


Mono Lake M/B

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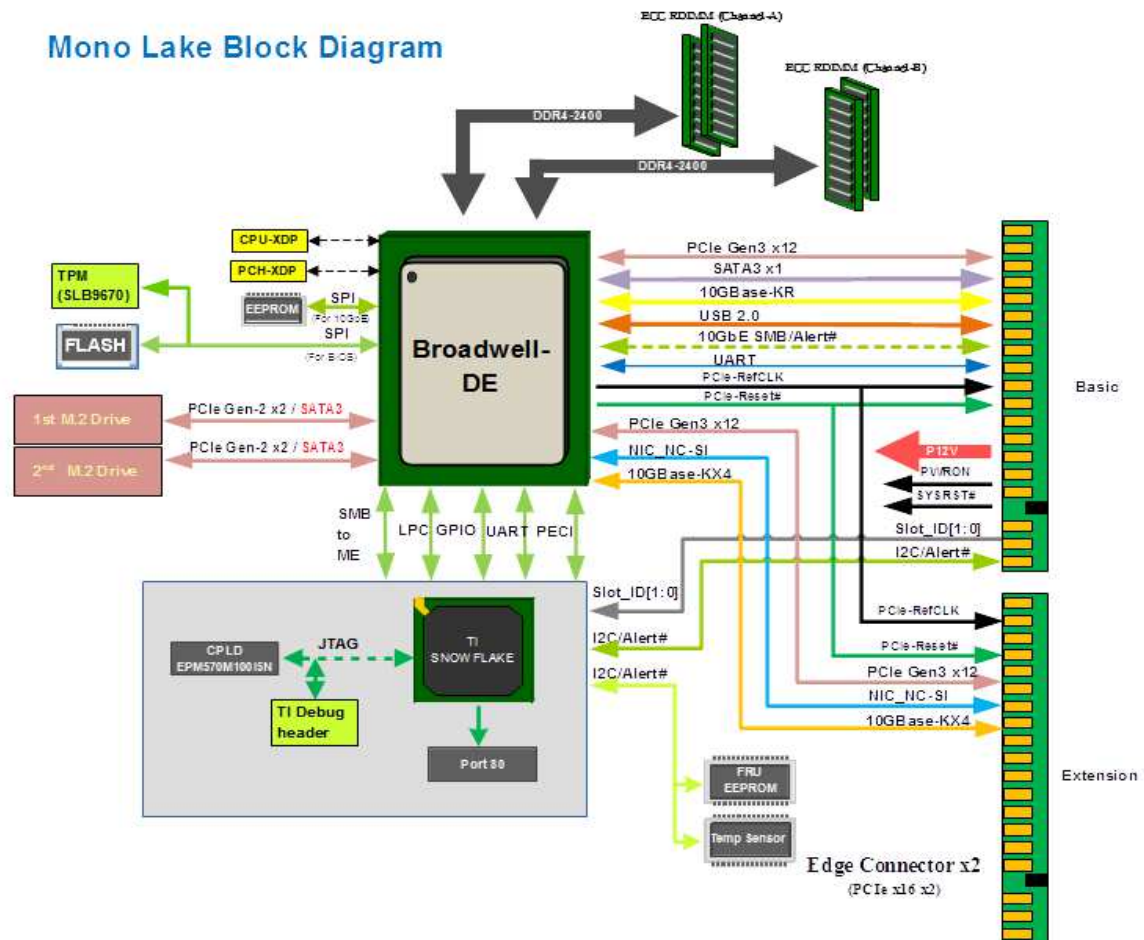


