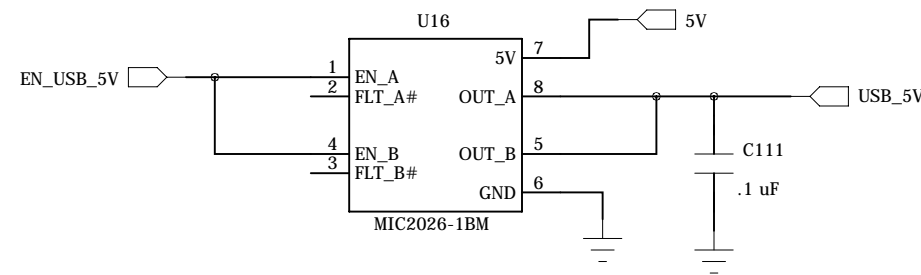


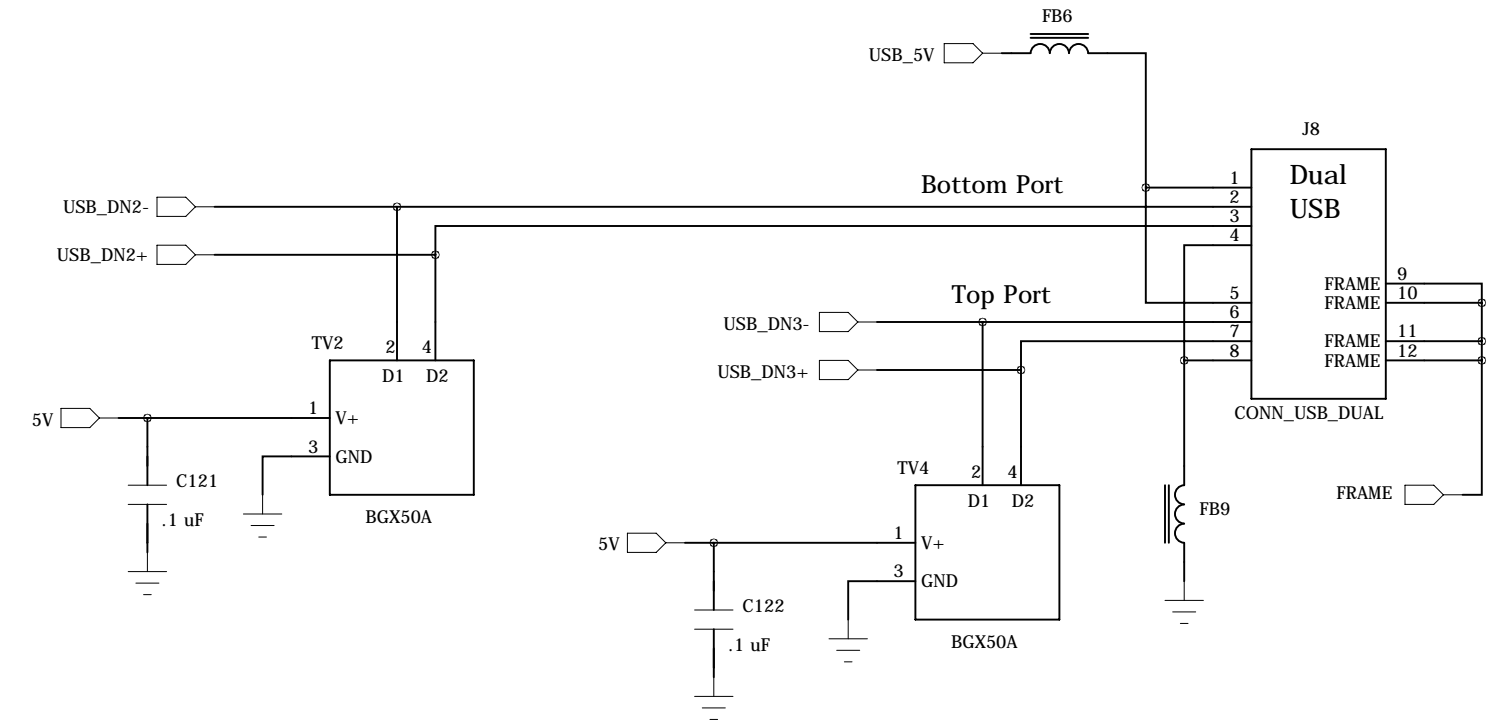
USB Ports

USB Power Switch



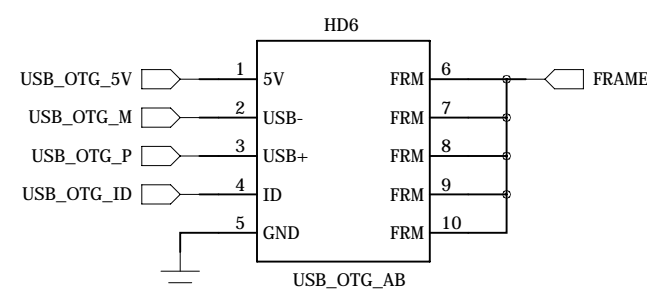
1400 mA typ. current limit

Dual Host USB Ports



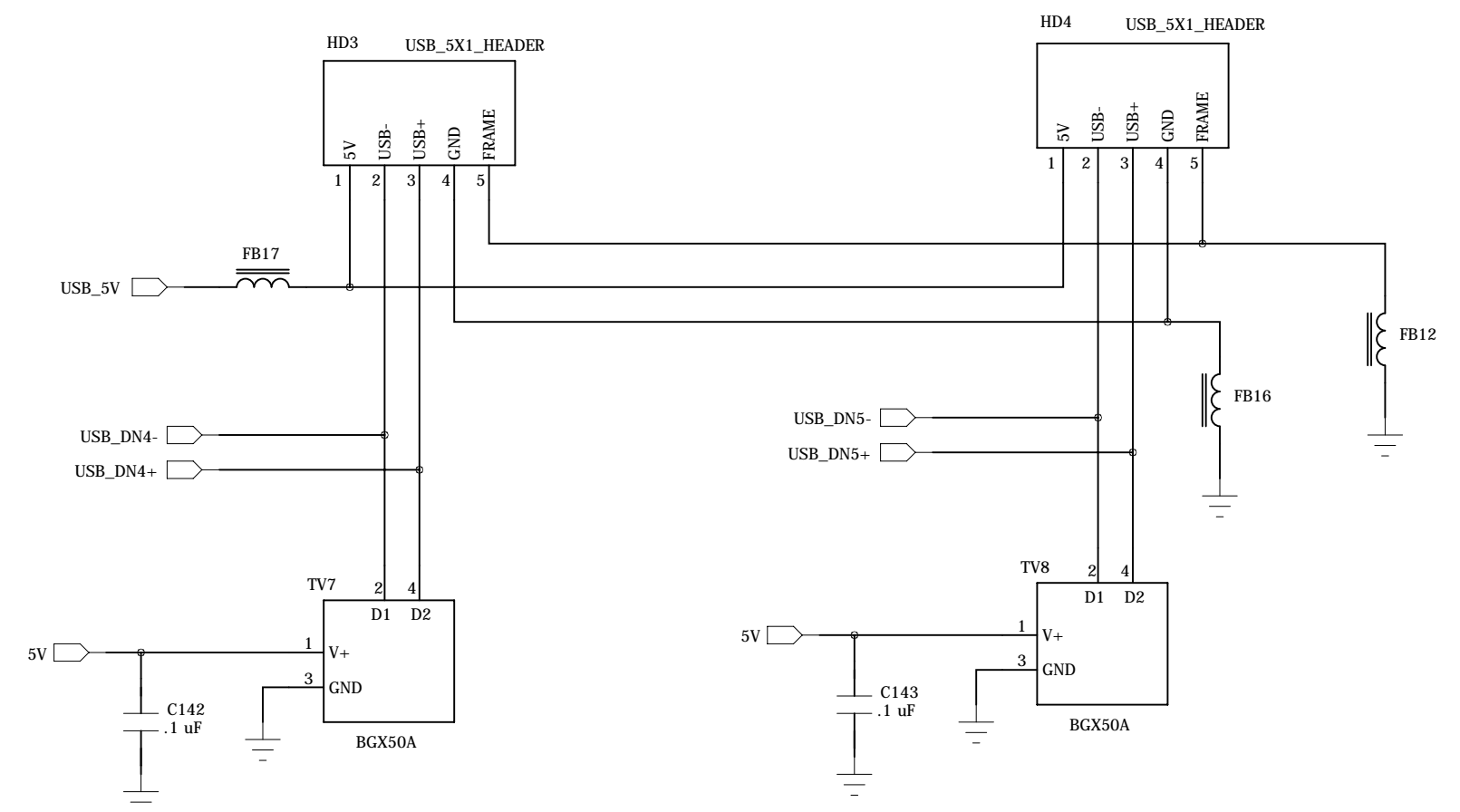
Internal USB Headers

USB OTG Port



Not normally Populated

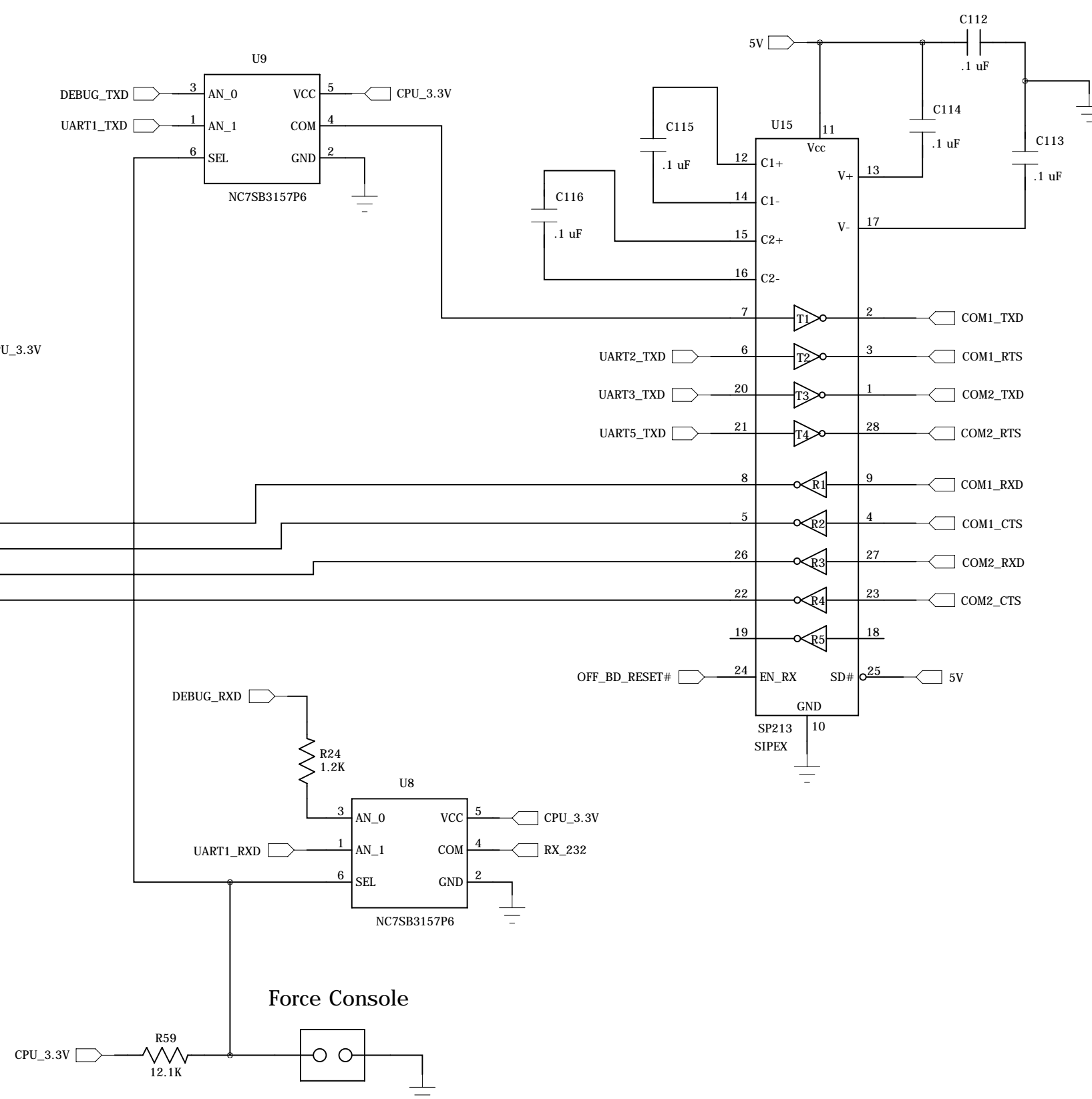
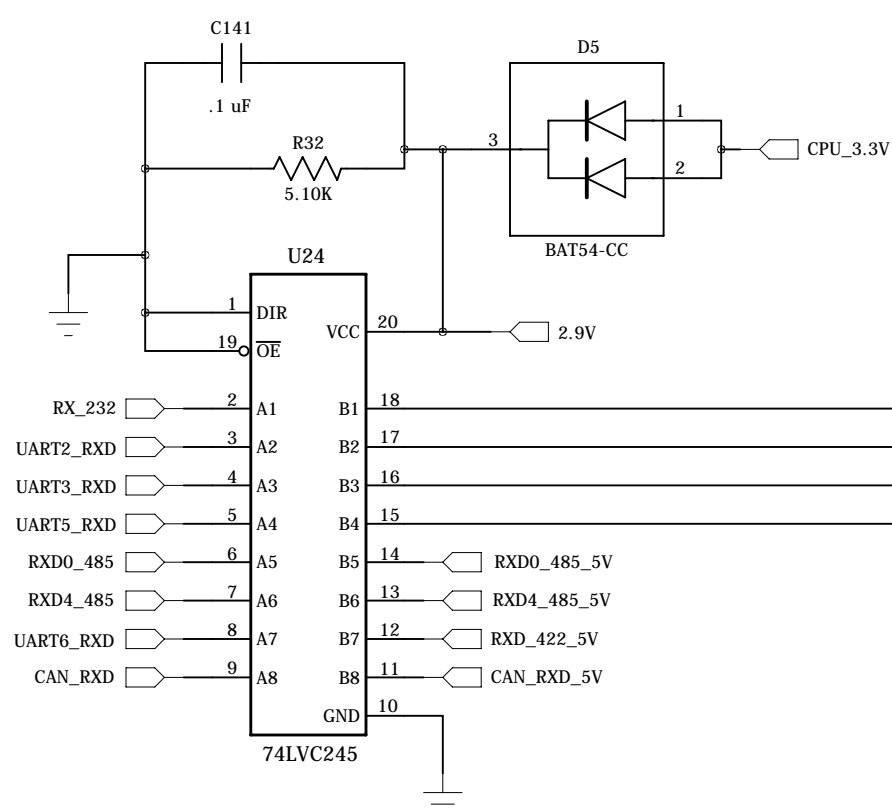
Molex 47590-0001
or 47589-0001



