

(19) World Intellectual Property Organization
International Bureau



PCT



(43) International Publication Date
24 December 2008 (24.12.2008)

(10) International Publication Number
WO 2008/157523 A3

(51) International Patent Classification:
H04L 1/18 (2006.01)

(74) Agents: VAAS, Randall S., et al.; 600 North U.S. Highway 45, Libertyville, Illinois 60048 (US).

(21) International Application Number:
PCT/US2008/067175

(22) International Filing Date: 17 June 2008 (17.06.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/765,921 20 June 2007 (20.06.2007) US

(71) Applicant (for all designated States except US): **MOTOROLA, INC.** [US/US]; 1303 East Algonquin Road, Schaumburg, Illinois 60196 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BLANKENSHIP, Yufei W.**, [CN/US]; 21910 Pine Lake Circle, Kildeer, Illinois 60047 (US). **BLANKENSHIP, T. Keith**, [US/US]; 21910 Pine Lake Circle, Kildeer, Illinois 60047 (US). **CLASSON, Brian K.**, [US/US]; 756 W. Bloomfield Court, Palatine, Illinois 60067 (US). **NIMBALKER, Ajit**, [IN/US]; 1120 E. Algonquin Road, Schaumburg, Illinois 60173 (US).

(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, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, 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

(88) Date of publication of the international search report:
19 February 2009

(54) Title: AN APPARATUS COMPRISING A CIRCULAR BUFFER AND METHOD FOR ASSIGNING REDUNDANCY VERSIONS TO A CIRCULAR BUFFER

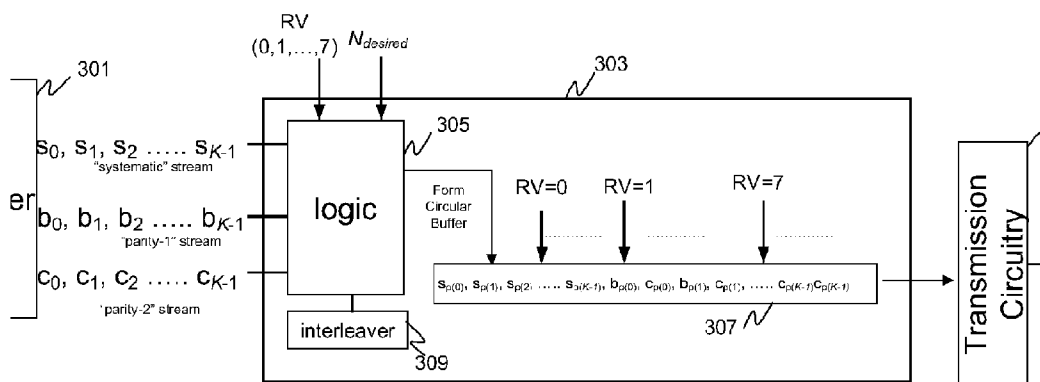


FIG. 3

300

(57) Abstract: During operation of a transmitter a circular buffer is created where only column tops of the circular buffer are defined as a starting position for a redundancy version. Where the circular buffer is in sequence format, all possible redundancy versions are positioned as a function of the column index of the starting position of the first redundancy version.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/067175

A. CLASSIFICATION OF SUBJECT MATTER

INV. H04L1/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MOTOROLA: "Redundancy Version Definition for Circular Buffer Rate Matching, R1-072138" 3GPP TSG RAN 1, 11 May 2007 (2007-05-11), XP002504204 Retrieved from the Internet: URL: http://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_49/Docs/ the whole document	1-20
X	SAMSUNG, QUALCOMM, LGE, ITRI: "Circular buffer rate matching for LTE, R1-072245" 3GPP TSG RAN MEETING 49, 11 May 2007 (2007-05-11), XP002504205 the whole document	1-20

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

17 November 2008

Date of mailing of the international search report

28/11/2008

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Martínez Martínez, V