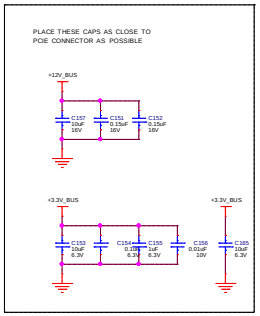
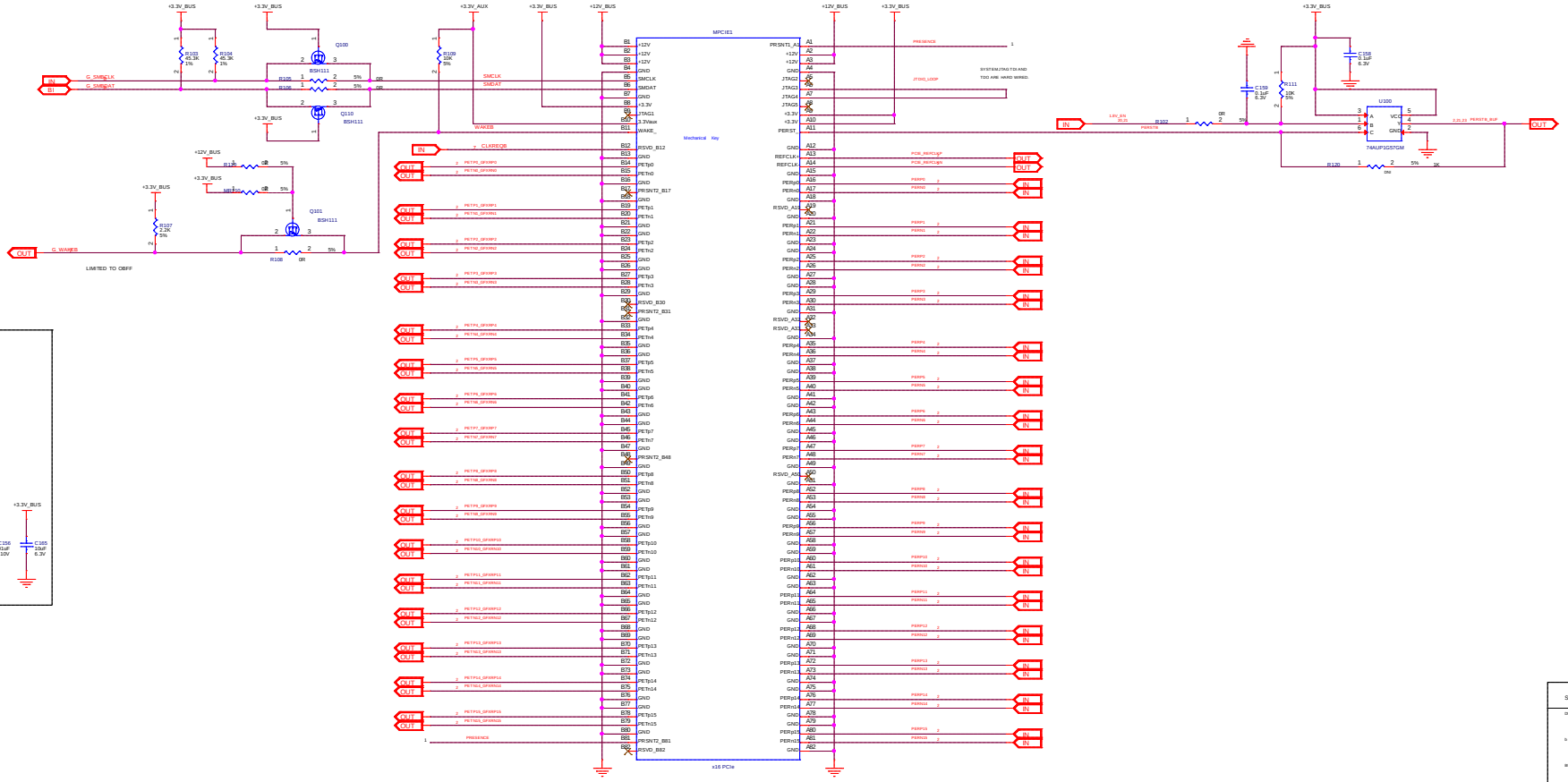
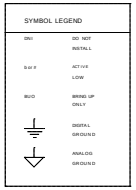
(1) PCI-EXPRESS EDGE CONNECTOR







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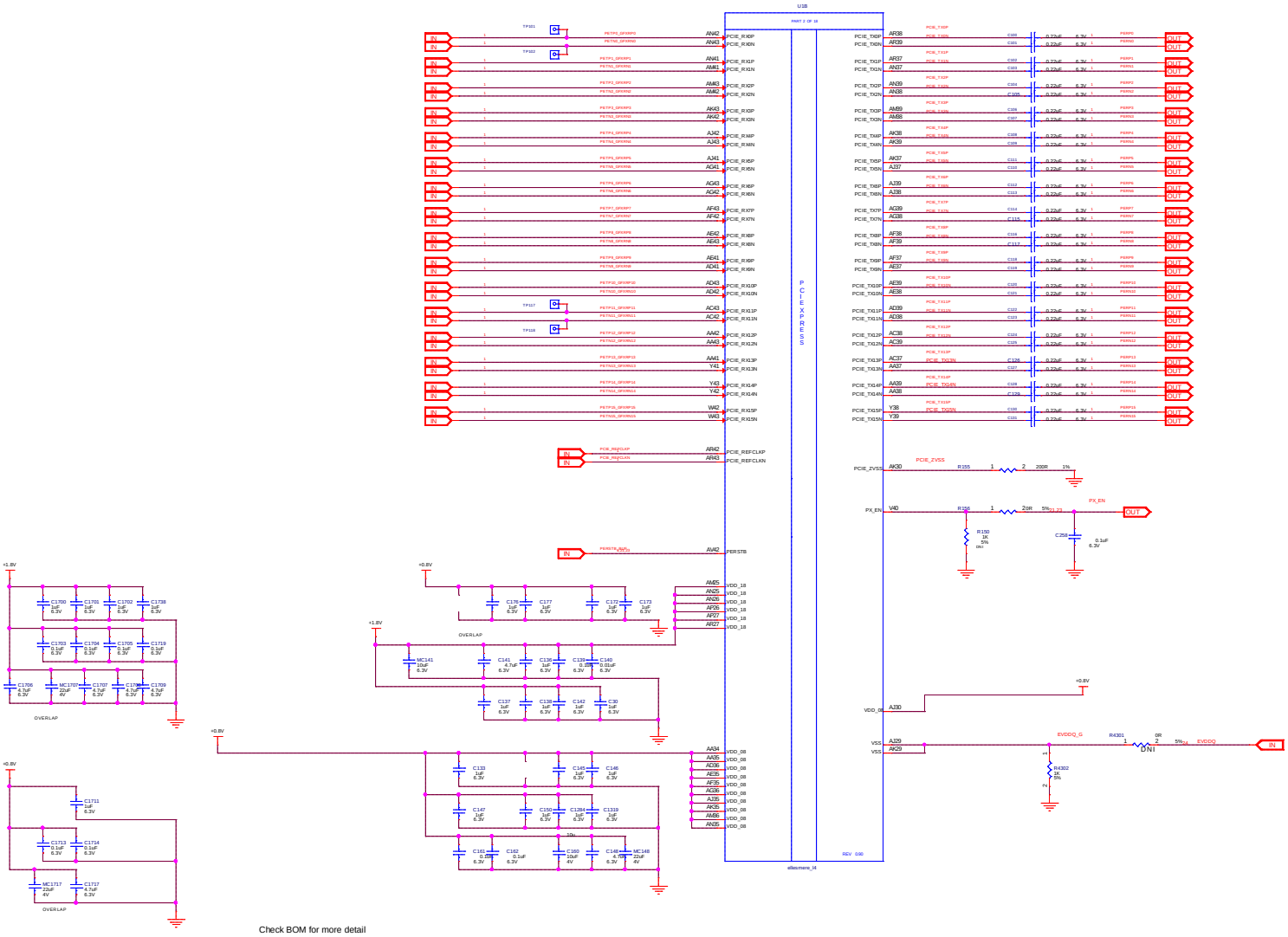
(2) ELLESMERE PCIE INTERFACE



Check BOM for more detail

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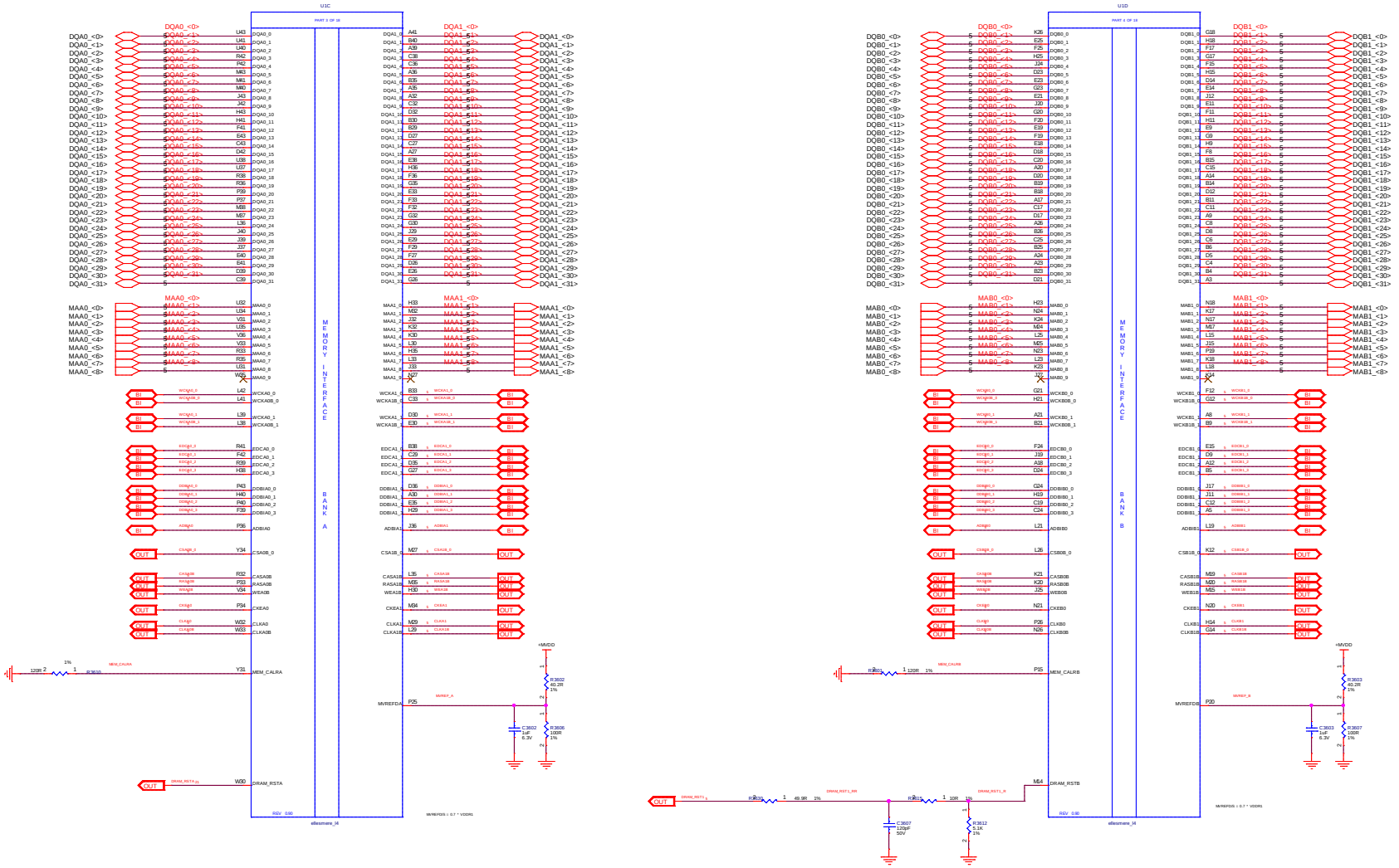
(3) ELLESMERE MEM INTERFACE CH A/B



