



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H02H 3/00	A1	(11) International Publication Number: WO 99/63635
		(43) International Publication Date: 9 December 1999 (09.12.99)

(21) International Application Number: PCT/US99/12460

(22) International Filing Date: 4 June 1999 (04.06.99)

(30) Priority Data:
09/092,030 5 June 1998 (05.06.98) US

(71) Applicant: GENERAL ELECTRIC COMPANY [US/US]; 1 River Road, Schenectady, NY 12345 (US).

(72) Inventor: POZZUOLI, Marzio; 266 Mathewson Street, Maple, Ontario L6A 1B4 (CA).

(74) Agent: KAUFMAN, Marc, S.; Sixbey, Friedman, Leedom & Ferguson, PC, Suite 800, 8180 Greensboro Drive, McLean, VA 22102 (US).

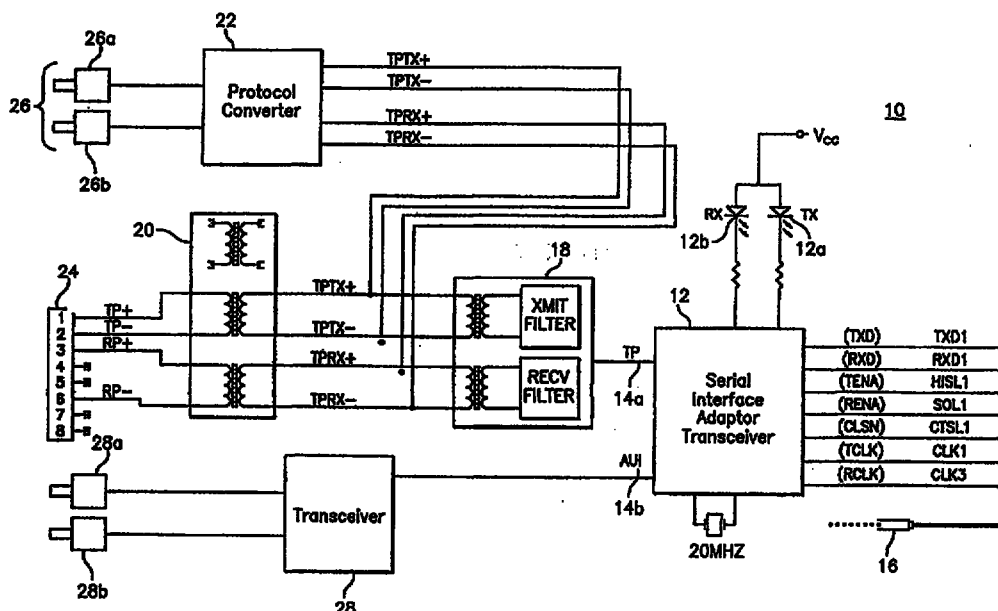
(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: REDUNDANT COMMUNICATIONS IN A PROTECTIVE RELAY



(57) Abstract

A redundant communications scheme for a protective relay (12) which allows high speed, reliable, fault tolerant communications between peer protective devices in a power distribution network. Communication over a selectable primary communication channel (14a) are interrupted and switched to a secondary communication channel (14b), which can operate according to a different communication protocol, when a fault is detected on the primary communication channel. The fault detection and switching is performed transparently to the main protective relay processor (16).