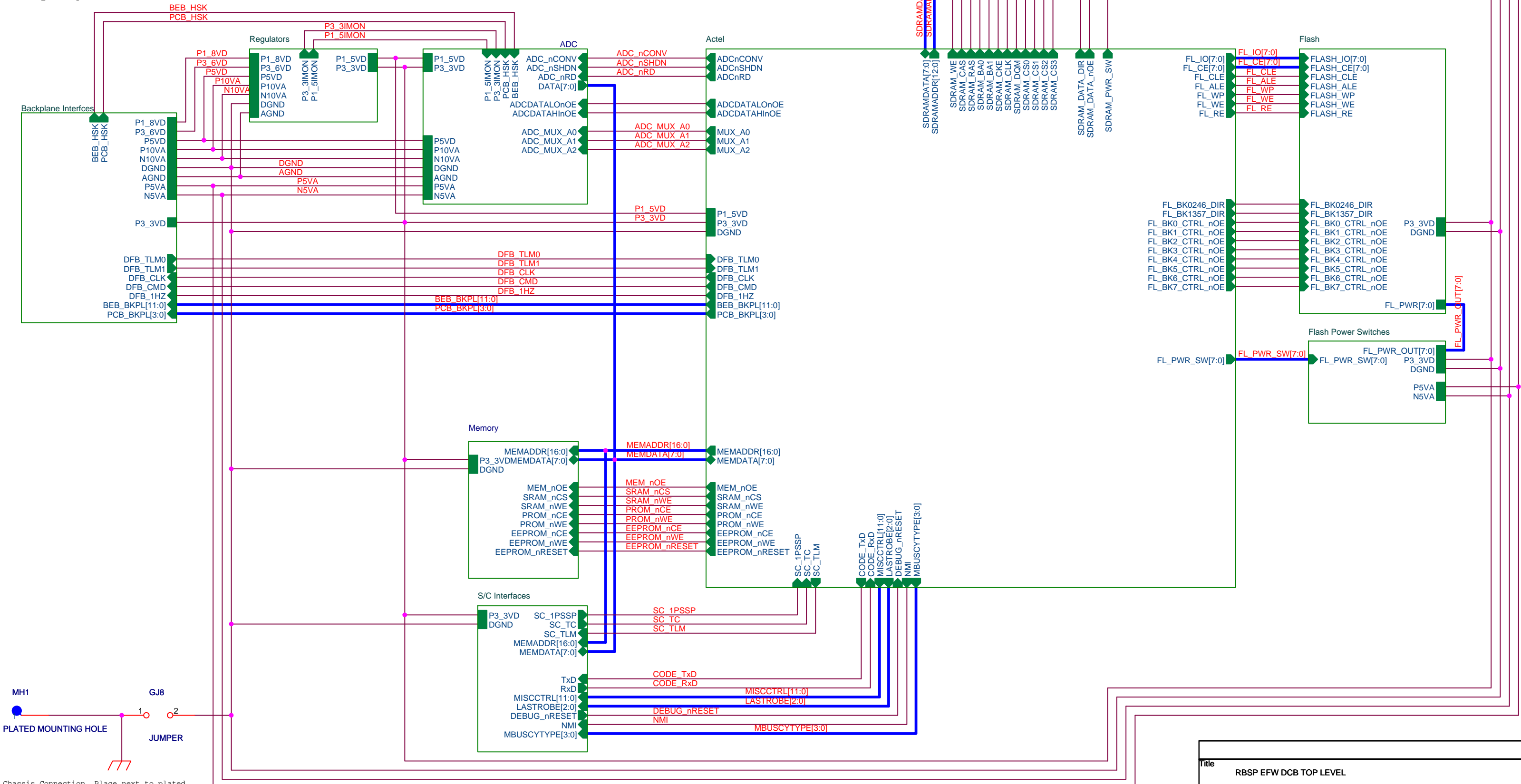
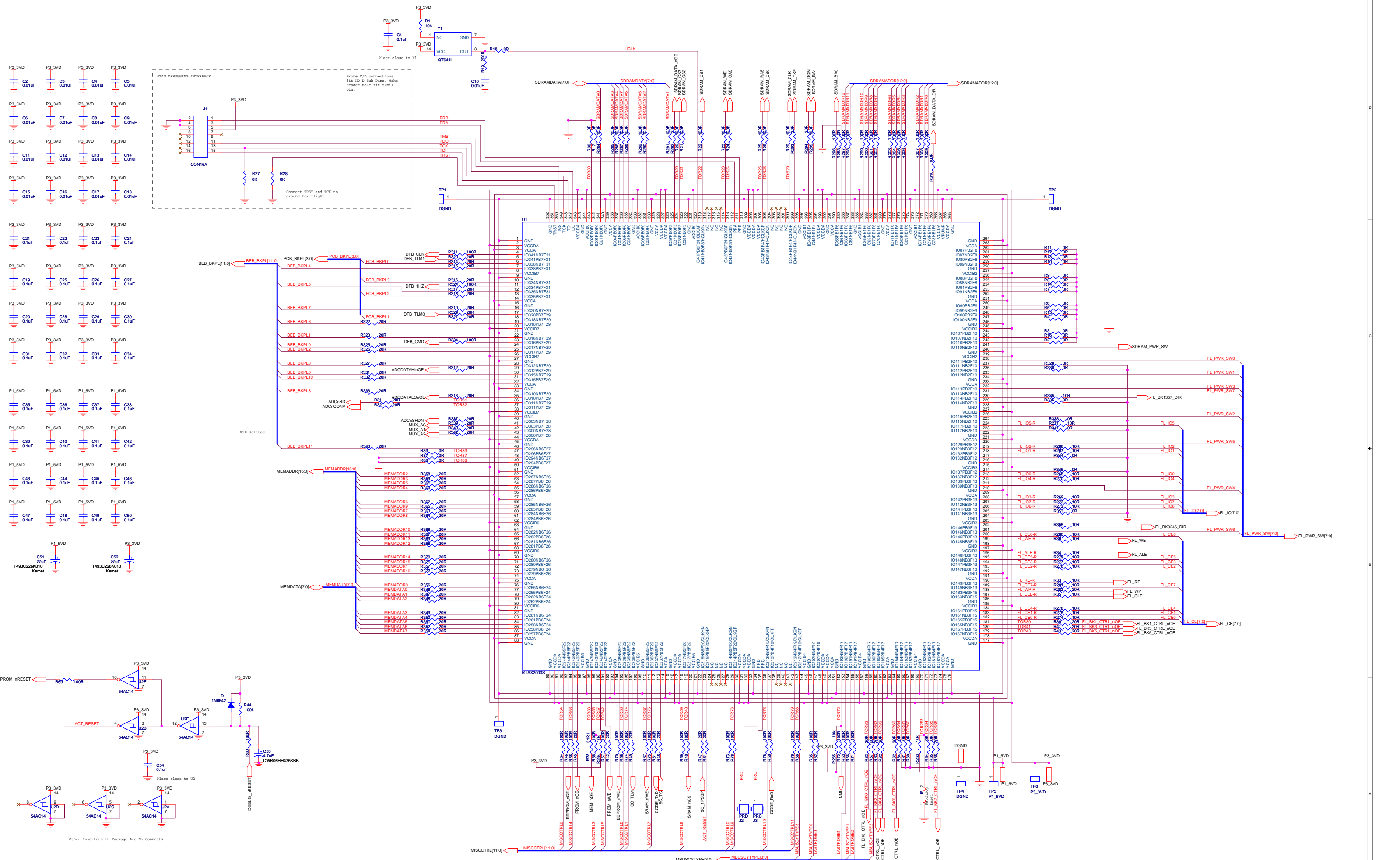


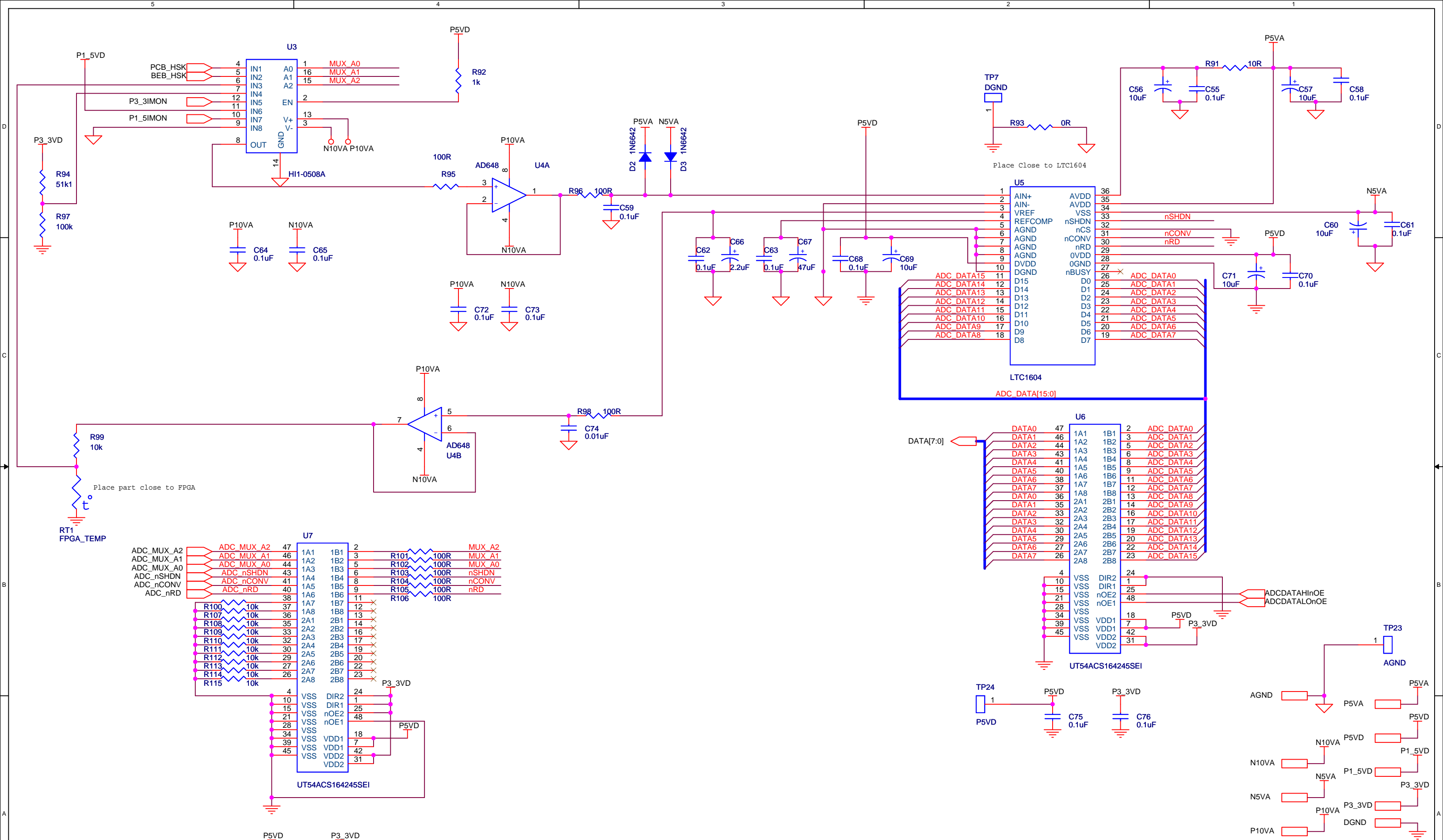
Rev D: All changes to Actel page.
 R63, R64 unconnected pin attached to DGND.
 Added R263, R264, R265 10k pullups on Watchdog, NMI and MISCCTRL3.
 Replaced R77 with J6.
 Disconnected R69 from U2 pin4 & R61, connected R69 to U2 pin 6.
 Connect U2 pin 2 to U2 pin 5.
 Rev E
 Changed all nets with . and / in to _ or removed character
 Reordered Flash memory buffers
 Added series resistors to Actel FL_IO and FL_CE lines
 Changed C59, U3 pin9, and 1M0Ns to be off AGND
 Rev F Added resistor to WP net, modified FPGA wiring, U8, U2 and U9 corrected nets on U8. Added BEB Backplane I1 signal
 Rev G: Added Chassis Connection. Removed SDRAM_ADDR_nOE. Added R283. Corrected LVDS GND connection. Tied unused ADC14 inputs to GND.