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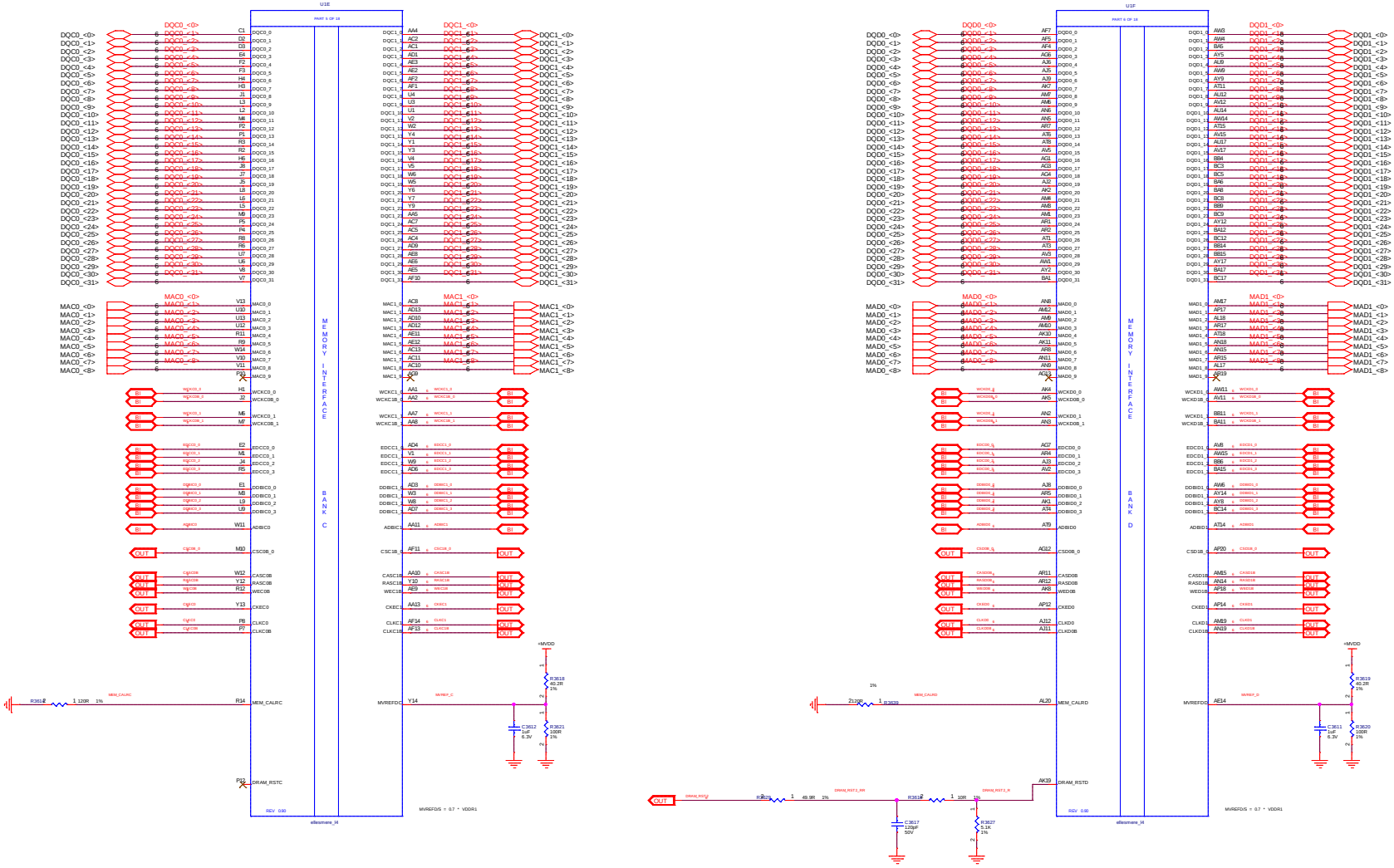
(4) ELLESMERE MEM INTERFACE CH C/D



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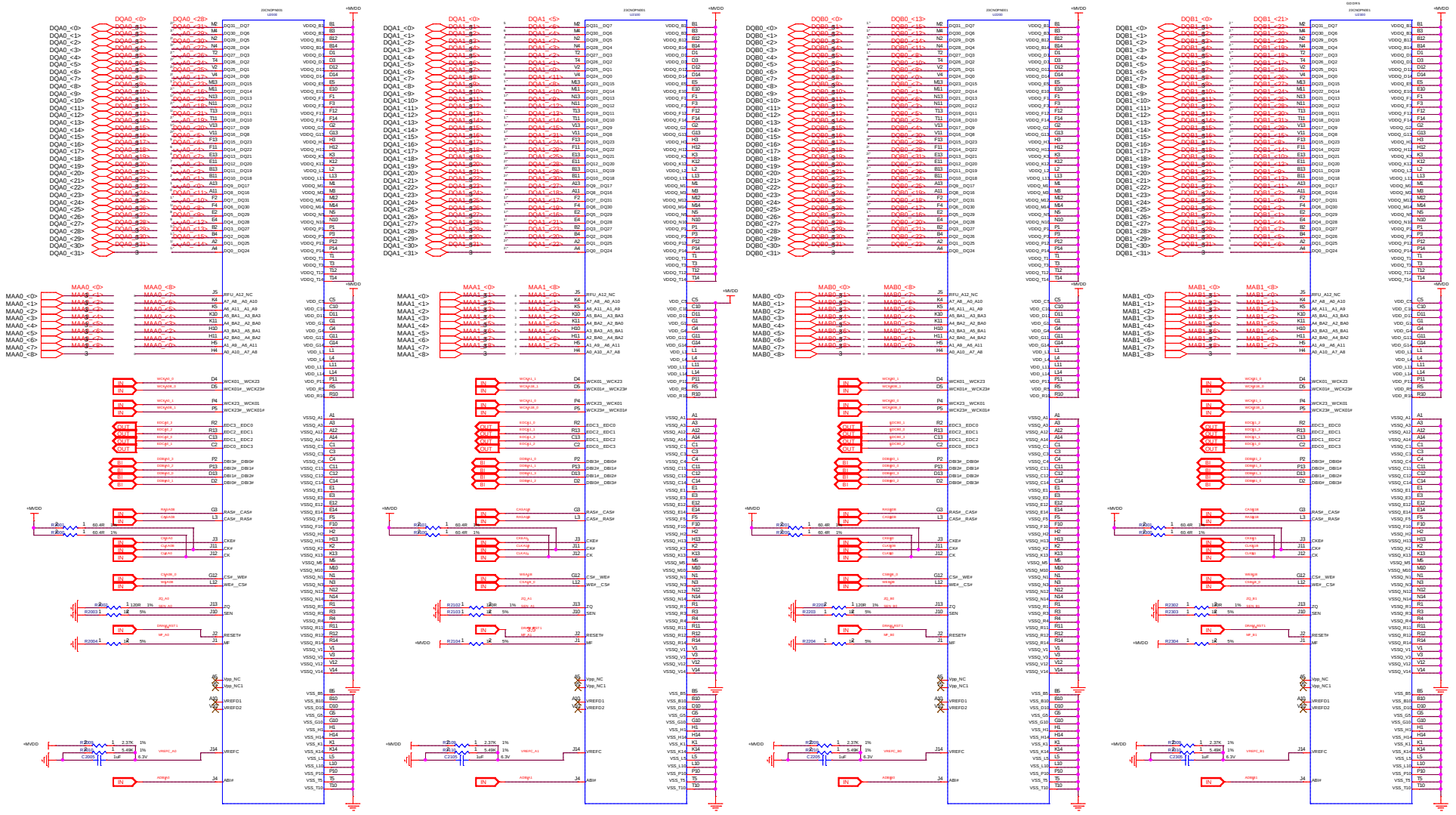
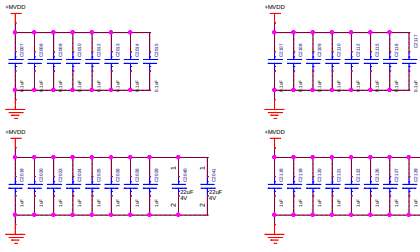
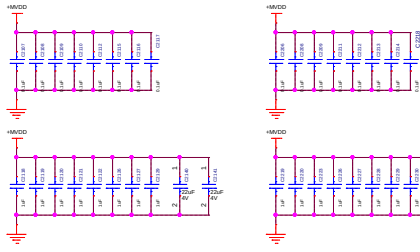
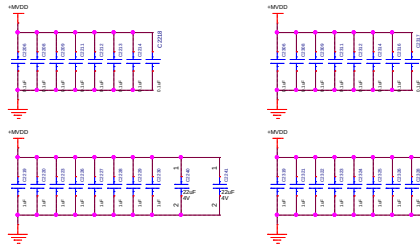
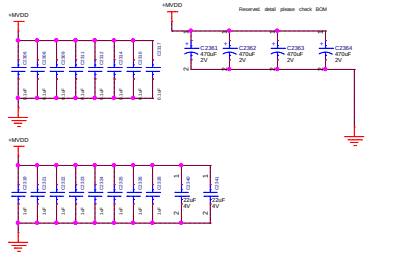
(5) GDDR5 MEMORY CH A/B











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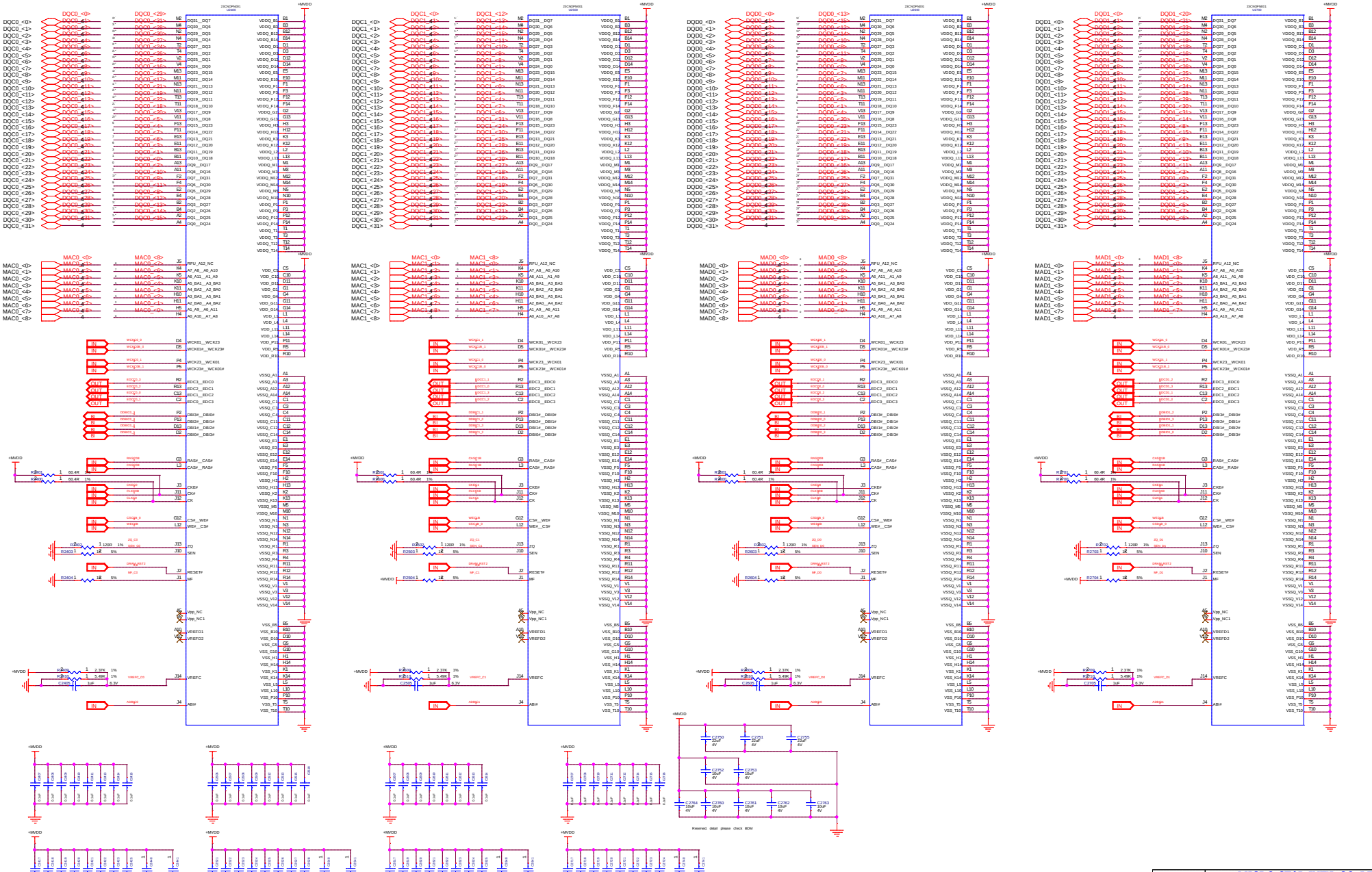
(6) GDDR5 MEMORY CH C/D



