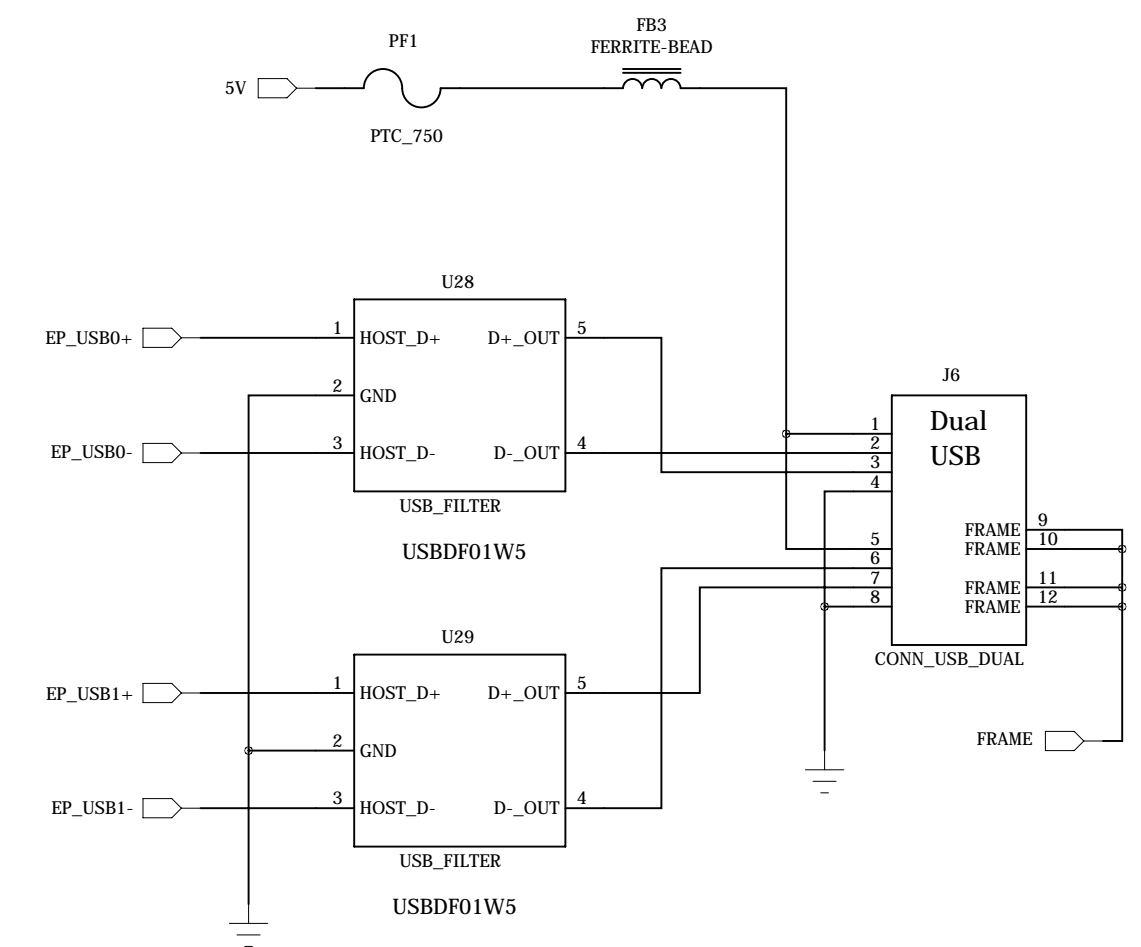
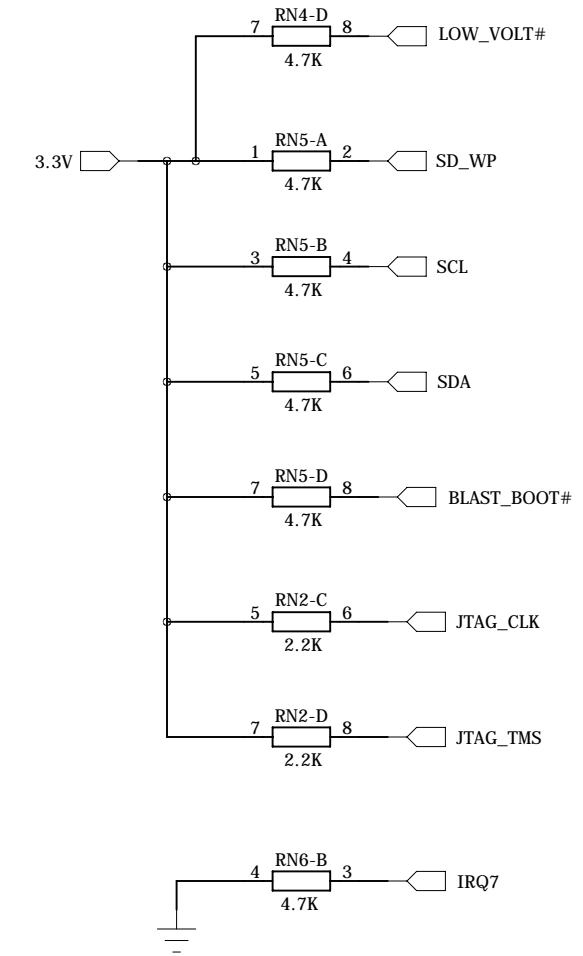
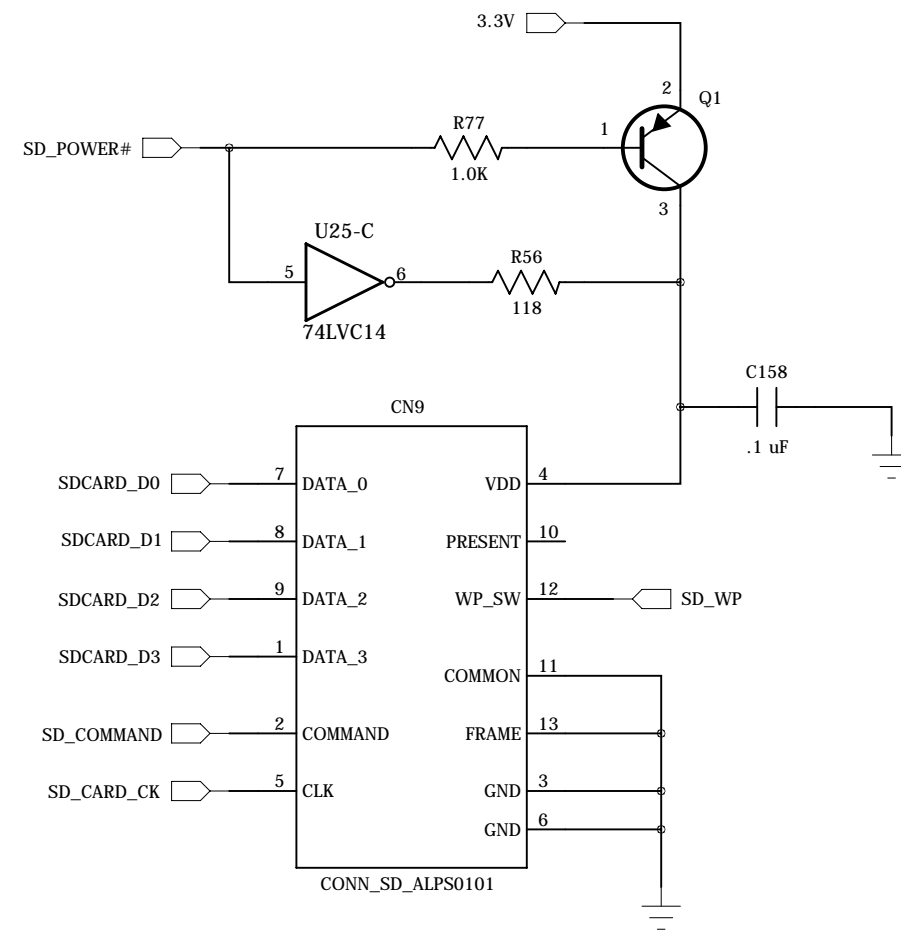
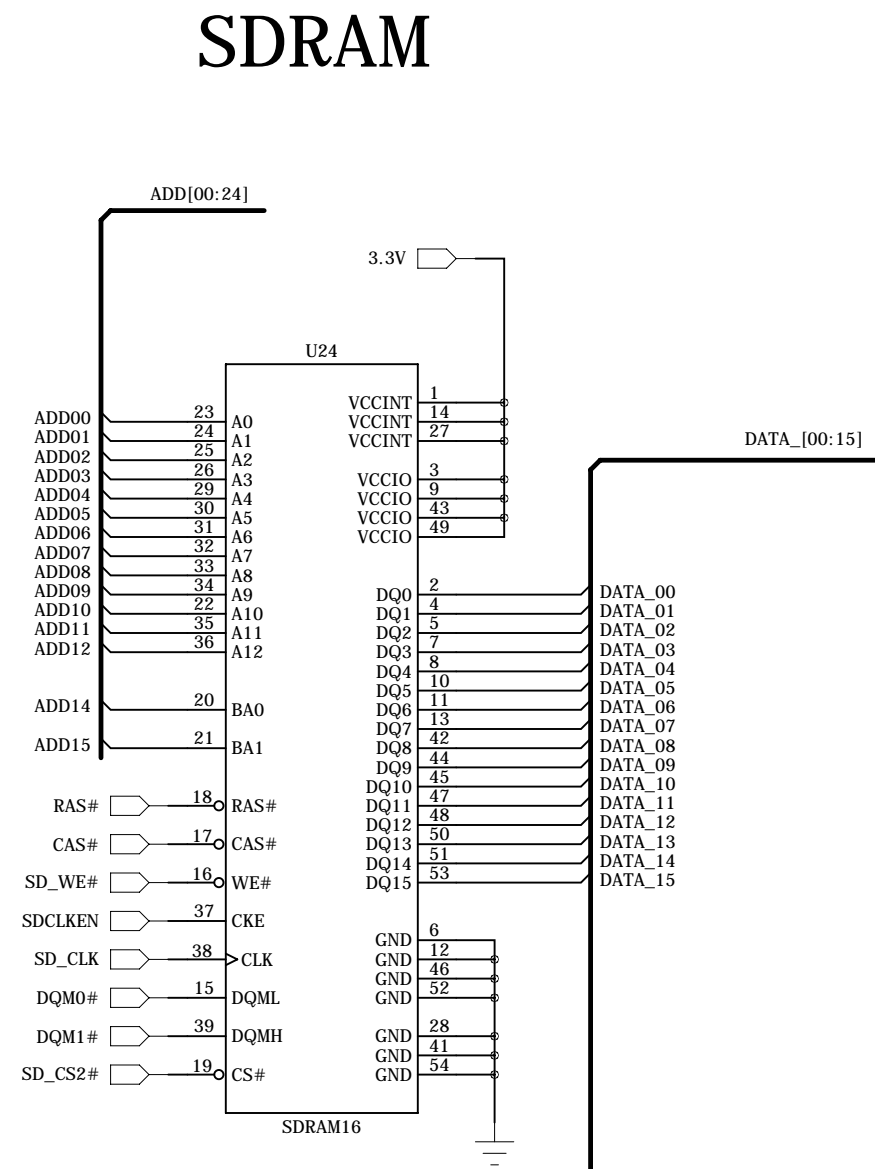


