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CAN node (LPC11C24 based)

UL = UnLoaded = normally not mounted component.

Default jumper settings are indicated in the schematic.  
However, always check jumper positions on actual boards  
since there is no guarantee that all jumpers are in default place.

## Rev A

First release

Updated U5 to 24AA02E48T-I/OT (contains MAC address).



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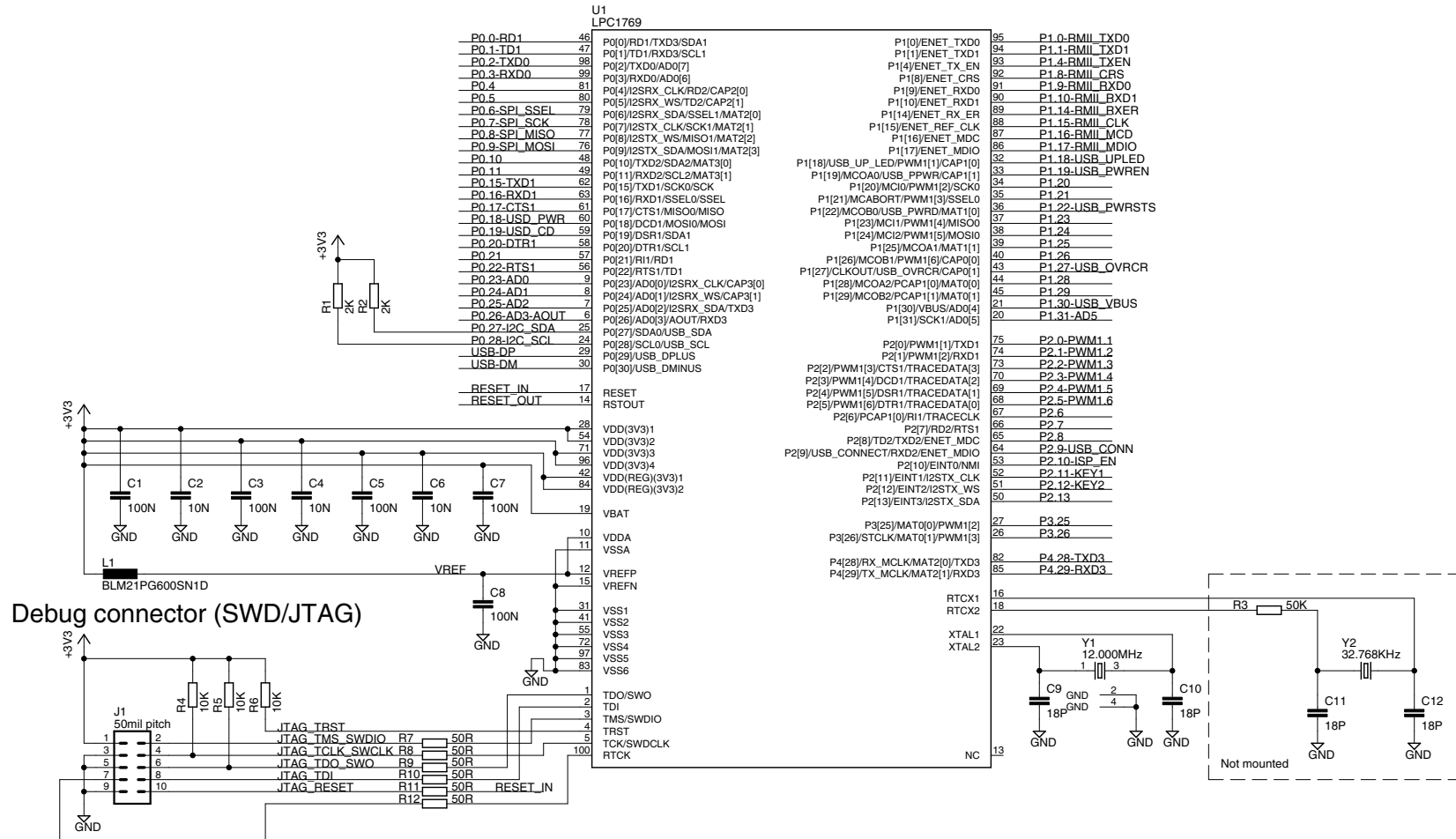
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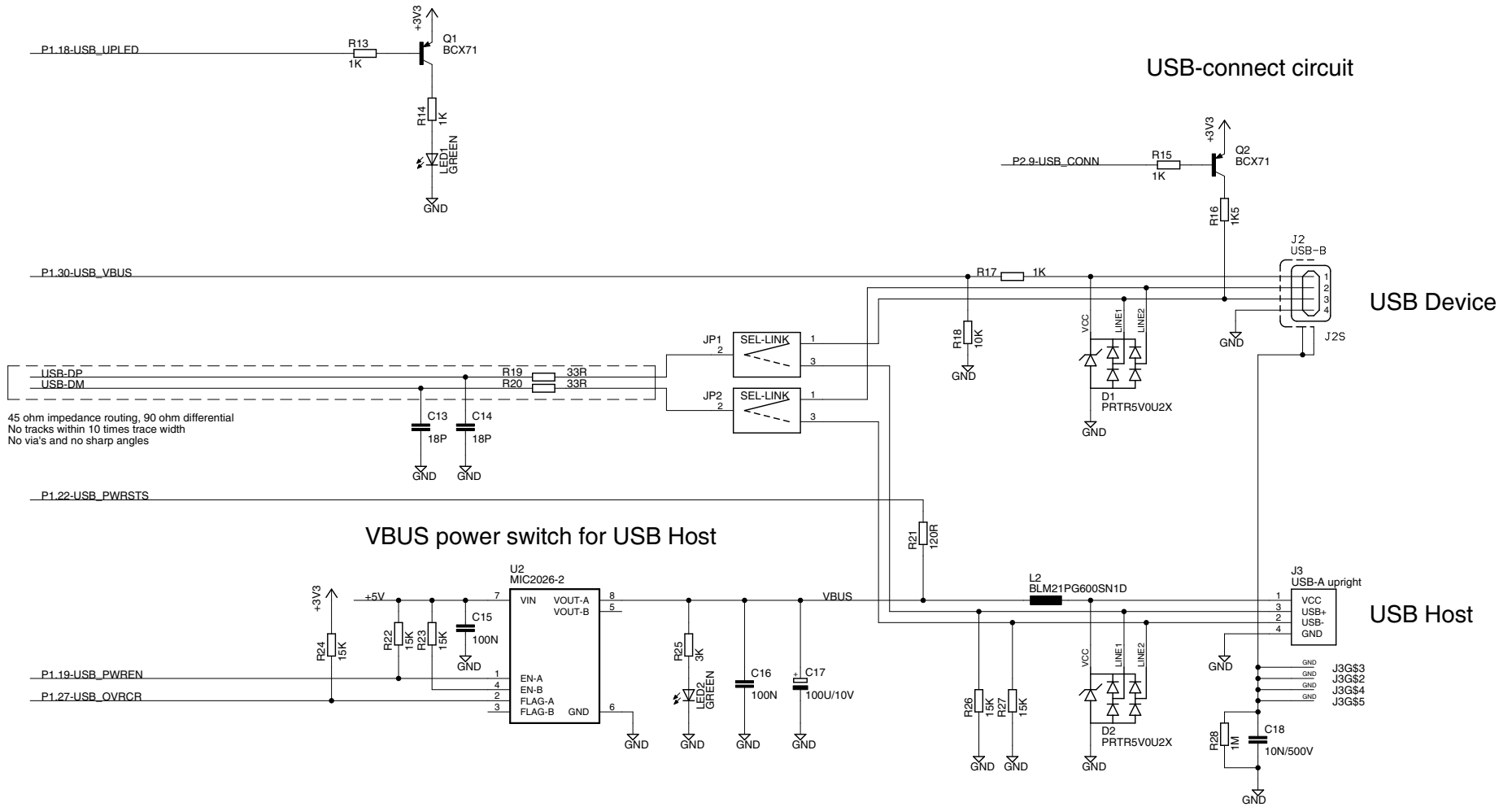
Date: 2013-04-12 15:52:05