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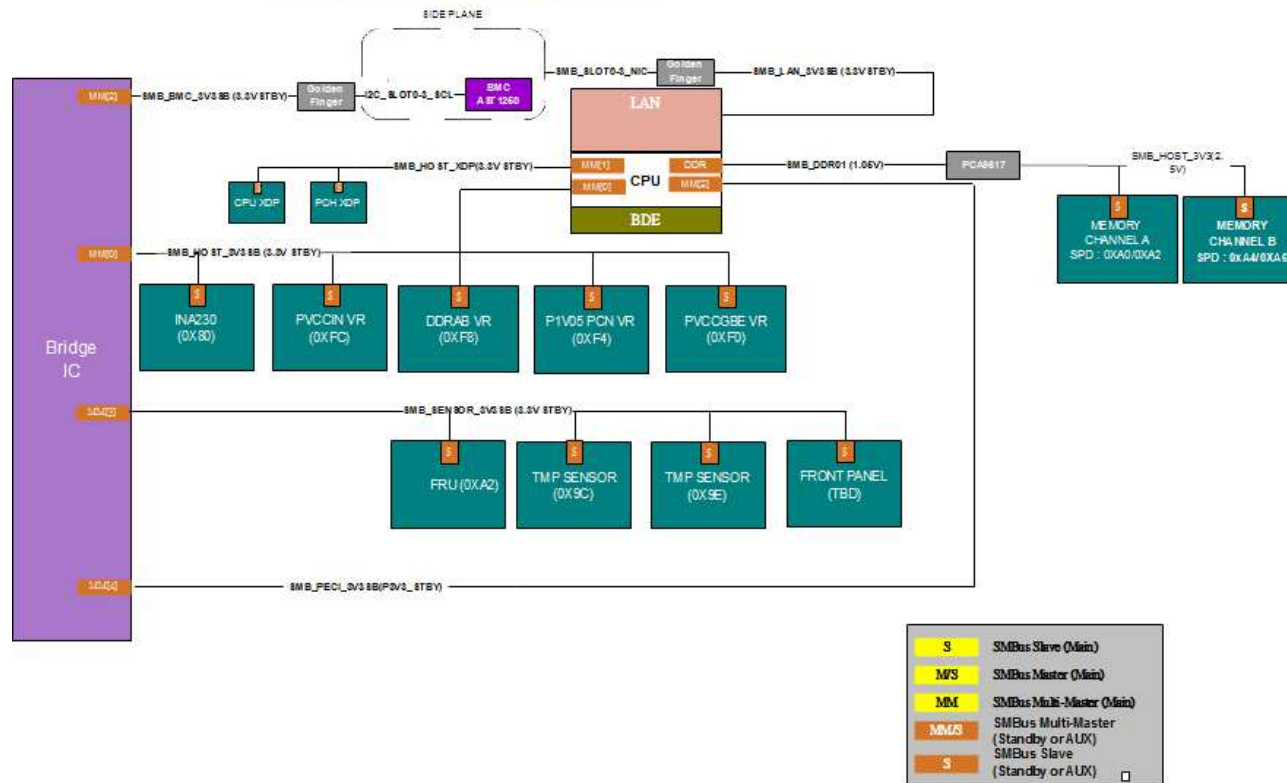