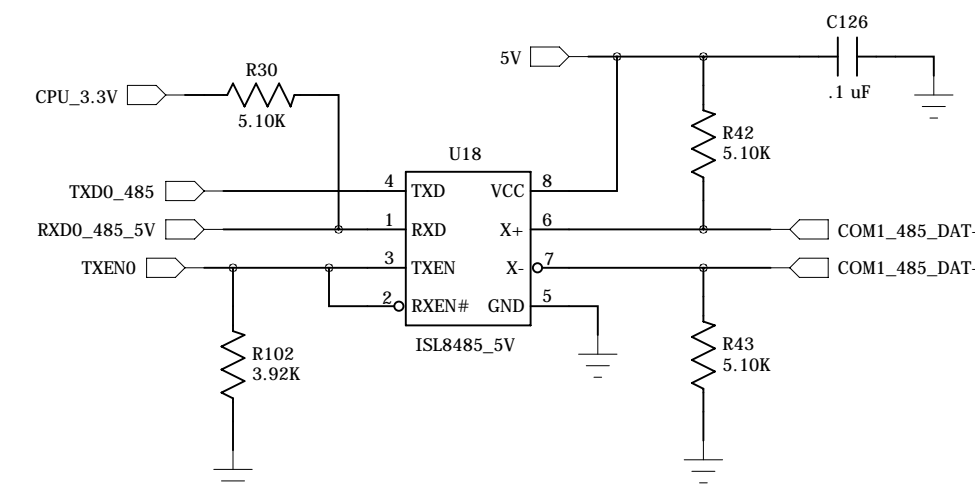
Technologic Systems	Date Jan. 17, 2011
Title: TS-8390	USB ports
Rev: B	Designer
	Sheet 1 of 10

