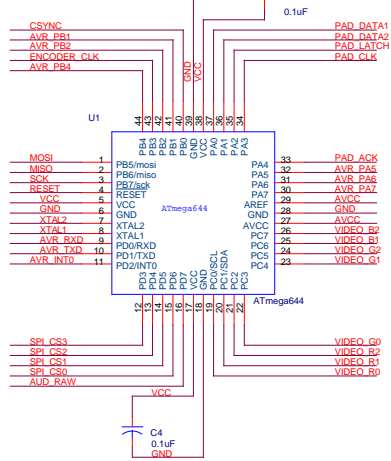
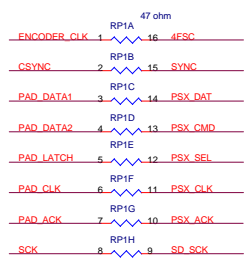


MCU

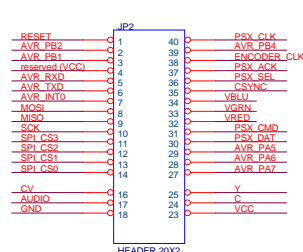


Signal Snubbers

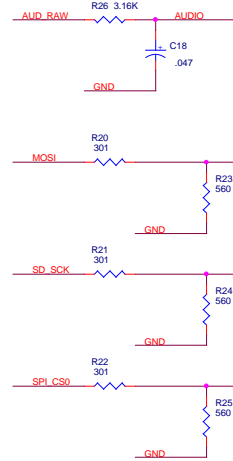


PortA supports either:
 Two NES or SNES Controllers
 One Atari/Commodore Joystick
 One Sega Genesis Controller
 One Playstation 1/2 Controller
 General Purpose ADC inputs
 General Purpose I/O (5V, CMOS Logic Levels)

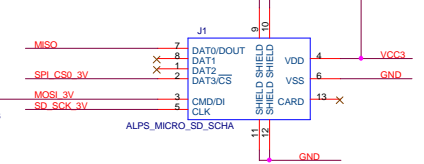
40 Pin DIP Package



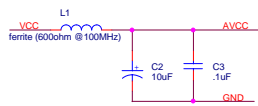
Pin 4 is reserved for expansion. The PCB is mounted 'upside down and backwards' for use with a baseboard, so refer to the pinout in the lower left when designing baseboards.



microSD/input level protection

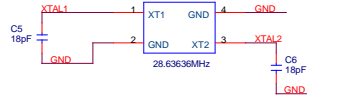


ADC Filter Filtering

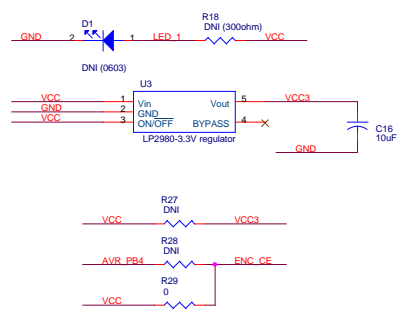


C2 is not normally populated, but if you require additional filtering on the ADC supply you can install a 1uF-10uF ceramic or tantalum cap there. (C2 is located by pin one of the ATmega644.)

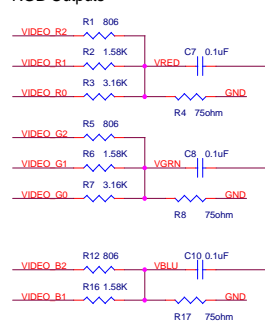
Clock



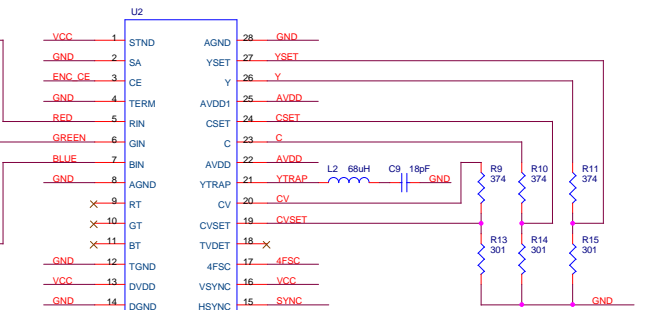
3.3V Power Supply (for micro/SD/MMC)



RGB Outputs



NTSC Encoder



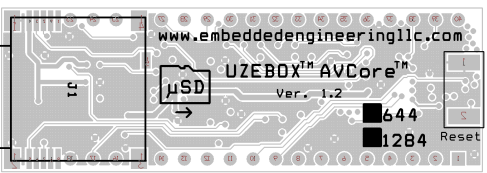
Manual Reset



(Top view pinout of AVCore module)
 Most pin connections are to the ATmega644 and as such may be used for alternate functions if you do not need compatibility with the Uzebox gaming platform.

1	GND	+5VDC	38
2	AUDIO	CHROMA	37
3	VIDEO	LUMA	36
4			35
5			34
6			33
7	SPI_CS0	AVR_PA7	32
8	SPI_CS1	AVR_PA6	31
9	SPI_CS2	AVR_PA5	30
10	SPI_CS3	PSX_DAT	31
11	SCK	PSX_CMD	30
12	MISO	RED	29
13	MOSI	GREEN	28
14	AVR_INT0	BLUE	27
15	AVR_TXD	CSYNC	26
16	AVR_RXD	PSX_SEL	25
17	I/V	PSX_ACK	24
18	AVR_PB1	14.318MHz	23
19	AVR_PB2	AVR_PB4	22
20	RESET	PSX_CLK	21

R29 is a trace on the AVCore PCB located right next to the AVR_PA7 pin on the component side of the AVCore. If you would like to be able to put the AD723 to low power mode under firmware control you can cut the trace inside the R29 footprint (the soldermask is relieved there to make it visible) and then you can short R28 which is immediately next to it (next to pin 1 on the AD723). Otherwise, if you don't need video power-down, AVR_PB4 is available for your own use.



(Top view of AVCore module)

- Rev. 1.2 Notes:
- 1) connected VSYNC (pin16, U2) to VCC
 - 2) Signal dividers on all SD Card inputs for 3.3V compatibility.
 - 3) Added RGB outputs for expansion options.
 - 4) Added R27 to allow for 3.3V only power supply.
 - 5) Added R26 and C18 for optional simple LPF for Audio.

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EMBEDDED engineering

Title		AVCore(tm) Module (40 pin DIP, 5V Version)
Size	Document Number	Rev
A	CNC082908	1.2
Date:	Friday, October 17, 2008	Sheet 1 of 1

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