



(51) International Patent Classification:
G01R 31/3183 (2006.01) **G01R 31/28** (2006.01)

(21) International Application Number:
PCT/US2010/027420

(22) International Filing Date:
16 March 2010 (16.03.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/168,034 9 April 2009 (09.04.2009) US

(71) Applicant (for all designated States except US): **TERADYNE, INC.** [US/US]; 600 Riverpark Drive, NR700-2-3, North Reading, Massachusetts 01864 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **JOHNSON, Gerald, H.** [US/US]; 1464 155th Lane NW, Andover, Minnesota 55304-4564 (US).

(74) Agent: **THOMPSON, ESQ., James F.**; Bainwood, Huang & Associates LLC, Highpoint Center, 2 Connector Road, Westborough, Massachusetts 01581 (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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, 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, 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))

(88) Date of publication of the international search report:
13 January 2011

(54) Title: AUTOMATED TEST EQUIPMENT EMPLOYING TEST SIGNAL TRANSMISSION CHANNEL WITH EMBEDDED SERIES ISOLATION RESISTORS

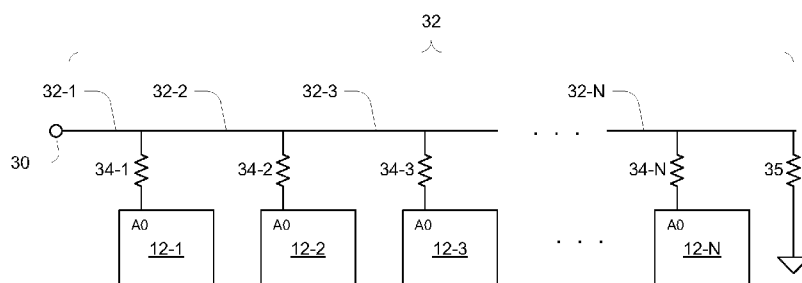


Fig. 3

(57) Abstract: Automated test equipment for high-speed testing of devices under test (DUTs) includes a tester channel circuit generating a high-speed electrical test signal applied to the signal input terminal of each DUT, and a contactor board in physical and electrical contact with the DUTs. The contactor board has a high-speed signal transmission channel including (1) an electrical contact at which the high-speed electrical test signal is received, (2) conductive etch extending from the electrical contact to isolation areas each adjacent to the signal input terminal of a respective DUT, and (3) an embedded series isolation resistor formed on an inner layer of the contactor board at a respective isolation area forming a connection between the conductive etch and the adjacent signal input terminal of the respective DUT.

