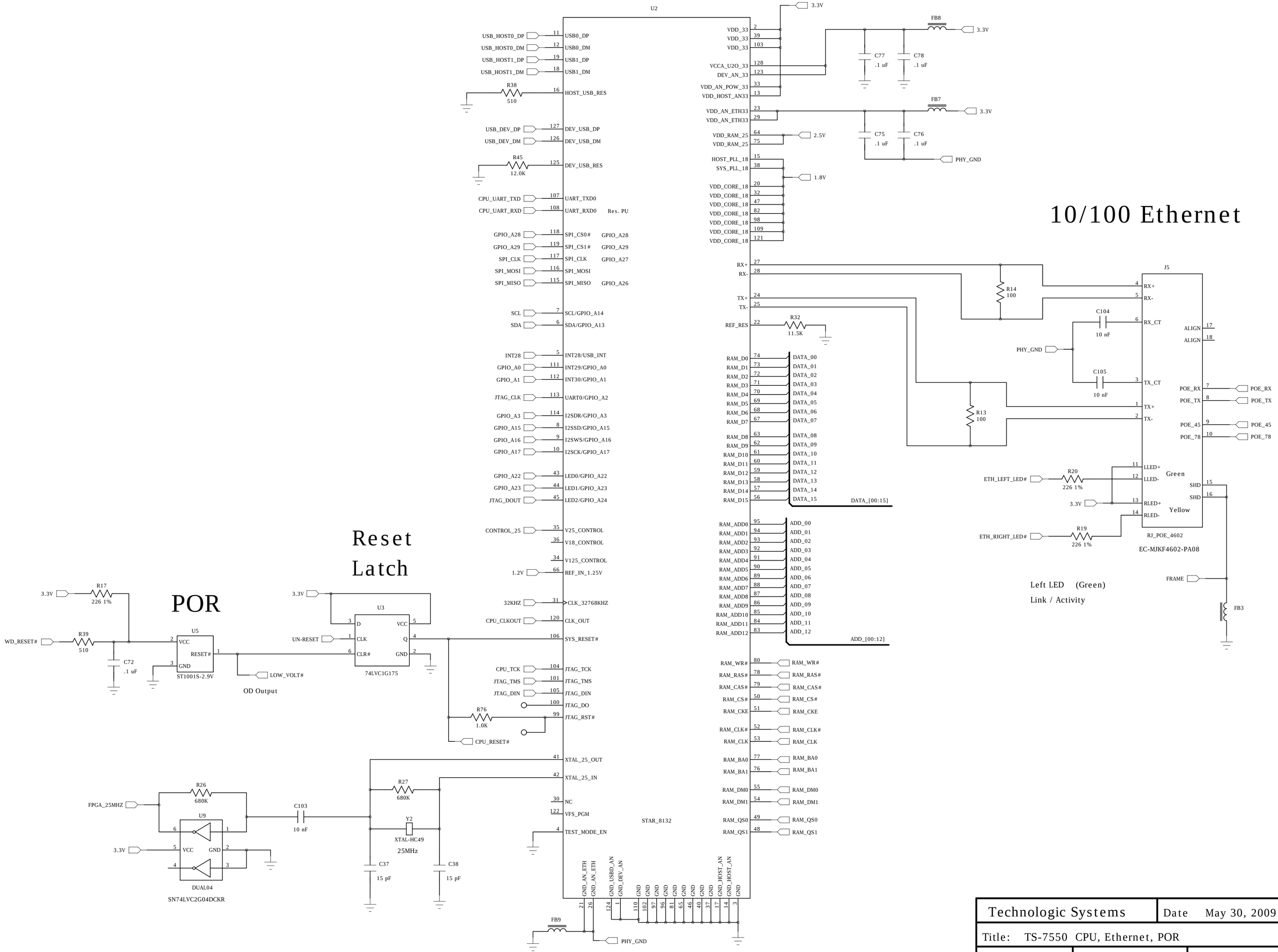

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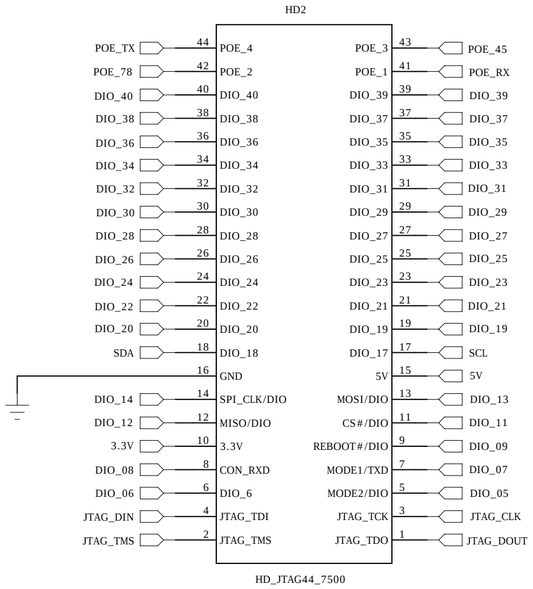
44-Pin DIO Header

(Bottom)



MODE1 and MODE2 states are latched when CPU_RESET# is deasserted

MODE1 and MODE2 have 4.7K resistor pull-ups on TS-7550

