traffic responsive to the detection signal,

said detection circuitry comprising:

10 driving circuitry coupled to at least one
said wire in use, said at least one said wire carrying a
data signal; and

a transistor coupled to the driving
circuitry and the traffic indicator,

15 wherein the driving circuitry in use drives the
transistor responsive to the data signal to generate the
detection signal, which is used to drive the traffic
indicator.

20 13. The adapter of claim 12, wherein said adapter is
capable of interfacing with a cable selected from a group
consisting of USB, FireWire, COM, LPT and SCSI cables.

25 14. The adapter of claim 12, wherein the traffic
indicator comprises one selected from a group consisting of
a light emitting diode (LED), an electro-luminescent lamp,
a translucent connector end and a translucent wire
covering.

30 15. The adapter of claim 12, wherein at least one of
the wires carries power, and the traffic indicator in use

receives power from said at least one wire that carries power.

16. The adapter of claim 15, wherein the driving
5 circuitry comprises a diode.

17. The adapter of claim 15, wherein the driving circuitry comprises:

a driving transistor having a first gate, a
10 second gate and a third gate,

wherein, in use, the first gate is coupled to said at least one data signal carrying wire, the second gate is coupled to power and a gate of the transistor, and the third gate is coupled to ground, and

15 wherein, in use, the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the detection signal.

20 18. The adapter of claim 15, wherein the driving circuitry comprises:

first and second driving transistors, each having a first gate, a second gate and a third gate,

25 wherein, in use, for the first driving transistor, the first gate is coupled to said at least one data signal carrying wire, the second gate is coupled to power, and the third gate is coupled to ground,

30 wherein, in use, for the second driving transistor, the first gate is coupled to the second gate of the first transistor, the second gate is coupled to power and a gate of the transistor, and the third gate is coupled to ground, and

wherein, in use, the transistor turns on when the first driving transistor turns on, and the transistor turns off when the first driving transistor turns off, thereby generating the detection signal.

5

19. The adapter of claim 12, wherein the driving circuitry comprises an amplifier for amplifying the data signal.

10

20. A traffic detector that can detect traffic in a cable having one or more wires for connecting a computer to a peripheral device, said traffic detector comprising:

15

detection circuitry capable of detecting electromagnetic radiation generated by the traffic in at least one of the wires, and of generating a detection signal in response; and

a traffic indicator capable of receiving the detection signal, and of providing a visual indication of the traffic responsive to the detection signal.

20

21. The traffic detector of claim 20, wherein said cable is selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

25

22. The traffic detector of claim 20, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electroluminescent lamp, a translucent connector end and a translucent wire covering.

30

23. The traffic detector of claim 20, wherein at least one of the wires carries data, and the detection

circuitry detects traffic through monitoring the electromagnetic radiation generated by said at least one wire that carries data.

5 24. The traffic detector of claim 20, wherein said traffic detector comprises a flexible portion that can be wrapped around the cable.

25. A hub/switch capable of providing a visual
10 indication of traffic on at least one cable, said hub/switch comprising:

detection circuitry capable of detecting the traffic on said at least one cable and generating a detection signal responsive to the traffic; and

15 at least one traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one
20 wire of said at least one cable, said at least one wire carrying a data signal; and

a transistor coupled to the driving circuitry and said at least one traffic indicator,

wherein the driving circuitry drives the
25 transistor responsive to the data signal to generate the detection signal, which is used to drive said at least one traffic indicator.

ABSTRACT

A cable capable of providing a visual indication of traffic includes one or more wires and at least one connector connected to the wires. The at least one
5 connector has detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal. The
10 detection circuitry includes driving circuitry coupled to at least one said wire, said at least one said wire carrying a data signal. The detection circuitry also includes a transistor coupled to the driving circuitry and the traffic indicator. The driving circuitry drives the
15 transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator. The at least one connector may have an inner casing for at least partially enveloping the detection circuitry, and an outer casing for at least partially
20 enveloping the inner casing.

