Ittiam HE-AAC v2 Decoder

HE-AAC v2 Decoder

AAC is a popular audio coding technique recommended by MPEG committee. SBR and PS are the tools used in combination with the AAC general audio codec resulting in HE-AAC v2 (also known as Enhanced aacPlus). 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. It can be used in several consumer applications, like mobile streaming and download, digital terrestrial, cable & satellite television broadcasting and Internet Video on demand service.

Features

Features supported:

- MPEG2 and MPEG4 AAC LC (Low complexity), SBR, PS
- Supports all sampling frequencies & bit rates for AAC only bit-streams.
- Channels: Mono/Stereo/Dual-Mono
- Performs Low Power SBR Decoding for stereo bit-stream and performs High Quality SBR Decoding for mono or PS bit-stream
- Robust against erroneous bit-streams
- Error concealment mechanism
- Tools Supported
    - TNS (Temporal Noise Shaping),
    - PNS (Perceptual Noise Shaping)
    - Intensity Stereo & Mid/Side Stereo
- Bit-streams: ADIF, ADTS, GA Header
- Compliance: ISO/IEC 13818 - 4, 14496 – 4, 14496 - 3:2001/AMD1, 14496 – 4, 14496 - 3:2001/AMD2
- Performs Low Power SBR Decoding for stereo bit-stream and performs High Quality SBR Decoding for mono or PS bit-stream
- SBR Levels: Level 2 & 3
- For SBR bit-streams supports AAC sampling frequency up to 24/48 kHz (Level 2/3) & SBR sampling frequency up to 48 kHz.
- SBR Signaling: Implicit, hierarchical explicit and backward compatible explicit.
- Supports a simple C callable API / TI XDMI API
- Multi-channel reentrant software.
- Optimized for low footprint and processing power.
- 16 bit WAV Output format support

Features not supported:

- More than 2 channels of audio.
- SBR Level 4 and 5
- Channel Coupling
- DRC

Decoder Validation

The MPEG-4 HE-AAC v2 Decoder implementation has been validated using the latest conformance tool given by MPEG-4.The decoder has also been tested for robustness against bitstream errors and quality based on listening tests.

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