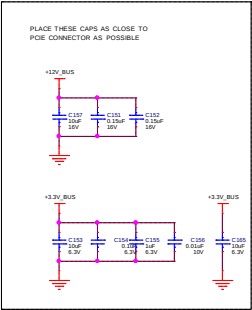
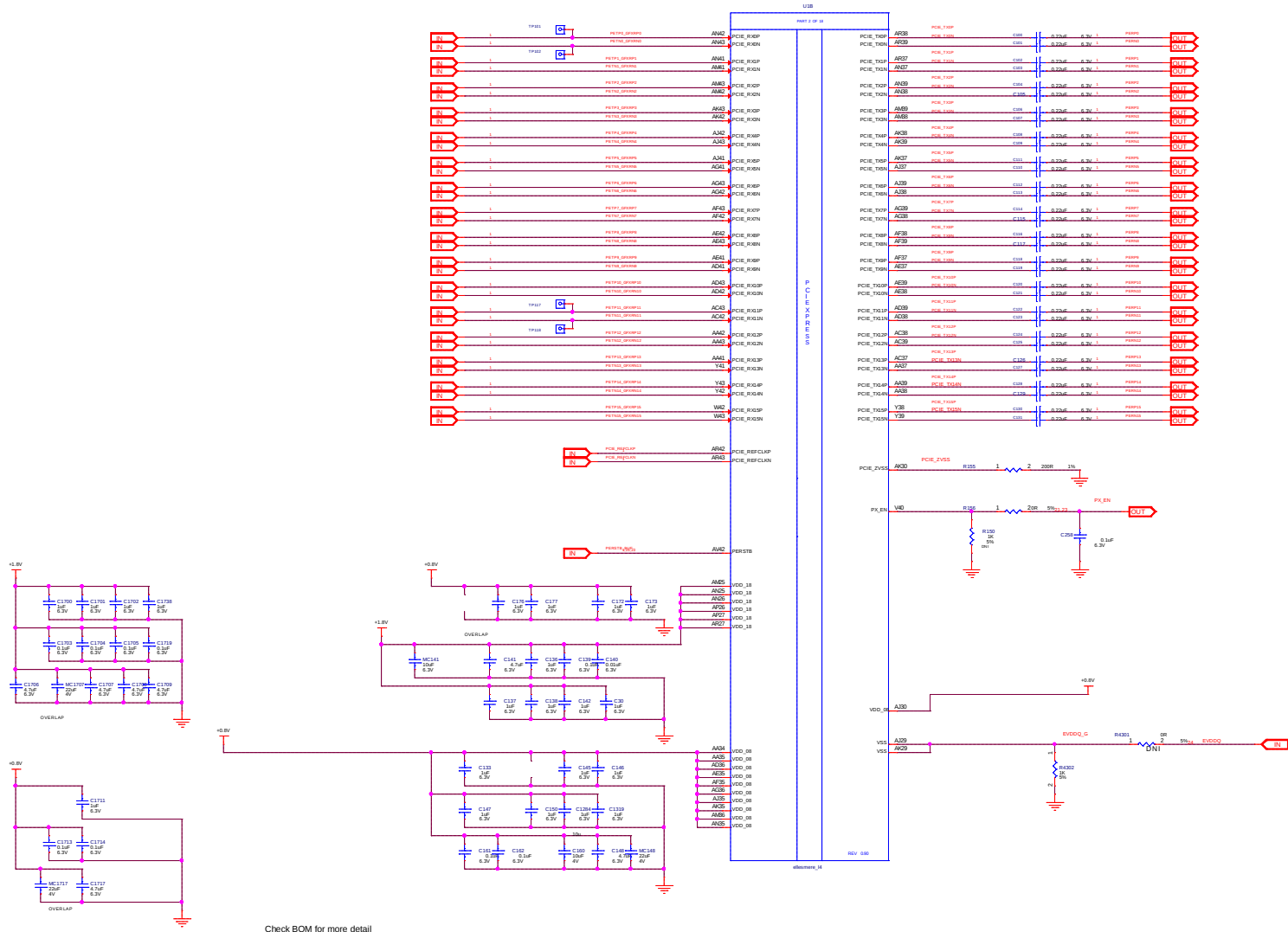


## (1) PCI-EXPRESS EDGE CONNECTOR

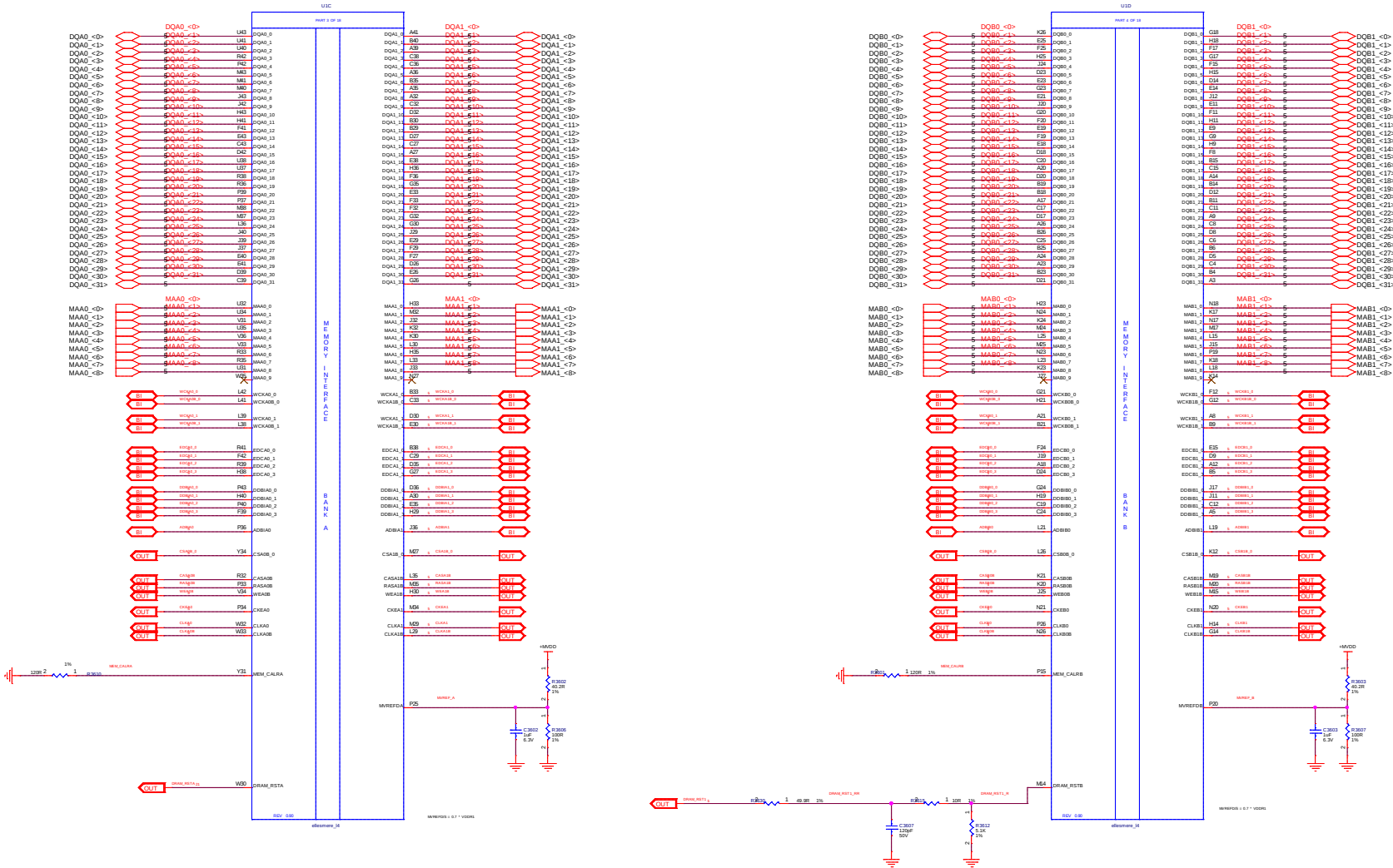


| SYMBOL LEGEND                                                                         |                    |
|---------------------------------------------------------------------------------------|--------------------|
| SDI                                                                                   | SDI NOT<br>INSTALL |
| SDIF                                                                                  | ACTIVE<br>LOW      |
| SDIO                                                                                  | BRING UP<br>ONLY   |
|  | DIGITAL<br>GROUND  |
|  | ANALOG<br>GROUND   |