RS-232 Transceiver

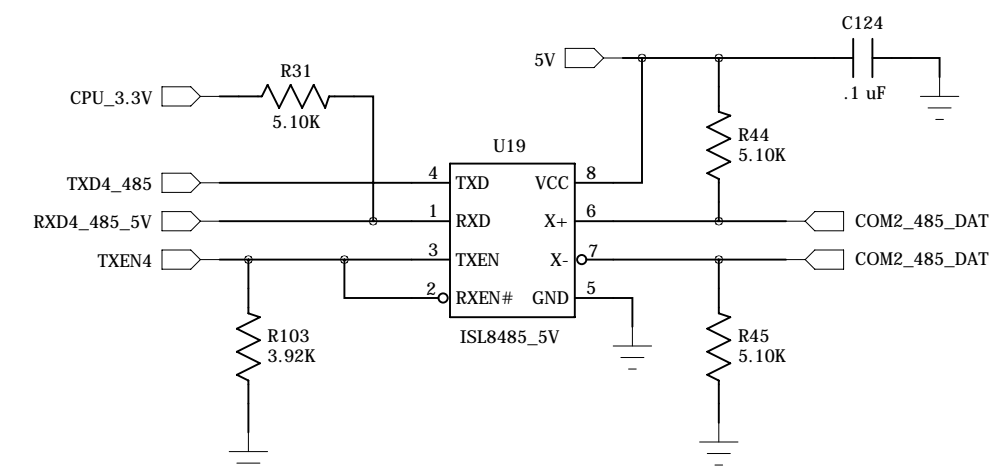
2.9V <-- 5V
Level shifter



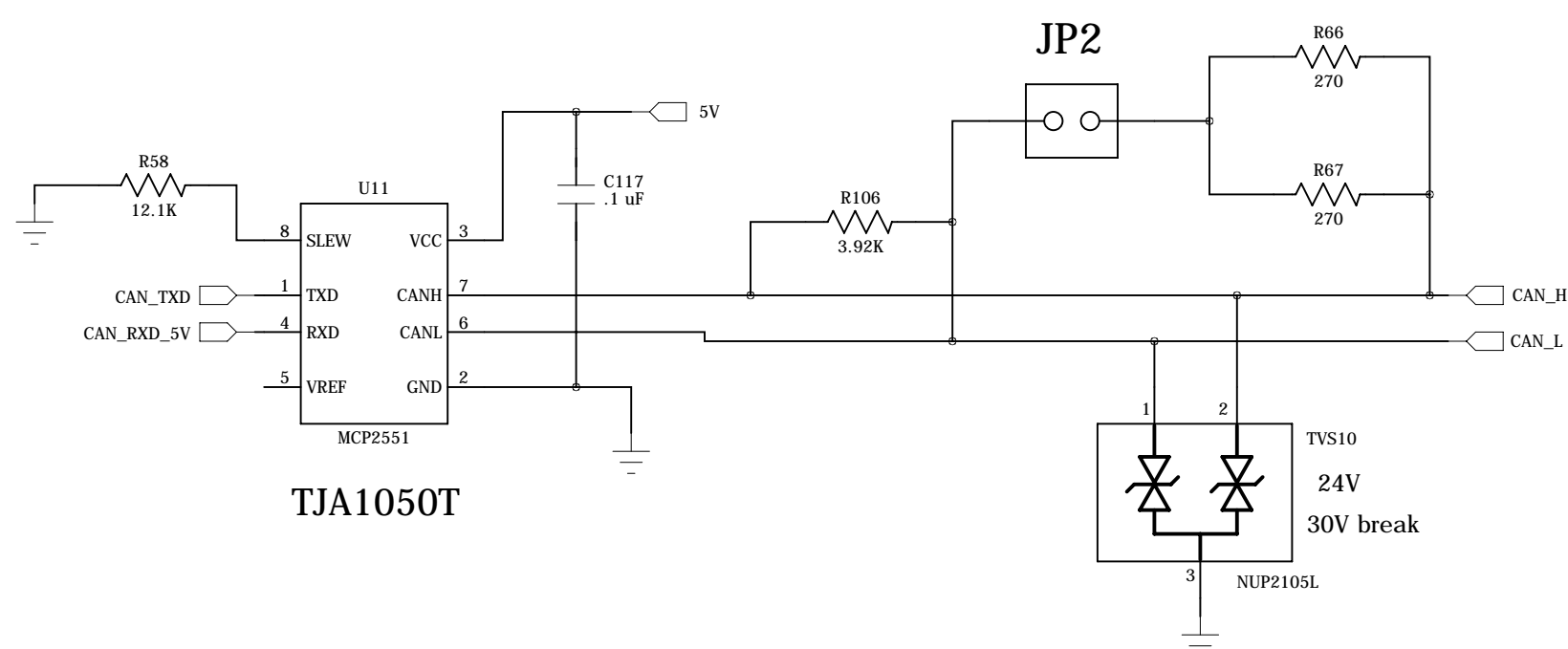
COM1 RS-485 Driver



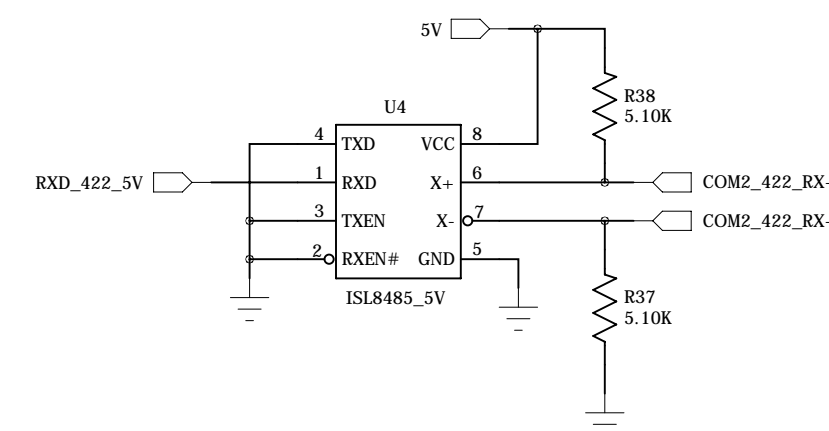
COM2 RS-485 Driver



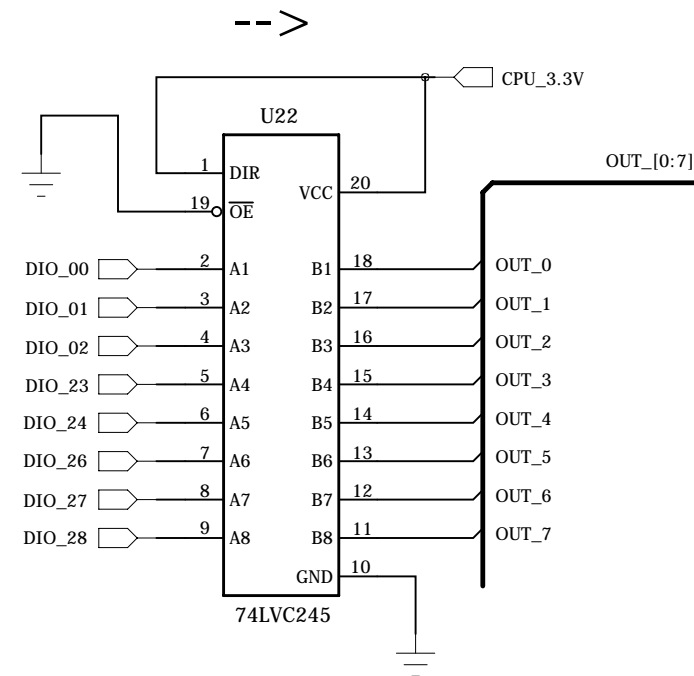
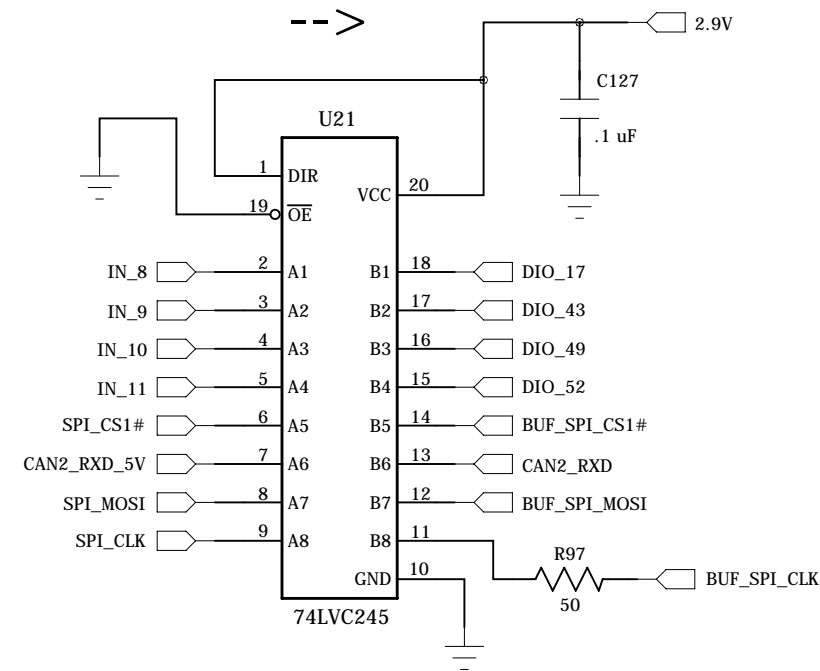
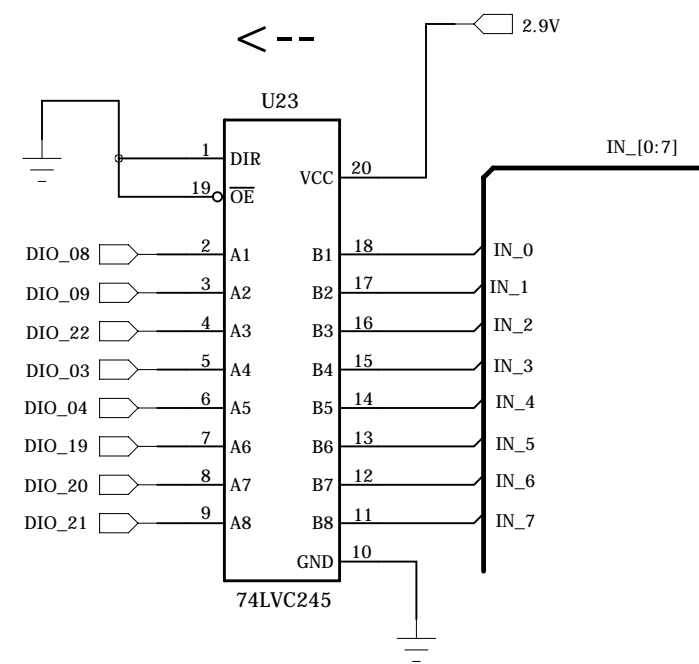
CAN Transceiver