USB Ports

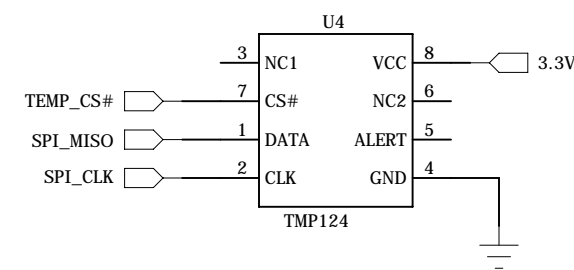


Technologic Systems		Date	April 6, 2009
Title: TS-7390 EP9302 CPU, USB			
Rev:	Designer	RLM	Sheet 1 of 8

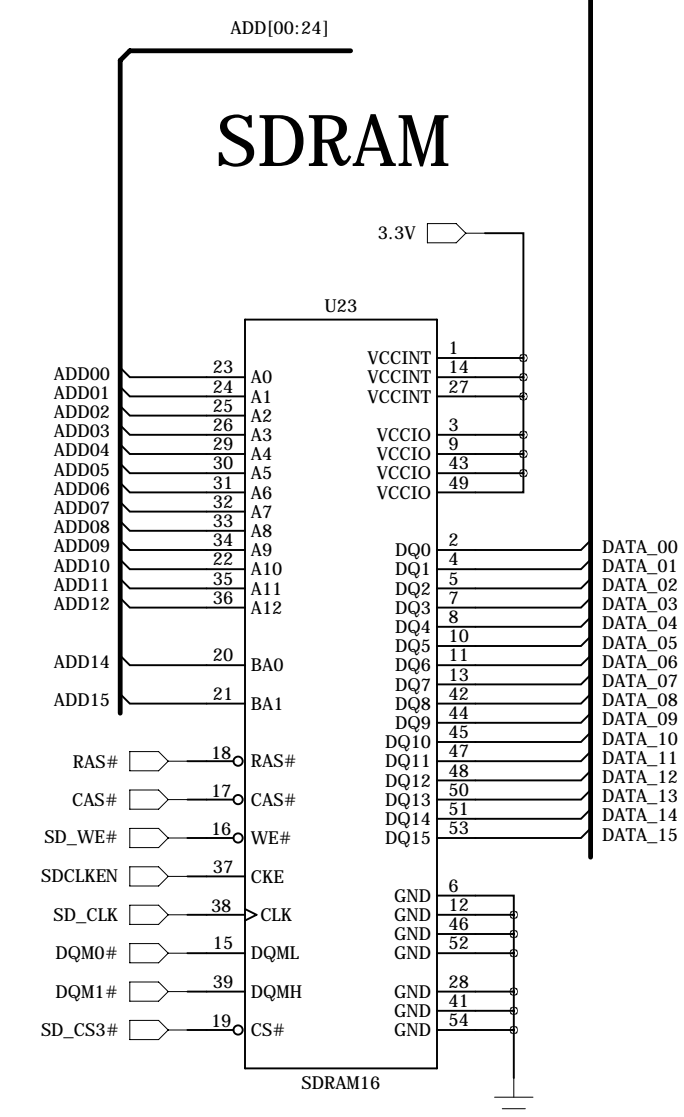
SD Card Socket



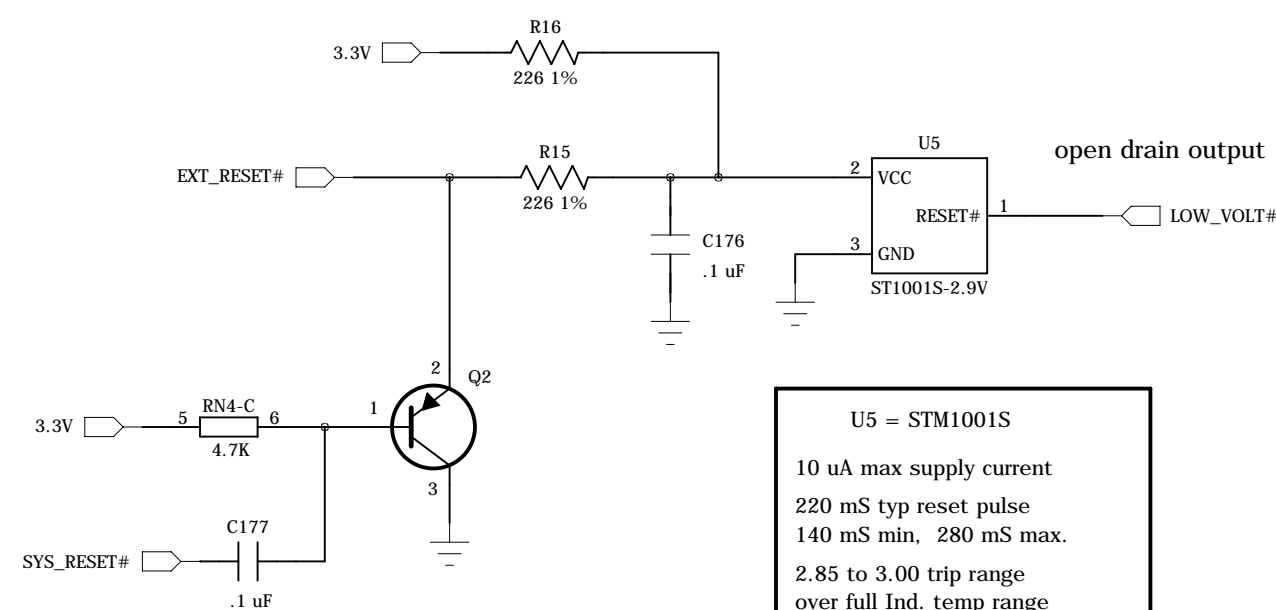
Temp Sensor



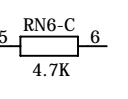
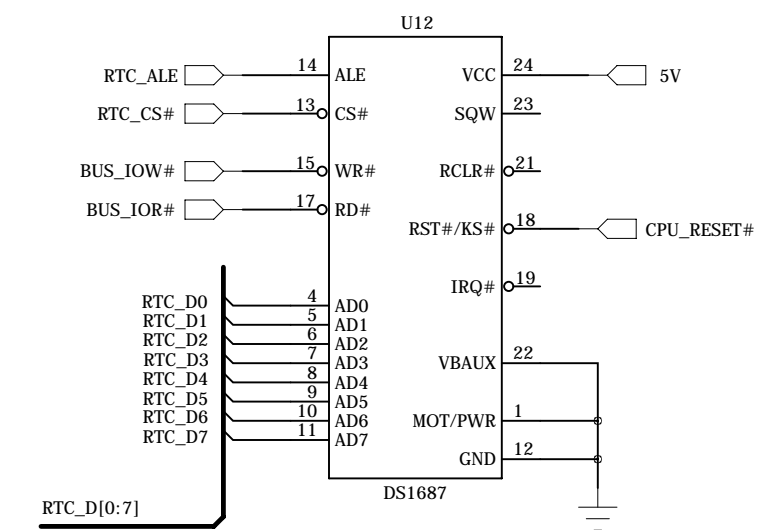
Battery-Backed Real Time Clock



Power On Reset

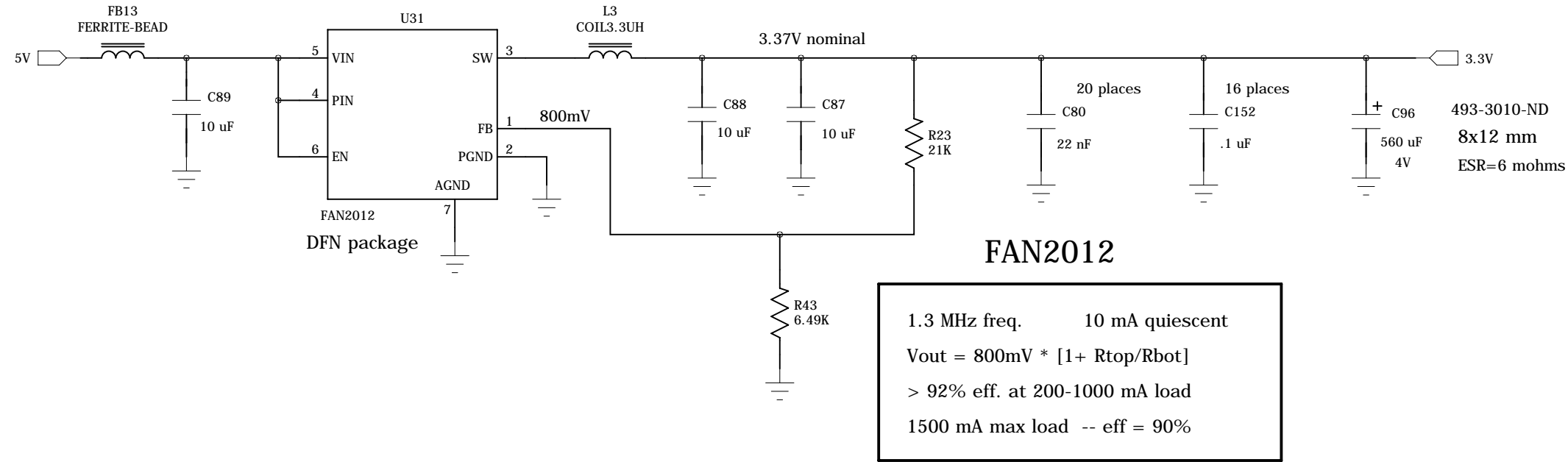


U5 = STM1001S
 10 uA max supply current
 220 mS typ reset pulse
 140 mS min, 280 mS max.
 2.85 to 3.00 trip range
 over full Ind. temp range
 guaranteed output low
 down to 1V Vcc
 but can only sink 1.2 mA

