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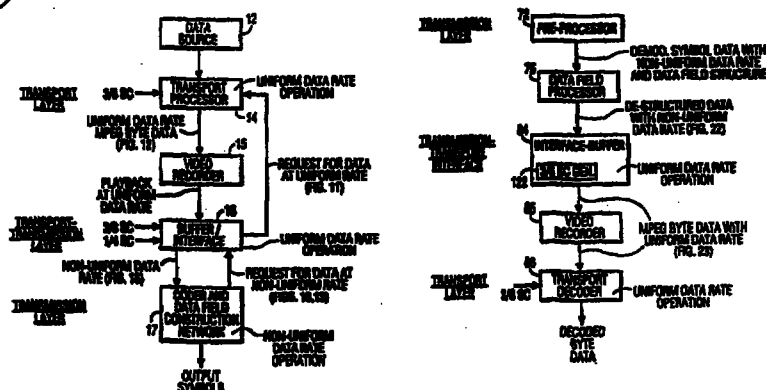
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(54) Title: TRANSPORT PROCESSOR INTERFACE AND VIDEO RECORDER/PLAYBACK APPARATUS FOR A DIGITAL TELEVISION SYSTEM



(57) Abstract

A transmitted high definition television signal is represented by a packetized datastream configured as a sequence of data fields (Fig. 1) with a non-uniform data rate due to unequal inter-data overhead information intervals. Each data field is prefaced by a Field Sync overhead segment followed by 312 packetized data segments each with associated overhead information (FEC). At a transmitter (Fig. 33), a transport processor (14) forms data packets with associated headers and exhibits uninterrupted operation at a constant uniform data rate, while supplying a packetized datastream to a network (17) which constructs sequential data fields by inserting the non-data overhead information into the datastream. The transport processor is advantageously operated at a constant uniform data rate without having to modify the original data field structure to accommodate the needs of the data field construction network. This result is facilitated by transferring data from the transport processor to an associated interface/buffer network (46) in response to a 3/8 symbol clock, in combination with a predetermined buffer fullness level. Specifically, a video recorder/playback device (15) receives a constant uniform data rate packetized datastream from the transport processor, and outputs a constant uniform data rate datastream to the interface/buffer network. A counterpart transport processor/decoder (86) at a receiver (Fig. 34) coacts with a data field processor (75) and similarly exhibits uninterrupted operation at a constant uniform data rate. A video recorder/playback device (85) receives a constant uniform data rate datastream from an interface/buffer (84) after removal of overhead information, and outputs a constant uniform data rate datastream to the transport decoder.