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[Continued on next page]

(54) Title: WATERMARK SIGNAL PROVISION AND WATERMARK EMBEDDING

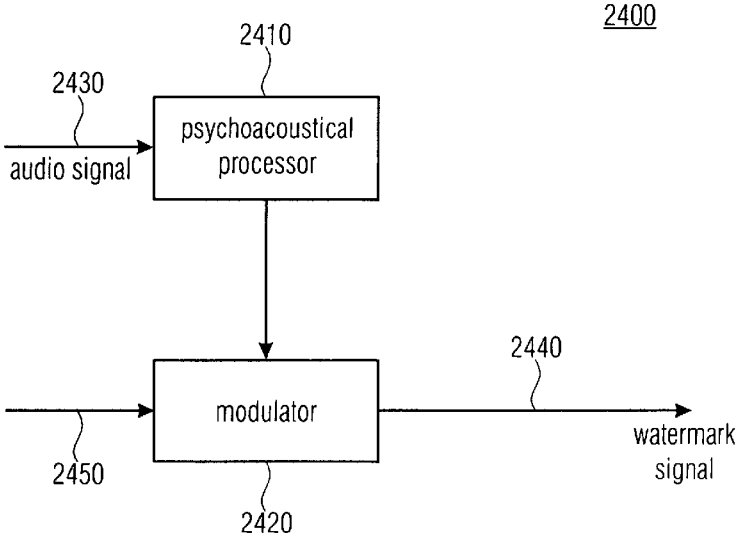

FIGURE 24

(57) Abstract: A watermark signal provider (2400) for providing a watermark signal (2440) suitable for being hidden in an audio signal (2430) when the watermark signal is added to the audio signal, such that the watermark signal represents watermark data (2450), is described. The watermark signal provider comprises a psychoacoustical processor (2410) for determining a masking threshold of the audio signal; and a modulator (2420) for generating the watermark signal from a superposition of sample-shaping functions spaced apart from each other at a sample time interval (T_b) of a time-discrete representation of the watermark data, each sample-shaping function being amplitude-weighted with a respective sample of the time-discrete representation, multiplied by a respective amplitude weight depending on the masking threshold, the modulator being configured such that the sample time interval is shorter than a time extension of the sample-shaping functions; and the respective amplitude weight also depends on samples of the time-discrete representation neighboring the respective sample in time.

WO 2011/104233 A1

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