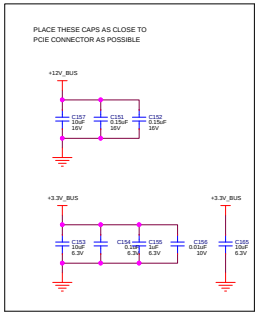
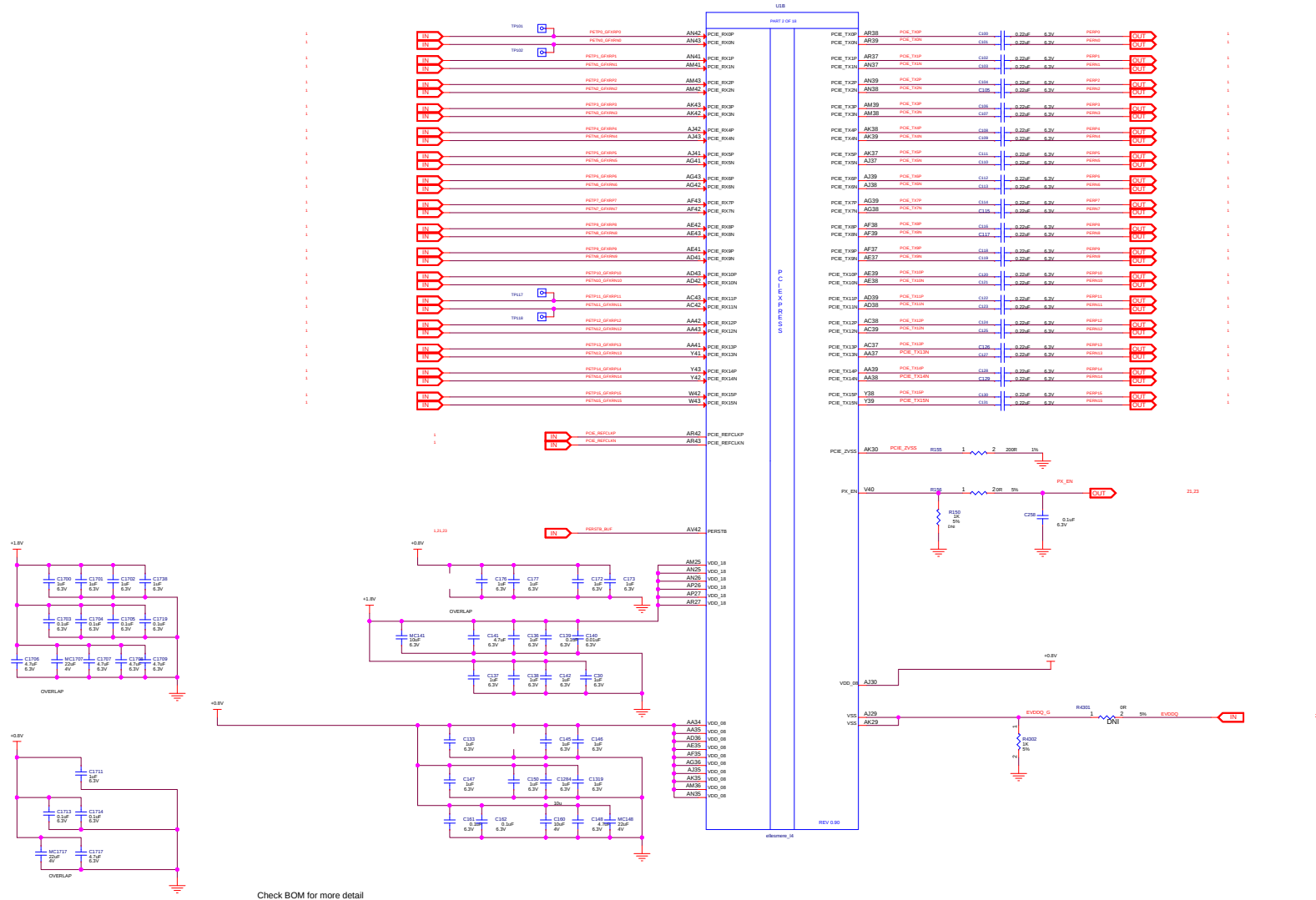


(1) PCI-EXPRESS EDGE CONNECTOR

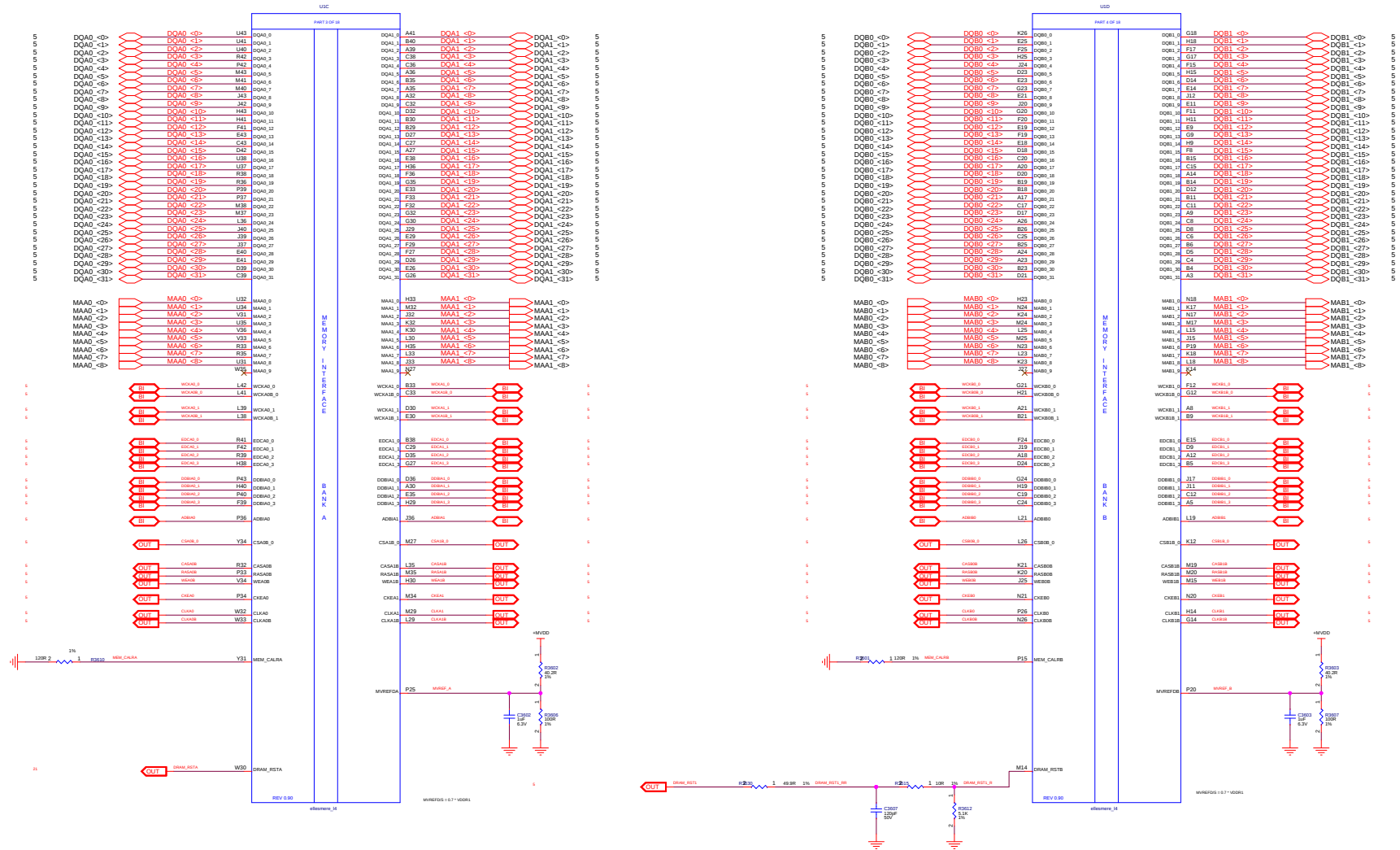


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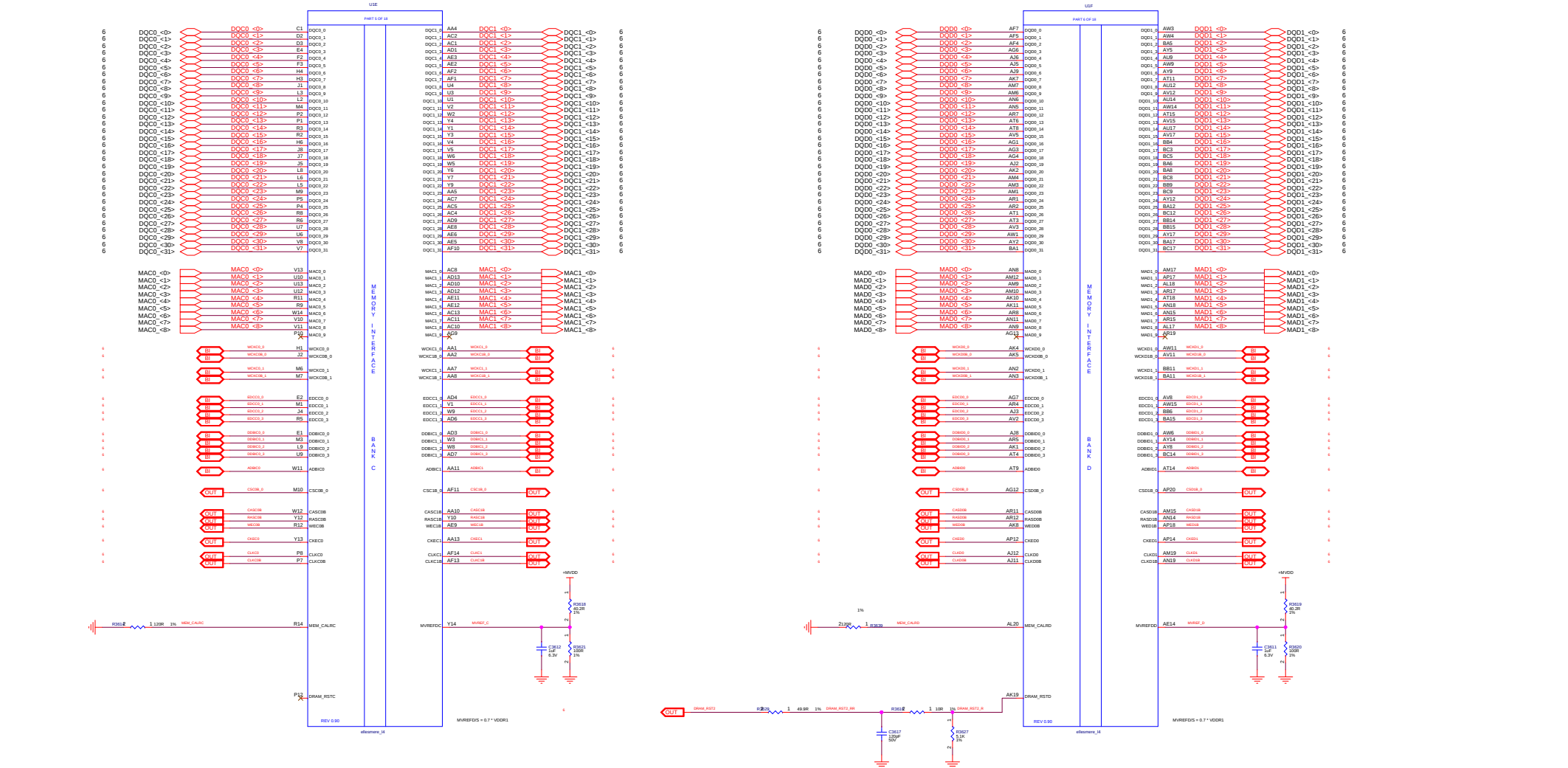
(2) ELLESMERE PCIE INTERFACE