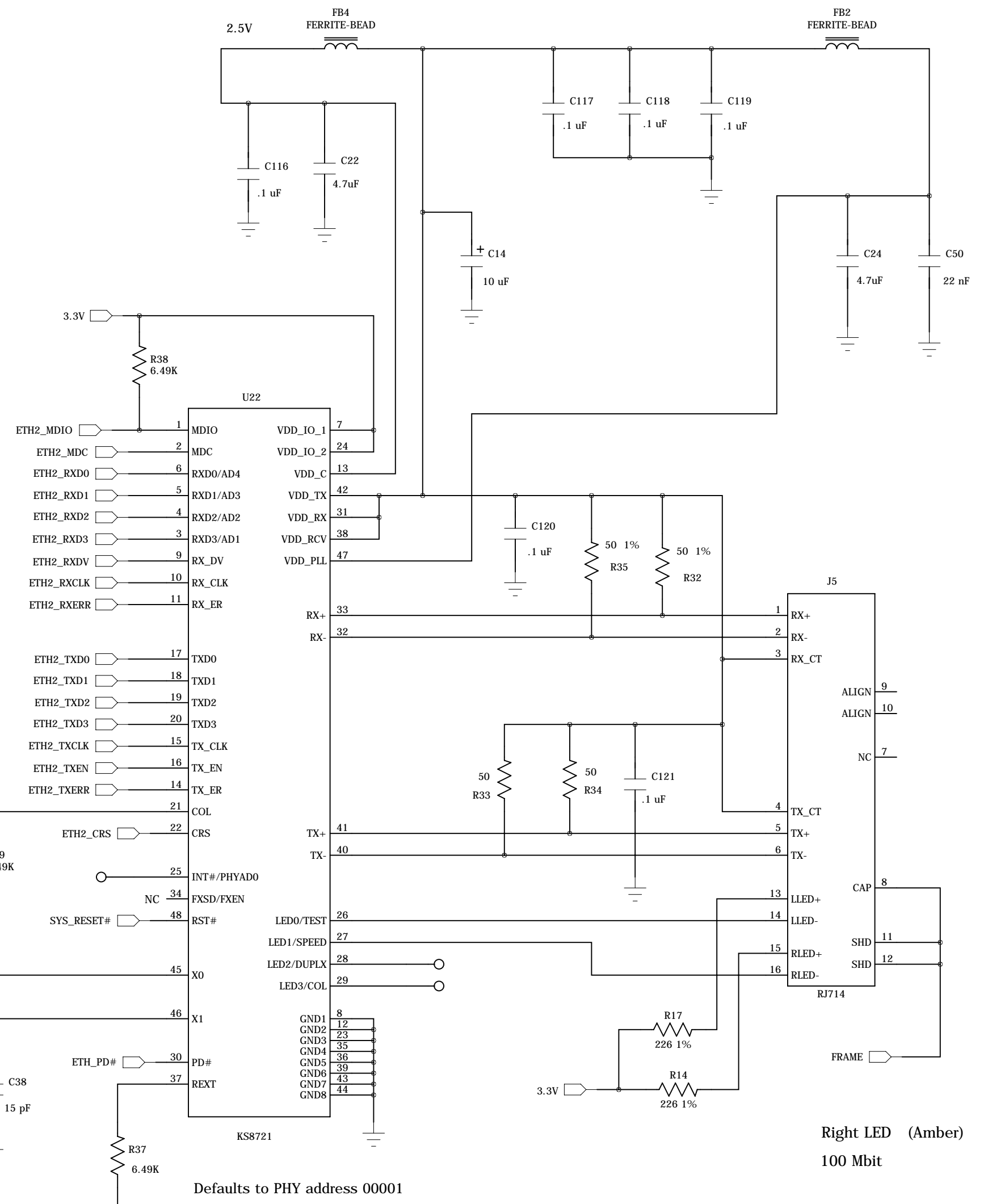


Technologic Systems	Date April 6, 2009
Title: TS-7390 SDRAM, Flash, RTC, POR	
Rev:	Designer RLM Sheet 2 of 8

