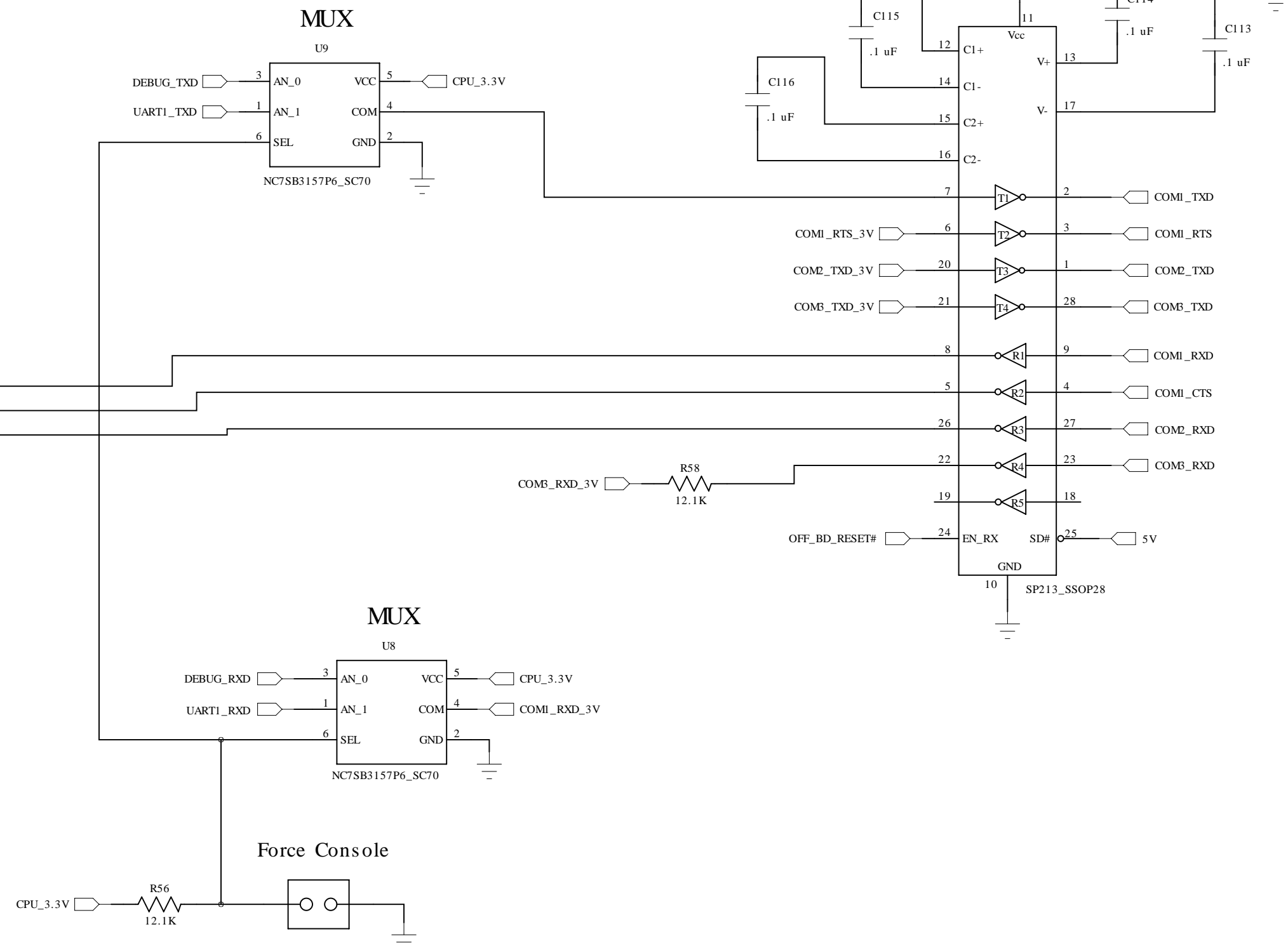
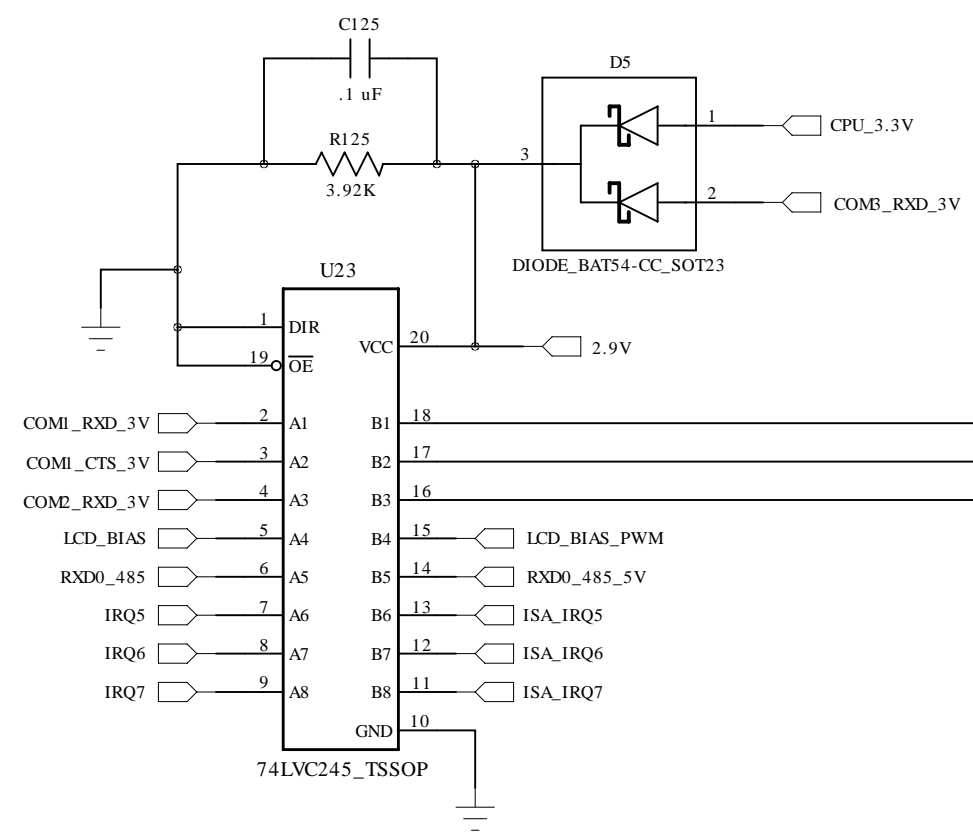
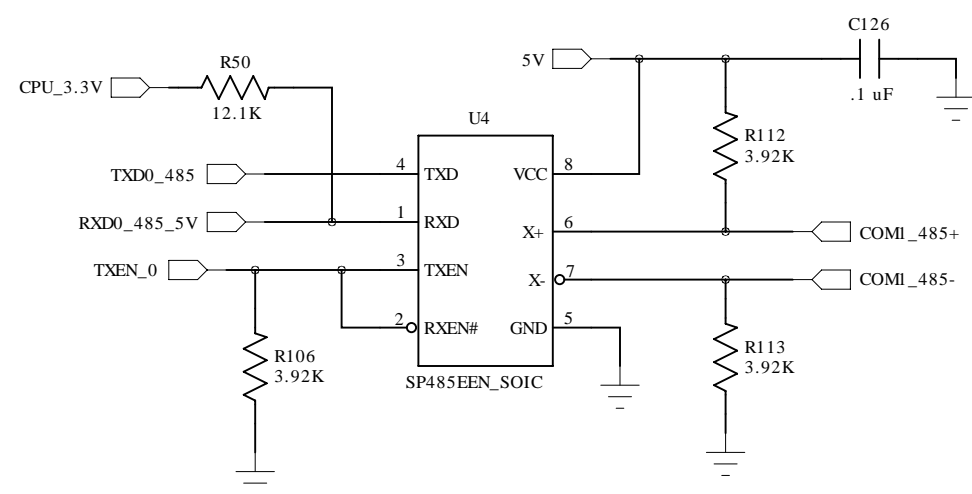


