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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number
WO 2005/002242 A2

(51) International Patent Classification[7]: H04Q

(21) International Application Number:
PCT/US2004/013882

(22) International Filing Date: 5 May 2004 (05.05.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/476,753 6 June 2003 (06.06.2003) US
10/736,381 15 December 2003 (15.12.2003) US

(71) Applicant *(for all designated States except US)*: **INTERDIGITAL TECHNOLOGY CORPORATION** [US/US]; 300 Delaware Avenue, Suite 527, Wilmington, Delaware 19801 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **DEMIR, Alpaslan** [TR/US]; 50-04 Fairfiled Way, Commack, New York 11725 (US). **KAZAKEVICH, Leonid** [US/US]; 95 Roundtree Drive, Plainview, New York 11803 (US). **HAQUE, Tanbir** [BD/US]; 24-09 40th Avenue, Long Island City, New York 11101 (US).

(74) Agent: **BALLARINI, Robert, J.**; Volpe and Koenig, P.C., United Plaza, Suite 1600, 30 S. 17th Street, Philadelphia, PA 19103 (US).

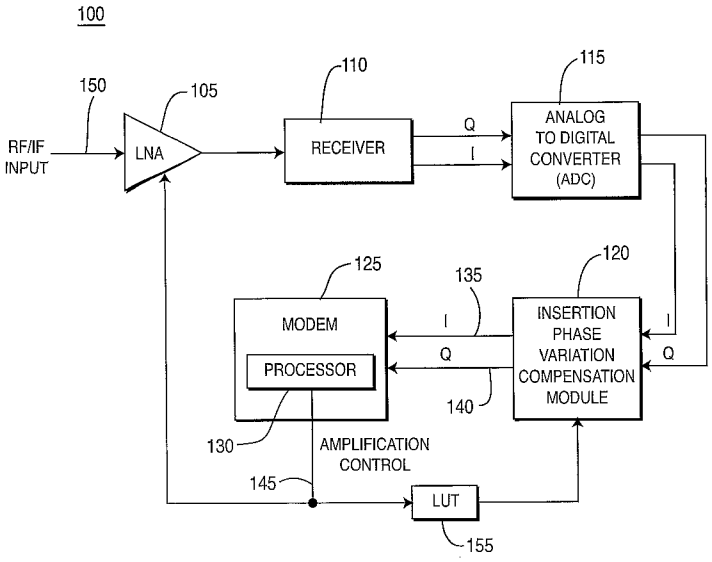
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

[Continued on next page]

(54) **Title:** METHOD AND SYSTEM FOR COMPENSATING FOR PHASE VARIATIONS INTERMITTENTLY INTRODUCED INTO COMMUNICATION SIGNALS BY ENABLING OR DISABLING AN AMPLIFIER



(57) **Abstract:** A communication system including an amplifier, a receiver, an analog to digital converter (ADC) and an insertion phase variation compensation module. The amplifier receives a communication signal. If the amplifier is enabled, the amplifier amplifies the communication signal and outputs the amplified communication signal to the receiver. If the amplifier is disabled, the amplifier passes the communication signal to the receiver without amplifying it. The receiver outputs an analog complex signal to the ADC. The ADC outputs a digital complex signal to the insertion phase variation compensation module which counteracts the effects of a phase offset intermittently introduced into the communication signal when the amplifier is enabled or disabled.

WO 2005/002242 A2

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.