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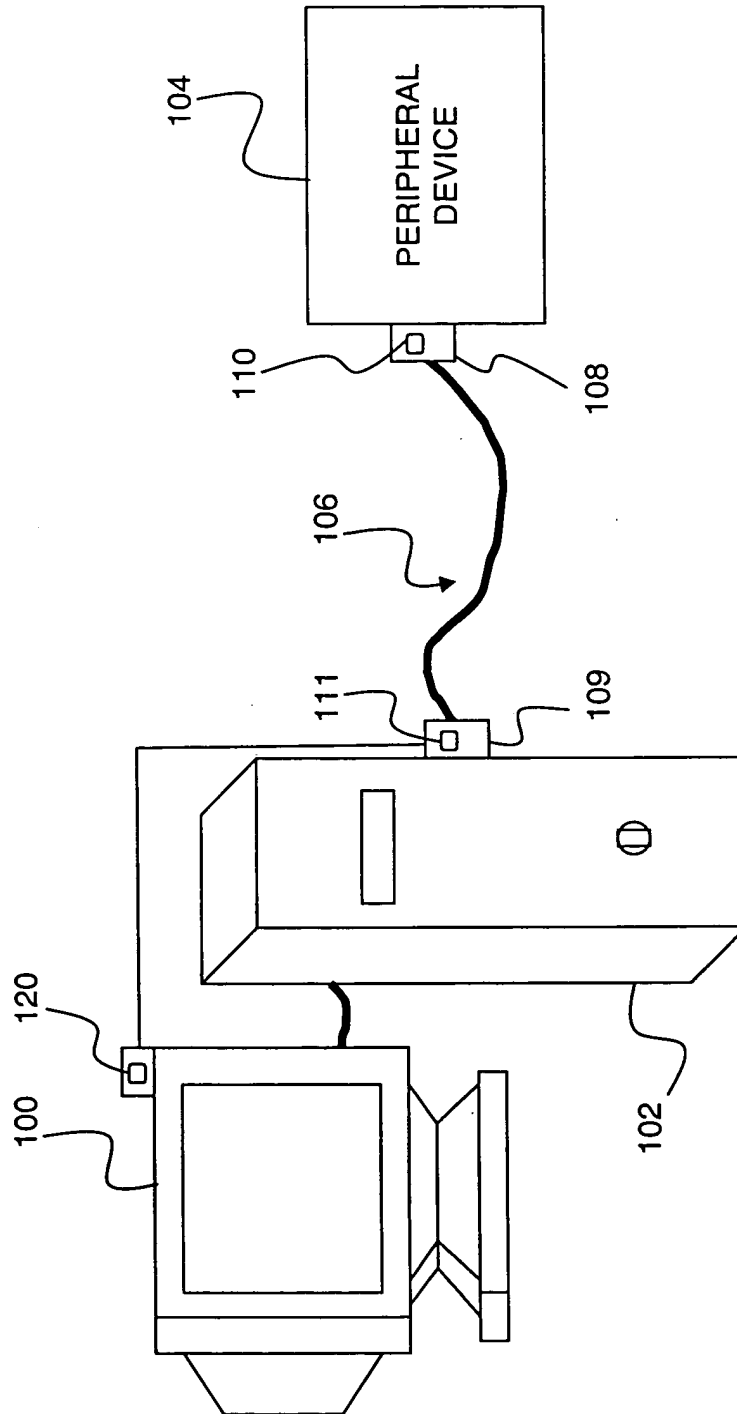