# RS-232 Transceiver

## 2.9V <-- 5V Level shifter

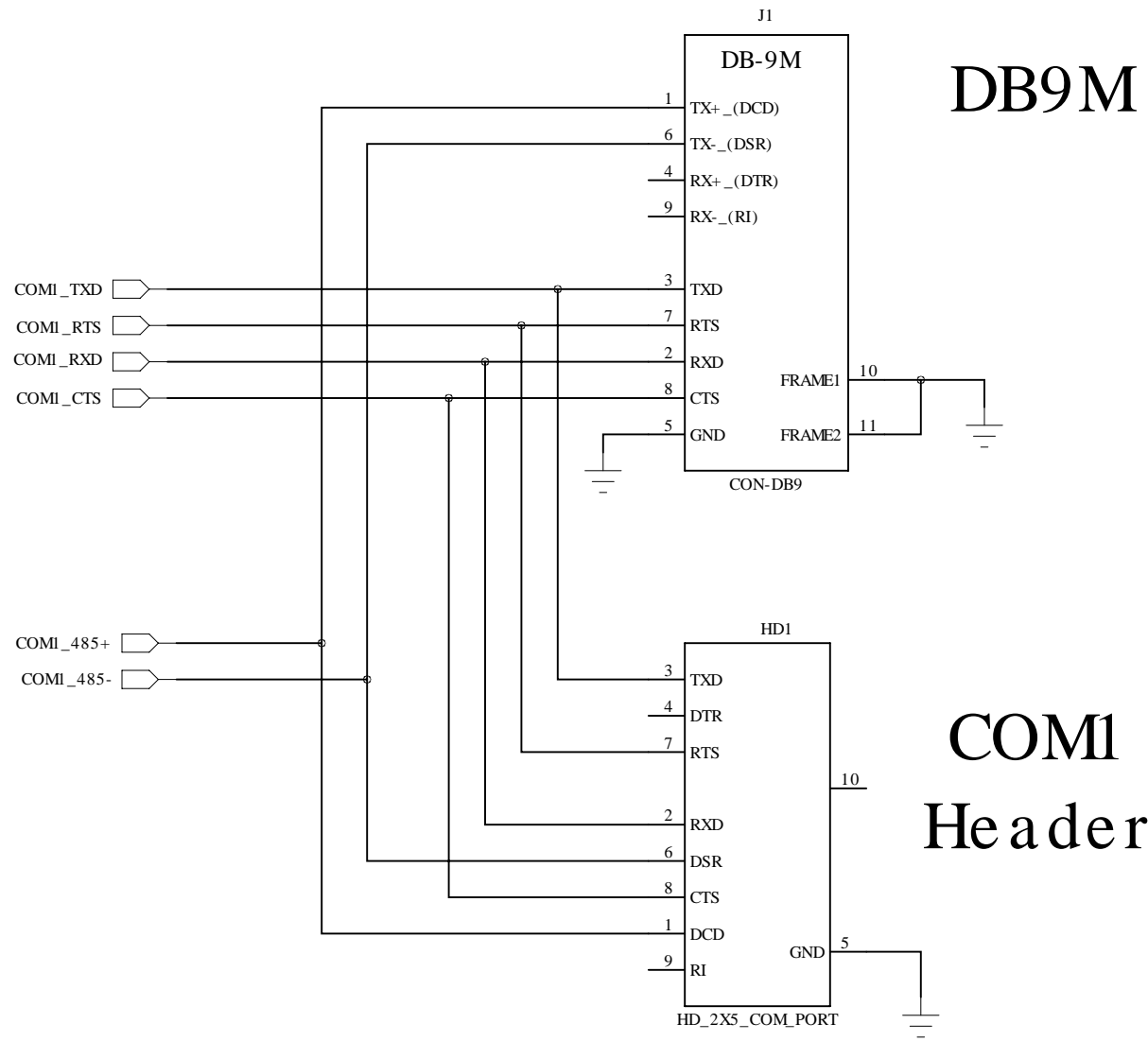


## COM1 RS-485 Driver



# COM Connectors and Headers

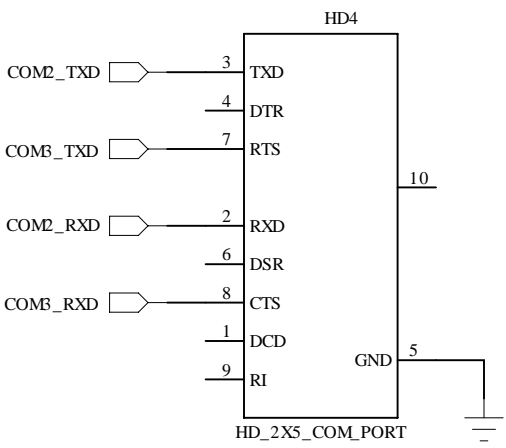
## COM1



DB9M

COM1 Header

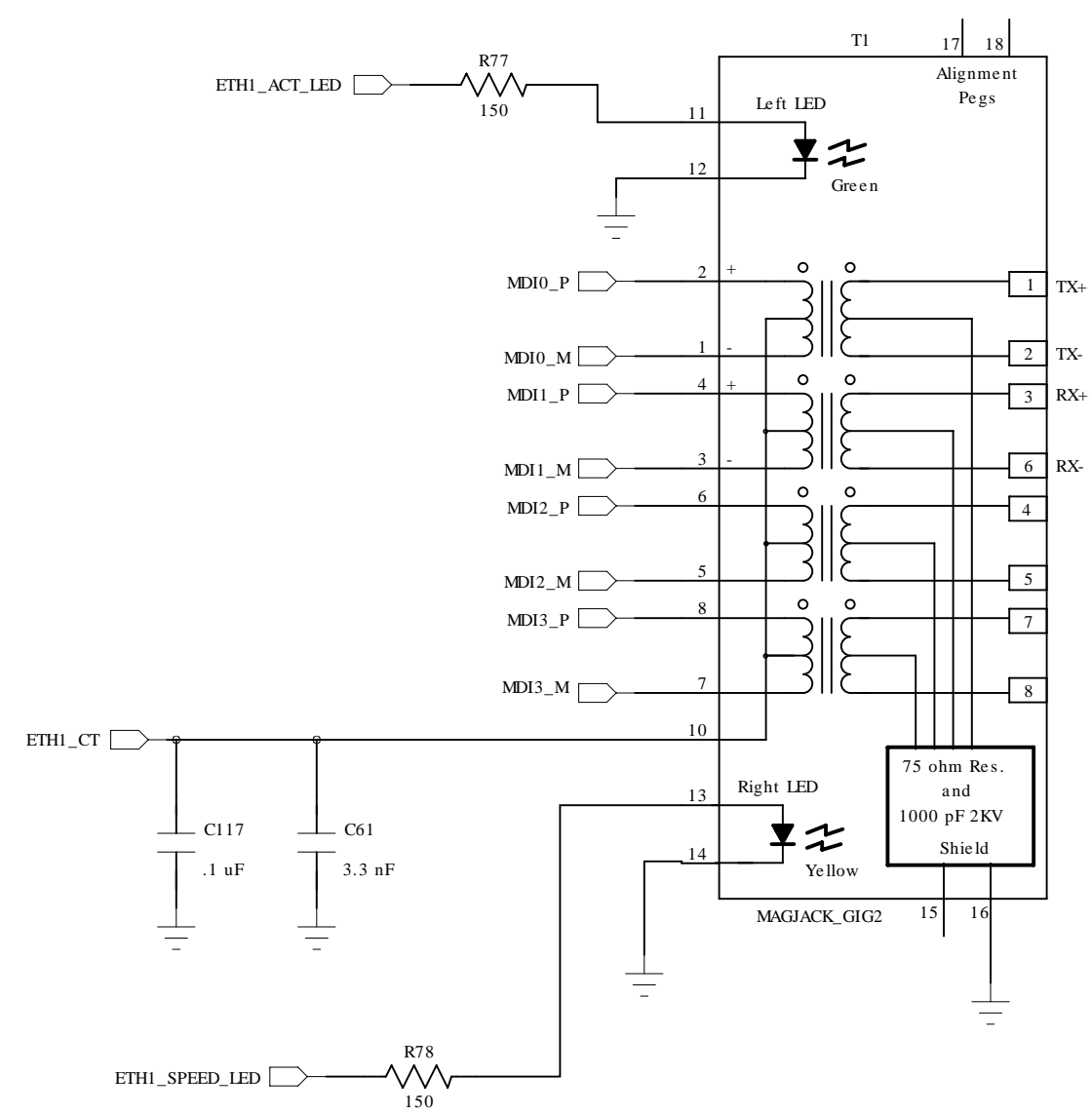
## COM2 Header



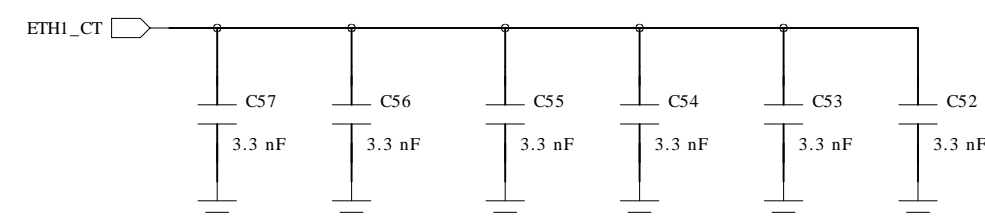
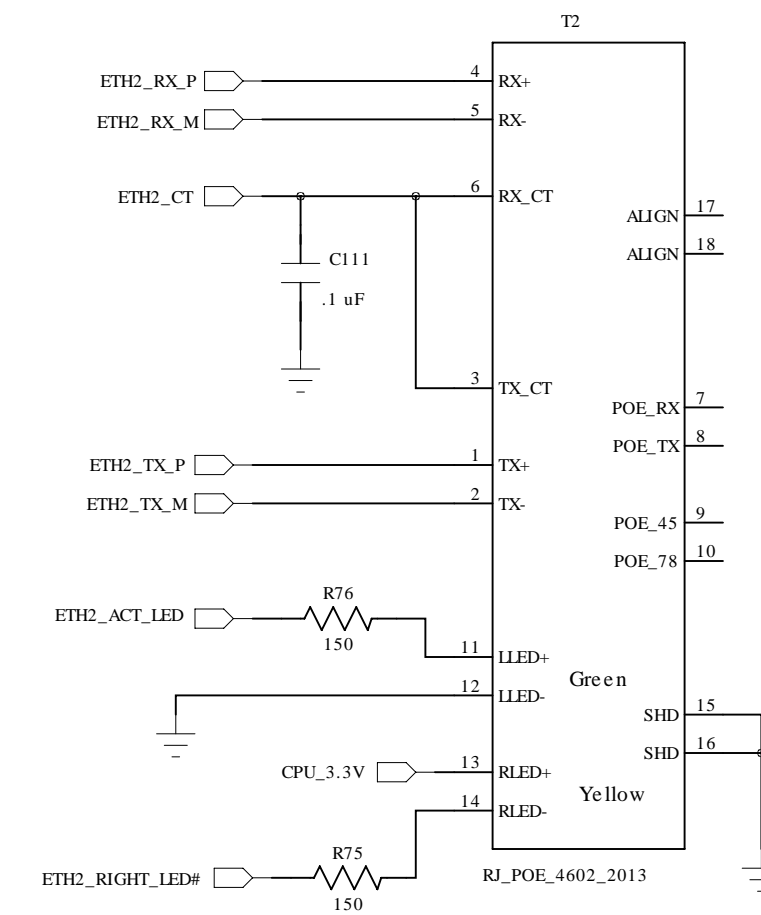
Beware Non-standrd pin-out

