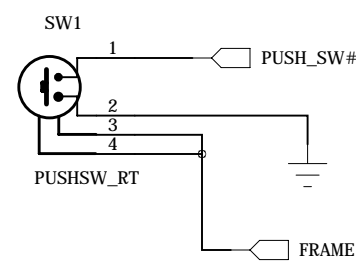


# TS-7552

with 5 USB Ports

## Push Switch

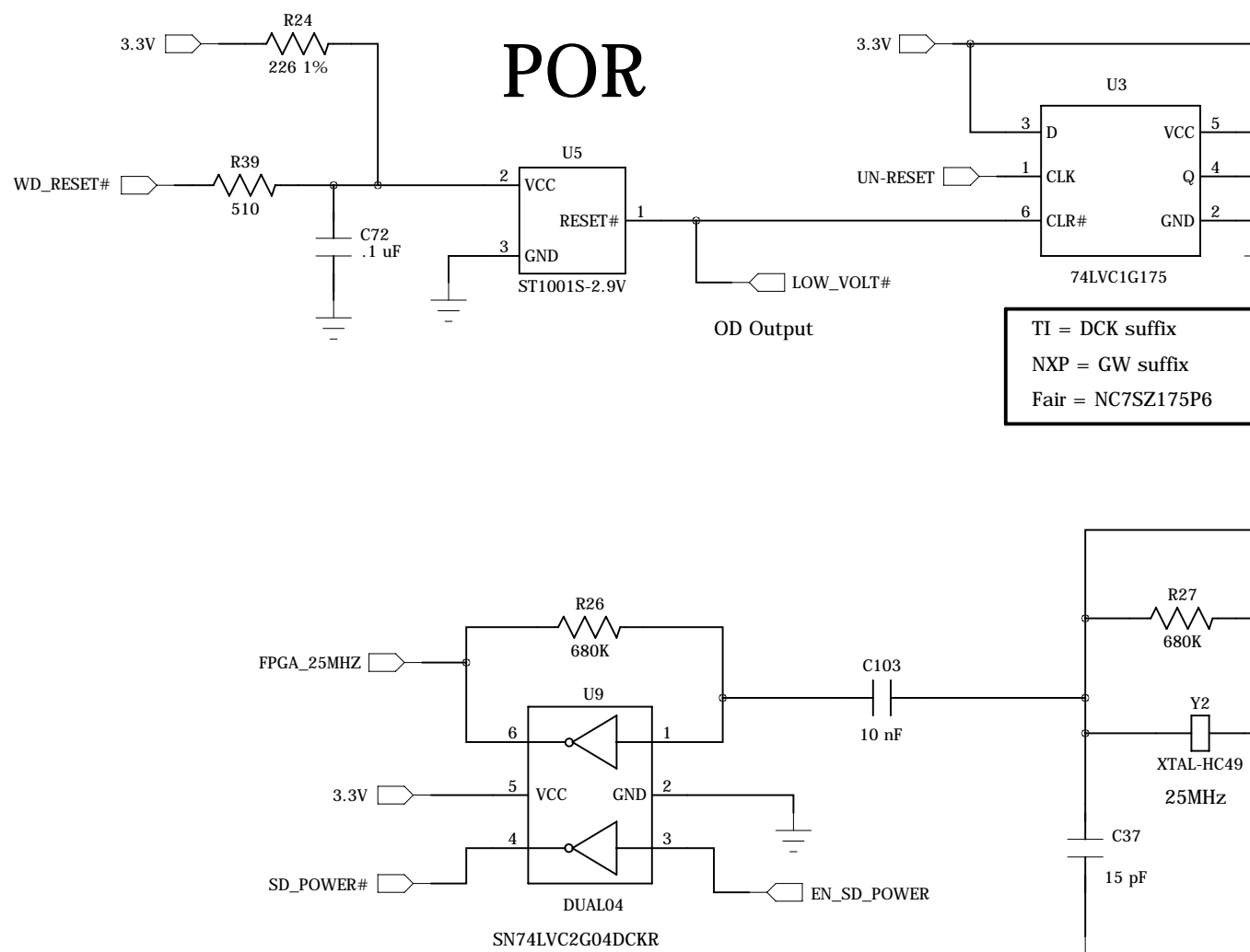


## Reset Latch

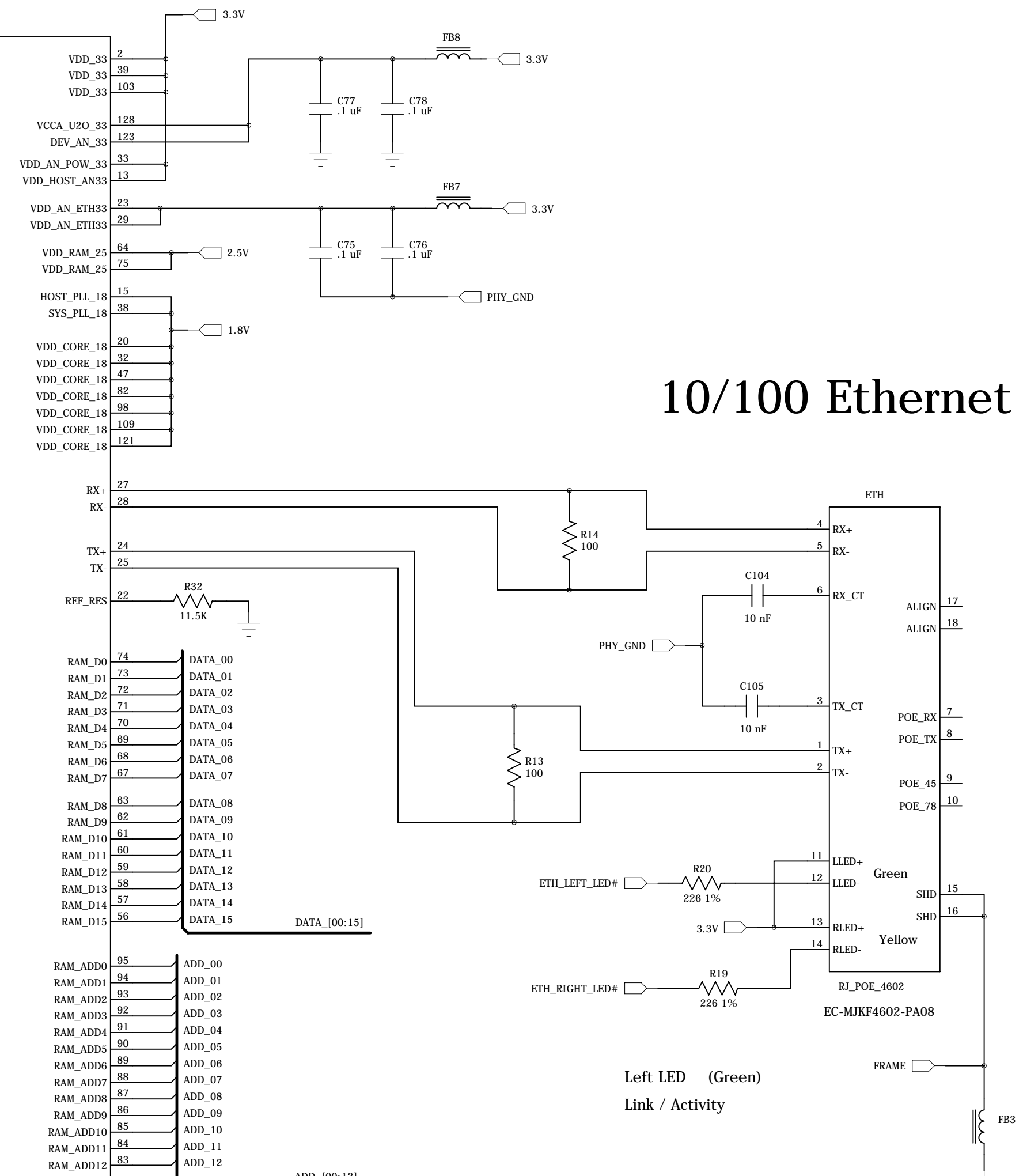
TI = DCK suffix  
NXP = GW suffix  
Fair = NC7SZ175P6

## POR

OD Output



## 10/100 Ethernet



Left LED (Green)  
Link / Activity

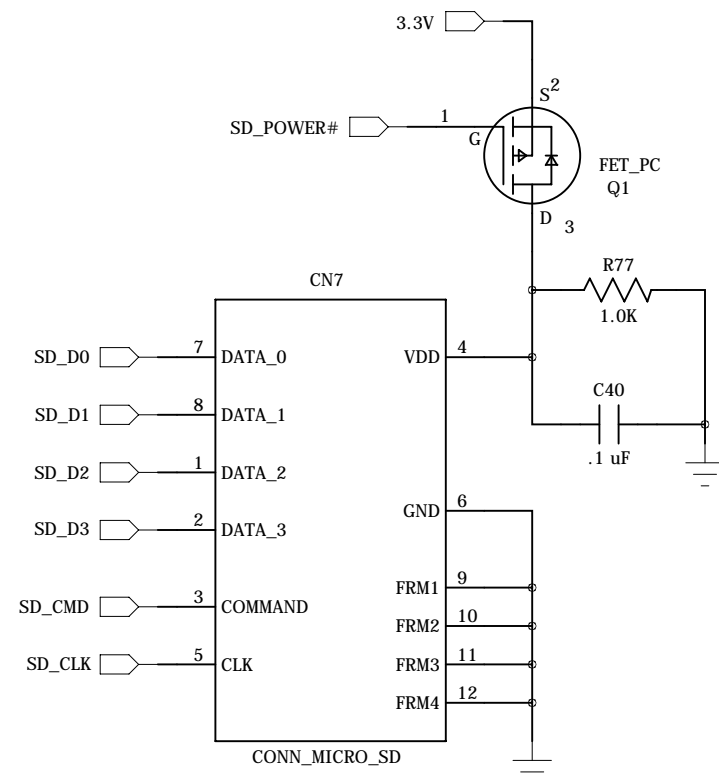
## Strap Options

- CLK\_OUT ICE mode (default high)
- SPI\_MOSI Low = Little Indian
- RAM\_CKE High = SPI Boot