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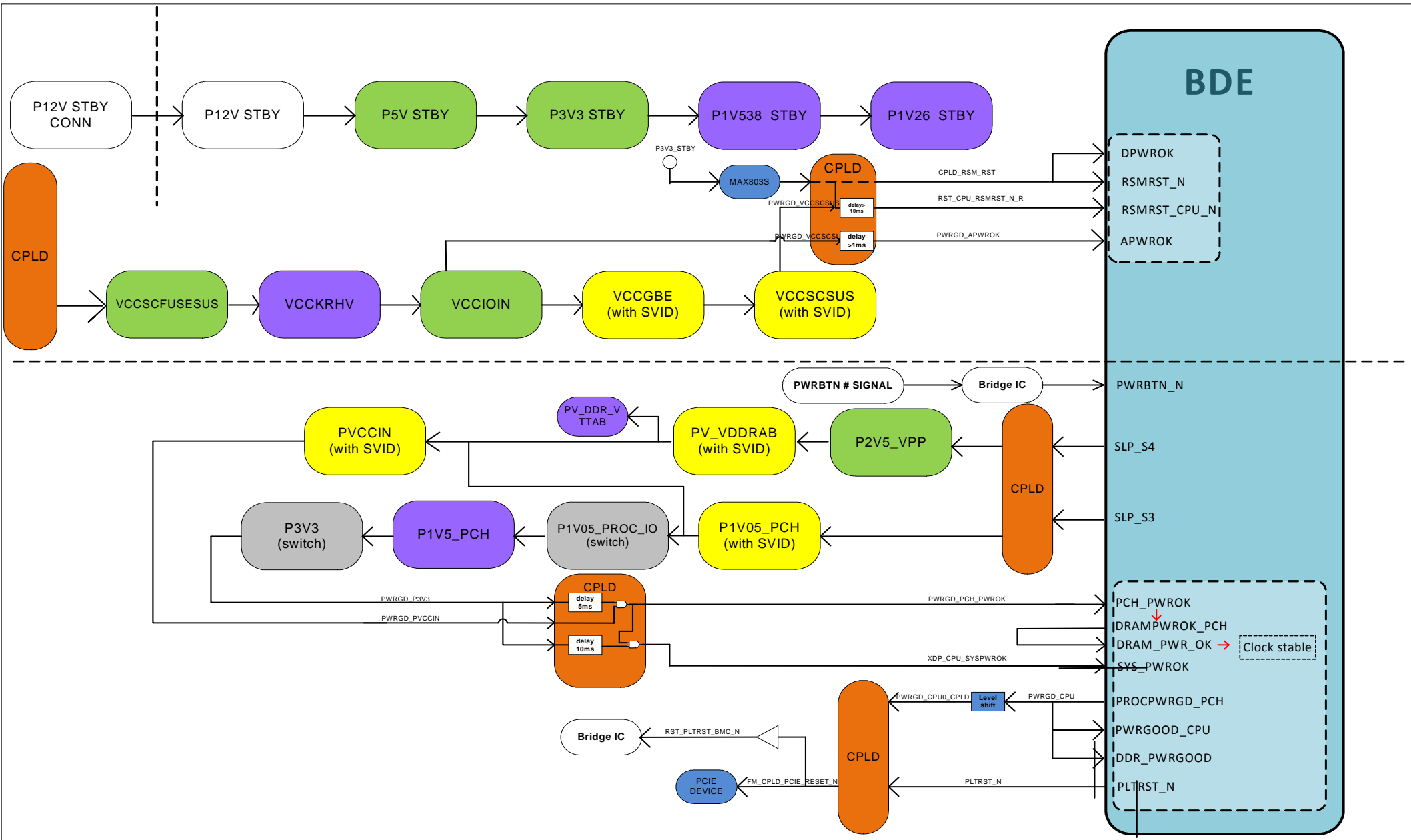
Mono Lake Block Diagram



