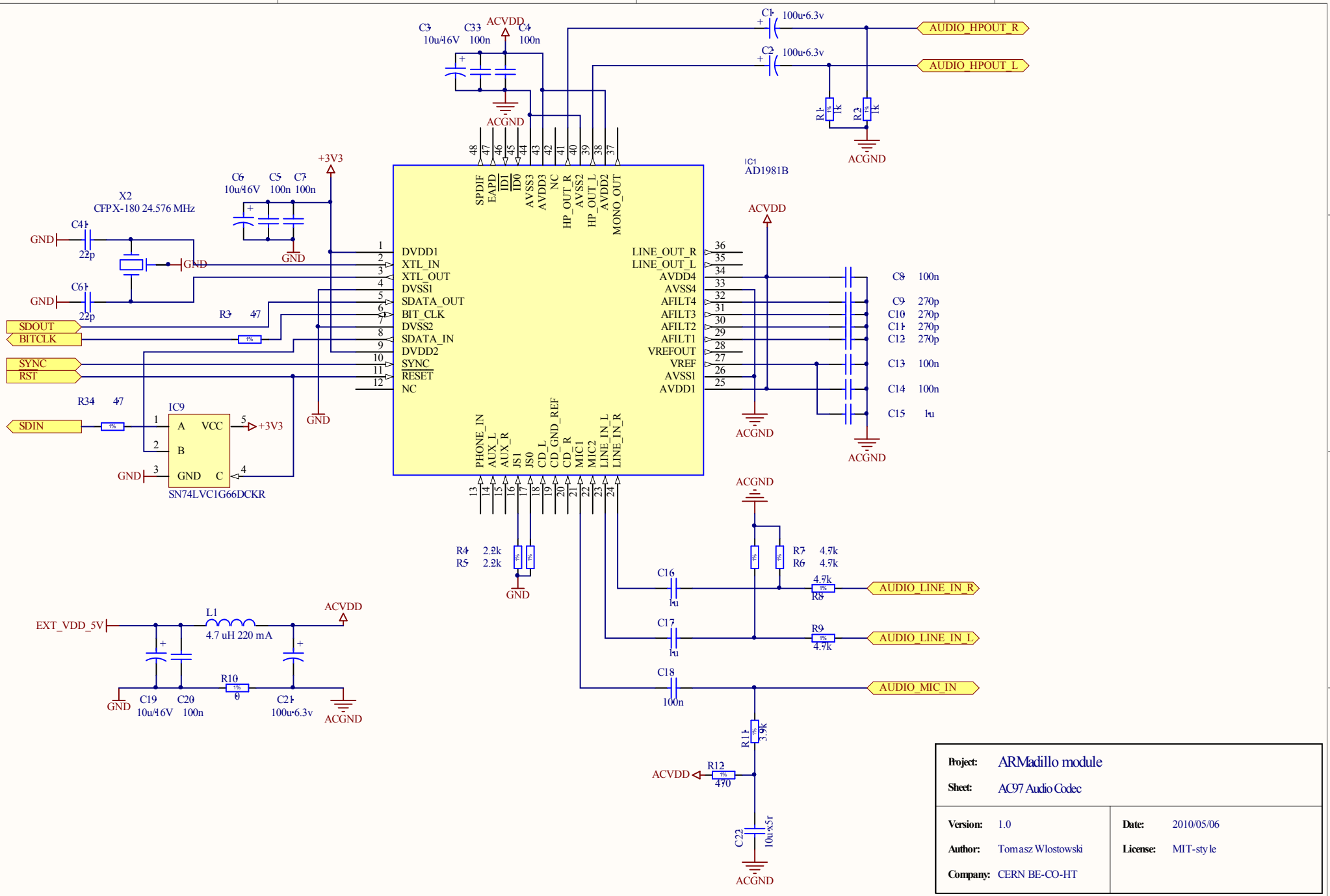
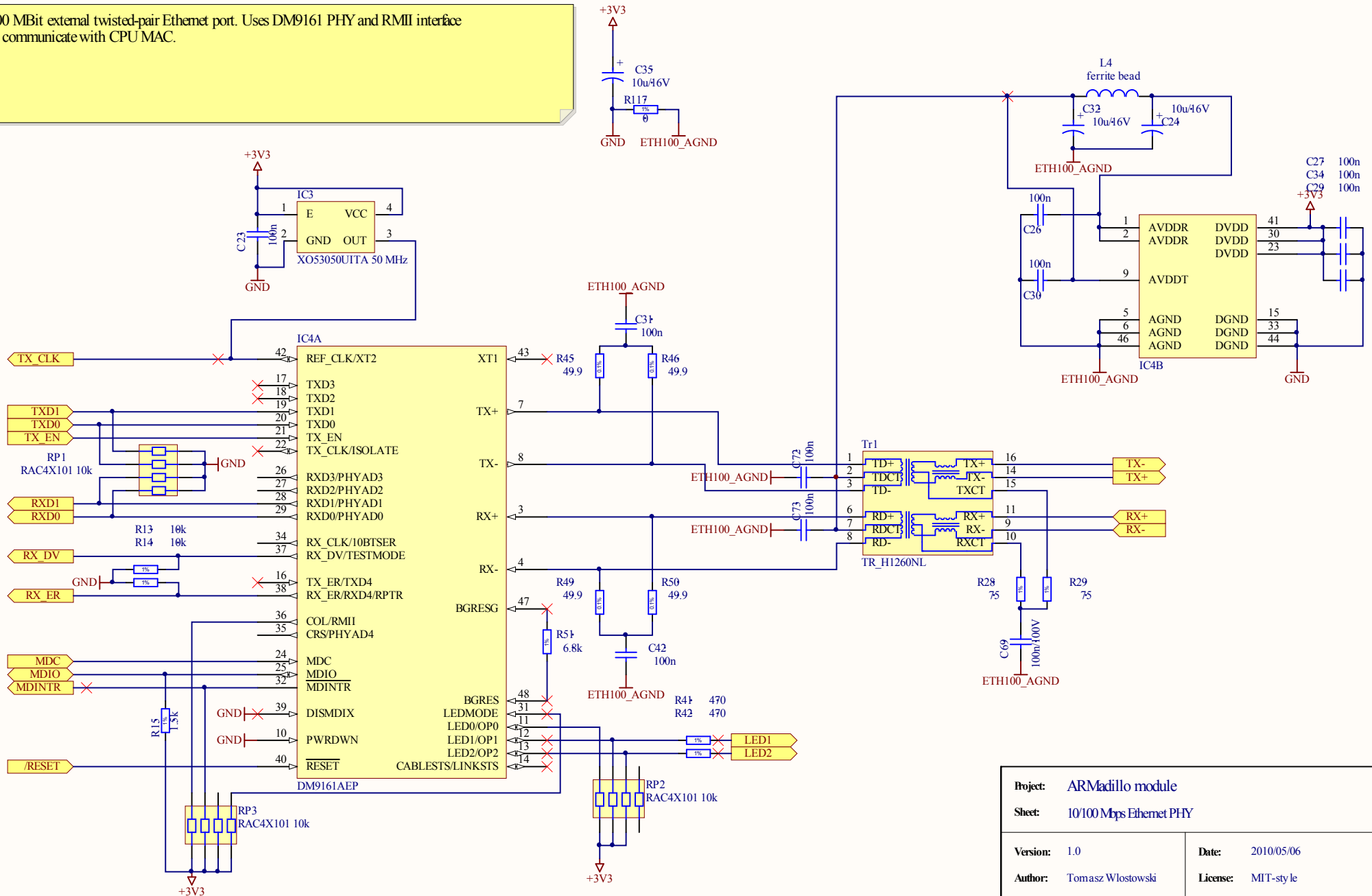