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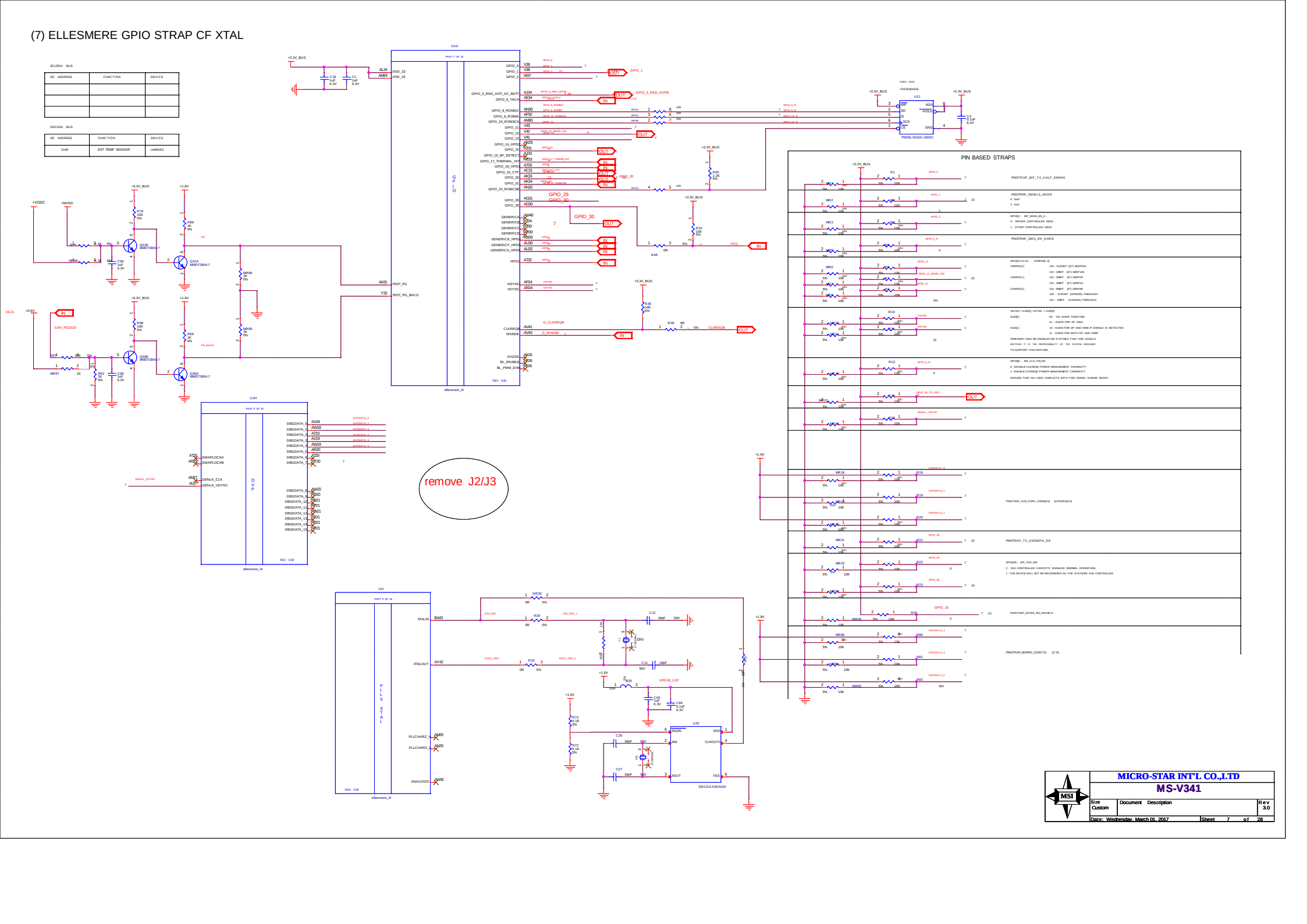
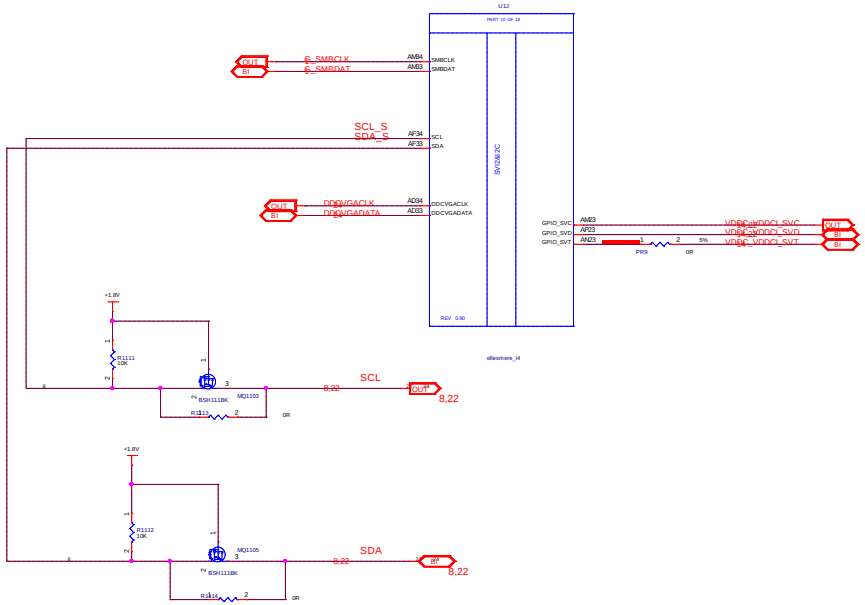
(7) ELLESMERE GPIO STRAP CF XTAL



(8) ELLESMERE DAC1 LOCK



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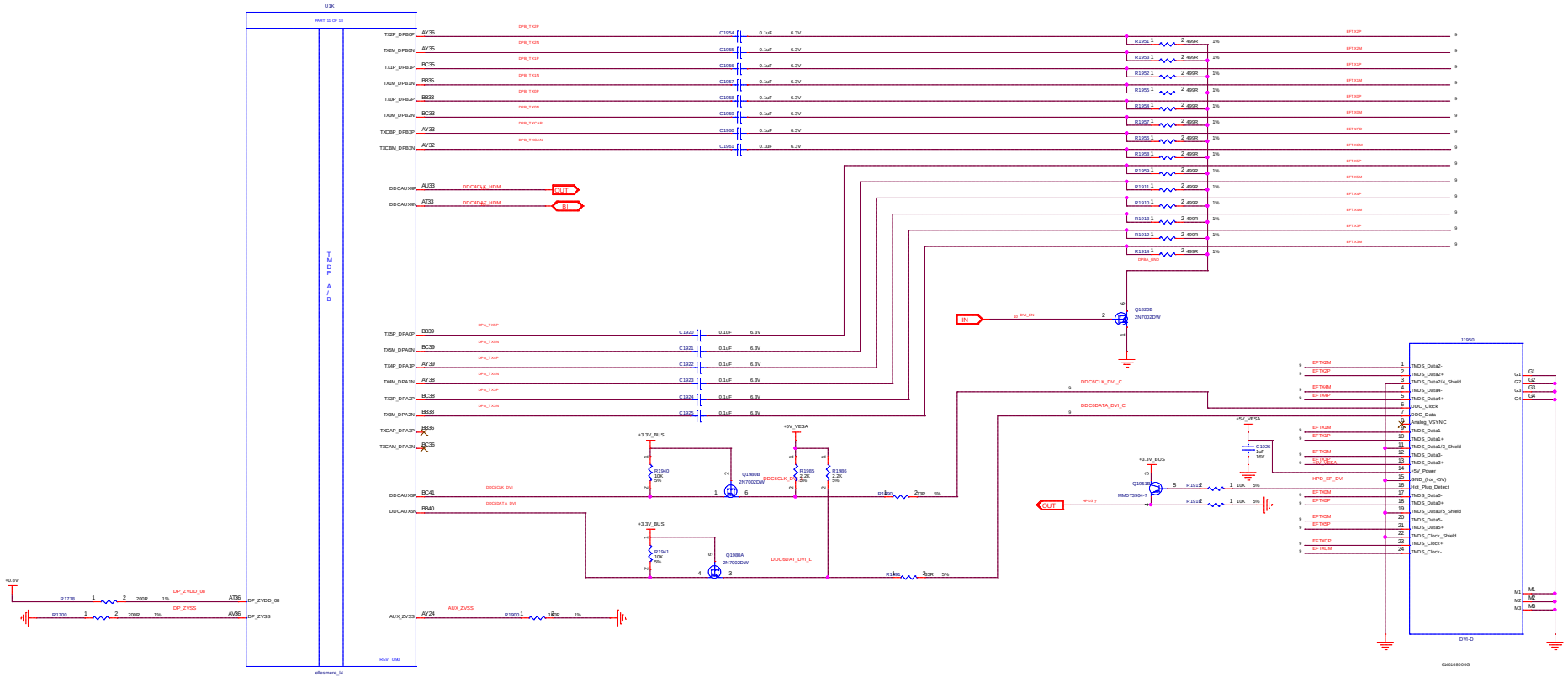
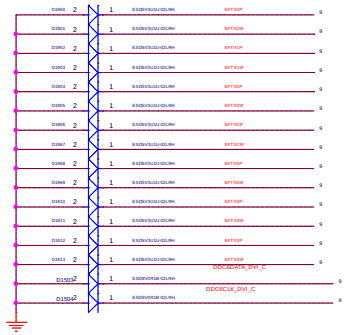
(9) ELLESMERE TMDP A/B