 Rev H: Changes documented in Changes to DCB ETU.doc
 Rev J: changed buffers to run off P3_3VD supply. Added 8 control lines to flash. Also documented in Changes to DCB ETU.doc
 Rev K: Added Analog Spares and Resistors to all FPGA I/Os
 Rev L: Modified pin out of FPGA as per layout. Removed redundant top level connections.
 Rev M: Modified some resistor values for Flight.
 Rev N: Updated Resistor Values in Power Switches and Added Inductor in Regulator Page.
 Rev P: Changed Resistors on Memory Control Lines to 100R
 Rev R: Changed High Slew Resistors to 100R & Changed power switch resistors to 3k16
 Rev T: Changed Flash Termination Resistors back to 200ohms.
 Rev U: Changed R253 to 0 Ohms. Changed Flash Termination Resistors to 10 Ohms.
 Rev V: MEM_nOE changed to 51R1



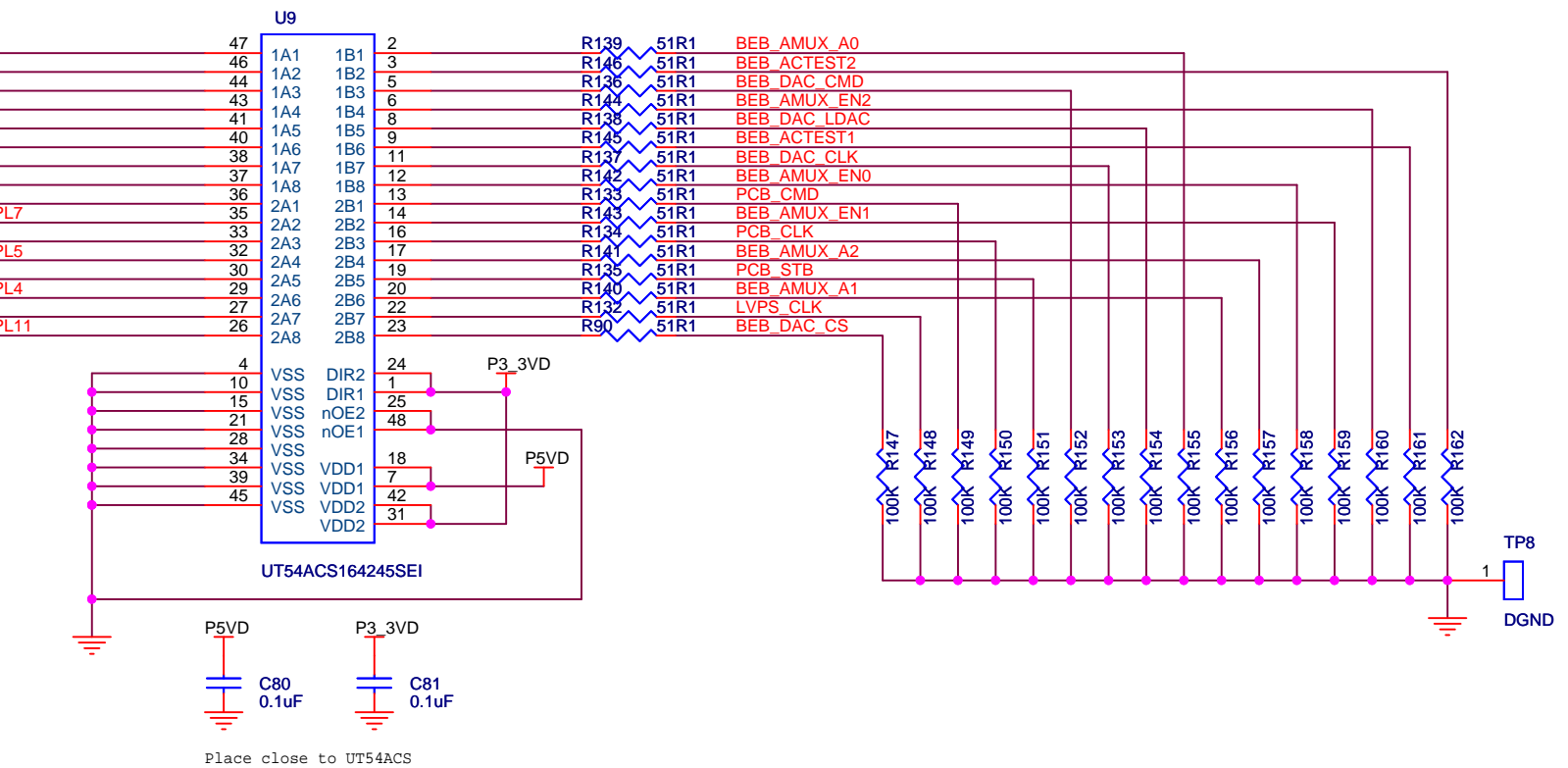
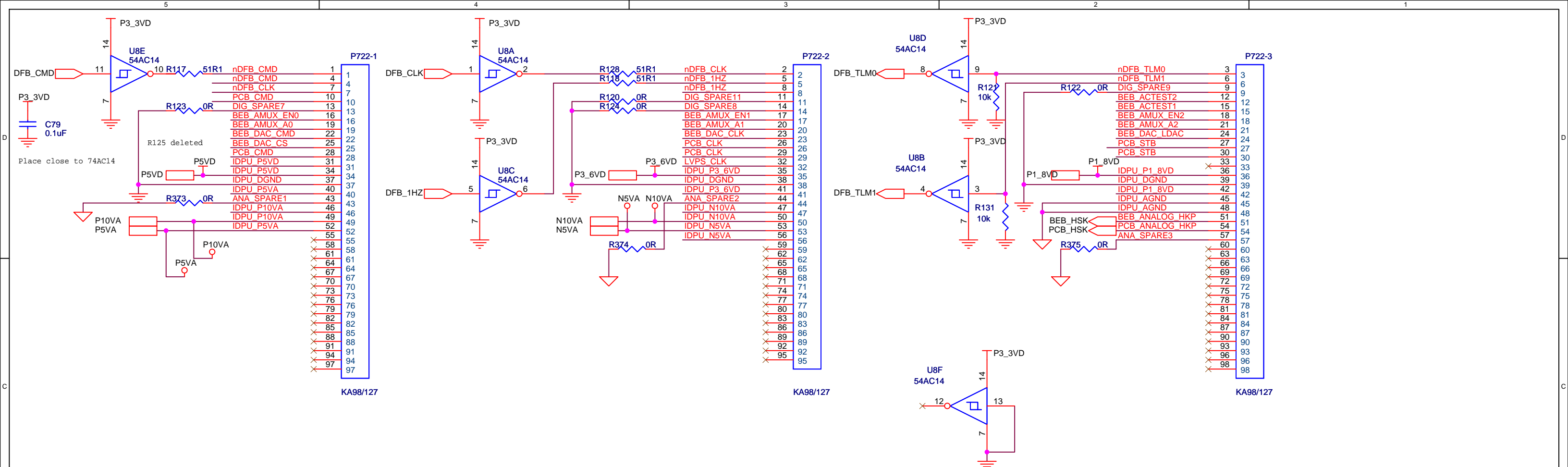
Chassis Connection. Place next to plated hole at (8.812, 0.117). Plated hole is chassis.