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# LPC1769 core



# USB interface: Host or Device



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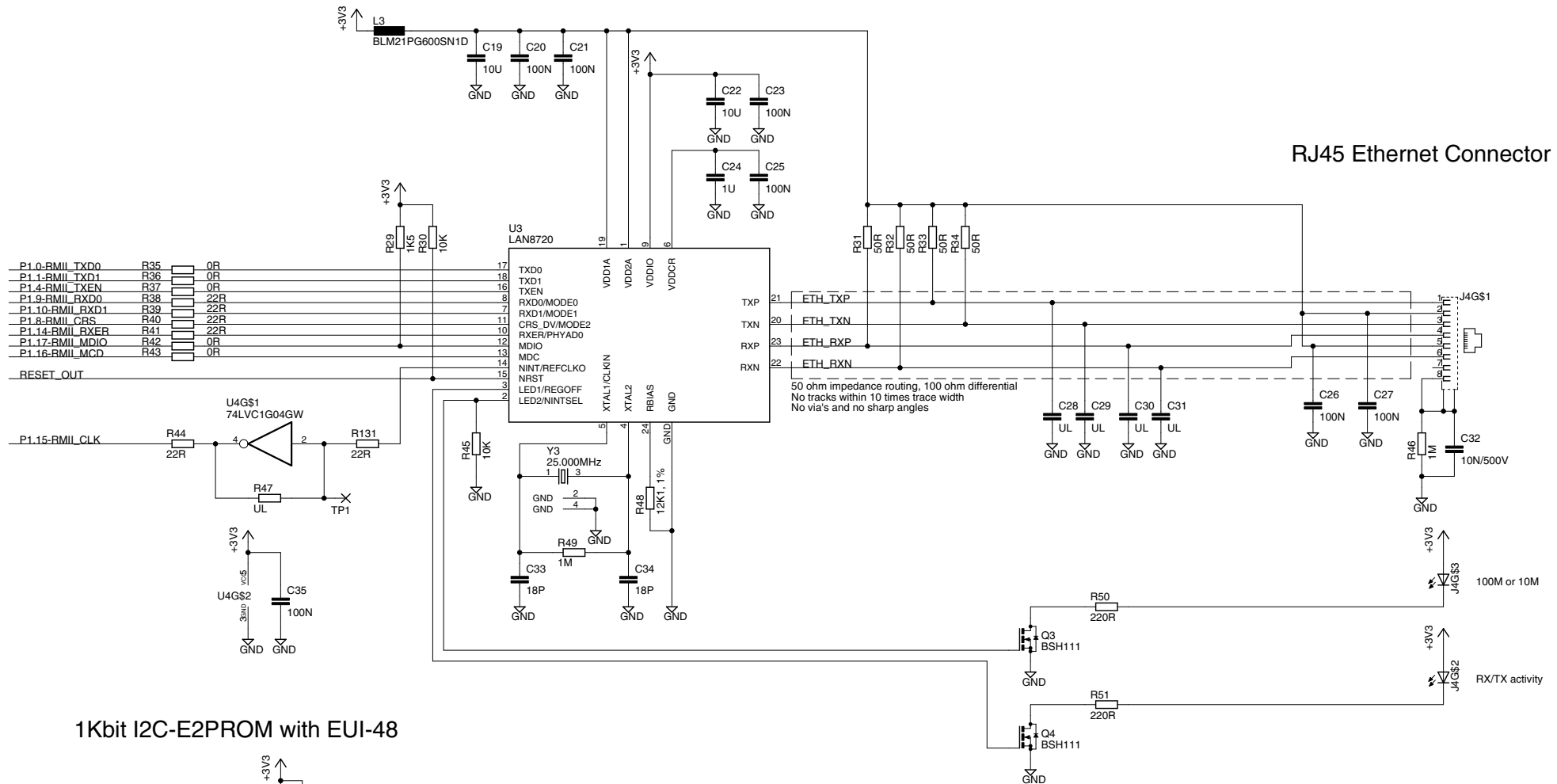
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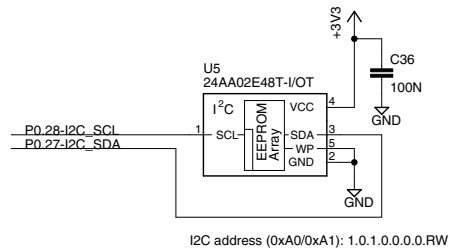
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# 100/10M Ethernet PHY (via RMIi interface)



1Kbit I2C-E2PROM with EUI-48



Note: Boards produced before March 2013 are equipped with 32Kbit I2C-E2PROM (24LC32AT-I/OT). From WO#467 (identification number on bottom of pcb) and higher numbers, the 24AA02E48T-I/OT is mounted instead. The software autodetects which chip that is mounted.



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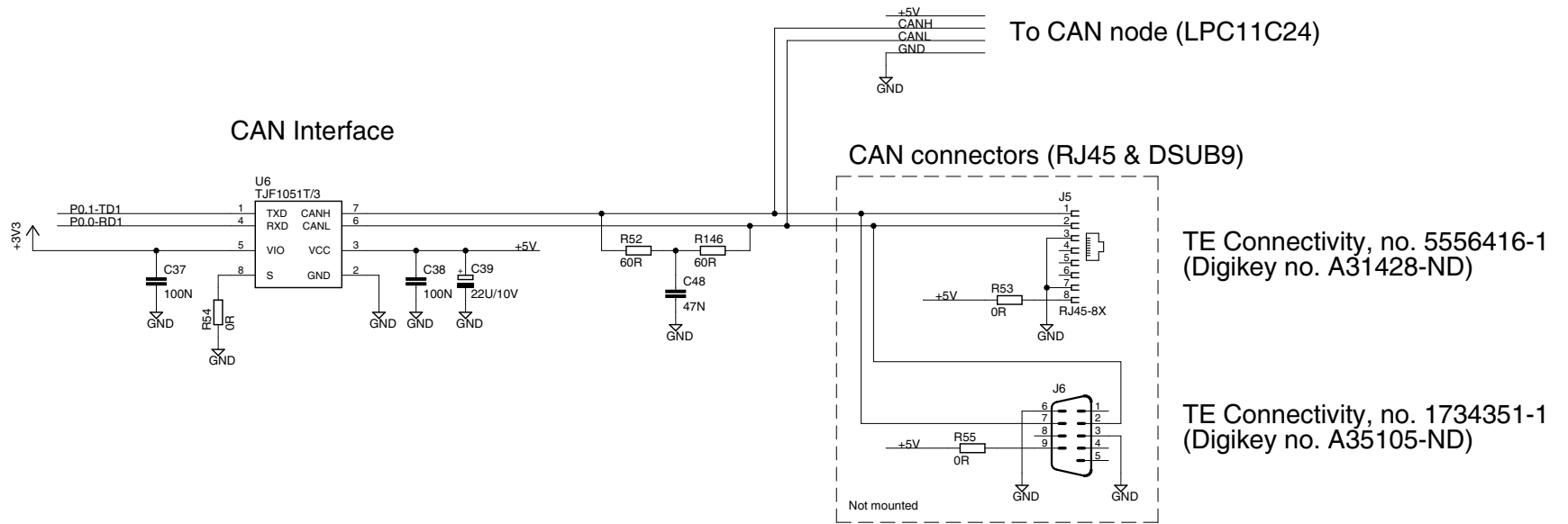
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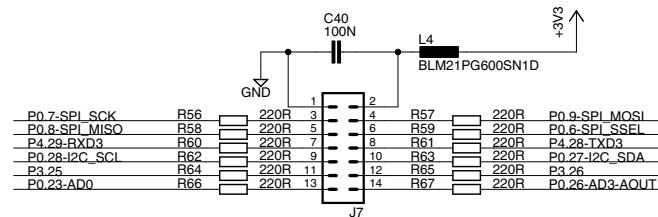
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# CAN and Serial expansion interface



