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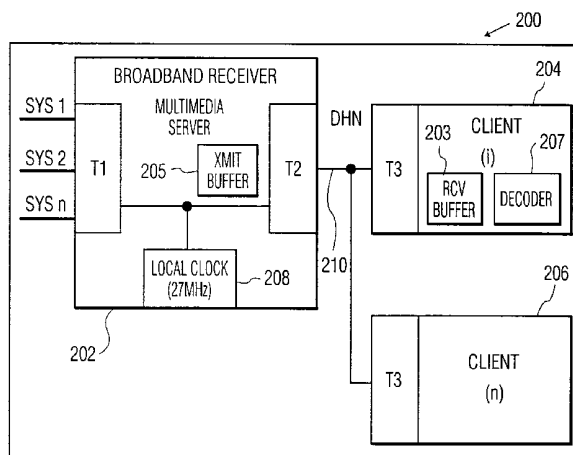
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(54) Title: MULTI-MEDIA JITTER REMOVAL IN AN ASYNCHRONOUS DIGITAL HOME NETWORK



(57) Abstract: A method and an apparatus using a system level clocking scheme to remove jitter from multi-media packets distributed over an asynchronous network, in particular an asynchronous network. The present invention overcomes the problems associated with jitter introduced in an asynchronous network by using various time stamps to synchronize a client device clock to a headend clock and to control the data flow in the client device to match the rate that the data is received by a broadband receiver coupled to the headend. A first time stamp is prepended to the transport packets when the packets are received from the headend. A second time stamp is placed in the data frame when the data frame is placed on the network. A third time stamp is placed in the data frame when the data frame is received from the network. The second and third time stamps are used for synchronizing the client clock to the server clock, which is in turn frequency locked to the headend clock. The first time stamp is used for data flow control wherein the client controls the data flow to correspond to the rate the data is received at the server.



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A. CLASSIFICATION OF SUBJECT MATTER
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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)

IPC 7 H04J

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, PAJ, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BERTOGLIO L ET AL: "Intermedia synchronization for videoconference over IP" SIGNAL PROCESSING. IMAGE COMMUNICATION, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 15, no. 1-2, September 1999 (1999-09), pages 149-164, XP004180642 ISSN: 0923-5965 the whole document	1,9,11, 17
A	US 5 602 992 A (DANNEELS GUNNER) 11 February 1997 (1997-02-11) abstract; figures 2,5-8	1,9,11, 17

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

☒ Patent family members are listed in annex.

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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

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