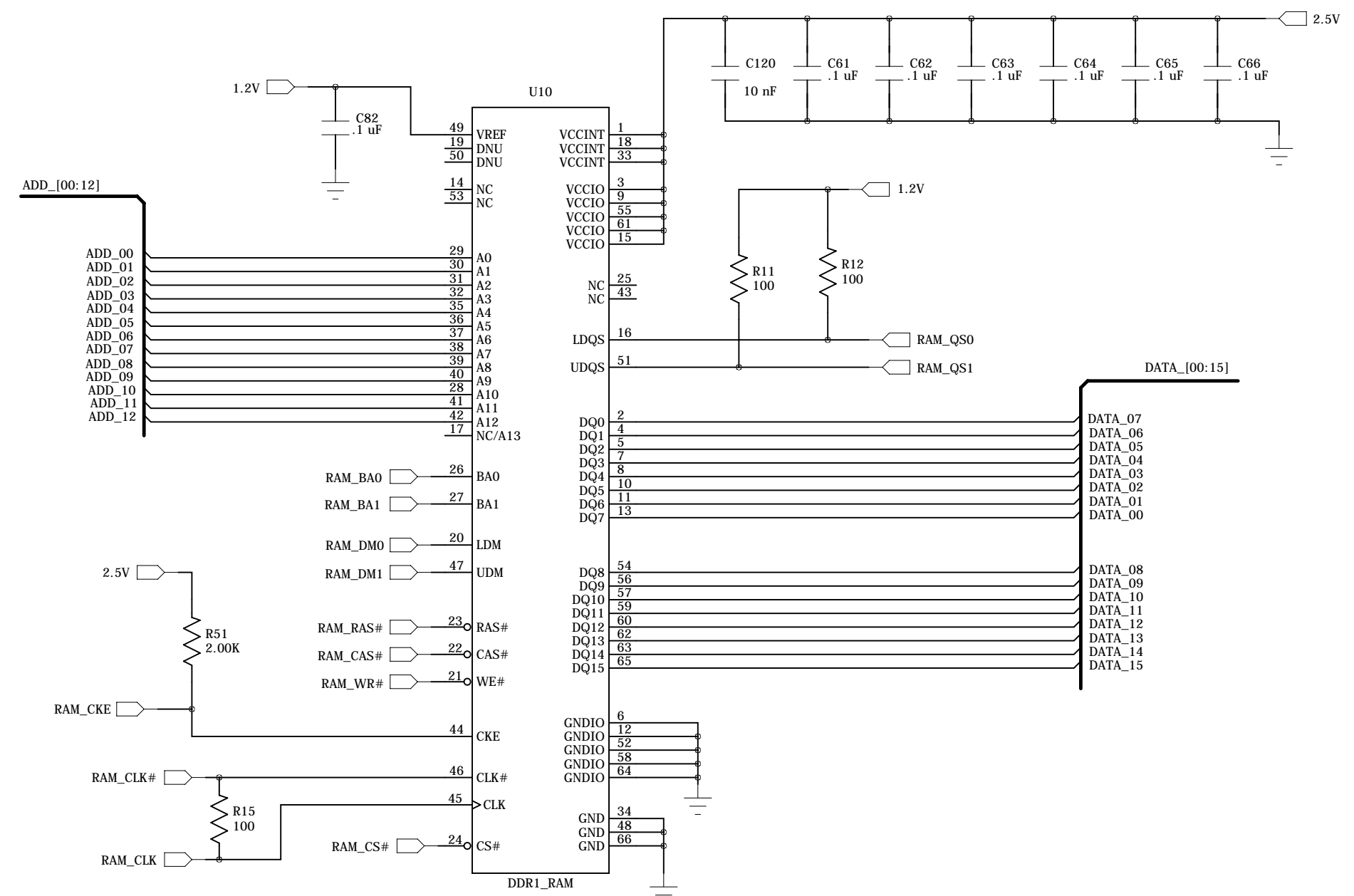
Technologic Systems	Date	Jan. 17, 2010
Title: TS-7552 CPU, Ethernet, POR		
Rev:	Designer	Sheet 1 of 7



