
HE-AAC Encoder

HE-AAC Encoder

HE-AAC (High Efficiency Advanced Audio Coding) also known as AAC Plus is a popular audio coding technique recommended by MPEG (Moving Picture Experts Group) committee. SBR is a tool used in combination with the AAC general audio codec resulting in aacPlus (also known as HEAAC). 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 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
- 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 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

Ittiam Systems reserves the right to make changes to its products or discontinue any of its products or offerings without notice. Ittiam warrants the performance of its products to the specifications applicable at the time of sale in accordance with Ittiam's standard warranty.



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