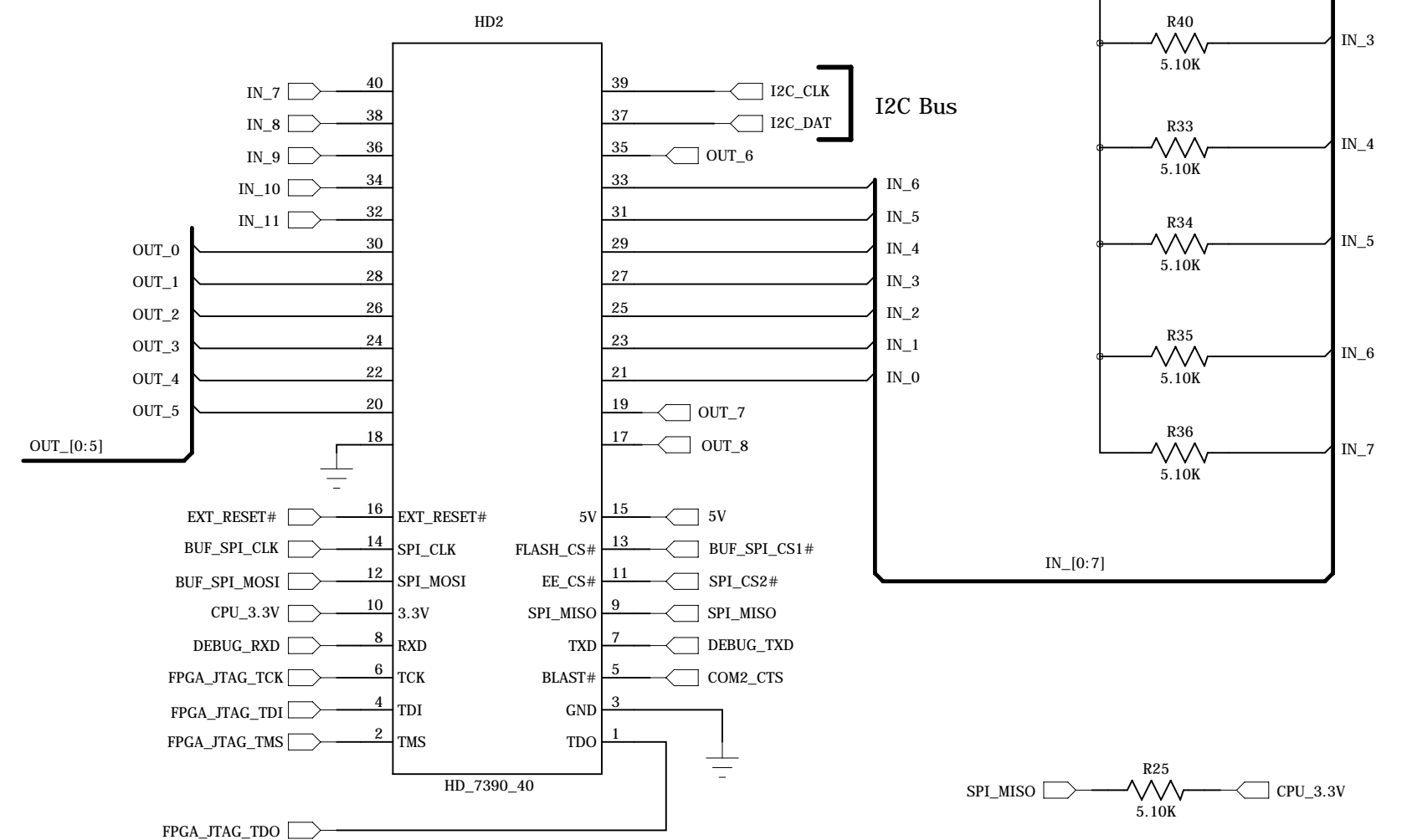
COM2 RS-422 Receiver



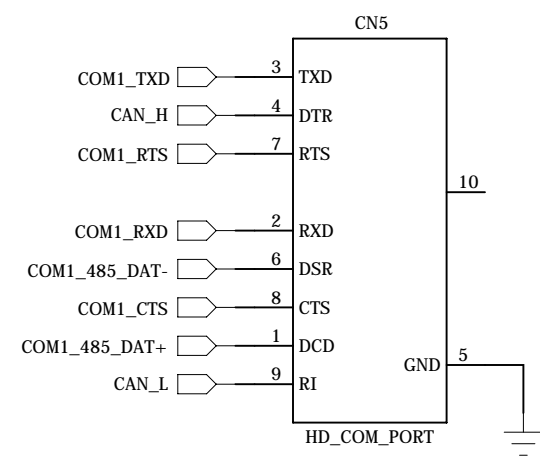
DIO Port



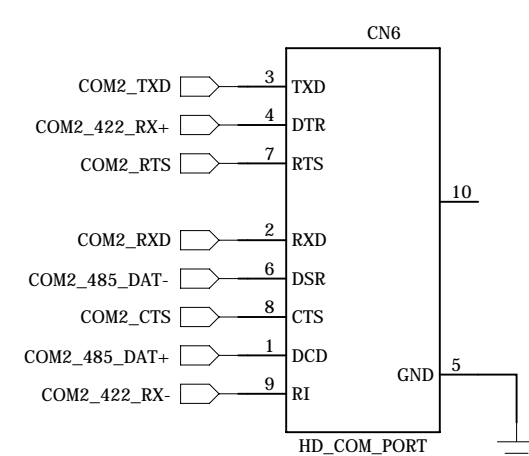
DIO Header



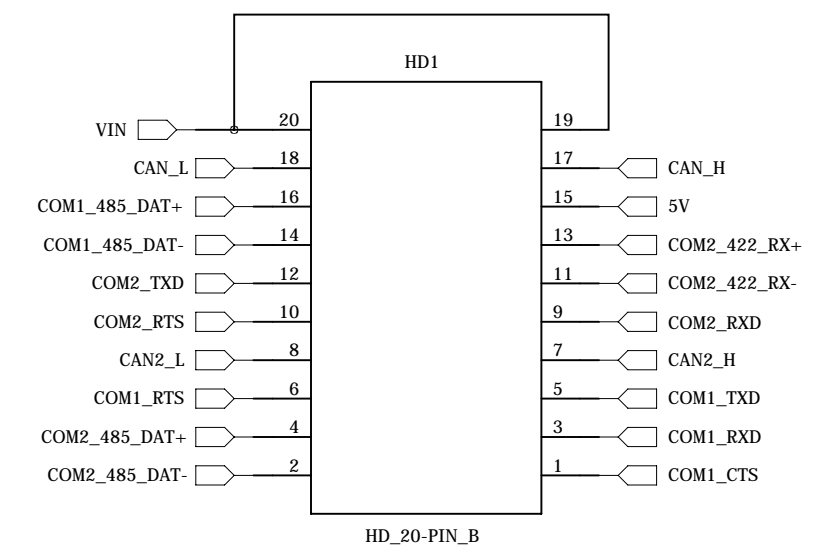
COM1 Header



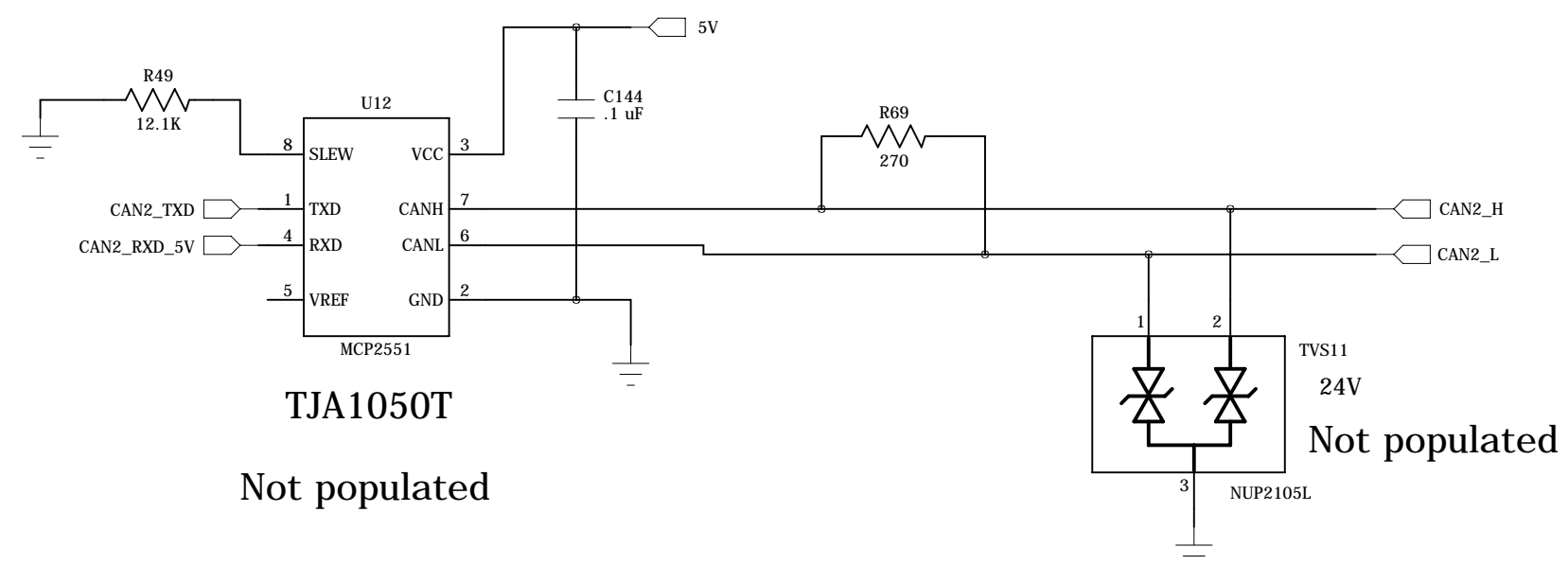
COM2 Header



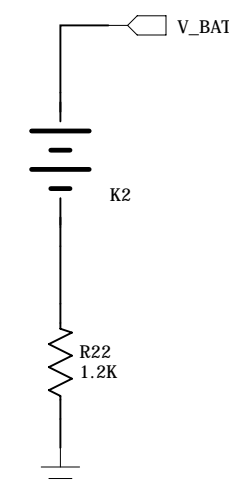
Expansion Header



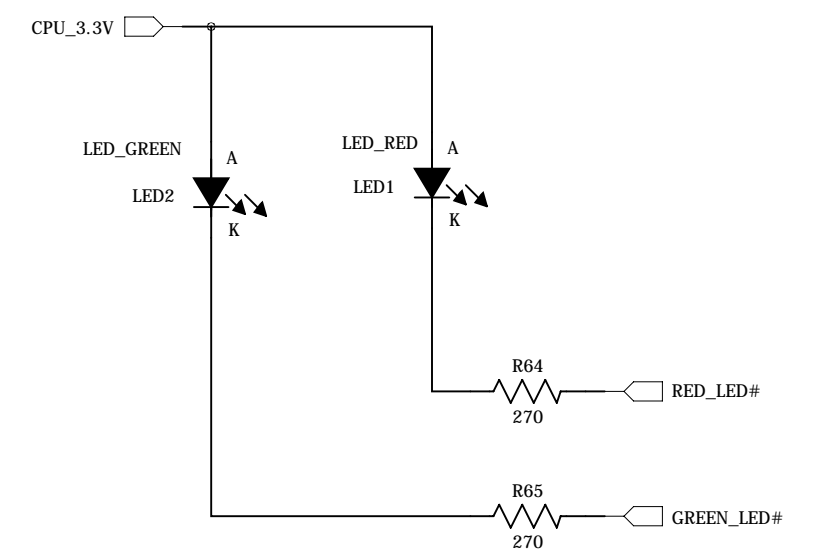
2nd CAN Transceiver



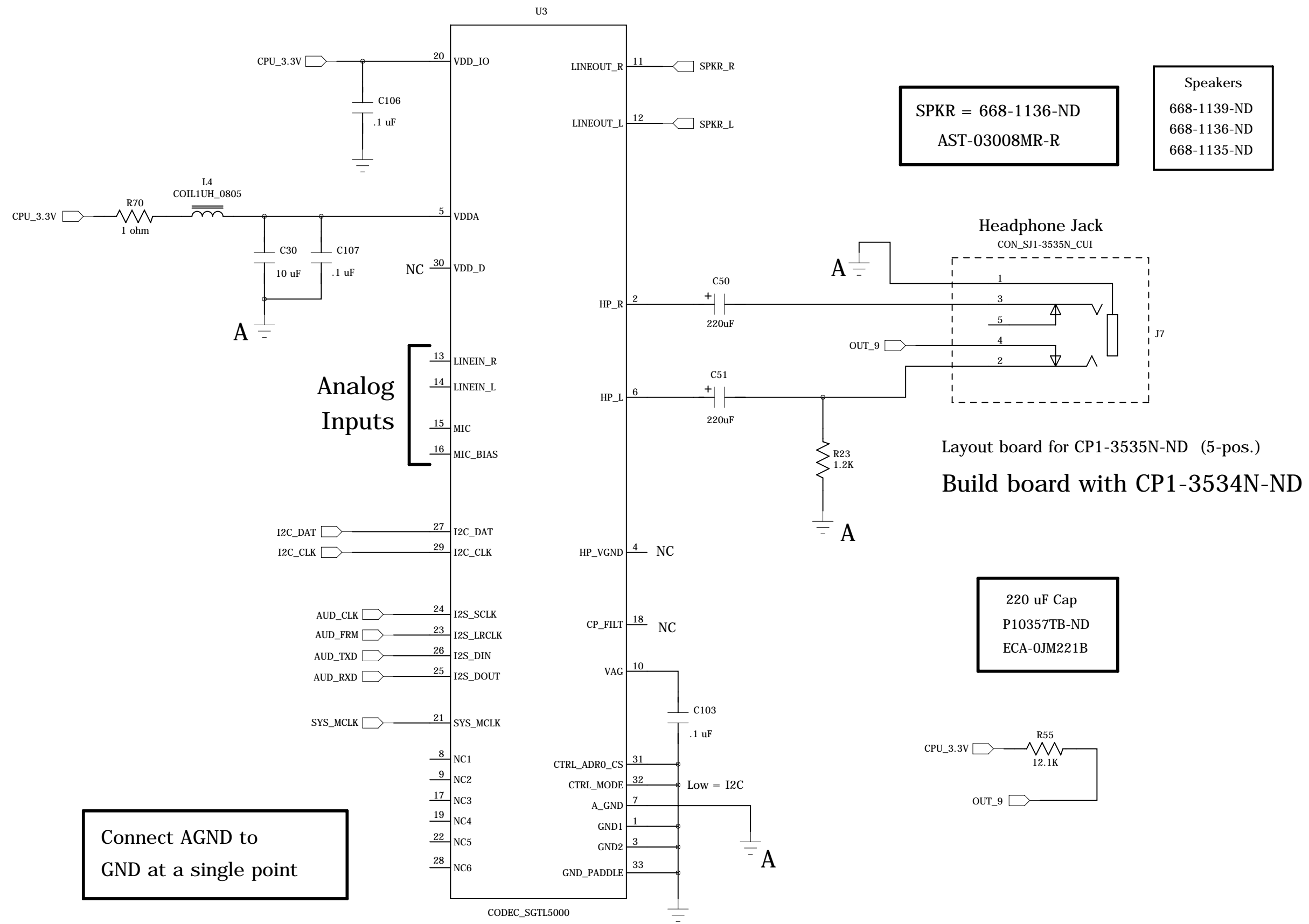
RTC Battery



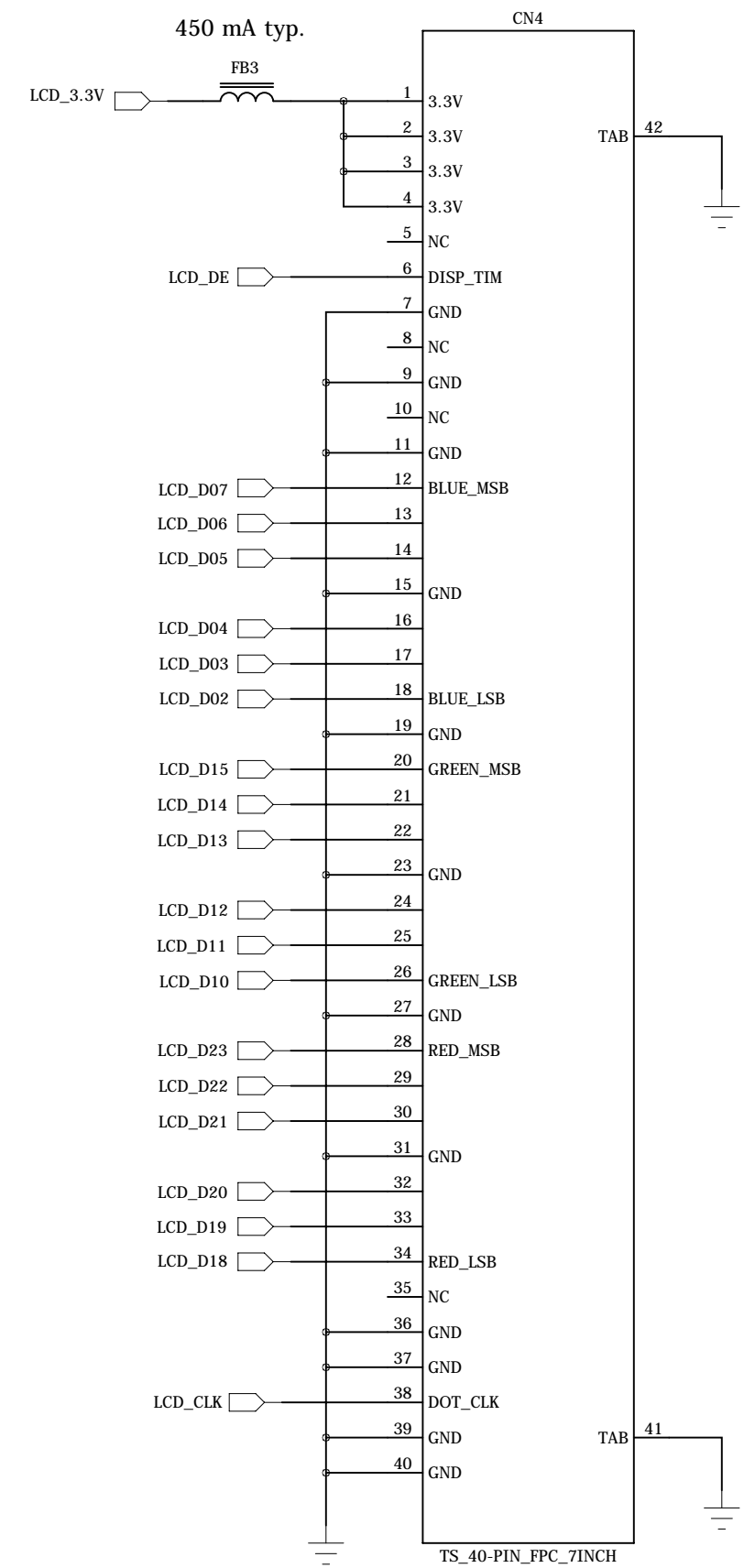
LEDs



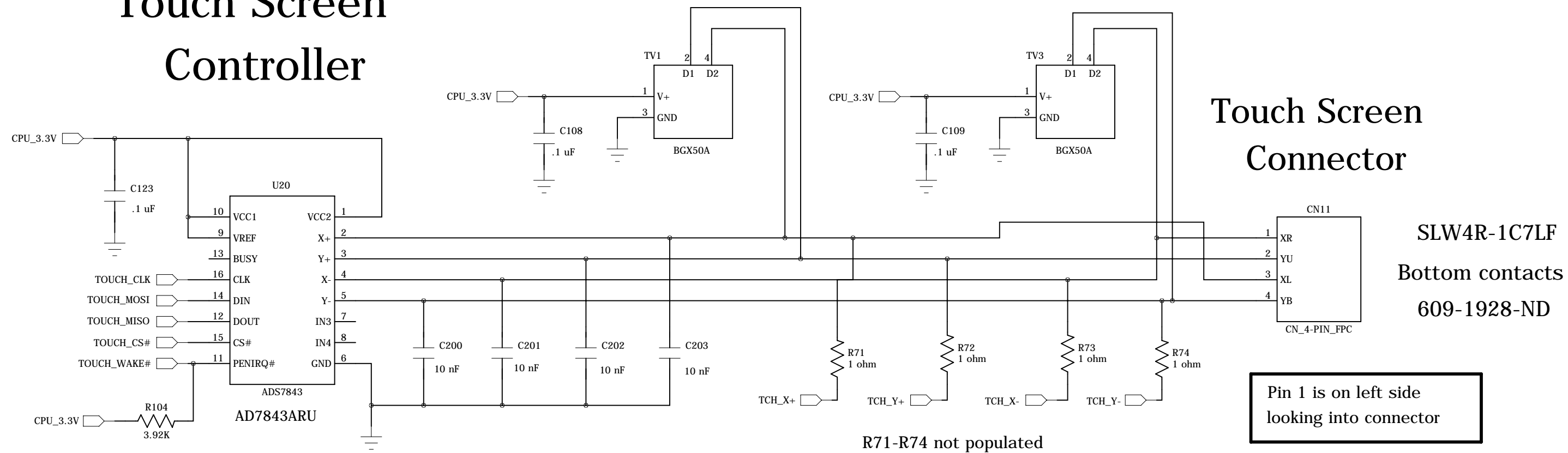
Audio CODEC



LCD Conn.



