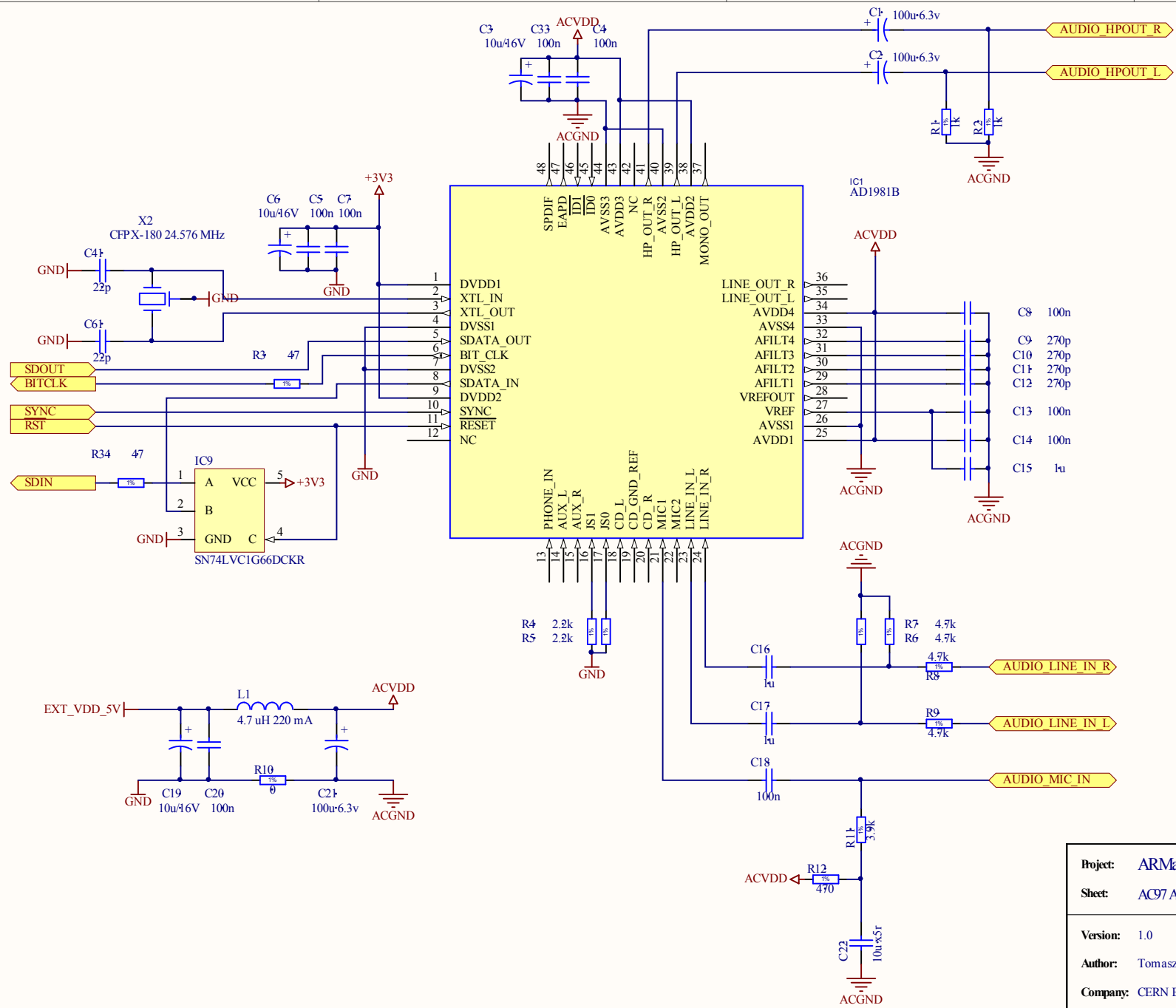


A

B

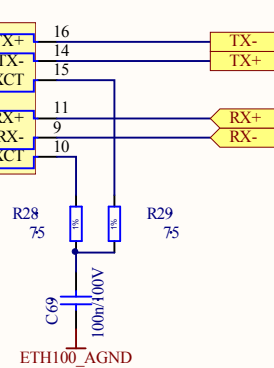
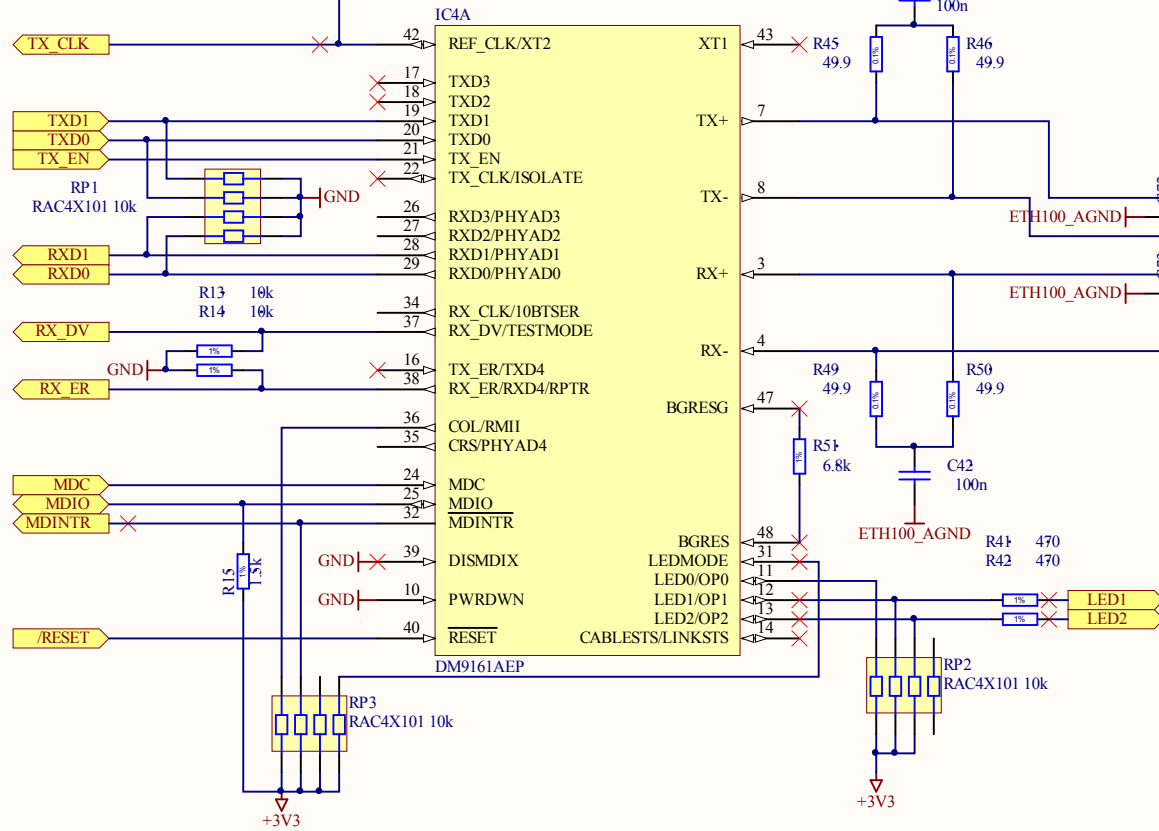
