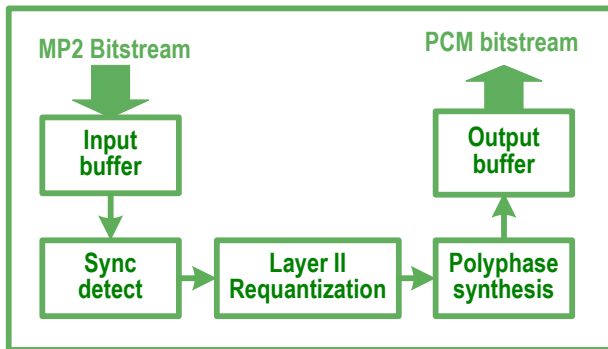


## SPIRIT MP2 Codec

MP2, also known as MPEG-1/MPEG-2 Audio Layer 2, is a digital audio coding and lossy compression format standardized by Moving Picture Experts Group (MPEG). MP2 is a sub-band audio codec (time domain), unlike MP3, which is a transform audio codec (frequency domain). MP2 outperforms MP3 on high bit rates and is generally more error-resilient than MP3, which is most important for broadcast applications.

SPIRIT MP2 codec supports MPEG 1, 2 Audio Layer II standards and their low bit rate extension MPEG 2.5. It can be effectively used in such applications as DVD players/recorders, portable audio systems, wireless communications, car audio systems, set-top boxes, Internet appliances, and PDAs.



### Features

- Tested on a variety of input bit streams
- High sound quality
- Low MIPS and memory requirements
- TI C6xx version is eXpressDSP compliant. Code is reentrant, supports multithreading and dynamic memory allocation. At the same time allows direct (non-eXpressDSP) interface to enable static memory allocation

### Specifications

The MP2 (MPEG Layer II) audio codec supports the ISO/IEC 11172-3 MPEG-1 and ISO/IEC 13818-3 MPEG-2 formats Layer II mono or stereo input streams as well as MPEG-2.5 low bit rate extension. By default, the decoder output is in signed PCM 16-bit stereo format. The decoder also stores 32-bit samples in the output buffer, so the program output can be configured to conform to PCM with any settings.

### Resource Requirements

PLATFORM	TI C64xx	
	Decoder	Encoder
Peak MIPS	8.5	13.5
Program Memory, KB	15.3	15.7
Constant Memory, KB	1.5	2.0
Persistent Memory, KB	7.7	13.0
Scratch, KB	0	0
Stack, KB	0.5	0.5

MIPS are specified for 48 kHz 384 Kbps joint-stereo bitstream, MIPS are measured using simulator with 0-W

### Benefits

- Highly optimized code ideal for resource constrained applications
- Easy integration and fast time to market
- High sound quality and wide dynamic range

### Key Features

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

### Applications

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

### Availability

- TI C6xx Now
- TI OMAP3 Call
- ARM Call
- MIPS Call

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