(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 September 2011 (29.09.2011)

PCT

(10) International Publication Number
WO 2011/120027 A3

(51) **International Patent Classification**:
G01R 31/04 (2006.01)

(21) **International Application Number**:
PCT/US2011/030105

(22) **International Filing Date**:
26 March 2011 (26.03.2011)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
12/732,723 26 March 2010 (26.03.2010) US

(71) **Applicant** *(for all designated States except US)*: **JOHN MEZZALINGUA ASSOCIATES, INC.** [US/US]; Legal Department, 6176 East Molloy Road, East Syracuse, New York 13057 (US).

(72) **Inventor; and**

(75) **Inventor/Applicant** *(for US only)*: **MONTENA, Noah** [US/US]; 124 Buckingham Ave., Syracuse, New York 13210 (US).

(74) **Agents**: **YODER, Stephen, R.** et al.; John Mezzalingua Associates, Inc., 6176 East Molloy Rd, East Syracuse, New York 13057 (US).

(81) **Designated States** *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) **Designated States** *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) **Date of publication of the international search report**:
12 January 2012

(54) **Title**: METHOD FOR DETERMINING ELECTRICAL POWER SIGNAL LEVELS IN A TRANSMISSION SYSTEM

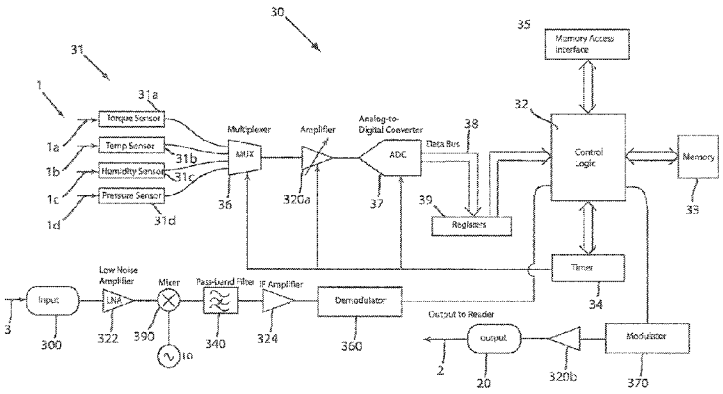


FIG. 4A

(57) **Abstract**: A signal level detection method is provided, the method includes providing a feed line system that includes coaxial cable connectors connected coaxial cable sections. Each coaxial cable connector includes a connector body, a coupling circuit positioned within the connector body, an electrical signal power level detection circuit electrically connected to the coupling circuit and comprised by the connector body, and an output component comprised by the connector body. At least one coupling circuit senses an electrical signal flowing through at least one associated coaxial cable connector. At least one electrical signal power level detection circuit detects a plurality of associated power levels of the electrical signal flowing through at least one associated coaxial cable connector.

WO 2011/120027 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/030105

A. CLASSIFICATION OF SUBJECT MATTER

G01R 31/04(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G01R 31/04; G01R 31/11; G01R 19/00; G01R 27/04; G01R 31/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: "detection, signal, device, emitting, source, feed, line, system, coaxial, cable, connector, coupling, circuit, power, transmission, level"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6646447 B2 (CERN; YEHUDA et al.) 11 November 2003 See abstract, col. 4 line 50 - col.22 line 2, claims 1-7, figures 1-16.	1-42
A	US 2004-0232919 A1 (LACEY GLENN) 25 November 2004 See abstract, page 2 para.27 - page 7 para.10, claims 1-26, figures 1-7.	1-42
A	US 2009-0115427 A1 (RADTKE WILLIAM O. et al.) 07 May 2009 See abstract, page 2 para.17 - page 12 para.118, claims 1-22, figures 1-8.	1-42

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents,such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 NOVEMBER 2011 (15.11.2011)	**23 NOVEMBER 2011 (23.11.2011)**

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 189 Cheongsa-ro,
Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

KIM, Sung Hoon

Telephone No. 82-42-481-8505

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/030105

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6646447 B2	11.11.2003	AU 2001-259563 B2	02.03.2006
		AU 2001-259563 B8	26.10.2006
		AU 2005-299526 A1	04.05.2006
		AU 2005-299526 B2	26.11.2009
		CA 2433604 A1	11.07.2002
		CA 2583382 A1	04.05.2006
		CN 100477539 C	08.04.2009
		CN 101073042 A0	14.11.2007
		CN 101073042 B	18.08.2010
		CN 101505175 A	12.08.2009
		CN 1493111 A	28.04.2004
		EP 1350329 A1	08.10.2003
		EP 1350329 A4	30.03.2005
		EP 1350329 B1	18.10.2006
		EP 1812830 A2	01.08.2007
		JP 2004-517545 A	10.06.2004
		JP 2008-518515 A	29.05.2008
		JP 2011-172259 A	01.09.2011
		KR 10-0755145 B1	04.09.2007
		KR 10-2007-0073748 A	10.07.2007
		US 2002-0027496 A1	07.03.2002
		US 2002-0105413 A1	08.08.2002
		US 2003-0006342 A1	09.01.2003
		US 2003-0160684 A1	28.08.2003
		US 2005-0062589 A1	24.03.2005
		US 6452482 B1	17.09.2002
		US 6897764 B2	24.05.2005
		US 7154382 B2	26.12.2006
		WO 02-054605 A1	11.07.2002
		WO 2006-047440 A2	04.05.2006
US 2004-0232919 A1	25.11.2004	AT 289686 T	15.03.2005
		CA 2450344 A1	19.12.2002
		DE 60203043 D1	31.03.2005
		DE 60203043 T2	16.03.2006
		EP 1395840 A1	10.03.2004
		EP 1395840 B1	23.02.2005
		GB 0114273 D0	01.08.2001
		HK 1063504 A1	24.06.2005
		JP 2004-529370 A	24.09.2004
		WO 02-101401 A1	19.12.2002
US 2009-0115427 A1	07.05.2009	US 07714592 B2	11.05.2010
		US 2009-0289637 A1	26.11.2009