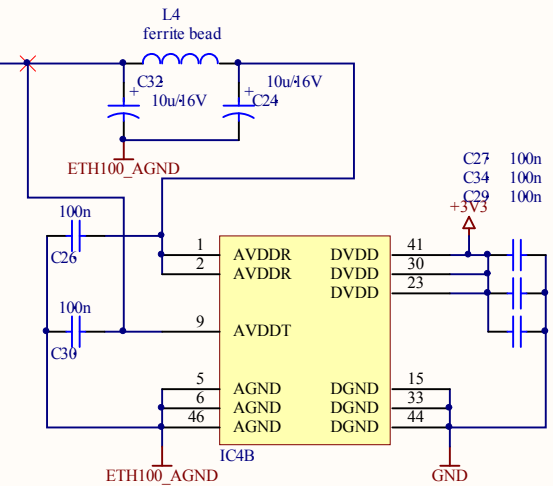
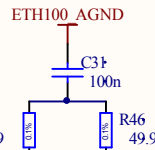
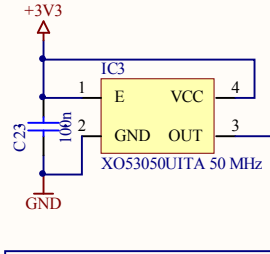
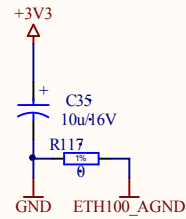
C