| | | |
|------------------------|-----------------------------|---------------|
| Title | | |
| RBSP EFW DCB TOP LEVEL | | |
| Size | Document Number | Rev |
| | RBSP_EFW_DCB_004 | V |
| Date: | Wednesday, January 12, 2011 | Sheet 1 of 10 |



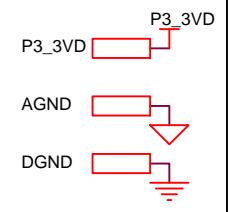


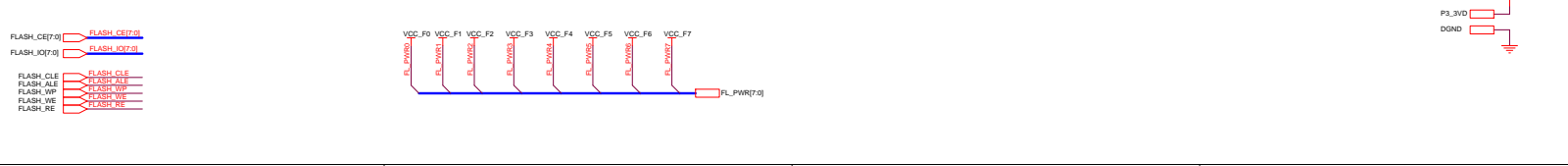
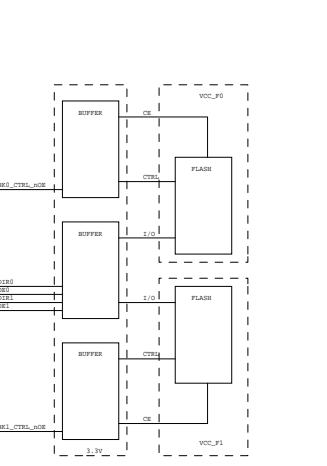
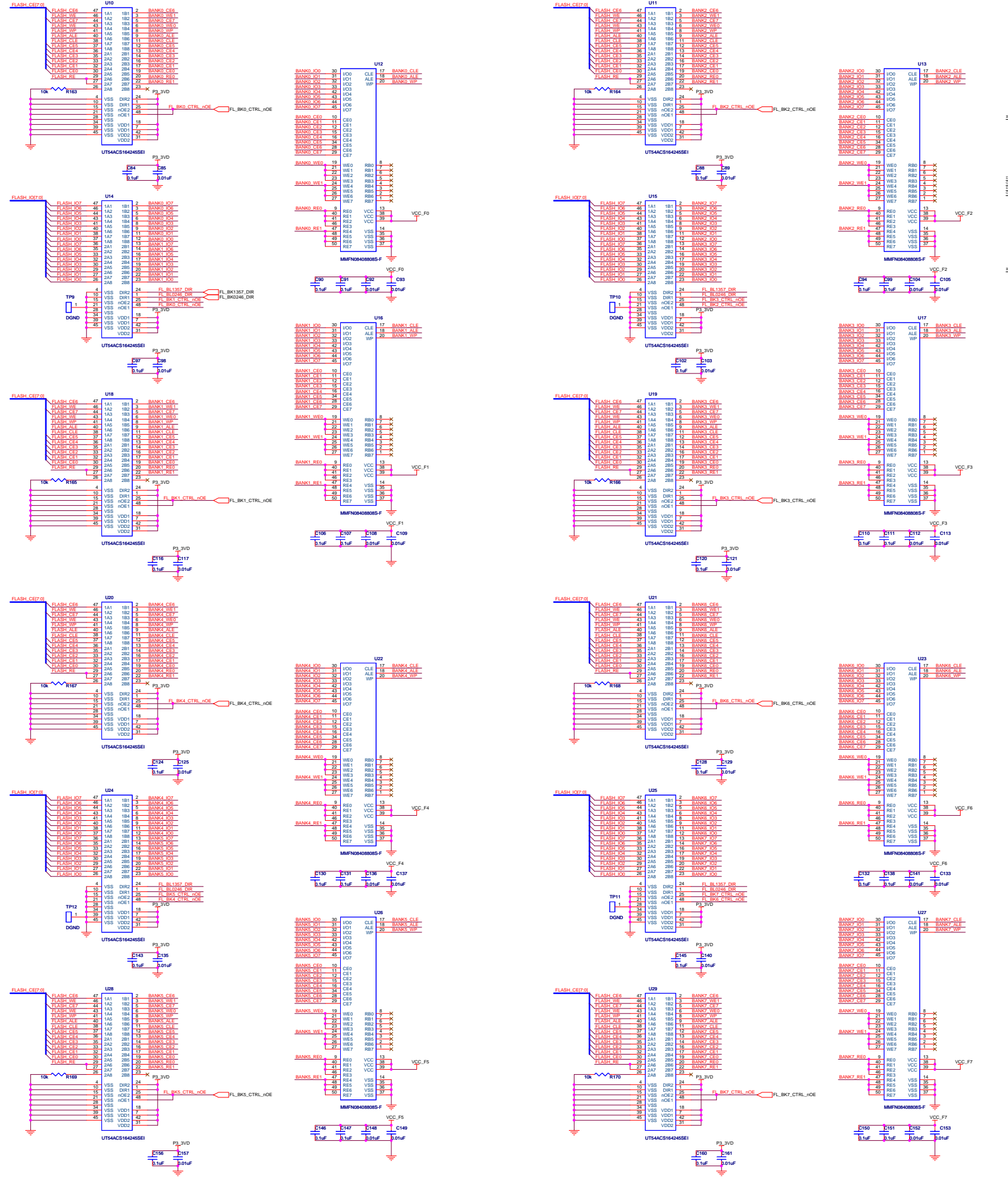
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| Title | | |
| RBSP EFW DCB ADC & MUX | | |
| Size | Document Number | Rev |
| | RBSP_EFW_DCB_004 | V |