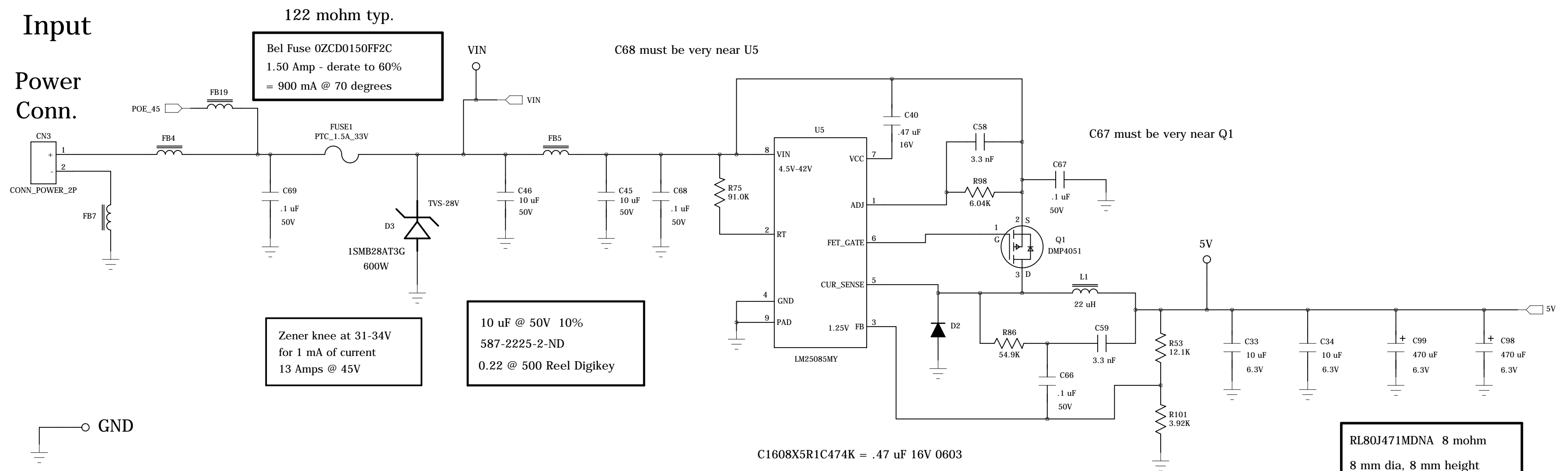
Touch Screen Controller



5V Power Supply (3.0 Amps)

5V to 28V
Input

Power
Conn.



122 mohm typ.
Bel Fuse 0ZCD0150FF2C
1.50 Amp - derate to 60%
= 900 mA @ 70 degrees

Zener knee at 31-34V
for 1 mA of current
13 Amps @ 45V

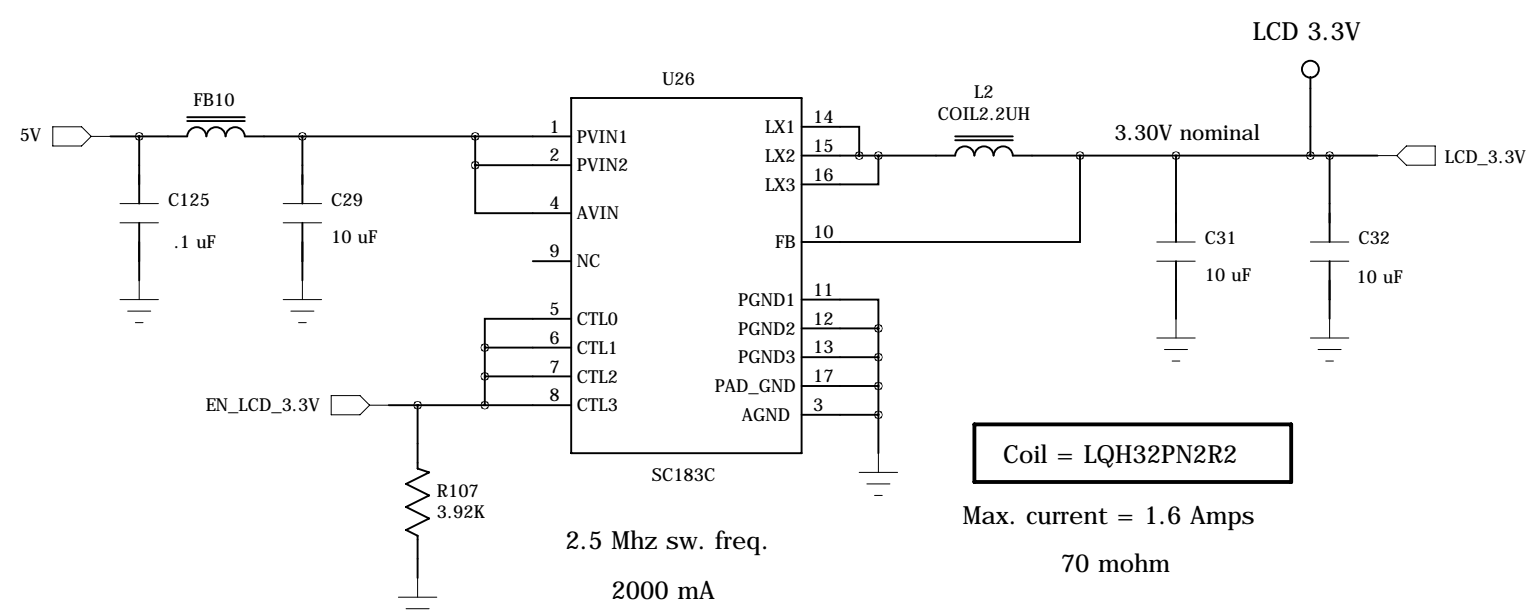
10 uF @ 50V 10%
587-2225-2-ND
0.22 @ 500 Reel Digikey