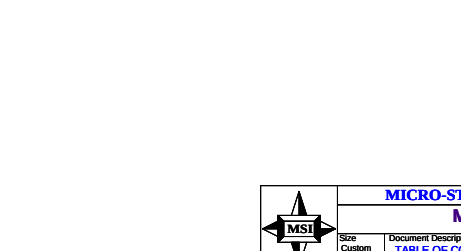
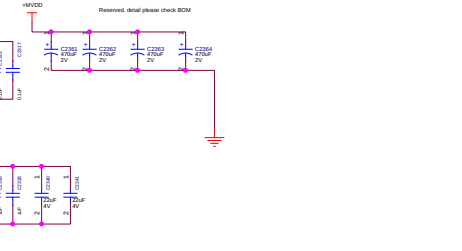
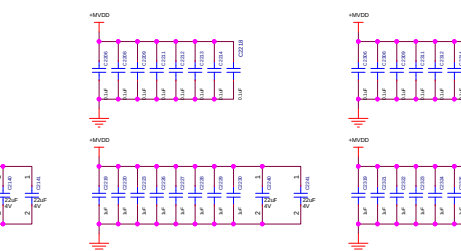
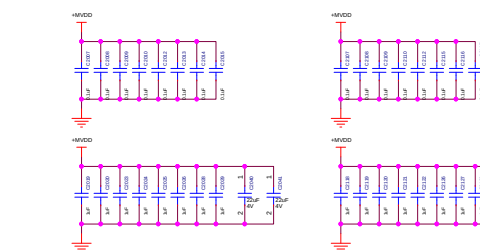
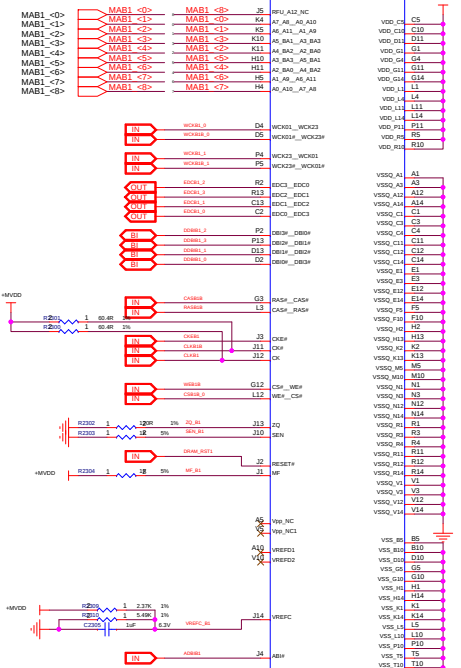
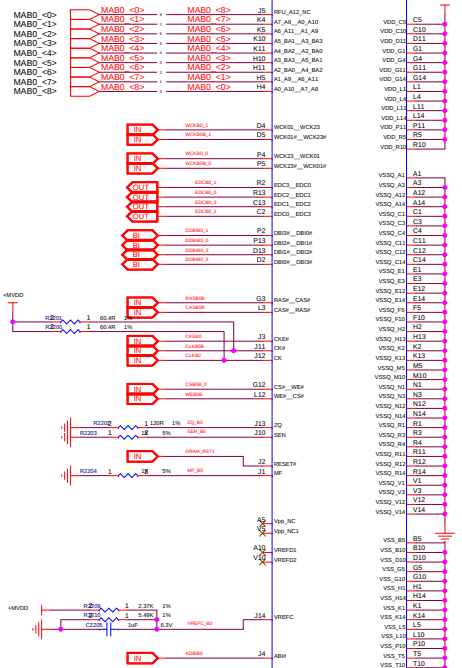
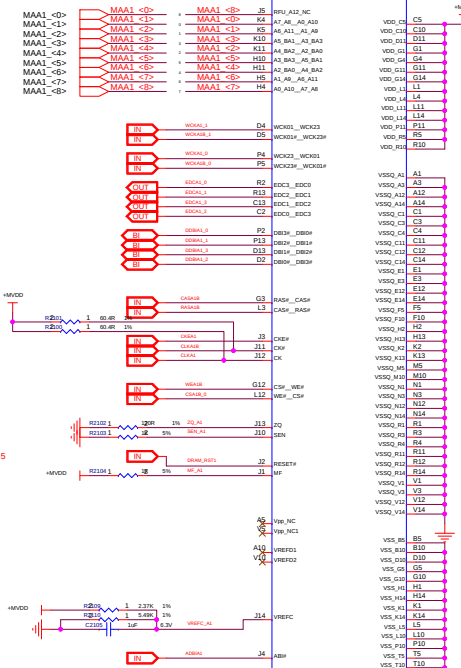
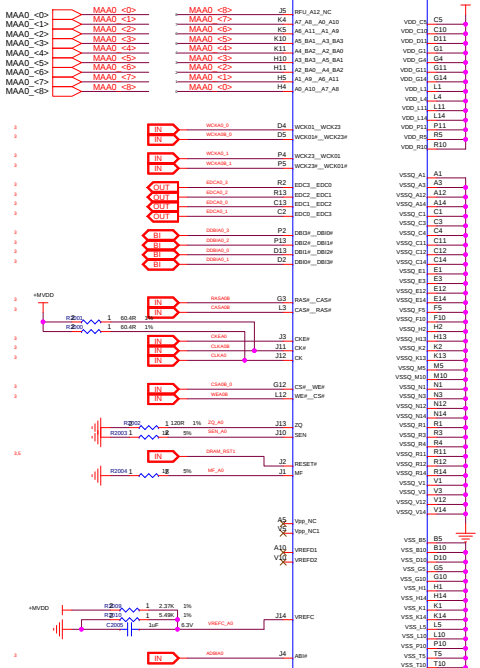
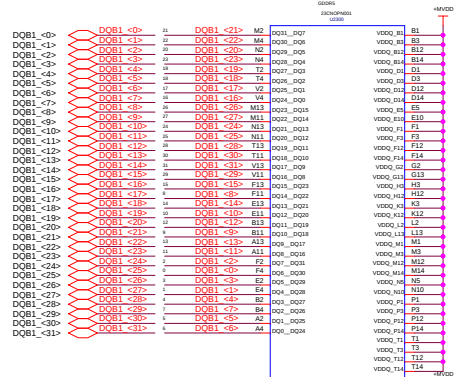
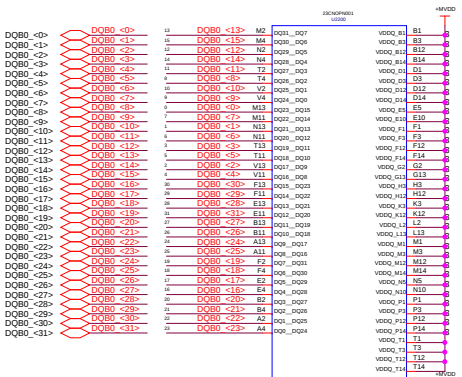
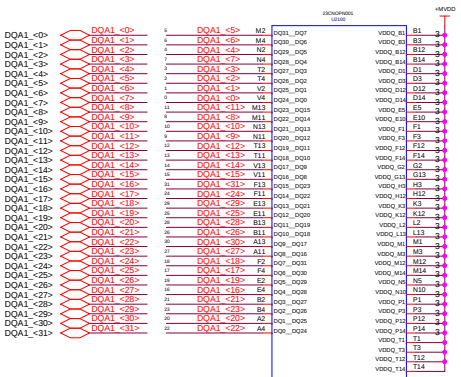
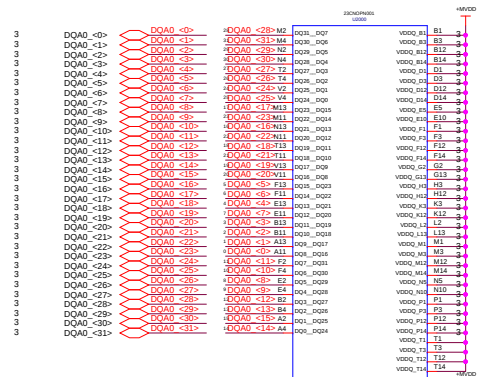
(3) ELLESMERE MEM INTERFACE CH A/B