OPTIONAL ESD PROTECTION DIODES



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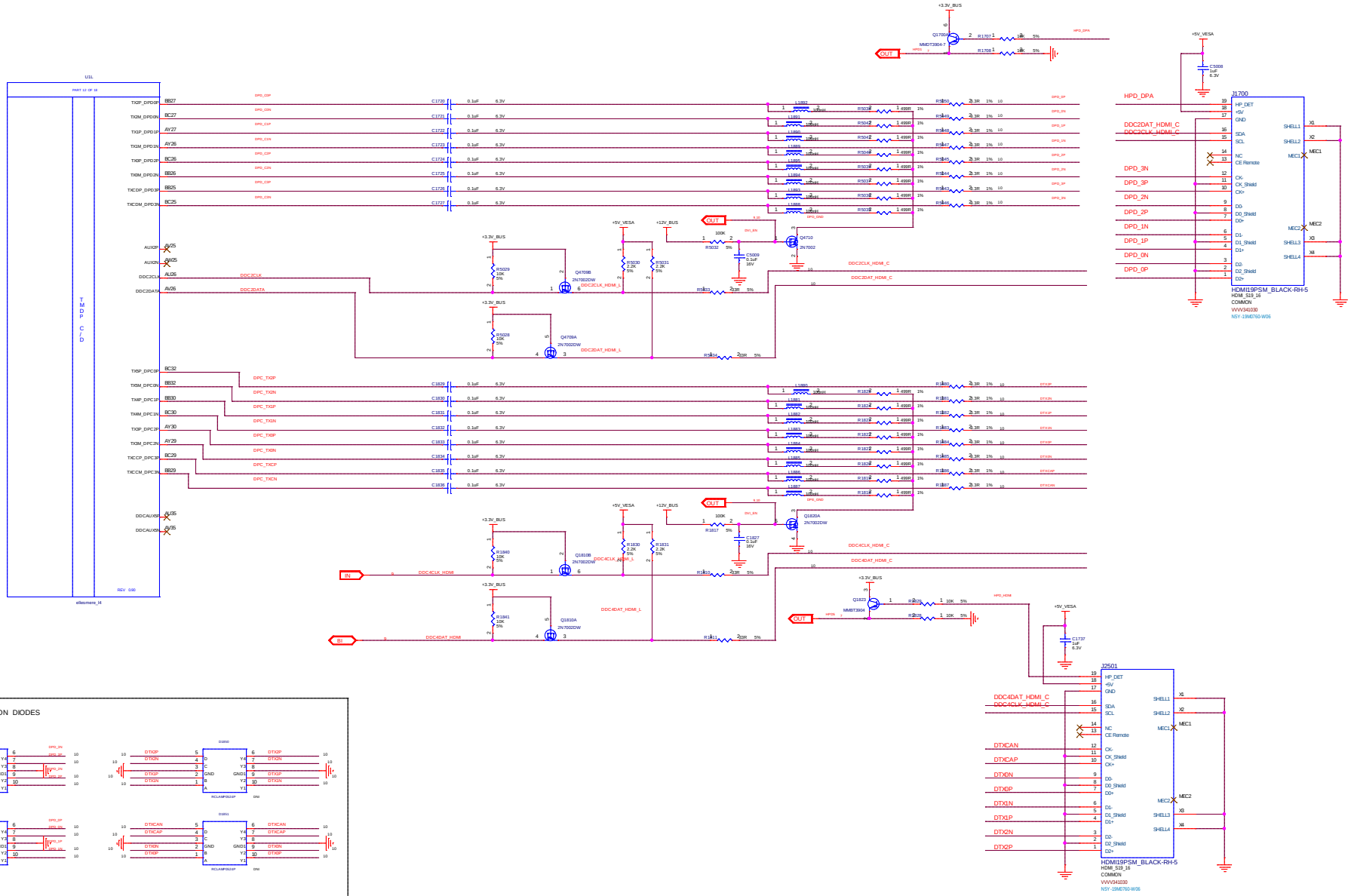

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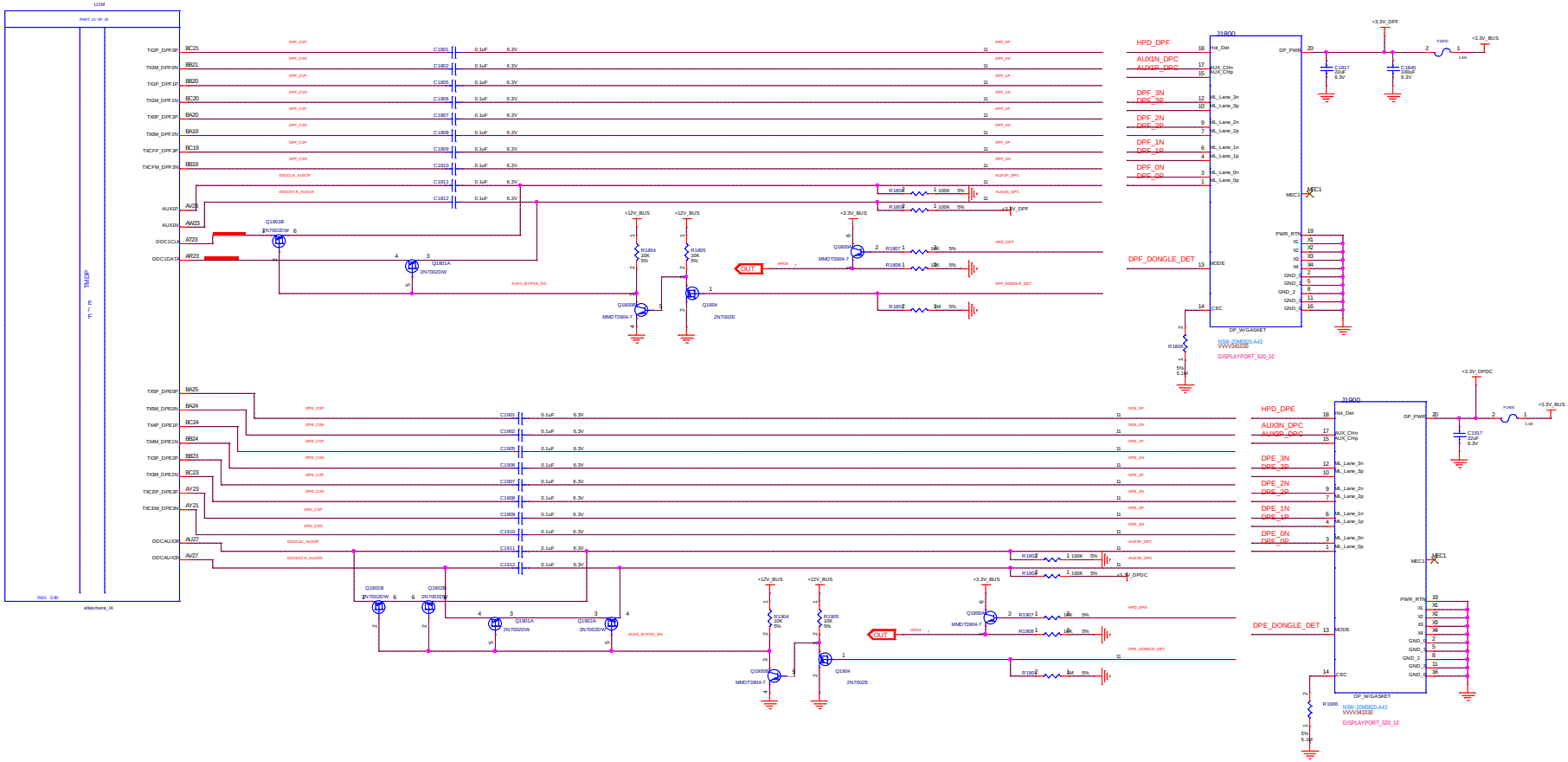
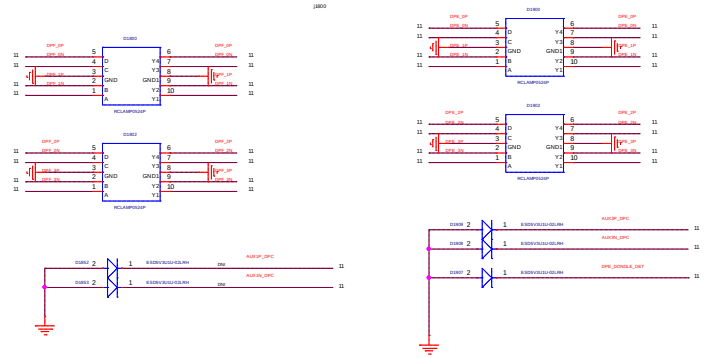
(11) ELLESMERE LVTMDP E/F



OPTIONAL ESD PROTECTION DIODES



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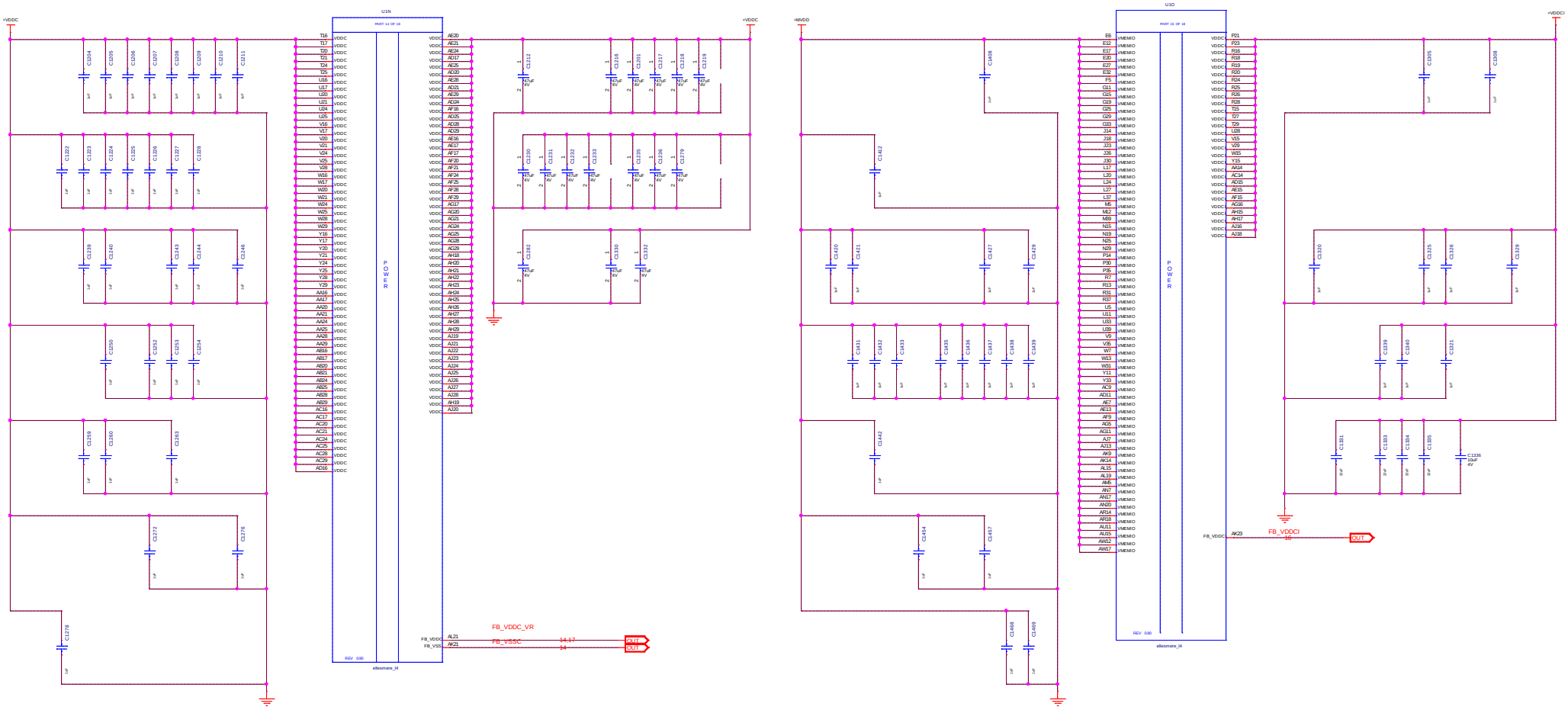
(12) ELLESMERE POWER