D

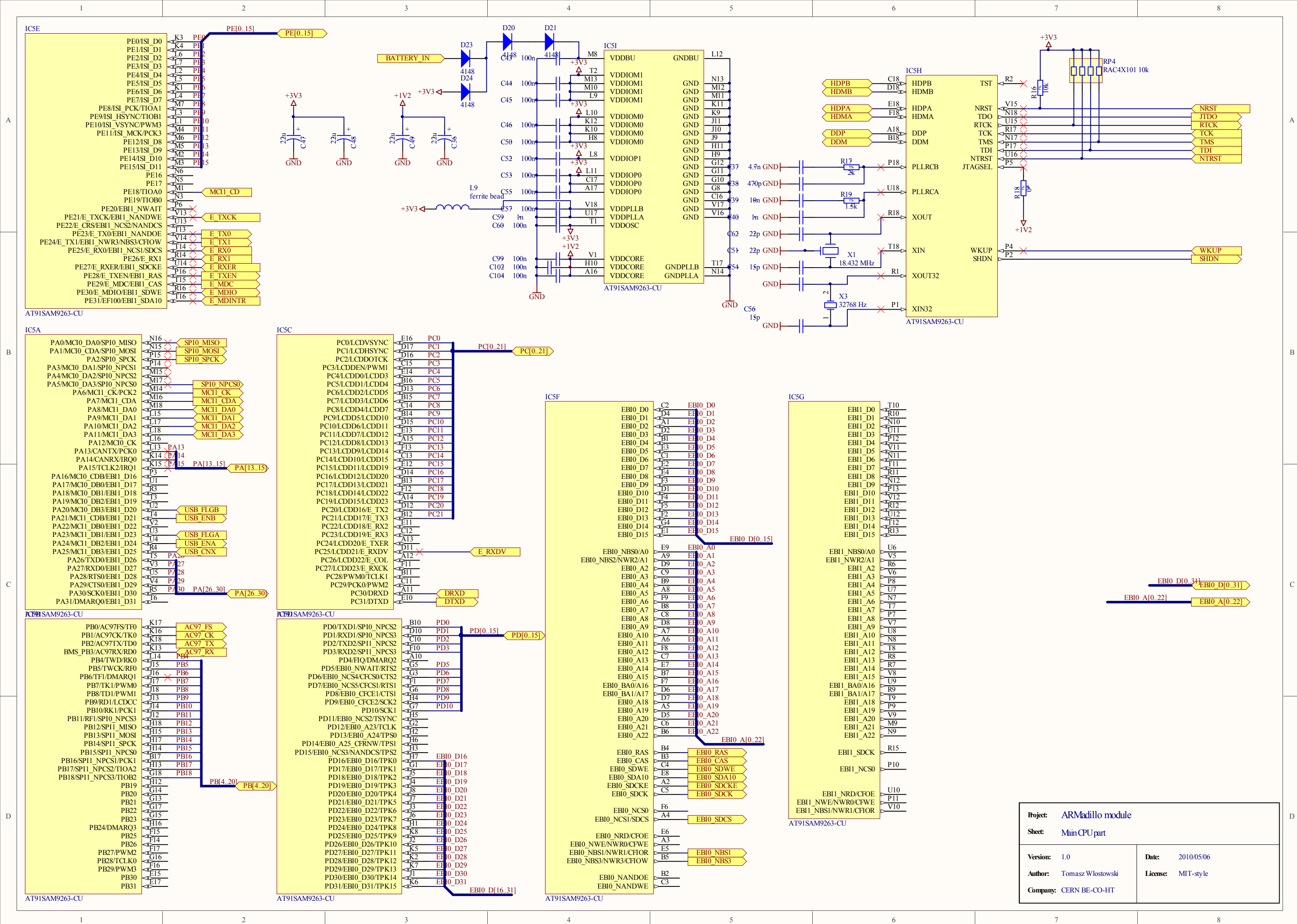


Project: ARMadillo module	
Sheet: AC97 Audio Codec	
Version: 1.0	Date: 2010/05/06
Author: Tomasz Wlostowski	License: MIT-style
Company: CERN BE-CO-HT	