## Serial Expansion Connector

1: GND	2: VCC (3.3V, max 250mA)
3: SPI-SCK (output)	4: SPI-MOSI (output)
5: SPI-MISO (input)	6: SPI-SSEL (output)
7: UART-RX (input)	8: UART-TX (output)
9: I2C-SCL (output)	10: I2C-SDA (bidirectional)
11: GPIO (bidirectional)	12: GPIO (bidirectional)
13: AIN0/GPIO (input)	14: AIN3/AOUT/GPIO (input)



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TITLE: A0A Application Board A

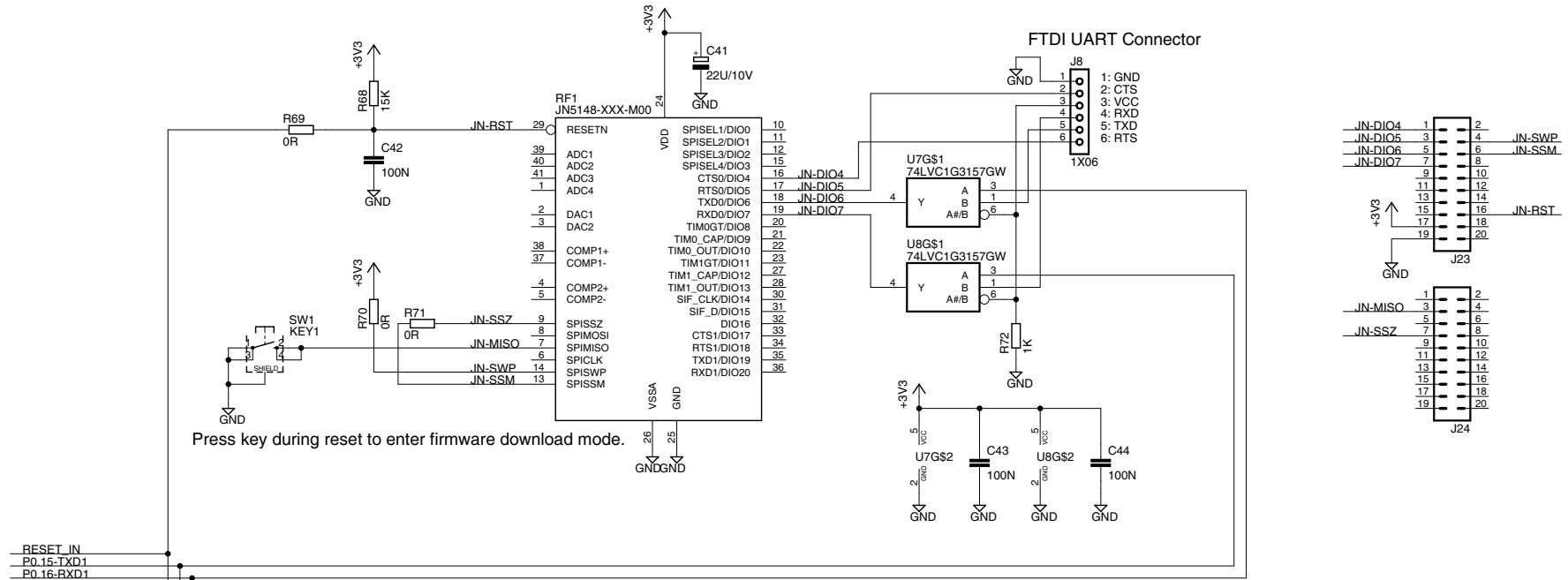
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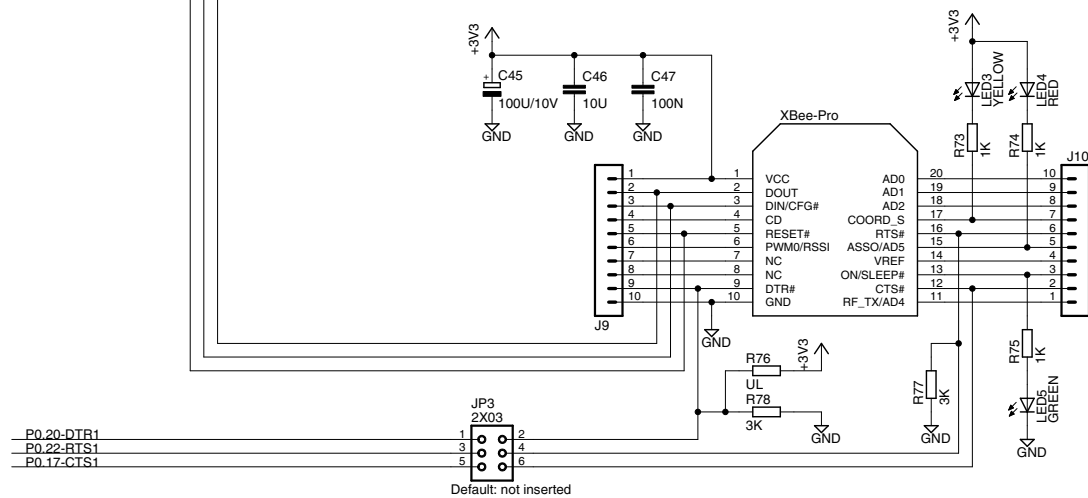
# RF interfaces