(4) ELLESMERE MEM INTERFACE CH C/D



(5) GDDR5 MEMORY CH A/B

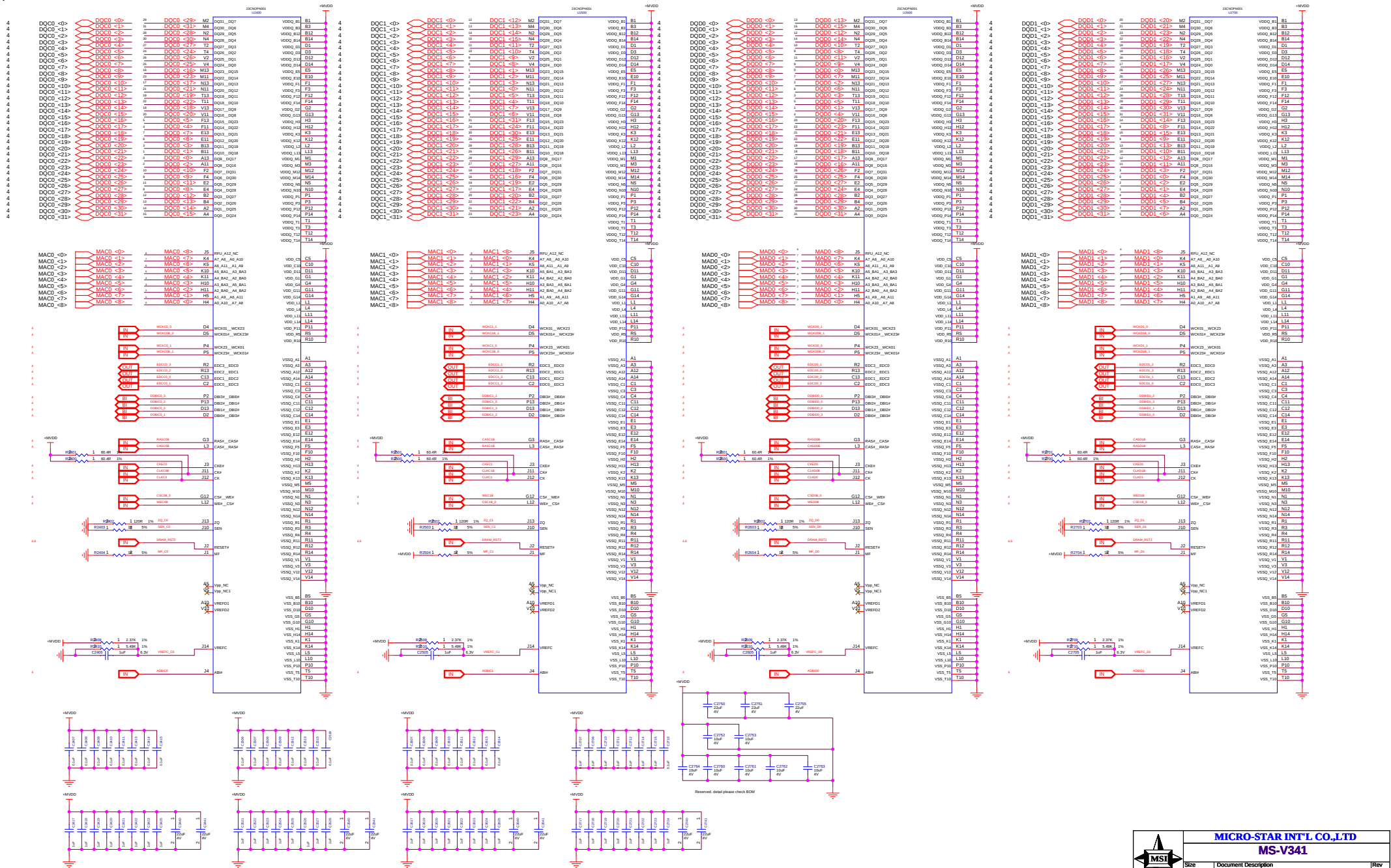


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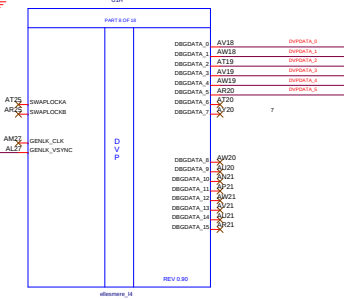
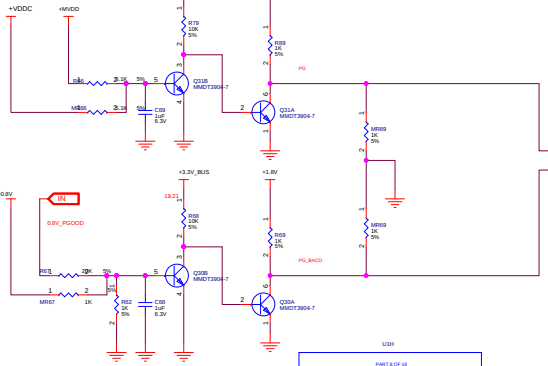
(6) GDDR5 MEMORY CH C/D



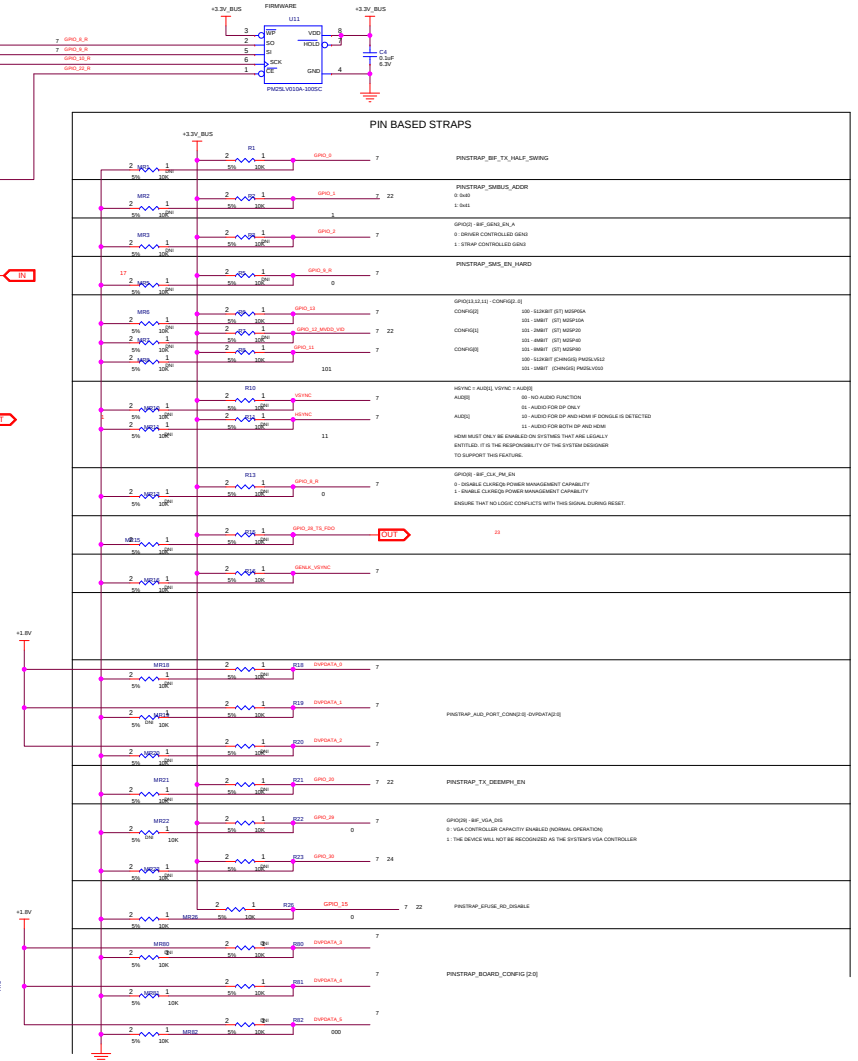
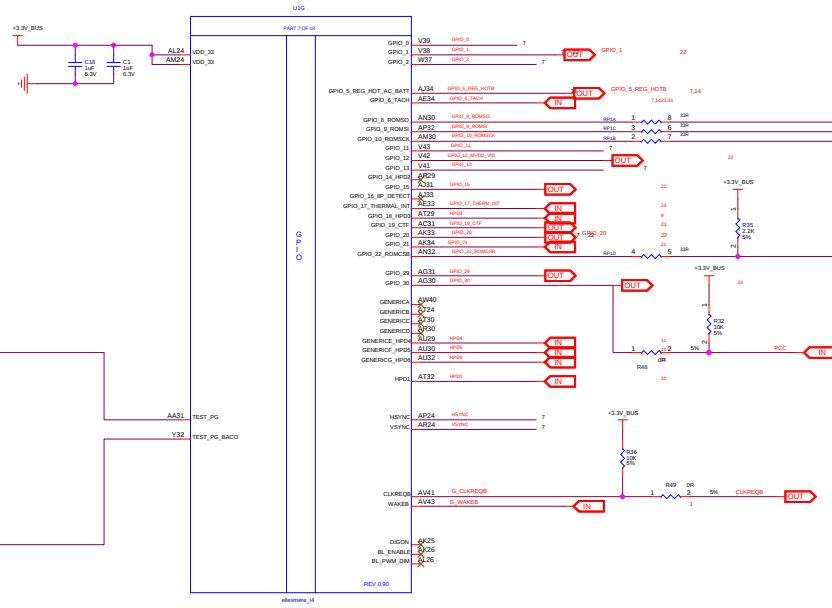
(7) ELLESMERE GPIO STRAP CF XTAL