# Ethernet Ports

## Port # 1 Gig MagJack



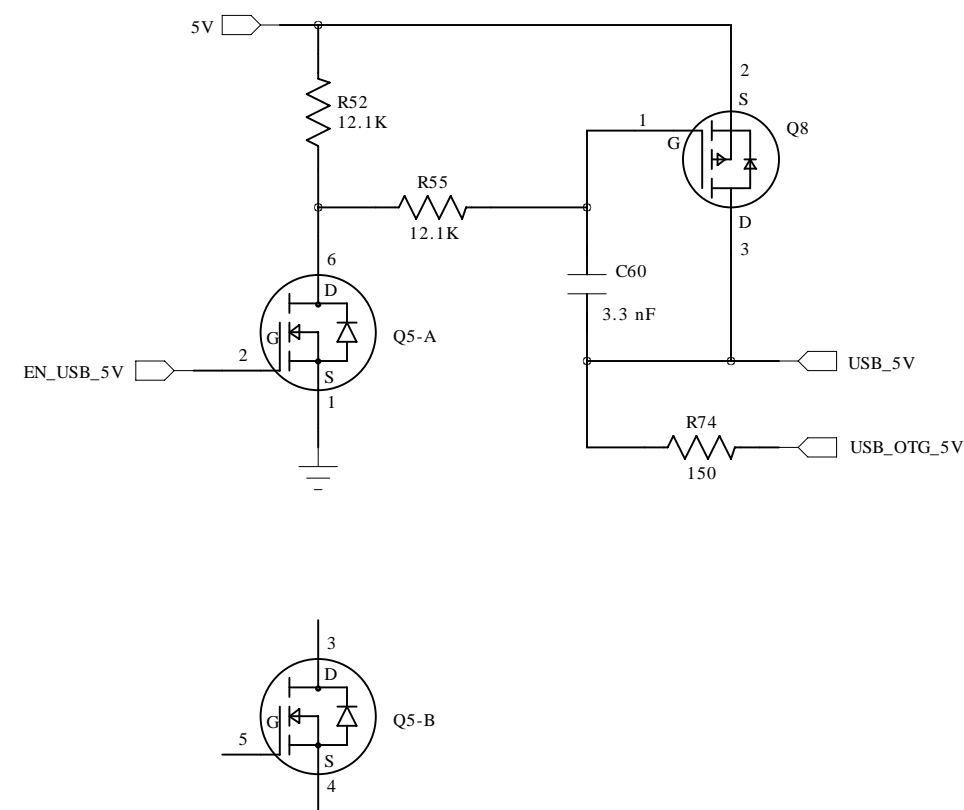
## Port # 2 10/100 MagJack



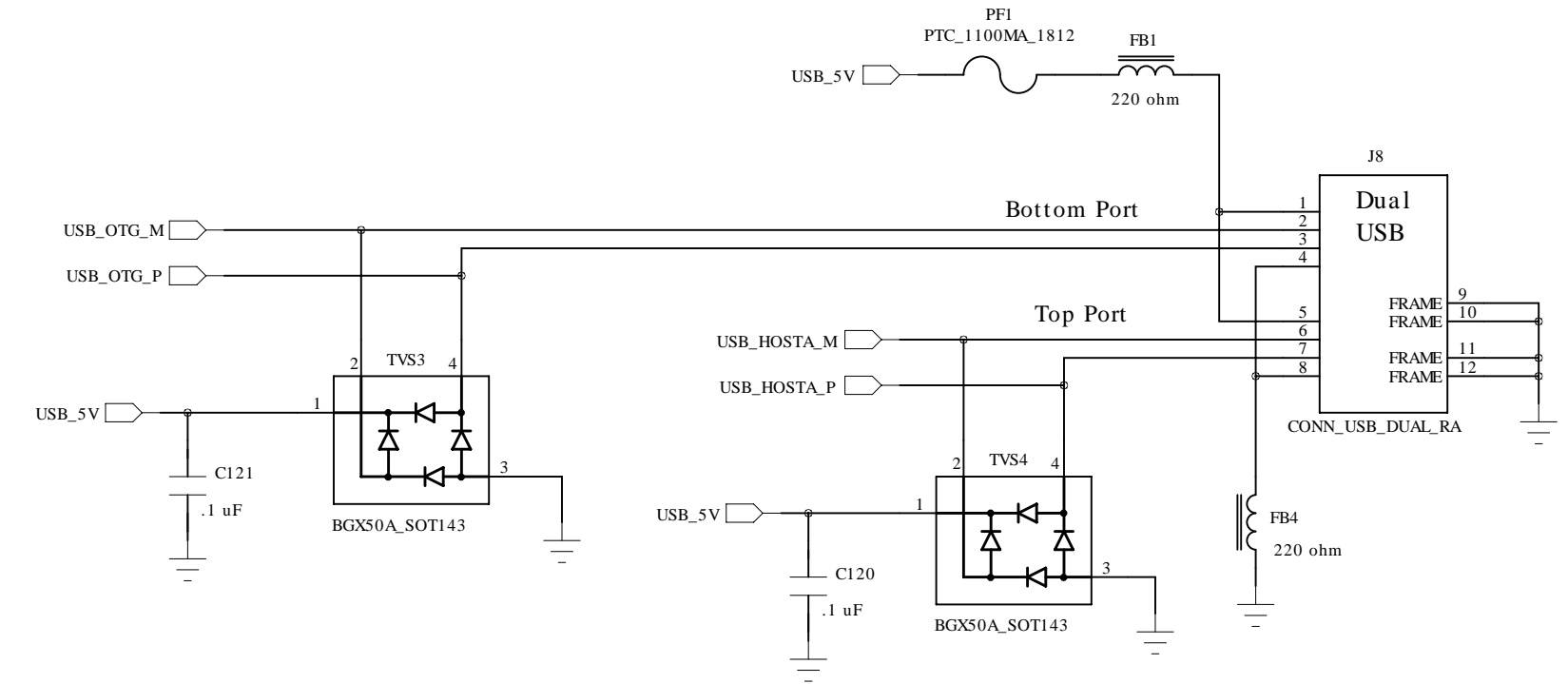
Technologic Systems		April 11, 2013
Title: TS-8150 Ethernet Ports		
Rev: A	Designer	Sheet 3 of 9