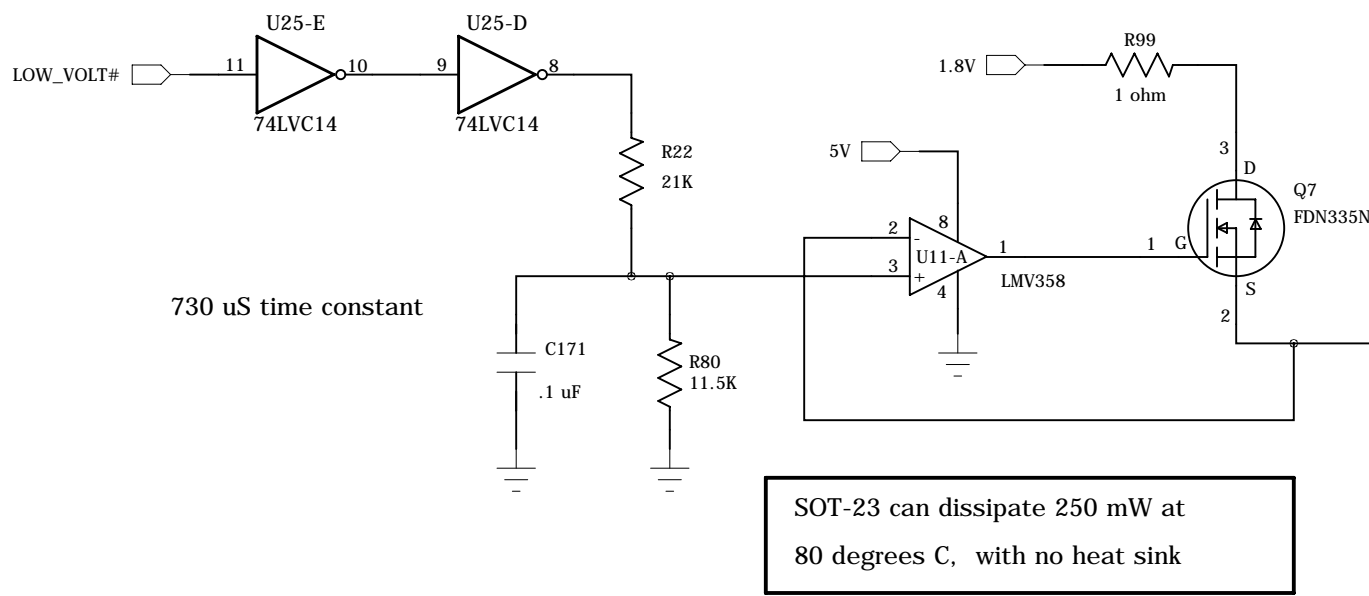
3.3V Switching Regulator



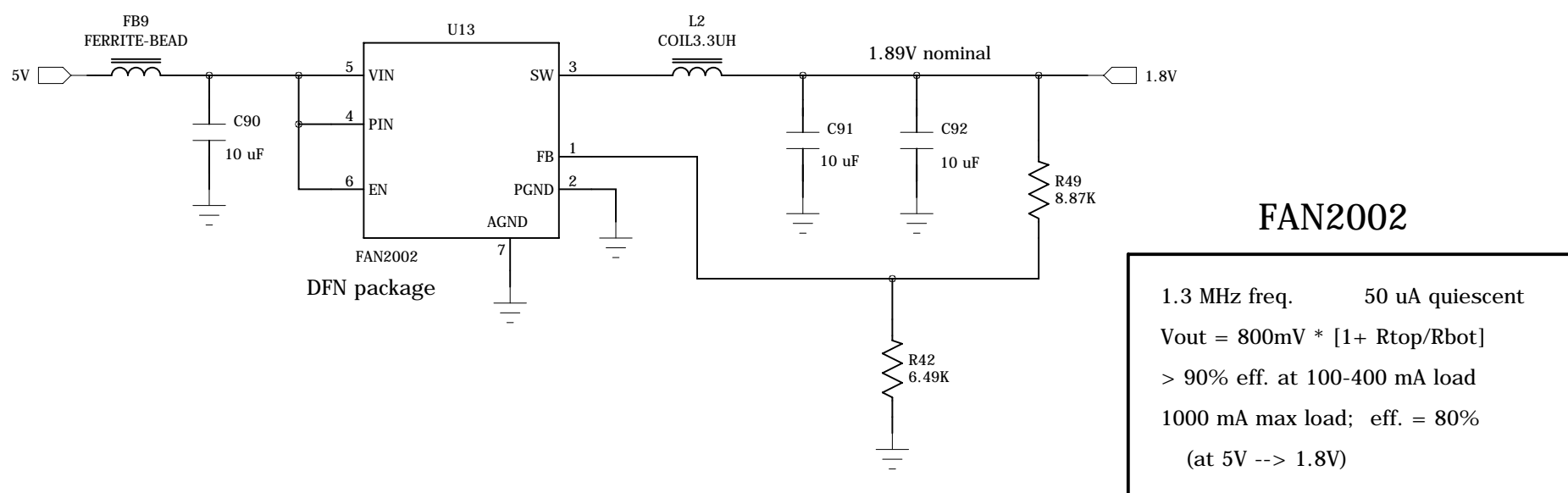
10/100 Ethernet



1.2V Regulator

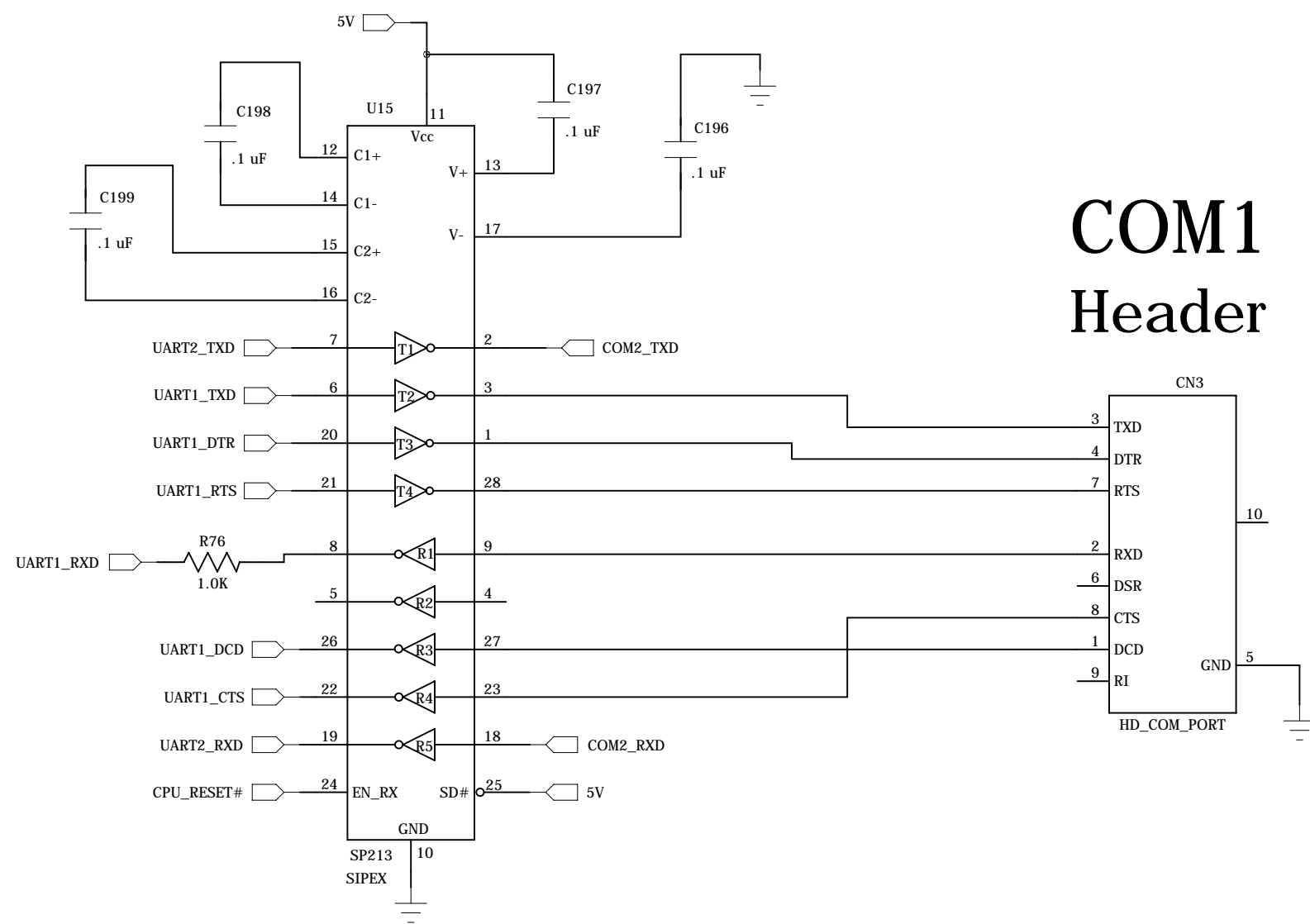


1.8V Switching Regulator



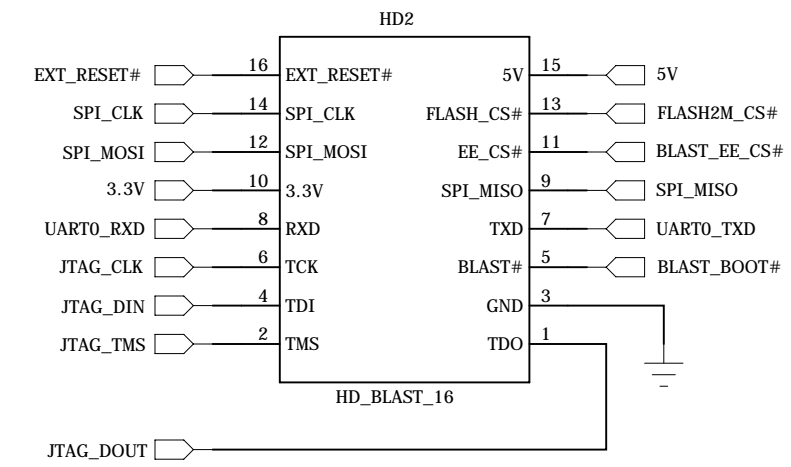
Technologic Systems	Date	April 6, 2009
Title: TS-7390 Power Supplies, Ethernet		
Rev:	Designer	RLM Sheet 3 of 8

