

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
29 December 2005 (29.12.2005)

PCT

(10) International Publication Number  
**WO 2005/125109 A3**

(51) International Patent Classification:  
**H04B 7/212** (2006.01)

(21) International Application Number:  
PCT/US2005/019651

(22) International Filing Date: 3 June 2005 (03.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/578,728 10 June 2004 (10.06.2004) US

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

(72) Inventor; and

(75) Inventor/Applicant (for US only): **TERRY, Stephen, E.** [US/US]; 15 Summit Avenue, Northport, NY 11768 (US).

(74) Agent: **BALLARINI, Robert, J.**; Volpe and Koenig, P.C.,  
United Plaza, Suite 1600, 30 South 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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, 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, IS, IT, LT, 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).

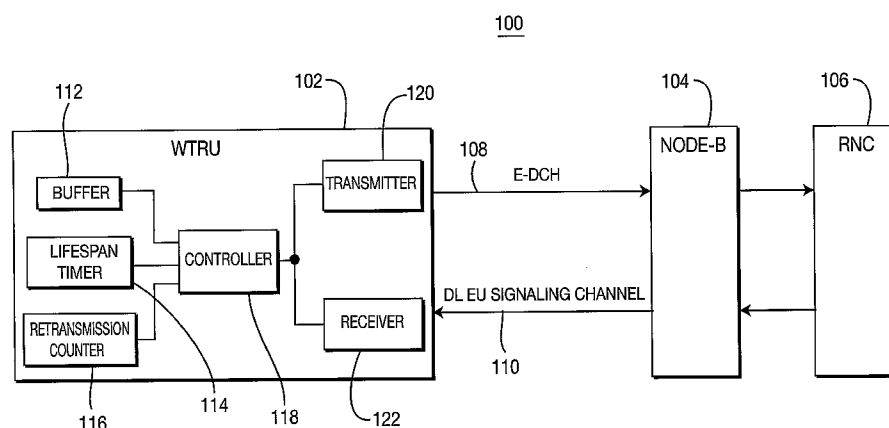
**Published:**

- 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

(88) Date of publication of the international search report:  
3 August 2006

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.

(54) Title: METHOD AND APPARATUS FOR DYNAMICALLY ADJUSTING DATA TRANSMISSION PARAMETERS AND CONTROLLING H-ARQ PROCESSES



(57) Abstract: In a wireless communication system including a wireless transmit/receive unit (WTRU) (102) which transfers data to a Node-B (104), data transmission parameters such as modulation and coding (MCS) and transport block set (TBS) size are dynamically adjusted on a transmission time interval (TTI) basis, and hybrid-automatic repeat request (H-ARQ) processes used to control the transfer of data between the WTRU (102) and the Node-B (104) are initiated and released, as required. The WTRU (102) transmits and retransmits data to the Node-B (104) through an enhanced uplink (EU) dedicated channel (E-DCH) (108) in accordance with data feedback information received from the Node-B (104). The WTRU (102) queues data for transmission, and determines a transmission status of the data. The transmission status is set to one of "new transmission," "successful transmission," "retransmission" and "restarted transmission." For each TTI, the WTRU (102) initiates an EU transmission to the Node-B (104), which identifies the assigned H-ARQ process, TBS size and MCS.

WO 2005/125109 A3