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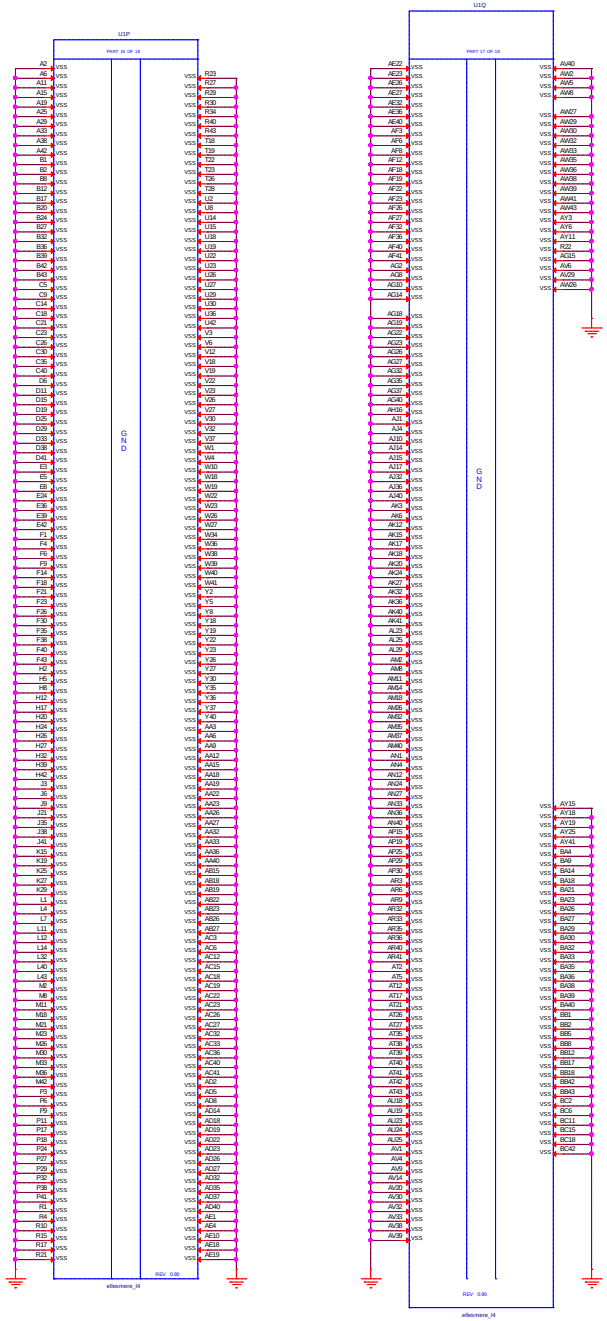
(13) ELLESMERE GROUND



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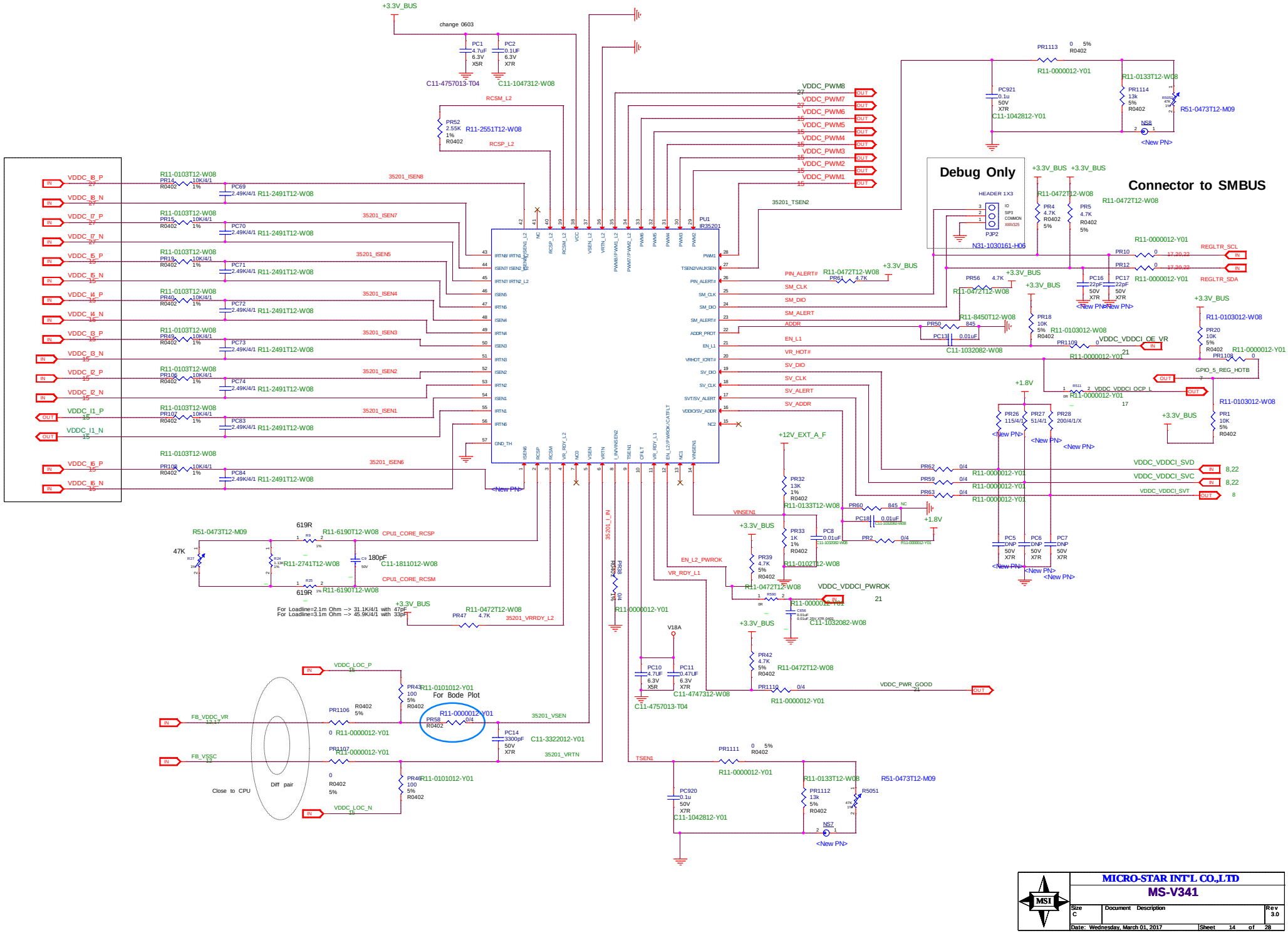
Debug Only
Connector to SMBUS
PU1
IR35201
MICRO-STAR INT'L CO.,LTD
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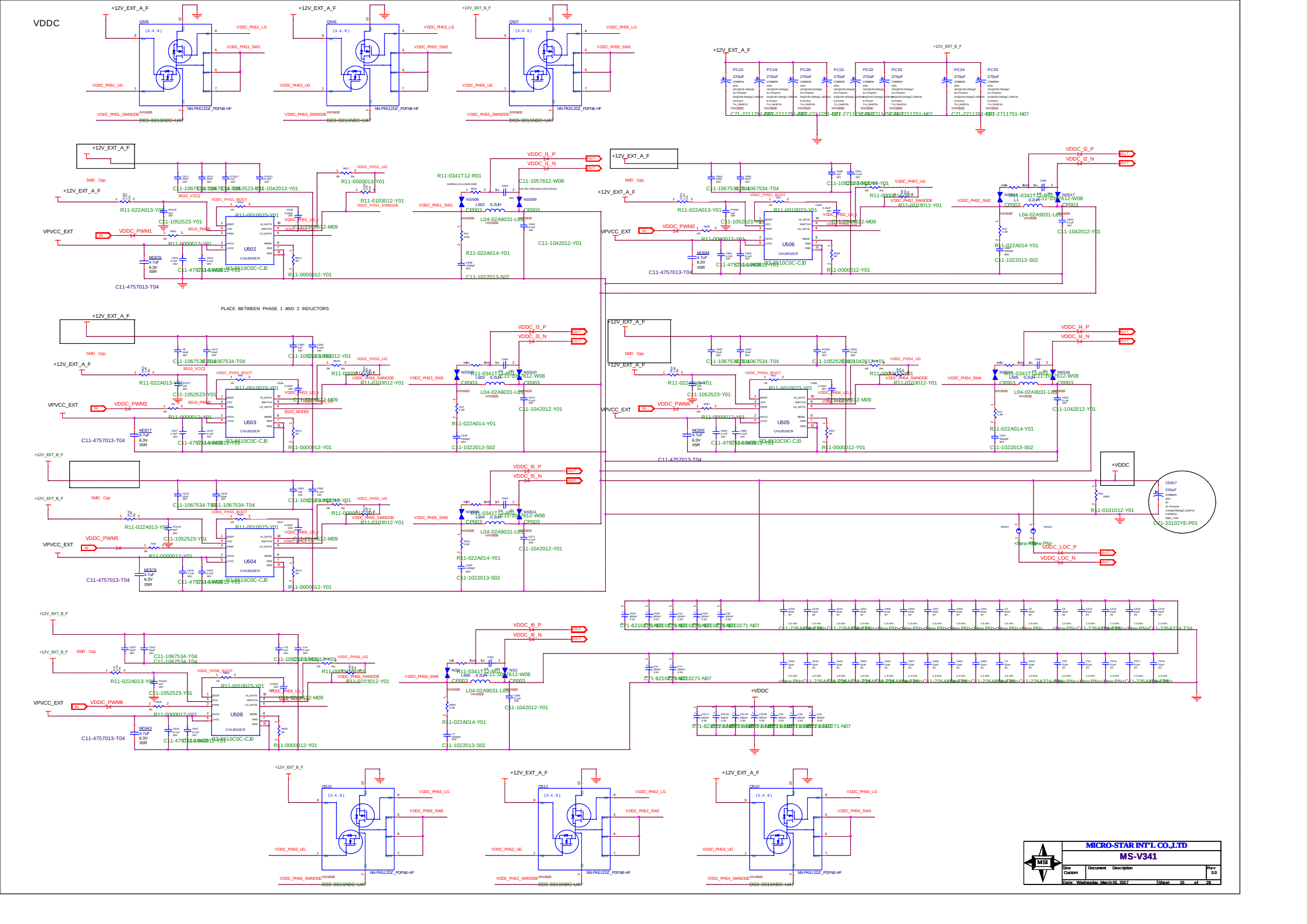
VDDC
PLACE BETWEEN PHASE 1 AND 2 INDUCTORS
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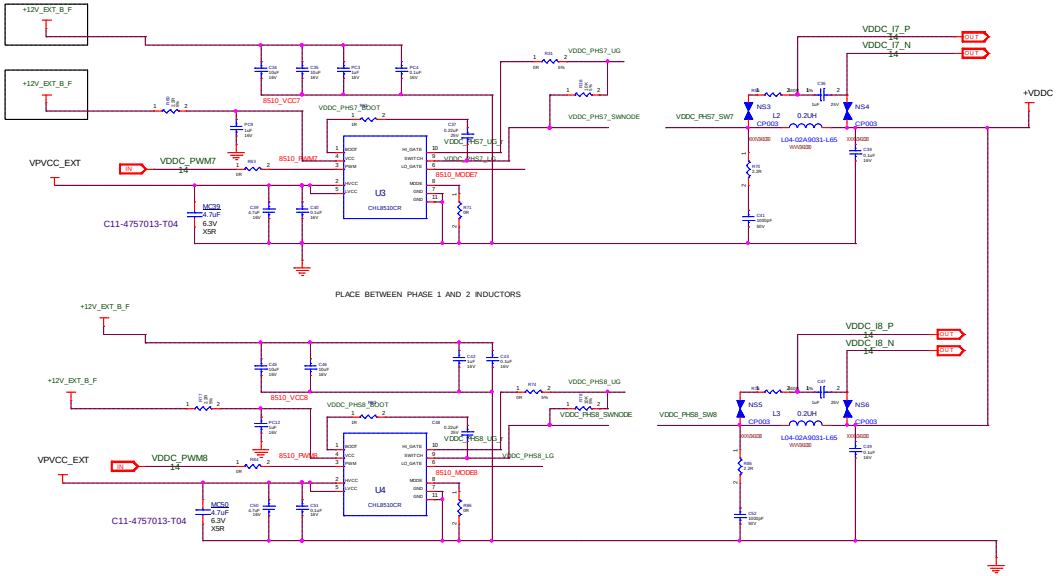

