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(54) Title: METHODS AND APPARATUS FOR EMBEDDING CODES IN COMPRESSED AUDIO DATA STREAMS

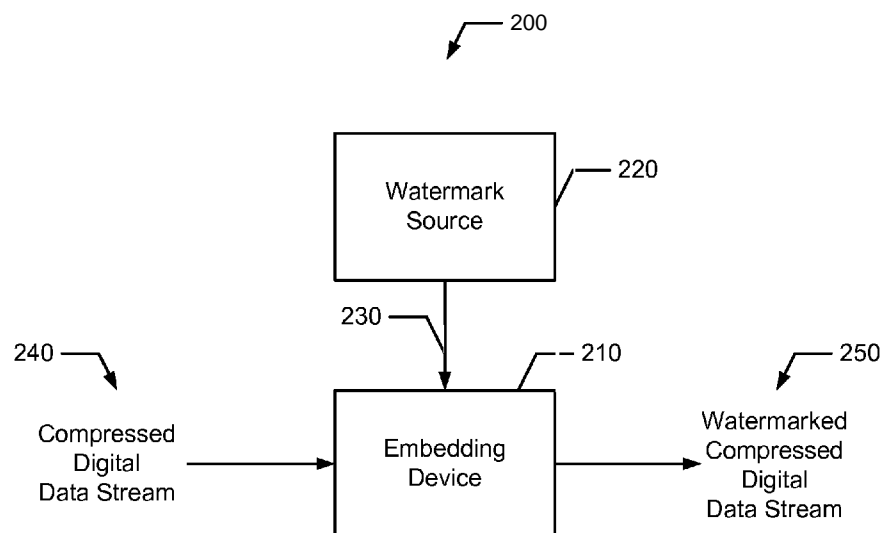


FIG. 2

(57) Abstract: Methods and apparatus for embedding codes in compressed audio data streams are disclosed. An example method to embed a code in a compressed audio data stream disclosed herein comprises obtaining a plurality of transform coefficients comprising the compressed audio data stream, wherein the plurality of transform coefficients is represented by a respective plurality of mantissas and a respective plurality of scale factors, and modifying a mantissa in the plurality of mantissas and a corresponding scale factor in the plurality of scale factors to embed the code in the compressed audio data stream.

WO 2008/045950 A3

## INTERNATIONAL SEARCH REPORT

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**A CLASSIFICATION OF SUBJECT MATTER**

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**B FIELDS SEARCHED**

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
USPC 713/176, 369/47 1, 704/E19 009, 704/E19 01, 700/94, 380/217, 236, 726/26, 705/58 (text search)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST(USPT ,PGPB ,EPAB ,JPAB ,USOCR), DialogWEB(Engineering), Google Search terms WITHOUT DECOMPRESSION  
RECOMPRESSION EMBEDD DIRECTLY SCALE MANTISSA RADIX CODE WATERMARK AUDIO AAC MULTIMEDIA MPEG MP3  
DCT OR MDCT**C DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
Y	US 2002/0006203 A1 (TACHIBANA et al ) 17 January 2002 (17 01 2002), para [0003]-[0008], [0055]-[0090], [01 18]-[0125], [0234]	1-20
Y	EP 1104969 A1 (BOHM) 06 June 2001 (06 06 2001 ), para [0007], [001 1], [0014]-[0020]	1-20
A	US 2004/0258243 A1 (SHIN et al ) 23 December 2004 (23 12 2004), para [0008], [0026]-[0029]	1, 9, 14, 18-20
A	US 7,006,631 B1 (LUTTRELL et al) 28 February 2006 (28 02 2006), col 3, ln 55 ro col 4, ln 20	1, 9, 14, 18-20

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