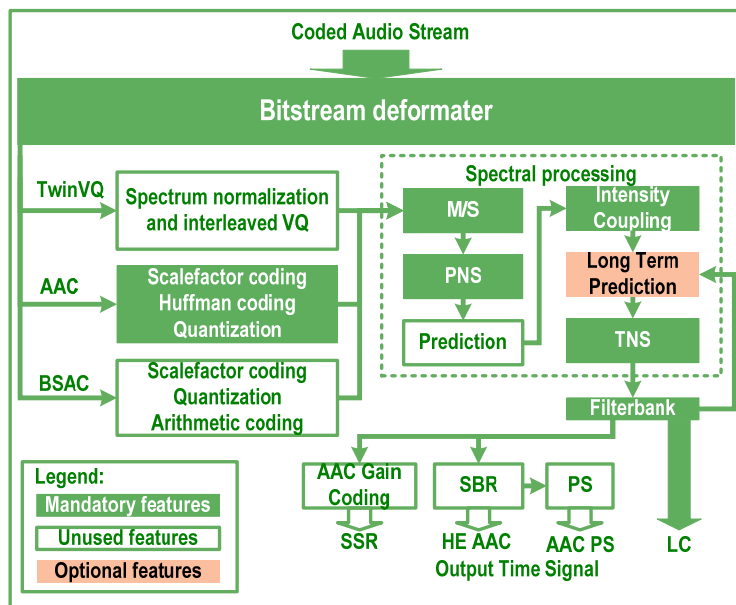


SPIRIT AAC LC Decoder

MPEG-2/MPEG-4 Low Complexity Audio Codec (AAC-LC) is the simplest and most widely used and supported AAC profile. Despite its low computational complexity, AAC LC provides good sound quality at as low as 64 Kbps bitrate. The codec supports a range of sampling rates and bitrates. These features have made AAC LC codec a perfect solution for a variety of applications.

SPIRIT AAC LC Decoder is a highly efficient decoder solution targeted to various embedded appliances. The decoder is optimized to achieve the best performance and save system resources.



Features

- Fully compliant to the ISO MPEG-2/MPEG-4 Low Complexity codec standard
- Low CPU usage and memory footprint
- Sampling rates from 8 to 96 kHz (compared to 48 kHz for MP3)
- Bit rates from 8 Kbps to 576 Kbps for mono and from 16 Kbps to 1152 Kbps for stereo signal
- Support for mono and stereo channels
- TI C6xx version is fully XDAIS-compliant, (including parent/child support for paging tables)
- Code is reentrant, supports multithreading and dynamic memory allocation

Specifications

- Tools supported: TNS, PNS, Joint stereo
- Output channels configuration: 1 or 2 output channels (multichannel output also available)
- Input channels configuration: any number of channels, only 2 first channels decoded. Coupling channels ignored
- All valid AAC bitrates are supported
- Quality > 96 dB PSNR

Benefits

- Highly optimized code ideal for resource constrained applications
- Easy integration and fast time to market
- Allows to save several hours of SoC battery life

Key Features

- Low CPU usage
- Small memory footprint
- Simple API
- Fully compliant to the ISO MPEG standard

Applications

- Mobile phones
- Digital audio players
- Portable media players
- Communicators
- Set-top boxes
- Audio streaming/ Digital radio
- Car electronics
- Internet appliances

Availability

- | | |
|------------|------|
| • TI C6xx | Now |
| • AudioDE | Now |
| • ARM | Call |
| • MIPS | Call |
| • TI OMAP3 | Call |

Resource Requirements

PLATFORM	TI C64xx	ARM9E
Peak MIPS*	5	12
Average MIPS*	4	8.5
Program Memory, KB	30	15.5
Constant Memory, KB	14	11.5
Persistent Memory, KB per channel	4.9	4.7
Scratch Memory, KB	12.0	12.0
Stack, KB	2.0	0.5

PLATFORM	AudioDE Revision 2
Peak MIPS*	12
Average MIPS*	9
Program Memory, KB	22
Y Memory, KB	24
X Memory, KB	15

*MIPS are specified for 48 kHz at 320 kbps.
 MIPS are measured using simulator with 0-WS.
 MIPS figures are specified for PNS and TNS coding tools on

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