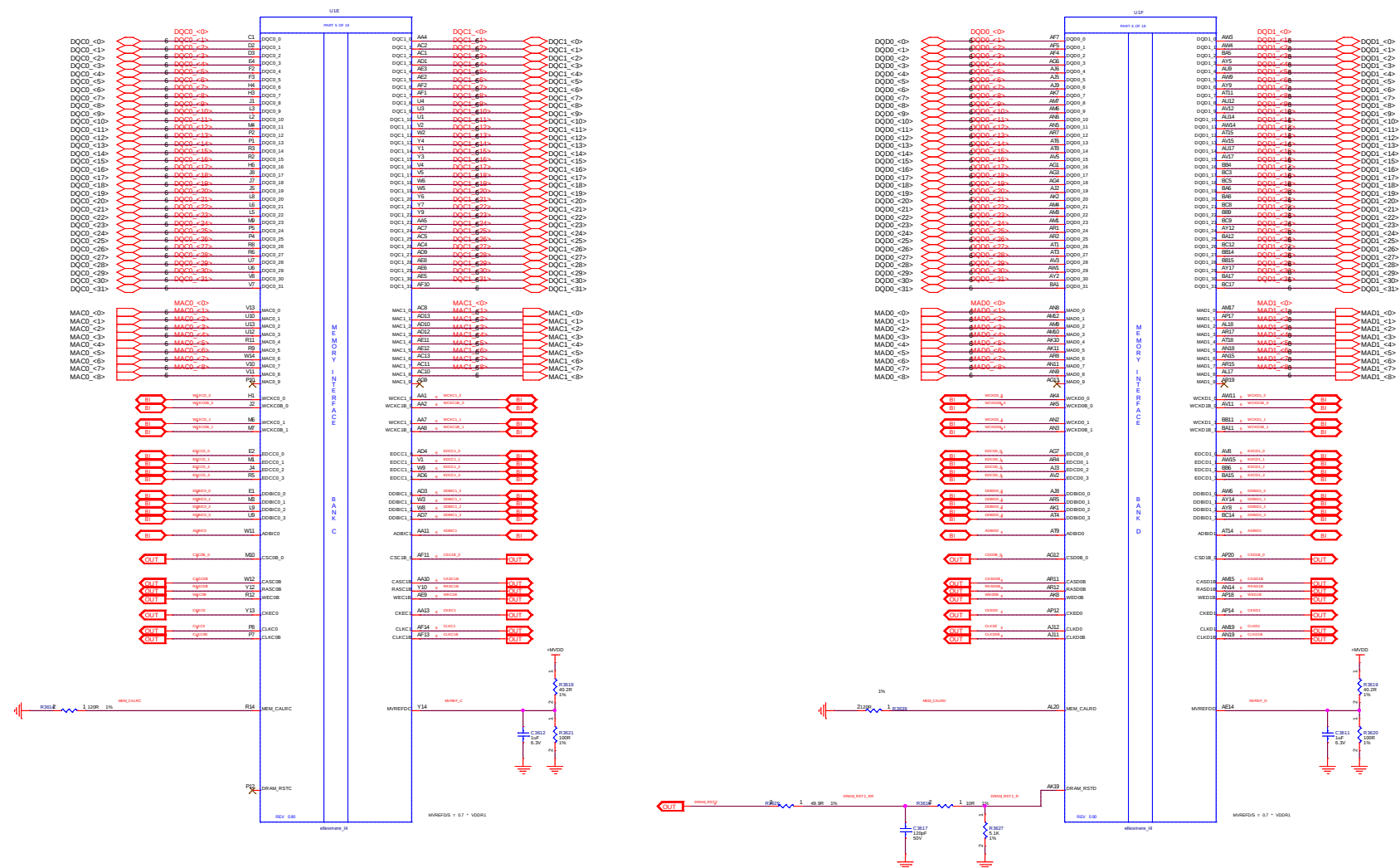
(2) ELLESMERE PCIE INTERFACE



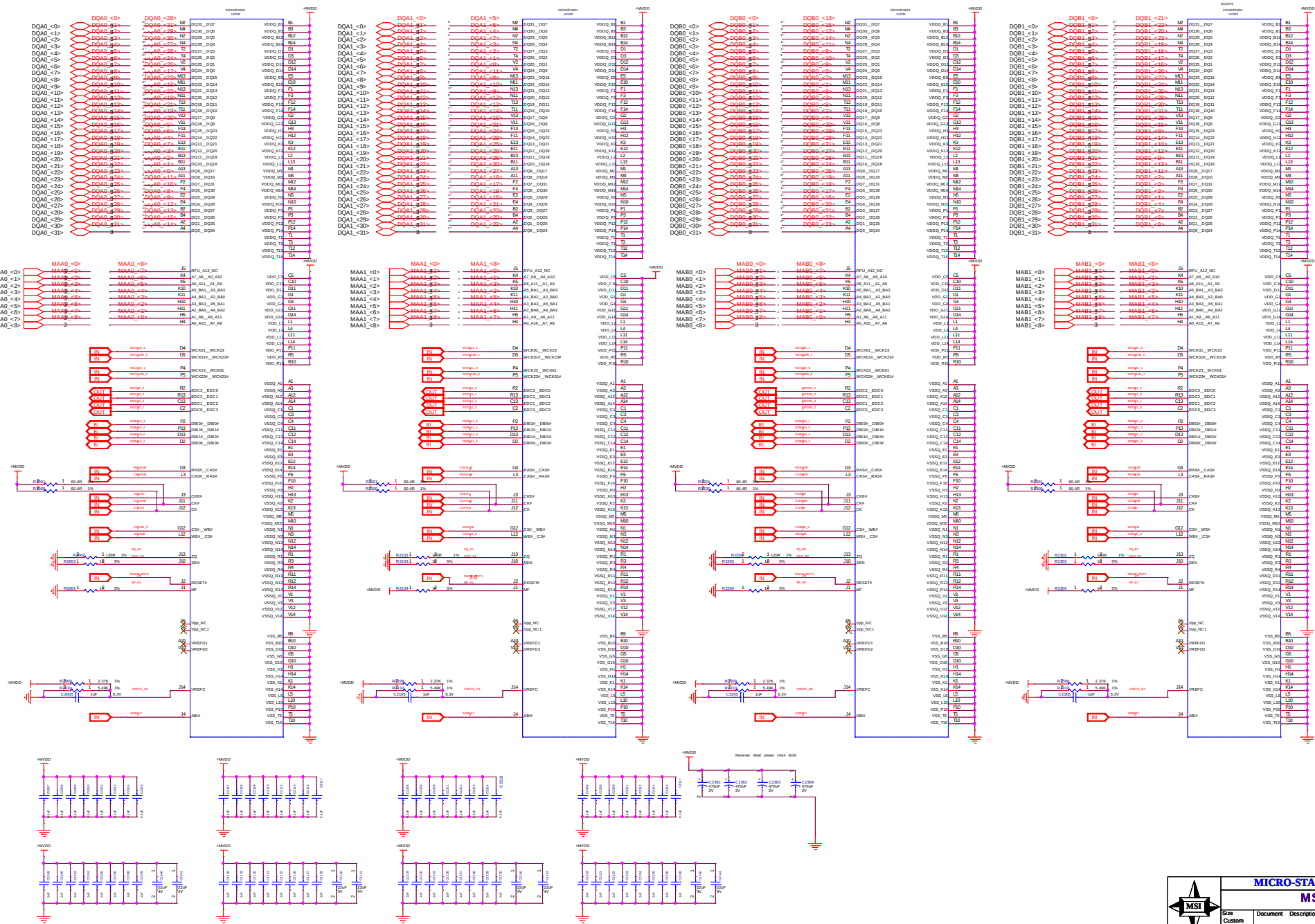
(3) ELLESMERE MEM INTERFACE CH A/B



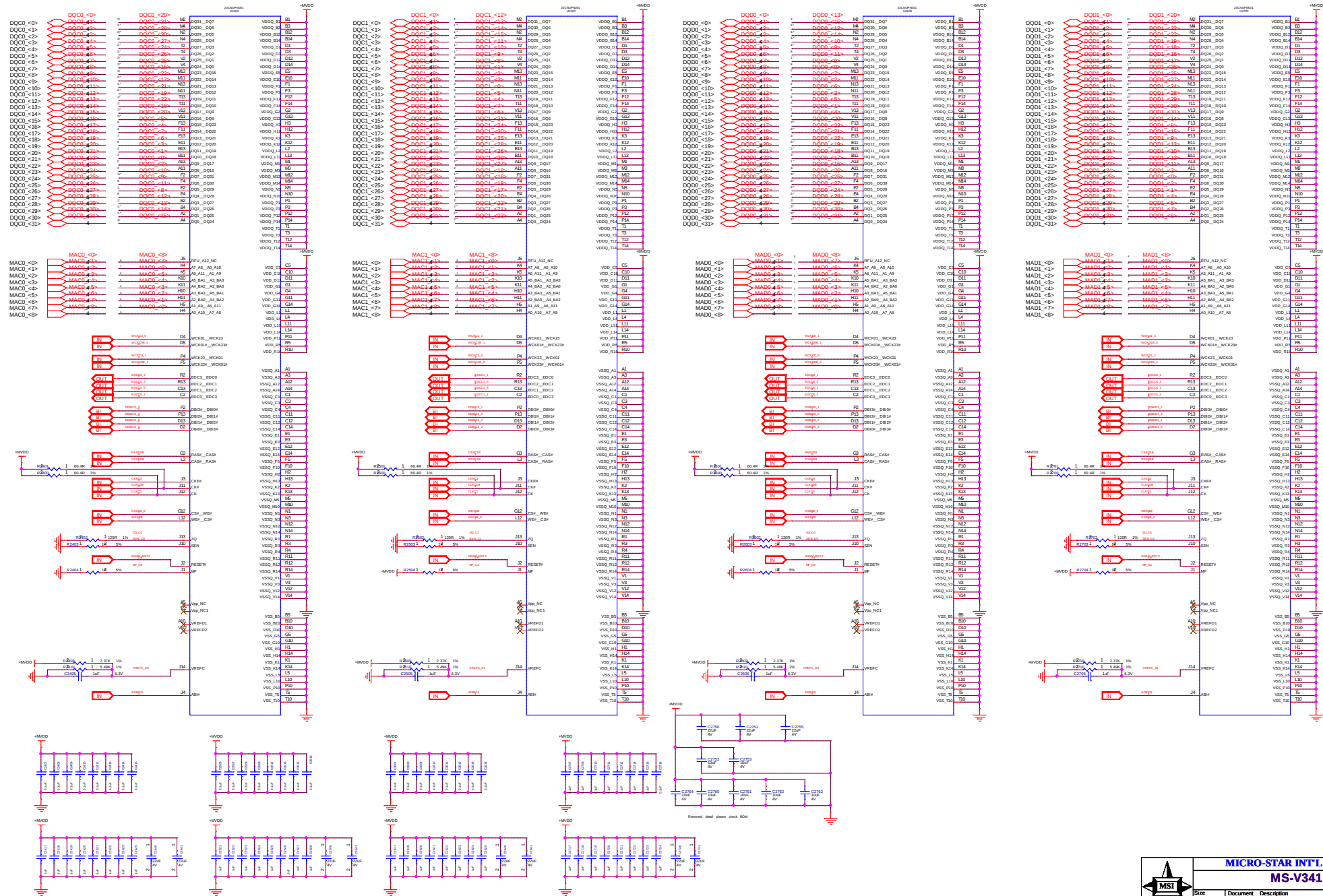
## (4) ELLESMERE MEM INTERFACE CH C/D



(5) GDDR5 MEMORY CH A/B