RS-232 Transceiver

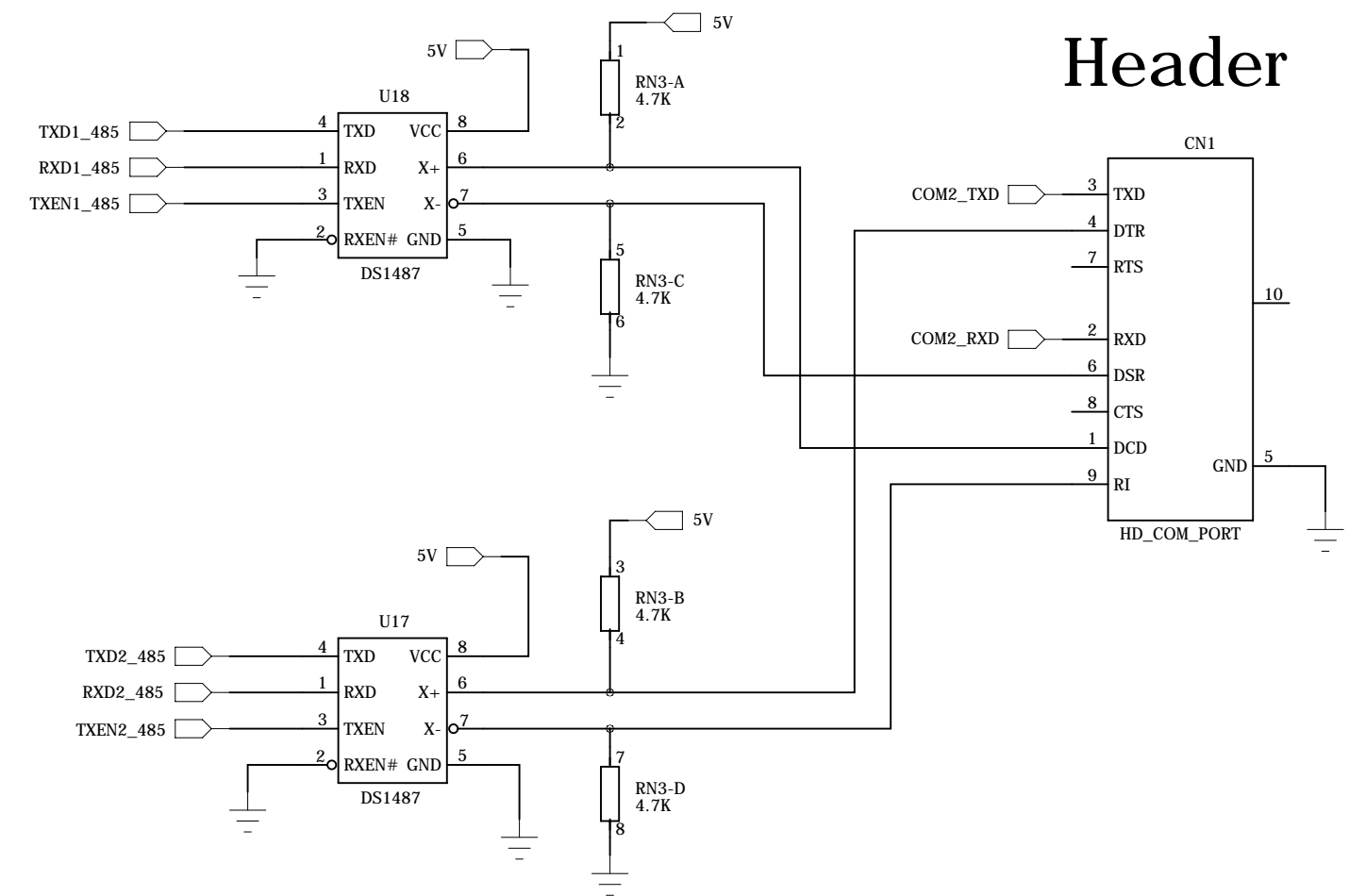


COM1 Header

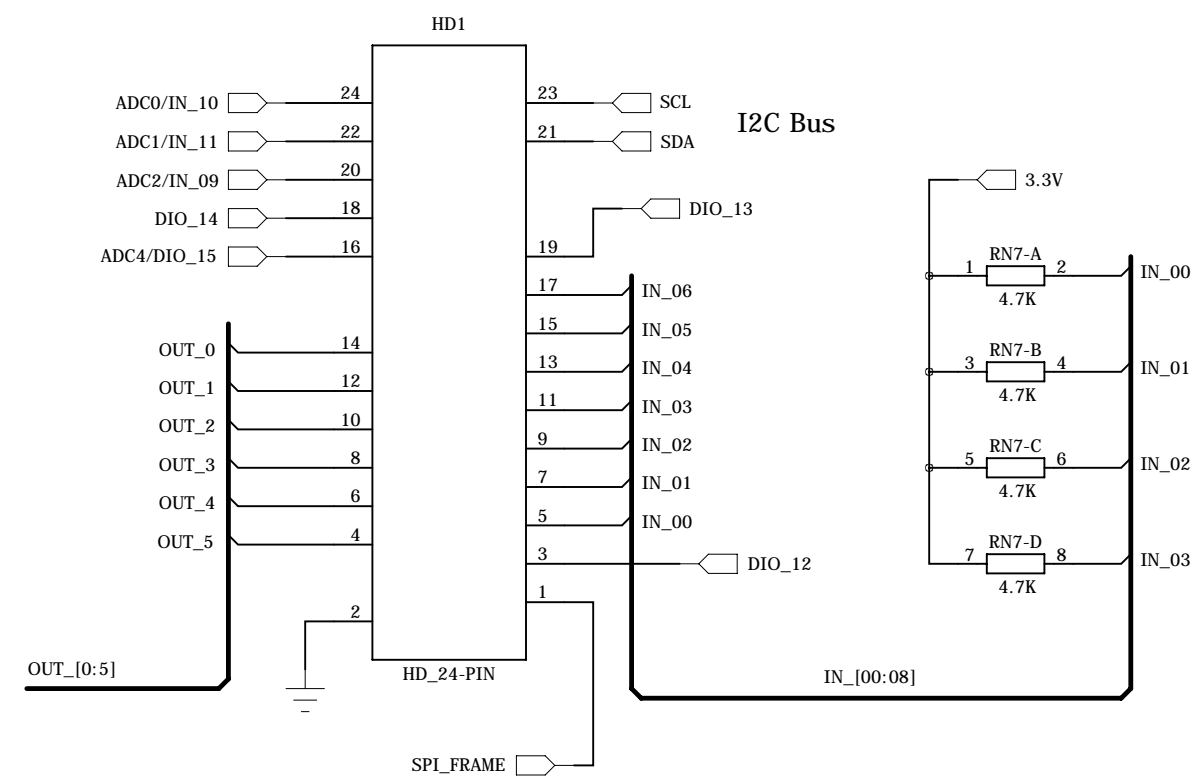
JTAG Header



RS-485 Drivers



COM2 Header



24-pin Header

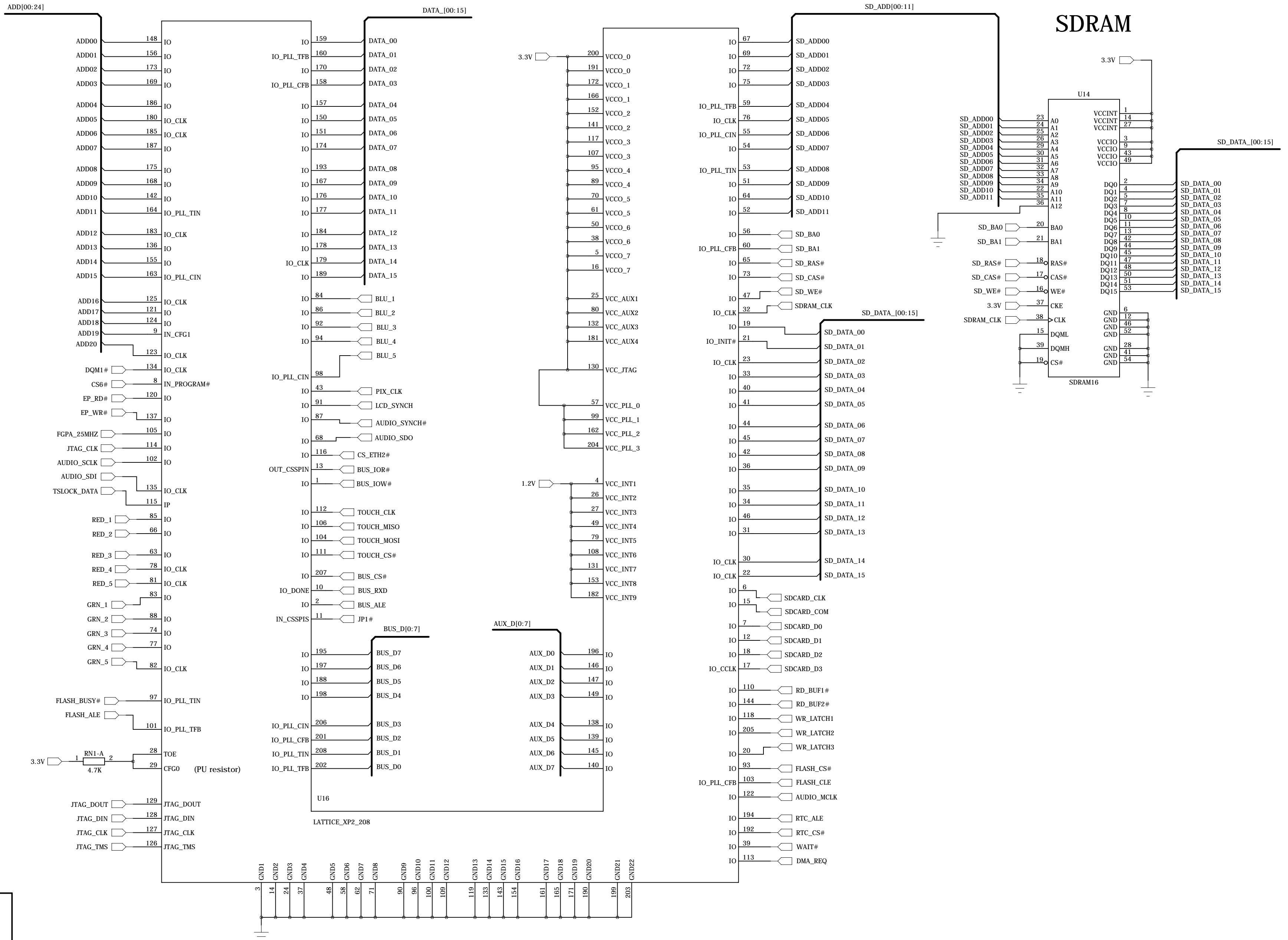
24 + 16 = 40-pin Header

- 4 ADC
ADC lines in parallel with
IN_09, IN_10, IN11, DIO15
- 2 I2C
- 1 GND
- 6 Latched Outputs (OUT0-OUT5)
- 7 Buffered Inputs (IN0-IN6)
- 3 DIO_12, DIO_13, DIO_14
- 1 SPI_FRAME

Technologic Systems	Date	April 6, 2009
Title: TS-7390 COM Ports DIO JTAG Headers		
Rev:	Designer	Sheet 4 of 8