QC ADDRESS	FUNCTION	DEVICE

QC ADDRESS	FUNCTION	DEVICE
0x98	EXT TEMP SENSOR	LM96063



remove J2/J3

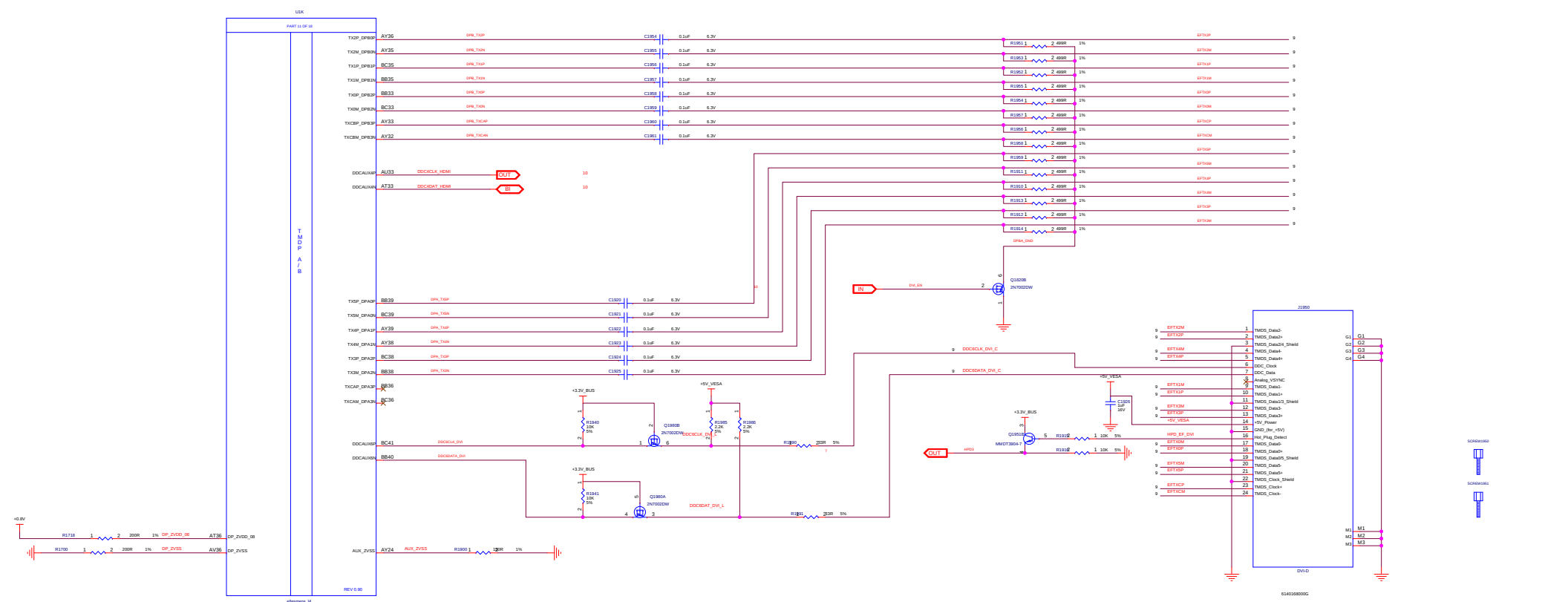


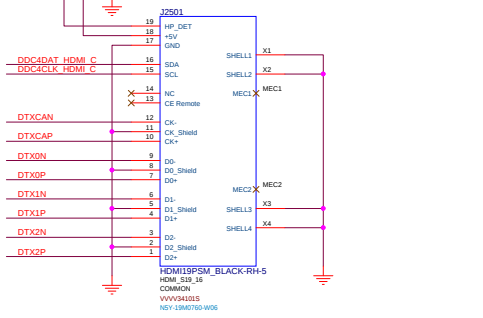
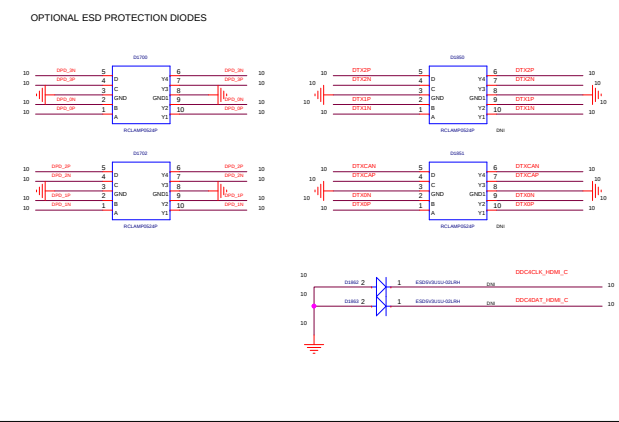
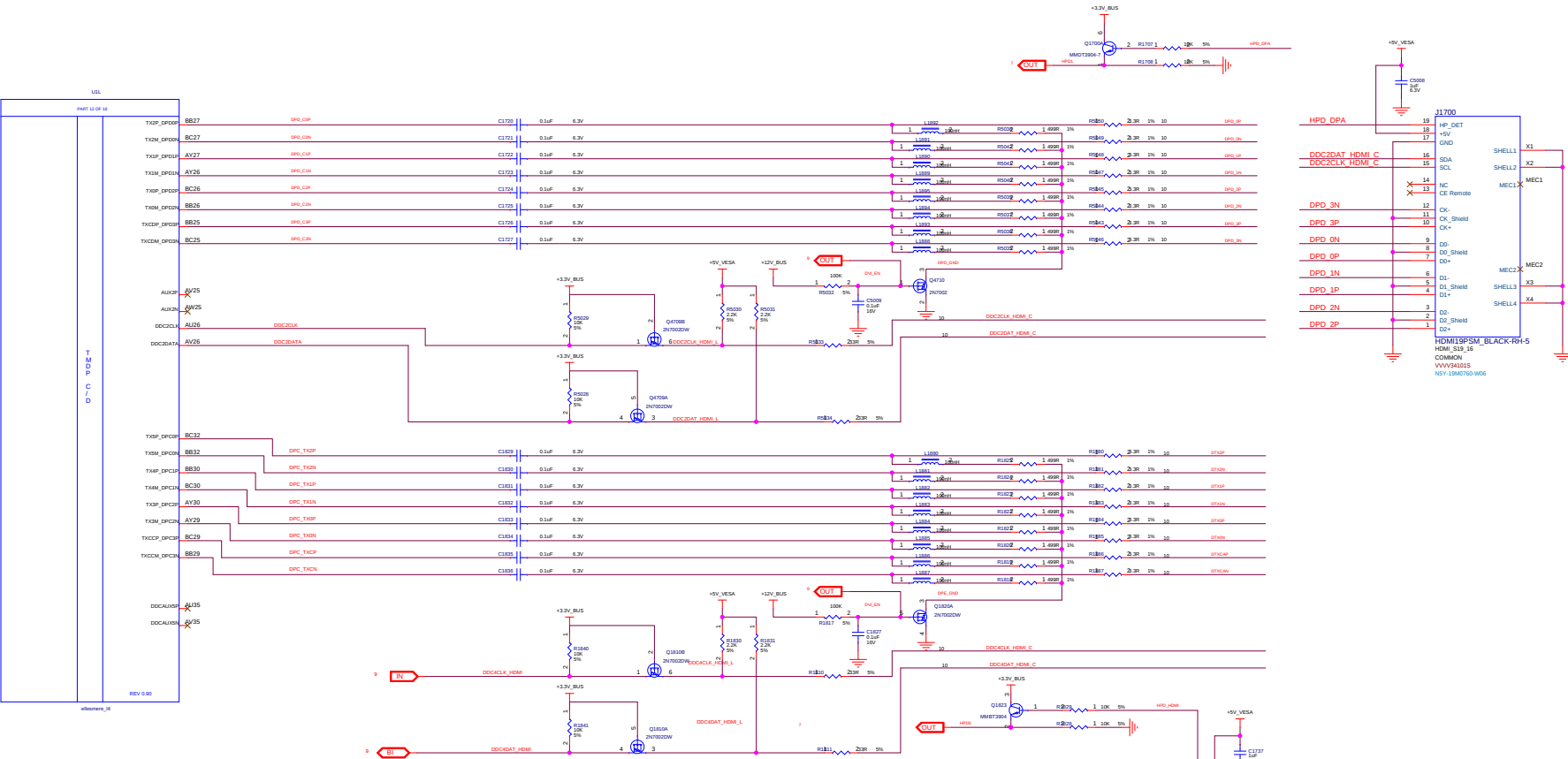
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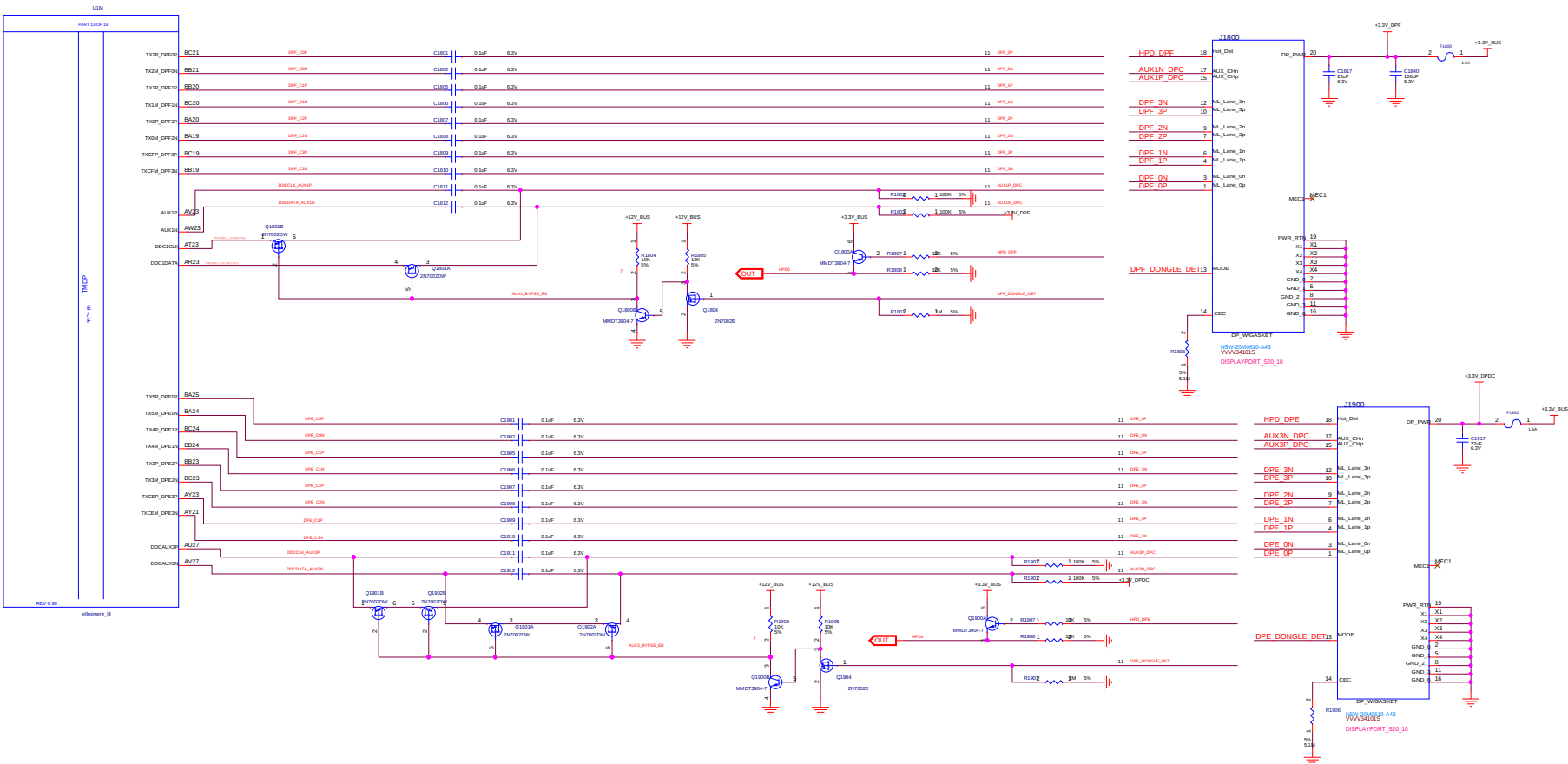
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(8) ELLESMERE DAC1 LOCK