| Date: | Wednesday, January 12, 2011 | Sheet 3 of 10 |

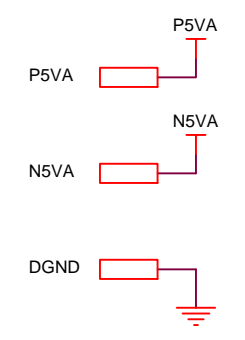
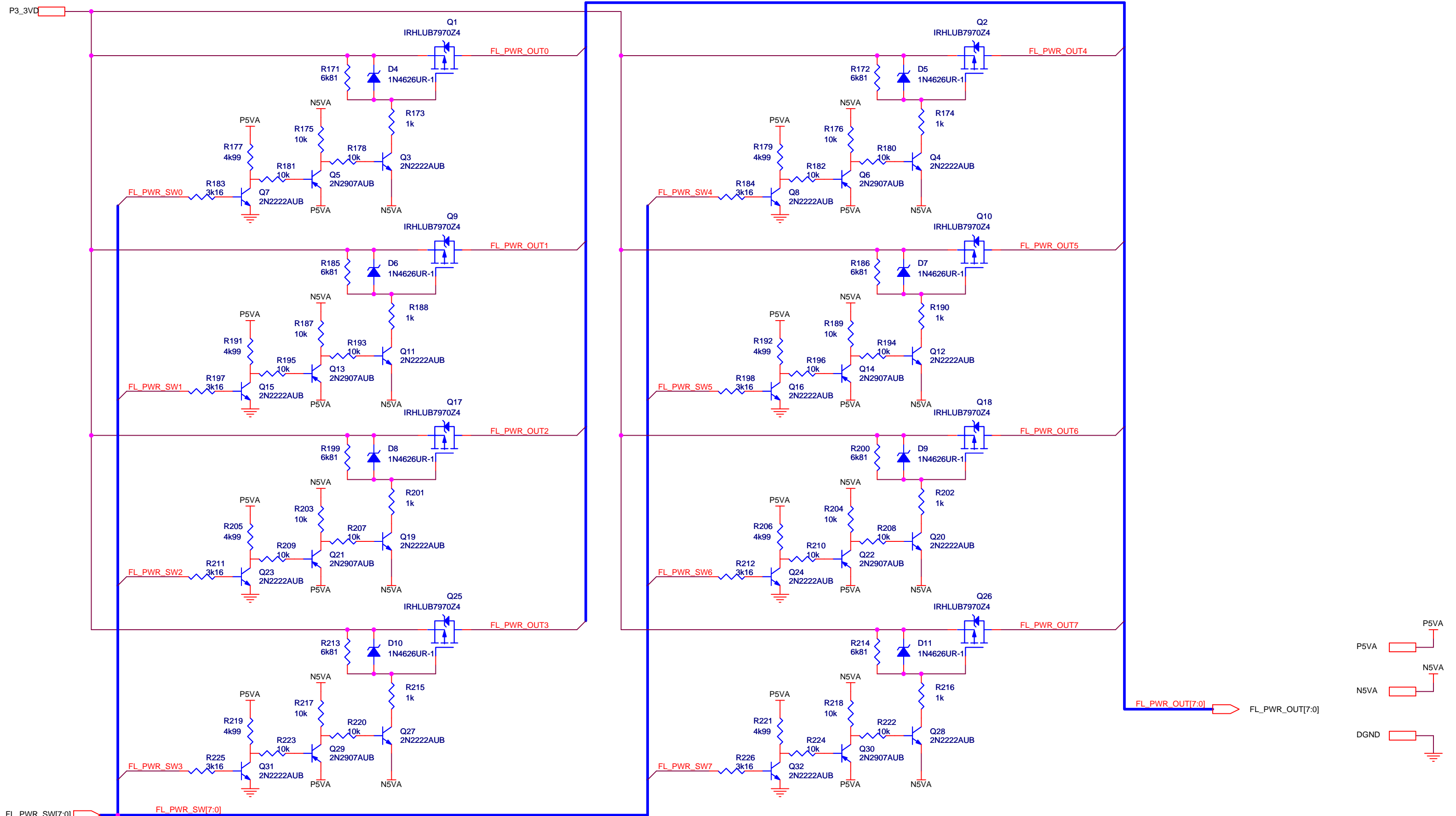


BACKPLANE BUS CONVERSION TABLE

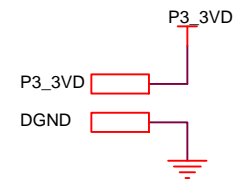
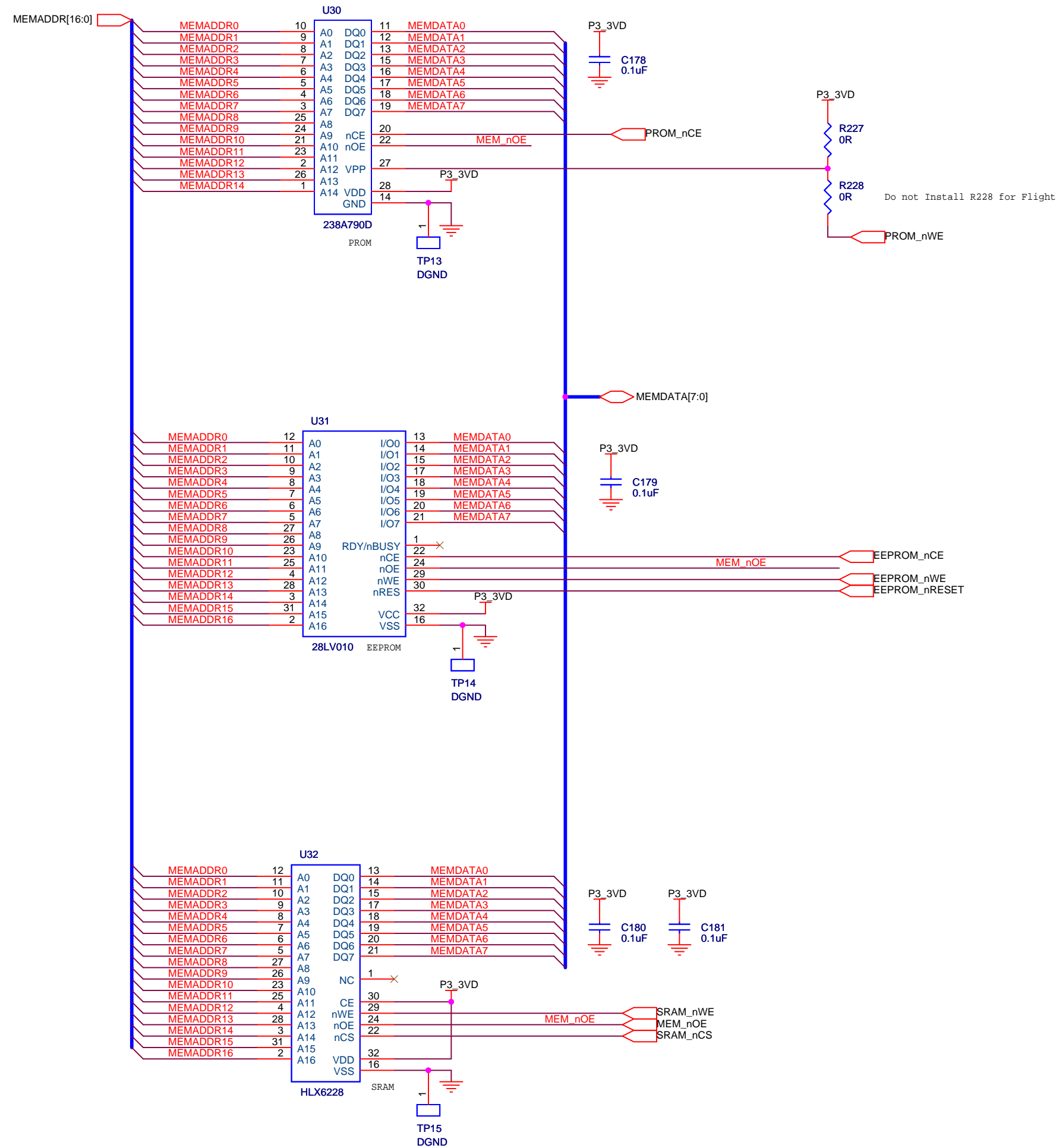
| | |
|------------|--------------|
| BEB_BKPL0 | BEB_DAC_CMD |
| BEB_BKPL1 | BEB_DAC_CLK |
| BEB_BKPL2 | BEB_DAC_LDAC |
| BEB_BKPL3 | BEB_AMUX_A0 |
| BEB_BKPL4 | BEB_AMUX_A1 |
| BEB_BKPL5 | BEB_AMUX_A2 |
| BEB_BKPL6 | BEB_AMUX_EN0 |
| BEB_BKPL7 | BEB_AMUX_EN1 |
| BEB_BKPL8 | BEB_AMUX_EN2 |
| BEB_BKPL9 | BEB_ACTEST1 |
