

Provider of basic core: ASICS

**General Description**

This is a simple AC97 Controller IP core. It supports one AC97 codec, with 6 output and 3 input channels. This AC97 Controller is fully AC97 Revision 2.2 compliant. It only supports AC97 Audio CODECs.

We modified the basic core, we add AHB bus interface.

Please download manual from [www.asics.ws](http://www.asics.ws)

**Features**

- AMBA 2.0 AHB interface
- Variable and Fixed Sample Rate Support, up to 48 kHz
- 16, 18 and 20 bit Sample Size Support
- 6 Output Channel Surround Sound Support
- Stereo Input channel Support
- Mono Microphone Channel Support
- External DMA Engine Support

**Functional Description**

The core has an AMBA AHB bus communication interface and includes programmable registers that can be modified depending on the desired communication protocol and communication target. This AC97 IP Core supports up to 6 output and 3 input channels.

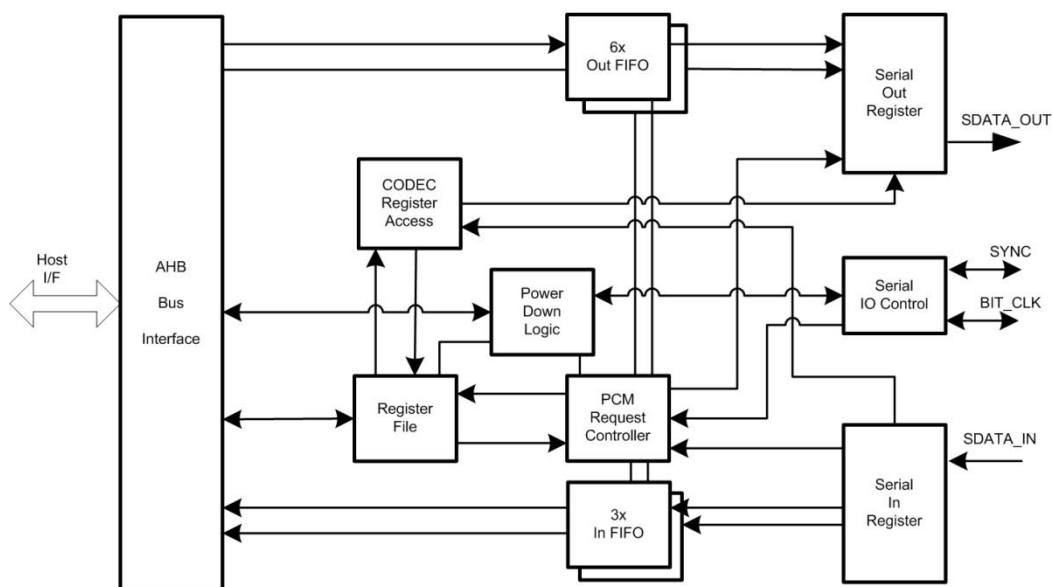
The Output Channels are:

- Left & Right Main
- Left and Right Surround
- Center and LFE

The Input Channels are:

- Stereo Input
- Mono Microphone Input

**Block Diagram**



**Device Utilization & Performance**

Technology	Device	Utilization (Average out of some different applications)	Performance
Stratix III (Altera)	EP3SL150F780C2	Logic Elements: 1582 Block Memory: 640 bit	100 MHz AHB bus clock