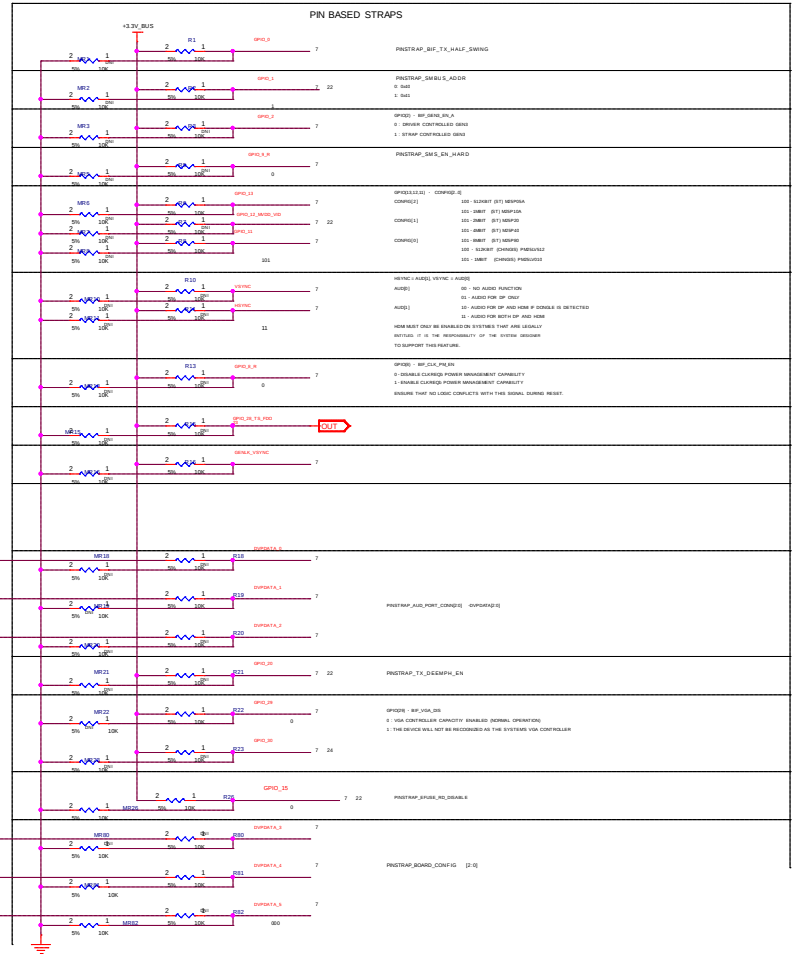
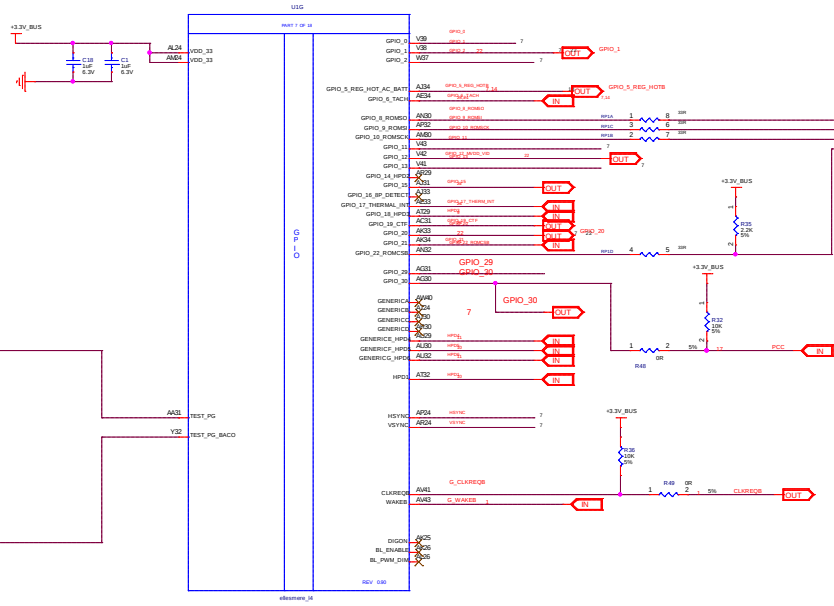
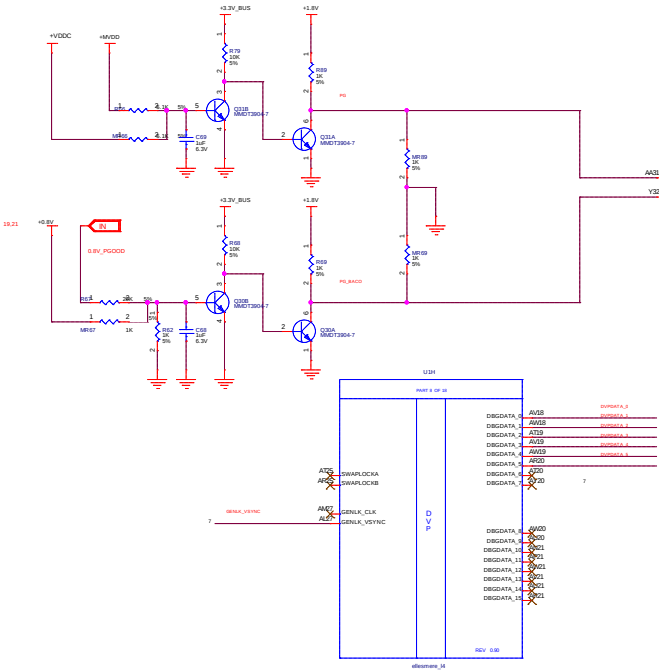


(6) GDDR5 MEMORY CH C/D

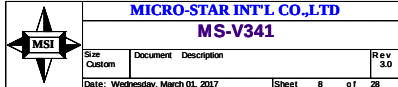
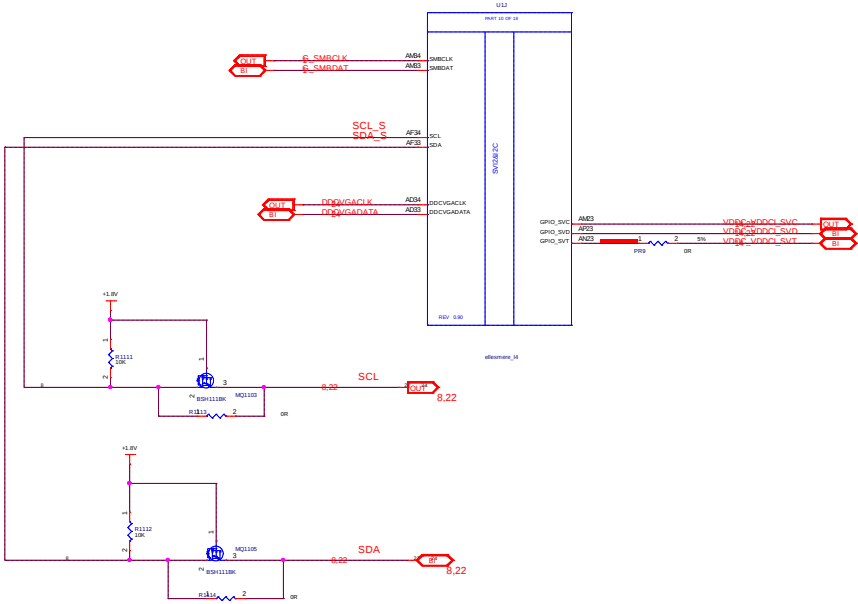