Console always is enabled after power up (or reset) but can be switched to DIO after done booting

Reboot# pin (DIO_09) defaults to DIO But can be switched to Reset function

Mode 1	Mode 2	TS-7550 Boots from
1	1	NAND Flash
0	1	Reserved
1	0	Off-board Flash
0	0	Reserved

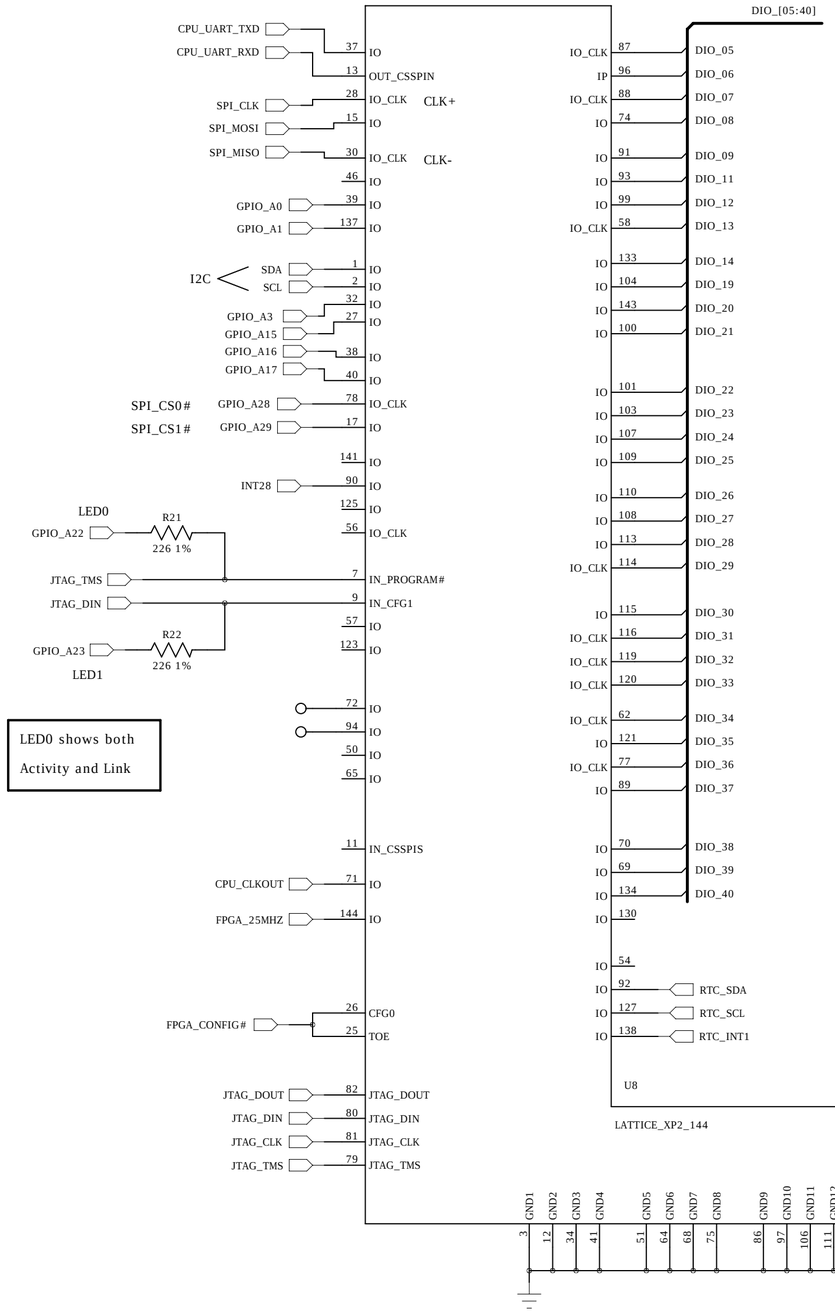
0 0 also boots from off-board Flash, but may be changed in the future