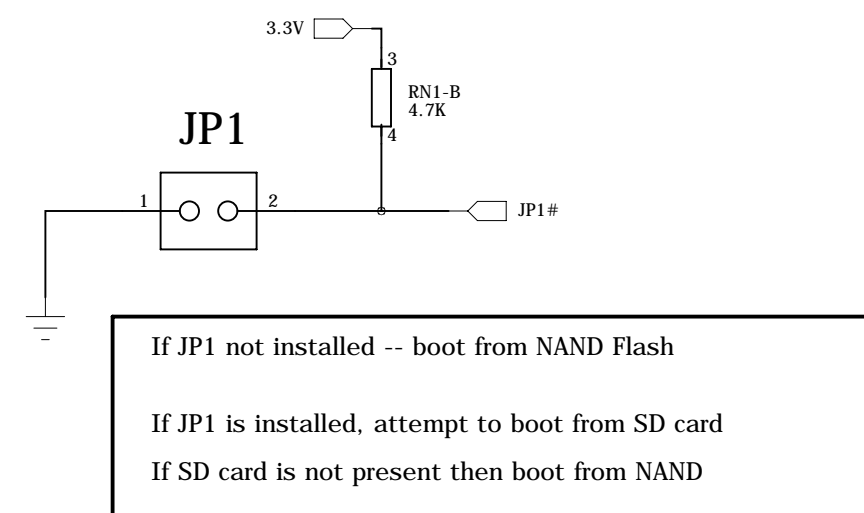
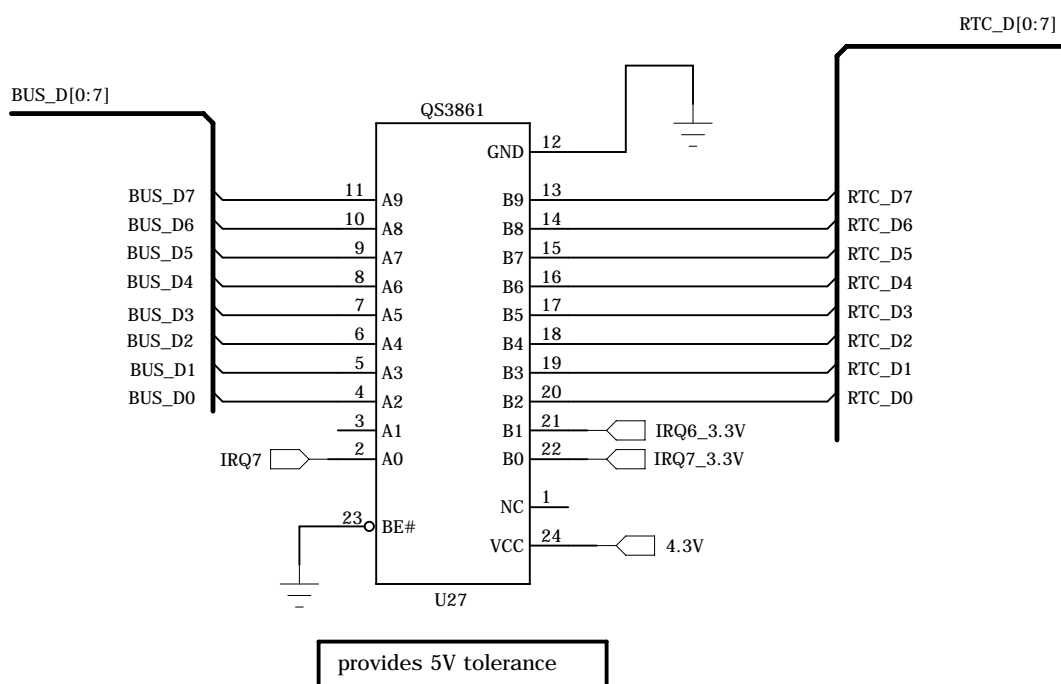
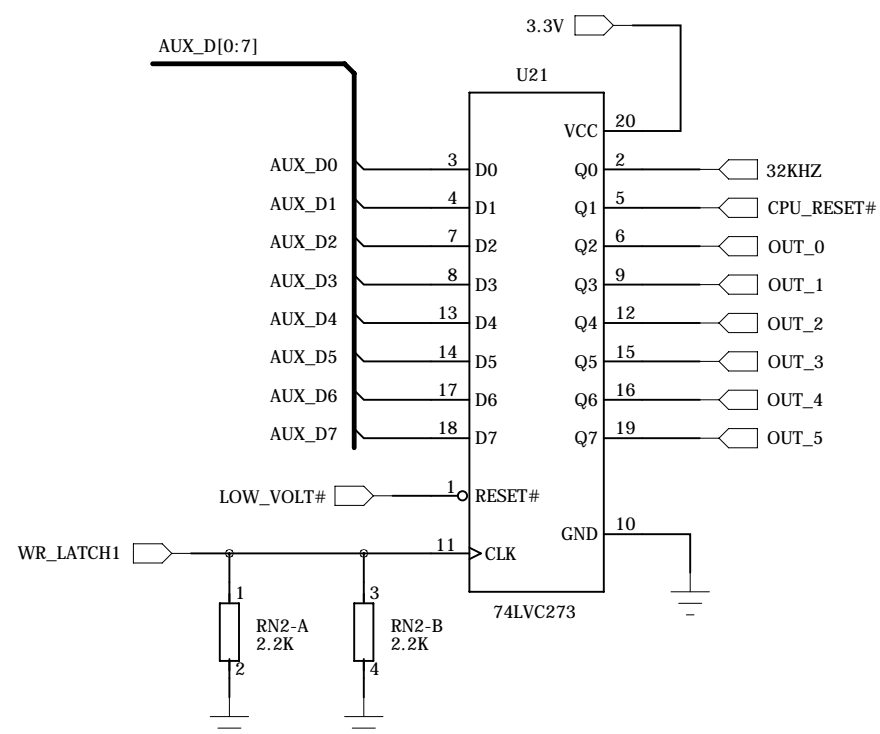
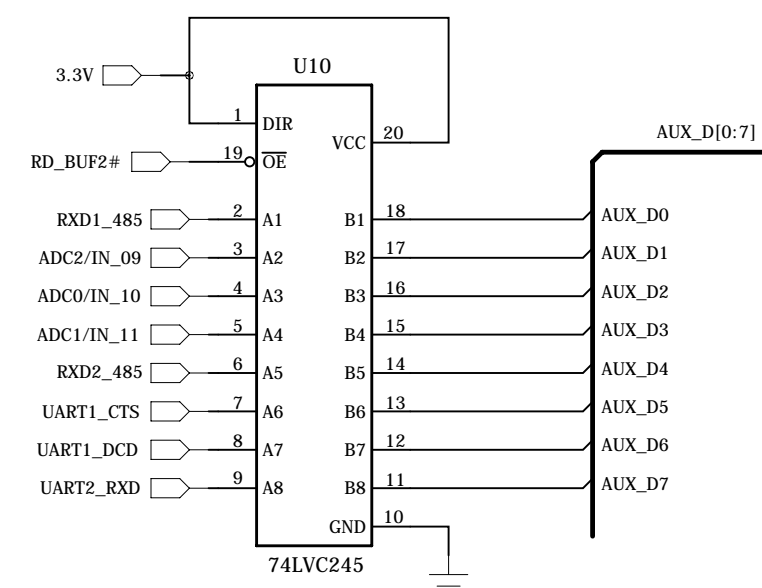
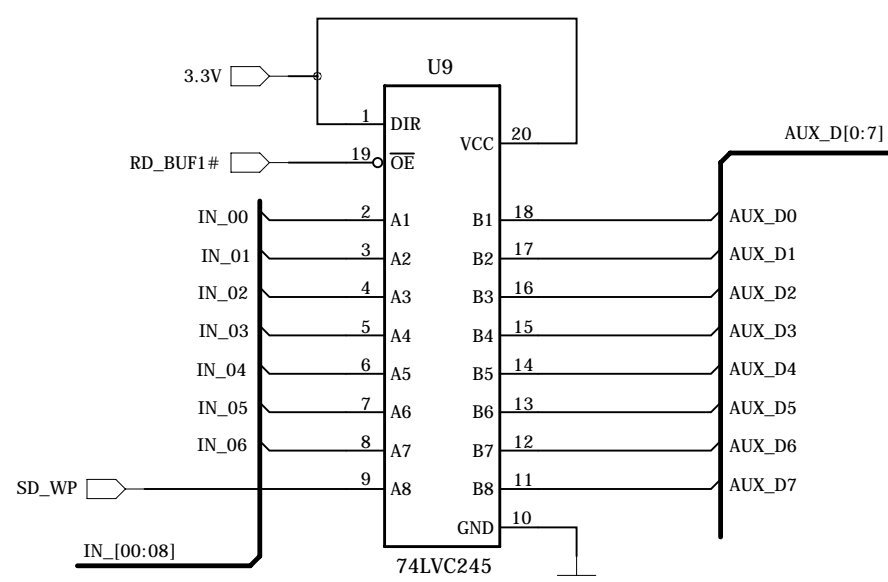
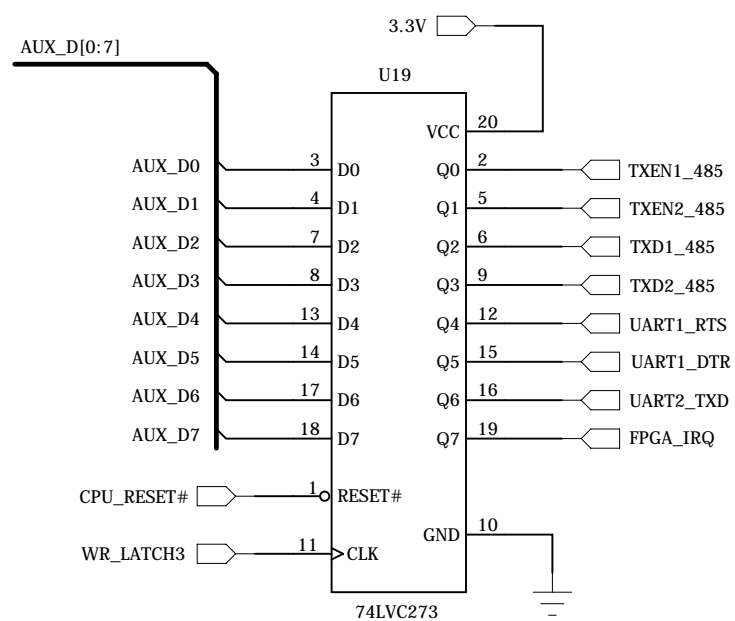
Lattice XP2 FPGA

8 MB Video SDRAM

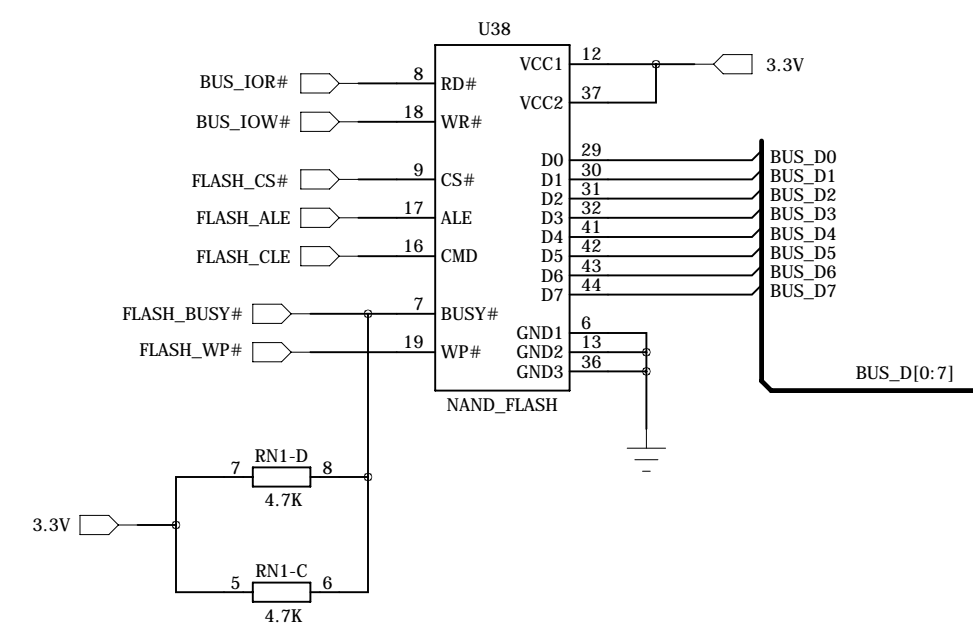


XP2-5 has:
 5K LUTs 2 PLLs
 9 blocks of 1Kx18 Block RAM
 12 18x18 Multipliers
 146 I/O with 208 pin package
 "instant ON" = about 1.5 mS
 input PLL clock = 10 MHz min

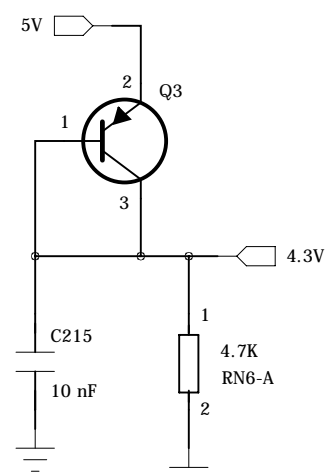
TAG Memory is 79 bytes of Flash (XP2-5)
 Always available thru JTAG port
 can not be Write or Read protected
 perfect for: MAC, birth date, Revision #
 TAG memory can be accessed from fabric