MSS1260T
3.1A @ 85 deg.
37 mohm
12.5 x 12.5 x 6mm
86 cents @ 500

DR127-220-R
4.0A rms @ 85 deg.
39 mohm
12.5 x 12.5 x 8mm
83 cents @ 350

RL80J471MDNA 8 mohm
8 mm dia, 8 mm height
470 uF @ 6.3V .23 @ 1K

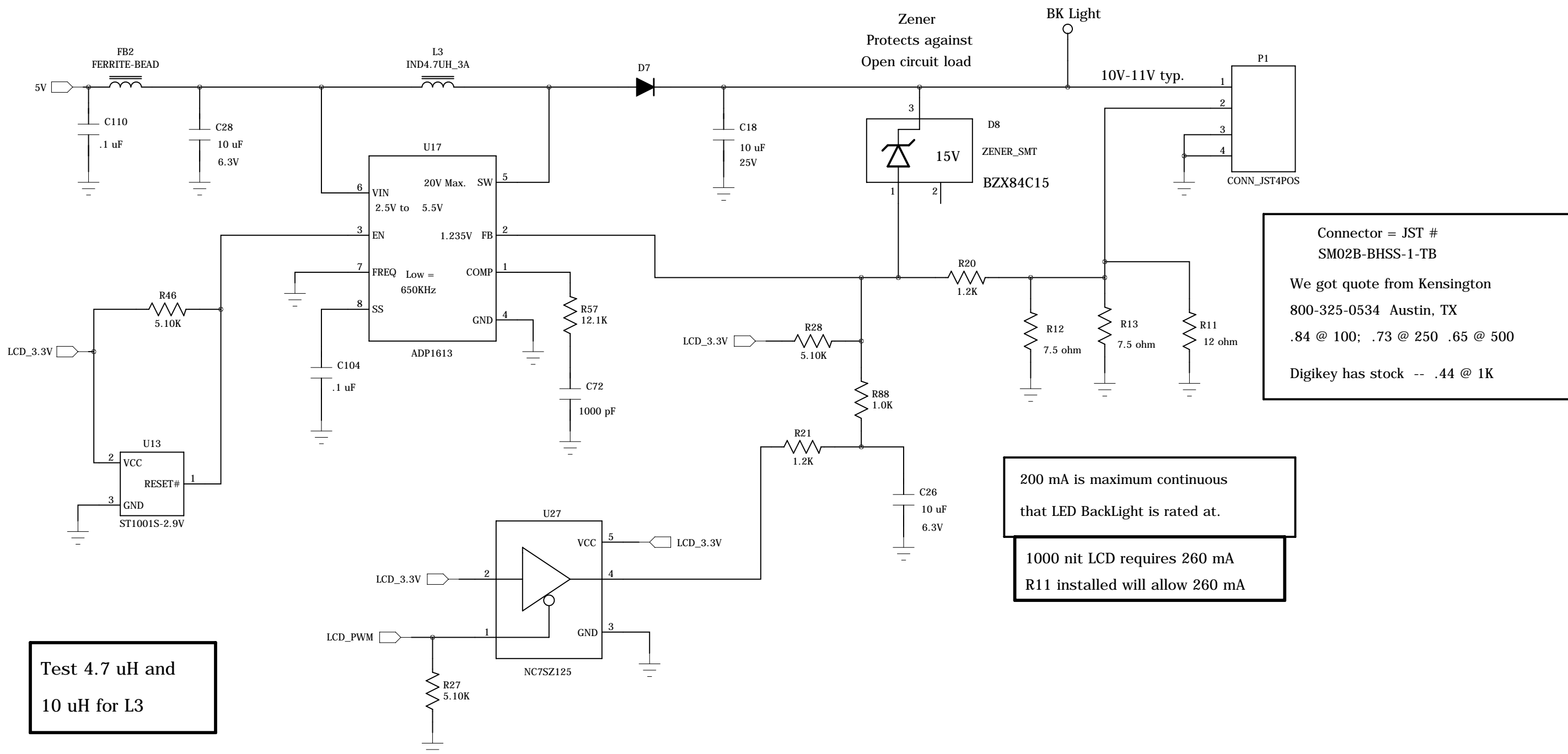
3.3V Power Supply for LCD



Coil = LQH32PN2R2
Max. current = 1.6 Amps
70 mohm

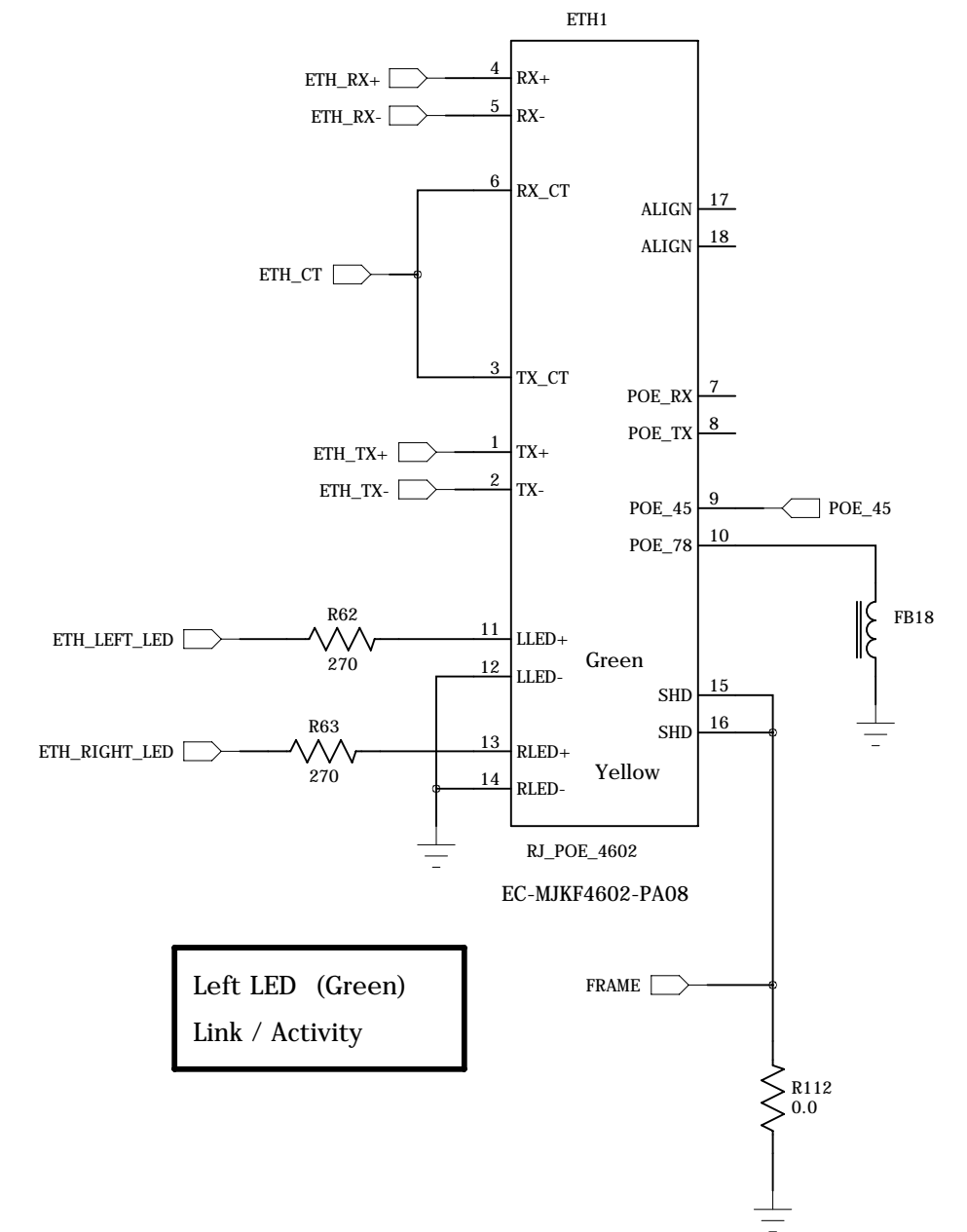
Technologic Systems		Date Jan. 17, 2011	
Title: TS-8390		5V Power, LCD 3.3V Power	
Rev: B	Designer	Sheet 6 of 10	

BackLight Power

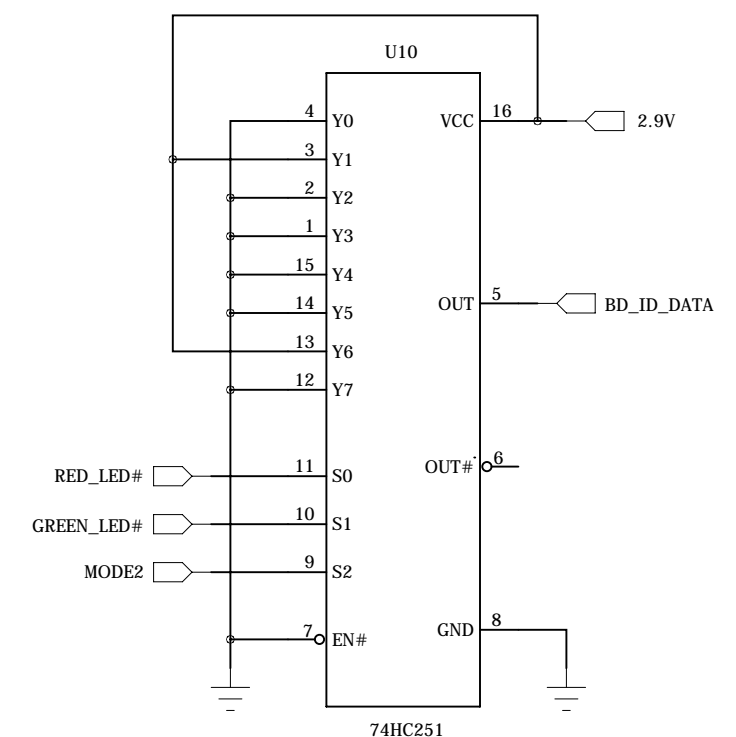


10/100 Ethernet

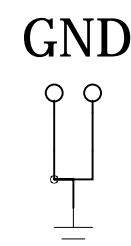
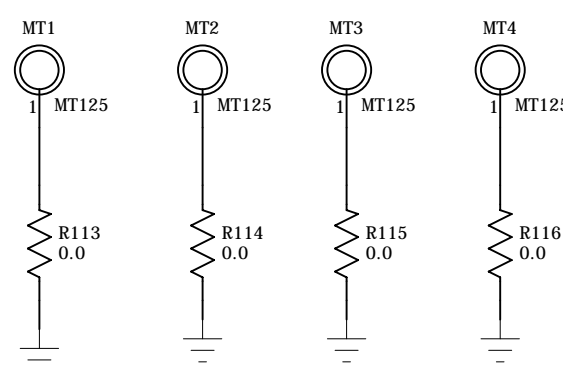
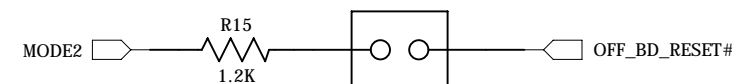
ETH1