NOTE 1: Only one RF-module monted at a time.  
 NOTE 2: RF-modules must be bought separately.

## NXP/Jennic RF-module



## Digi XBee(R) RF-module



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TITLE: A0A Application Board A

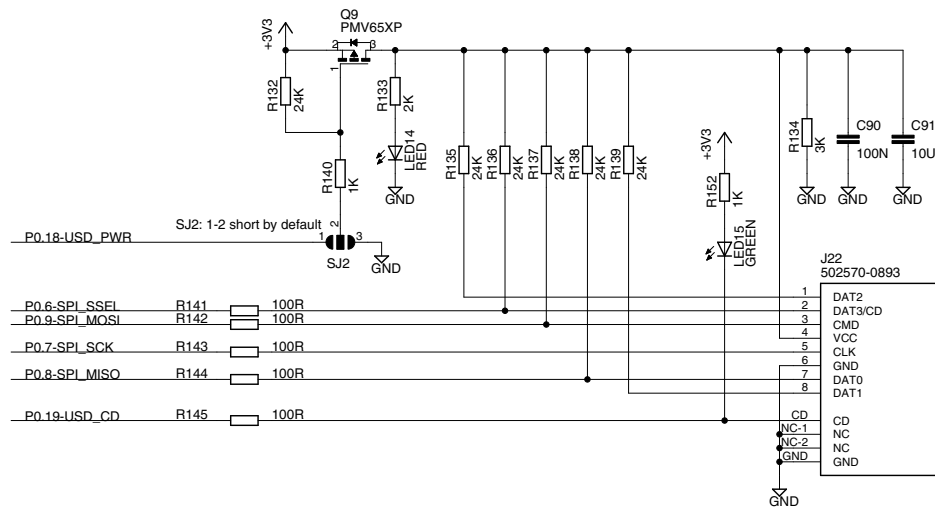
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Date: 2013-04-12 15:52:05

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uSD interface

uSD Memory Card Interface (SPI interface mode)



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TITLE: A0A Application Board A

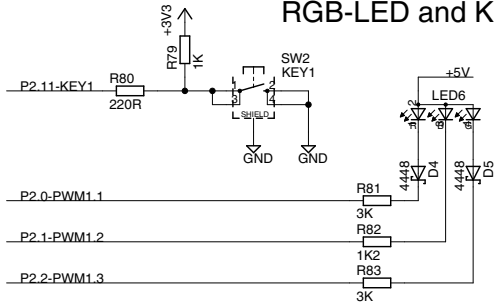
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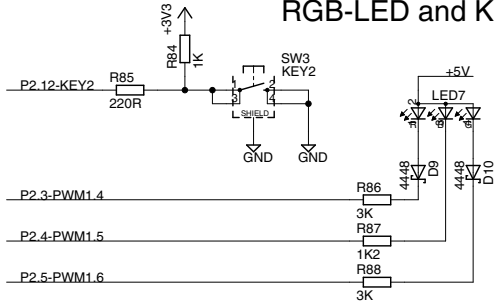
Sheet: 7/10