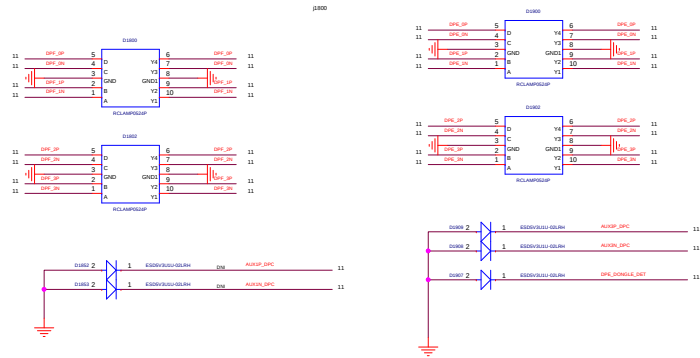




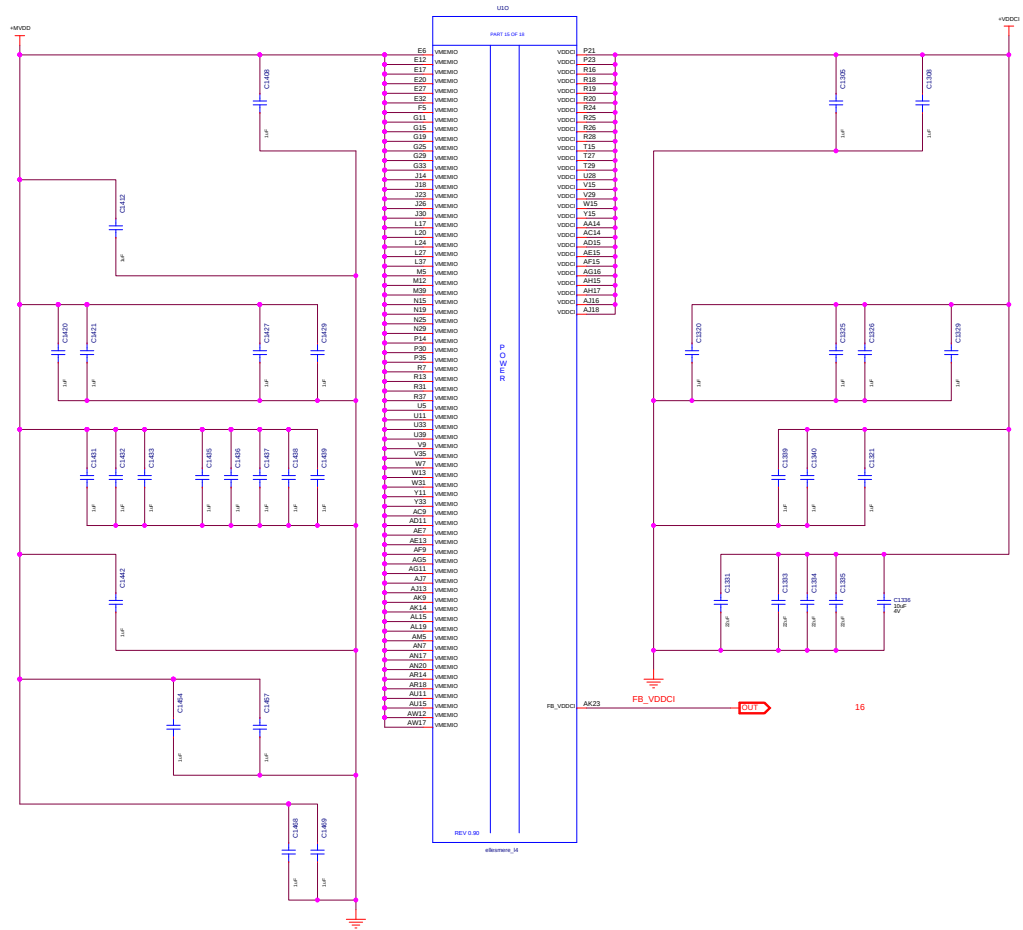
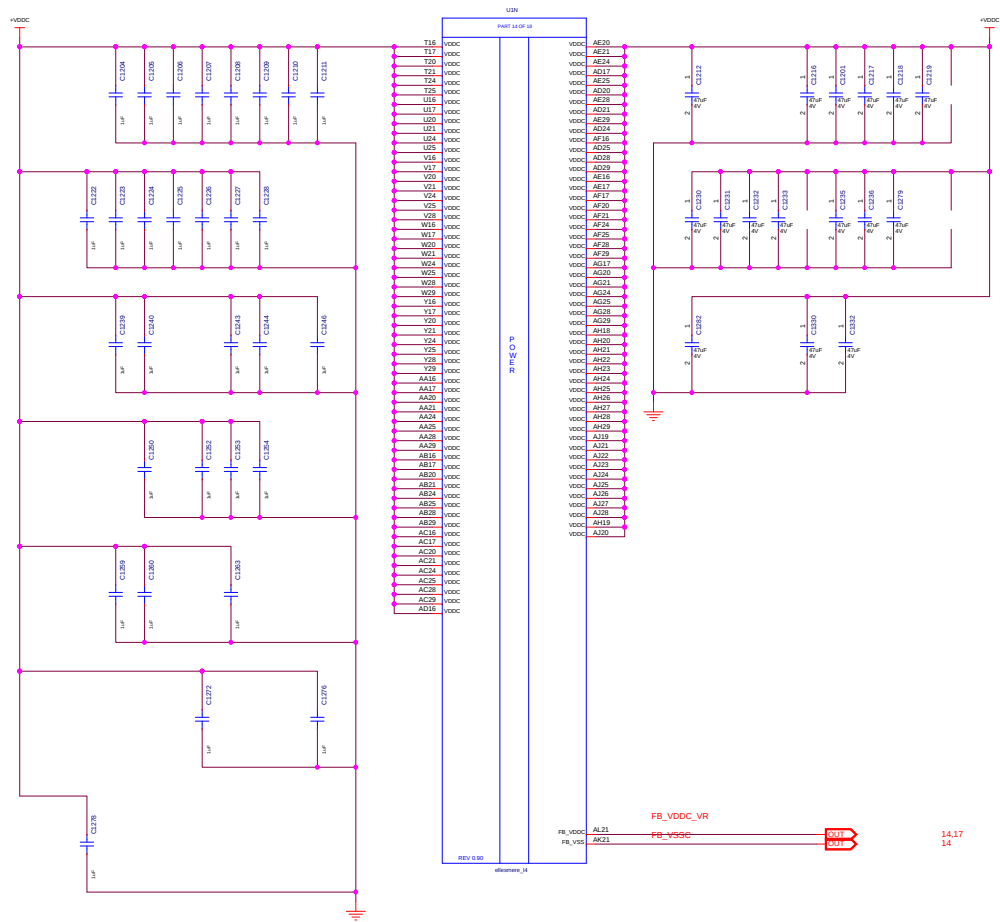




OPTIONAL ESD PROTECTION DIODES



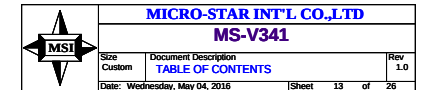
(12) ELLESMERE POWER

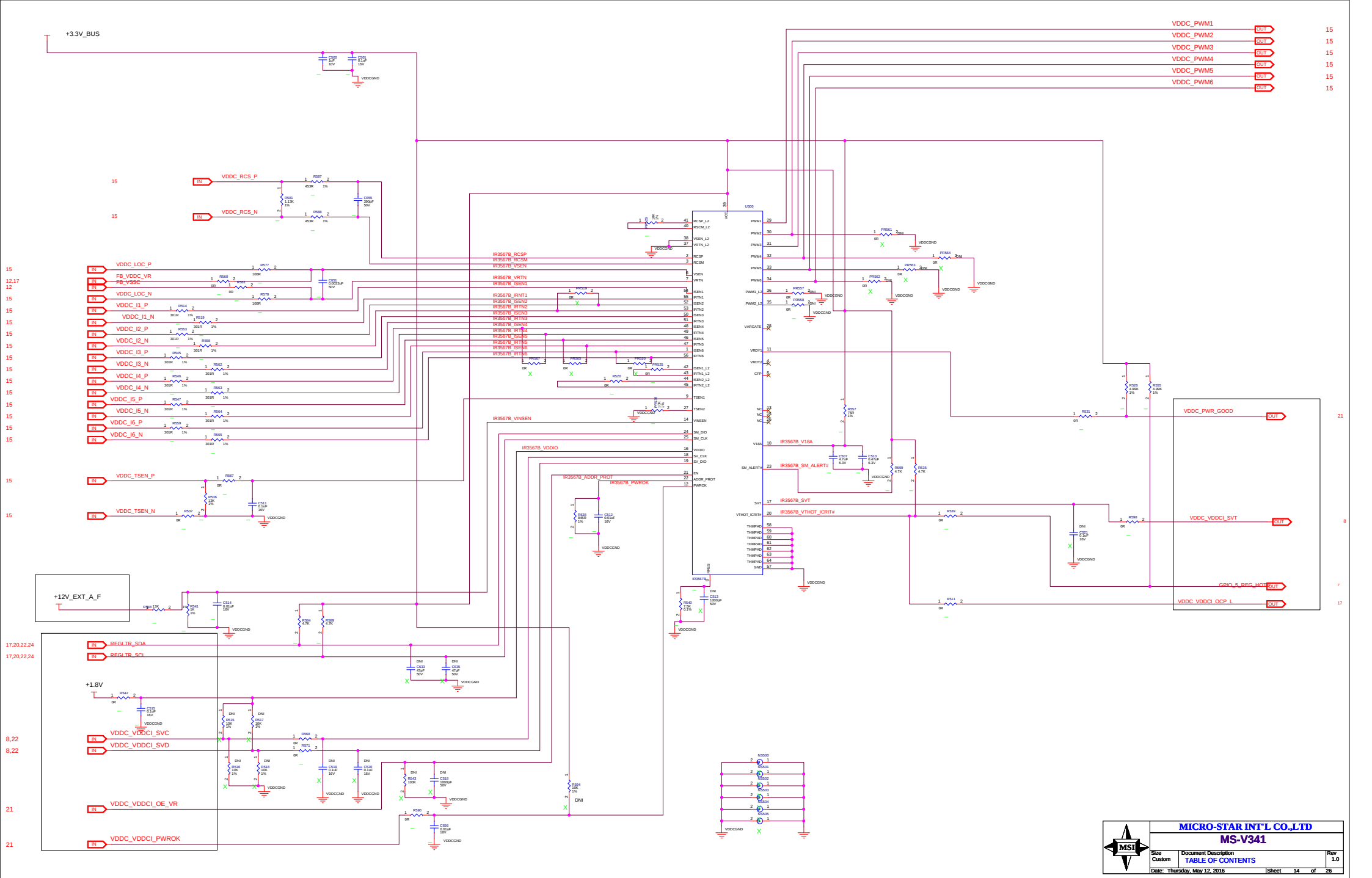


The diagram illustrates a 16-bit parallel adder circuit. It consists of two 74181 ALU chips and a 74160 counter. The 74160 counter provides a sequence of 16 different function codes to the ALU chips. The ALU chips perform the addition of two 16-bit numbers, and the result is output as a 16-bit parallel sum. The diagram is labeled with component numbers and pin connections.

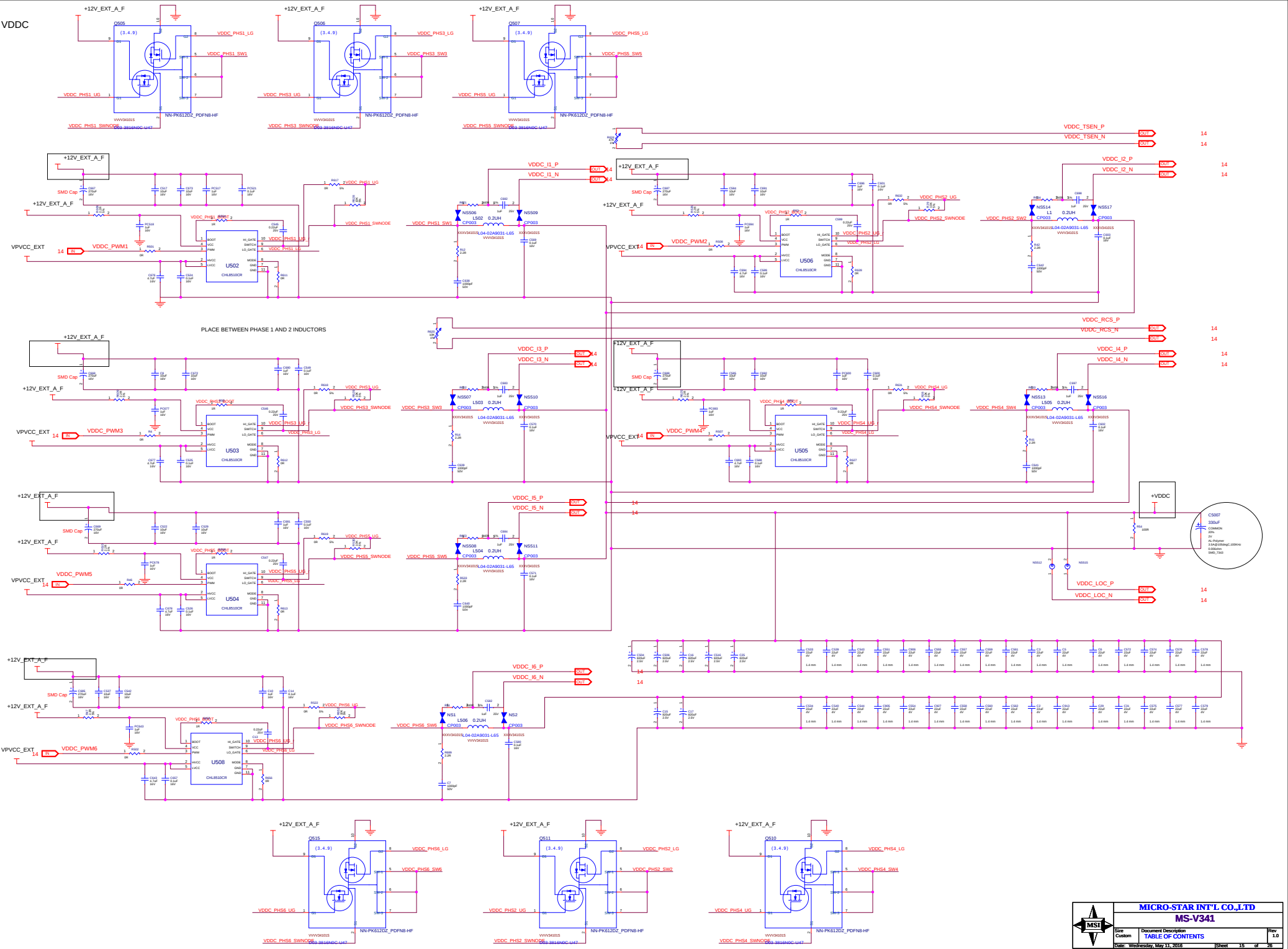
74181 ALU Chip Pinout:

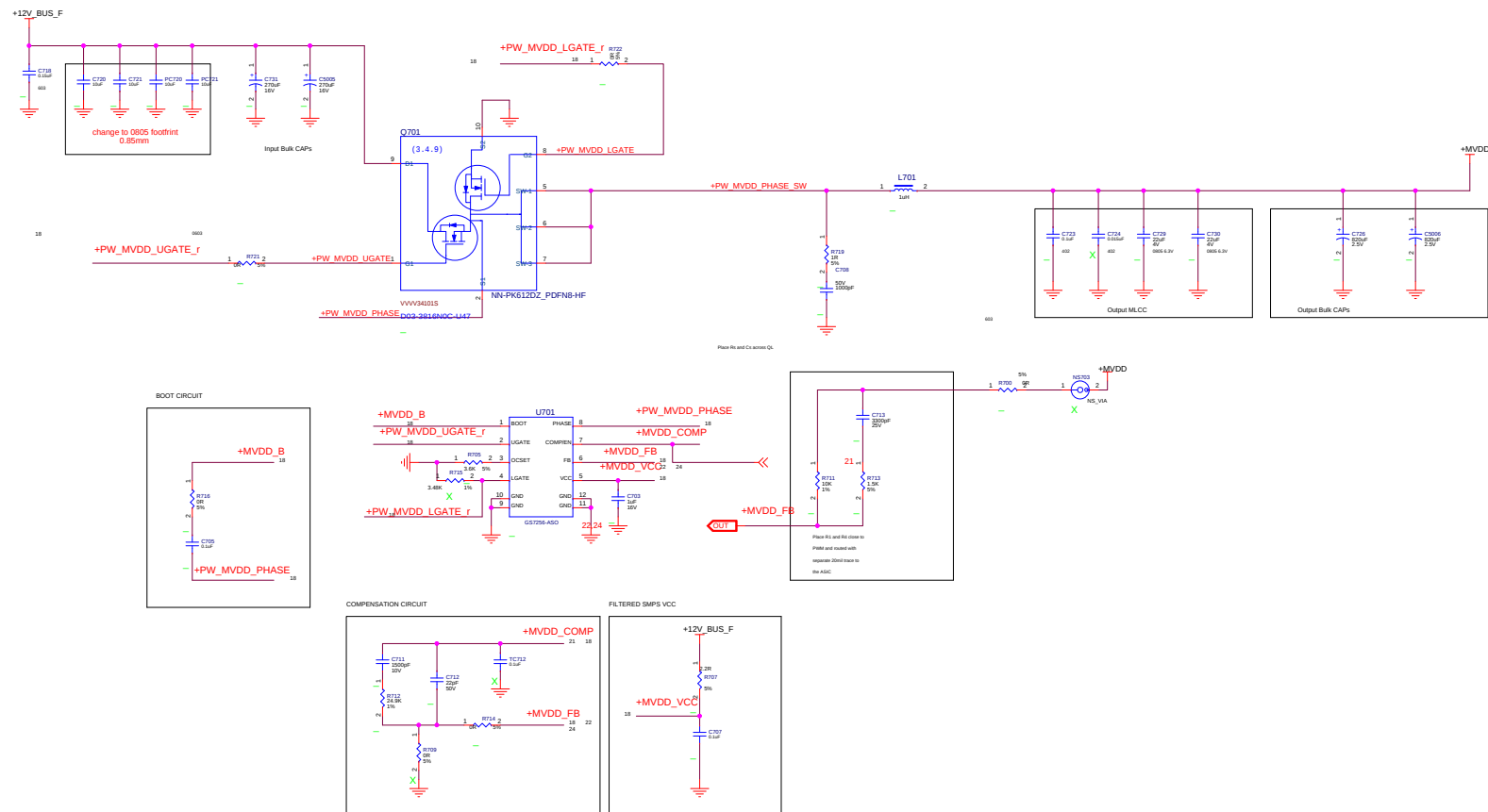
- Pin 1:** A
- Pin 2:** B
- Pin 3:** C
- Pin 4:** D
- Pin 5:** E
- Pin 6:** F
- Pin 7:** G
- Pin 8:** H
- Pin 9:** I
- Pin 10:** J
- Pin 11:** K
- Pin 12:** L
- Pin 13:** M
- Pin 14:** N
- Pin 15:** O
- Pin 16:** P
- Pin 17:** Q
- Pin 18:** R
- Pin 19:** S
- Pin 20:** T
- Pin 21:** U
- Pin 22:** V
- Pin 23:** W
- Pin 24:** X
- Pin 25:** Y
- Pin 26:** Z
- Pin 27:** AA
- Pin 28:** AB
- Pin 29:** AC
- Pin 30:** AD
- Pin 31:** AE
- Pin 32:** AF
- Pin 33:** AG
- Pin 34:** AH
- Pin 35:** AI
- Pin 36:** AJ
- Pin 37:** AK
- Pin 38:** AL
- Pin 39:** AM
- Pin 40:** AN
- Pin 41:** AO
- Pin 42:** AP
- Pin 43:** AQ
- Pin 44:** AR
- Pin 45:** AS
- Pin 46:** AT
- Pin 47:** AU
- Pin 48:** AV
- Pin 49:** AW
- Pin 50:** AX
- Pin 51:** AY
- Pin 52:** AZ
- Pin 53:** BA
- Pin 54:** BB
- Pin 55:** BC
- Pin 56:** BD
- Pin 57:** BE
- Pin 58:** BF
- Pin 59:** BG
- Pin 60:** BH
- Pin 61:** BI
- Pin 62:** BJ
- Pin 63:** BK
- Pin 64:** BL
- Pin 65:** BM
- Pin 66:** BN
- Pin 67:** BO
- Pin 68:** BP
- Pin 69:** BQ
- Pin 70:** BR
- Pin 71:** BS
- Pin 72:** BT
- Pin 73:** BU
- Pin 74:** BV
- Pin 75:** BW
- Pin 76:** BX
- Pin 77:** BY
- Pin 78:** BZ
- Pin 79:** CA
- Pin 80:** CB
- Pin 81:** CC
- Pin 82:** CD
- Pin 83:** CE
- Pin 84:** CF
- Pin 85:** CG
- Pin 86:** CH
- Pin 87:** CI
- Pin 88:** CJ
- Pin 89:** CK
- Pin 90:** CL
- Pin 91:** CM
- Pin 92:** CN
- Pin 93:** CO
- Pin 94:** CP
- Pin 95:** CQ
- Pin 96:** CR
- Pin 97:** CS
- Pin 98:** CT
- Pin 99:** CU
- Pin 100:** CV
- Pin 101:** CW
- Pin 102:** CX
- Pin 103:** CY
- Pin 104:** CZ
- Pin 105:** DA
- Pin 106:** DB
- Pin 107:** DC
- Pin 108:** DD
- Pin 109:** DE
- Pin 110:** DF
- Pin 111:** DG
- Pin 112:** DH
- Pin 113:** DI
- Pin 114:** DJ
- Pin 115:** DK
- Pin 116:** DL
- Pin 117:** DM
- Pin 118:** DN
- Pin 119:** DO
- Pin 120:** DP
- Pin 121:** DQ
- Pin 122:** DR
- Pin 123:** DS
- Pin 124:** DT
- Pin 125:** DU
- Pin 126:** DV
- Pin 127:** DW
- Pin 128:** DX
- Pin 129:** DY
- Pin 130:** DZ
- Pin 131:** EA
- Pin 132:** EB
- Pin 133:** EC
- Pin 134:** ED
- Pin 135:** EE
- Pin 136:** EF
- Pin 137:** EG
- Pin 138:** EH
- Pin 139:** EI
- Pin 140:** EJ
- Pin 141:** EK
- Pin 142:** EL
- Pin 143:** EM
- Pin 144:** EN
- Pin 145:** EO
- Pin 146:** EP
- Pin 147:** EQ
- Pin 148:** ER
- Pin 149:** ES
- Pin 150:** ET
- Pin 151:** EU
- Pin 152:** EV
- Pin 153:** EW
- Pin 154:** EX
- Pin 155:** EY
- Pin 156:** EZ
- Pin 157:** FA
- Pin 158:** FB
- Pin 159:** FC
- Pin 160:** FD
- Pin 161:** FE
- Pin 162:** FF
- Pin 163:** FG
- Pin 164:** FH
- Pin 165:** FI
- Pin 166:** FJ
- Pin 167:** FK
- Pin 168:** FL
- Pin 169:** FM
- Pin 170:** FN
- Pin 171:** FO
- Pin 172:** FP
- Pin 173:** FQ
- Pin 174:** FR
- Pin 175:** FS
- Pin 176:** FT
- Pin 177:** FU
- Pin 178:** FV
- Pin 179:** FW
- Pin 180:** FX
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- Pin 182:** FZ
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- Pin 184:** GB
- Pin 185:** GC
- Pin 186:** GD
- Pin 187:** GE
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- Pin 189:** GG
- Pin 190:** GH
- Pin 191:** GI
- Pin 192:** GJ
- Pin 193:** GK
- Pin 194:** GL
- Pin 195:** GM
- Pin 196:** GN
- Pin 197:** GO
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- Pin 199:** GQ
- Pin 200:** GR
- Pin 201:** GS
- Pin 202:** GT
- Pin 203:** GU
- Pin 204:** GV
- Pin 205:** GW
- Pin 206:** GX
- Pin 207:** GY
- Pin 208:** GZ
- Pin 209:** HA
- Pin 210:** HB
- Pin 211:** HC
- Pin 212:** HD
- Pin 213:** HE
- Pin 214:** HF
- Pin 215:** HG
- Pin 216:** HH
- Pin 217:** HI
- Pin 218:** HJ
- Pin 219:** HK
- Pin 220:** HL
- Pin 221:** HM
- Pin 222:** HN
- Pin 223:** HO
- Pin 224:** HP
- Pin 225:** HQ
- Pin 226:** HR
- Pin 227:** HS
- Pin 228:** HT
- Pin 229:** HU
- Pin 2**