SPI bus default to DIO But can be switched to SPI function

FPGA with 5000 LUTs

XP2-5 has:
5K LUTS 2 PLLs
9 blocks of 1Kx18 Block RAM
12 18x18 Multipliers

100 I/O with 144 pin package
"instant ON" = about 1.5 mS
input PLL clock = 10 MHz min



LED0 shows both Activity and Link

Pull-up and pull-down resistors are 6 to 30K ohms

Page 37 of Data Sheet (Hot Socketing)
Power Supplies can be sequenced in any order but must be monotonic

All I/O lines are tri-stated during power cycling

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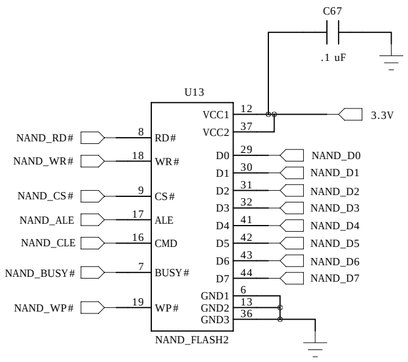
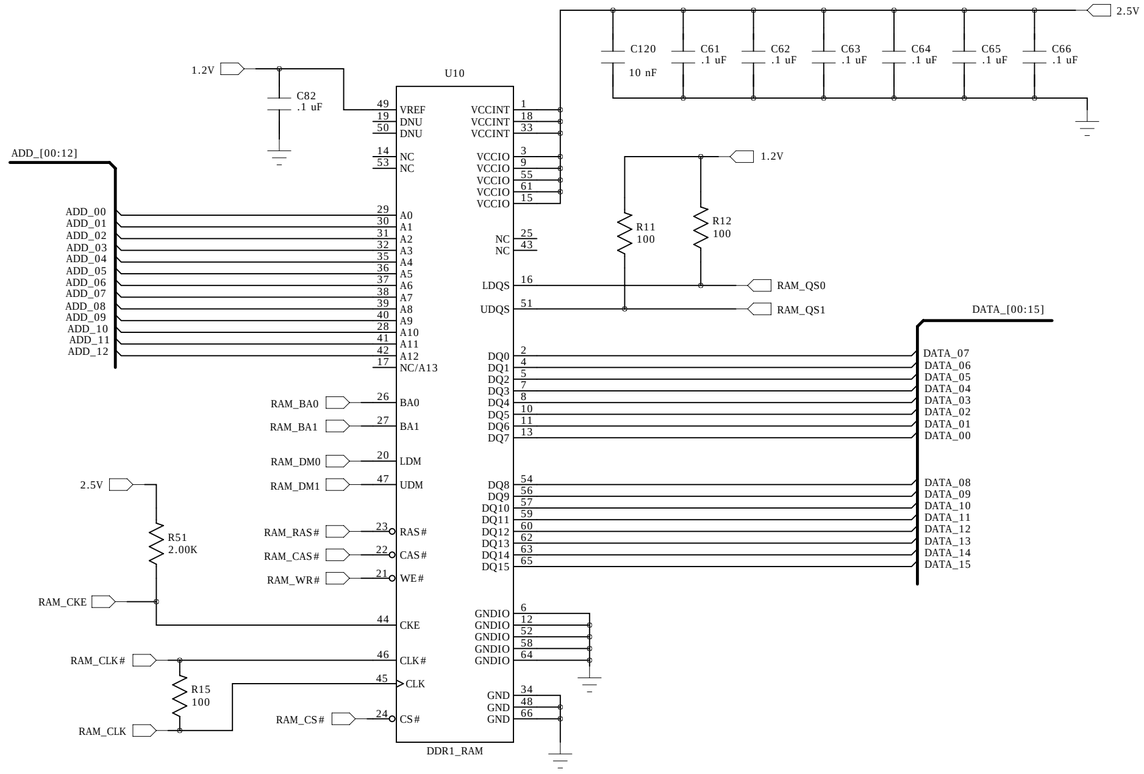
512 Mbyte
NAND Flash



