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(54) Title: AUDIO DECORRELATOR, PROCESSING SYSTEM AND METHOD FOR DECORRELATING AN AUDIO SIGNAL

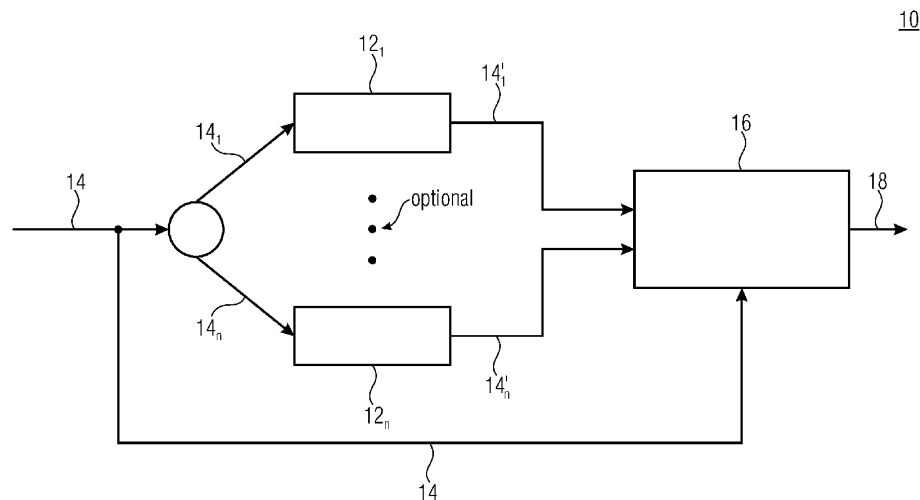


Fig. 1

(57) Abstract: A decorrelator comprises a plurality of delay units, wherein each delay unit is configured for receiving a part of a frequency representation being based on an audio signal, wherein each delay unit is configured for delaying the received part to provide a delayed part. The decorrelator comprises an envelope shaper configured for receiving and combining signals being based on the delayed parts of the frequency representation. The envelope shaper receives the frequency representation of the audio signal and is configured for adjusting an energy of the delayed parts in respect of the frequency representation of the audio signal. The envelope shaper is configured for providing a combined shaped frequency representation. Transient signal portions are handled by an adapted operation of the decorrelator.

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