



- (51) **International Patent Classification:**
H04B 3/32 (2006.01) *H04B 3/46* (2006.01)
- (21) **International Application Number:**
PCT/SE2011/050039
- (22) **International Filing Date:**
14 January 2011 (14.01.2011)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (71) **Applicant (for all designated States except US):** TELEFONAKTIEBOLAGET L M ERICSSON (PUBL) [SE/SE]; S-164 83 Stockholm (SE).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** ERIKSSON, Per-Erik [SE/SE]; Skånegatan 67, S-116 37 Stockholm (SE). LU, Chenguang [CN/SE]; Bagarbyvägen 15G, S-191 34 Sollentuna (SE).
- (74) **Agent:** KRANSELL & WENNBORG KB; Box 27834, S-11593 Stockholm (SE).
- (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))

- (54) **Title:** CROSSTALK LIMITATION BETWEEN MODEMS

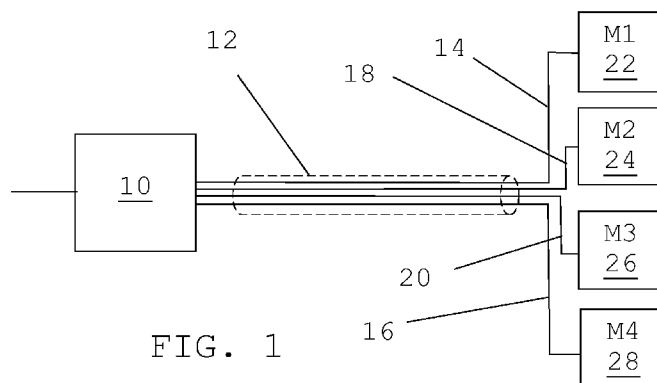


FIG. 1

- (57) **Abstract:** A device (10) for providing access to a data communication network for modems (22, 24, 26, 28) is connected to the modems via a set of communication lines (14, 16, 18, 20). A first group of modems (22, 24, 26) support vectoring, and a second group do not support vectoring. The device investigates the expected value of an element in a synchronisation interval to be received by a modem (28) in the second group, investigates the value of an element of at least one data sequence assigned to the communication line of this modem, compares the values, selects the element of the investigated data sequence for transmission if the element value corresponds to the expected value and transmits the selected element together with corresponding elements of a number of pilot sequences assigned to the first group of modems via the set of communication lines.