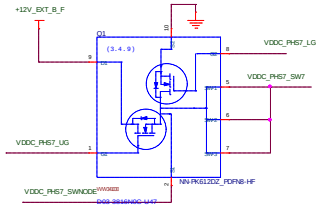

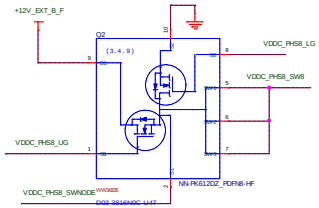

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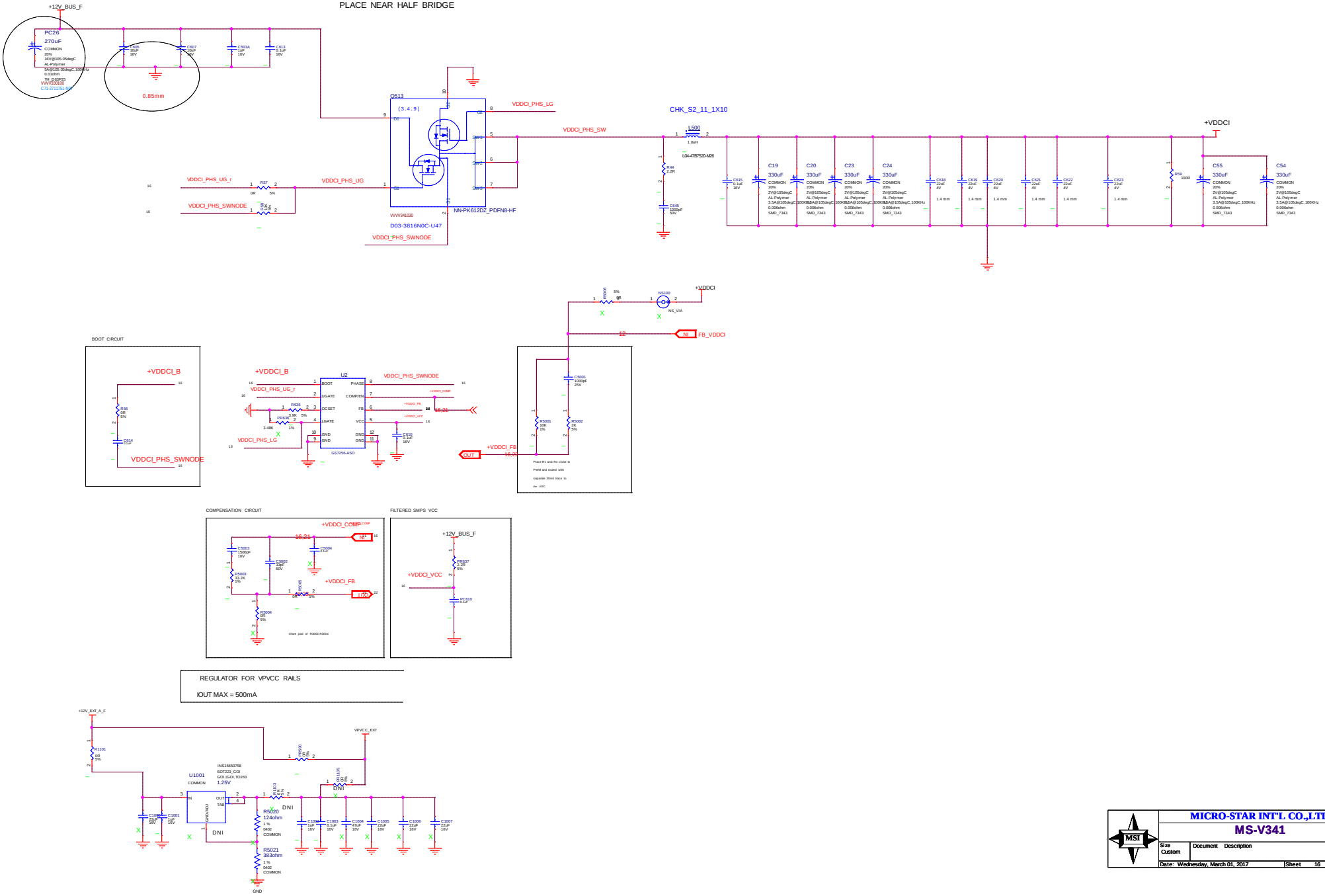

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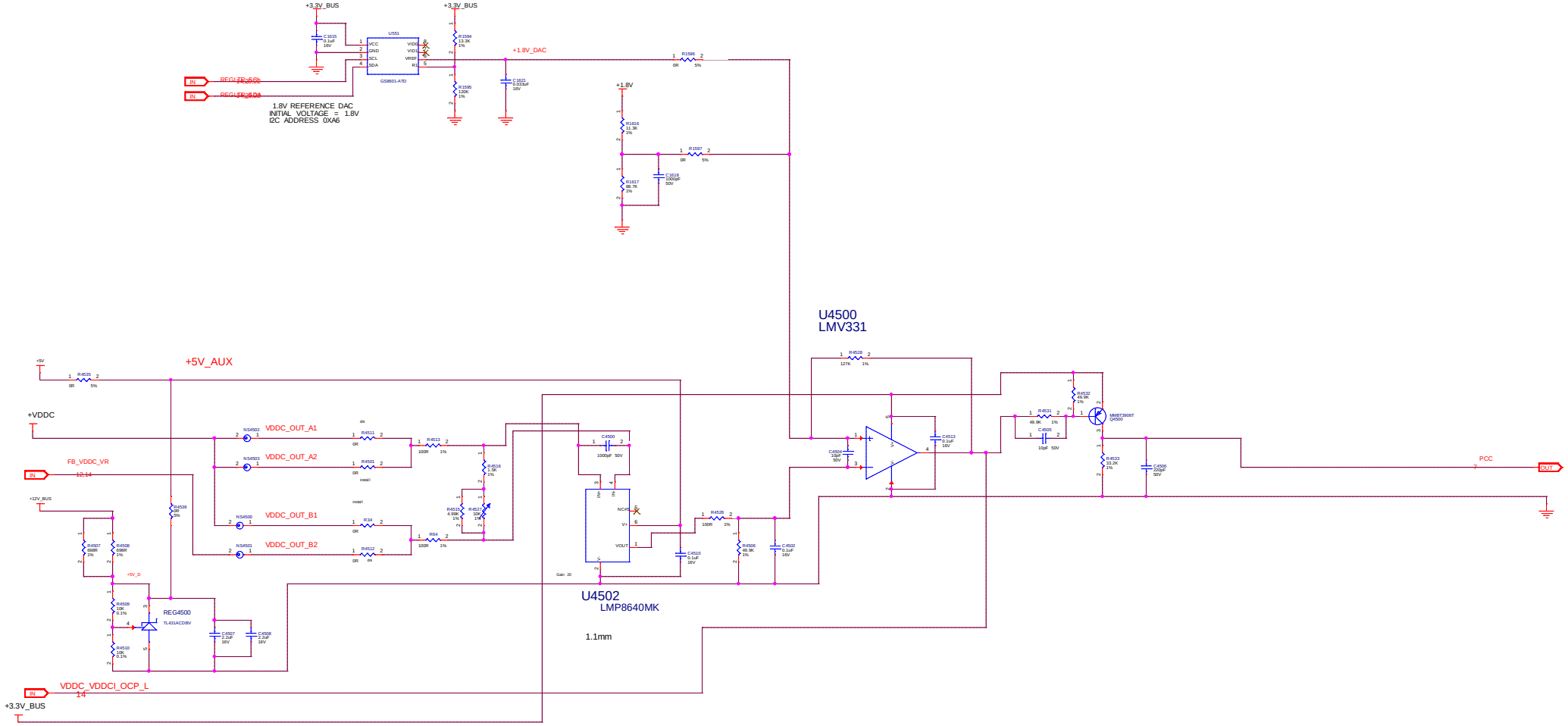

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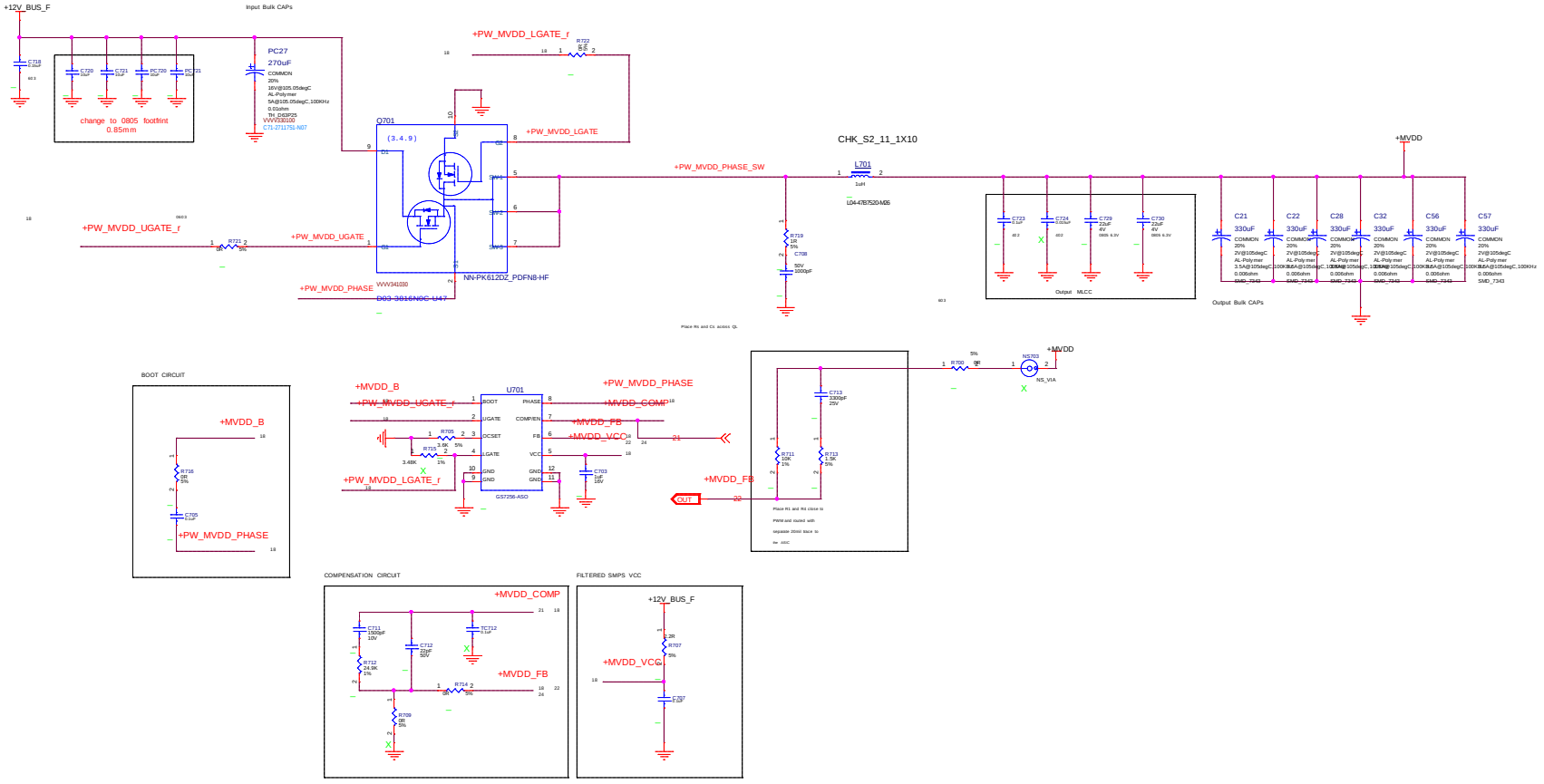
(16) MVDD



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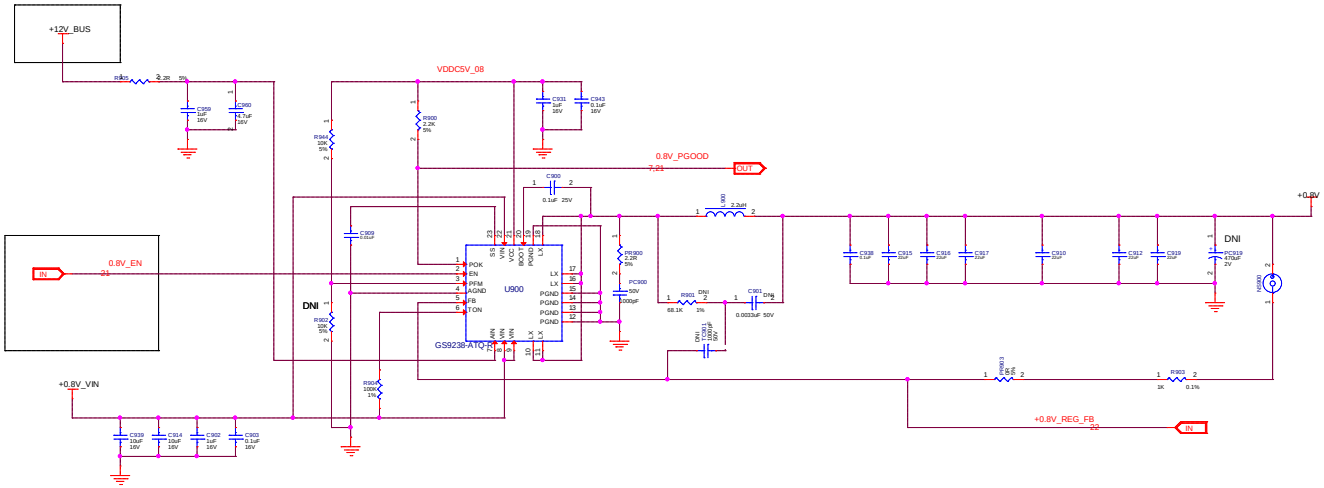
(17) 0.95V