100 MBit external twisted-pair Ethernet port. Uses DM9161 PHY and RMII interface to communicate with CPU MAC.

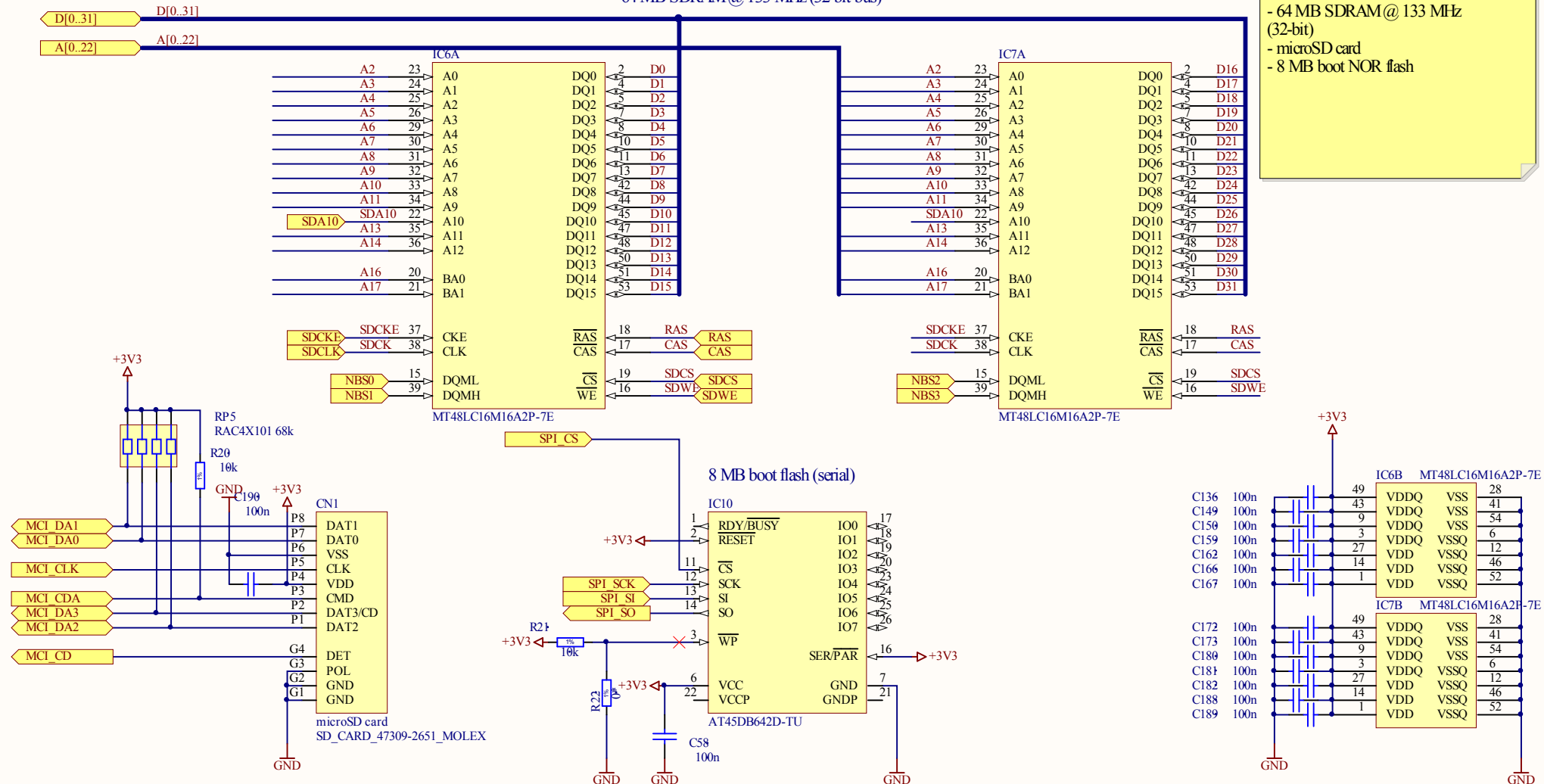


Project:	ARMadillo module		
Sheet:	10/100 Mbps Ethernet PHY		
Version:	1.0	Date:	2010/05/06
Author:	Tomasz Wlotoski	License:	MIT-style
Company:	CERN BE-CO-HT		



64 MB SDRAM@ 133 MHz (32 bit bus)

CPU memories:
- 64 MB SDRAM@ 133 MHz (32-bit)
- microSD card
- 8 MB boot NOR flash



