

AAC-LC Encoder

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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)
- Up to two channels
- Sample rates supported
 - 8,11.025,12,16,22.05,24,32, 44.1, 48, 88.2 and 96kHz
- Bit-rates supported 8- 576kbps/channel
- Channels: Mono/Stereo
- Bit-streams ADIF (Audio Data Interchange Format), ADTS (Audio Data Transport Stream)
- Average bit-rate
- Tools: MS (Mid-side Stereo), TNS (Temporal Noise shaping).
- Efficient psycho-acoustic model.
- C Callable interface/TI XDM API for encoder
- Efficient scratch memory with reduced stack requirements.
- Optimized for low footprint & processing power.

Not Supported

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

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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Kane Computing Ltd
7 Theatre Court, London Road,
Northwich, Cheshire, CW9 5HB, UK.
Tel: +44(0)1606 351006
Fax: +44(0)1606 351007/8
Email: sales@kanecomputing.com
Web: www.kanecomputing.co.uk