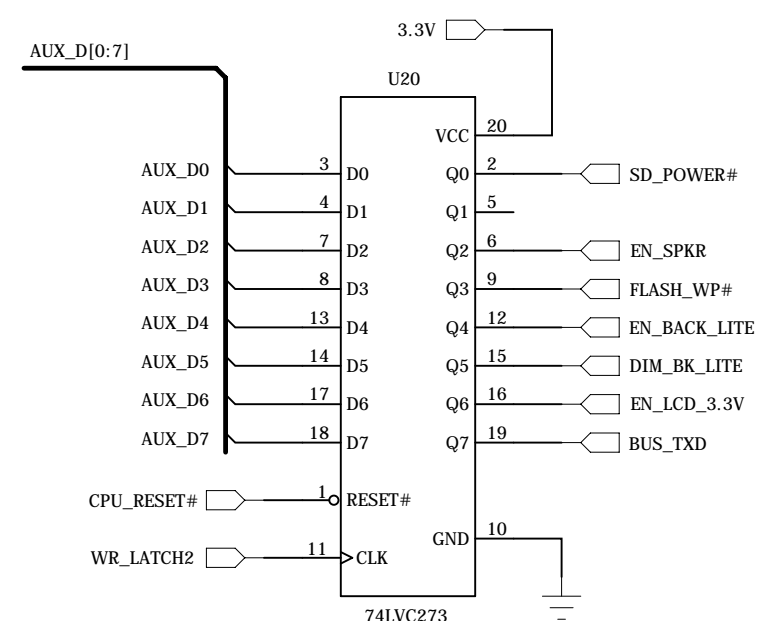
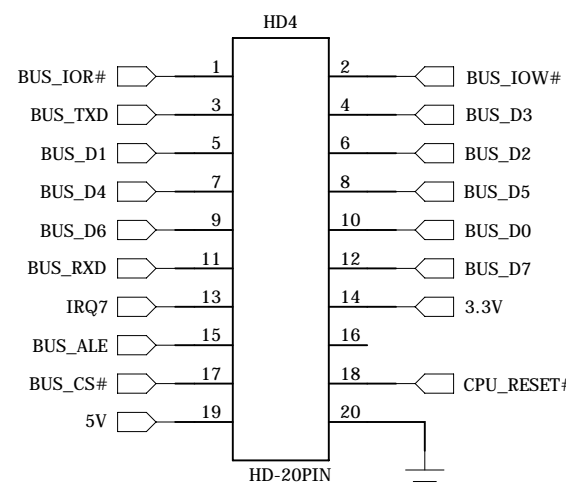
NAND Flash



4.3V Power Supply



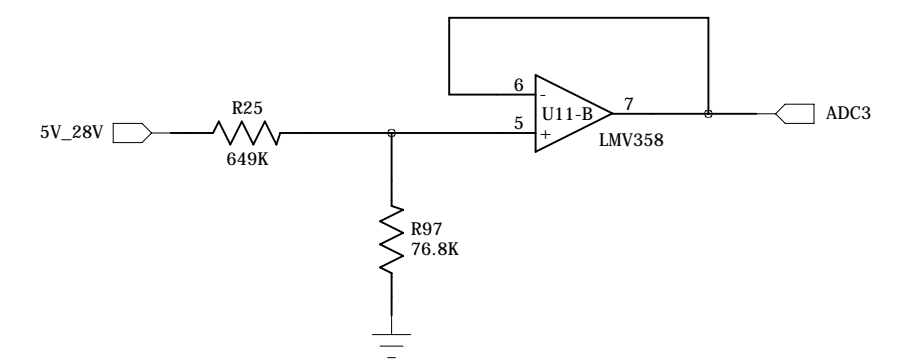
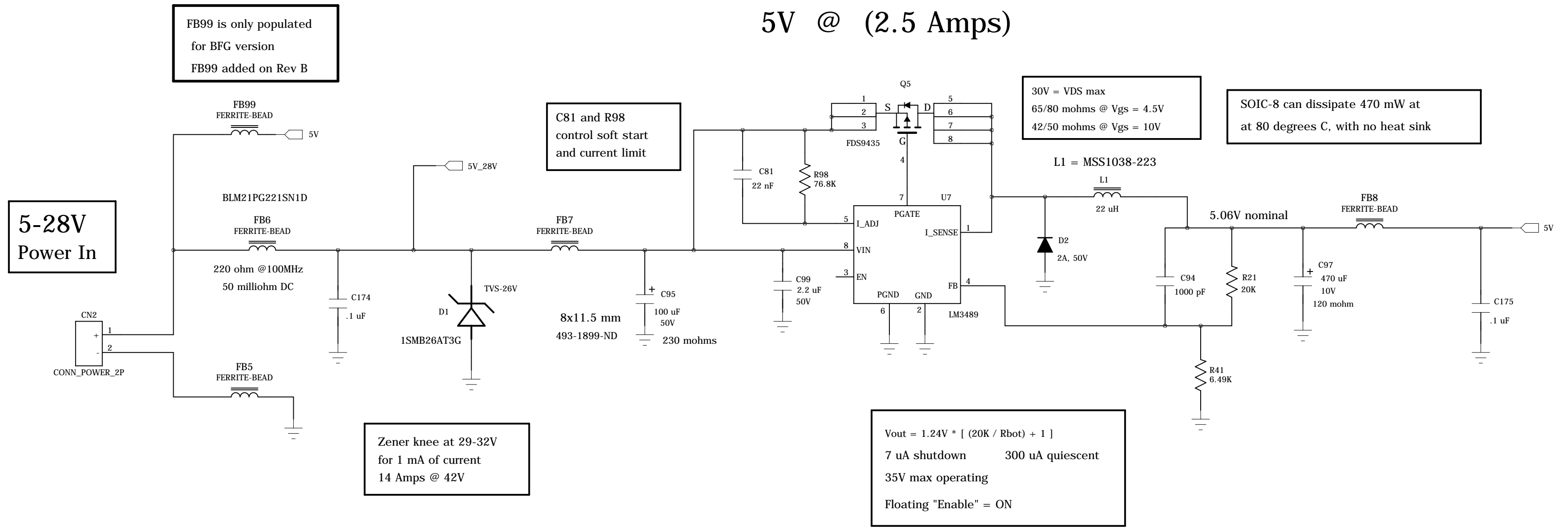
Expansion Bus



Technologic Systems		Date April 6, 2009
Title: TS-7390 AUX Bus		
Rev:	Designer	Sheet 6 of 8

Hysteretic Switching Power Supply

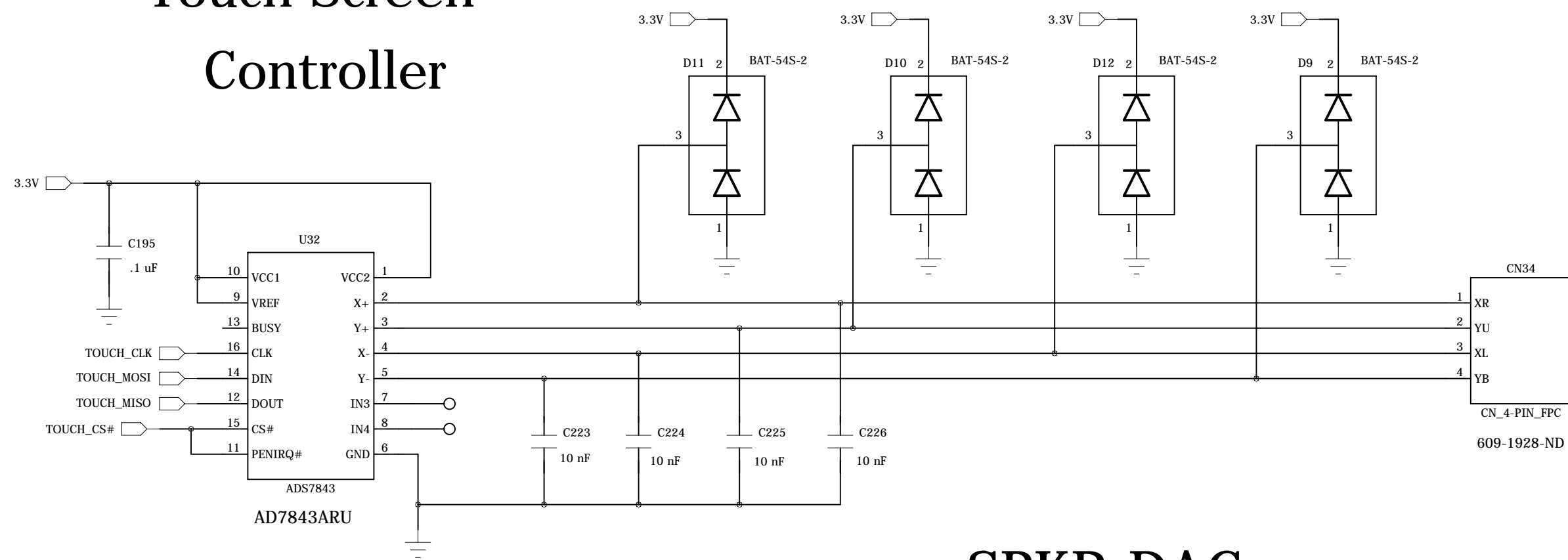
5V @ (2.5 Amps)