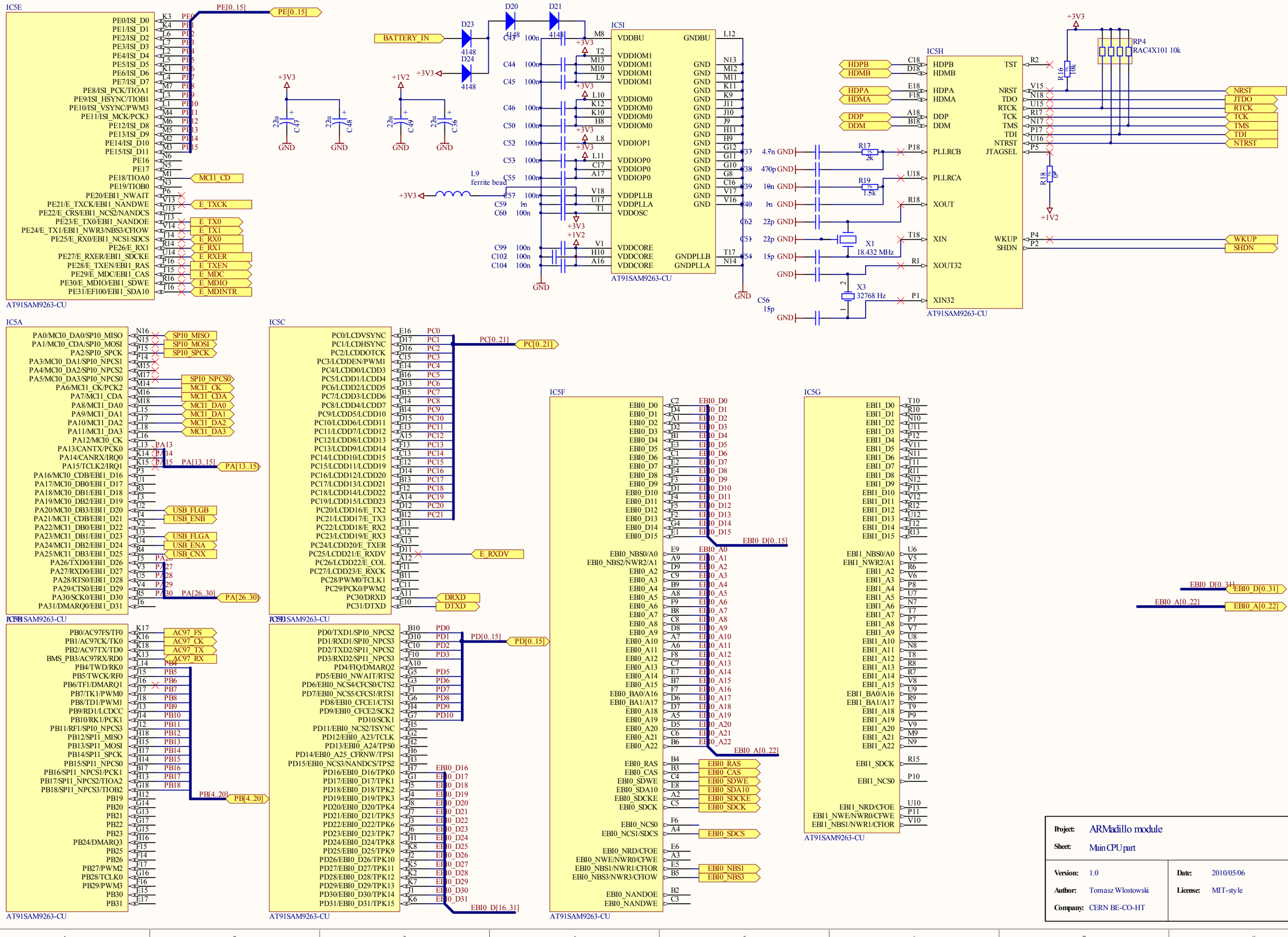
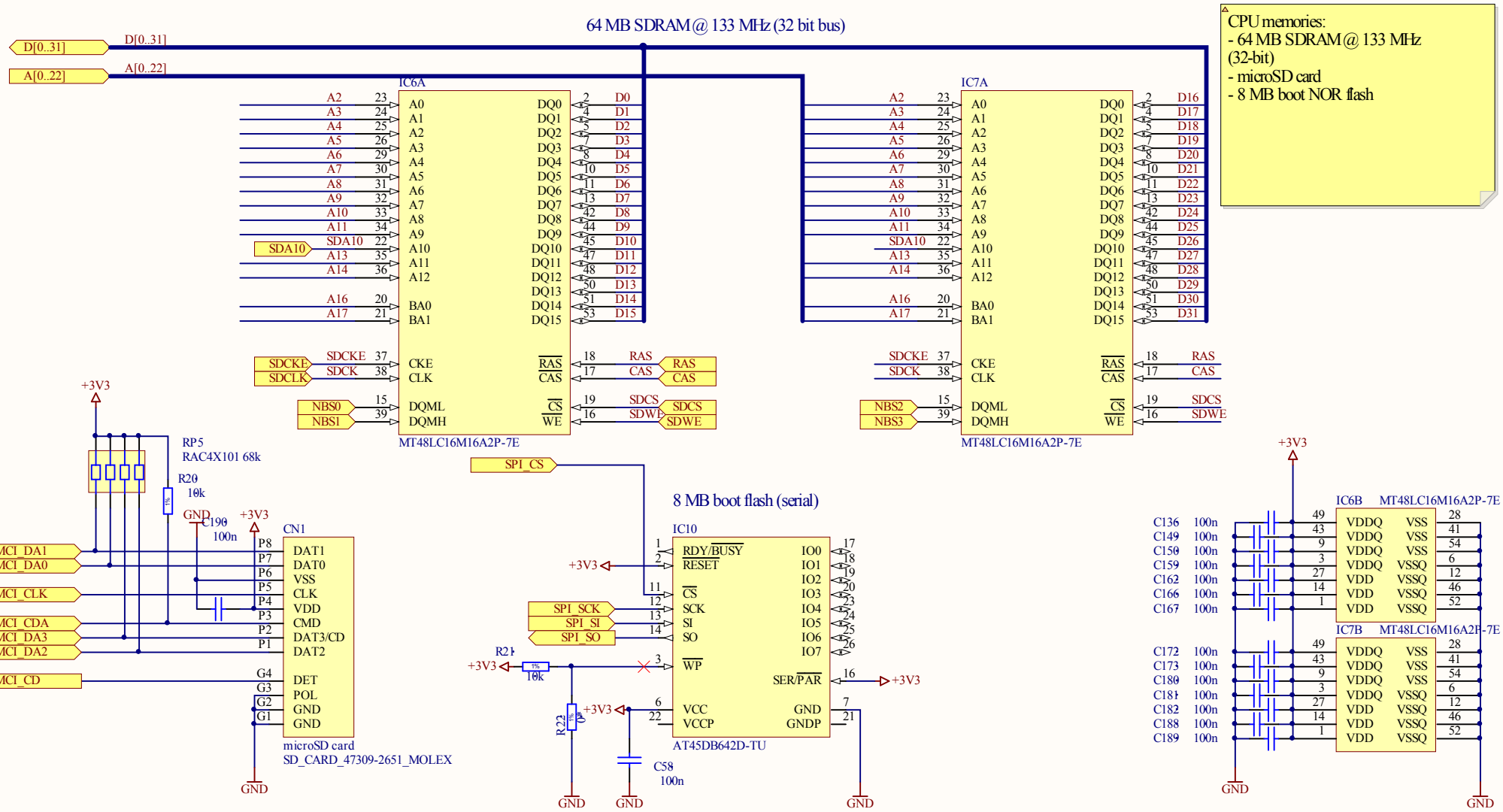

