
HE-AAC v2 Encoder

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HE-AAC V2 (High Efficiency Advanced Audio Coding Version 2) also known as Enhanced AAC Plus is a popular audio coding technique recommended by MPEG (Moving Picture Experts Group) committee. SBR (Spectral Bandwidth Replication) and PS (Parametric Stereo) are the tools used in combination with the AAC general audio codec resulting in HE-AAC v2 Encoder. It provides significant increase in coding gain. In SBR, the high-band, i.e. the high frequency part of the spectrum is replicated using the low-band. The bit-rate is by far below the bit-rate required when using conventional AAC coding. This translates into better quality at lower bit-rates.

Features Supported

- MPEG2 and MPEG4 AAC LC
- Spectral Band Replication
- Sampling rates
 - AAC Plus Encoding
 - 32kHz,44.1kHz,48kHz
 - Plain AAC Encoding
 - 8,11.025,12,16,22.05,24,32, 44.1, 48, 88.2 and 96kHz
- Supports both Mono & stereo data
- Mid Side Stereo
- Parametric Stereo
- Bit Rates
 - AAC Plus Encoding
 - Stereo audio:32-288kbps
 - Mono audio: 16-144kbps
 - Plain AAC Encoding
 - 8 - 576 kbps/channel
- Bit Stream Formats: ADIF (Audio Data Interchange Format) and ADTS (Audio Data Transport System)
- Average Bit-rate.
- TNS (Temporal Noise Shaping)
- C Callable interface/TI XDM API for encoder
- Efficient scratch memory with reduced stack requirements.

Not Supported

- More than two channels of audio
- IS (Intensity Stereo) Coding
- PNS (Perceptual Noise Substitution)
- MP4 packetization

Encoder Validation

HE-AAC v2 Encoder is an informative standard. There is no standard measure or tool for evaluating the quality /fidelity of the encoder. The encoders produce complex artifacts, which is dependent on the source material. Taking these into consideration, the test bench for the audio coders includes the following types of test.

Features

- Bit Stream Compliance: Tests to ensure that the generated bit-stream is in conformance with the specification.
- Objective Quality Evaluation: Audio Quality test based on the ITU BS.1387 standard for objective audio quality evaluation.
- Subjective Quality Evaluation: Listening tests to evaluate the quality.
- Artifact Listening Tests: Listening tests to ensure that the encoder does not produce the artifacts.

Notice

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