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GB/T 22726-2008

Specification for multichannel digital audio coding technology

多声道数字音频编解码技术规范

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Foreword

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1 Scope

GB/T 22726-2008 is the Chinese national standard on specification for multichannel digital audio coding technology, in the field of information technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 22 December 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2009. Classification: ICS 35.040, CCS L71. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the

classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

41 Table B. 2 critical band. 8000Hz, long window

43 Table B. 3 critical band. 8000Hz, short window

43 Table B. 4 critical band. 11025Hz, long window

43 Table B. 5 critical band. 11025Hz, short window

44 Table B. 6 critical band. 12000Hz, long window

44 Table B. 7 critical band. 12000Hz, short window

44 Table B. 8 critical band. 16000Hz, long window

45 Table B. 9 critical band. 16000Hz, short window

45 Table B. 10 critical band. 22050Hz, long window

45 Table B. 11 critical band. 22050Hz, short window

46 Table B. 12 critical band. 24000Hz, long window

46 Table B. 13 critical band. 24000Hz, short window

46 Table B. 14 critical band. 32000Hz, long window

47 Table B. 15 critical band. 32000Hz, short window

2 Normative references

The terms in the following documents become the terms of this standard by reference to this standard. All dated references, followed by all Modifications (not including errata content) or revisions do not apply to this standard, however, parties to agreements based on this standard are encouraged to study Is it possible to use the latest version of these files? For undated references, the latest edition applies to this standard.

GB/T 17975.1-2000 Information technology - Generic coding of moving pictures and their associated audio signals - Part 1 IEC 13818-1.1996)

GB/T 4880.2-2000 Language name code Part 2. 3-letter code (eqv

ISO 639-2.1998) Information technology - Eight-bit single-byte coded graphic character set - Part 1. Latin alphabet 1 3 terms and definitions, abbreviations The following terms and definitions, abbreviations apply to this standard.

3.1 Terms and definitions

3.1.1 A bit sequence (data) used to represent the original audio signal after encoding.

3.1.2 Enter the PCM (Pulse Code Modulation) sample of the encoder or output decoder.

3.1.3 Includes data such as timecode that are not part of the audio signal itself, but are related to it.

3.1.4 A sequence of bits representing the original audio signal produced by an encoder conforming to this standard.

3.1.5 The total length is 256 samples, but only the window function of MDCT (Improved Cosine Transform) of 160 samples is used.

3.1.6 The human ear's mathematical model of sound resolution can be approximated by a subband filter bank whose bandwidth increases with frequency. The approximate index rises. A subband of this filter bank is called a critical band.

3.1.7 To obtain a matrix calculation of N channels for less than N channels, see Appendix D.

3.1.8 Audio data representing an audio signal of one frame produced by an encoder conforming to this standard. It is the basic form of the code stream that constitutes this standard. Bit. One frame of this standard can cover 128, 256, 512 or 1024 audio samples.

3.1.9 The audio data at the beginning of a frame of this standard, including the sync word and the word describing the characteristics of the audio signal, such as the sampling rate, positive The number of constant channels, the number of LFE (low frequency enhancement) channels, and so on.

3.1.10 A limited bandwidth (< 300 Hz) channel for low frequency sound effects in a multi-channel system.

3.1.11 A window function of MDCT with a length of 2048 samples.

3.1.12 Apply a set of frequency domain coefficients or subband samples generated by a single MDCT. Or, accordingly, enter a new set of audio samples for the MDCT. The MDCT blocks used in this standard contain 128 and 1024 audio samples or sub-band samples, respectively.

3.1.13 Channels other than the low frequency enhancement channel.

3.1.14 A value in quantized step size generated by the quantized subband samples.

4 Overview

4.1 coding The main components of the code are shown in Figure 1 and Table 1. Appendix A gives a more detailed description of some of these technologies.

Note. The solid line represents audio data and the dashed line represents control/auxiliary information. Figure 1 coding principle block diagram Table 1 coding Coding module function Transient detection detects if the input PCM sample contains a transient response Variable