VDDC





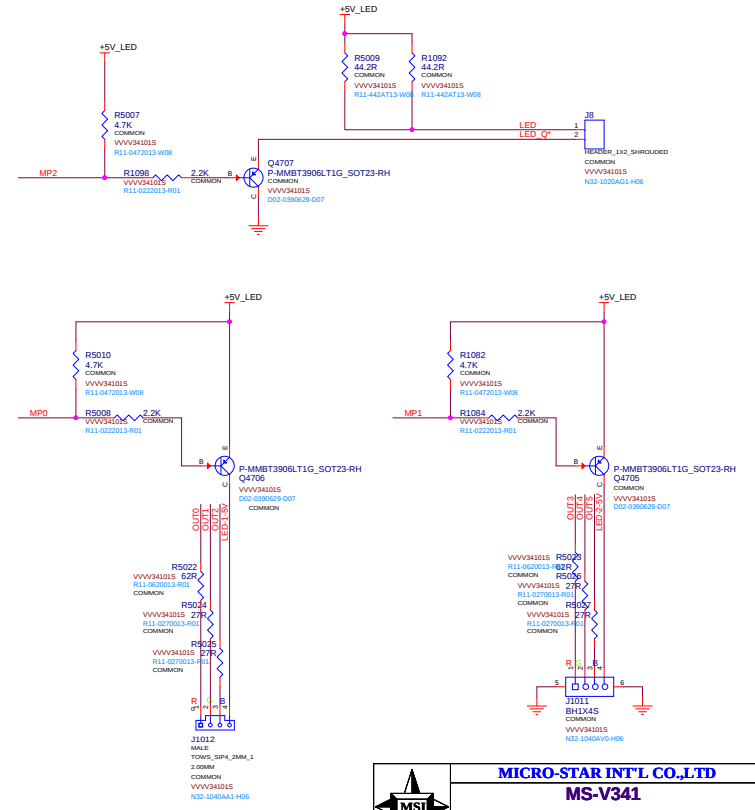
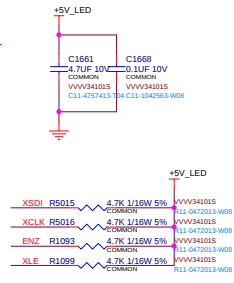
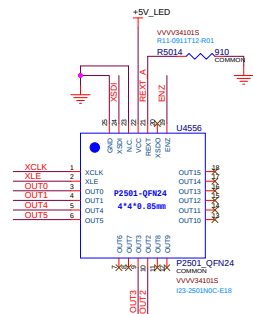
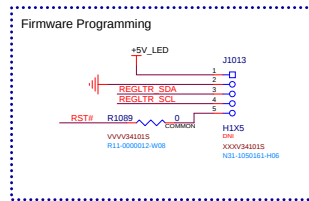
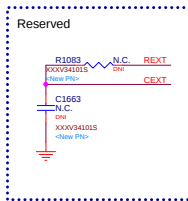
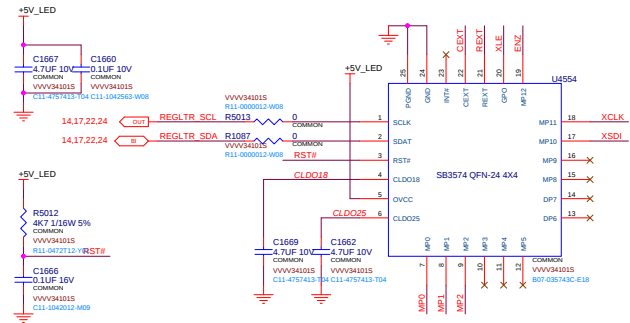
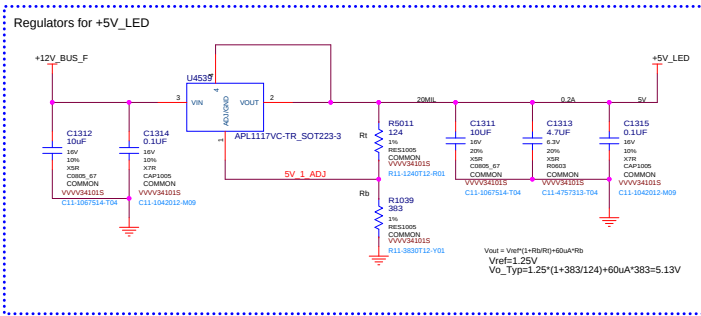
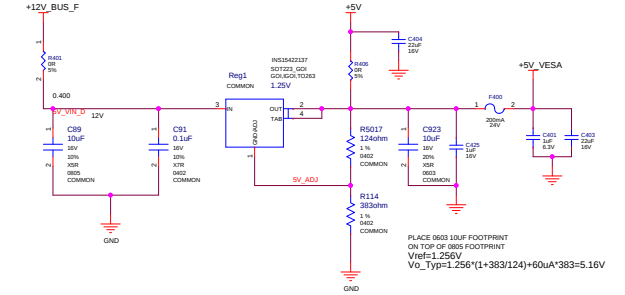
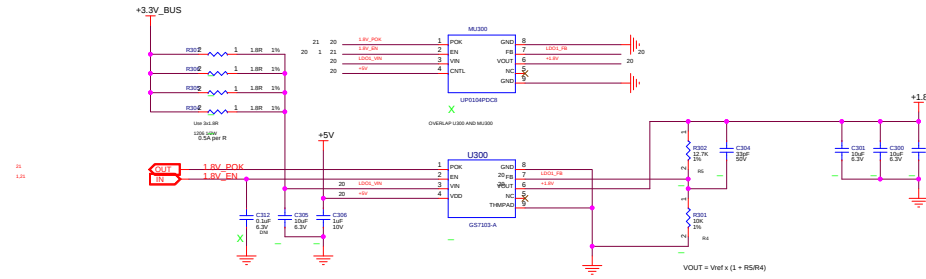
21



(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

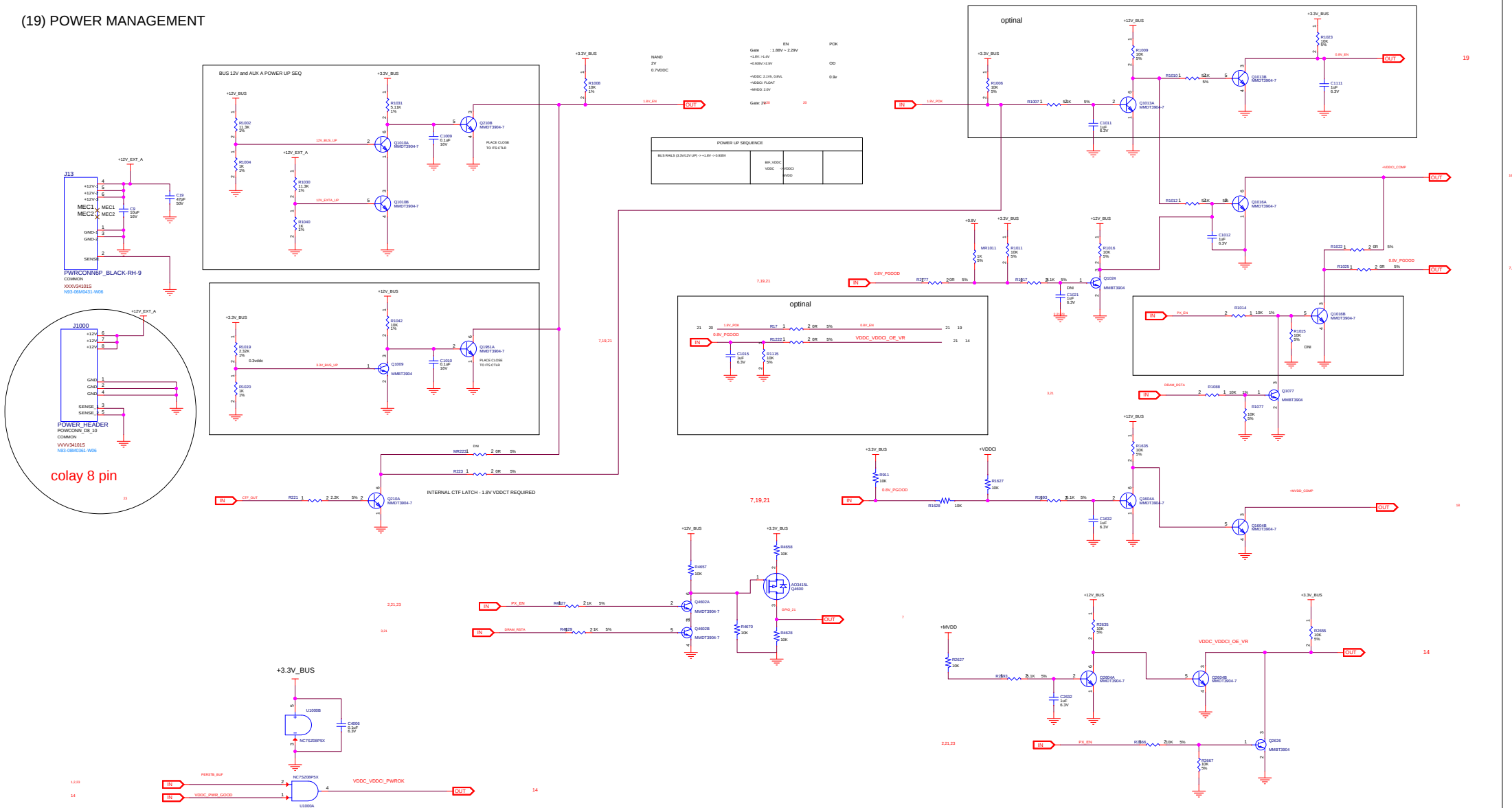
REGULATOR FOR +5V RAILS
IOUT MAX = 150mA