# USB Ports

## External USB Power Switch



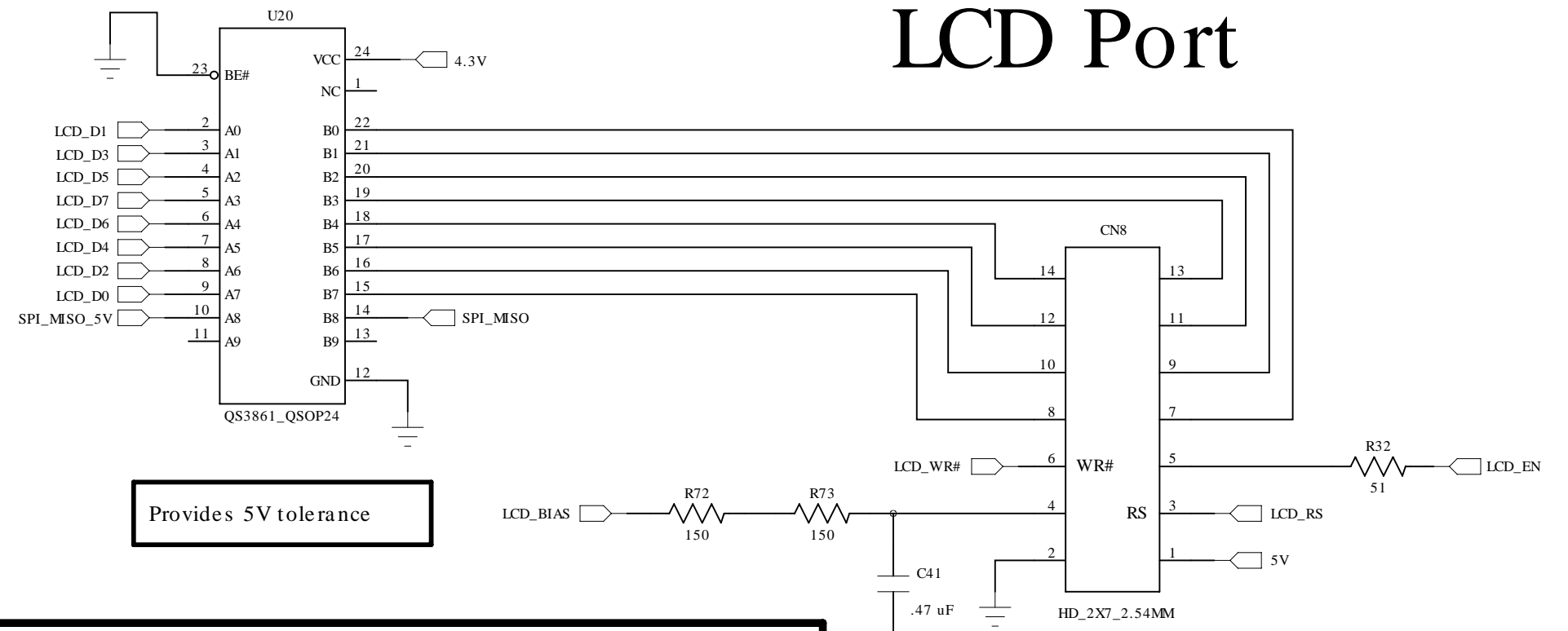
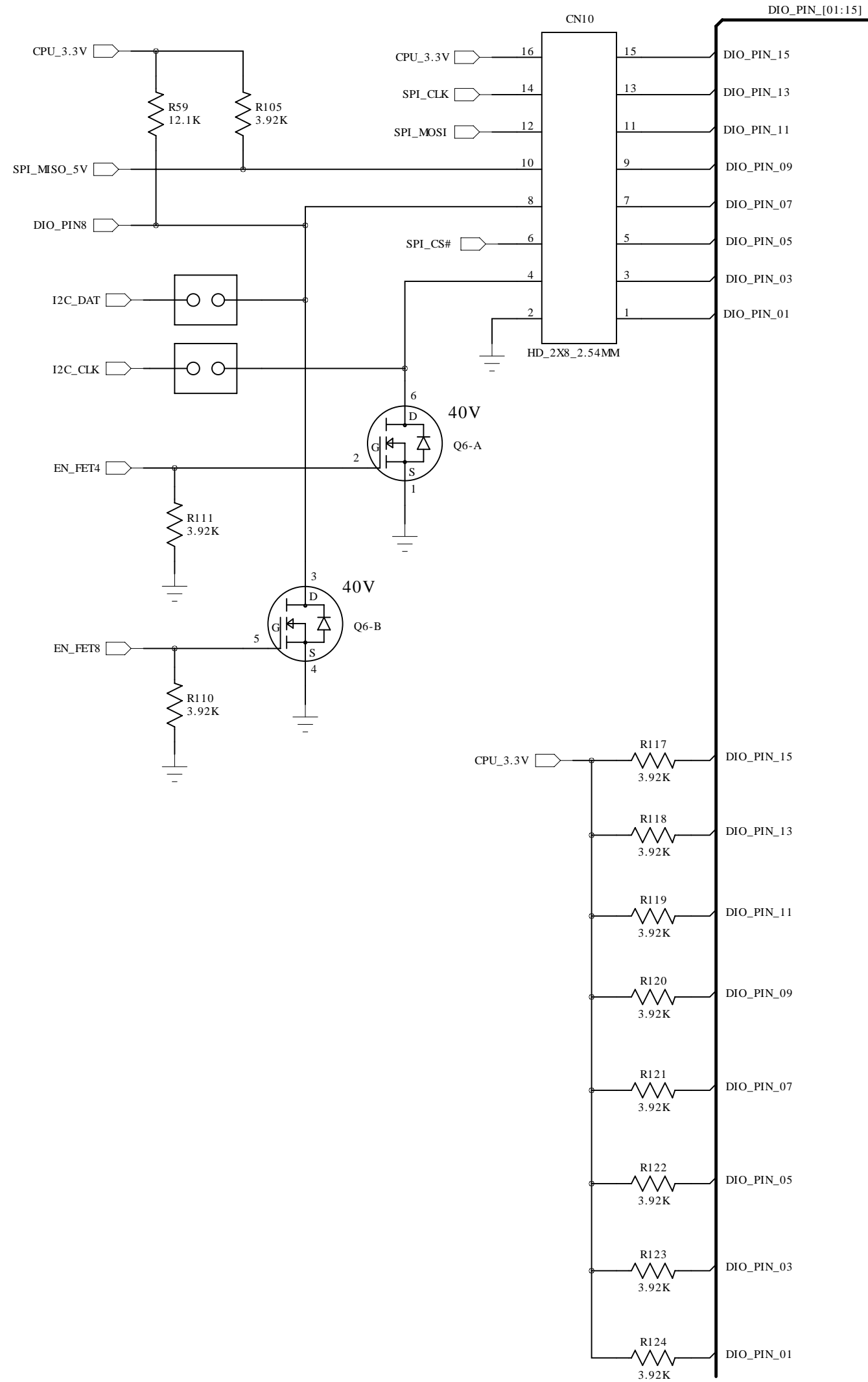
## External Dual USB



# DIO and LCD

Jumpers labeled "I2C" on PCB and "DIO8"

## DIO Port



## LCD Port

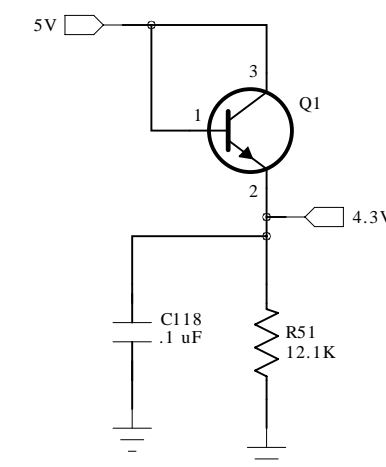
Provides 5V tolerance