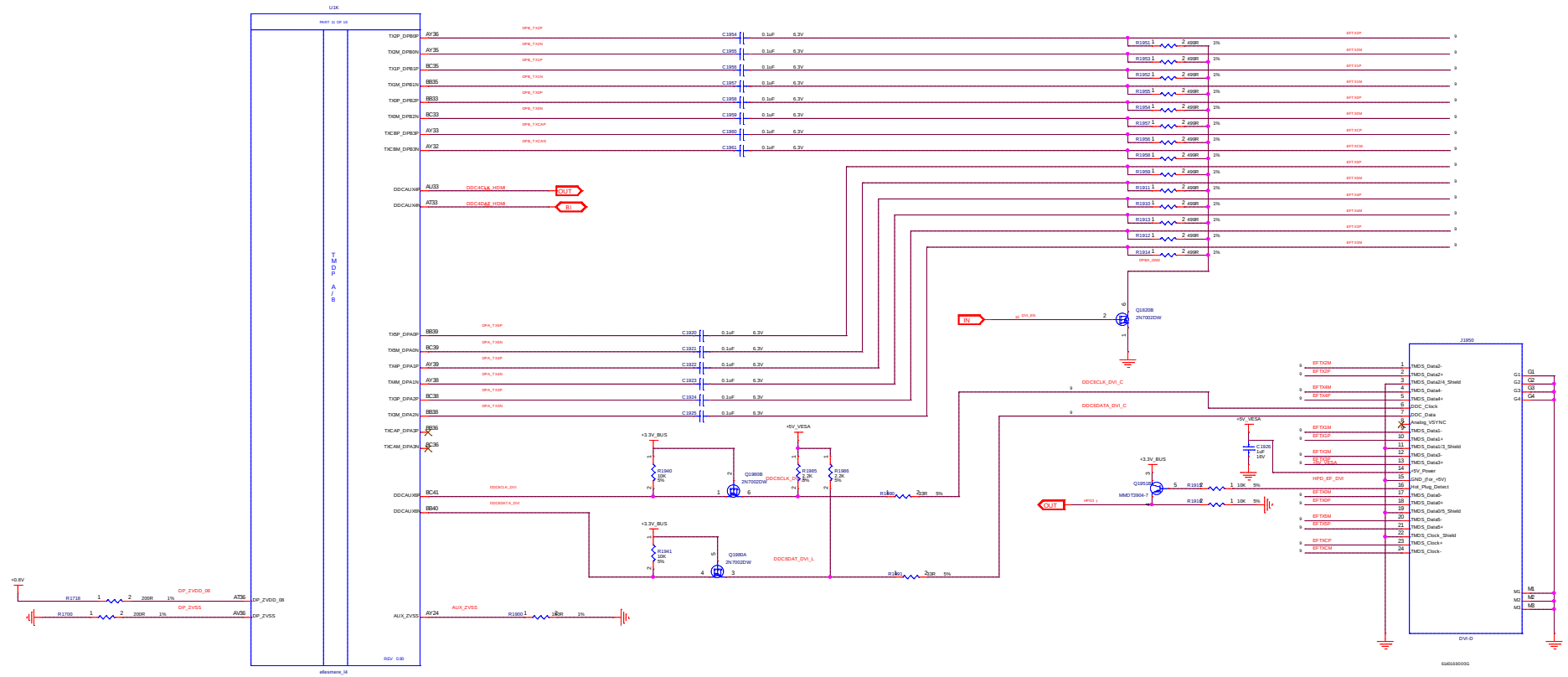
(7) ELLESMERE GPIO STRAP CF XTAL

| SCUDA BUS  |                 |        |
|------------|-----------------|--------|
| IC ADDRESS | FUNCTION        | DEVICE |
|            |                 |        |
|            |                 |        |
|            |                 |        |
| DOOVS4 BUS |                 |        |
| IC ADDRESS | FUNCTION        | DEVICE |
| 0000       | EXT TEMP SENSOR | LM7503 |



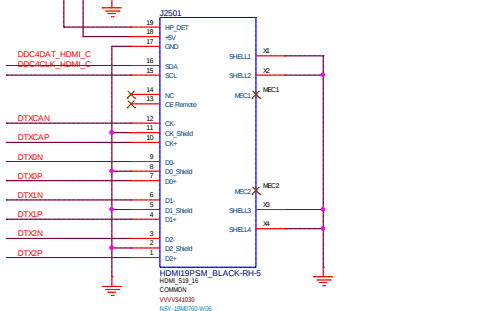
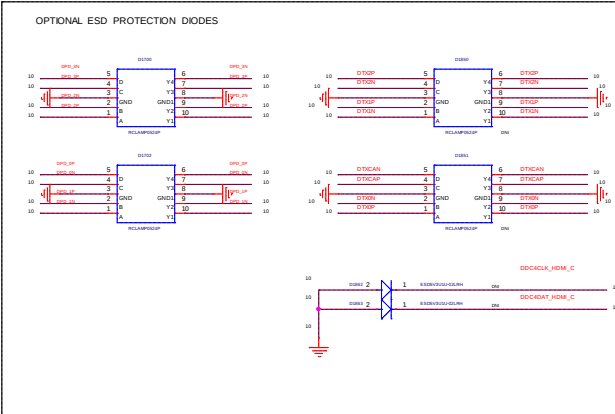
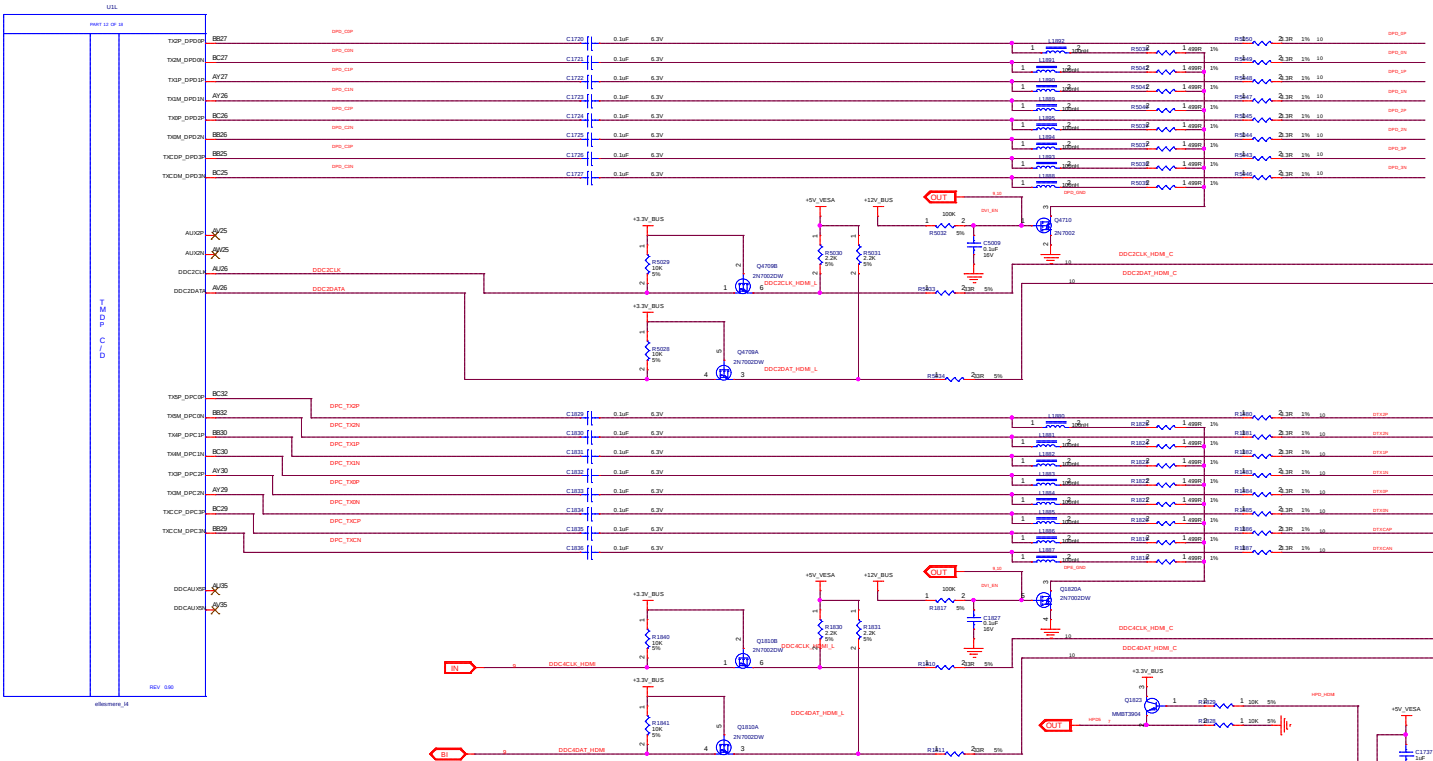
(8) ELLESMERE DAC1 LOCK

