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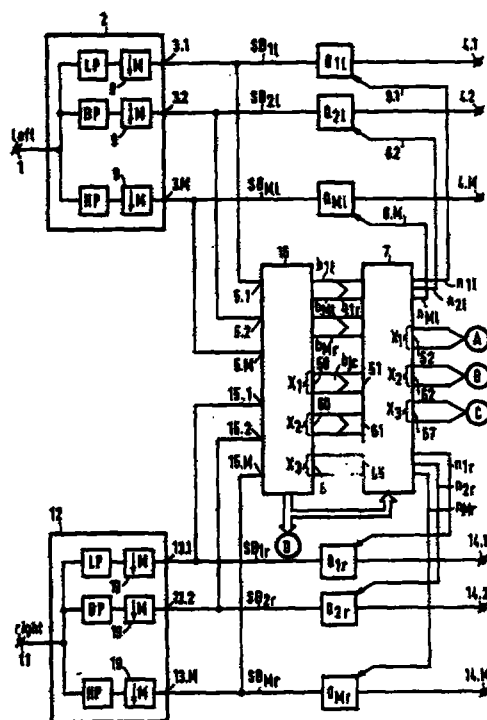
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(54) Title: ENCODING SYSTEM AND ENCODING METHOD FOR ENCODING A DIGITAL SIGNAL HAVING AT LEAST A FIRST AND A SECOND DIGITAL SIGNAL COMPONENT

(57) Abstract

An encoding system and an encoding method for encoding a digital signal having at least a first and a second digital signal component. The encoding system comprises splitter means (2, 12) for dividing the bandwidth of the digital signal components into M successive frequency bands, and generating in response to the digital signal components M sub signals (SB_{m1} , SB_{m2}) for each digital signal component, each sub signal of a signal component being associated with one of the frequency bands (m), bit need determining means (16) for determining bit needs for time equivalent signal blocks of the sub signals, signal combination means (25, 26, 27) for combining, in a number of at least one frequency bands, time equivalent signal blocks of corresponding sub signals of the at least first and second signal component so as to obtain a time equivalent signal block of a composite sub signal in each said at least one frequency bands, quantizing means (Q_{m1} , Q_{m2} , 32.j) for quantizing time equivalent signal blocks of the sub signals in those frequency bands in which no composite sub signal is available and for quantizing the corresponding time equivalent signal blocks of the composite sub signal in said at least one frequency bands in which a composite sub signal is available. Further, bit allocation means (7) are available for deriving the allocation information (n_{m1} , n_{j2}) from bit needs obtained in the bit need determining means and from a value B, where B corresponds to a number of bits in an available bitpool. The bit need determining means (16) is adapted to determine a common bit need b_{mc} for a time equivalent signal block of a composite sub signal SB_{mc} in a frequency band m from the bit needs b_{m1} of the time equivalent signal blocks of the corresponding sub signals of the at least two signal components in that frequency band from which the time equivalent signal block of the composite sub signal has been derived, by taking the common bit need b_{mc} equal to a weighted sum of the bit needs b_{m1} . The encoding system can be a subband encoding system or a transform encoding system.



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