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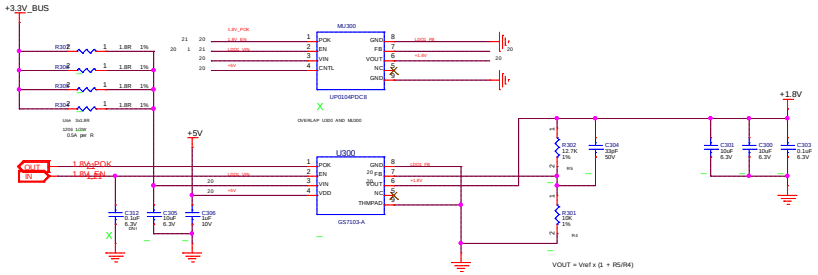
(18) SMALL RAIL REGULATORS , LED_CONTROLLER_ENE3574

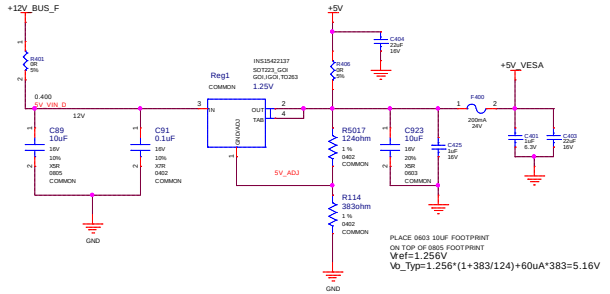
LDO #1: VIN = 3.0V TO 3.6V MAX VOUT = +1.8V +/- 2% IOUT = 1.3A RMS MAX

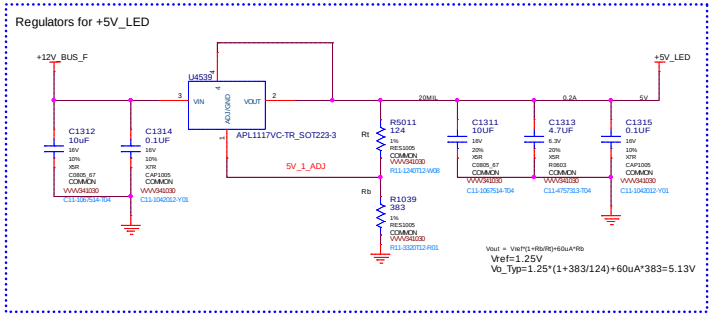
PCB: 50 TO 70mm SQ. COPPER AREA FOR COOLING

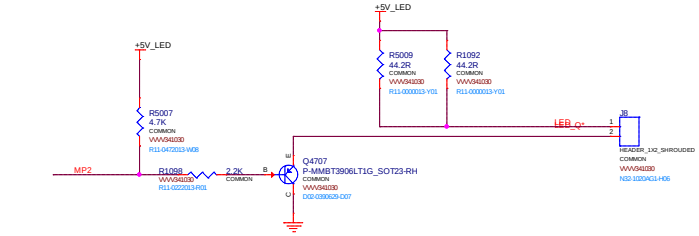
REGULATOR FOR +5V RAILS

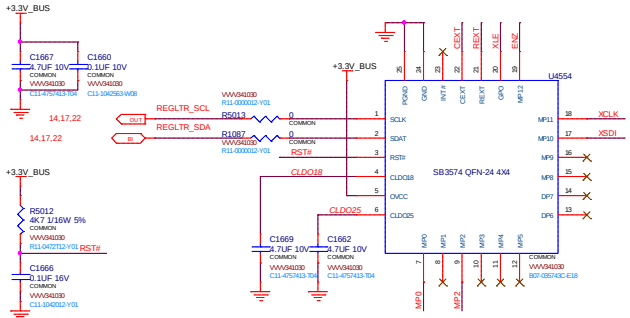
IOUT MAX = 150mA

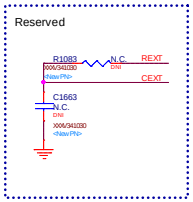


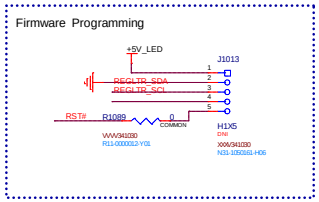


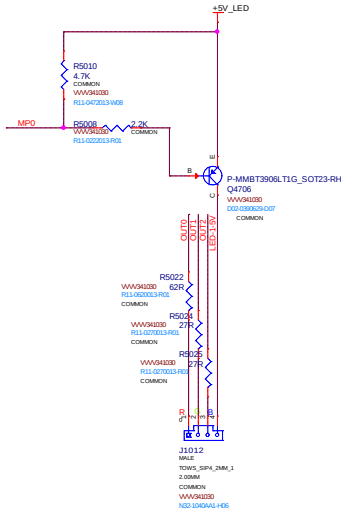


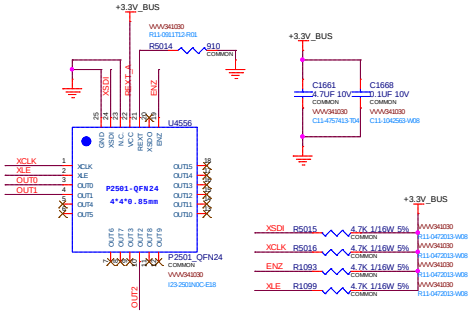












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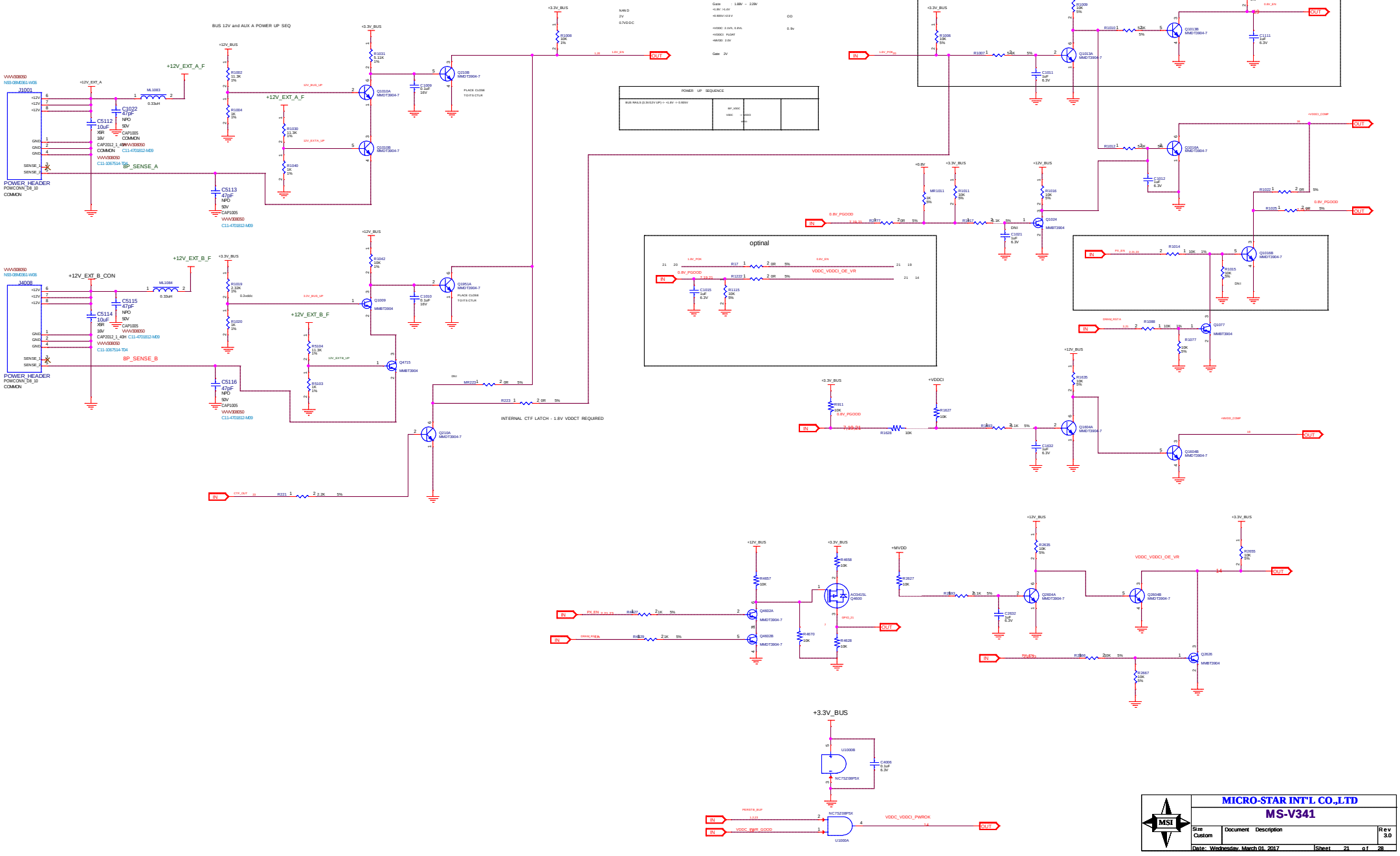
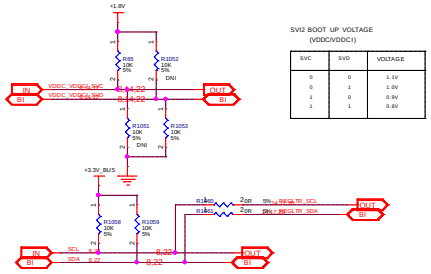
(19) POWER MANAGEMENT

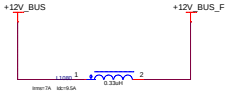


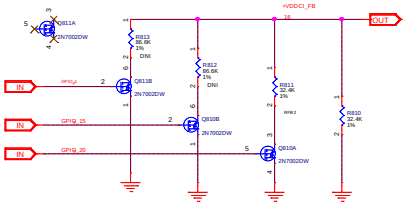


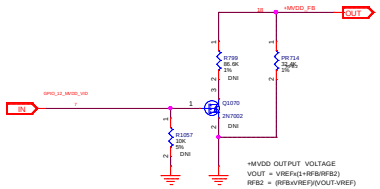
SVI2 BOOT UP VOLTAGE
(VDDC/VDDCI)

SVC	SVD	VOLTAGE
0	0	1.1V
0	1	1.0V
1	0	0.9V
1	1	0.8V

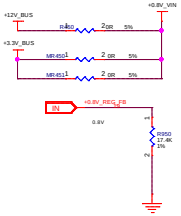
+12V_BUS INPUT







+MVDD OUTPUT VOLTAGE
VOUT = VREFx(1+RFB/RFB2)
RFB2 = (RFBxVREF)/(VOUT-VREF)