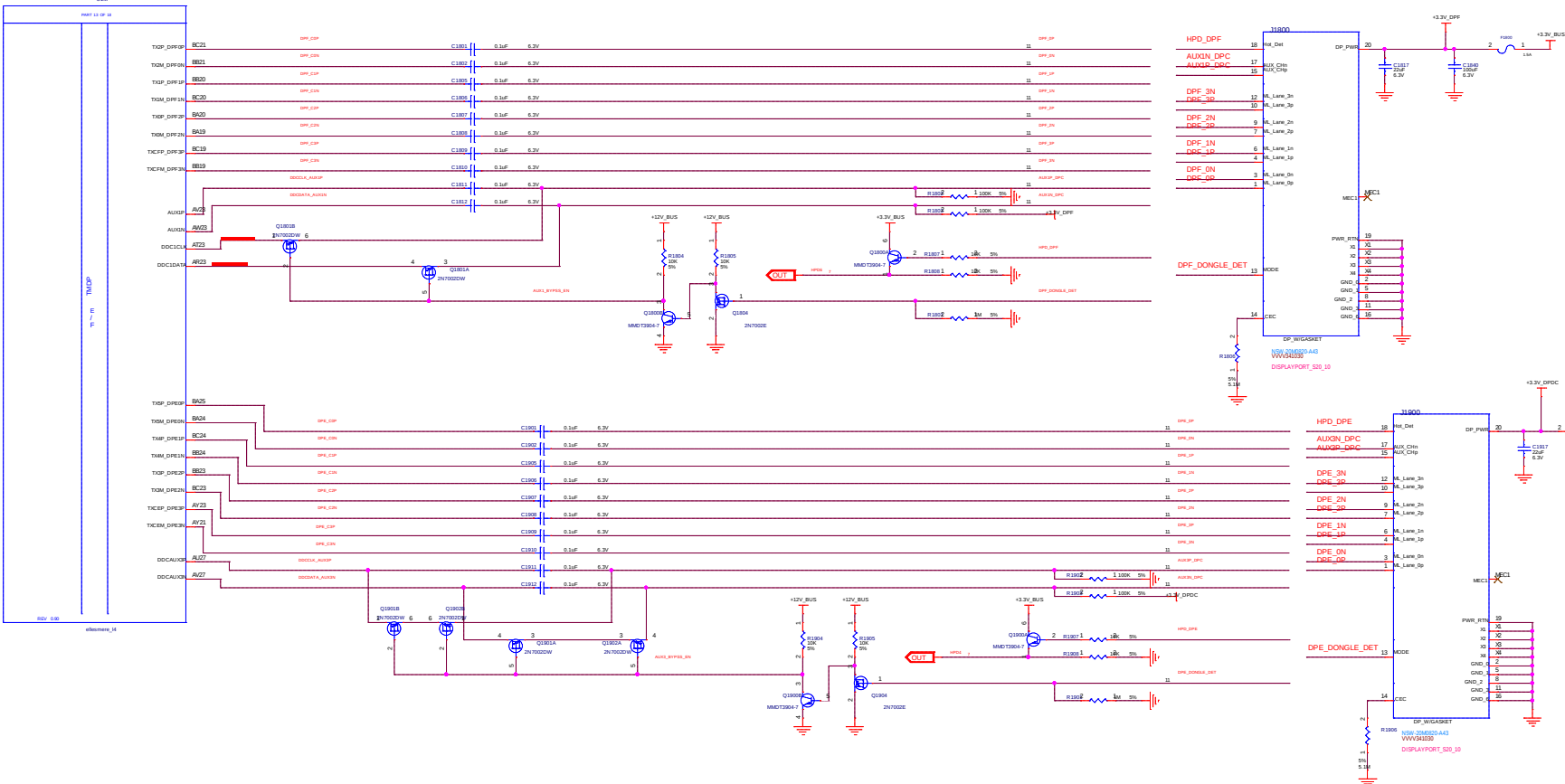




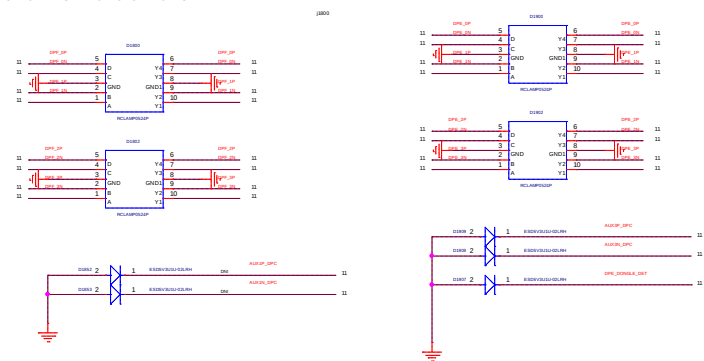
### OPTIONAL ESD PROTECTION DIODES



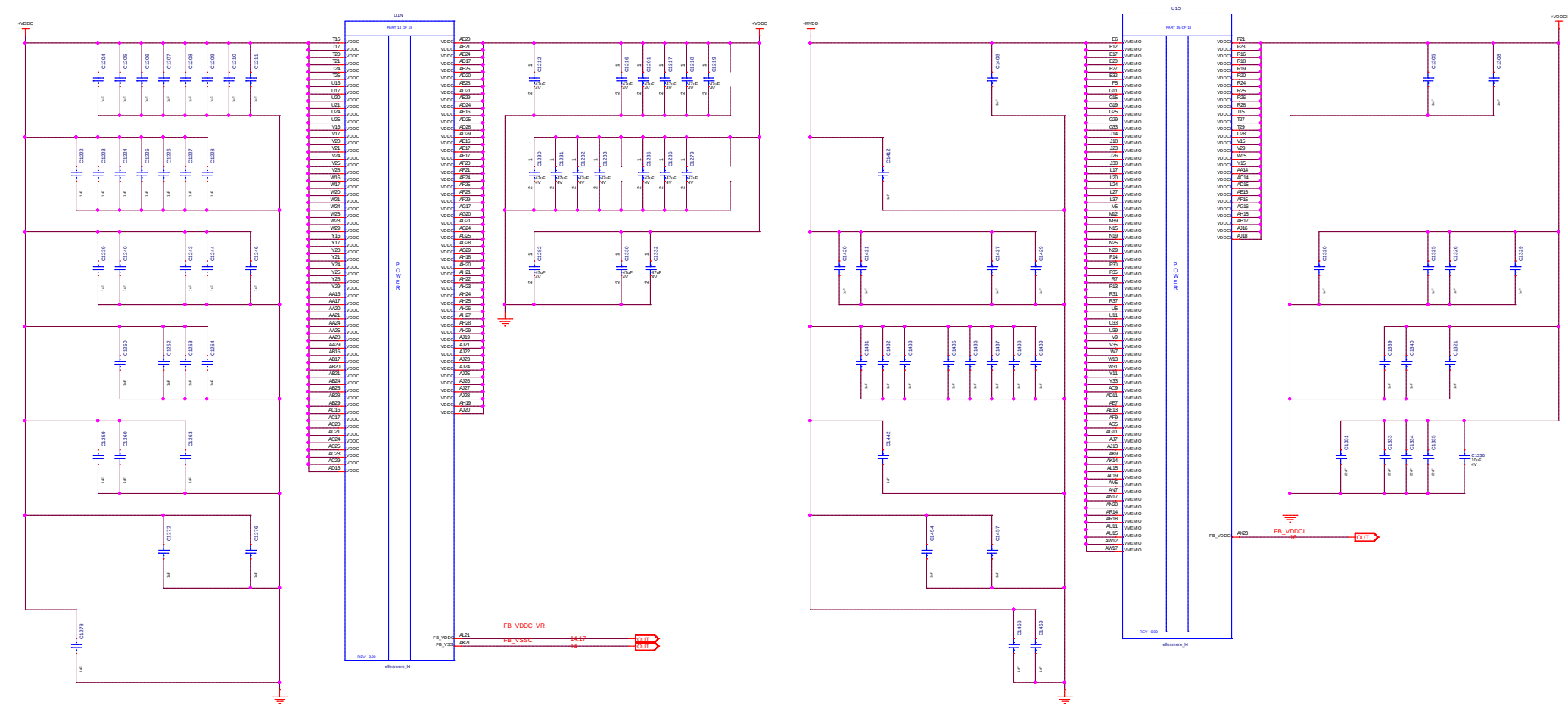




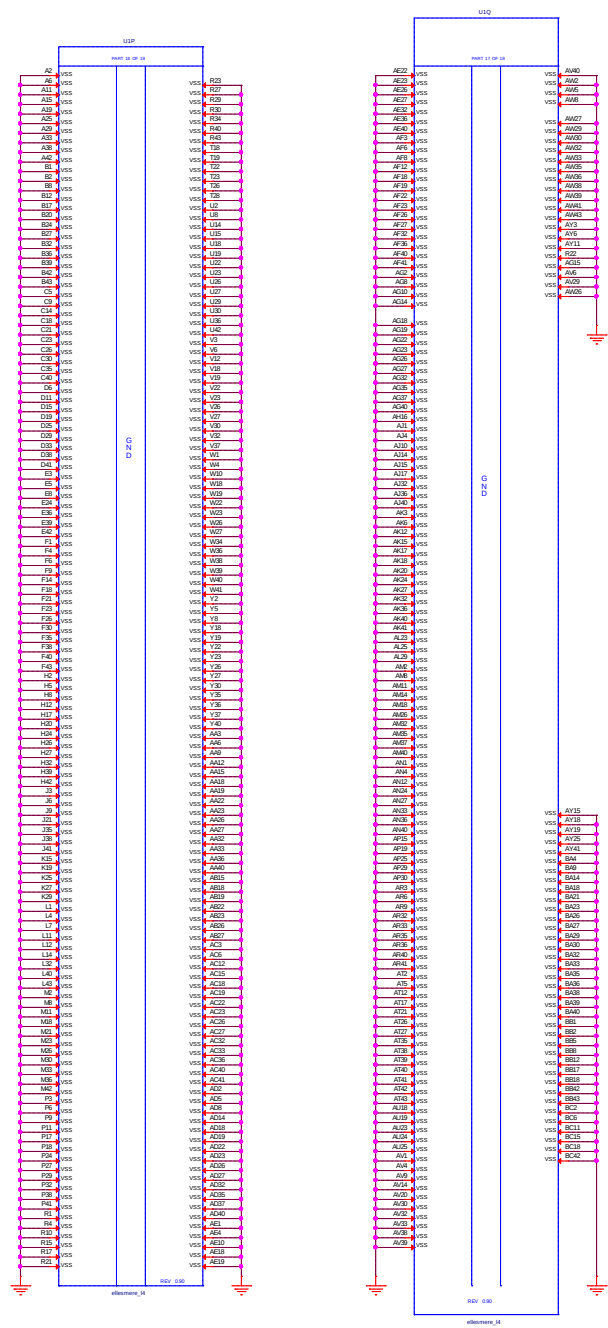