# LPC1769 I/O and Peripherals

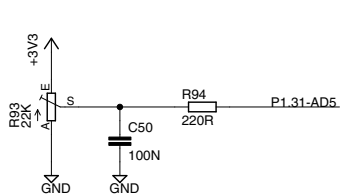
## RGB-LED and KEY #1



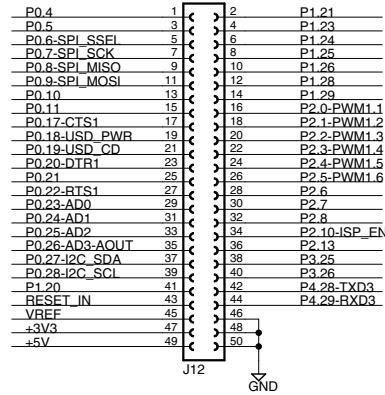
## RGB-LED and KEY #2



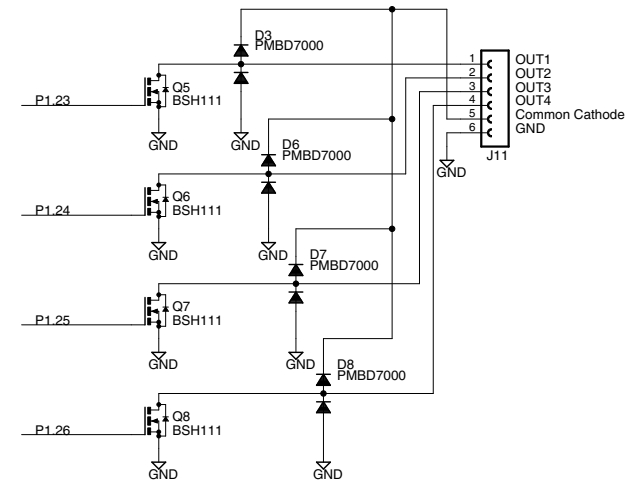
## Analog Input



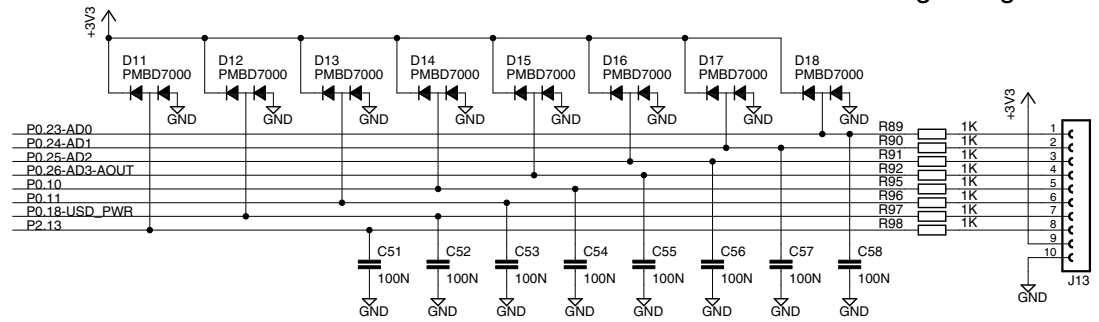
## Expansion connector



## 4 Open Drain Outputs



## 8 Protected Analogue/Digital I/O



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TITLE: A0A Application Board A

Document Number:

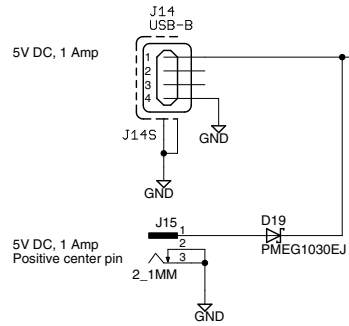
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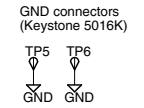
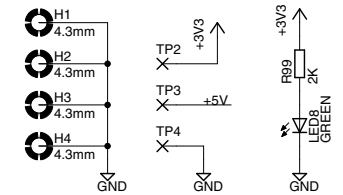
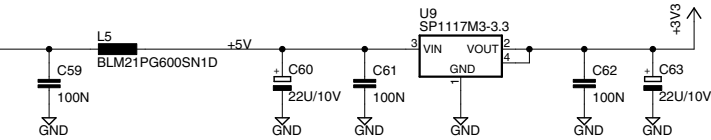