Mono Lake SMBUS Block Diagram

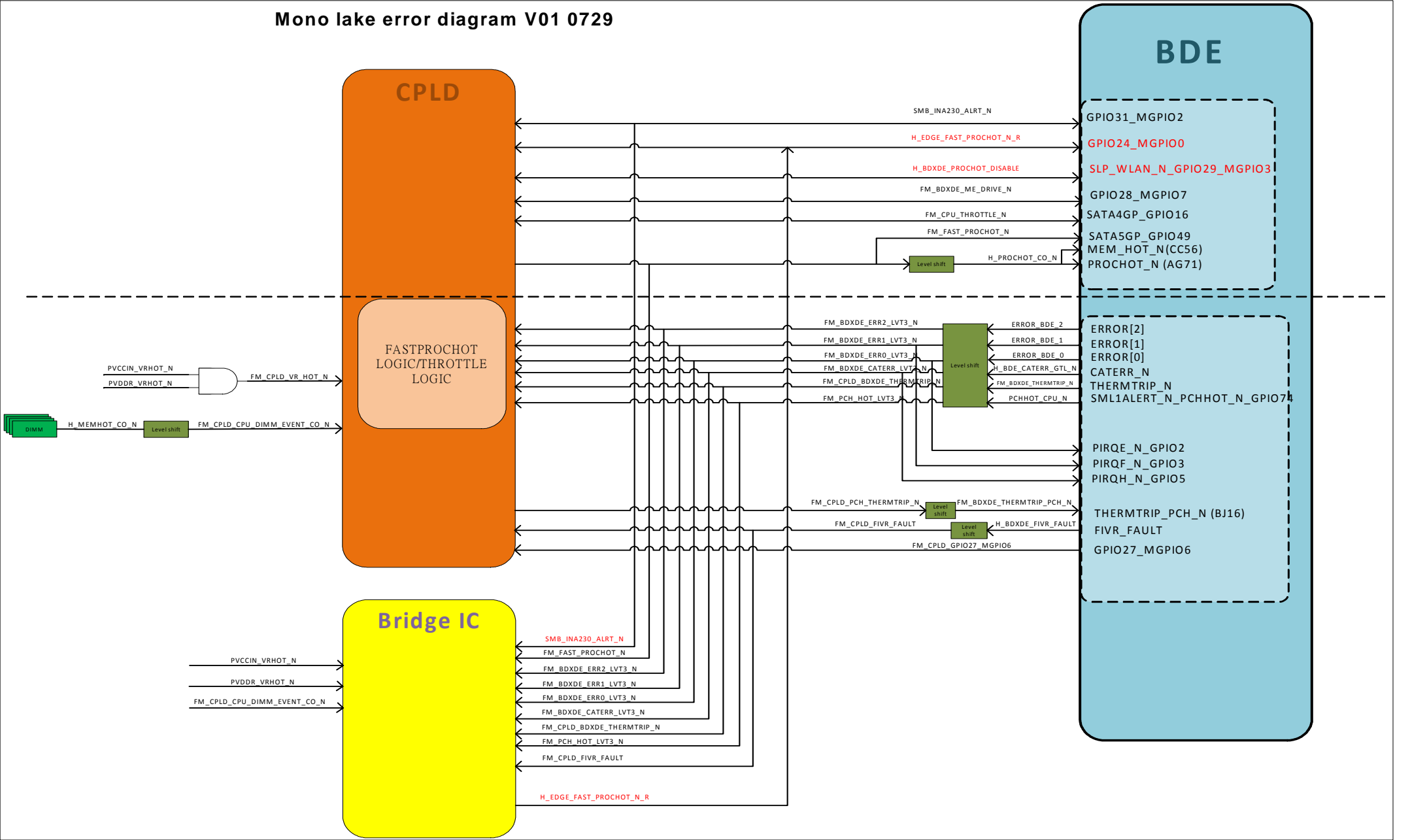


SMBUS BLOCK DIAGRAM



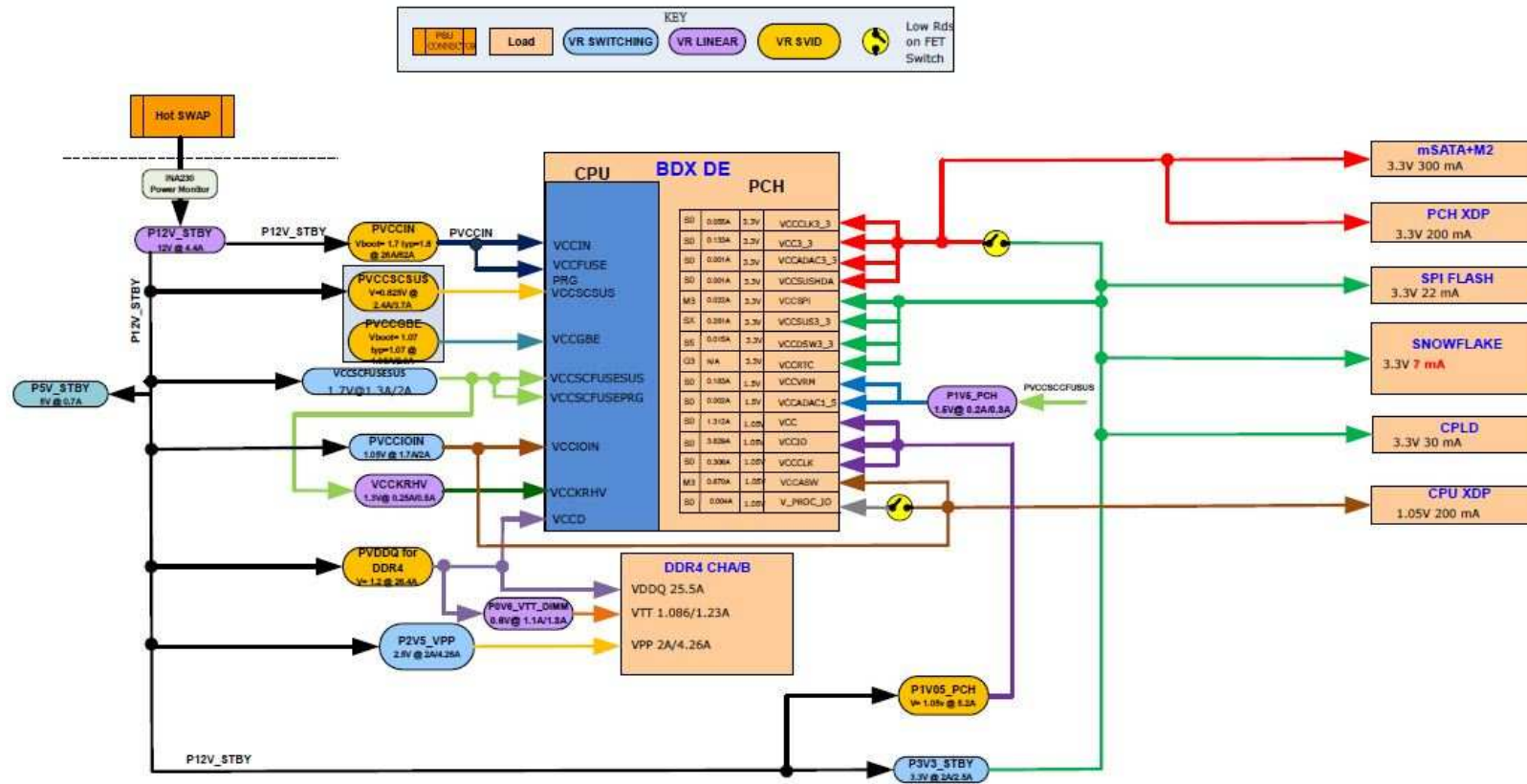
PWRGD/RST DIAGRAM

Mono lake error diagram V01 0729



INTERRUPT/ERROR ESCALATION

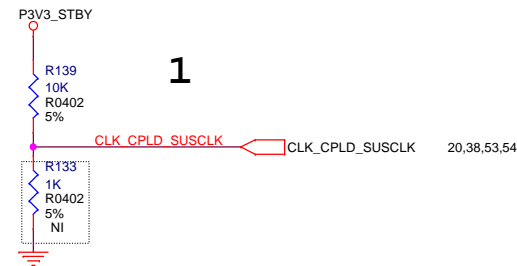
Mono Lake POWER DIAGRAM



POWER TOPOLOGY

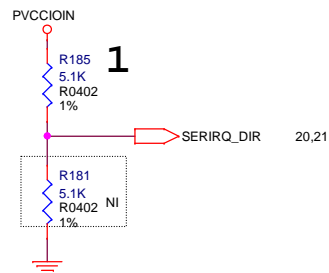
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GPIO62