### OPTIONAL ESD PROTECTION DIODES



(12) ELLESMERE POWER

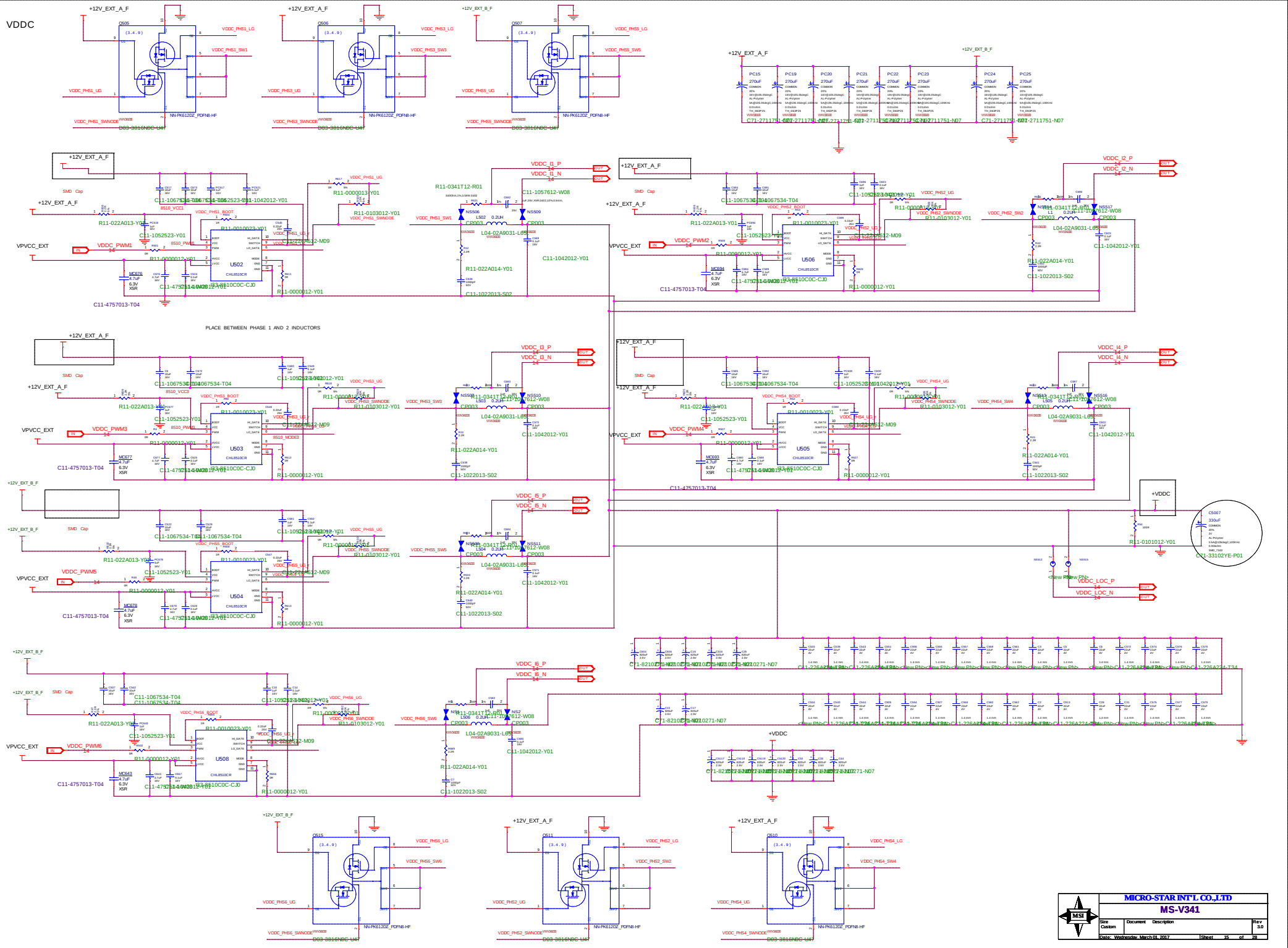


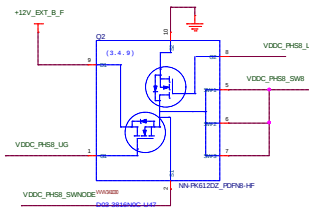
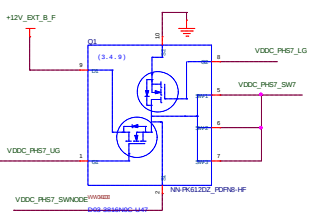
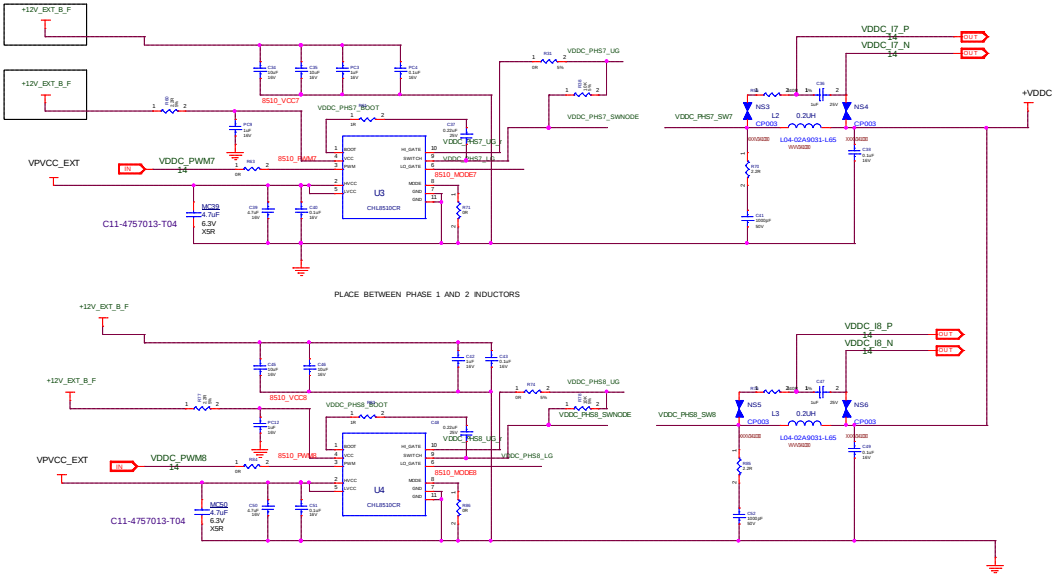
(13) ELLESMERE GROUND