IC1
AD1981B
DVDD1
XTL_IN
XTL_OUT
DVSS1
SDATA_OUT
BIT_CLK
DVSS2
SDATA_IN
DVDD2
SYNC
RESET
NC
SPDIF
EAPD
ID1
ID0
AVSS3
AVDD3
NC
HP_OUT_R
AVSS2
HP_OUT_L
AVDD2
MONO_OUT
LINE_OUT_R
LINE_OUT_L
AVDD4
AVSS4
AFILT4
AFILT3
AFILT2
AFILT1
VREFOUT
VREF
AVSS1
AVDD1
PHONE_IN
AUX_L
AUX_R
JS1
JS0
CD_L
CD_GND_REF
CD_R
MIC1
MIC2
LINE_IN_L
LINE_IN_R
ACVDD
ACGND
GND
+3V3
C1 100u-6.3v
C2 100u-6.3v
C3 10u/16V
C33 100n
C4 100n
C5 100n
C6 10u/16V
C7 100n
C8 100n
C9 270p
C10 270p
C11 270p
C12 270p
C13 100n
C14 100n
C15 1u
C16 1u
C17 1u
C18 100n
C19 10u/16V
C20 100n
C21 100u-6.3v
C22 10u-6.3v
C41 22p
C61 22p
X2
CFPX-180 24.576 MHz
R1 1K
R2 1K
R3 47
R34 47
R4 2.2k
R5 2.2k
R6 4.7k
R7 4.7k
R8 4.7k
R9 4.7k
R10 0
R11 3.9k
R12 470
L1
4.7 uH 220 mA
IC9
SN74LVC1G66DCKR
A
B
GND
VCC
C
SDOUT
BITCLK
SYNC
RST
SDIN
EXT_VDD_5V
AUDIO_HPOUT_R
AUDIO_HPOUT_L
AUDIO_LINE_IN_R
AUDIO_LINE_IN_L
AUDIO_MIC_IN
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.