64 Mbyte
DDR1 SDRAM



DDR RAM Notes

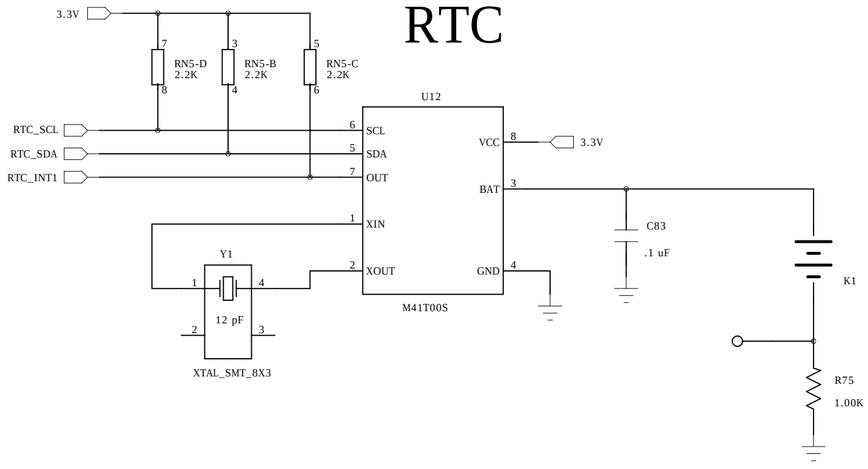
The DDR clock differential pair is the most critical trace on the entire board

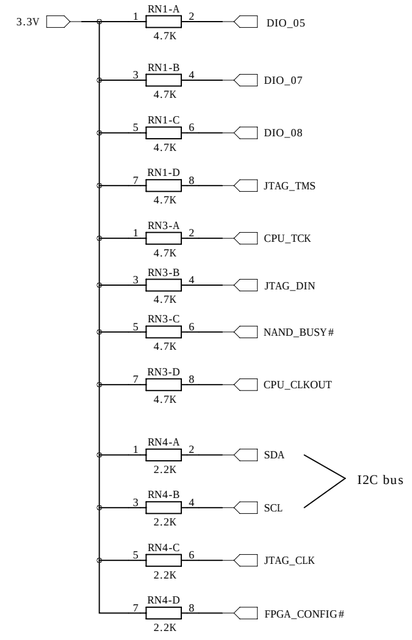
The data lines in each byte lane can be swapped on the RAM chip for optimal layout
Example: D0 and D5 can be swapped, but not D7 and D8

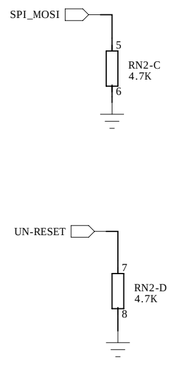
The trace length of each data line (in a single byte lane) and the respective
QS and DM signals must be matched to within 2.5 mm