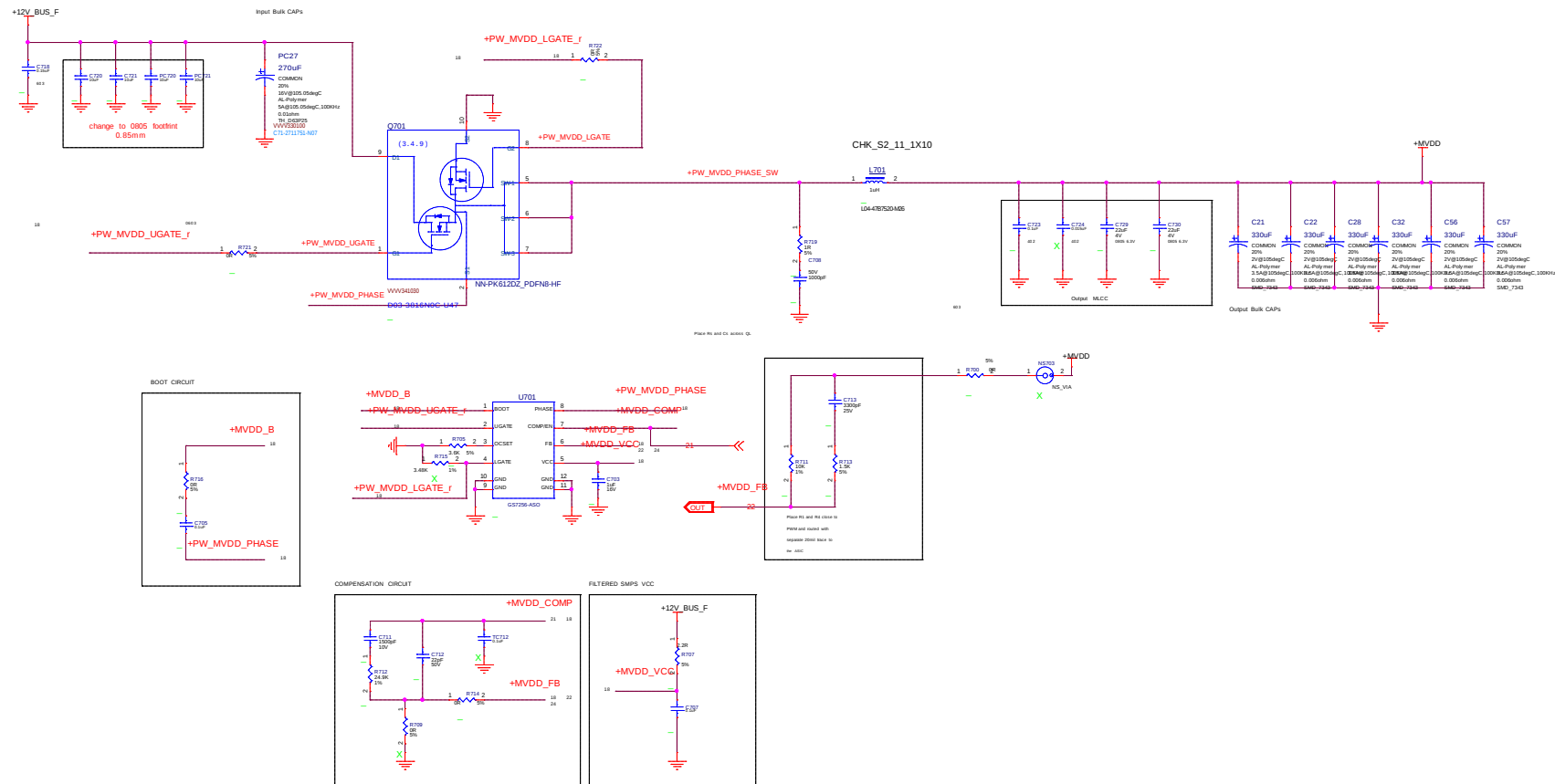
VDDC



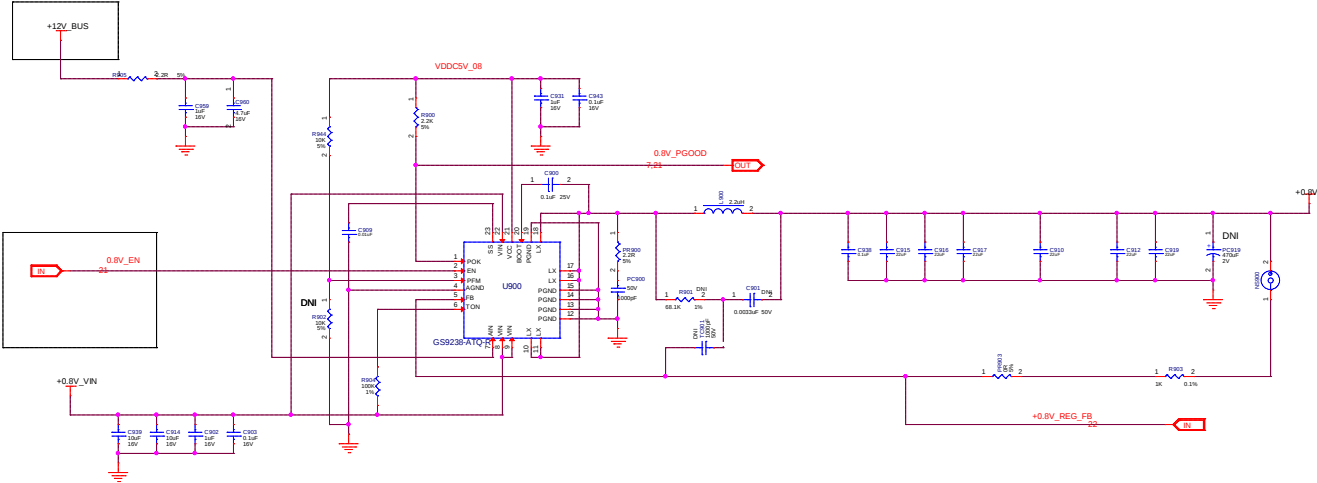








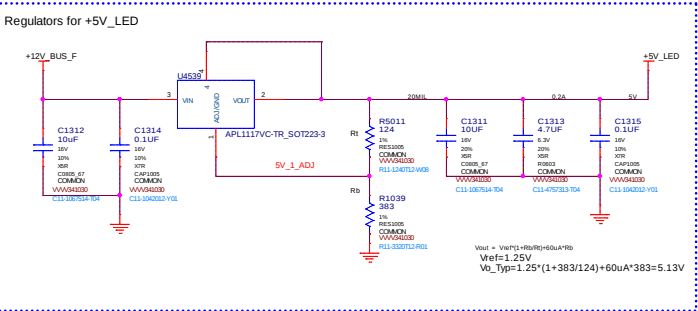
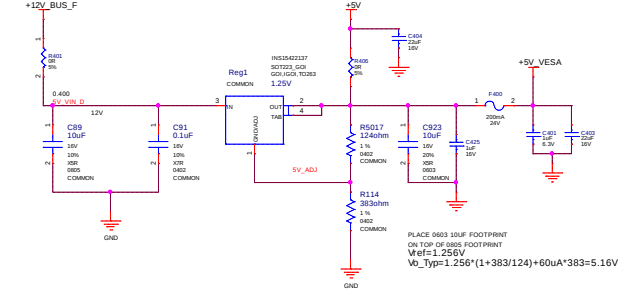
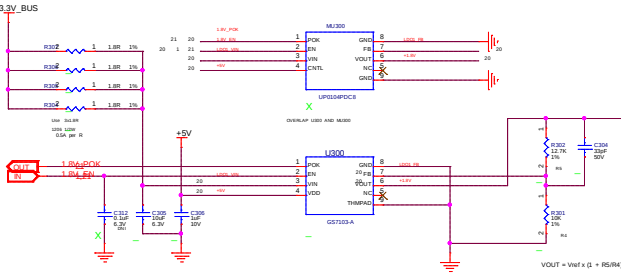
(17) 0.95V



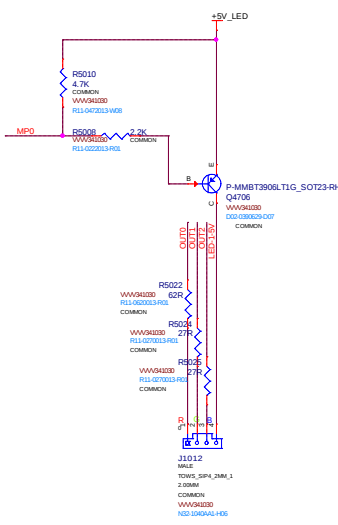
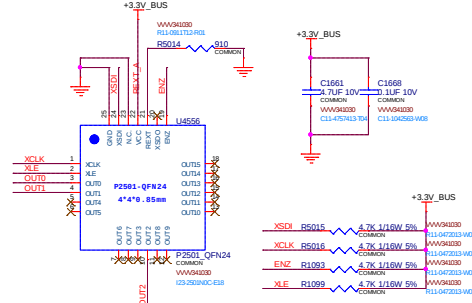
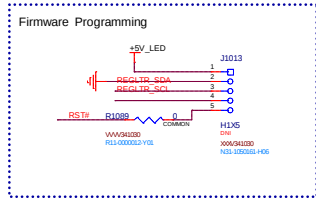
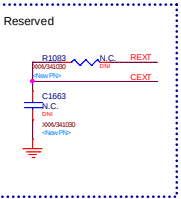
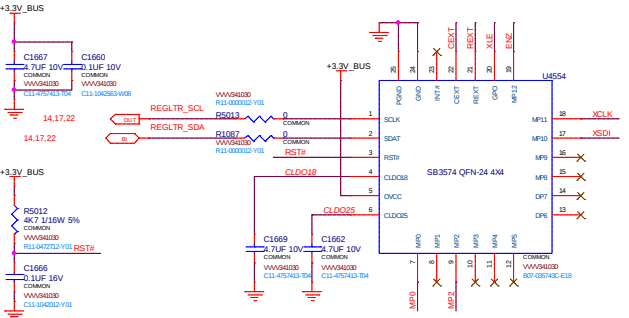
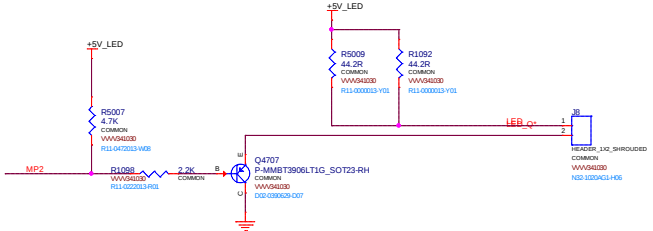
(18) SMALL RAIL REGULATORS , LED\_CONTROLLER\_ENE3574

LDO #1: VIN = 3.0V TO 3.6V MAX VOUT = +1.8V +/- 2% IOUT = 1.3A RMS MAX  
PCB: 50 TO 70mm SQ. COPPER AREA FOR COOLING

REGULATOR FOR +5V Rails  
IOUT MAX = 150mA

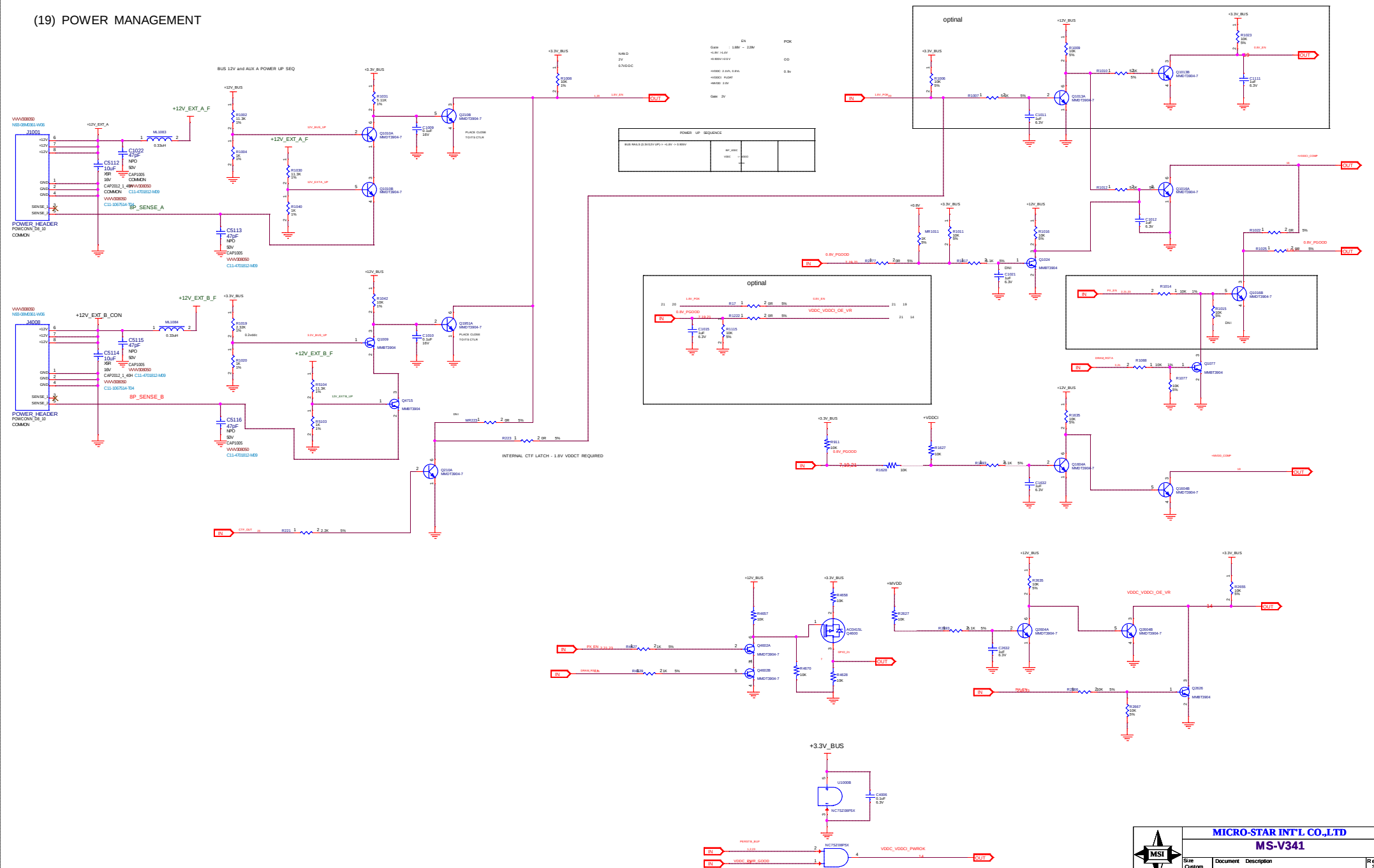


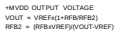
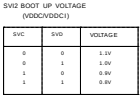
LED Connector