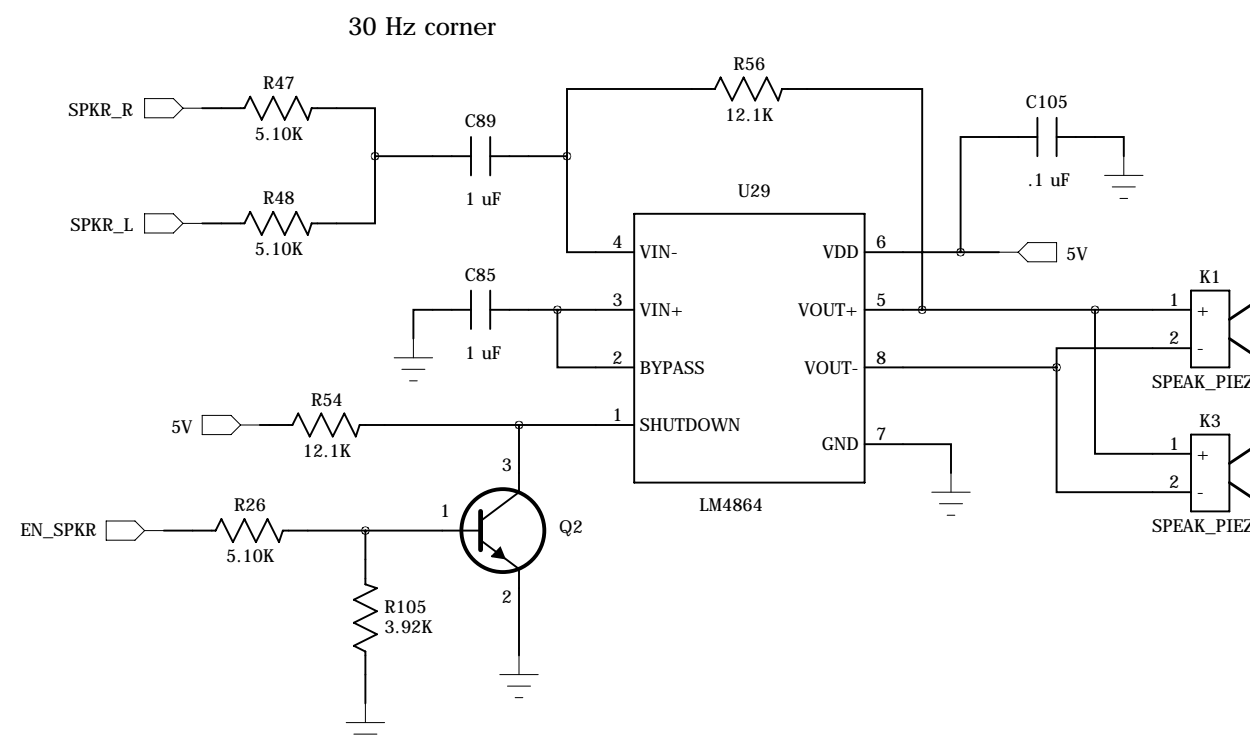
Board ID = 2 + 64



Force Boot to SD card



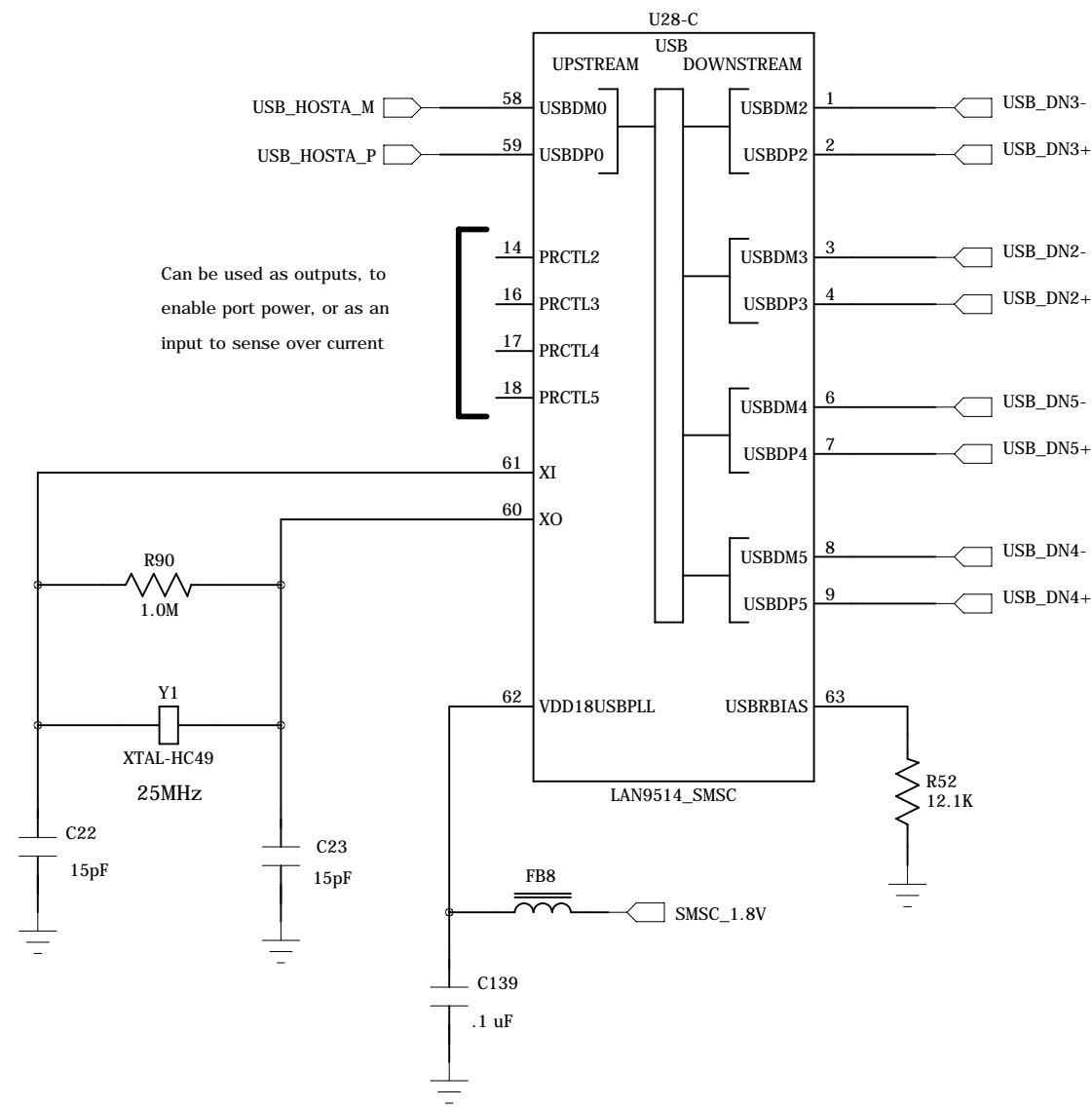
Speaker Amp



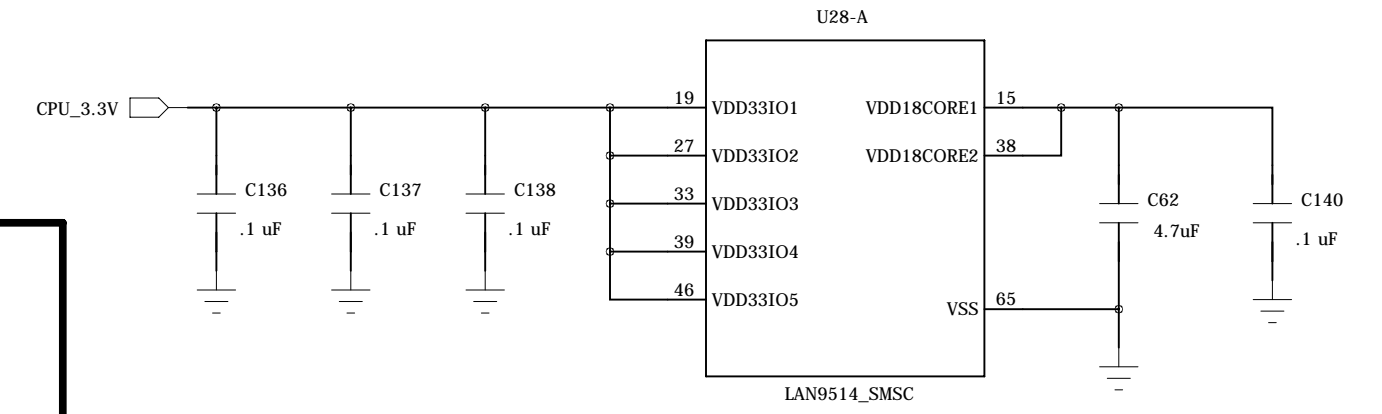
Technologic Systems	Date Jan. 17, 2011
Title: TS-8390	Backlight Power Ethernet
Rev: B	Designer RLM Sheet 7 of 10

2nd Ethernet Port

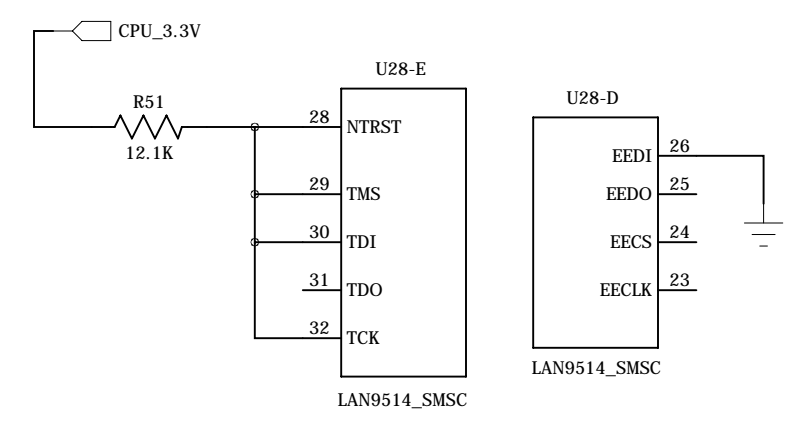
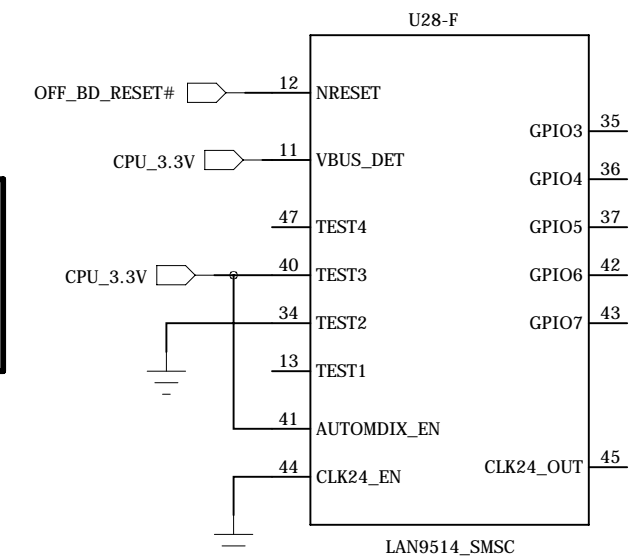
SMSC USB Hub



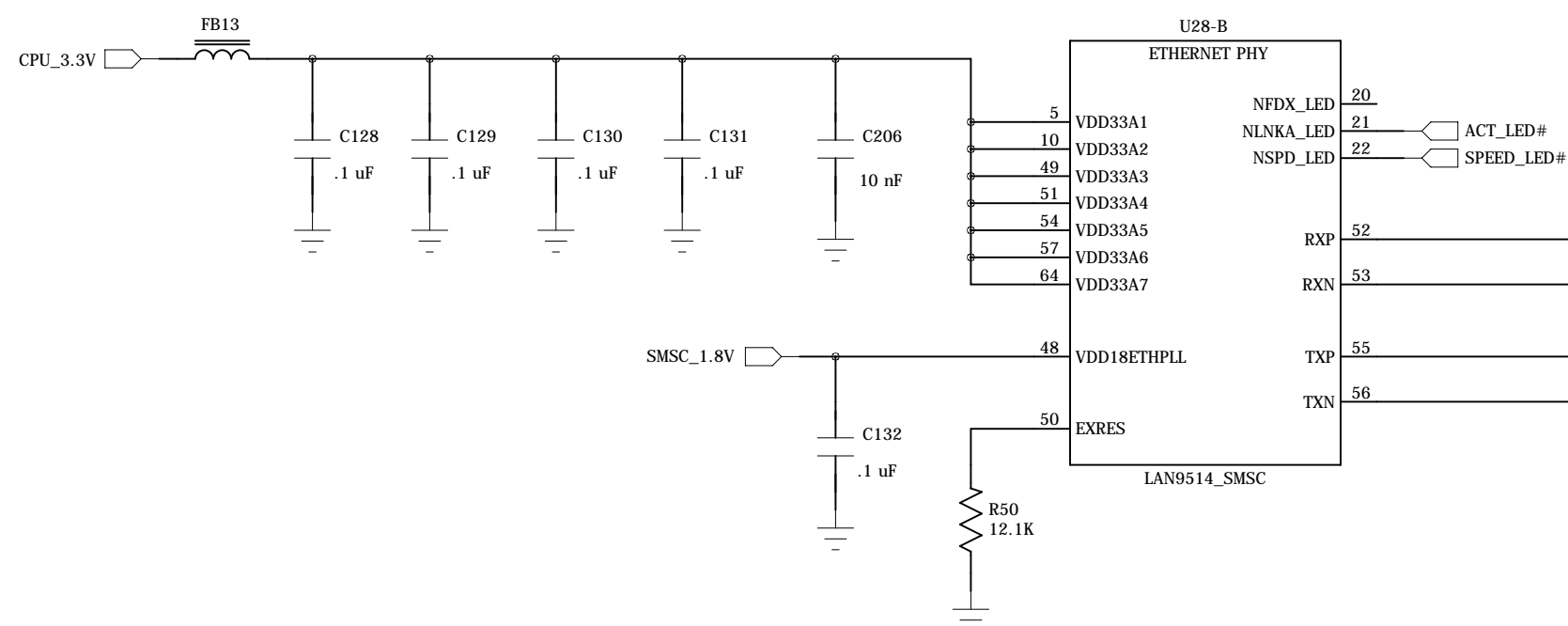
Typical 3.3V current
with all ports active
is 288 mA (950 mw)