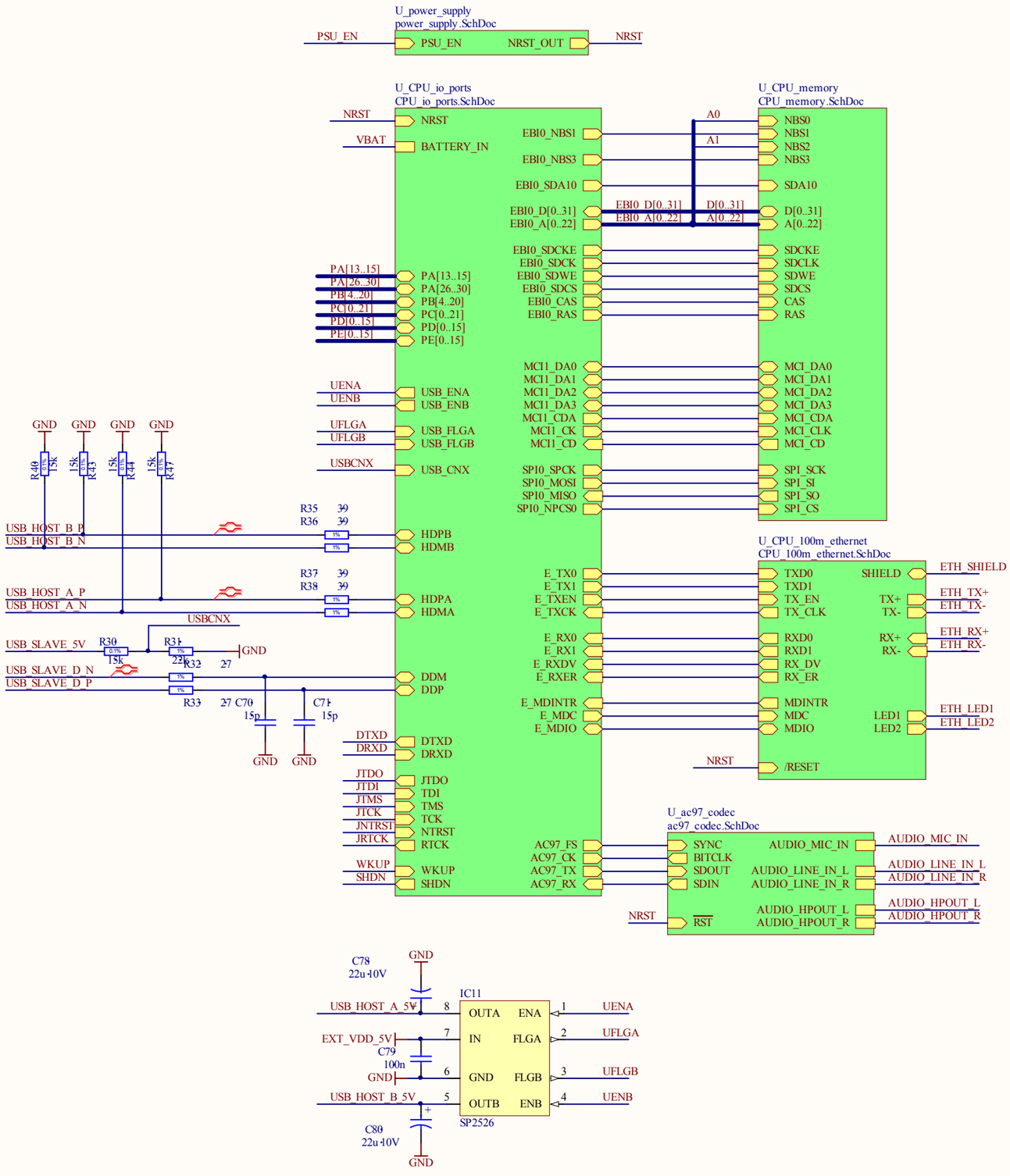
Project:	ARMadillo module		
Sheet:	10/100 Mbps Ethernet PHY		
Version:	1.0	**Date:**	2010/05/06
Author:	Tomasz Wlostowski	**License:**	MIT-style
Company:	CERN BE-CO-HT		


