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IEEE Standard for Advanced Audio and Video Coding

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IEEE Standard for Advanced Audio and Video Coding

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Abstract: In this standard, a set of tools for efficient video coding is defined, including directional intra prediction, variable block size inter prediction and context adaptive binary arithmetic coding, and the corresponding decoding procedure. The target applications and services include but not limited TV over Internet, user-generated multimedia content, IP-based video conference, IP-based surveillance, and other video/audio enabled services and applications such as digital television broadcasting, digital storage media, and communication.
Keywords: block, coefficients, decoding, encoding, entropy coding, field, frame, IEEE 1857™, image, Internet Protocol television (IPTV), inter prediction, intra prediction, macroblock, picture, quantization, slice, transform

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Introduction

This introduction is not part of IEEE Std 1857-2013, IEEE Standard for Advanced Audio and Video Coding.

This standard provides regular high-quality and efficient coding tool sets for compression, decompression, and packaging of video data to save storage space or bandwidth for transmission over the Internet.

Contents

IEEE Standard for Advanced Audio and Video Coding

1. Overview

1.1 Scope

This standard defines a set of tools for efficient video coding and the corresponding decoding procedure, including intraprediction, interprediction, transform, quantization, and entropy coding.

1.2 Purpose

This standard provides efficient coding tool sets for compression, decompression, and packaging of the video data to save the storage space and the bandwidth for transmission over the Internet.

The target applications and services include but are not limited to Internet Protocol television (IPTV), IP-based video conference, IP-based surveillance, user-generated multimedia content, and other video/audio-enabled services and applications such as digital television broadcasting, digital storage media, and communication.