FIG. 1

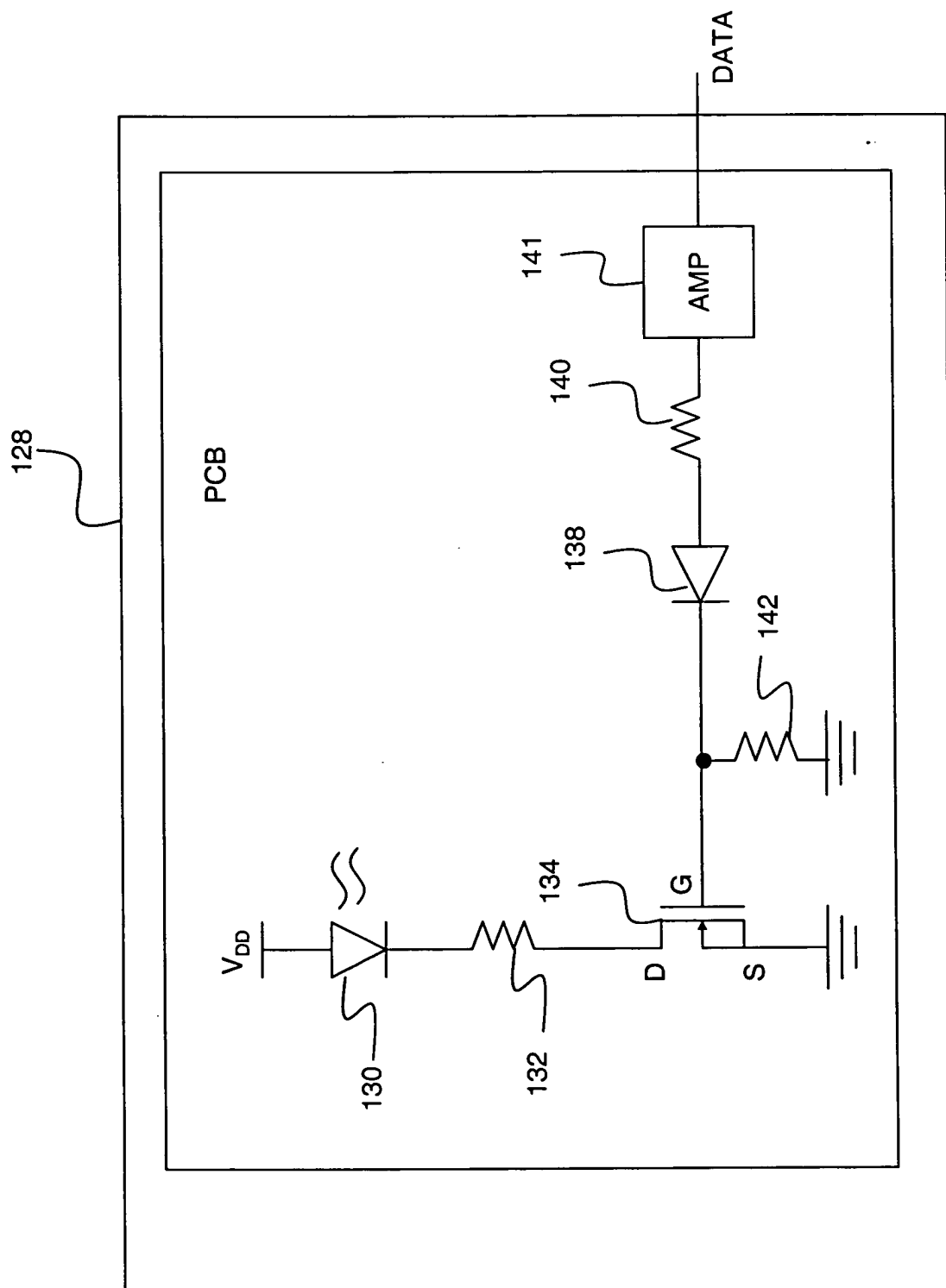


FIG. 2

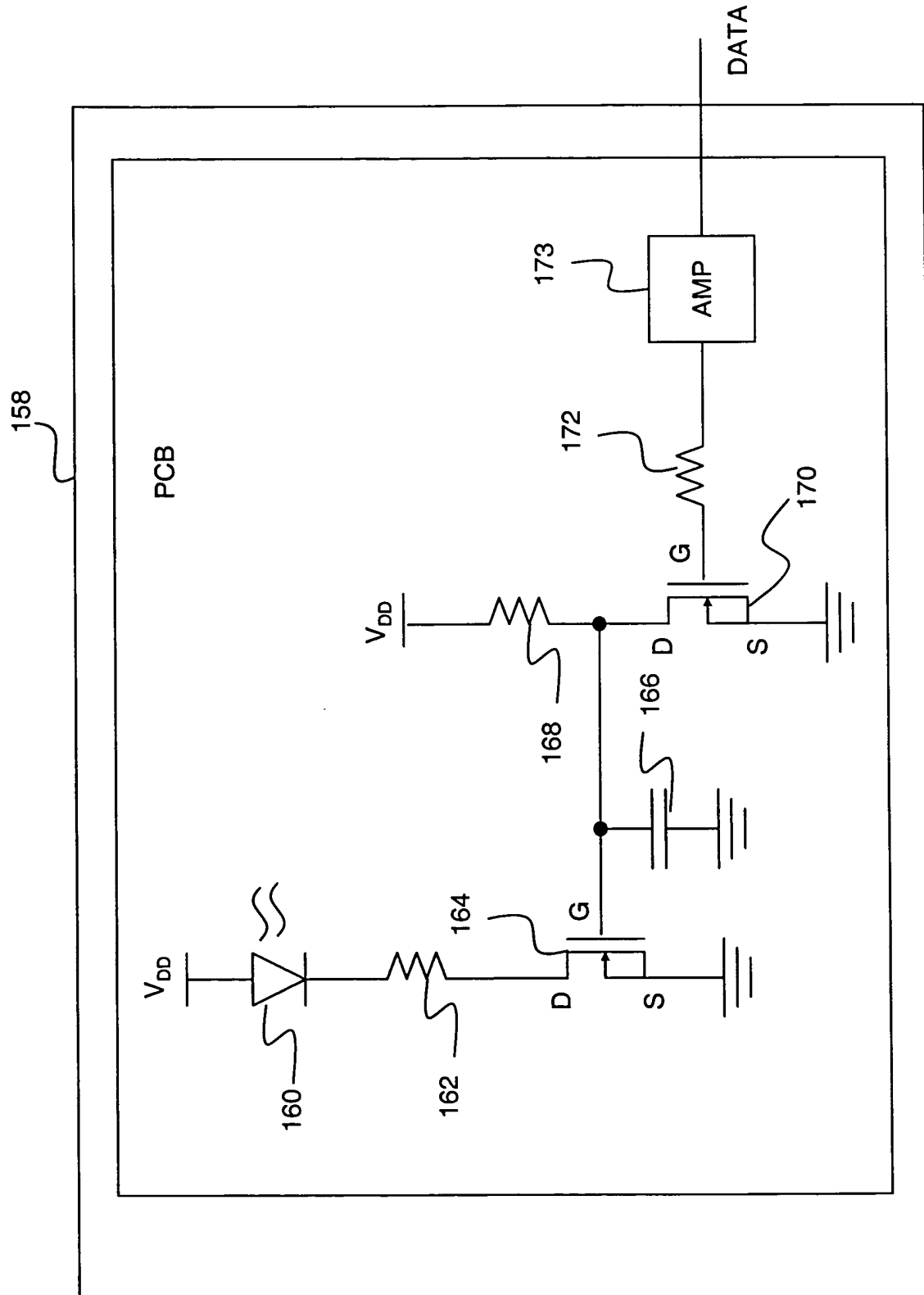


FIG. 3

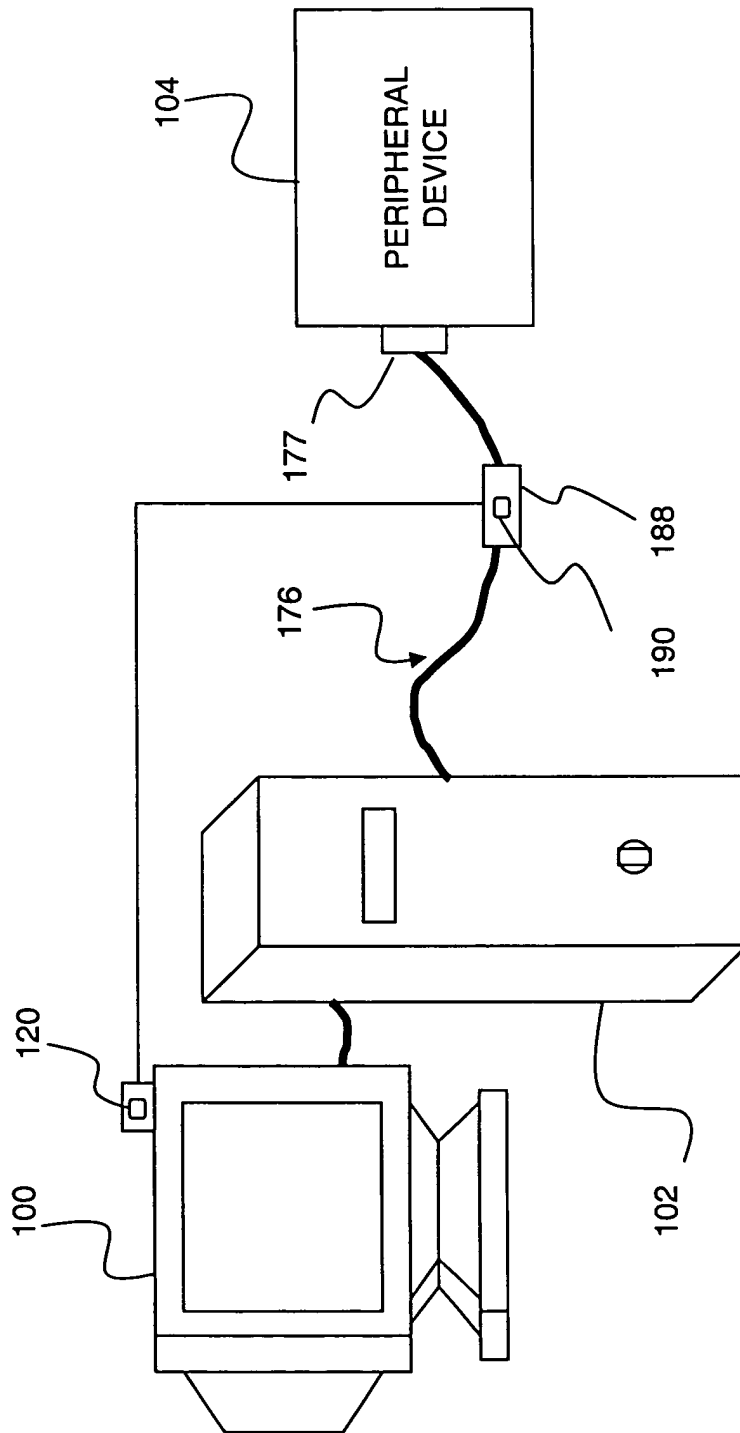


FIG. 5

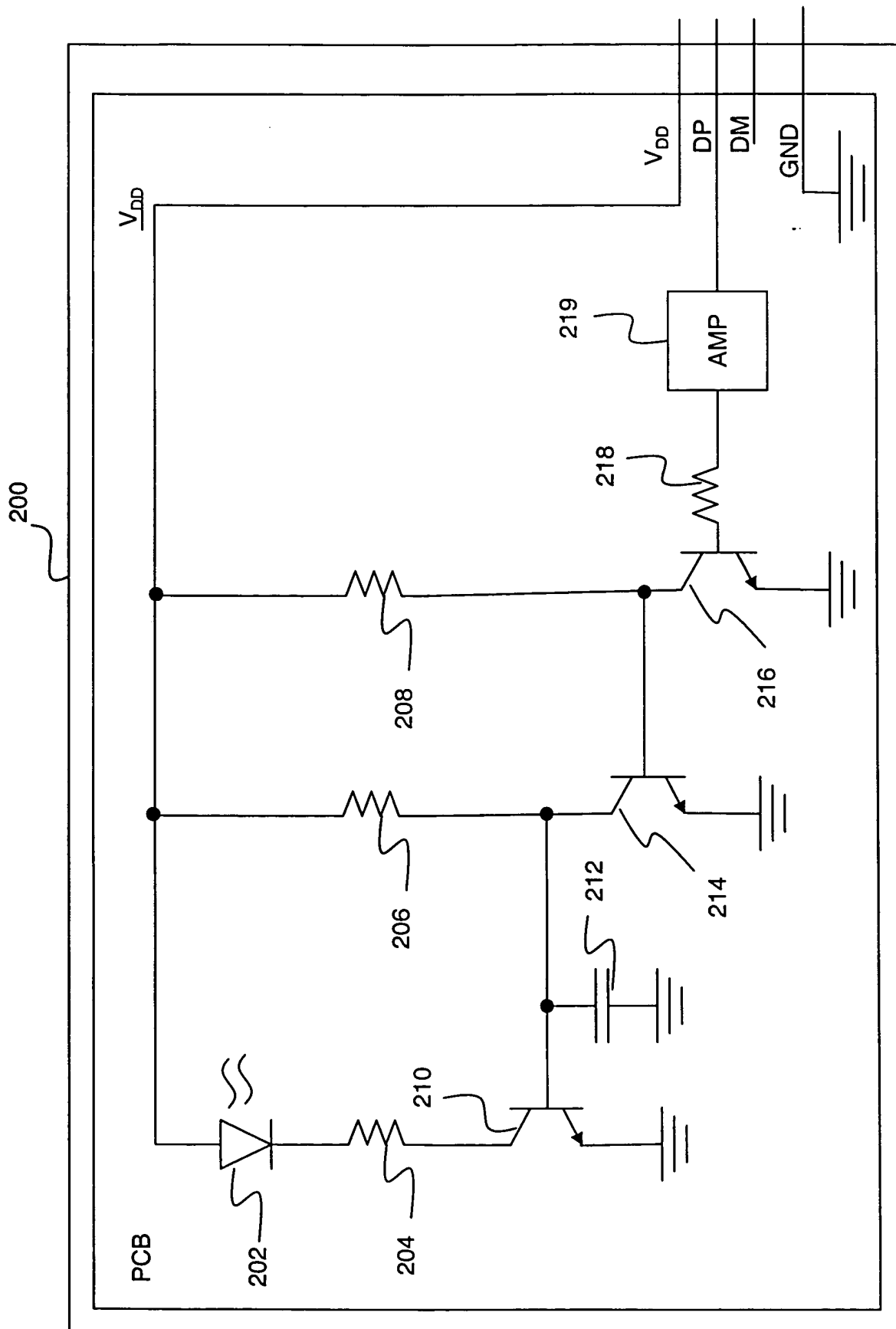


FIG. 6

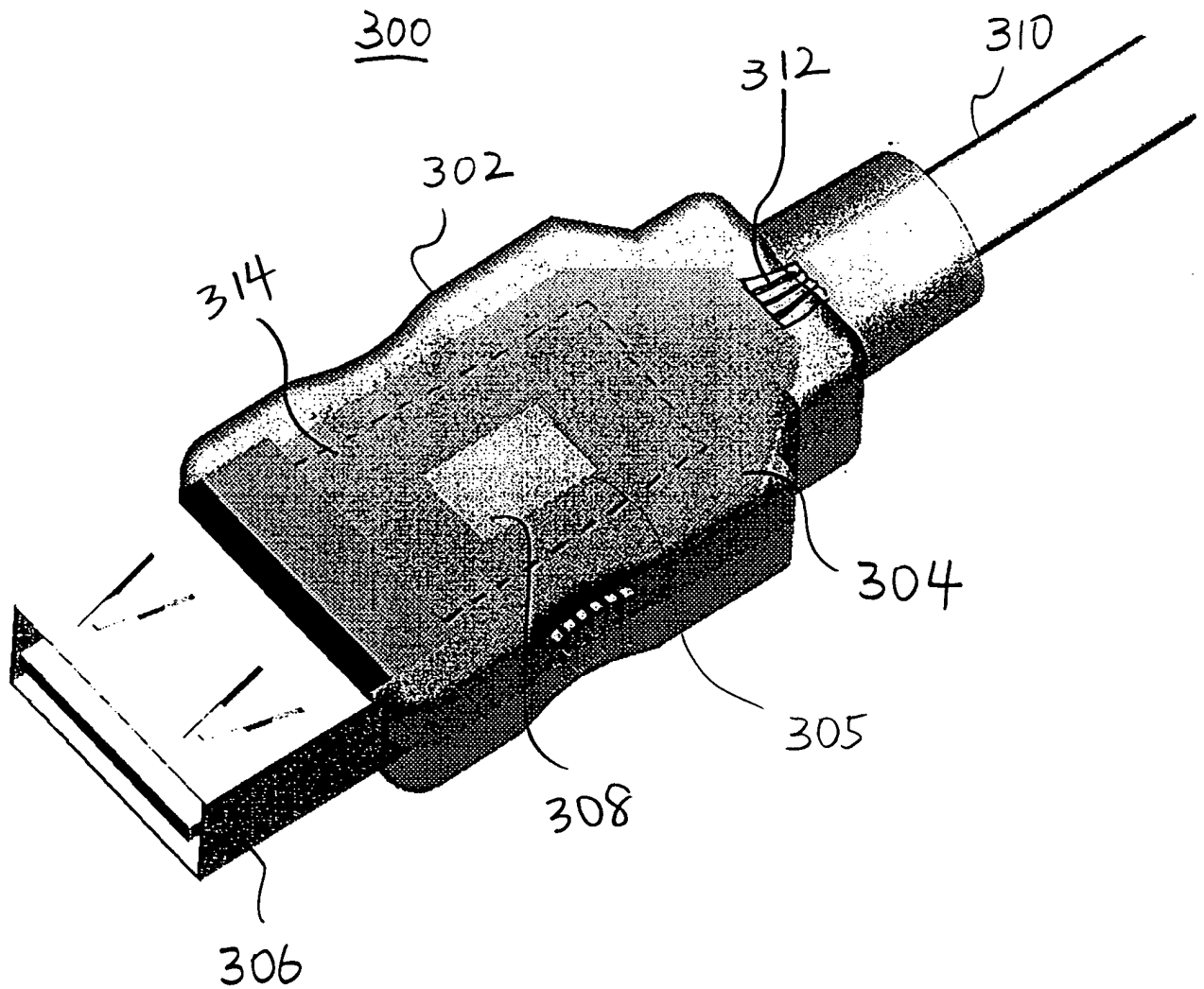


FIG. 7

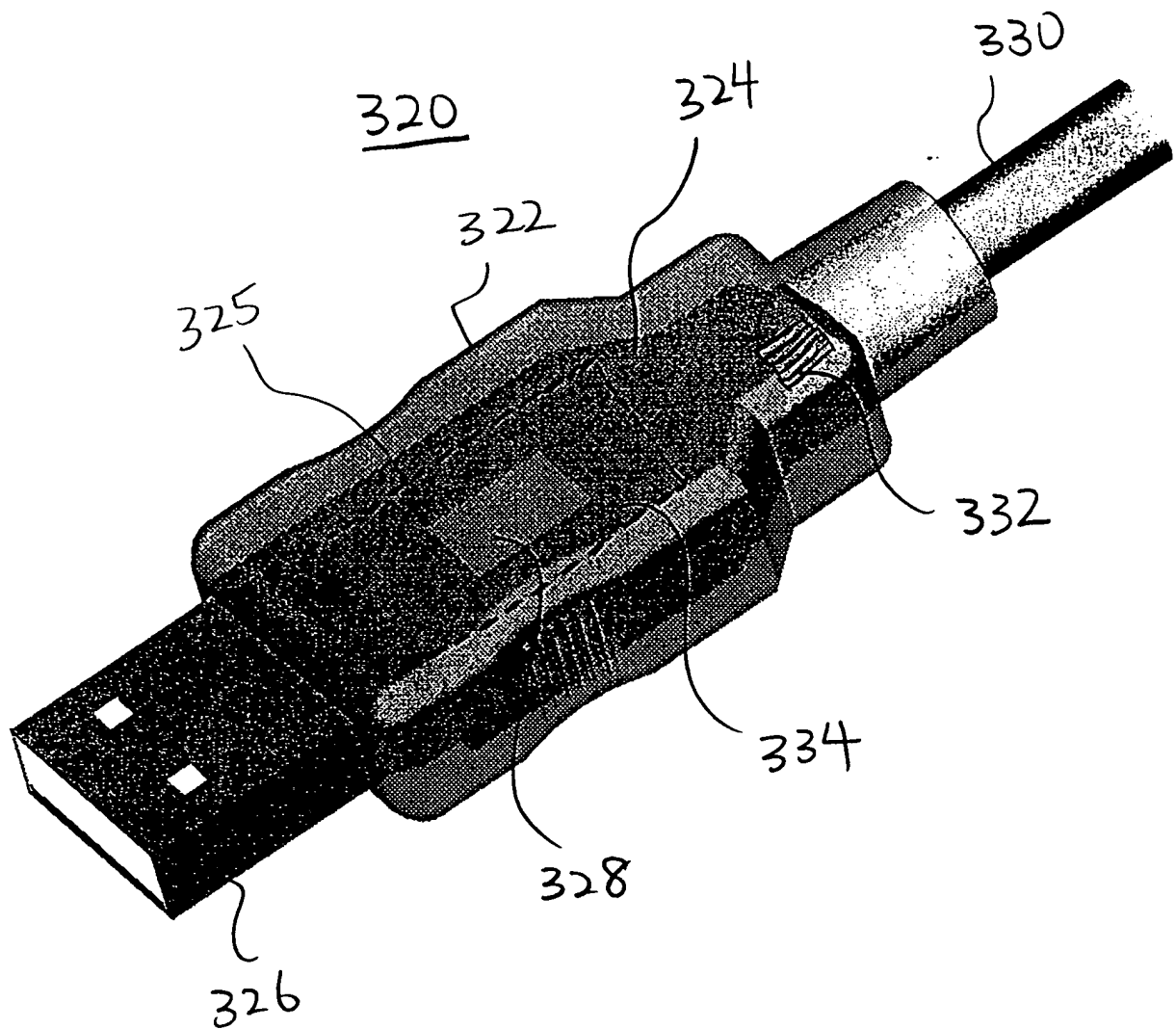


FIG. 8

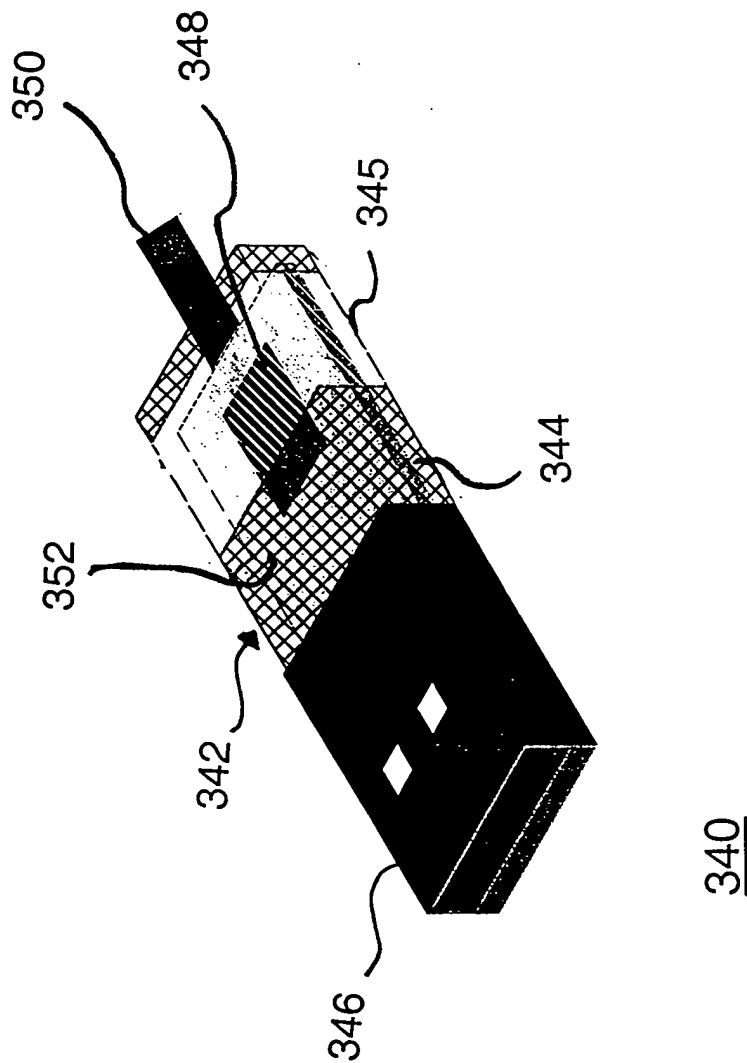


FIG. 9

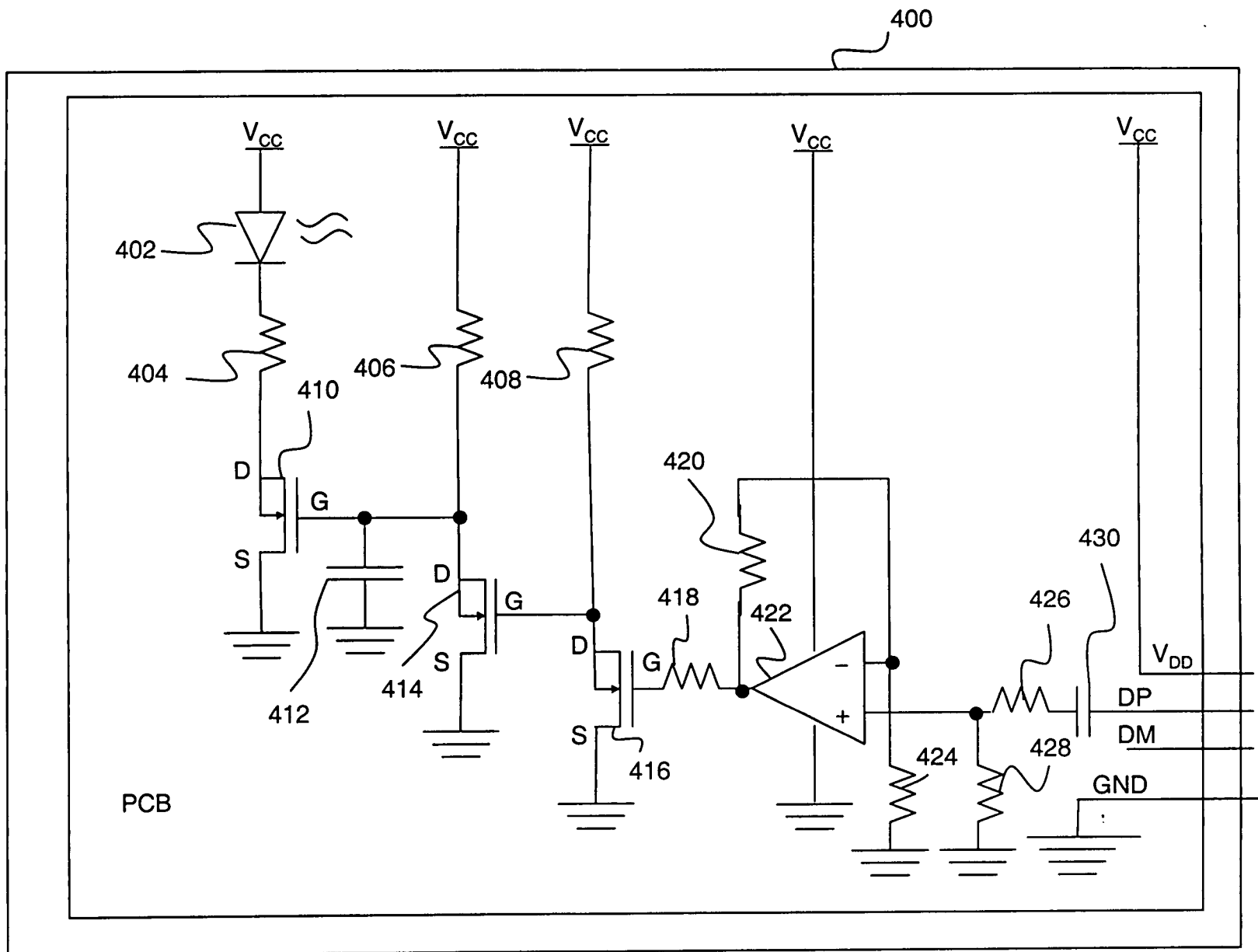


FIG. 10

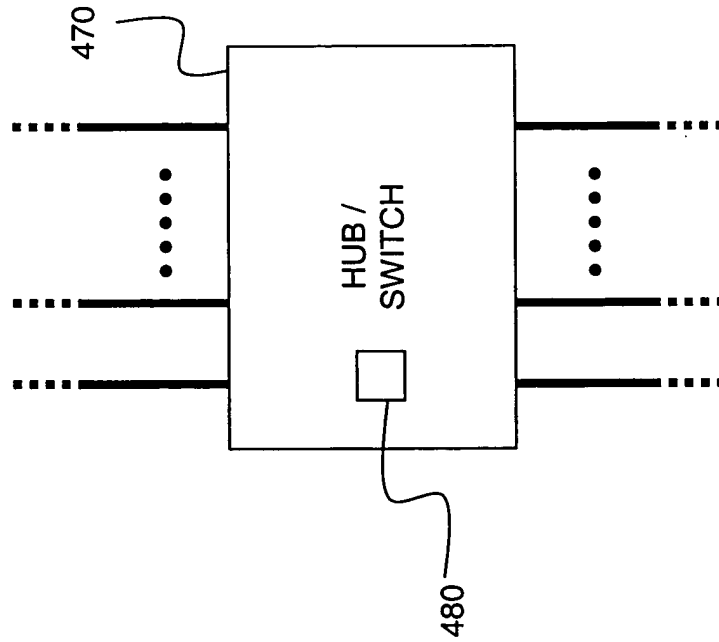


FIG. 12

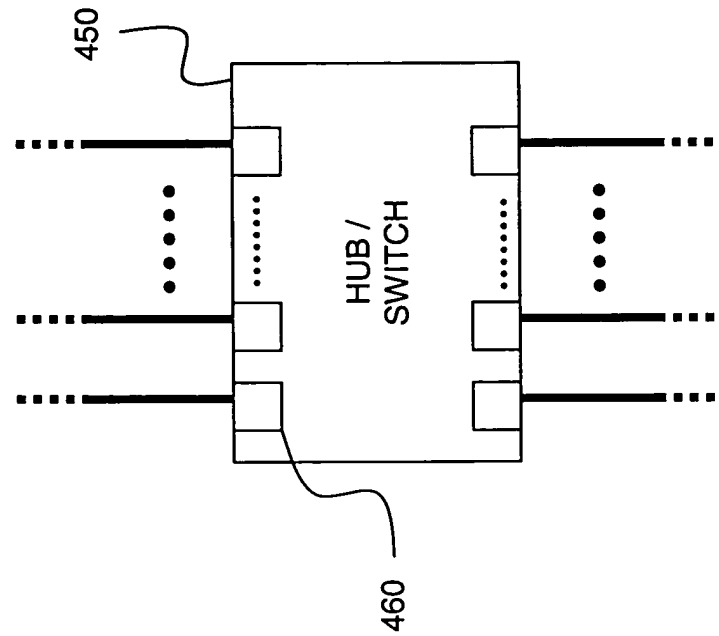


FIG. 11

Docket No. : 50606/TEJ/M930

As a below named inventor, I hereby declare that:

My residence, mailing 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 CABLE TRAFFIC INDICATOR, the specification of which is attached hereto unless the following is checked:

_____ was filed on _____ as United States Application Number or PCT International Application Number and was amended on _____ (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 § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of the 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, any foreign application for patent or inventor's certificate, or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

<u>Application Number</u>	<u>Country</u>	<u>Filing Date (day/month/year)</u>	<u>Priority Claimed</u>
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I hereby claim the benefit under 35 U.S.C. § 119(c) of any United States provisional application(s) listed below.

<u>Application Number</u>	<u>Filing Date</u>
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60/451,833	March 4, 2003
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I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or any PCT International application designating the United States, 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>Application Number</u>	<u>Filing Date</u>	<u>Patented/Pending/Abandoned</u>
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DECLARATION FOR PATENT APPLICATION

Docket No. 50606/JE1/M930

POWER OF ATTORNEY: I hereby appoint the following attorneys and agents of the law firm CHRISTIE, PARKER & HALE, LLP to prosecute this application and any U.S. continuation or divisional application based on it, and to prosecute any international application under the Patent Cooperation Treaty based on it, and to transact all business in the U.S. Patent and Trademark Office connected with either of them in accordance with instructions from the assignee of the entire interest in this application; or from the first or sole inventor named below in the event the application is not assigned; or from ___ in the event the power granted herein is for an application filed on behalf of a foreign attorney or agent.

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I 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				
Craig S. Erickson				
Inventor's Signature 				Date 9-25-03
Residence:	City Stevenson Ranch	State California	Country USA	Citizenship USA
Mailing Address:		25712 Wordsworth Lane, Stevenson Ranch, California 91381		

DECLARATION FOR PATENT APPLICATION

Docket No. 50606/JEJ/M930

NAME OF SECOND INVENTOR				
David Naghi				
Inventor's Signature <i>David Naghi</i>				Date 9-25-03 (2)
Residence:	City Los Angeles	State California	Country USA	Citizenship USA
Mailing Address:		6630 Moore Drive, Los Angeles, California 90048		

NAME OF THIRD INVENTOR				
Herschel Naghi				