IC5E
AT91SAM9263-CU
PE[0..15]
MCI1_CD
E_TXCK
E_TX0
E_TX1
E_RX0
E_RX1
E_RXER
E_TXEN
E_MDC
E_MDIO
E_MDINTR
IC5I
AT91SAM9263-CU
BATTERY_IN
L9
ferrite bead
IC5H
AT91SAM9263-CU
HDPB
HDMB
HDPA
HDMA
DDP
DDM
PLLRCB
PLLRCA
XOUT
XIN
XOUT32
XIN32
TST
NRST
TDO
RTCK
TCK
TMS
TDI
NTRST
JTAGSEL
WKUP
SHDN
X1
18.432 MHz
X3
32768 Hz
RP4
RAC4X101 10k
IC5A
AT91SAM9263-CU
SPI0_MISO
SPI0_MOSI
SPI0_SPCK
SPI0_NPCS0
MCI1_CK
MCI1_CDA
MCI1_DA0
MCI1_DA1
MCI1_DA2
MCI1_DA3
USB_FLGB
USB_ENB
USB_FLGA
USB_ENA
USB_CNX
PA[13..15]
PA[26..30]
IC5C
AT91SAM9263-CU
PC[0..21]
E_RXDV
DRXD
DTXD
IC5F
AT91SAM9263-CU
EBI0_D[0..15]
EBI0_A[0..22]
EBI0_NBS1
EBI0_NBS3
IC5G
AT91SAM9263-CU
IC5B
AT91SAM9263-CU
AC97_FS
AC97_CK
AC97_TX
AC97_RX
PB[4..20]
IC5D
AT91SAM9263-CU
PD[0..15]
EBI0_D[16..31]
EBI0_D[0..31]
EBI0_A[0..22]
Project: ARMadillo module
Sheet: Main CPU part
Version: 1.0
Date: 2010/05/06
Author: Tomasz Wlostowski
License: MIT-style
Company: CERN BE-CO-HT