| BEB_BKPL10 | BEB_ACTEST2 |
| PCB_BKPL0 | LVPS_CLOCK |
| PCB_BKPL1 | PCB_CMD |
| PCB_BKPL2 | PCB_CLK |
| PCB_BKPL3 | PCB_STB |



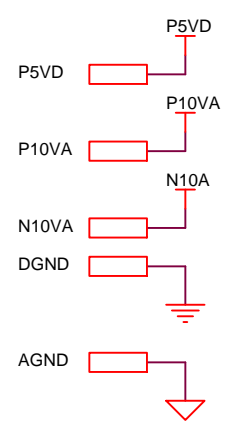
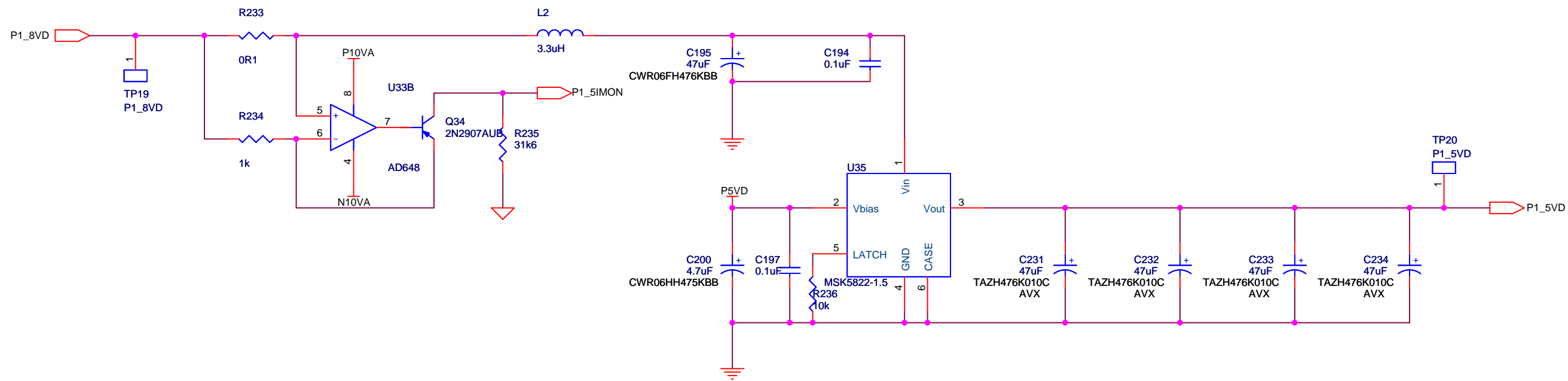
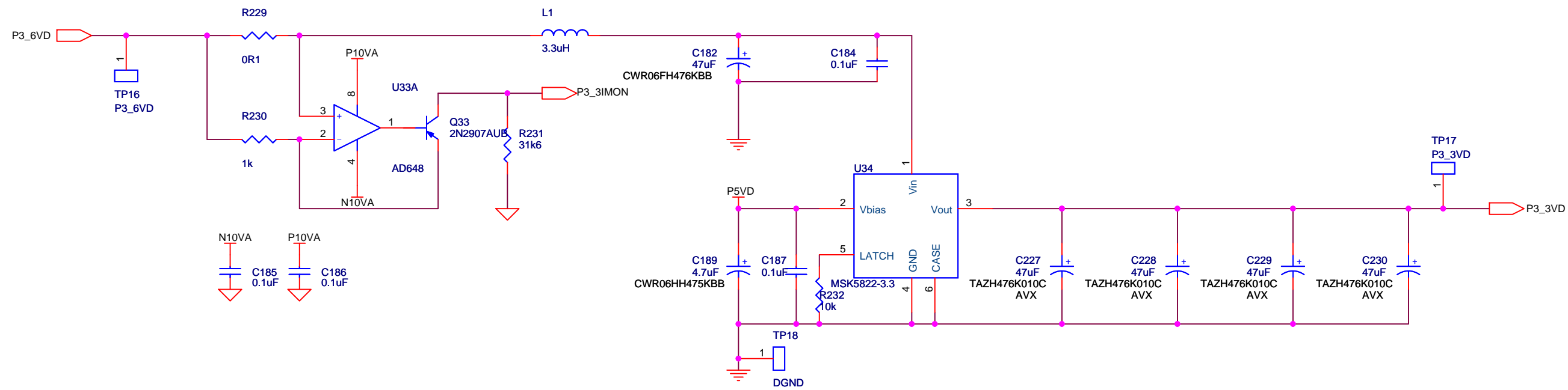




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|-----------------------------------|-----------------------------|---------------|
| Title | | |
| RBSP_EFW_DCB FLASH POWER SWITCHES | | |
| Size | Document Number | Rev |
| | RBSP_EFW_DCB_004 | V |
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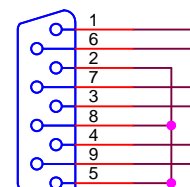