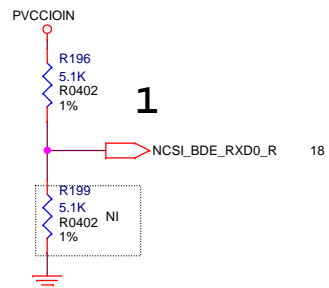


PLL ON-DIE VOLTAGE REGULATOR ENABLE.
ENABLED WHEN SAMPLED HIGH (DEFAULT).
DISABLED WHEN SAMPLED LOW.
WEAK INTERNAL PU (15K-40K).

SERIRQ_DIR



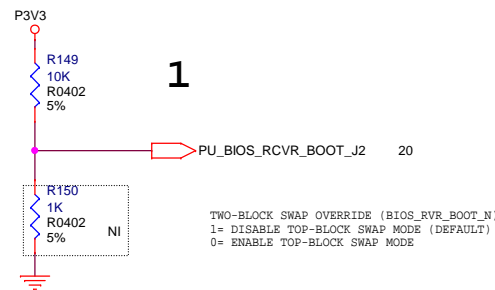
NCSI_RXD_0



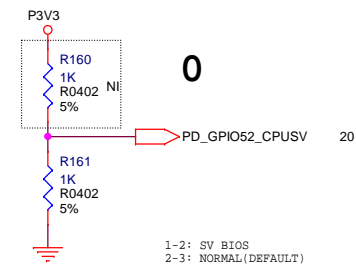
Pull-up : METAL KEY
Pull-down : UNIQUE KEY
FOR PC BASED FUSED UNITS THE DEFAULT WILL BE pull-down.
NCSI_RXD_0 NOW HAS pull-up AS THE DEFAULT.

