

AAC-LC MC Encoder

AAC-LC Encoder

MPEG-2/4 AAC-LC (Advanced Audio Coding - Low Complexity version) is a popular audio coding technique recommended by MPEG committee. The codec handles audio signals sampled in the range of 8 kHz to 96 kHz. It operates on a frame of 1024 samples. The bit-rate can vary in the range from 8 to 576 kbps/channel (depending on the sampling rate). Low Complexity version of AAC provides good compromise between the codec complexity and the audio quality.

Features Supported

- MPEG2 and MPEG4 AAC LC (Low complexity)
- Encoding a maximum of 7.1 channels and 2 independently switched CCE (for multi-lingual content)
- Sample rates supported
 - 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 88.2 and 96 kHz
- Bit-rates supported 8- 576 kbps/channel
- Bit-streams ADIF (Audio Data Interchange Format), ADTS (Audio Data Transport Stream)
- Creation of Program Configuration Element (PCE)
- Average bit-rate
- Tools: MS (Mid-side Stereo), TNS (Temporal Noise shaping).
- Efficient psycho-acoustic model.
- C Callable interface for encoder
- Efficient scratch memory with reduced stack requirements.
- Optimized for low footprint & processing power.

Not Supported

- IS (Intensity Stereo) Coding
- PNS (Perceptual Noise Substitution)
- MP4 packetization
- Dynamic Range Compression (DRC) signaling.
- Dependently Switched Coupling Channel encoding.

Encoder Validation

AAC-LC 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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