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

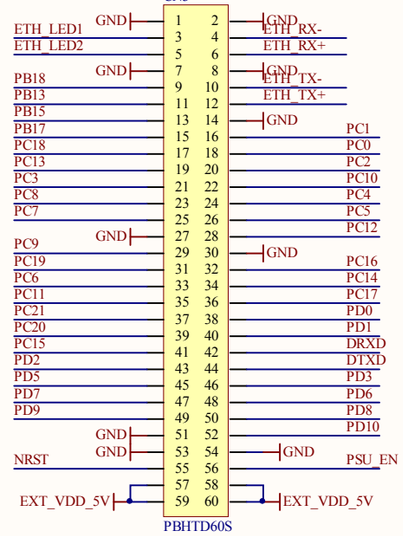
Mezzanine Connectors
All I/O pins are 3.3 V



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



PBHTD60S

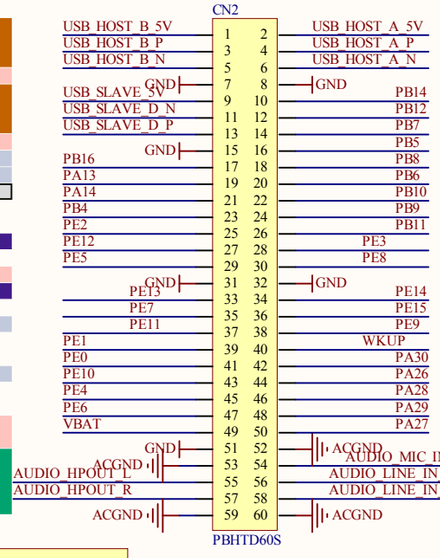
Pin Mapping

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	-
GND	
-	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