Project: ARMadillo module

Sheet: Memories

Version: 1.0

Date: 2010/05/06

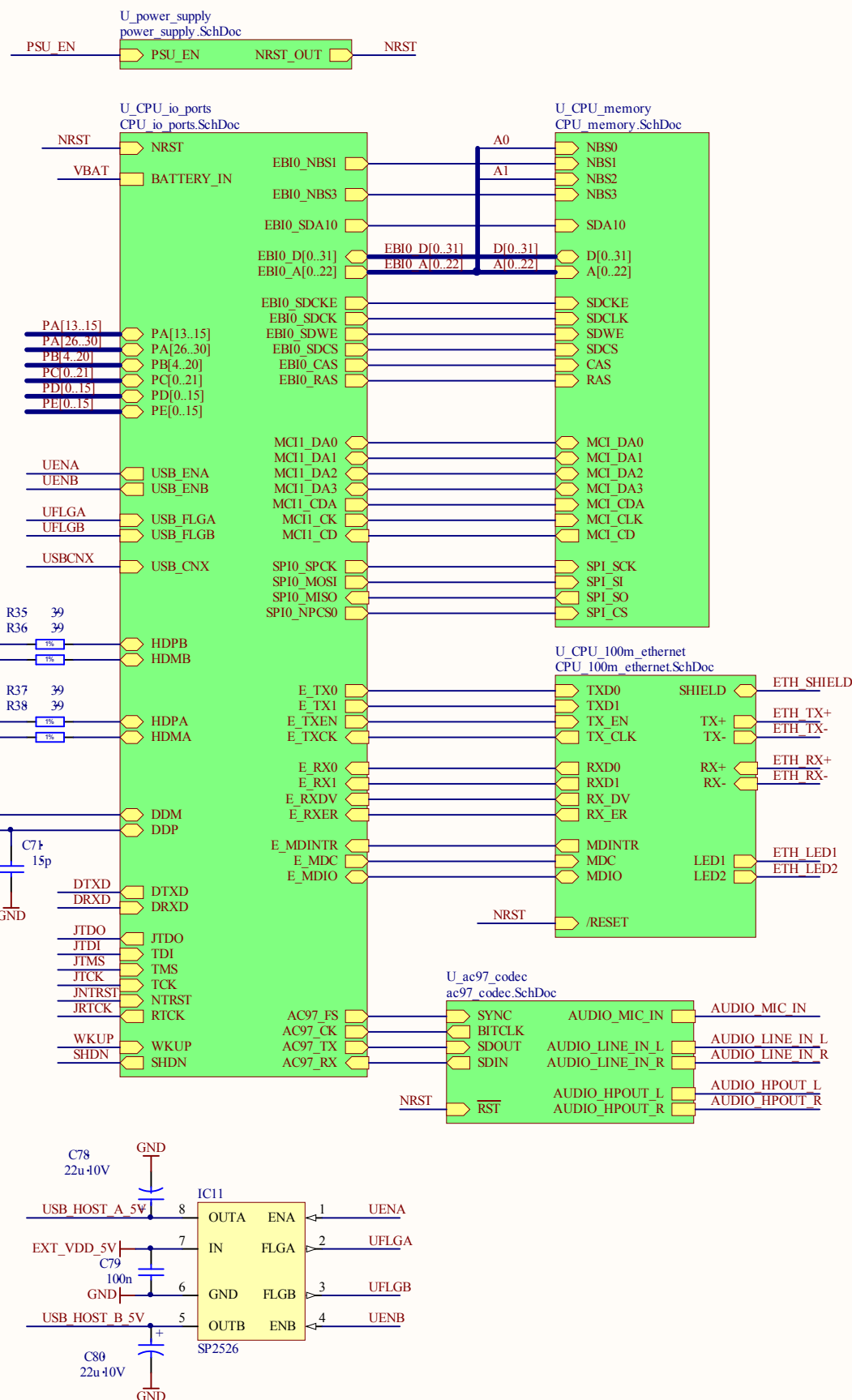
Author: Tomasz Wlostowski

License: MIT-style

Company: CERN BE-CO-HT

Mezzanine Connectors

All I/O pins are 3.3 V



Pin Mapping	
Periph A	Periph B
GND	
Ethernet connector LED 1	
Ethernet connector LED 2	
GND	
SPI1_NPCS3	TIOB2
SPI1_MOSI	-
SPI1_NPCS0	-
SPI1_NPCS2	TIOA2
LCD_D14	LCD_D22
LCD_D9	LCD_D14
LCD_DEN	PWM1
LCD_D4	LCD_D7
LCD_D3	LCD_D6
GND	
LCD_D5	LCD_D10
LCD_D15	LCD_D23
LCD_D2	LCD_D5
LCD_D7	LCD_D12
LCD_D17	-
LCD_D16	-
LCD_D11	LCD_D19
UART2_TXD	SPI1_NPCS2
-	UART2_RTS
-	UART1_RTS
-	UART2_SCK
GND	
GND	
System reset output (active LOW)	
+5V DC INPUT	
+5V DC INPUT	

CN3	
ETH_LED1	1
ETH_LED2	2
GND	3
GND	4
GND	5
GND	6
PB18	7
PB13	8
PB15	9
PB17	10
PC18	11
PC13	12
PC3	13
PC8	14
PC7	15
GND	16
PC9	17
PC19	18
PC6	19
PC11	20
PC21	21
PC20	22
PC15	23
PD2	24
PD5	25
PD7	26
PD9	27
GND	28
GND	29
NRST	30
EXT_VDD_5V	31
GND	32
GND	33
GND	34
GND	35
GND	36
GND	37
GND	38
GND	39
GND	40
GND	41
GND	42
GND	43
GND	44
GND	45
GND	46
GND	47
GND	48
GND	49
GND	50
GND	51
GND	52
GND	53
GND	54
GND	55
GND	56
GND	57
GND	58
GND	59
GND	60

