

(19) World Intellectual Property
Organization
International Bureau



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

PCT

(10) International Publication Number
WO 2005/002074 A1

(51) International Patent Classification⁷: **H04B 1/06**,
7/00, H04L 25/10, 27/08

KAZAKEVICH, Leonid [US/US]; 95 Roundtree Drive,
Plainview, NY 11803 (US). **HAQUE, Tanbir** [BD/US];
24-09 40th Avenue, Long Island City, NY 11101 (US).

(21) International Application Number:
PCT/US2004/014100

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

(22) International Filing Date: 6 May 2004 (06.05.2004)

(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.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/476,471 6 June 2003 (06.06.2003) US
10/736,432 15 December 2003 (15.12.2003) US

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

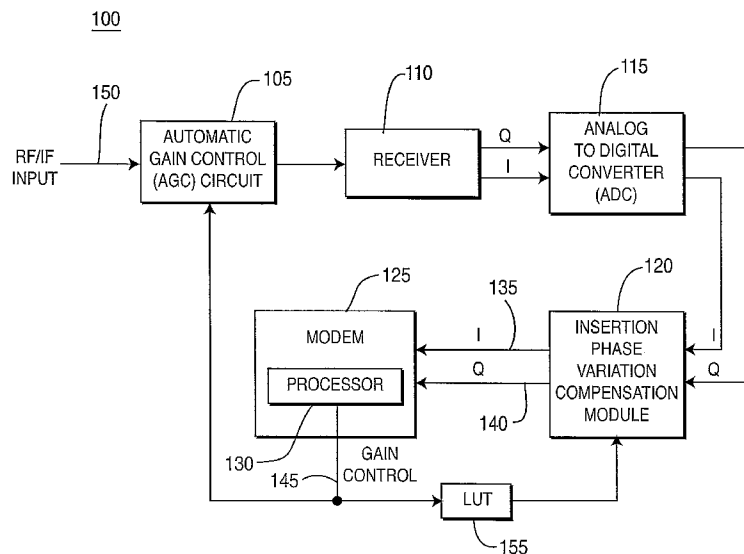
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, 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).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DEMIR, Alpaslan**
[TR/US]; 50-04 Fairfiled Way, Commack, NY 11725 (US).

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR CONTINUOUSLY COMPENSATING FOR PHASE VARIATIONS INTRODUCED INTO A COMMUNICATION SIGNAL BY AUTOMATIC GAIN CONTROL ADJUSTMENTS



(57) Abstract: A communication system (100) including an automatic control (AGC) circuit (105), a receiver (110), an analog to digital (ADC) converter (115) and an insertion phase variation compensation module (120). The AGC circuit receives and amplifies communication signals (150). The gain of the AGC circuit is adjusted. The AGC circuit outputs an amplified signal (145) to the receiver which, in turn, outputs an analog complex signal to the ADC (115). The ADC outputs a digital complex signal to the insertion phase variation compensation module (120) which counteracts the effects of phase offsets introduced into the communication signal due to the continuous gain adjustments associated with the AGC circuit.

WO 2005/002074 A1



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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.