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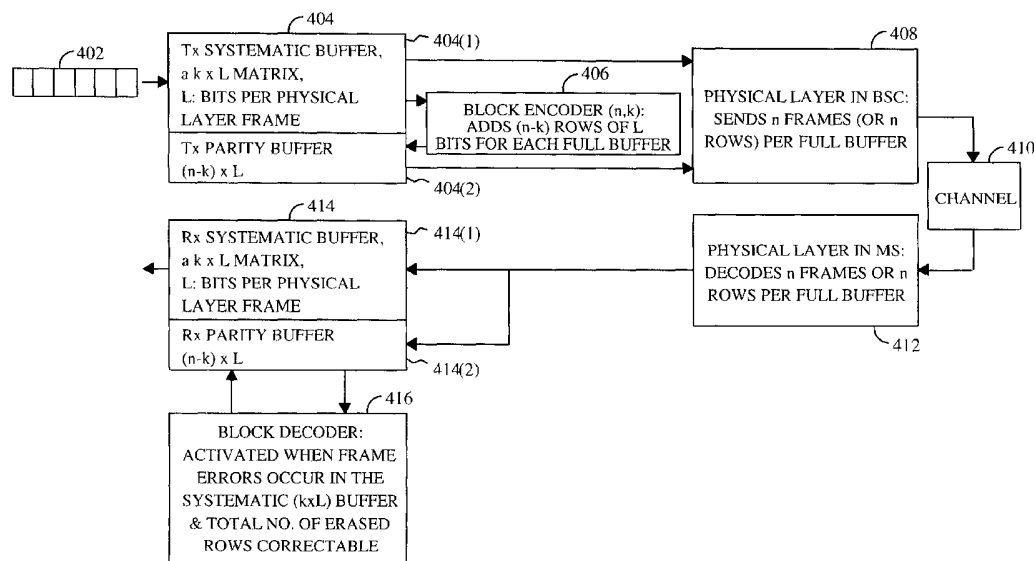
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(54) Title: METHOD AND SYSTEM FOR COMMUNICATING CONTENT ON A BROADCAST SERVICES COMMUNICATION SYSTEM

REED-SOLOMAN OUTER CODE BLOCK DIAGRAM



(57) Abstract: An outer decoder and an inner decoder encode a block of information to be transmitted, to improve protection by adding redundancy. The redundancy permits decoding of the information from less than a complete encoded block of information. Time re-alignment of two transmissions of the same content from two base stations can mitigate the problem of duplicated frames. The user of the subscriber station can experience seamless service without repetition of content, even when handing over to a new cell while receiving a buffer of broadcast content.



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.

INTERNATIONAL SEARCH REPORT

national Application No

PCT/US 03/25623

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04Q7/22

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)
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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.
A	US 5 883 888 A (ST-PIERRE SYLVAIN) 16 March 1999 (1999-03-16) column 5, line 34 - column 7, line 38 -----	1-16
A	US 2001/055969 A1 (DILLON MATTHEW J ET AL) 27 December 2001 (2001-12-27) paragraph '0012! - paragraph '0014! -----	17-39
A	AGASHE P: "CDMA2000 High rate broadcast packet data air interface simulation results" 9 July 2002 (2002-07-09), 3GPP2 TSG-C CDMA200 MEETING, XX, XX, PAGE(S) 9 , XP002273381 the whole document -----	1-35

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

☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5883888	A	16-03-1999	AU 732734 B2	26-04-2001
			AU 5420698 A	29-06-1998
			BR 9714131 A	29-02-2000
			CA 2273955 A1	11-06-1998
			CN 1253700 A	17-05-2000
			EP 0943220 A2	22-09-1999
			JP 2001508606 T	26-06-2001
			WO 9825432 A2	11-06-1998
US 2001055969	A1	27-12-2001	US 6337983 B1	08-01-2002
			EP 1203499 A1	08-05-2002
			WO 0199443 A1	27-12-2001