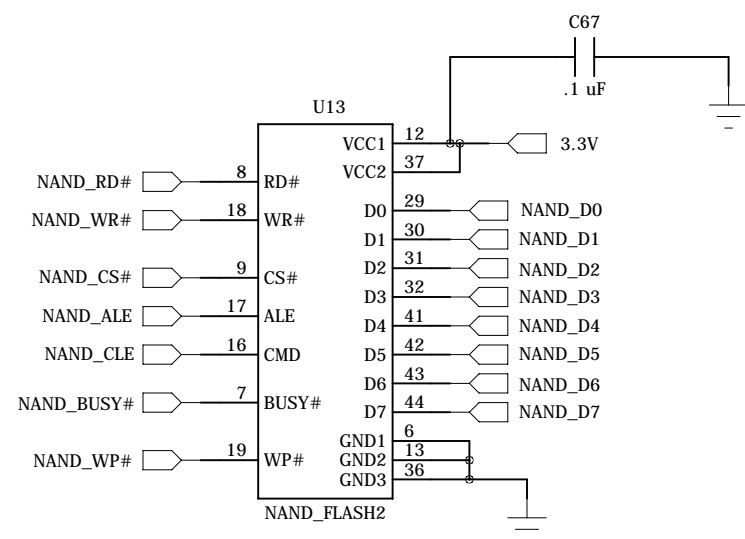
# Micro SD Card Socket



# 64 Mbyte DDR1 SDRAM



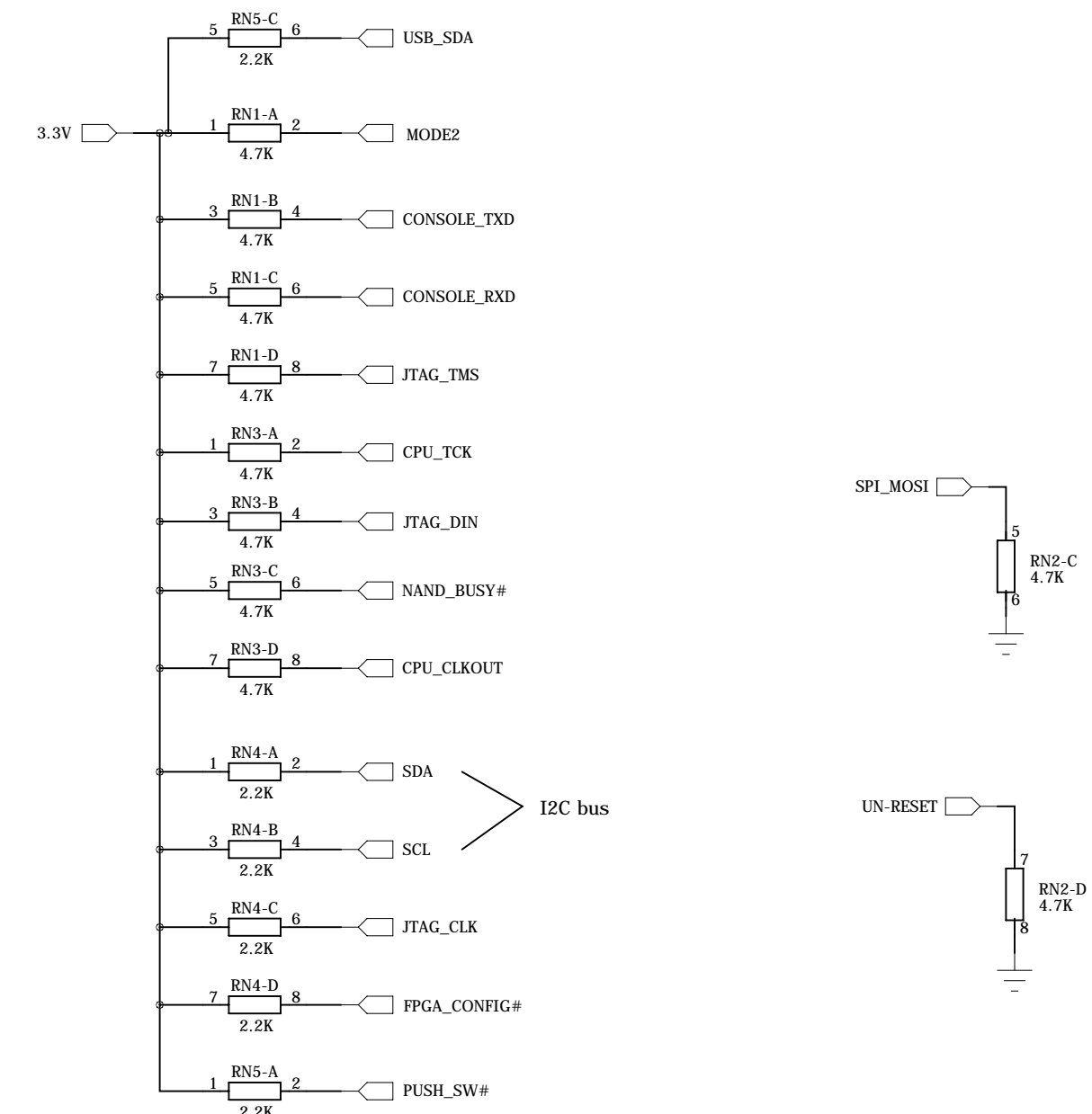
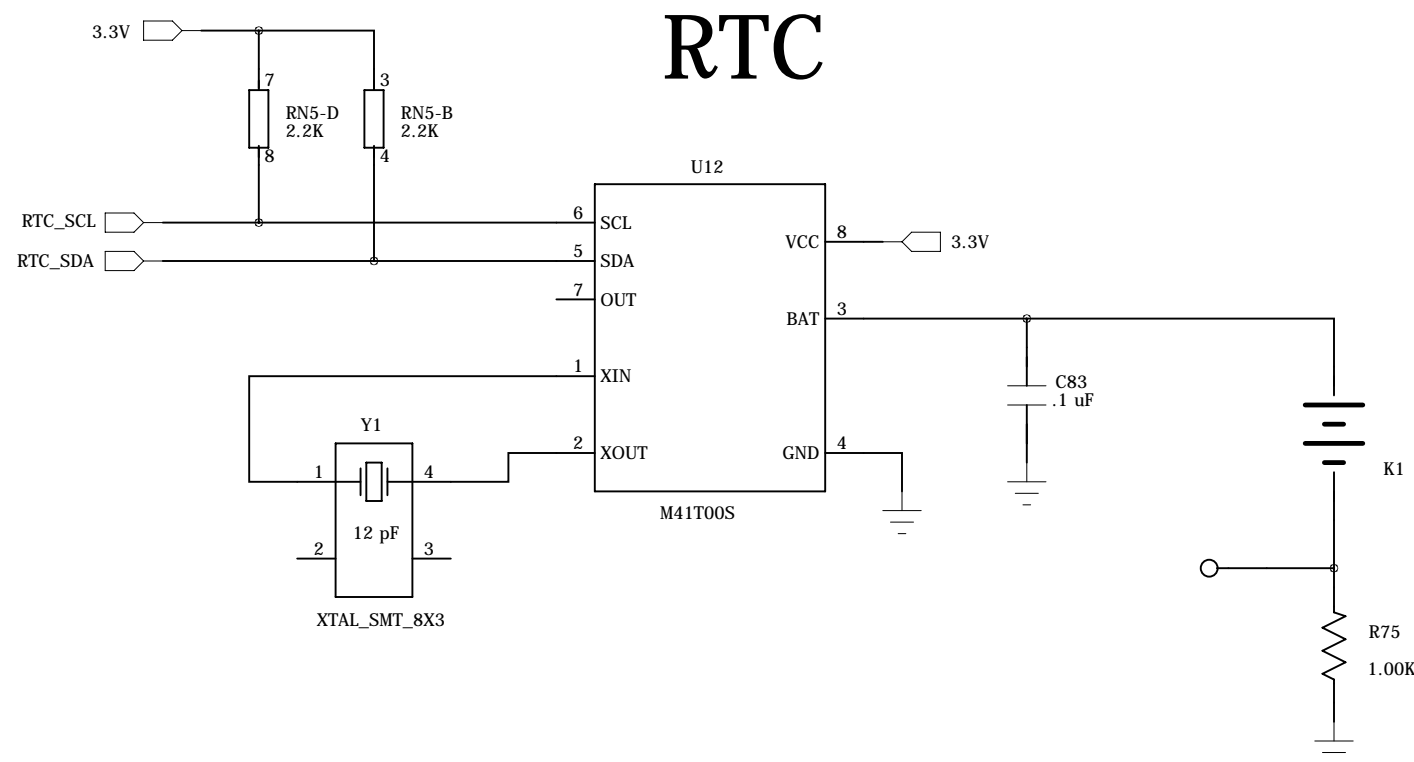
# 512 Mbyte NAND Flash



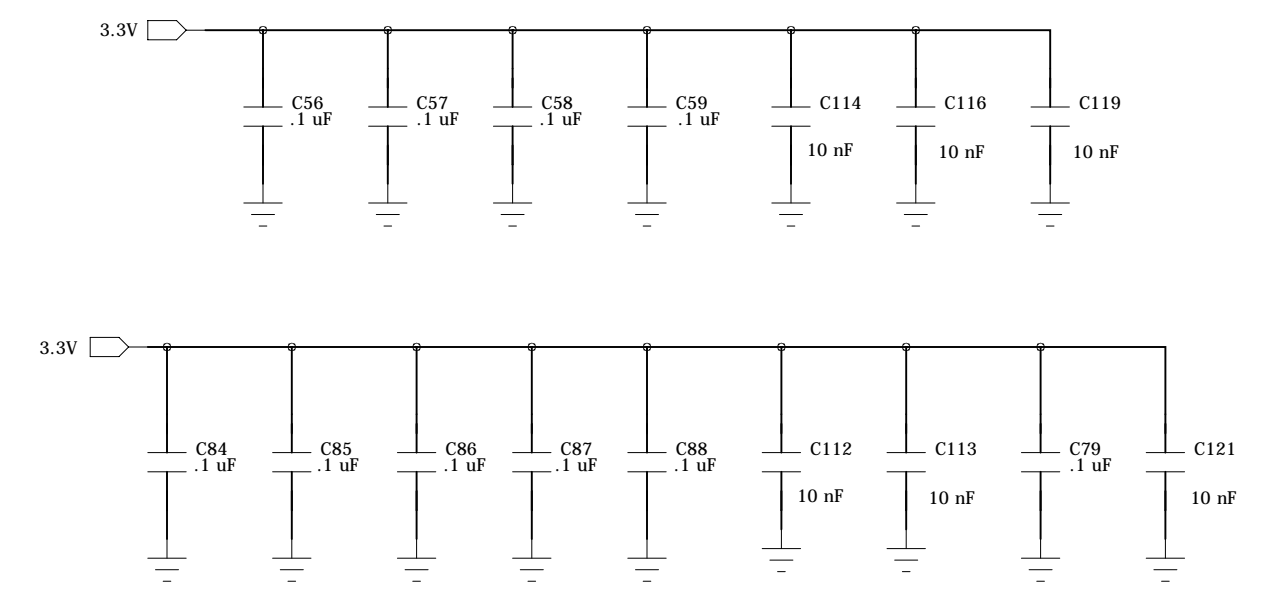
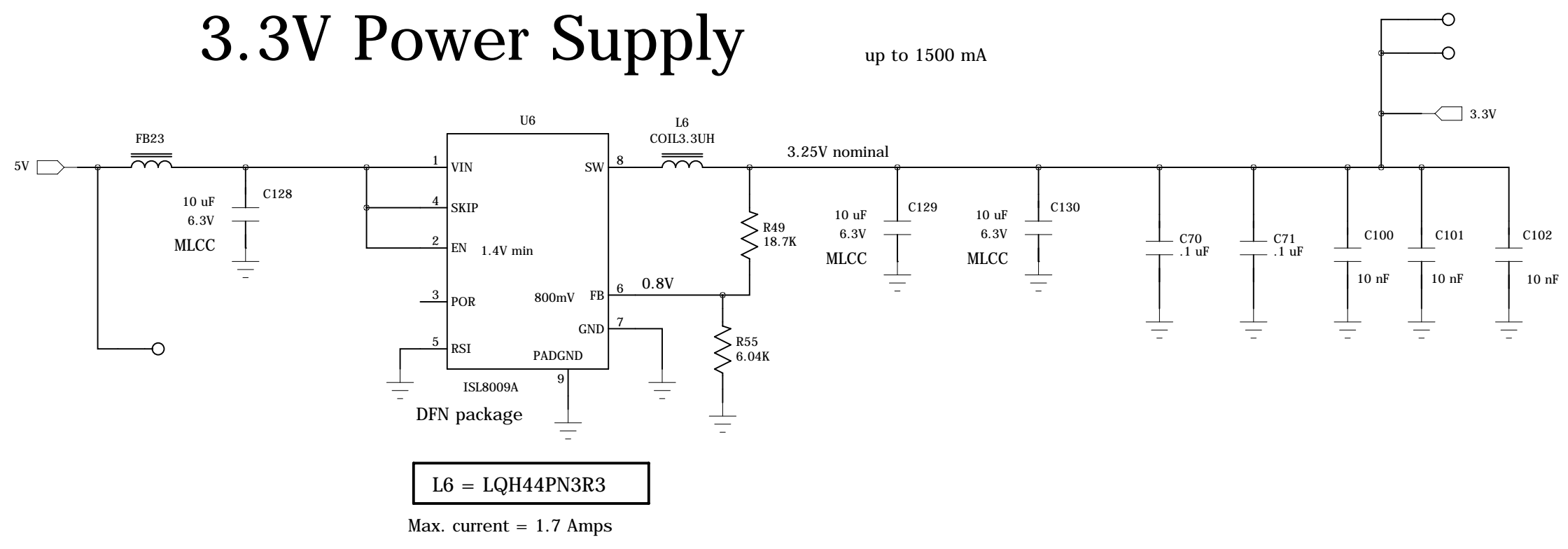
## DDR RAM Notes