# Power supply and UART-to-USB bridge

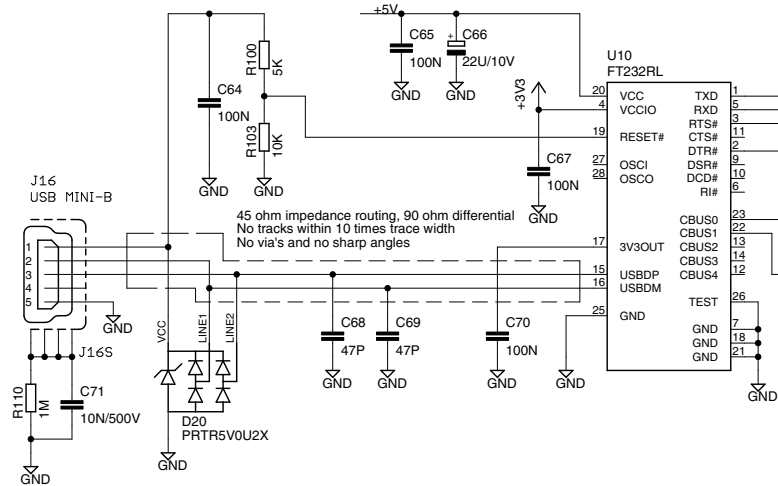
## USB Device connector for Powering



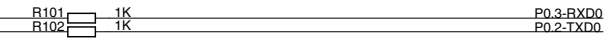
## 3.3V Power Supply



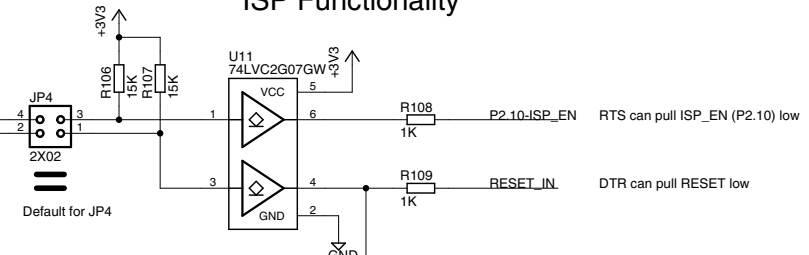
## USB-to-UART bridge interface



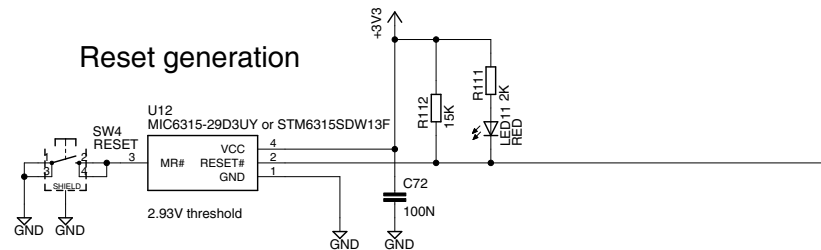
## UART#0



## ISP Functionality



## Reset generation



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TITLE: A0A Application Board A

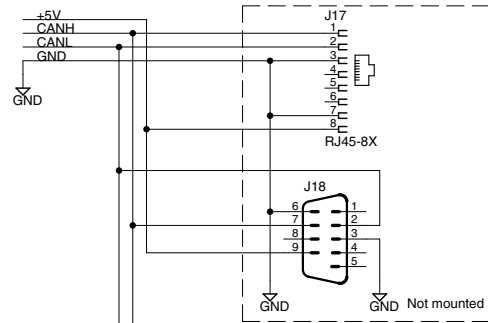
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From LPC1769 side

CAN connector  
(RJ45 & DSUB9)

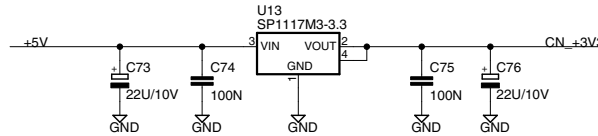
CAN node (LPC11C24 based)



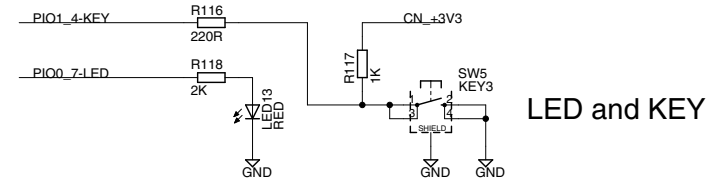
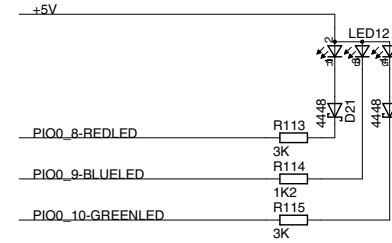
TE Connectivity, no. 5556416-1  
(Digikey no. A31428-ND)

Norcomp Inc., no. 171-009-113R001  
(Digikey no. 4209ME-ND)