**Warning:**  
LCD\_D0 thru LCD\_D7 are 5V tolerant  
LCD\_WR#, LCD\_RS, and LCD\_EN are not !

All LCD pins are bi-directional DIO

**Warning:**  
DIO are not 5V tolerant !  
Only SPI\_MISO is 5V tolerant

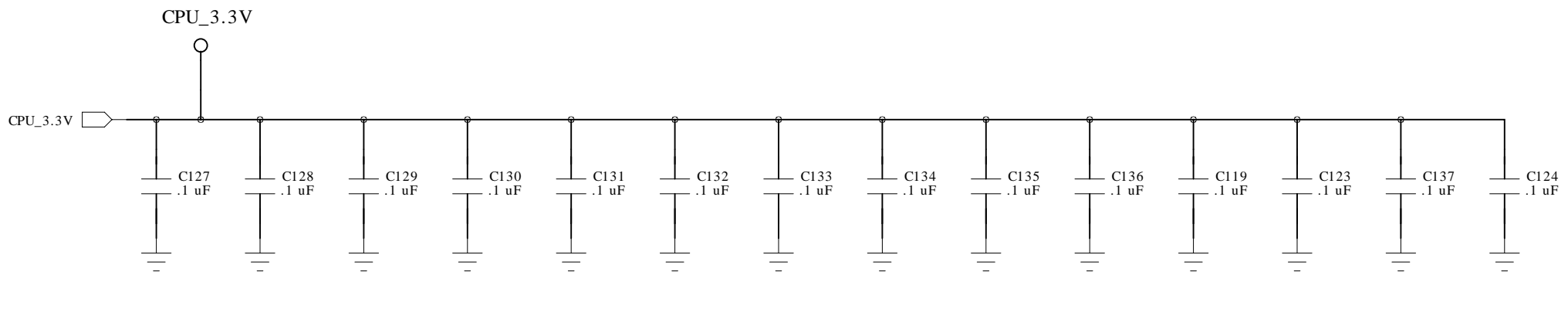
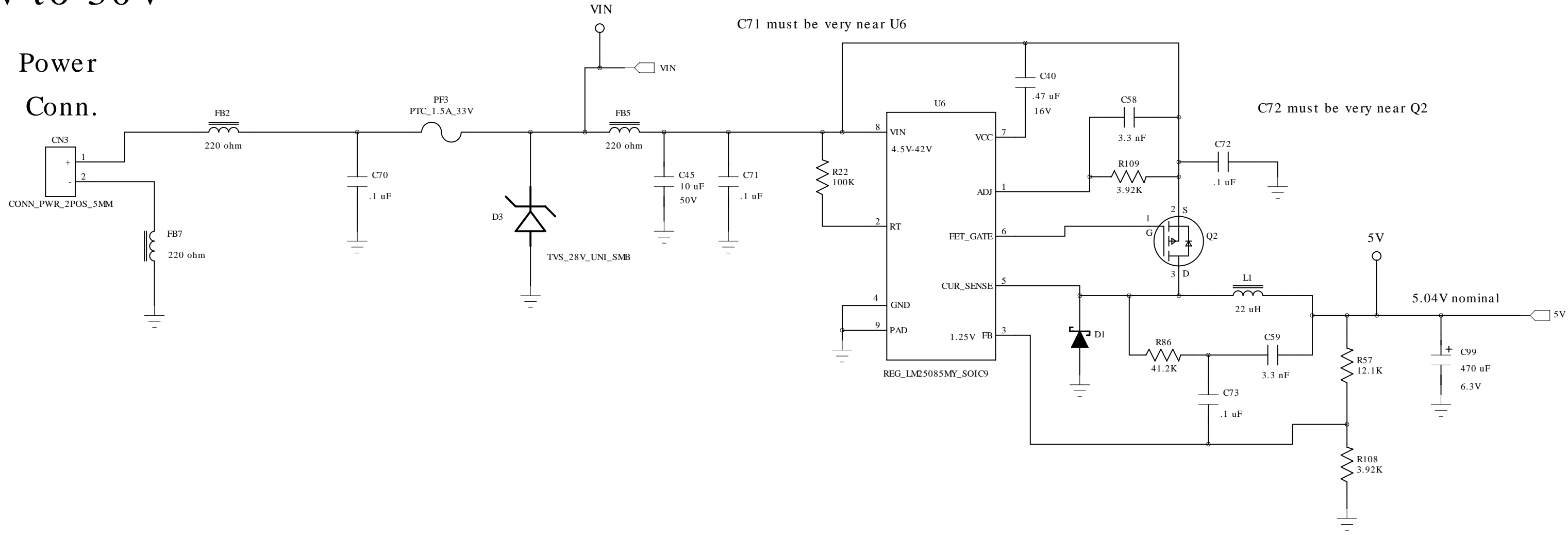
## 4.3V Supply



