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(54) **Title**: WATERMARK GENERATOR, WATERMARK DECODER, METHOD FOR PROVIDING A WATERMARK SIGNAL IN DEPENDENCE ON BINARY MESSAGE DATA, METHOD FOR PROVIDING BINARY MESSAGE DATA IN DEPENDENCE ON A WATERMARKED SIGNAL AND COMPUTER PROGRAM USING A TWO-DIMENSIONAL BIT SPREADING

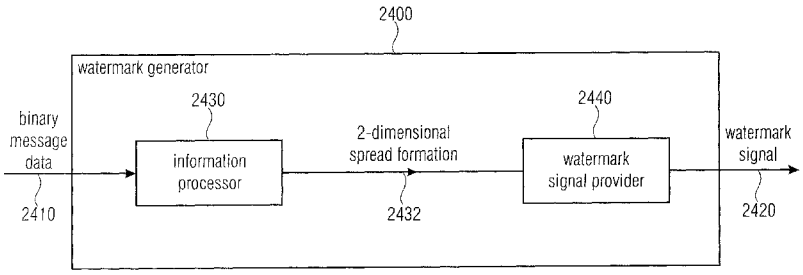

FIGURE 24

(57) **Abstract**: A watermark generator (2400) for providing a watermark signal (2420) in dependence on binary message data (2410) comprises an information processor (2430) configured to provide, in dependence on a single message bit of the binary message data, a 2-dimensional spread information (2432) representing the message bit in the form of a set of time-frequency-domain values. The watermark generator also comprises a watermark signal provider (2440) configured to provide the watermark signal on the basis of the 2-dimensional spread information. A Watermark detector, methods and computer programs are also described.

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