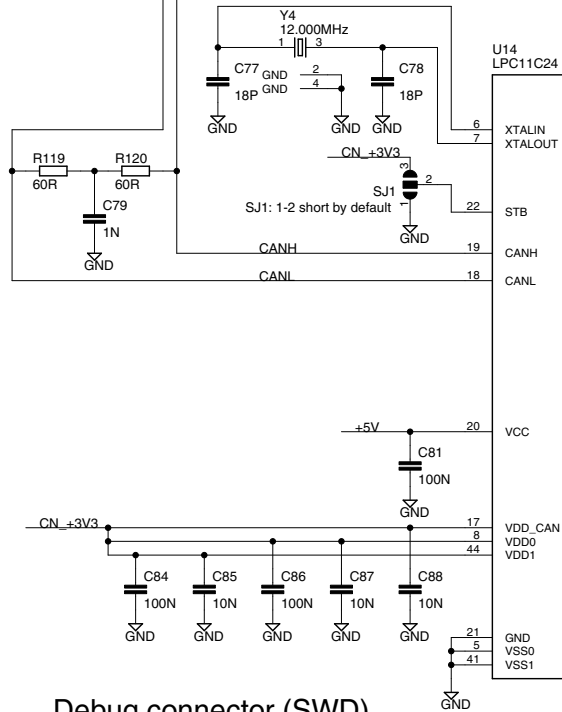
3.3V Power Supply



RGB-LED



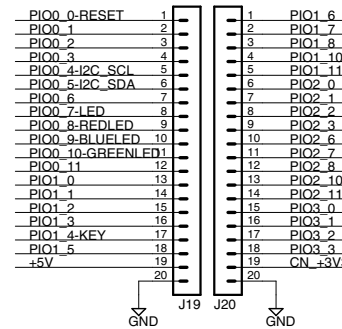
LED and KEY



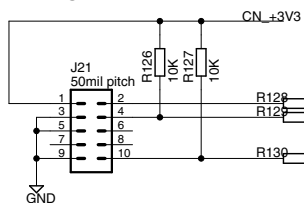
U14  
LPC11C24

RESET/PIO0_0	3	PIO0_0-RESET
PIO0_1/CLKOUT/CT32B0_MAT2	4	PIO0_1
PIO0_2/SSEL0/CT16B0_CAP0	10	PIO0_2
PIO0_3	14	PIO0_3
PIO0_4/SCL	15	PIO0_4-I2C_SCL
PIO0_5/SDA	16	PIO0_5-I2C_SDA
PIO0_6/SCK0	23	PIO0_6
PIO0_7/CTS	24	PIO0_7-LED
PIO0_8/MISO/CT16B0_MAT0	27	PIO0_8-REDLED
PIO0_9/MOSI/CT16B0_MAT1	28	PIO0_9-BLUELED
SWCLK/PIO0_10/SCK0/CT16B0_MAT2	29	PIO0_10-GREENLED
R/PIO0_11/AD0/CT32B0_MAT3	32	PIO0_11
R/PIO1_0/AD1/CT32B1_CAP0	33	PIO1_0
R/PIO1_1/AD2/CT32B1_MAT0	34	PIO1_1
R/PIO1_2/AD3/CT32B1_MAT1	35	PIO1_2
SWDIO/PIO1_3/AD4/CT32B1_MAT2	39	PIO1_3
PIO1_4/AD5/CT32B1_MAT3/WAKEUP	40	PIO1_4-KEY
PIO1_5/RTS/CT32B0_CAP0	45	PIO1_5
PIO1_6/RXD/CT32B0_MAT0	48	PIO1_6
PIO1_7/TXD/CT32B0_MAT1	47	PIO1_7
PIO1_8/CT16B1_CAP0	9	PIO1_8
PIO1_10/AD6/CT16B1_MAT1	30	PIO1_10
PIO1_11/AD7	42	PIO1_11
PIO2_0/DTR/SSEL1	2	PIO2_0
PIO2_1/DSR/SCK1	13	PIO2_1
PIO2_2/DCD/MISO1	26	PIO2_2
PIO2_3/RI/MOSI1	38	PIO2_3
PIO2_6	1	PIO2_6
PIO2_7	11	PIO2_7
PIO2_8	12	PIO2_8
PIO2_10	25	PIO2_10
PIO2_11/SCK0	31	PIO2_11
PIO3_0/DTR	36	PIO3_0
PIO3_1/DSR	37	PIO3_1
PIO3_2/DCD	43	PIO3_2
PIO3_3/RI	48	PIO3_3

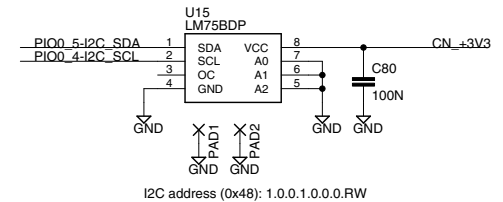
Expansion connectors



Debug connector (SWD)

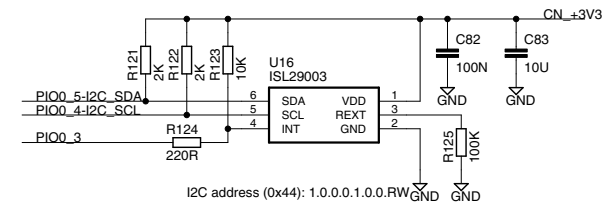


LM75 I2C Temperature Sensor



I2C address (0x48): 1.0.0.1.0.0.0.RW

Ambient Light Sensor - ISL29003



I2C address (0x44): 1.0.0.0.1.0.0.RW



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