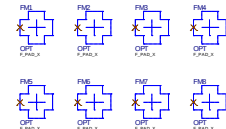
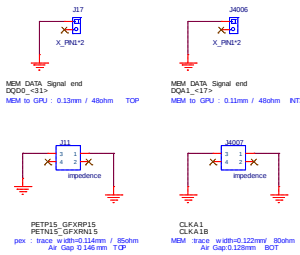
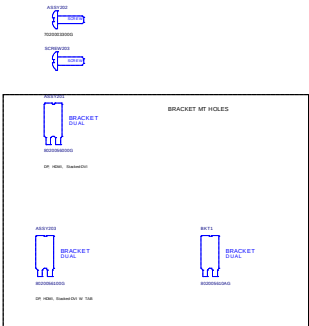
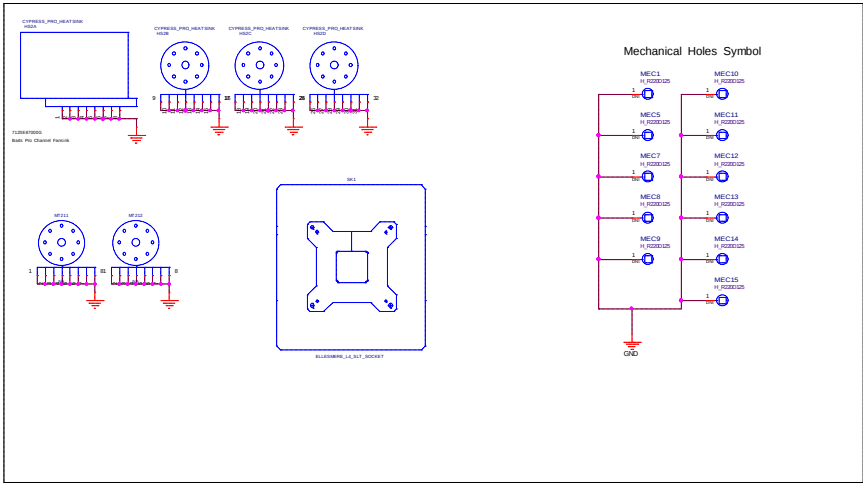
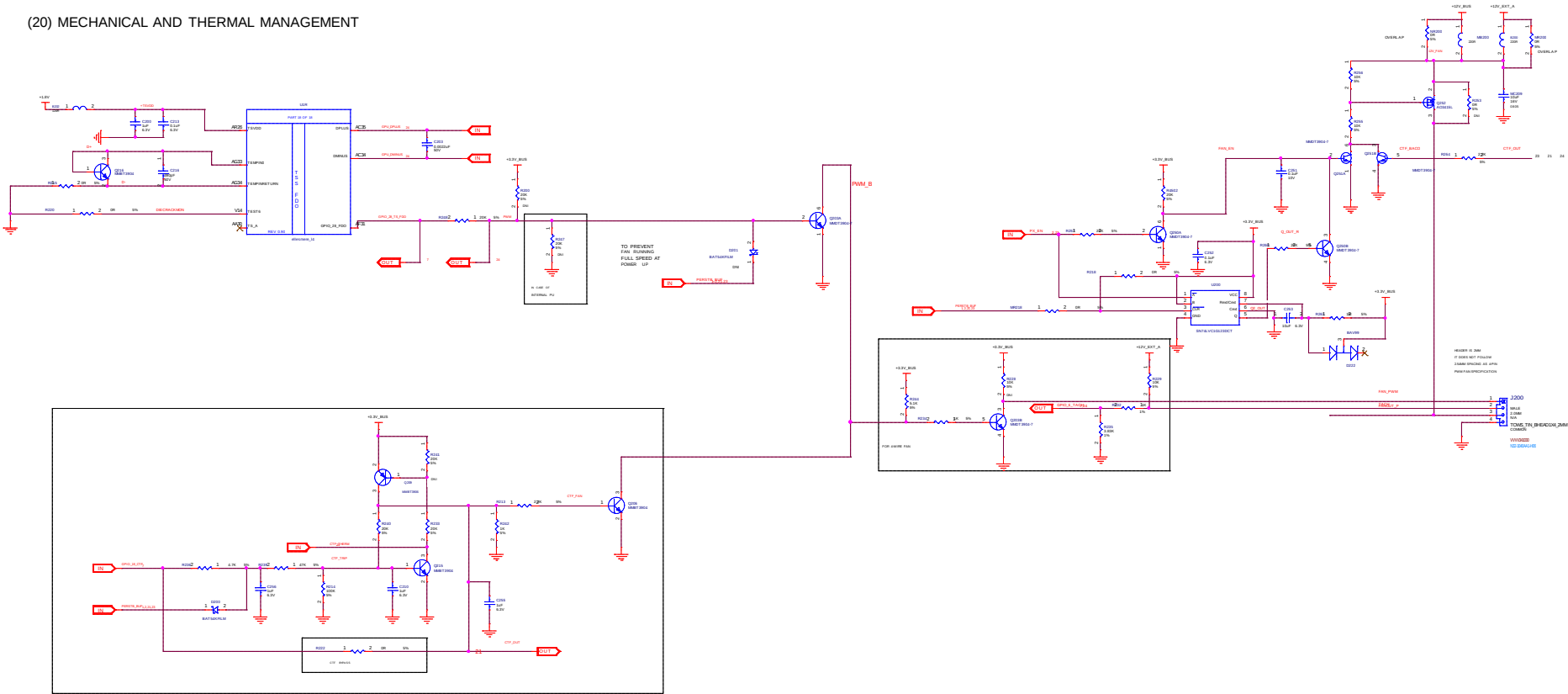
|                                 |          |             |                |
|---------------------------------|----------|-------------|----------------|
| MICRO-STAR INT'L CO.,LTD        |          |             |                |
| MS-V341                         |          |             |                |
| Size                            | Document | Description | Rev            |
| Custom                          |          |             | 3.0            |
| Date: Wednesday, March 01, 2017 |          |             | Sheet 20 of 28 |

## (19) POWER MANAGEMENT

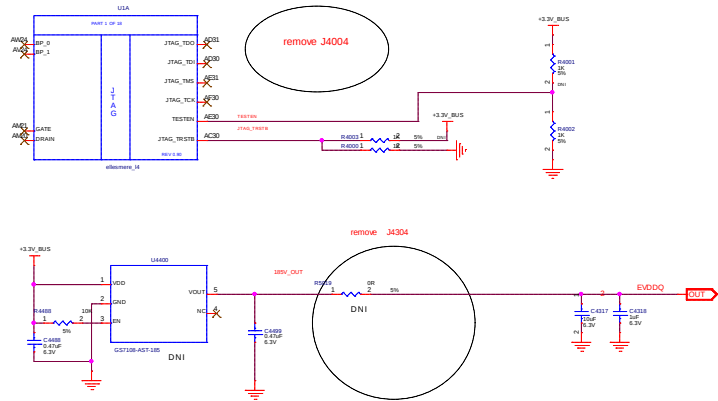




(20) MECHANICAL AND THERMAL MANAGEMENT

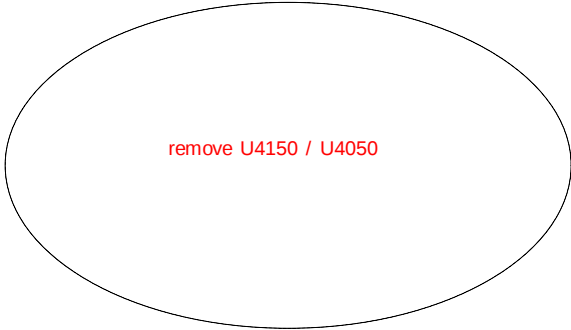


JTAG



E-FUSE CAPABILITY  
DEFAULT = GPIO-CONTROLLED  
(MANUAL OPTION AS BACK-UP)

DIGITAL POTS



DIGITAL POTS

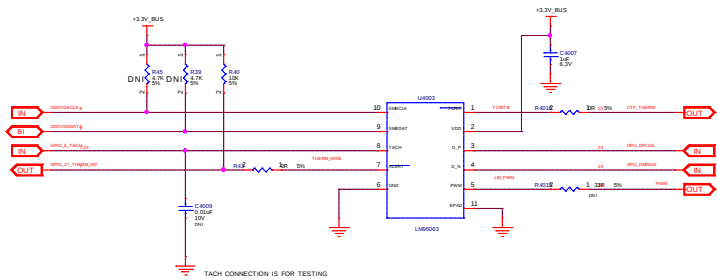
remove J4001/J4002

SWITCHES

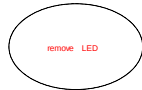
remove SW

BYPASS/ENABLE CTF  
MAXIMIZE IAN

LM86163 FOR BACKUP THERMAL CONTROL



LED LIGHTS

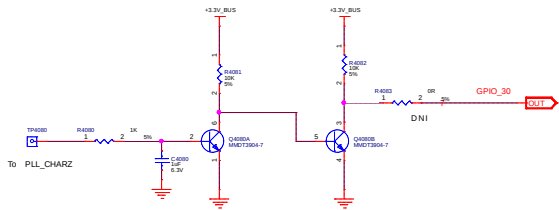


LED RED "ON" INDICATES CTF FAULT

LED GREEN "ON" INDICATES BACO MODE

LED ORANGE "ON" INDICATES MACO MODE

VTMM - TEST CONNECTOR FOR VOLTAGE MEASUREMENTS





|   |     |         |                                                                                                                                     |
|---|-----|---------|-------------------------------------------------------------------------------------------------------------------------------------|
| 0 | 00A | 0000001 |                                                                                                                                     |
| 1 | 00B | 0000002 | 1. Add SPI2C for LAN8201, VDDIO2<br>2. Update VDDIO2, ADAP, and SPI2C                                                               |
| 2 | 00C | 0000003 | 402001:<br>- add version indicator L10B0 -L10B7<br>- add part about indicator L10B0 -L10B7<br>- update C000, C001, V000C000C0000000 |

- Page7: remove J2,J3
- Page9: enable DVI
- Page10: DP change to HDMI
- Page15: change dual-N MOS
- Page16: change dual-N MOS
- Page18: change dual-N MOS
- Page20: Add LED circuit
- Page21: colay 8pin power connecter
- Page24: remove debug circuit
- V341-3.0 Ian
- 14.VDDC change IR35201
- 15.更改SMD電容改DIP電容
- 16.配合高度更換output SMD電感及電容
- 18.配合高度更換output SMD電感及電容
- 20.背板LED移除
- 27.增加7 / 8相