BDE STRAPPING 1

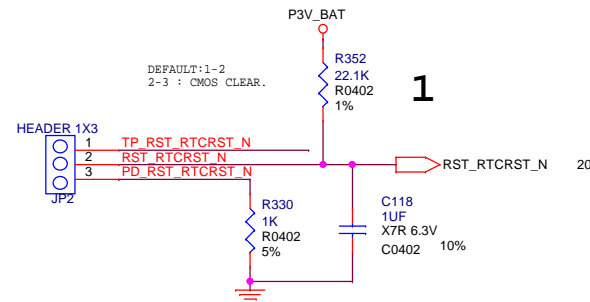
TOP_BLOCK_SWAP



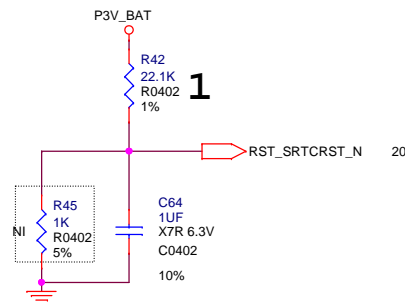
GP52_GSXSLOAD



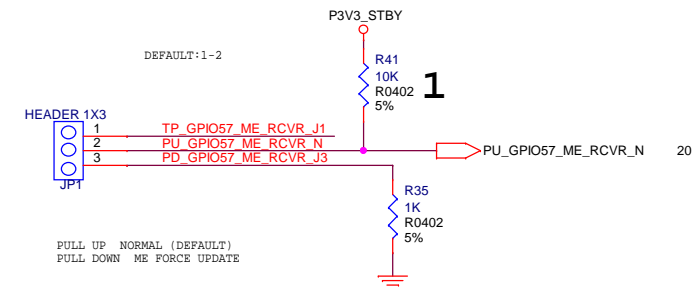
CMOS CLEAR



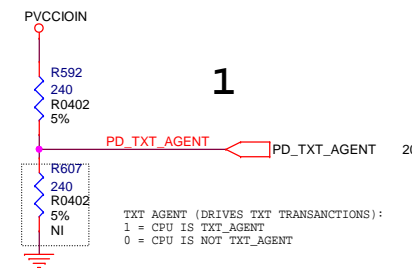
CLEAR TPM REGISTERS



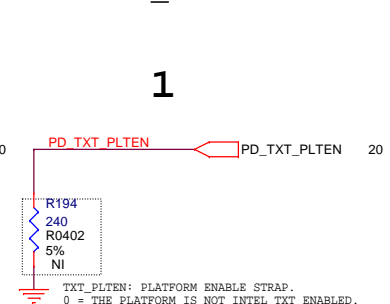
ME_RCVR



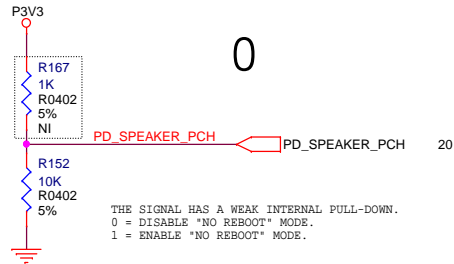
TXT_AGENT



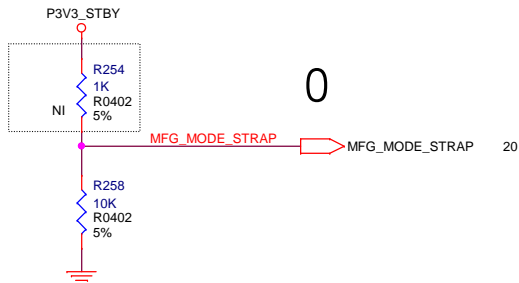
TXT_PLTEN



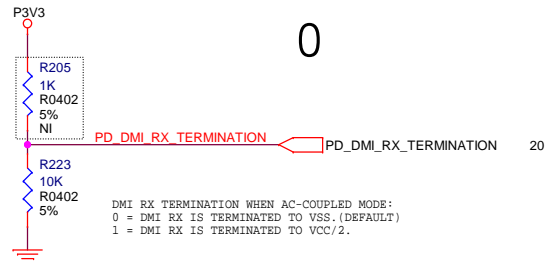
SPKR



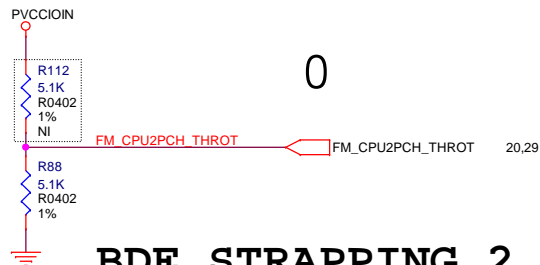
MFG_MODE_STRAP



GPIO33

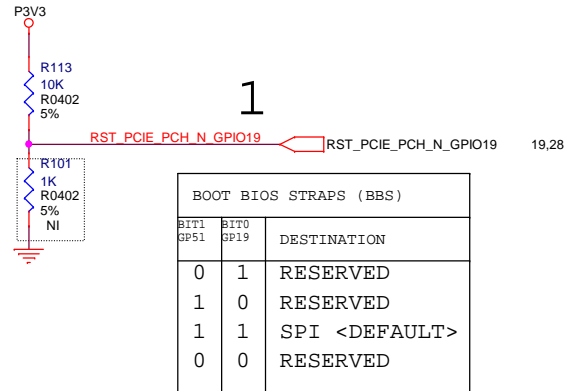


CPU2PCH_THROT



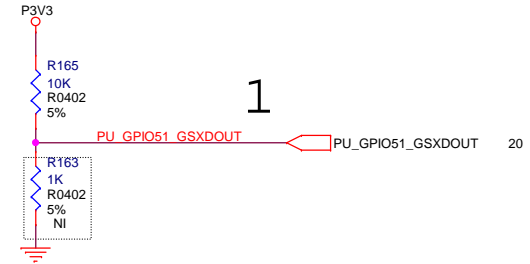
BDE STRAPPING 2

GPIO19



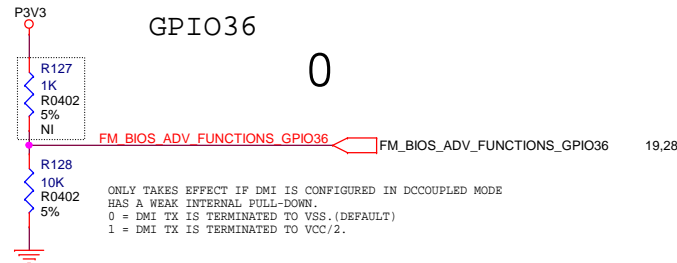