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







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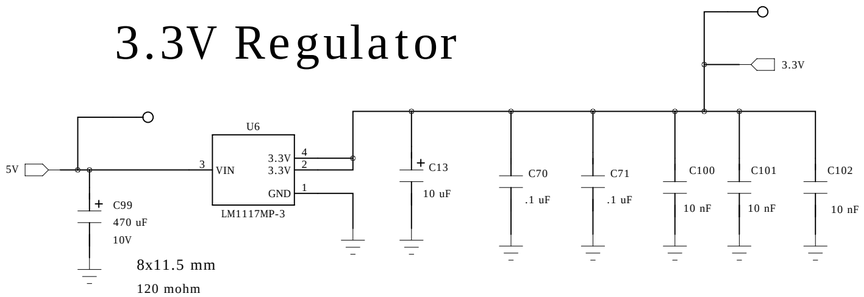
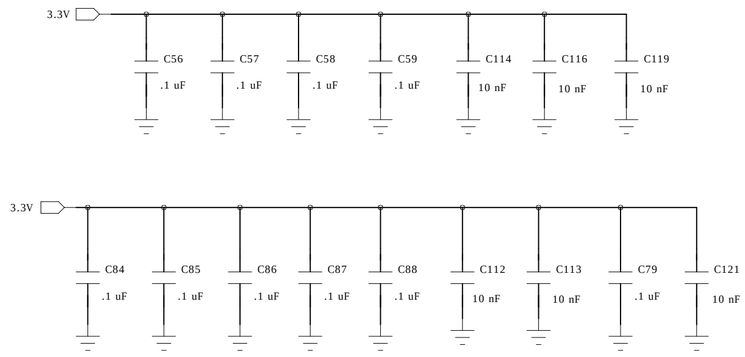
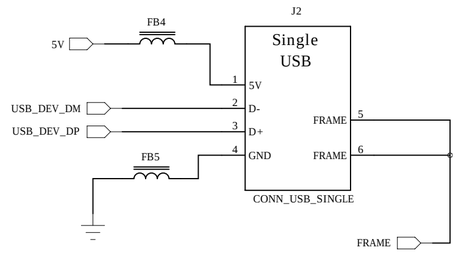
3.3V Regulator