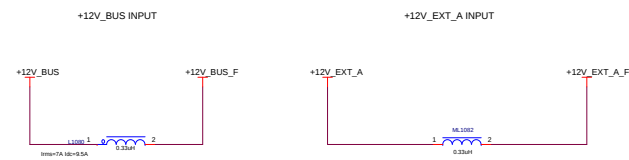


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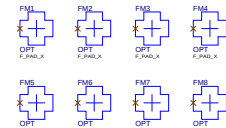
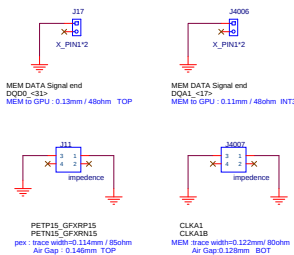
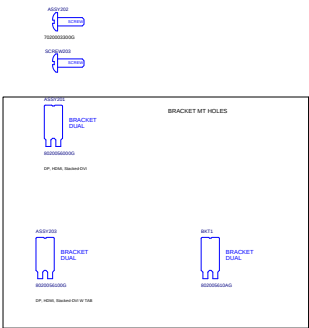
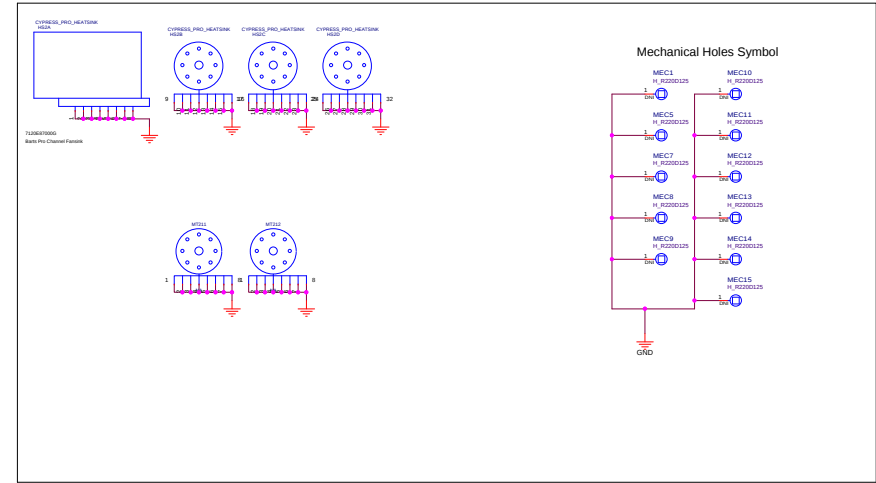
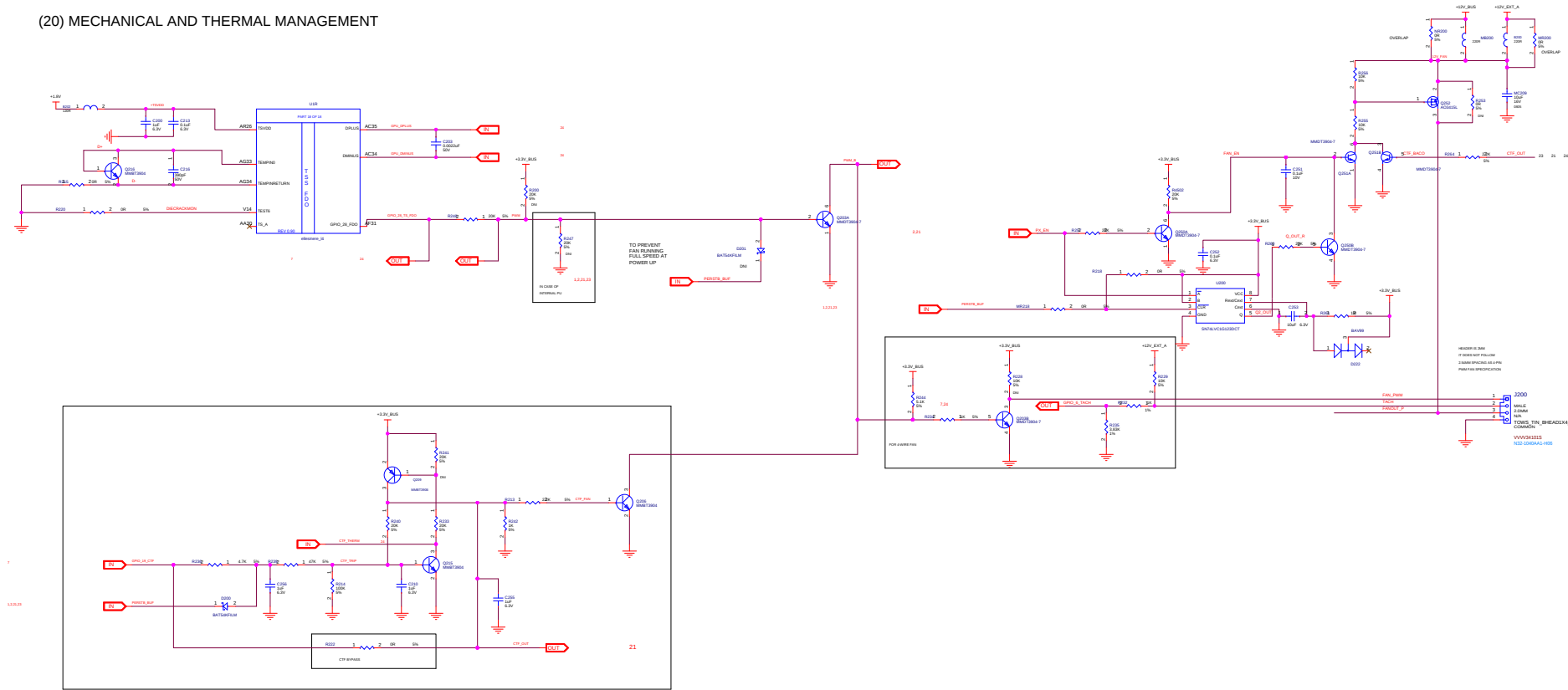
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(19) POWER MANAGEMENT

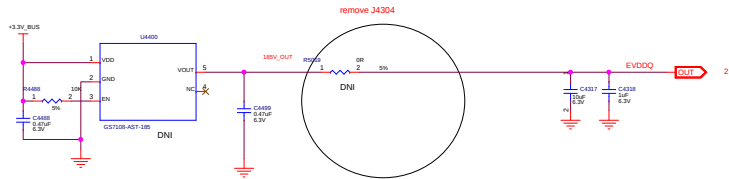
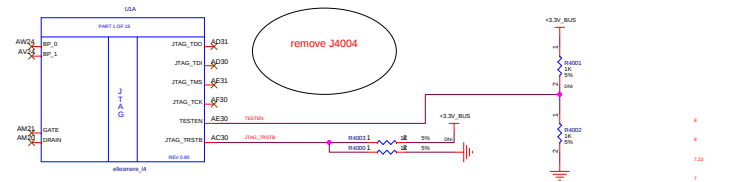




(20) MECHANICAL AND THERMAL MANAGEMENT

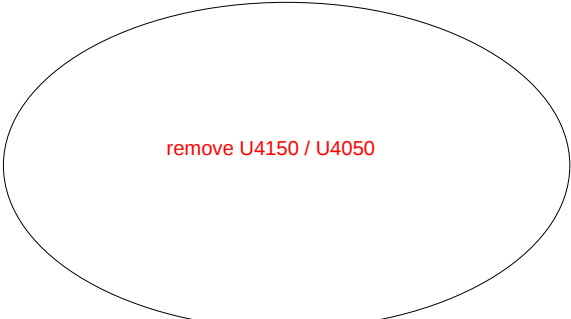


JTAG



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

DIGITAL POTS



DIGITAL POTS

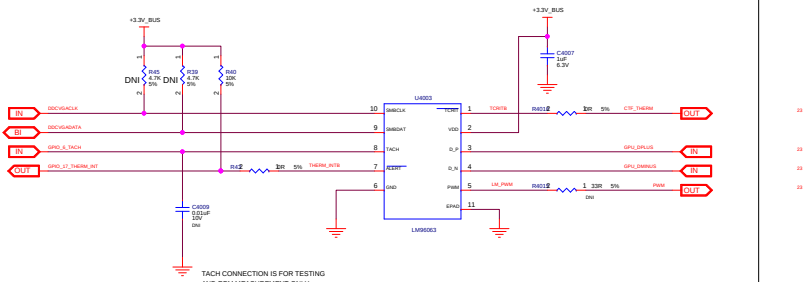
remove J4001/J4002

SWITCHES

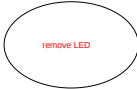
remove SW

BYPASS/DISABLE CTF
MAXIMIZE FAN

LM96163 FOR BACKUP THERMAL CONTROL

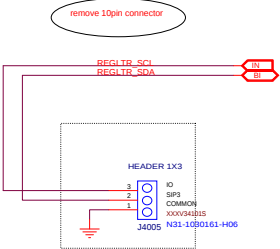
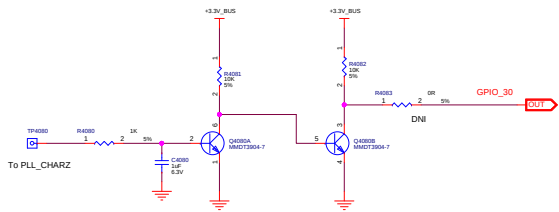


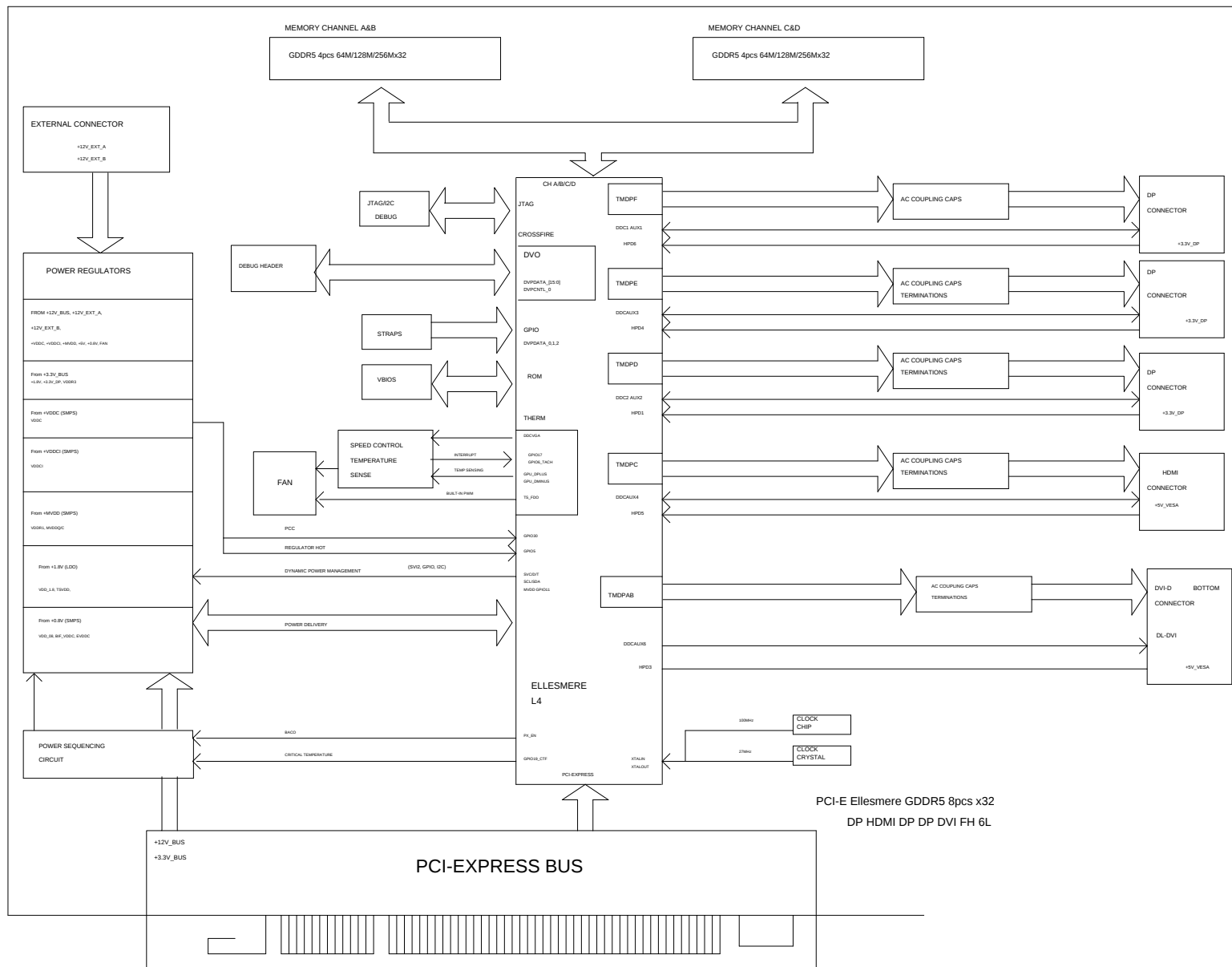
LED LIGHTS



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	ISA	MSI00000	
1	ISA	MSI00000	1. Add EPIC1 for Agilent, MSD1 2. Update MSD1, check signature
2	ISA	MSI00000	MSI00000: -- add status indicator R1380 - R1387 -- add pull-down indicator L1380 - L1387 Remove C405, C403, VR405, C403, 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