

(57) **Abstract:** Upstream information arriving through a user terminal in a satellite link is efficiently scheduled through a modified Demand Assigned Multiple Access (DAMA) algorithm such that data packets arriving at the user terminal are concatenated to form a larger frame for transmission and the concatenated packet is held in a first queue disposed ahead of a second queue, where the data in the second queue cannot be modified (typically a hardware queue), sufficient to allow the second queue to be emptied. In a specific embodiment, all packets arriving at the user terminal since a prior piggyback request are concatenated so that all currently known packets (up to a preselected limit) are accounted for by each succeeding piggyback request. Since it is desirable to concatenate all packets that arrive at the user terminal since the last piggyback request, the piggyback request according to the invention covers all currently known packets (up to the preselected limit) in the user terminal. The held-back packets are released or dumped to the second queue by a trigger operative according to a map, the map being a grant allocation schedule. This mechanism handles instances where the second queue is not able to handle all known packets.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
INV. H04B7/185

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)
H04B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 705 838 A (BROADCOM CORP [US]) 27 September 2006 (2006-09-27) figures 1,6,8 paragraphs [0044], [0066], [0079] - [0090]	1,2,6,7
X	US 2005/265376 A1 (CHAPMAN JOHN T [US] ET AL) 1 December 2005 (2005-12-01) abstract; figures 1-3 paragraphs [0043] - [0061]	1,2,6,7

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Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1705838	A	27-09-2006	NONE
US 2005265376	A1	01-12-2005	NONE