# 5V Power Supply (2.0 Amps)

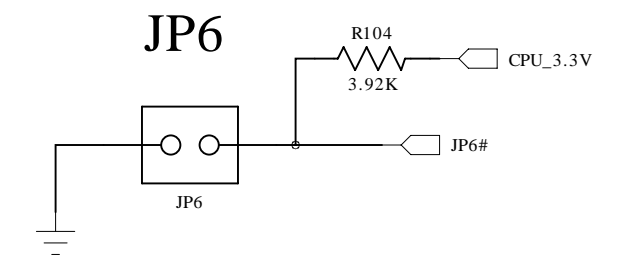
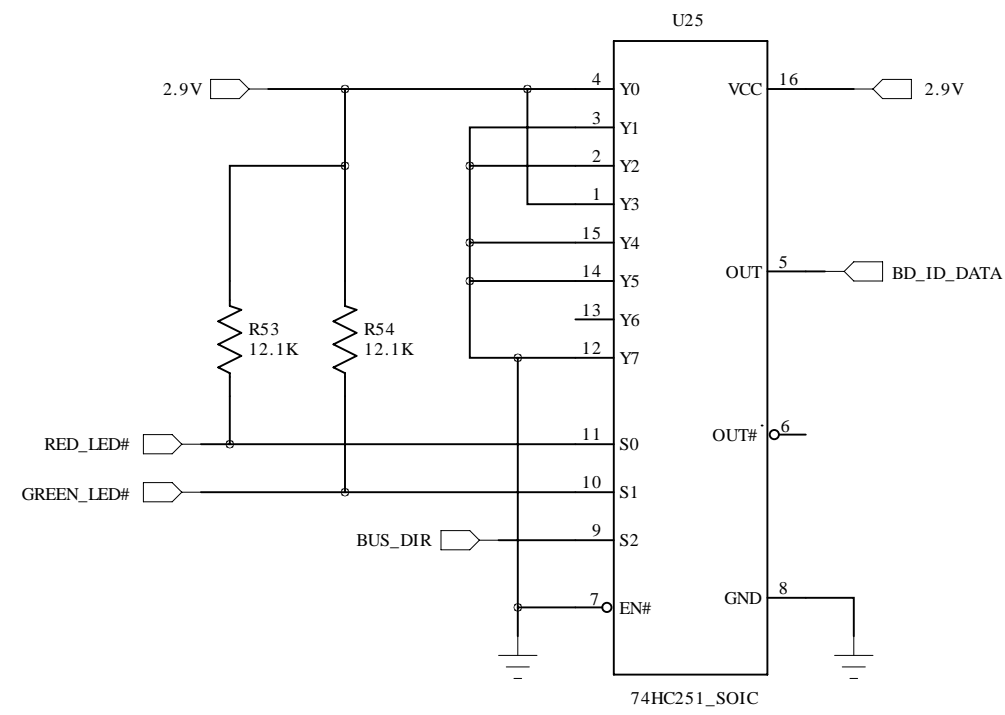
Input Power  
5.0V to 30V

Power  
Conn.

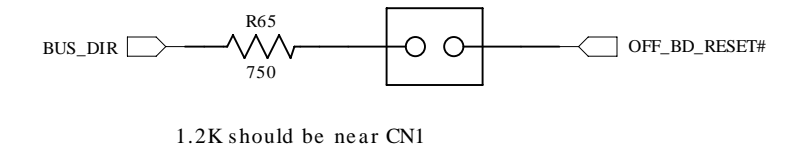


Technologic Systems	April 11, 2013
Title: TS-8150 5V Power	
Rev: A	Designer
Sheet 6 of 9	

