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

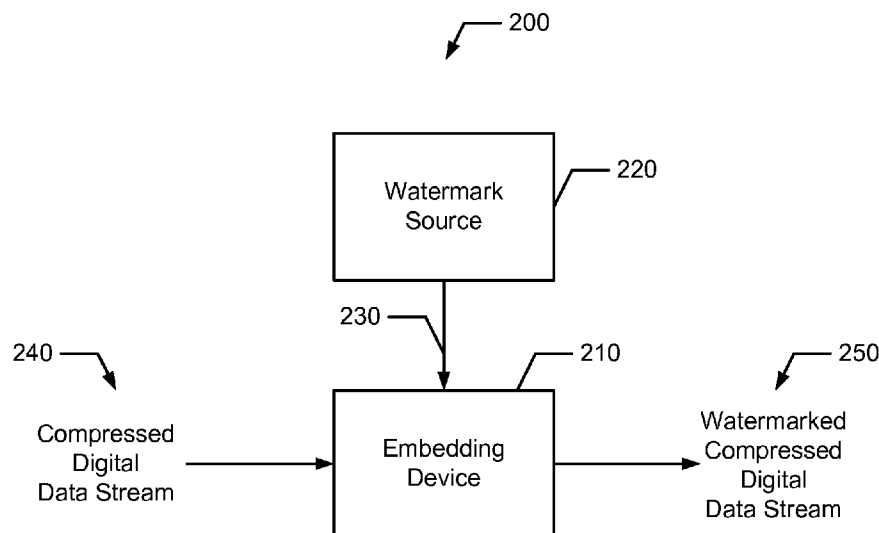


FIG. 2

(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

International application No.

PCT/US 07/80973

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H04L 9/00 (2008.01)

USPC - 713/176

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): H04L 9/00 (2008.01)

USPC: 713/176

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], [0118]-[0125], [0234].	1-20
Y	EP 1104969 A1 (BOHM) 06 June 2001 (06.06.2001), para [0007], [0011], [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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Date of the actual completion of the international search

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