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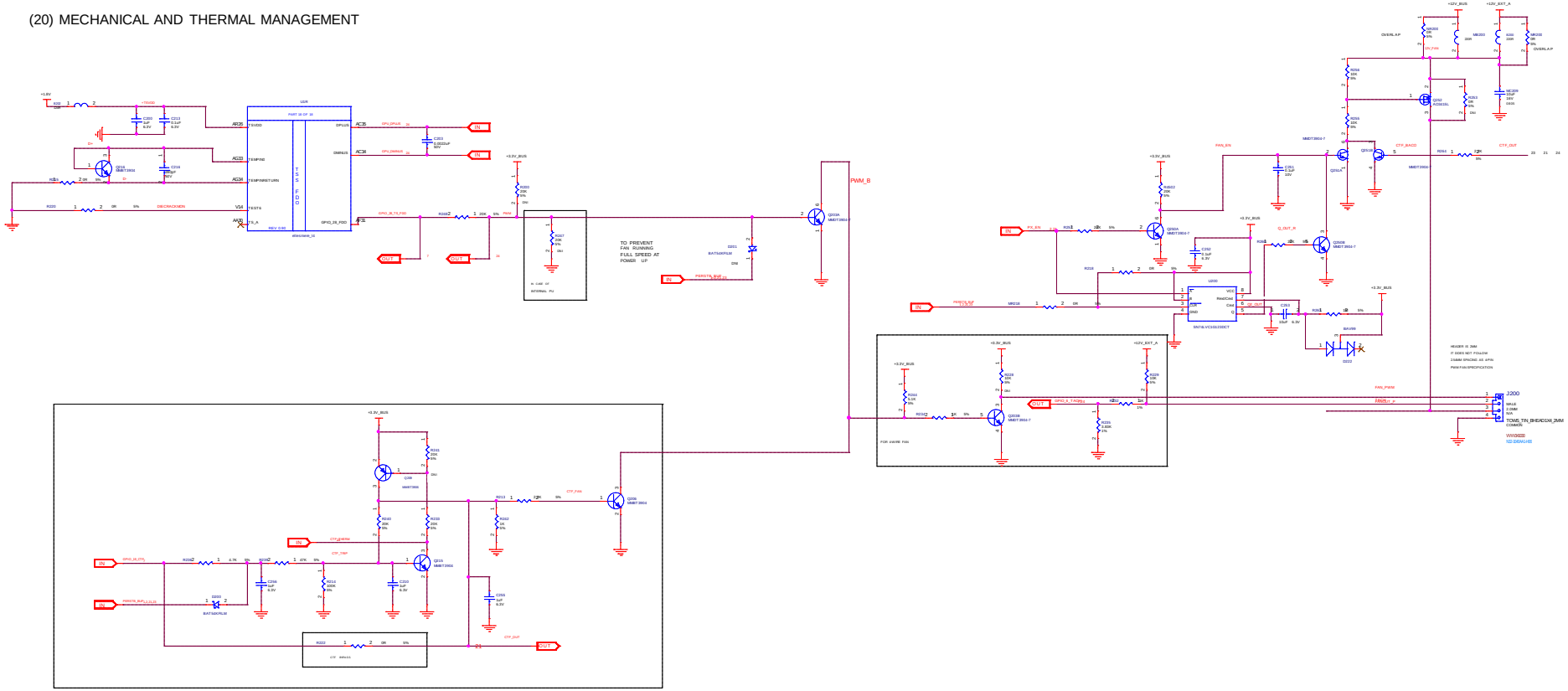
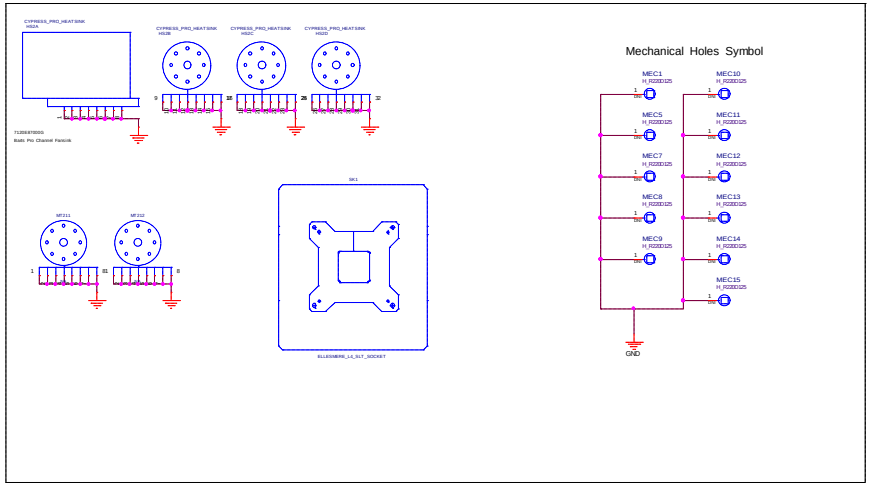
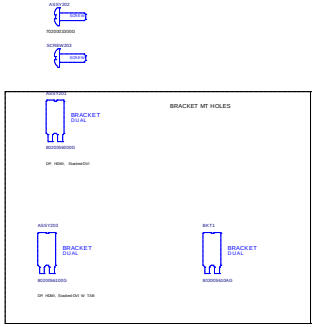
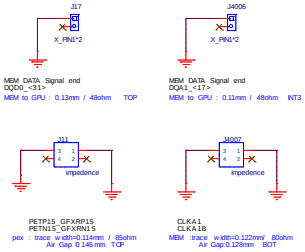
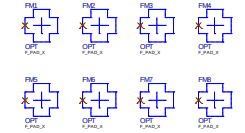
(20) MECHANICAL AND THERMAL MANAGEMENT











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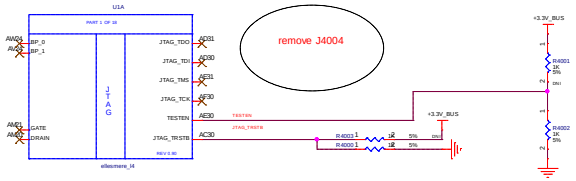
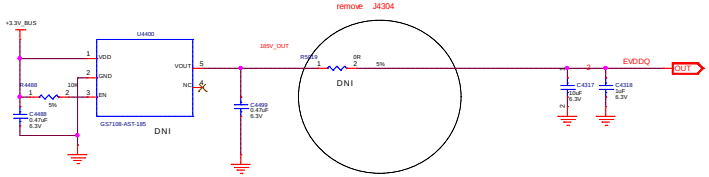
(21) DEBUG CIRCUITS

JTAG

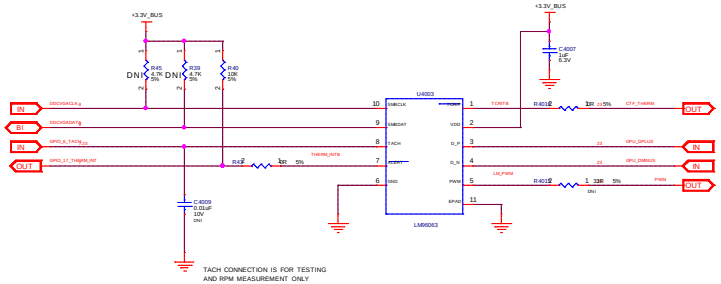




E-FUSE CAPABILITY

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

LM96163 FOR BACKUP THERMAL CONTROL



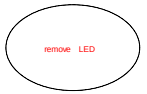
DIGITAL POTS

DIGITAL POTS

remove U4150 / U4050

LED LIGHTS

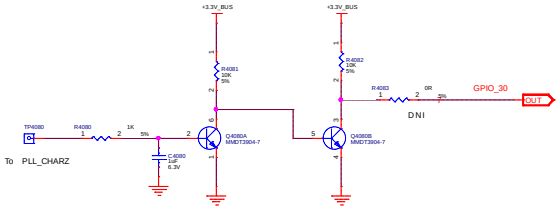
LED RED "ON" INDICATES CTF FAULT



LED GREEN "ON" INDICATES BACO MODE

LED ORANGE "ON" INDICATES MACO MODE

VTMM - TEST CONNECTOR FOR VOLTAGE MEASUREMENTS



remove J4001/J4002

SWITCHES

remove SW

BYPASS/DISABLE CTF

MAXIMIZE FAN

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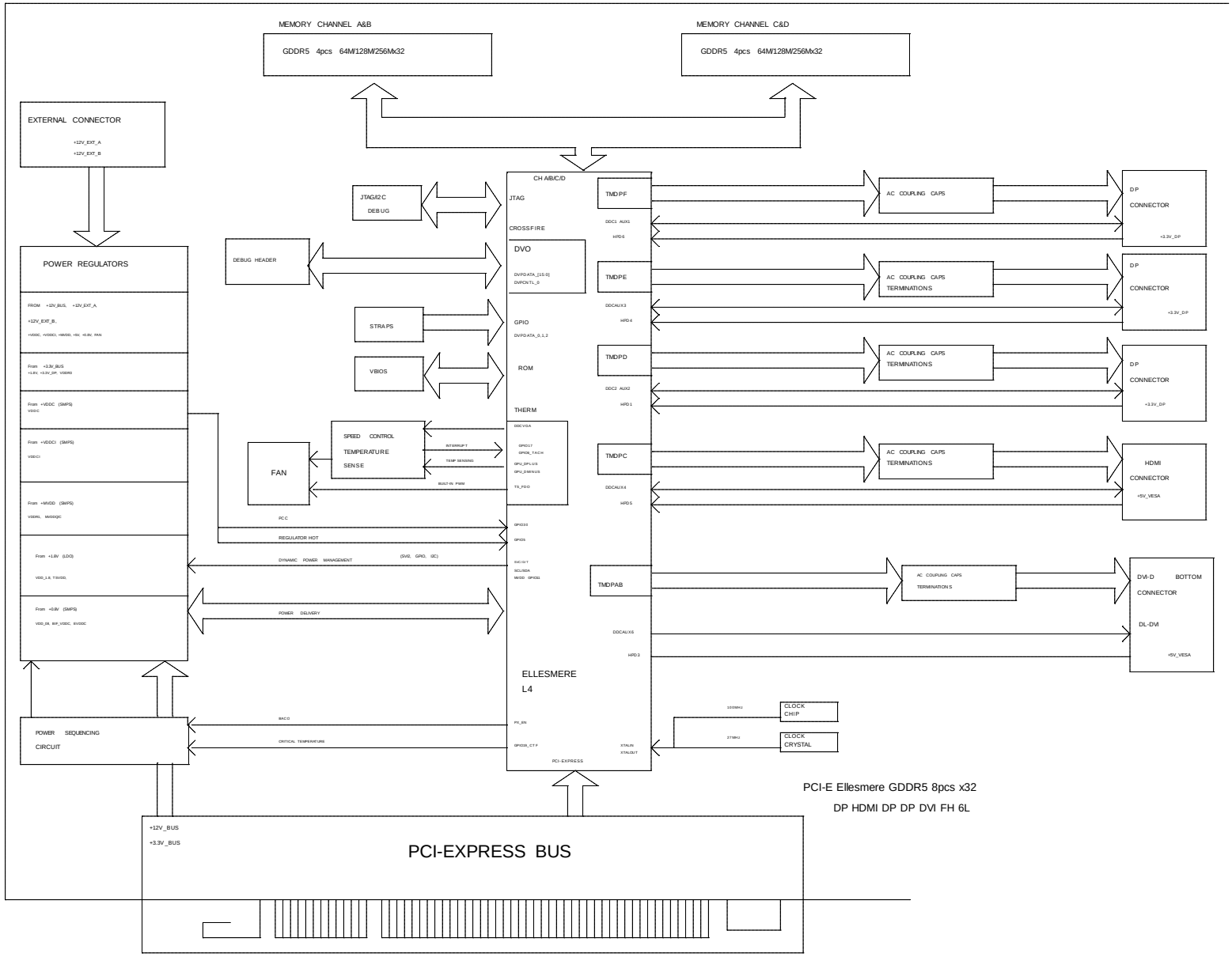

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0	00A	08/28/2015	
1	00B	10/19/2015	1. Add GPIO1 for dynamic VDDCI 2. update VDDC driver sequence
2	00C	03/23/2016	HDMI: - add series resistor R1880 ~R1887 - add pull down inductor L1880 ~L1887 remove C405, C403, VR400,C410,C414,R405

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

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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

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