Inventor's Signature <i>Herschel Naghi</i>				Date 9-25-03, H.N.
Residence:	City Los Angeles	State California	Country USA	Citizenship USA
Mailing Address:		2160 Century Park East, Apt. #1906, Los Angeles, California 90067		

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PATENT APPLICATION SERIAL NO. _____

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

10/09/2003 HMEKONEN 00000020 10677994

01 FC:2001	385.00	OP
02 FC:2201	43.00	OP
03 FC:2202	45.00	OP

PTO-1556
(5/87)

PATENT APPLICATION FEE DETERMINATION RECORD

Effective October 1, 2003

Application or Docket Number

50606/JEJ/m930

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	24	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	24 minus 20 =	* 4
INDEPENDENT CLAIMS	4 minus 3 =	* 1
MULTIPLE DEPENDENT CLAIM PRESENT ☐		

SMALL ENTITY TYPE ☐

OR

OTHER THAN SMALL ENTITY

RATE	FEE
BASIC FEE	385.00
X\$ 9=	45
X43=	43
+145=	
TOTAL	477

OR

RATE	FEE
BASIC FEE	770.00
X\$18=	
X86=	
+290=	
TOTAL	

* 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 ☐			

SMALL ENTITY OR

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	
+145=	
TOTAL	
ADDITIONAL FEE	

OR

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
TOTAL	
ADDITIONAL FEE	

	(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 ☐			

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	
+145=	
TOTAL	
ADDITIONAL FEE	

OR

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
TOTAL	
ADDITIONAL 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 ☐			

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	
+145=	
TOTAL	
ADDITIONAL FEE	

OR

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
TOTAL	
ADDITIONAL 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.