- The DDR clock differential pair is the most critical trace on the entire board
- The data lines in each byte lane can be swapped on the RAM chip for optimal layout  
Example: D0 and D5 can be swapped, but not D7 and D8
- The trace length of each data line (in a single byte lane) and the respective QS and DM signals must be matched to within 2.5 mm
- Address and Command signals can be grouped together, but must be isolated from data and M\_DSQ and M\_DM signals (by at least .5 mm)  
Or run them on different layer

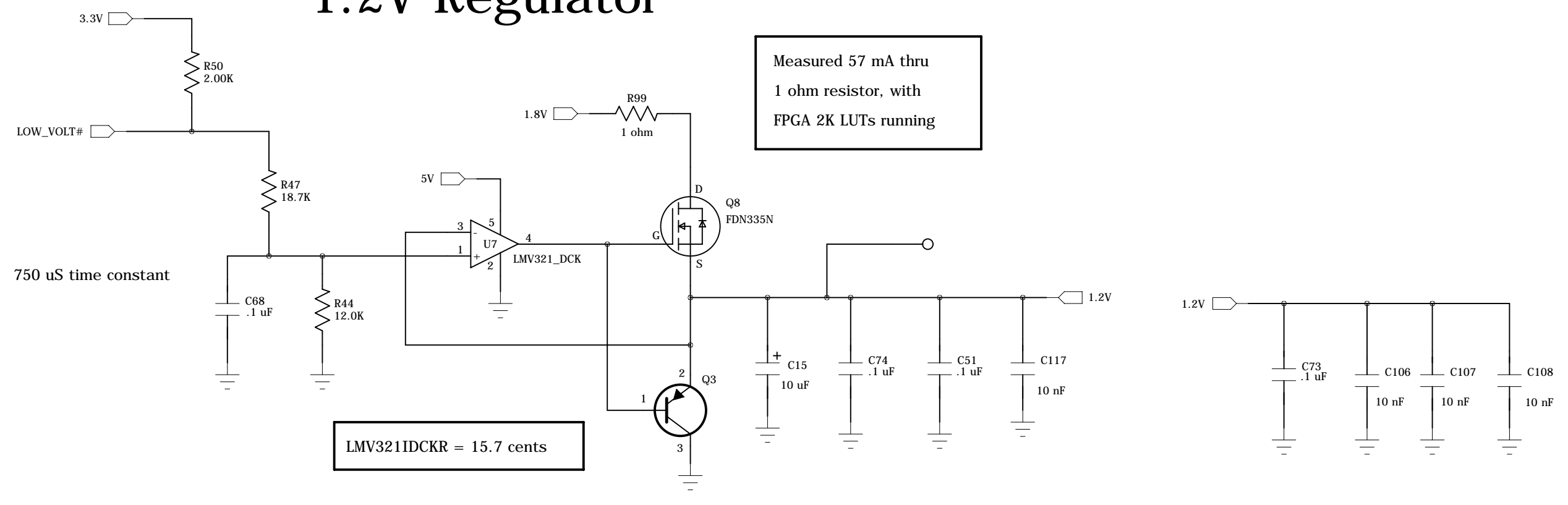
# RTC



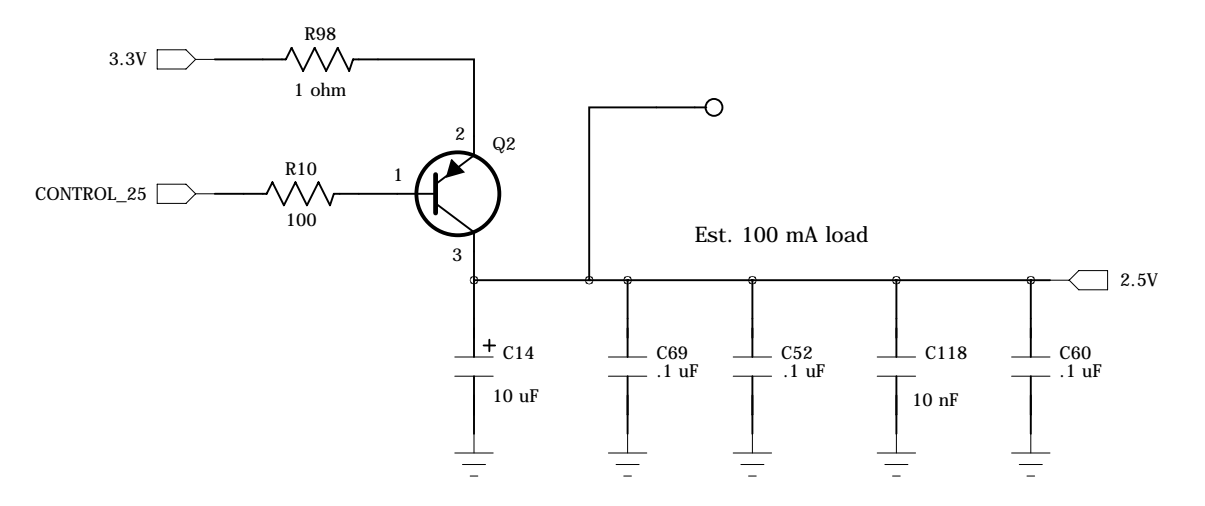
# 3.3V Power Supply



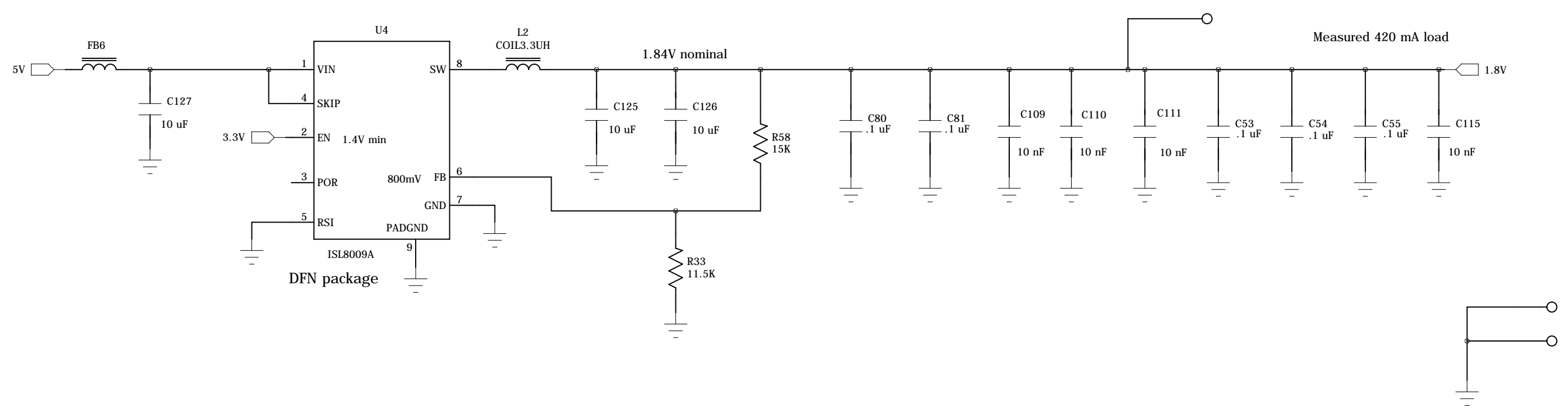
# 1.2V Regulator



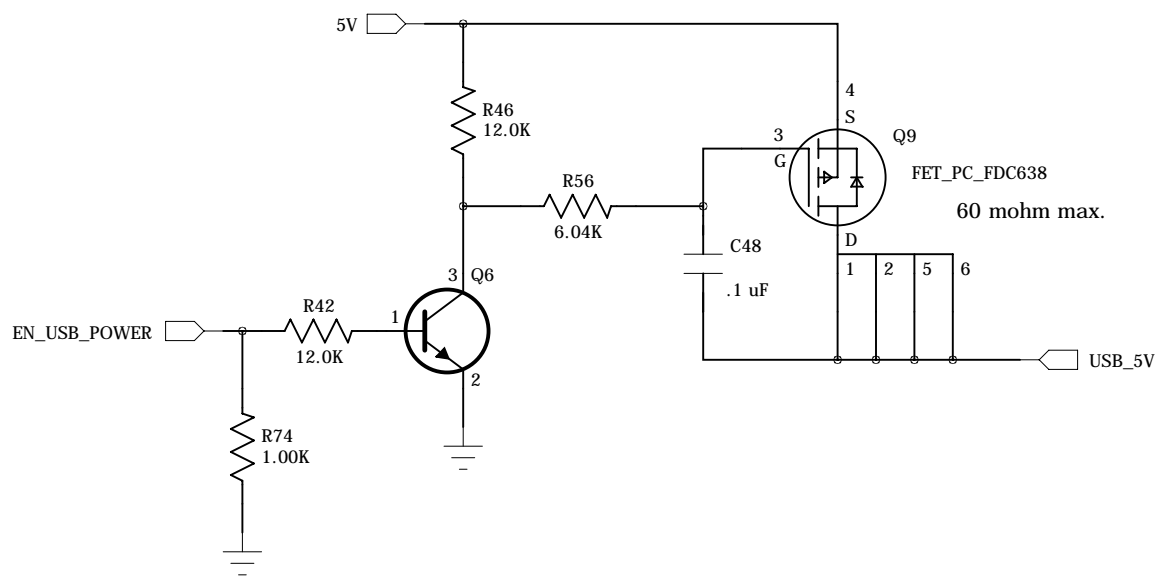
# 2.5V Regulator



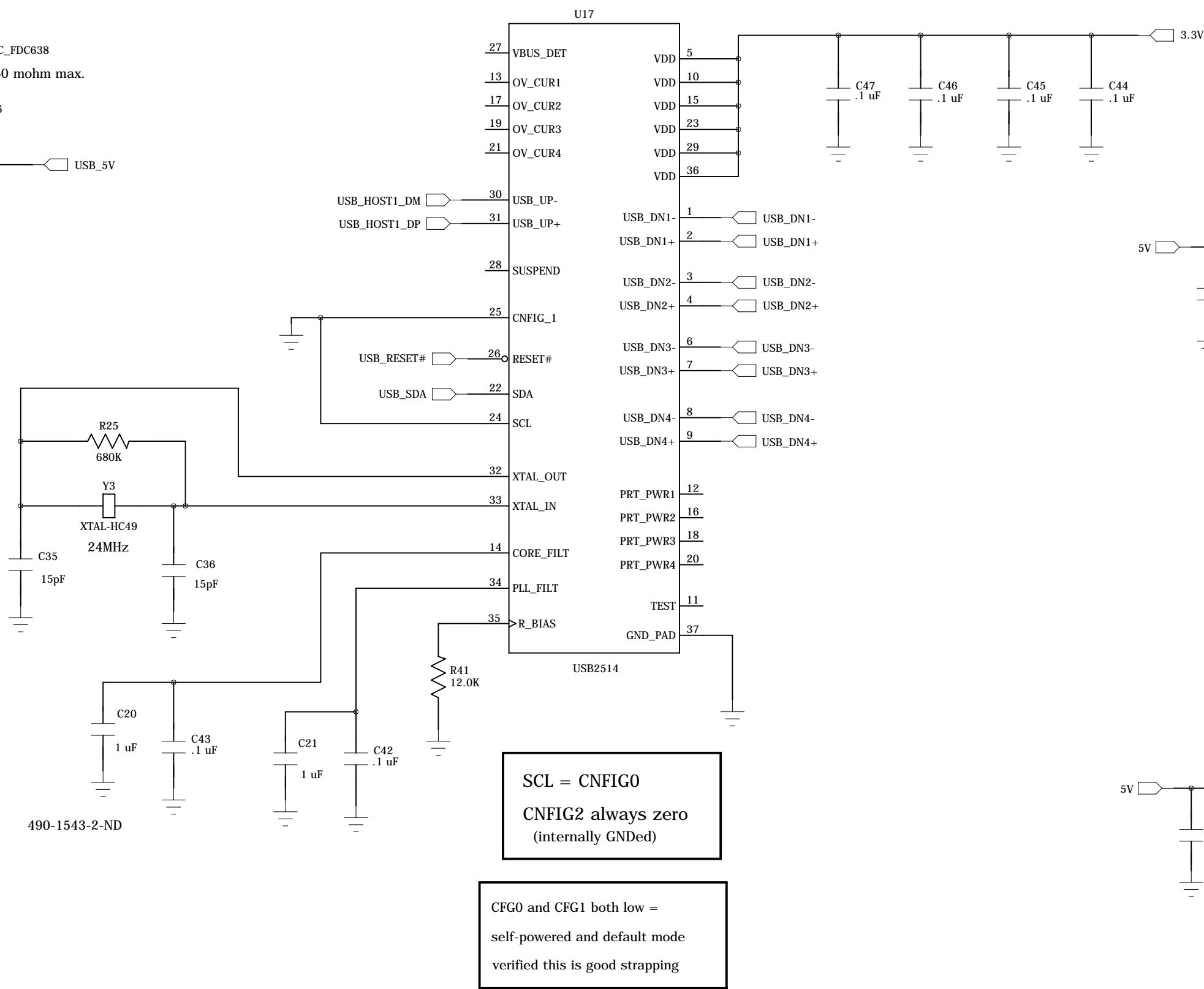
# 1.8V Regulator



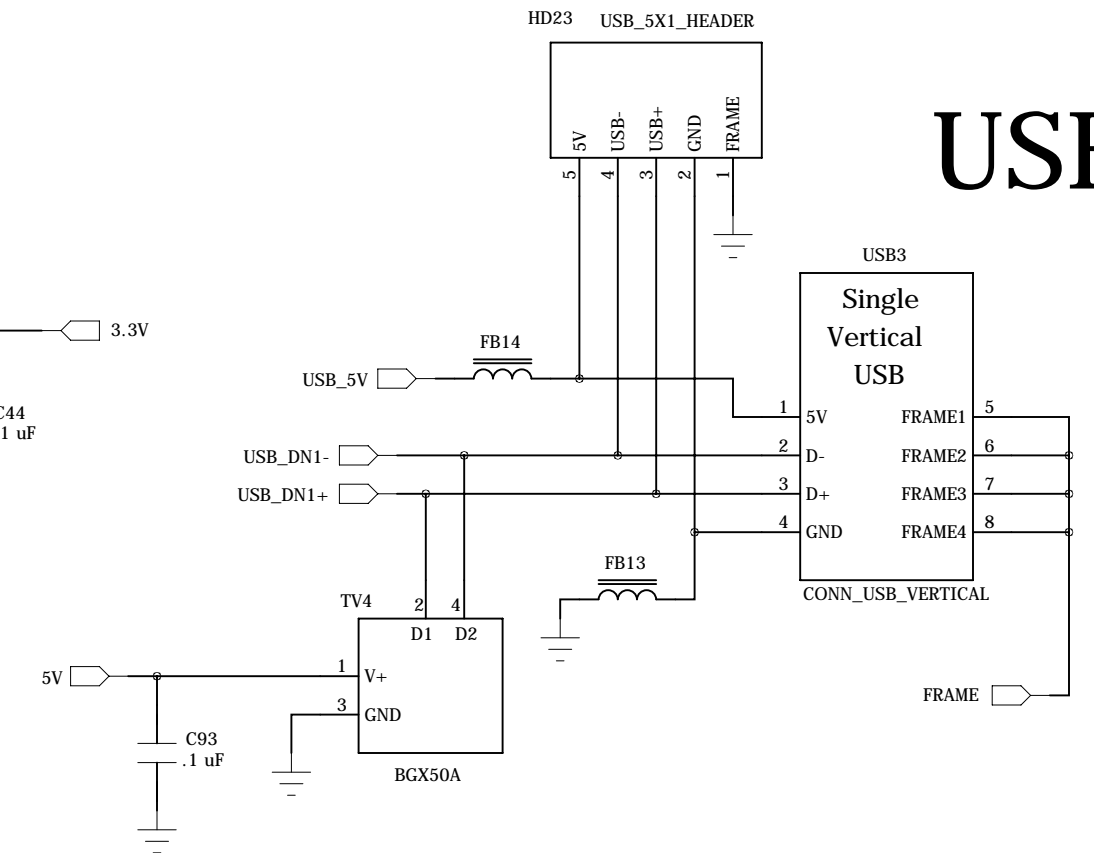
