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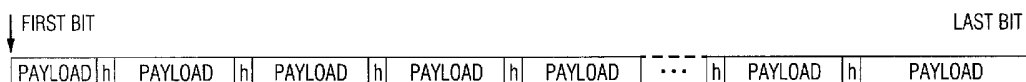
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(54) Title: METHOD AND APPARATUS FOR FORMATTING SIGNALS FOR DIGITAL AUDIO BROADCASTING TRANSMISSION AND RECEPTION



(57) Abstract: A method for digital audio broadcasting comprising the steps of receiving a plurality of data bits (12, 14 and 16 fig. 1) to be transmitted, formatting the plurality of data bits into a plurality of protocol data units (fig. 14), inserting header bits (h) at spaced locations within the protocol data units, and using the protocol data units to modulate a plurality of carriers to produce an output signal. The individual header bits (h) can be positioned at evenly spaced locations in the protocol data units (PAYLOAD). A first one of the header bits can be offset from an end of the protocol data unit. A method of receiving the digital audio broadcasting signal the transmitters and receivers (see fig. 8) that operate in accordance with the methods are also provided.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : HO4L 27/04; HO4B 15/00
 US CL : 275/295, 130
 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)
 U.S. : 275/295, 130, 260; 370/208; 381/2, 3

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 practicable, search terms used)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,188,717 B1 (KAISER et al.) 13 February 2001, see figures 23 and 9a.	1-36
Y	US 6,075,789 A (KASSLIN et al.) 13 June 2000, see figures 1A, 3 and 4A.	1,10,19 and 28
Y	US 6,289,000 B1 (YONGE, III) 11 September 2001, see figures 1,2,4 and 12.	1,10,19 and 28

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	"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
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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INTERNATIONAL SEARCH REPORT

PCT/US03/32917

Continuation of B. FIELDS SEARCHED Item 3:

USPTO WEST; ((digital near3 audio near3 broadcast\$) or (dab)) and (protocol or layer\$) and (interleav\$3) and (ofdm) and (frame\$ or header\$ or packet\$)