Pin Mapping	
Periph A	Periph B
GND	
Ethernet RX input -	
Ethernet RX input +	
Ethernet jackshield (GND)	
Ethernet TX output -	
Ethernet TX output +	
GND	
LCD_HSYNC	-
LCD_VSYNC	-
LCD_DOTCK	-
LCD_D6	LCD_D11
LCD_D0	LCD_D3
LCD_D1	LCD_D4
LCD_D8	LCD_D13
GND	
LCD_D12	LCD_D20
LCD_D10	LCD_D15
LCD_D13	LCD_D21
UART1_TXD	-
UART1_RXD	-
DBGU_RXD	-
DBGU_TXD	-
UART2_RXD	SPI1_NPCS3
-	UART2_CTS
-	UART1_CTS
-	UART1_SCK
GND	
Power supply enable (active HI, pulled up)	
+5V DC INPUT	
+5V DC INPUT	

Pin Mapping	
Periph A	Periph B
USB HOST B power output (+5V)	
USB HOST B D+	
USB HOST B D-	
GND	
USB SLAVE power sense	
USB SLAVE D-	
USB SLAVE D+	
GND	
SPI1_NPCS1	PCK1
CAN_TX	PCK0
CAN_RX	IRQ0
I2C_SDA	-
ISI_D2	-
-	ISI_D8
ISI_D5	-
-	ISI_D9
ISI_D7	-
-	PCK3
ISI_D1	-
ISI_D0	-
ISI_VSYNC	TIOA1
ISI_D4	-
ISI_D6	-
RTC battery voltage input (+3V)	
GND	
Audio analog GND	
Headphone output left	
Headphone output right	
Audio analog GND	