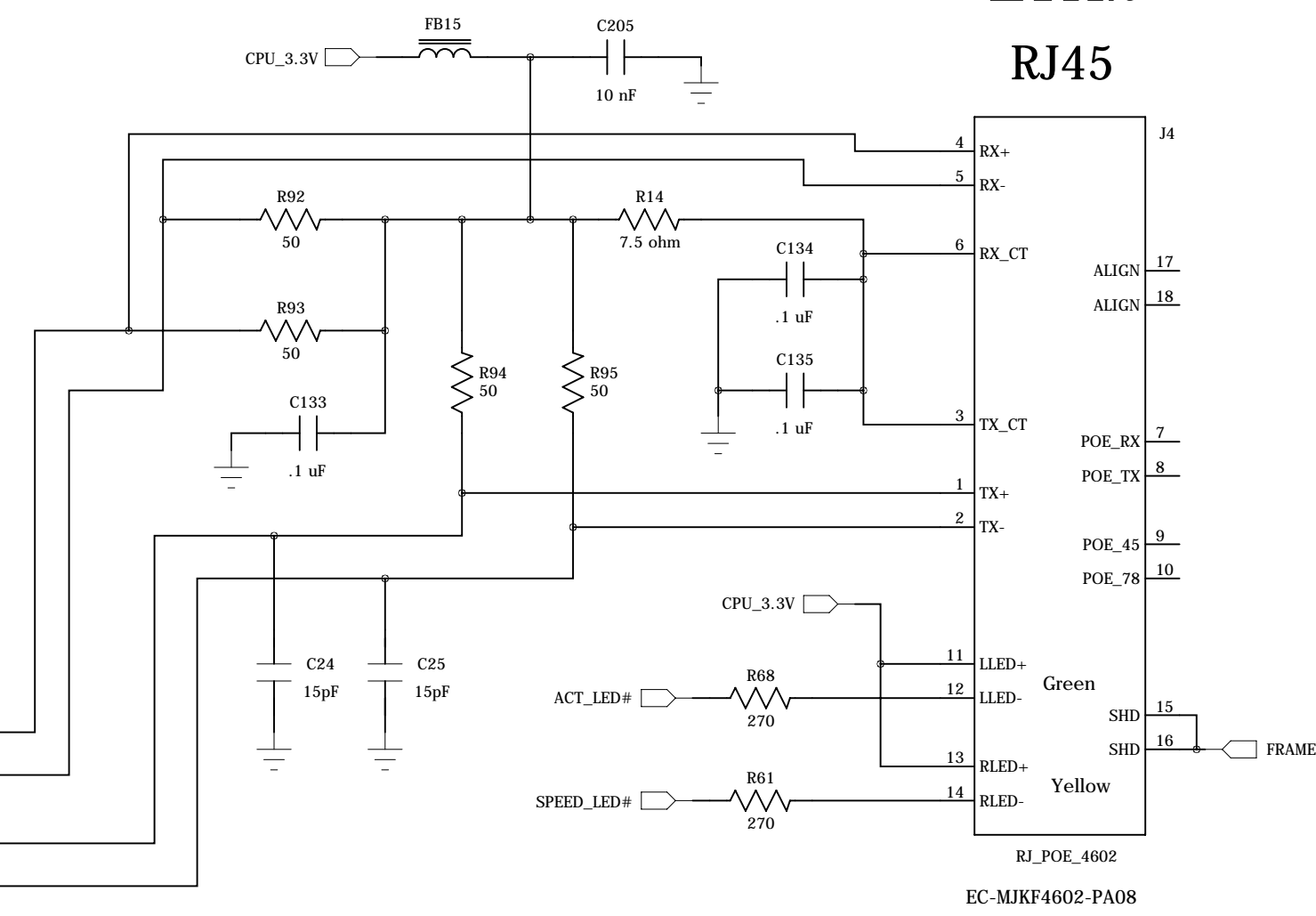
Test pins:
must be as
wired as shown



SMSC Ethernet Port

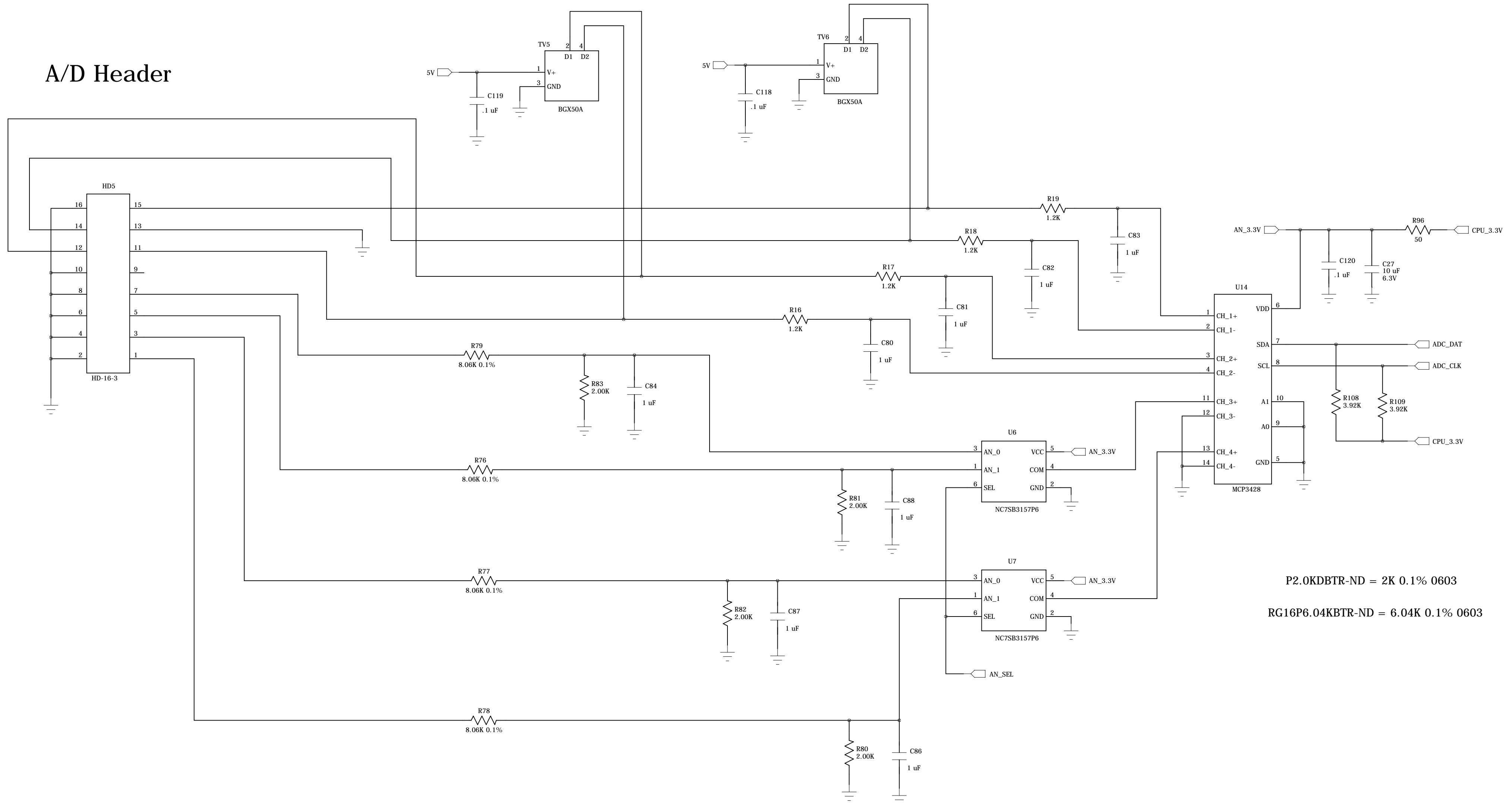


ETH2 RJ45



16-bit A/D Converter

Four single-ended 0-10V Inputs
Two differential pairs 0-2V range



P2.0KDBTR-ND = 2K 0.1% 0603
RG16P6.04KBTR-ND = 6.04K 0.1% 0603

Technologic Systems		Date Jan. 17, 2011
Title: TS-8390	Analog	
Rev: B	Designer	Sheet 9 of 10

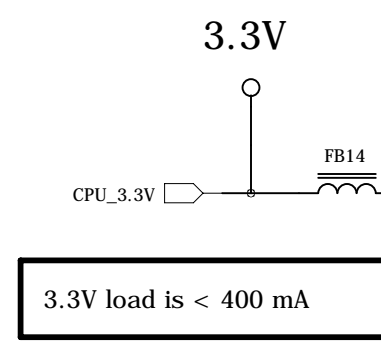
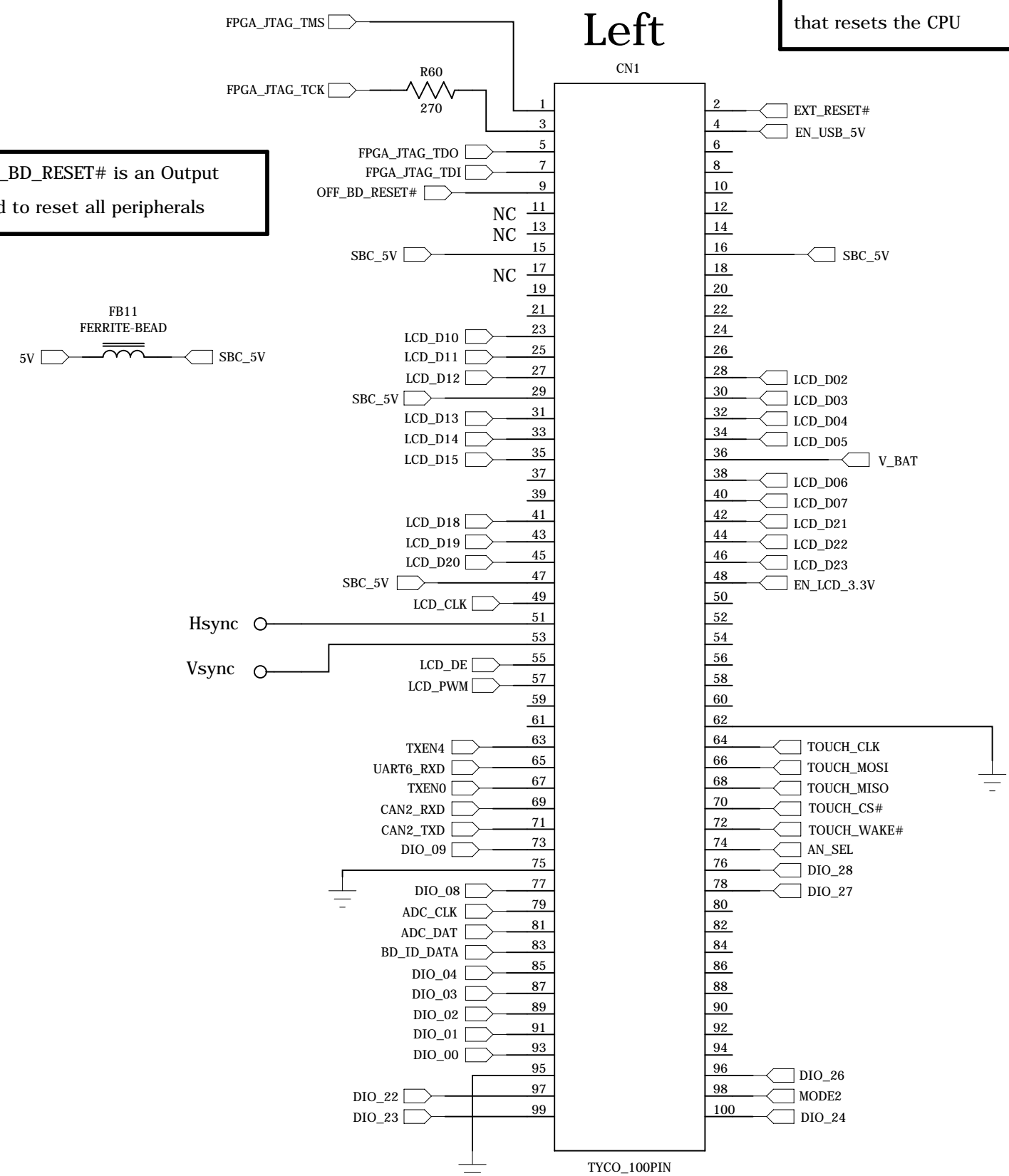
Two 100-pin Module Connectors

Left

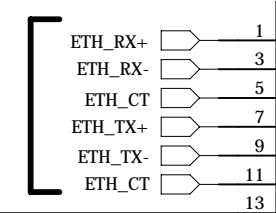
EXT_RESET# is an Input
that resets the CPU

Right

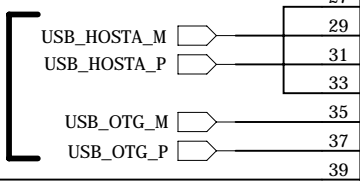
OFF_BD_RESET# is an Output
used to reset all peripherals



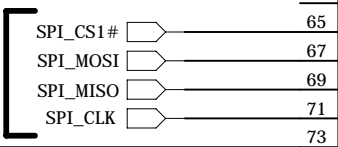
Ethernet



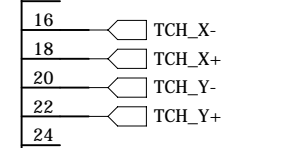
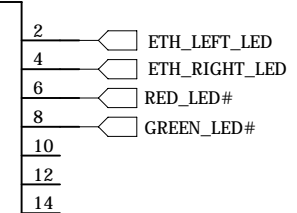
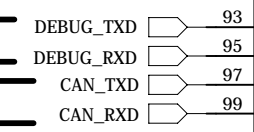
USB Ports



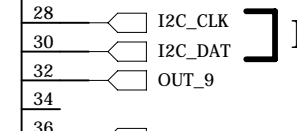
SPI



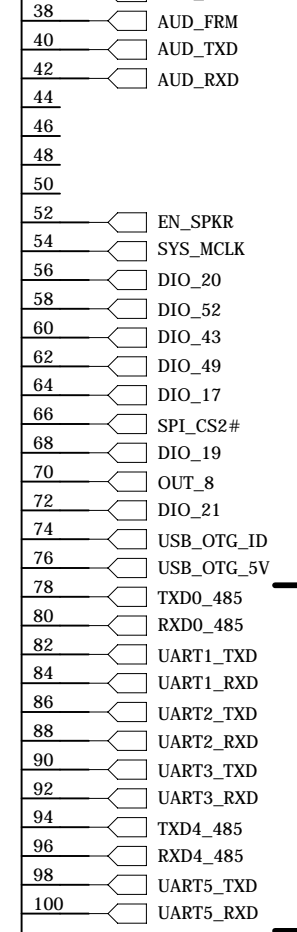
Console



I2C



Serial Ports
or DIO



Boot Strap

Mode 2	SBC Boots from
1	NAND Flash
0	SD Card

MODE2 state is latched prior to OFF_BD_RESET# deasserted

MODE2 has a 12K PU on the SBC module