# USB Power Switch



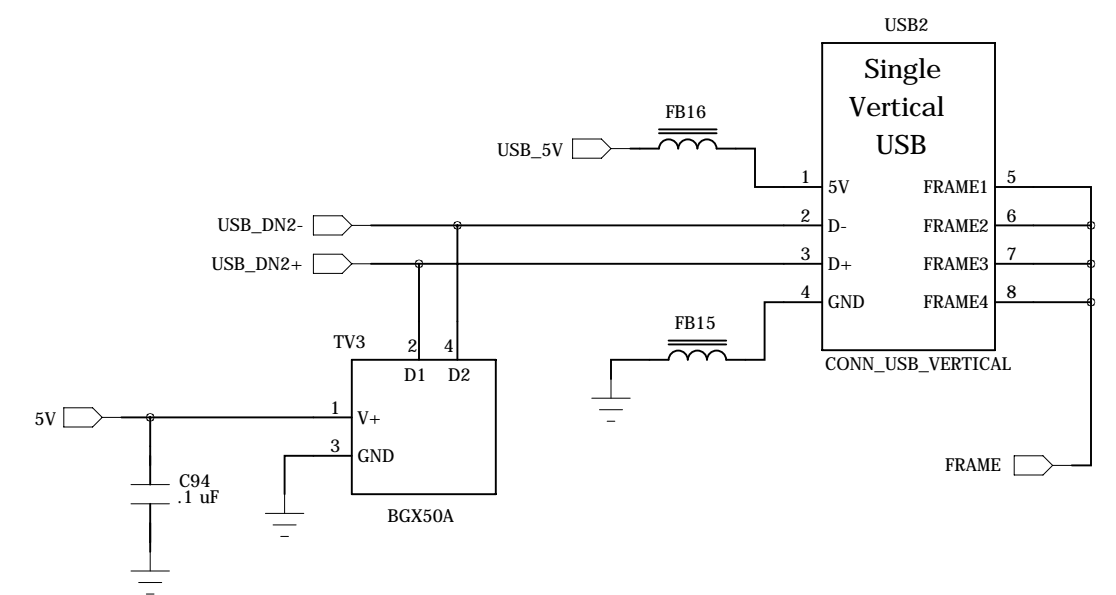
# USB Hub



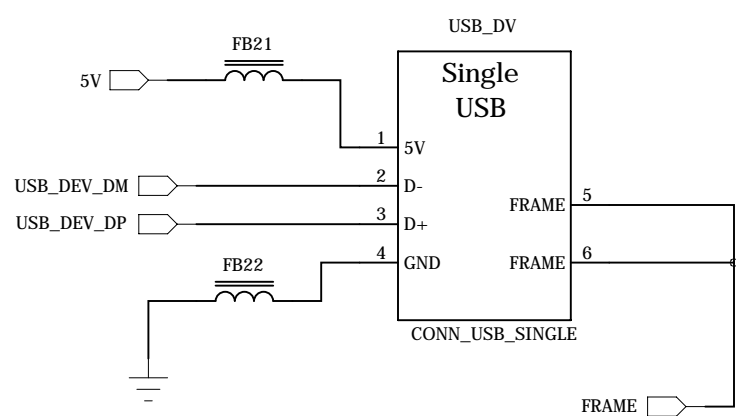
# USB 3



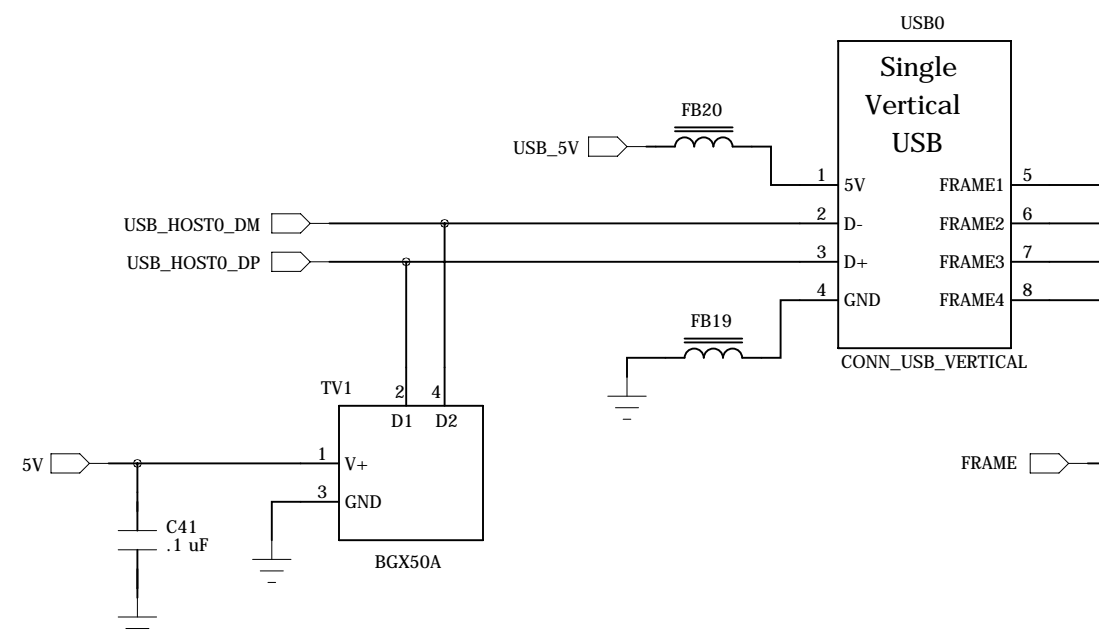
# USB 2



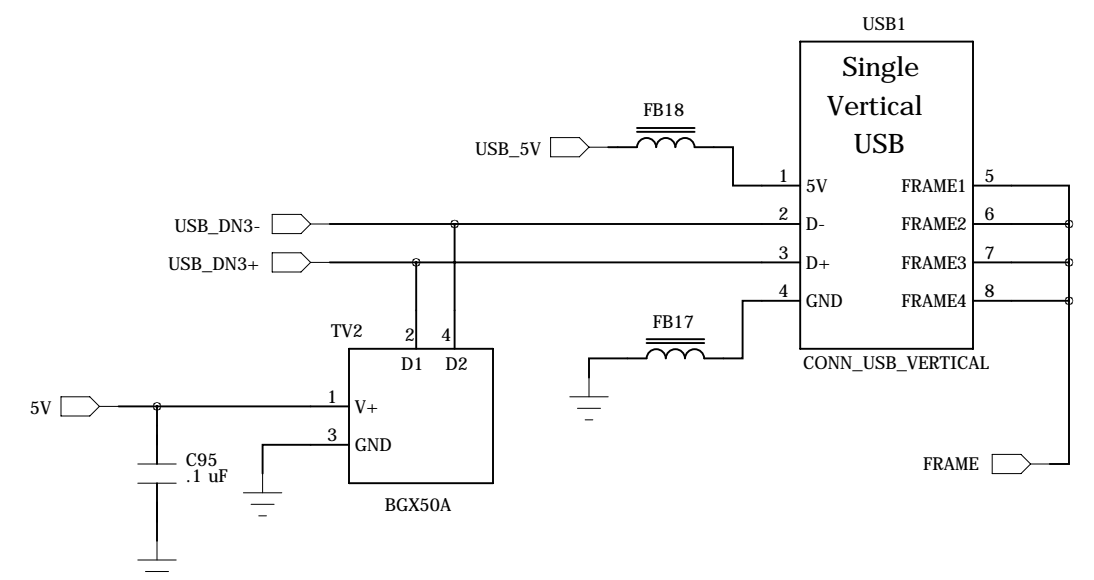
# USB Device Port



# USB 0



# USB 1

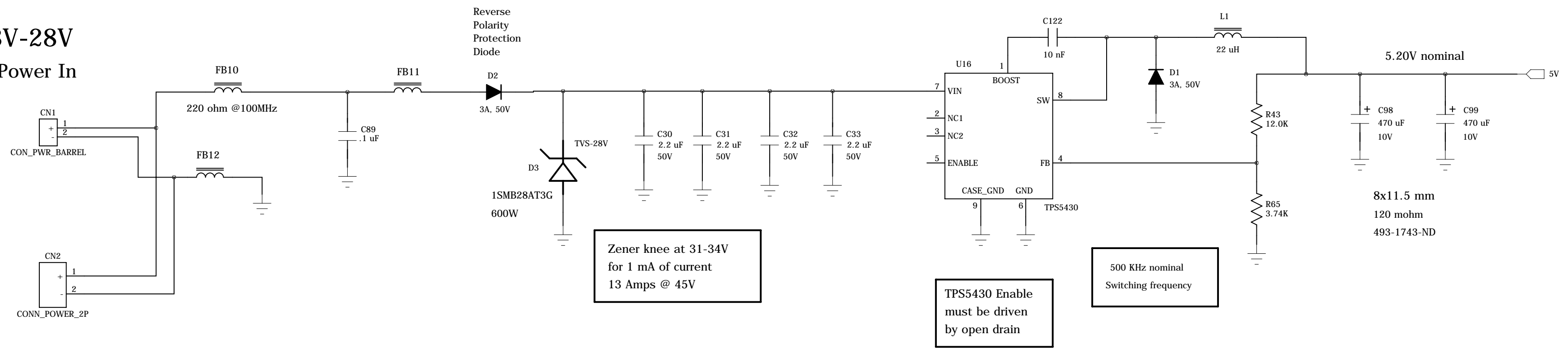


Technologic Systems		Date	Jan. 17, 2010
Title: TS-7552 USB Hub			
Rev:	Designer	Sheet 5 of 7	

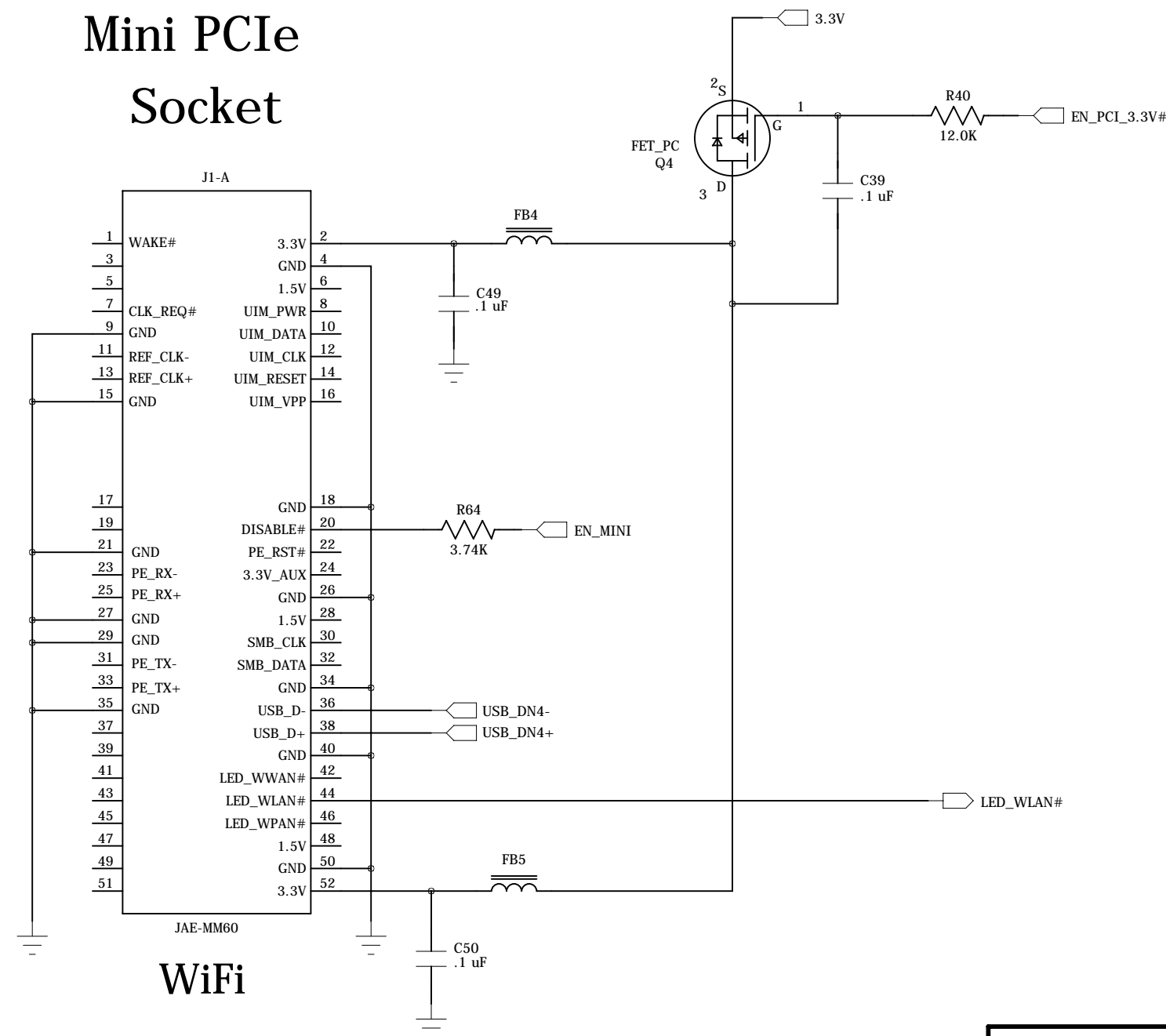
## 5V Power Supply (2.6 Amps)