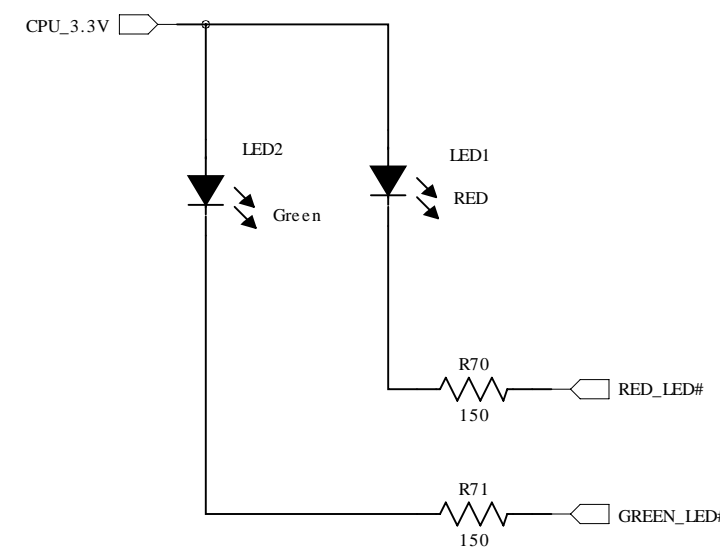
## Board ID = 9



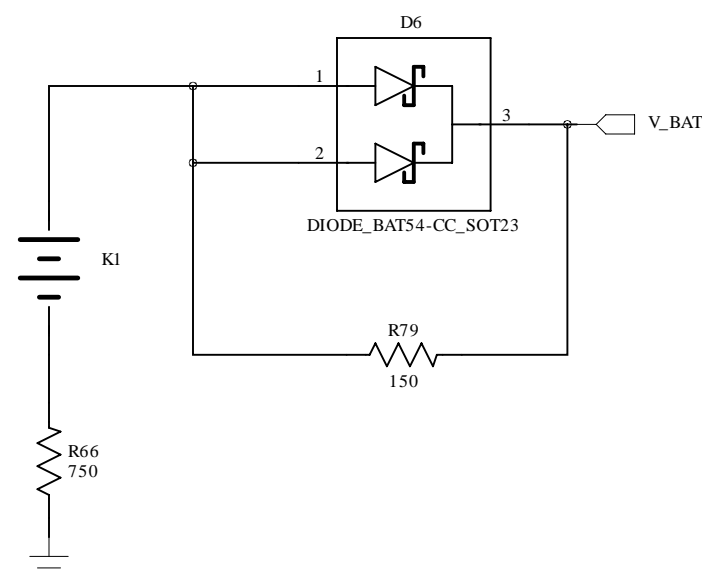
## Force Boot to SD card



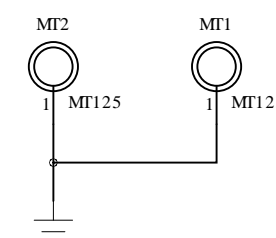
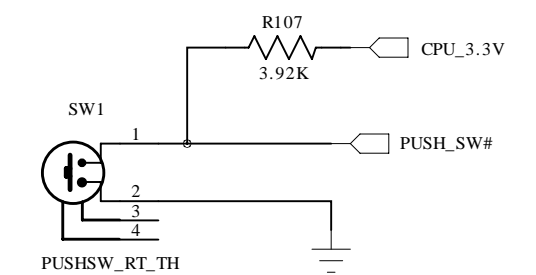
## LEDs



## RTC Battery



## Push Switch



Technologic Systems	April 11, 2013
Title: TS-8150 Battery, Board ID, LEDs	
Rev: A	Designer RLM Sheet 7 of 9