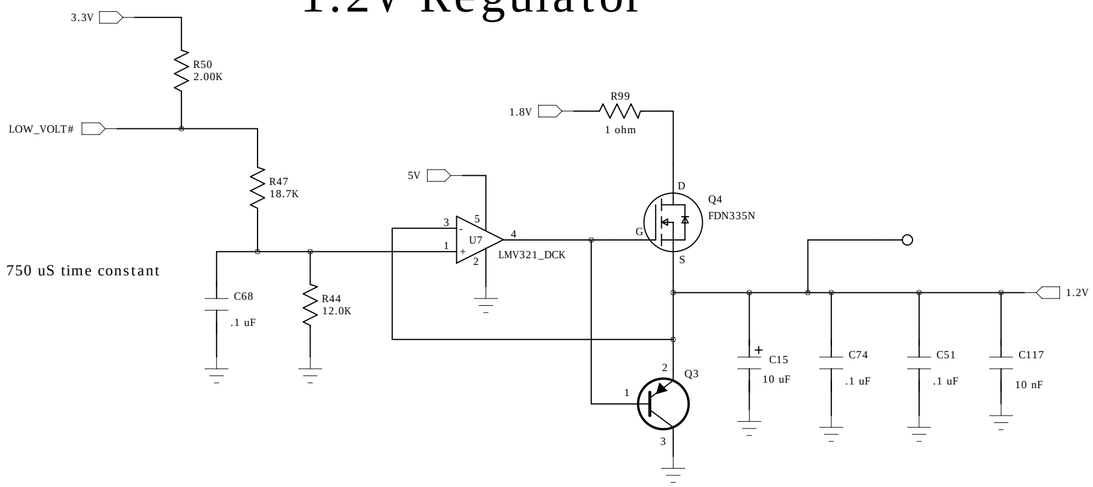
8x11.5 mm
120 mohm
493-1743-ND

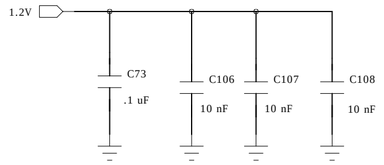


USB Device Port

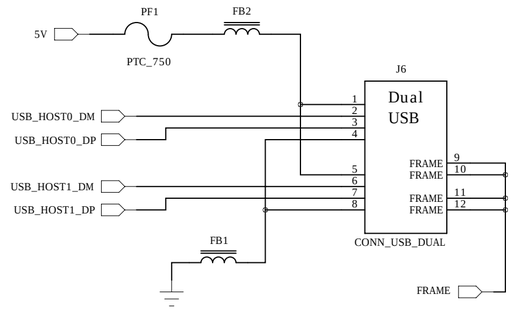


1.2V Regulator

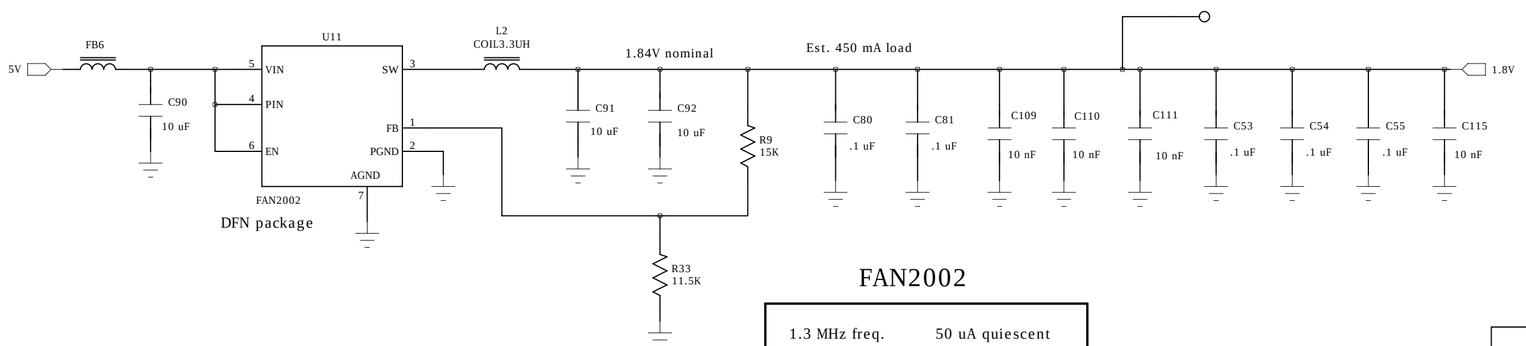




USB Host Ports



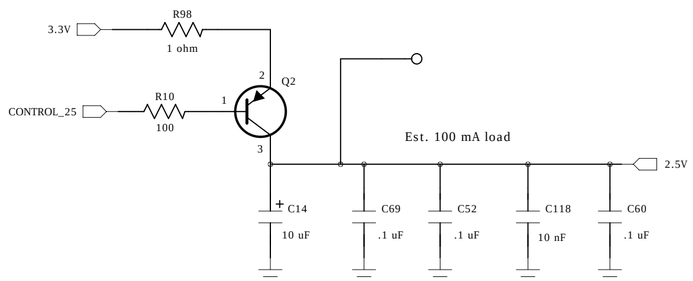
1.8V Regulator



FAN2002

1.3 MHz freq. 50 uA quiescent
Vout = 800mV * [1+ Rtop/Rbot]
> 90% eff. at 100-400 mA load
1000 mA max load

2.5V Regulator



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Title: TS-7550 Power Supplies, USB Ports		
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