8V-28V

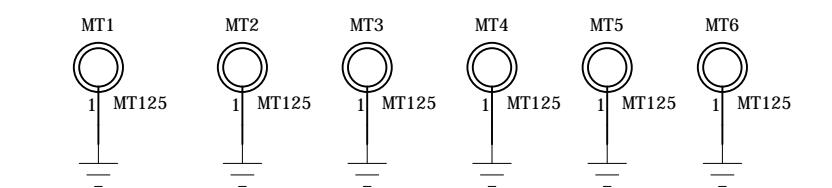
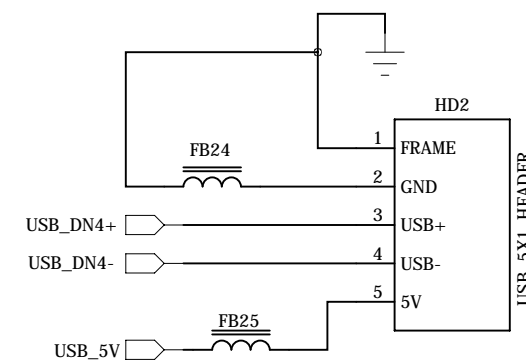
Power In



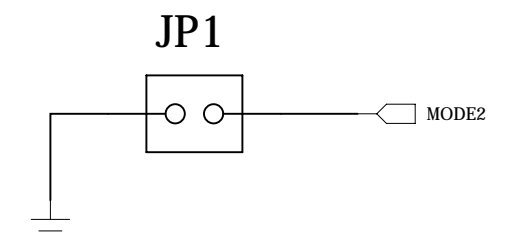
## Mini PCIe Socket



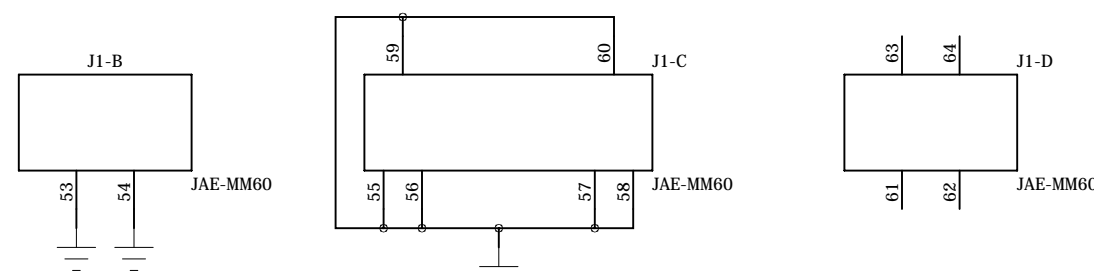
## USB4 Header



## Force Boot to SD card



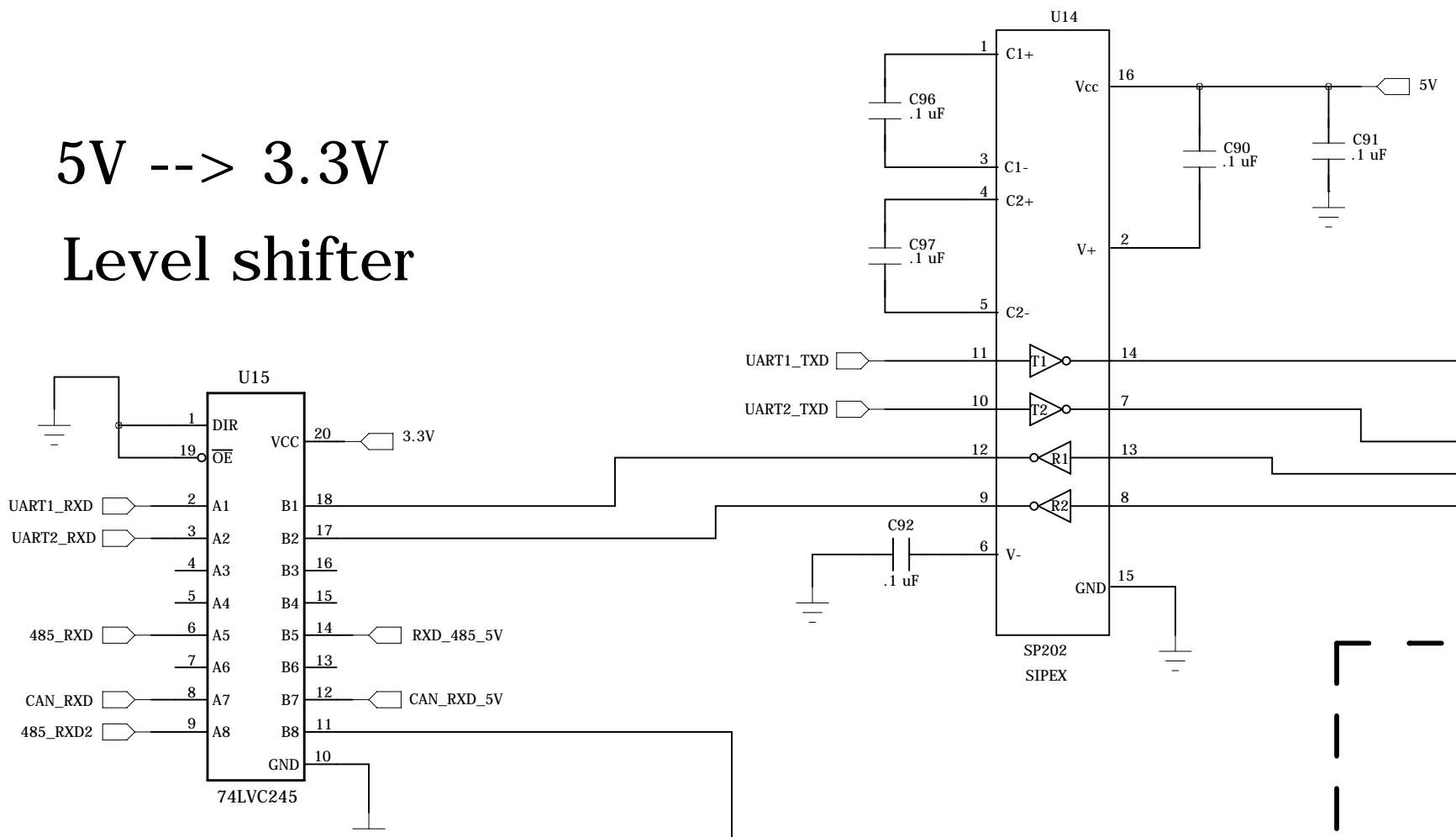
USB pair should have 90 ohm impedance



