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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 January 2010 (14.01.2010)

PCT

(10) International Publication Number
WO 2010/005758 A3

(51) International Patent Classification:
H01R 13/648 (2006.01) *H01R 24/02* (2006.01)
H01R 12/16 (2006.01)

(21) International Application Number:
PCT/US2009/047787

(22) International Filing Date:
18 June 2009 (18.06.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/169,283 8 July 2008 (08.07.2008) US

(71) Applicant *(for all designated States except US)*: **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3m Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

(72) Inventors: **SCHERER, Richard, J.**; 3m Center, Post Office Box 33427, Saint Paul, 55133-3427 (US). **CASTIGLIONE, Joseph N.,**; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US). **JOSHI, Abhay R.,**; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

(74) Agents: **HARTS, Dean, M.** et al.; 3m Center Office Of, Intellectual Property Counsel, Saint Paul, MN 55133-3427 (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, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,

[Continued on next page]

(54) Title: CARRIER ASSEMBLY AND SYSTEM CONFIGURED TO COMMONLY GROUND A HEADER

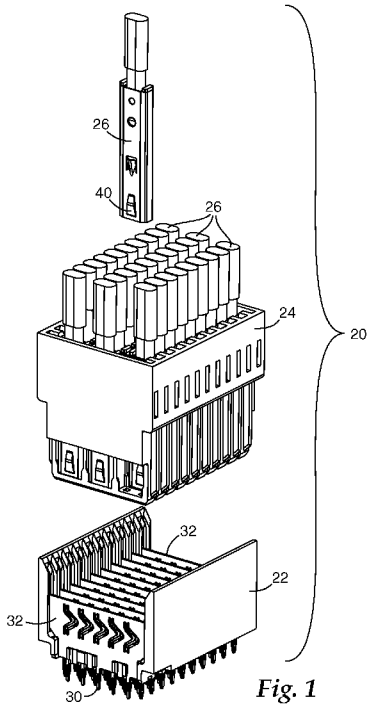


Fig. 1

(57) Abstract: An electrical connector system includes a header and a carrier assembly attachable with the header. The header includes a leading end having a plurality of signal pins that are insertable into an electronic device and a stripline ground plate extending from the leading end toward a mating end. The carrier assembly is coupleable with the mating end of the header and includes a plurality of termination devices. Each termination device includes a cable terminated to a contact that electrically couples with one of the signal pins of the header, an insulator disposed around the contact, and a tubular shield disposed around the insulator. When the carrier assembly is connected to the header, the tubular shield contacts the stripline ground plate to commonly ground each signal pin/contact connection within the electrical connector system.

WO 2010/005758 A3

TM), European (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, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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:
25 March 2010