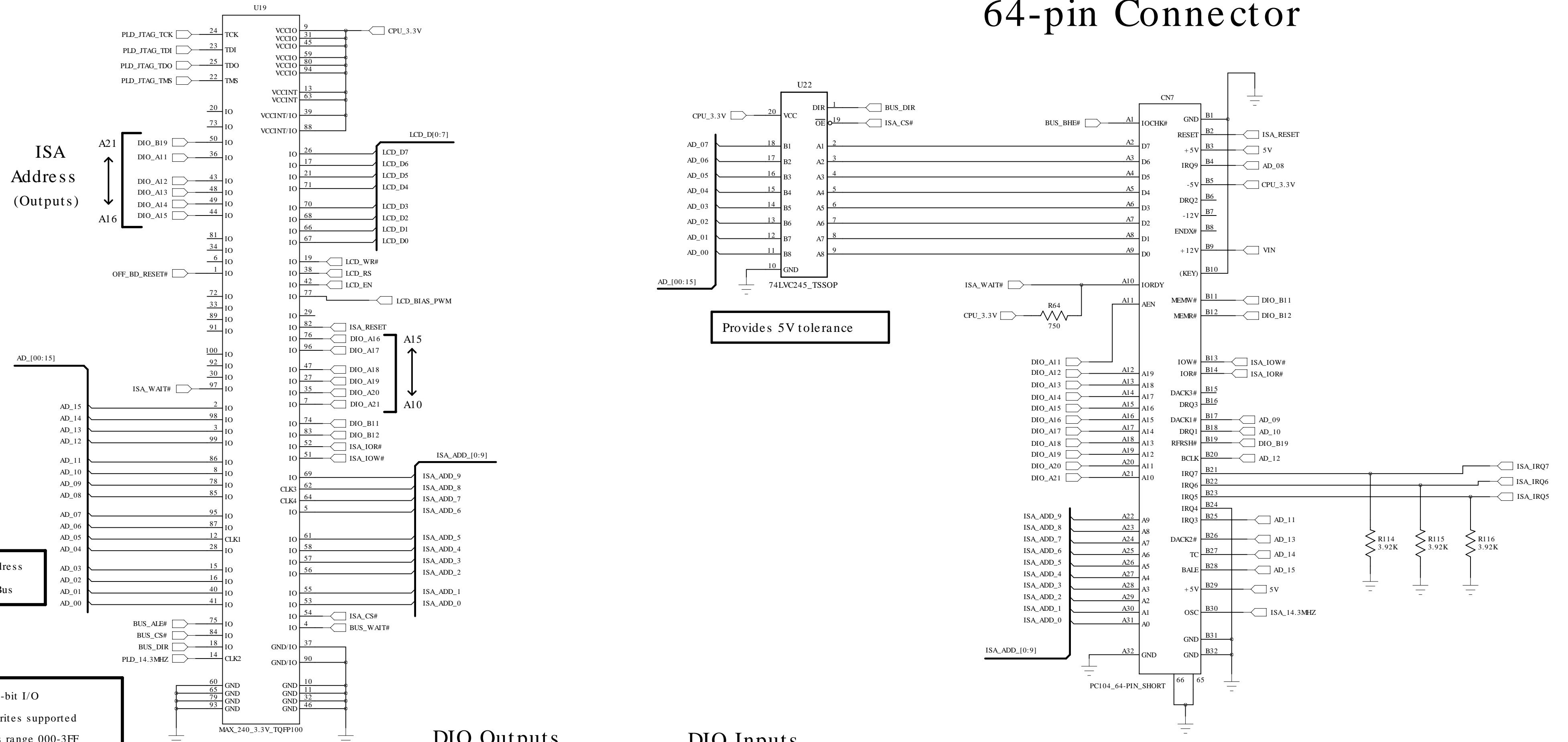
Inputs on Left

# PLD

Outputs on Right

# PC/104

## 64-pin Connector



Provides 5V tolerance

MUXed Address and Data Bus

8-bit and 16-bit I/O  
Read and Writes supported over address range 000-3FF

Address range 100-3FF drives PC/104 bus

Address range 000-0FF is internal PLD registers

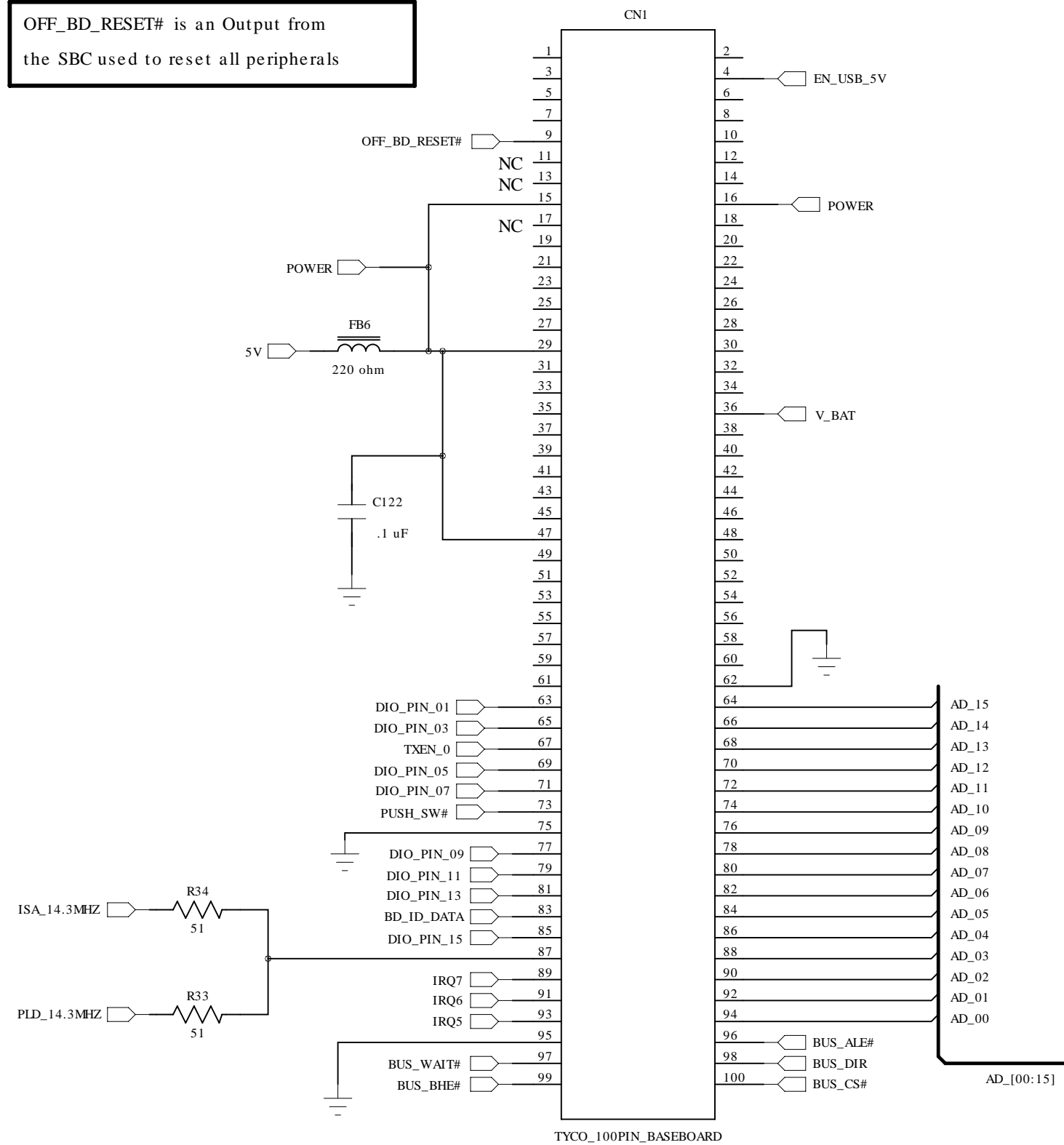
**DIO Outputs**  
DIO\_A11 thru DIO\_A21 and LCD\_EN should default to logic zero  
DIO\_B11 and DIO\_B12 should default to logic "1"

**DIO Inputs**  
LCD\_WR#, LCD\_RS and LCD\_D0 thru LCD\_D7 should default as Inputs

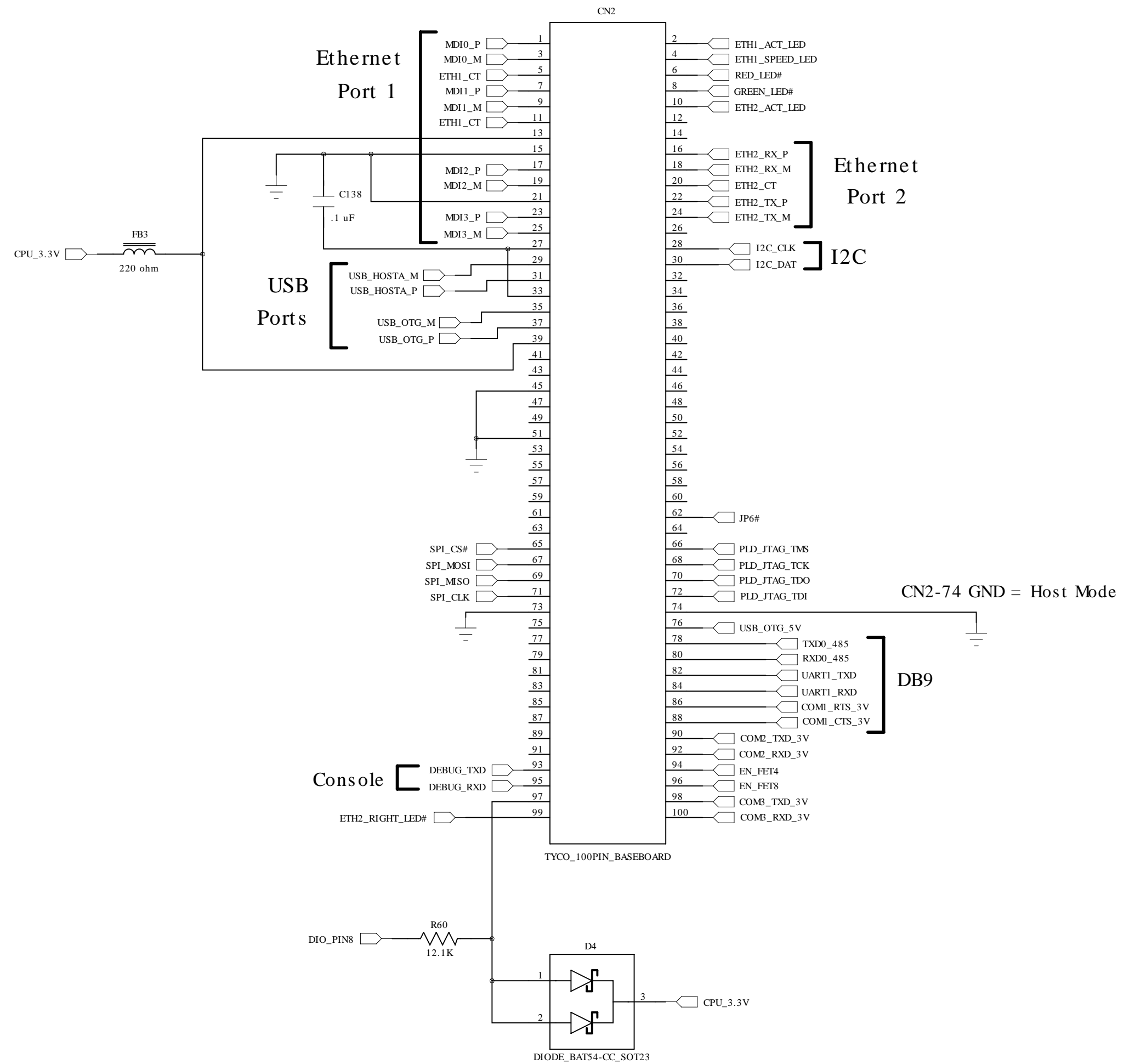


# Two 100-pin Module Connectors

Left



Right



## Boot Strap

BUS_DIR	SBC Boots from
1	NAND Flash
0	SD Card

BUS\_DIR state is latched prior to OFF\_BD\_RESET# deasserted

BUS\_DIR has a 12K pull-up resistor on the SBC module

Use 1.2K ohm resistor to OFF\_BD\_RESET# to strap logic low