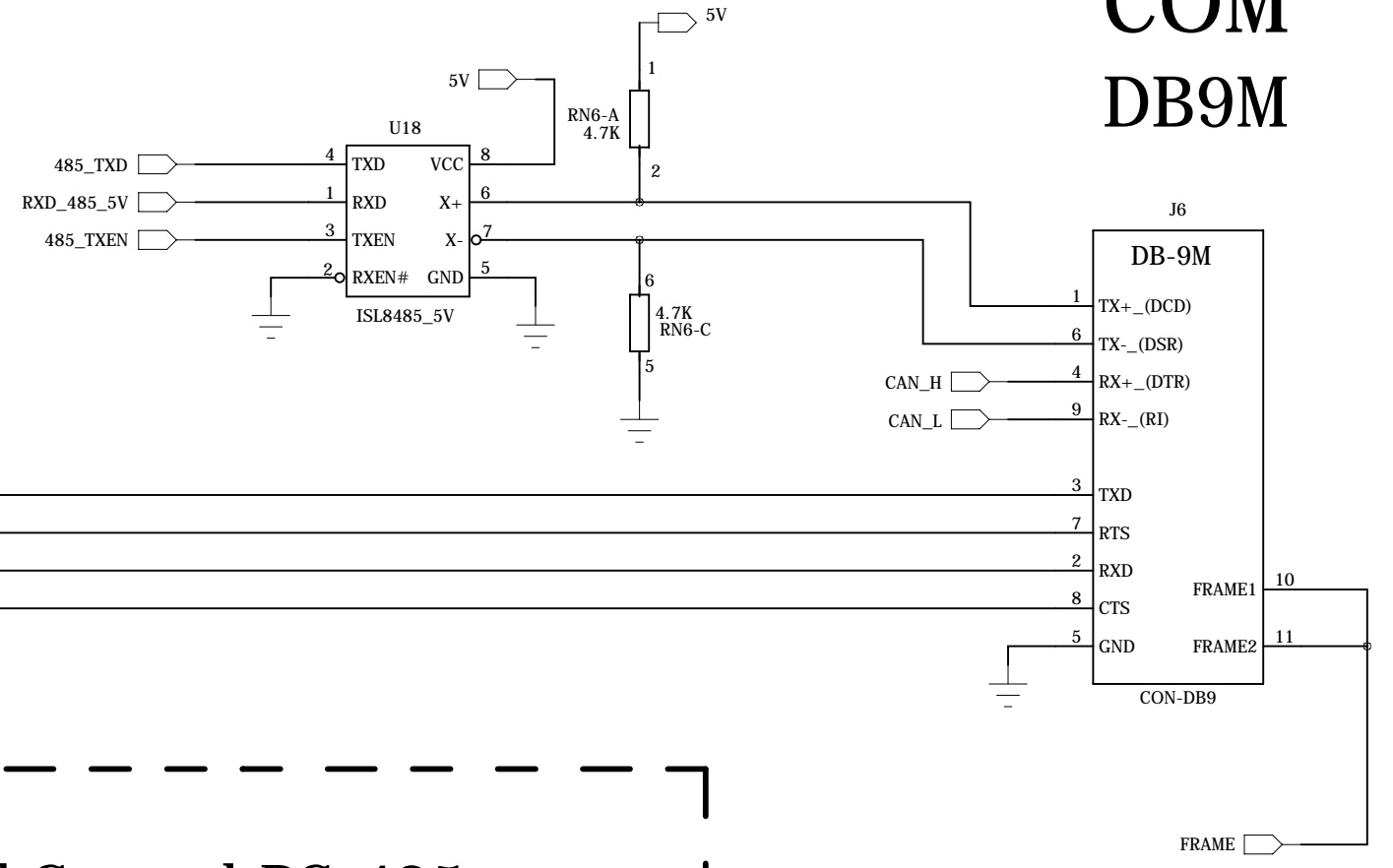
Technologic Systems	Date Jan. 17, 2010
Title: TS-7552 7-28V to Reg. 5V Supply	
Rev:	Designer RLM Sheet 6 of 7

## RS-232 Transceiver

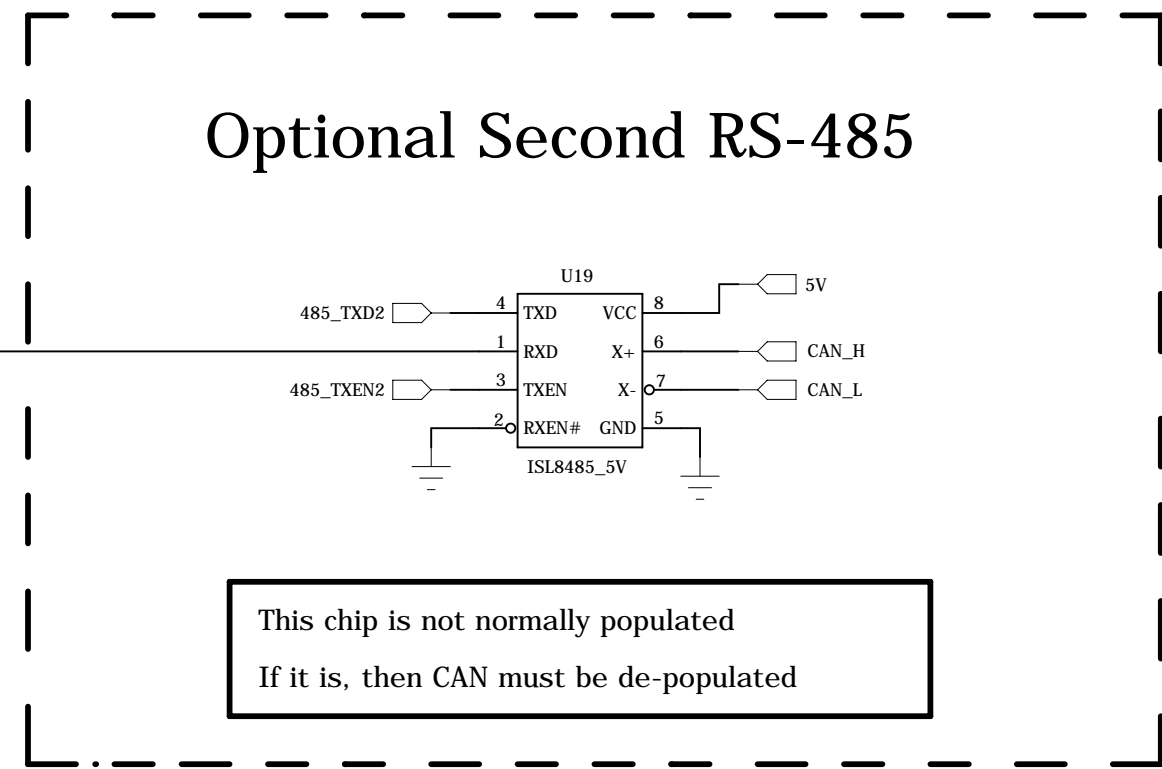
5V --> 3.3V  
Level shifter



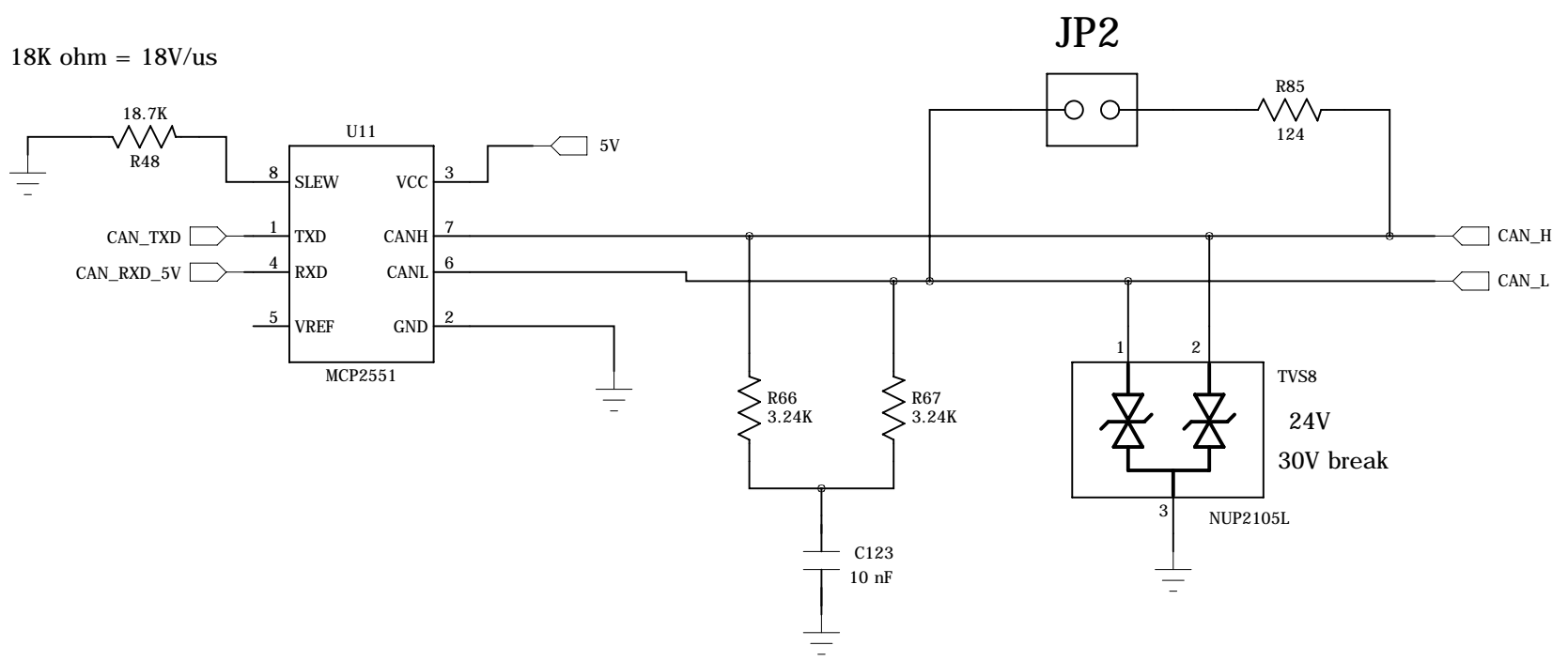
## RS-485 Driver



## COM DB9M



## CAN Transceiver



## Temp Sensor