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| Title | | |
| RBSP EFW DCB MEMORY | | |
| Size | Document Number | Rev |
| | RBSP_EFW_DCB_004 | V |
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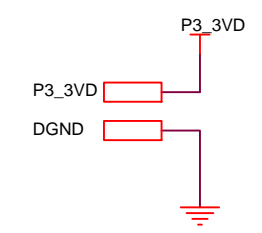
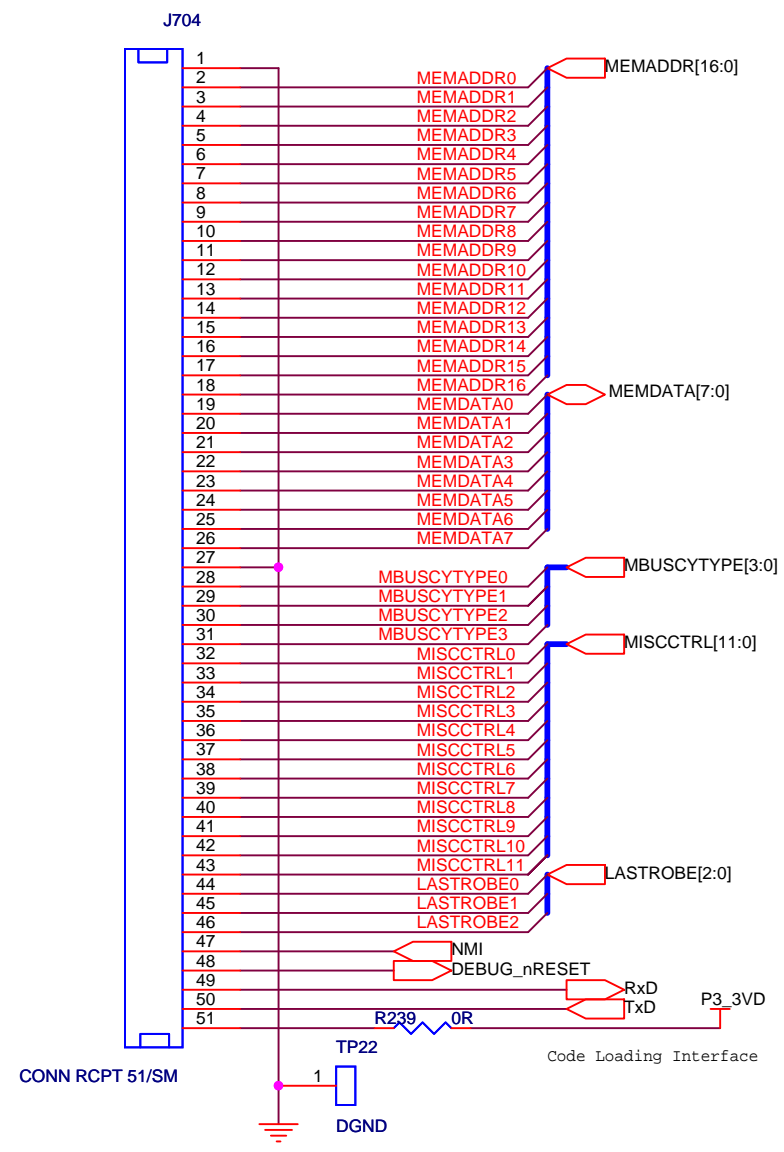
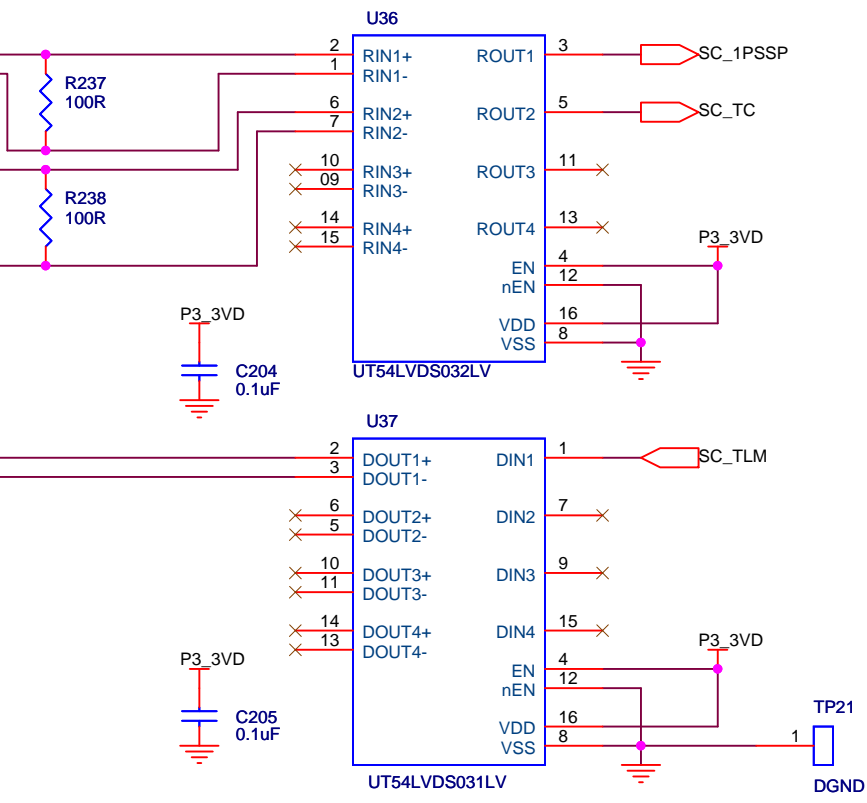
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| Title | | |
| RBSP EFW DCB Power Regulation | | |
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| Custom | RBSP_EFW_DCB_004 | V |