PBHTD60S

Pin Mapping

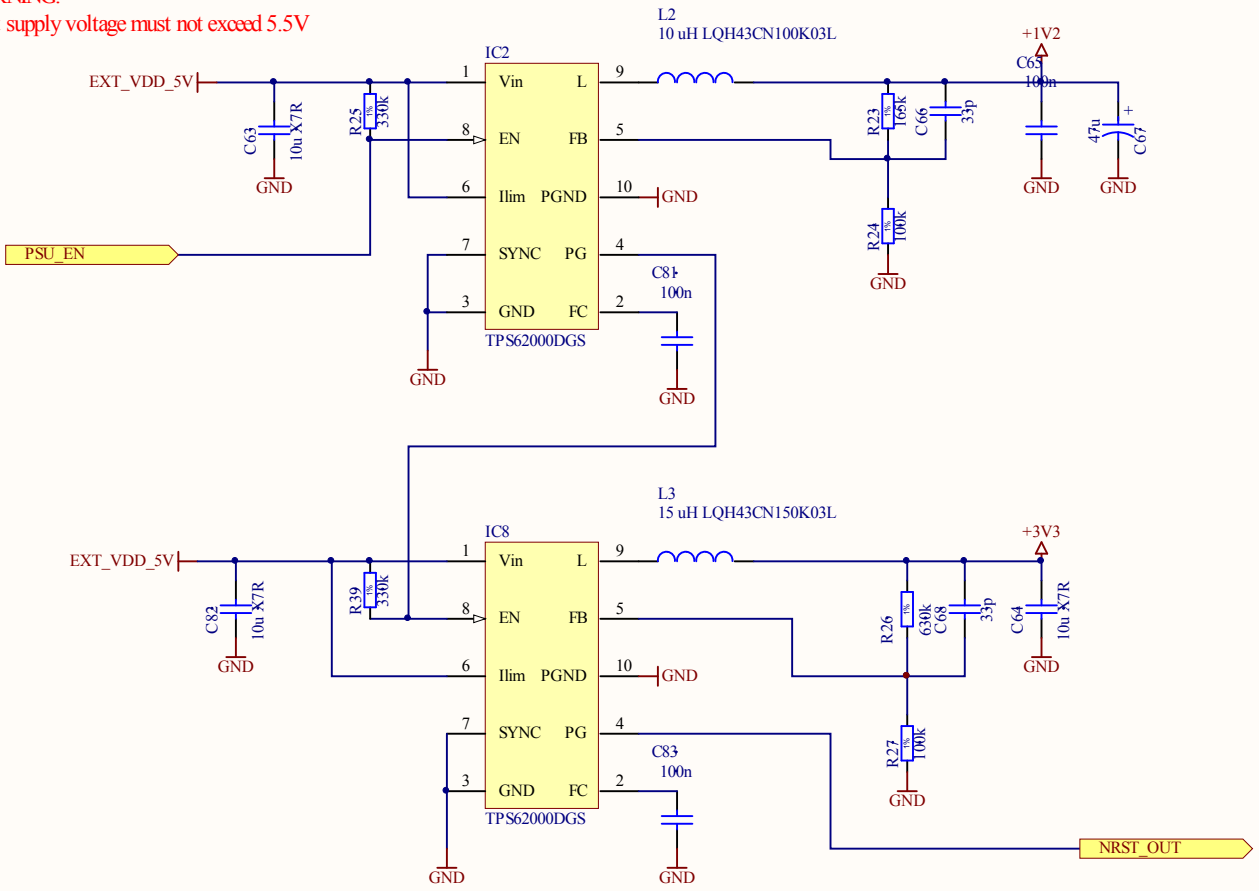
Periph A	Periph B
USB HOST B power output (+5V)	
USB HOST B D+	
USB HOST B D-	
GND	
SPI1_SCK	-
SPI1_MISO	-
SSC1_TK	PWM0
I2C_SCL	-
SSC1_TD	PWM1
SSC1_TF	DMARQ1
SSC1_RK	PCK1
SSC1_RD	-
SSC1_RF	-
ISI_D3	-
ISI_PCK	-
GND	
-	ISI_D10
-	ISI_D11
ISI_HSYNC	TIOB1
CPU wakeup pin	
UART0_SCK	-
UART0_TXD	-
UART0_RTS	-
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
Date:	2010/05/06
Author:	Tomasz Wlostowski
License:	MIT-style
Company:	CERN BE-CO-HT

WARNING!
Input supply voltage must not exceed 5.5V



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