



AAC-PLUS V1 (HE-AAC) Decoder on ARM9E

Component name		HE-AACv1 (AAC+) Decoder on ARM9E	
Category (IP/ Reusable)	IP	Component type (HW/SW/product etc)	SW, Audio Codec
HW Platform	ARM-9E	SW Platform /OS	CCS, Linux
Applications / applicable products	Multimedia applications/ products		
Market/ industries applicable	Consumer Electronics		
Product Description	<p>High-Efficiency Advanced Audio Coding (HE-AAC) is a lossy data compression scheme for digital audio. It is an extension of Low Complexity AAC (AAC LC) optimized for low-bitrate applications such as streaming audio. The combination of AAC and SBR is specified in ISO/IEC 14496-3:2001/Amd.1. HE-AACv1 combined with AAC and SBR tool further enhances the compression efficiency in the frequency domain. SBR is a bandwidth extension technique that enables audio codecs to deliver the same listening experience at approximately half the bitrate that the core AAC codec would require, if operated on its own.</p>		
Technical specifications	<p>CPU usage:</p> <ul style="list-style-type: none"> • Peak MCPS 40 and Average MCPS 35 for 48 kHz 128 kbps stream • Peak MCPS 35 and Average MCPS 30 for 44.1 kHz 64 kbps stream <p>Memory usage:</p> <ul style="list-style-type: none"> • Program memory 90 KB, Constant tables (ROM) 25 KB • Heap (RAM) 83KB, Stack 64 KB 		
Features /benefits	<ul style="list-style-type: none"> • Standard - in ISO/IEC 14496-3:2001/Amd.1 • MPEG2,MPEG4 AAC – LC,SBR • Supports ADTS and ADIF streams • Sampling frequencies – 8 to 96 kHz • Bit-rates from 8 kbps to 576 kbps • Supports - TNS,PNS,MS and IS • Supports mono, stereo and dual channel • Supports Constant and Variable Bit-rates • Output : 16 bit LPCM • Supports CRC protection checking • MPEG4 part3 Compliant • Simple and C callable API set • MP4 and other file format support through framework 		
Readiness	ARM 9E-optimized version in progress		