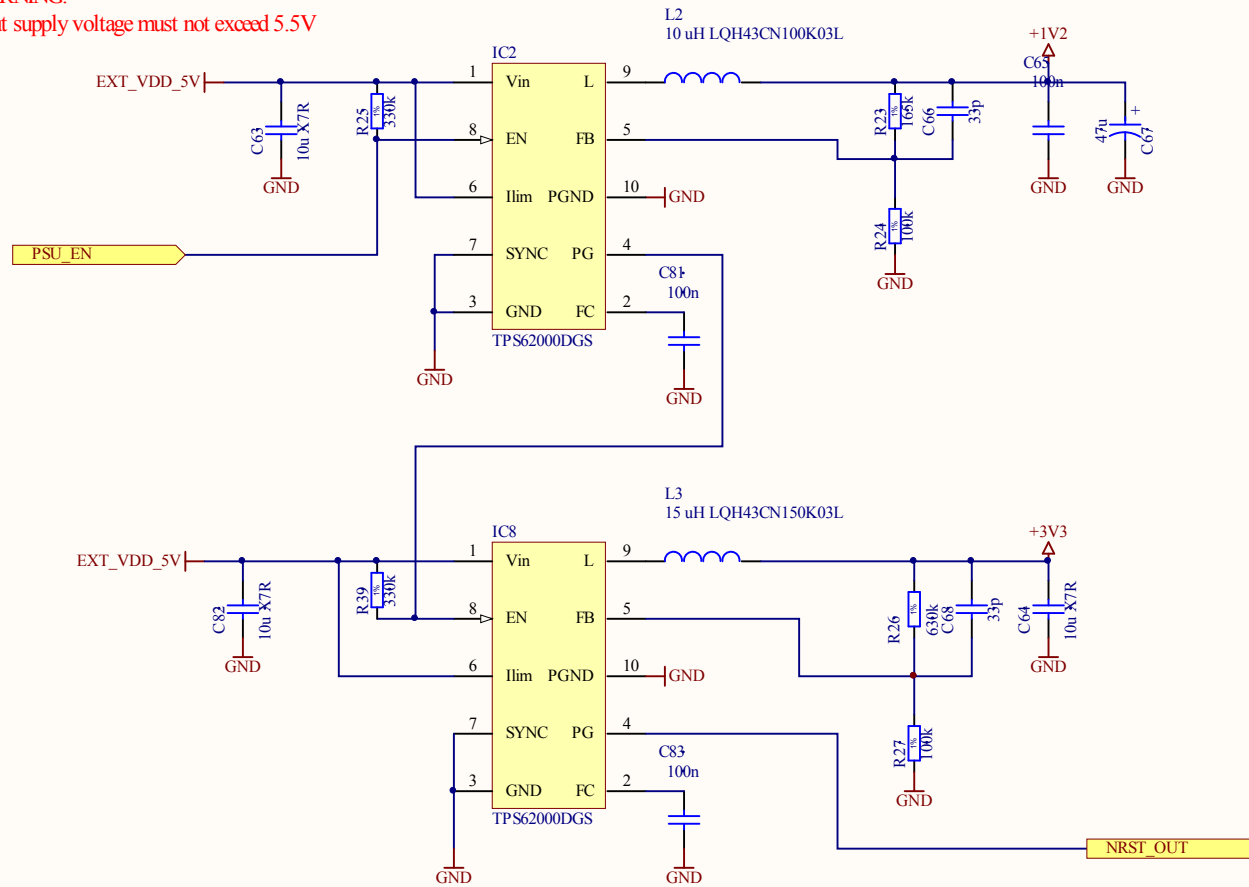
CN2	
USB HOST B 5V	1
USB HOST B P	2
USB HOST B N	3
USB HOST B D+	4
USB HOST B D-	5
GND	6
USB SLAVE 5V	7
USB SLAVE D+	8
USB SLAVE D-	9
USB SLAVE D P	10
GND	11
PB16	12
PA13	13
PA14	14
PB4	15
PE2	16
PE12	17
PE5	18
GND	19
PE13	20
PE7	21
PE11	22
PE1	23
PE0	24
PE10	25
PE4	26
PE6	27
VBAT	28
GND	29
GND	30
GND	31
GND	32
GND	33
GND	34
GND	35
GND	36
GND	37
GND	38
GND	39
GND	40
GND	41
GND	42
GND	43
GND	44
GND	45
GND	46
GND	47
GND	48
GND	49
GND	50
GND	51
GND	52
GND	53
GND	54
GND	55
GND	56
GND	57
GND	58
GND	59
GND	60

Pin Mapping	
Periph A	Periph B
USB HOST B power output (+5V)	
USB HOST B D+	
USB HOST B D-	
GND	
SPI1_SCK	-
SPI1_MISO	-
SSC1_TK	PWM0
I2C_SCL	-
SSC1_TD	PWM1
SSC1_TP	DMARQ1
SSC1_RK	PCK1
SSC1_RD	-
SSC1_RF	-
ISI_D3	-
ISI_PCK	-
GND	
-	ISI_D10
-	ISI_D11
ISI_HSYNC	TIOB1
CPU wakeup pin	
UART0_SCK	-
UART0_TXD	-
UART0_RTS	-
UART0_CTS	-
UART0_RXD	-
Audio analog GND	
Electret microphone input	
Line input left	
Line input right	
Audio analog GND	

Pin functions	
	Power/ground pins
	LCD pins
	Ethernet pins
	SPI and SSC pins
	PWMs, TIMERS and CLOCKS
	I2C and CAN pins
	USART pins
	Image Sensor Interface (ISI) pins
	USB pins
	Audio pins
	Other CPU pins

Project:	ARMadillo module
Sheet:	Top-level diagram
Version:	1.0
Author:	Tomasz Wlostowski
Company:	CERN BE-CO-HT
Date:	2010/05/06
License:	MIT-style

WARNING!
Input supply voltage must not exceed 5.5V



Project: ARMadillo module	
Sheet: Power supplies	
Version: 1.0	Date: 2010/05/06
Author: Tomasz Wlosowski	License: MIT-style
Company: CERN BE-CO-HT	