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Spacecraft Interface

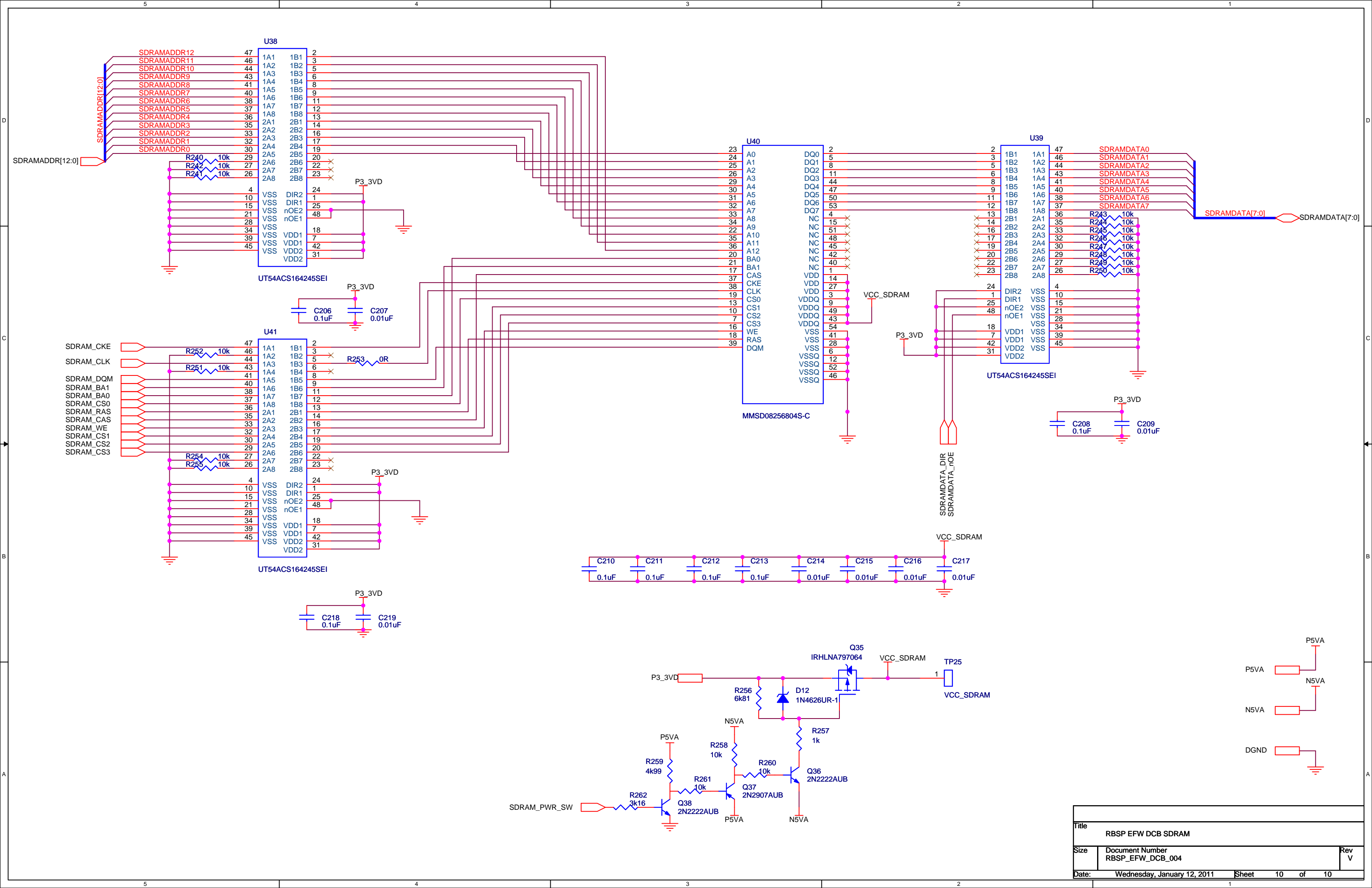
J702



CONNECTOR DB9
Female Connector



| | | |
|---|-----------------------------|---------------|
| Title | | |
| RBSP EFW DCB S/C INTERFACE AND SERIAL CODE LOADER | | |
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| | | |
|--------------------|-----------------------------|----------------|
| Title | | |
| RBSP EFW DCB SDRAM | | |
| Size | Document Number | Rev |
| | RBSP_EFW_DCB_004 | V |
| Date: | Wednesday, January 12, 2011 | Sheet 10 of 10 |