RNG-D
4.7K

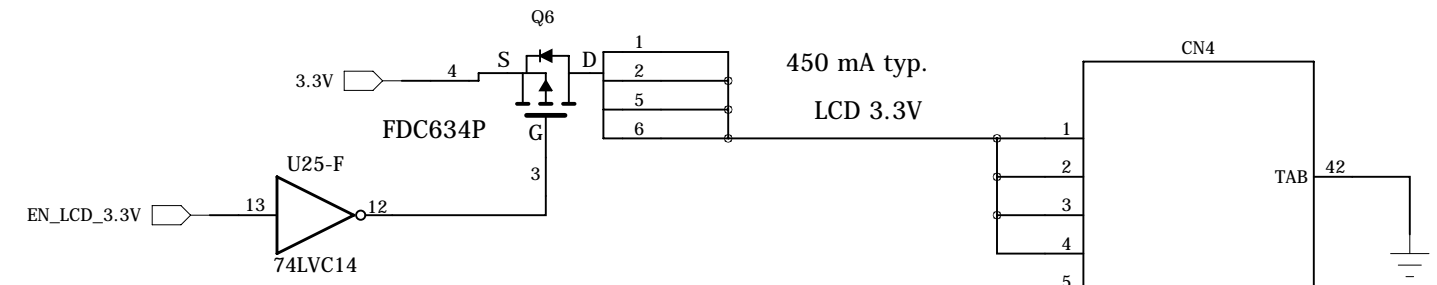
Technologic Systems	Date	April 6, 2009
Title: TS-7390 5V Power Supply		
Rev:	Designer	Sheet 7 of 8

Touch Screen Controller



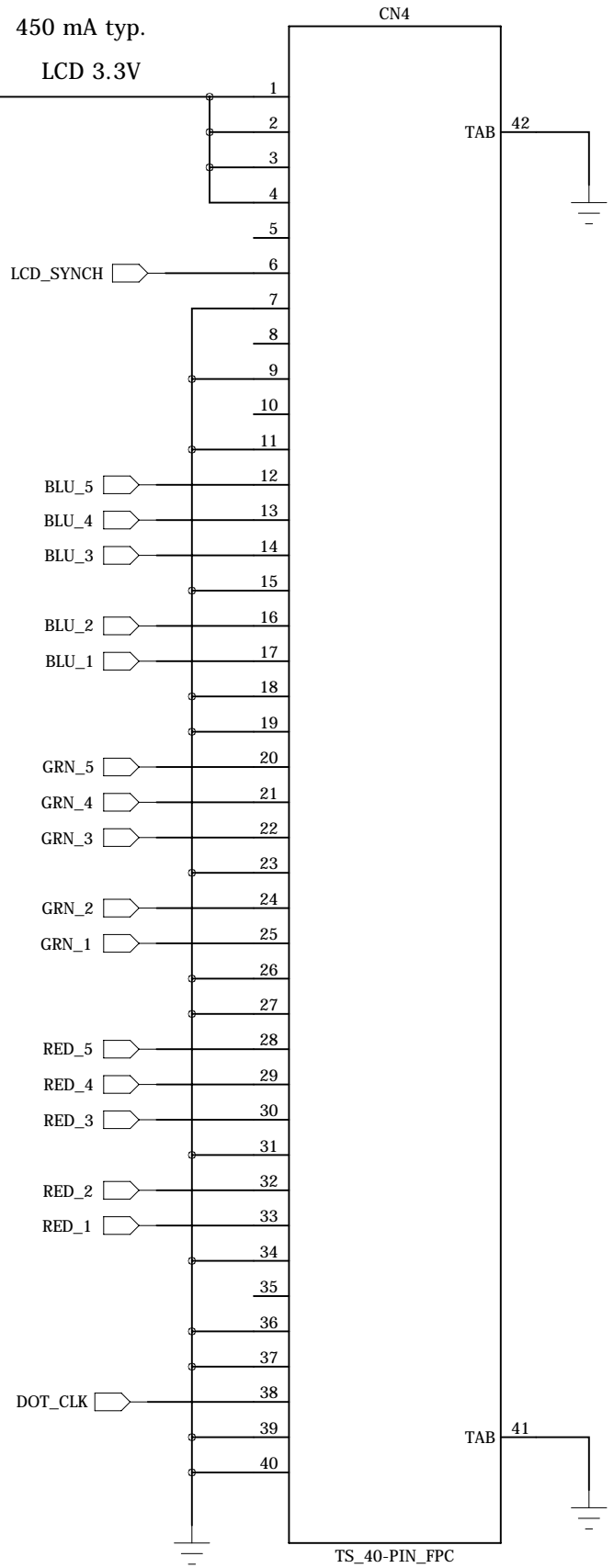
Diodes are BAV199 (silicon)

Q6 removed on Rev B board

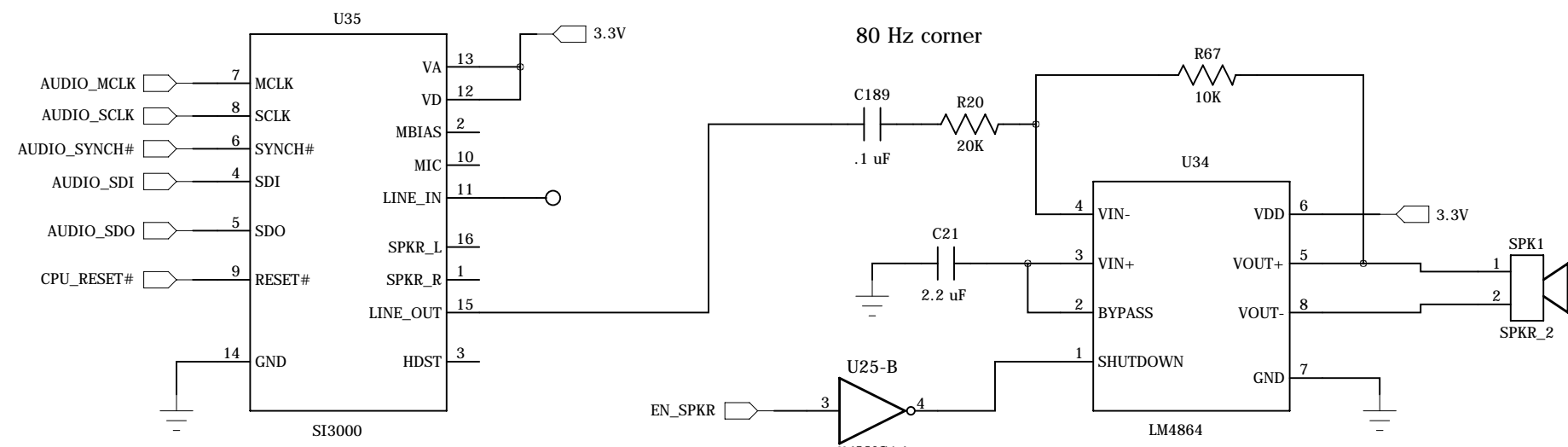


SOT-6pin can dissipate 440 mW at 80 degrees C, with no heat sink

Pin 1 is on left side looking into connector



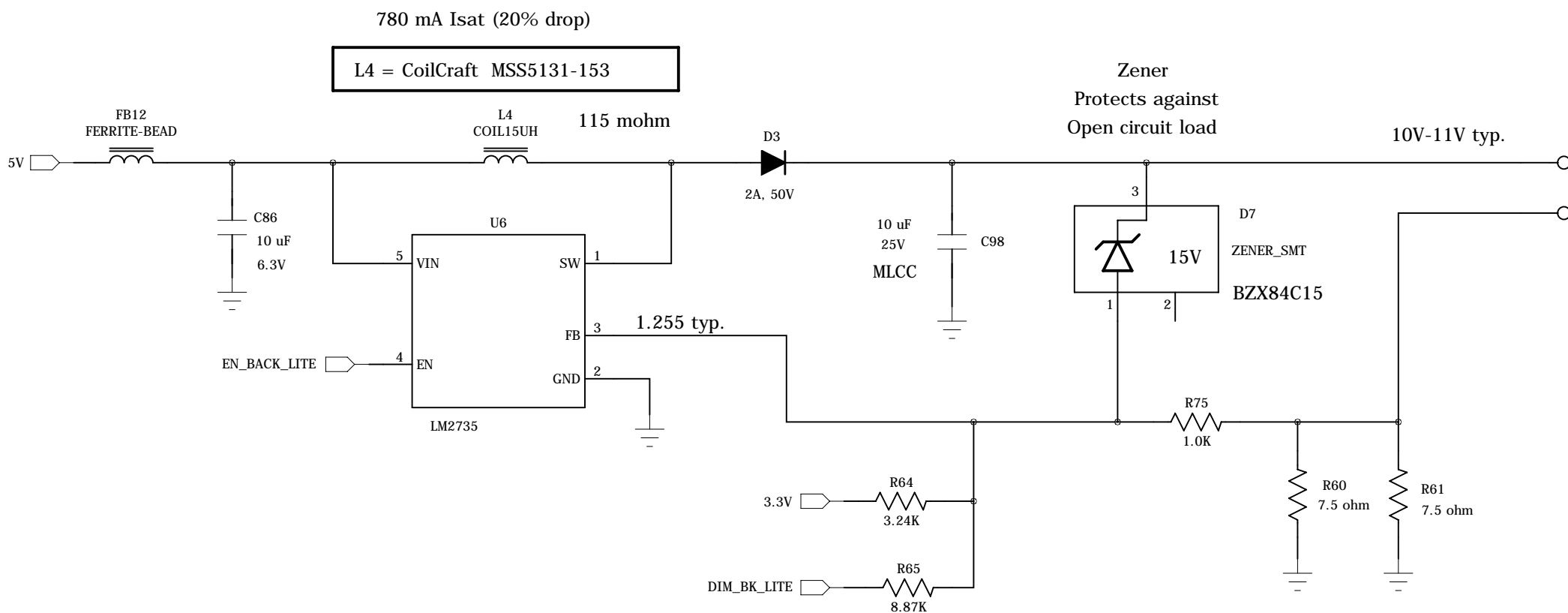
SPKR DAC



Can delivery 250 mW with 3.3V supply

BackLight Power

780 mA Isat (20% drop)
L4 = CoilCraft MSS5131-153



87% typ. eff. at 200 mA load (12V out) per data sheet

744 mV is high setting (198 mA)
333 mV is low setting (88 mA)

200 mA is maximum continuous that LED BackLight is rated at.