DESIGN NOTE: INTERNAL PULL-UP (15K-40K). DISABLED AFTER PLTRST# DEASSERTS.

GPIO51

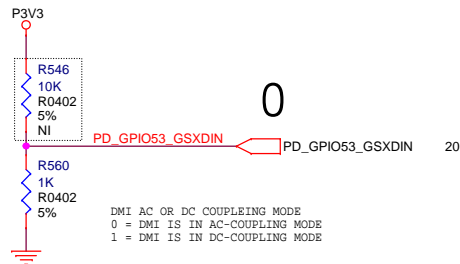


BIOS_ADV_FUNCTIONS

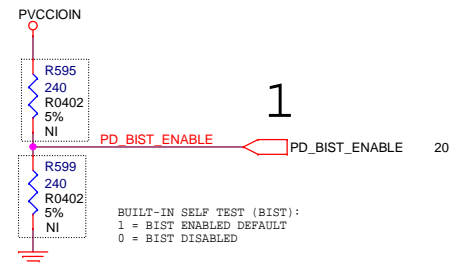
GPIO36



GP53_GSXDOIN



BIST_ENABLE

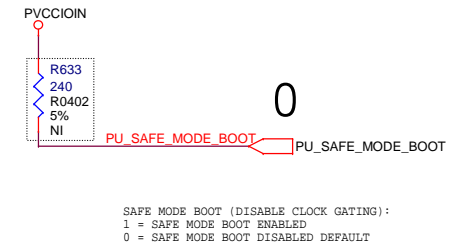


Note : BIST_ENABLE has internal pull-up to PVCCIOIN.

DESIGN NOTE :

The default setting should be checked for each board build

SAFE_MODE_BOOT



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BDX-DE DDR4 CHANNEL A

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Designer
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BDX-DE DDR4 CHANNEL B



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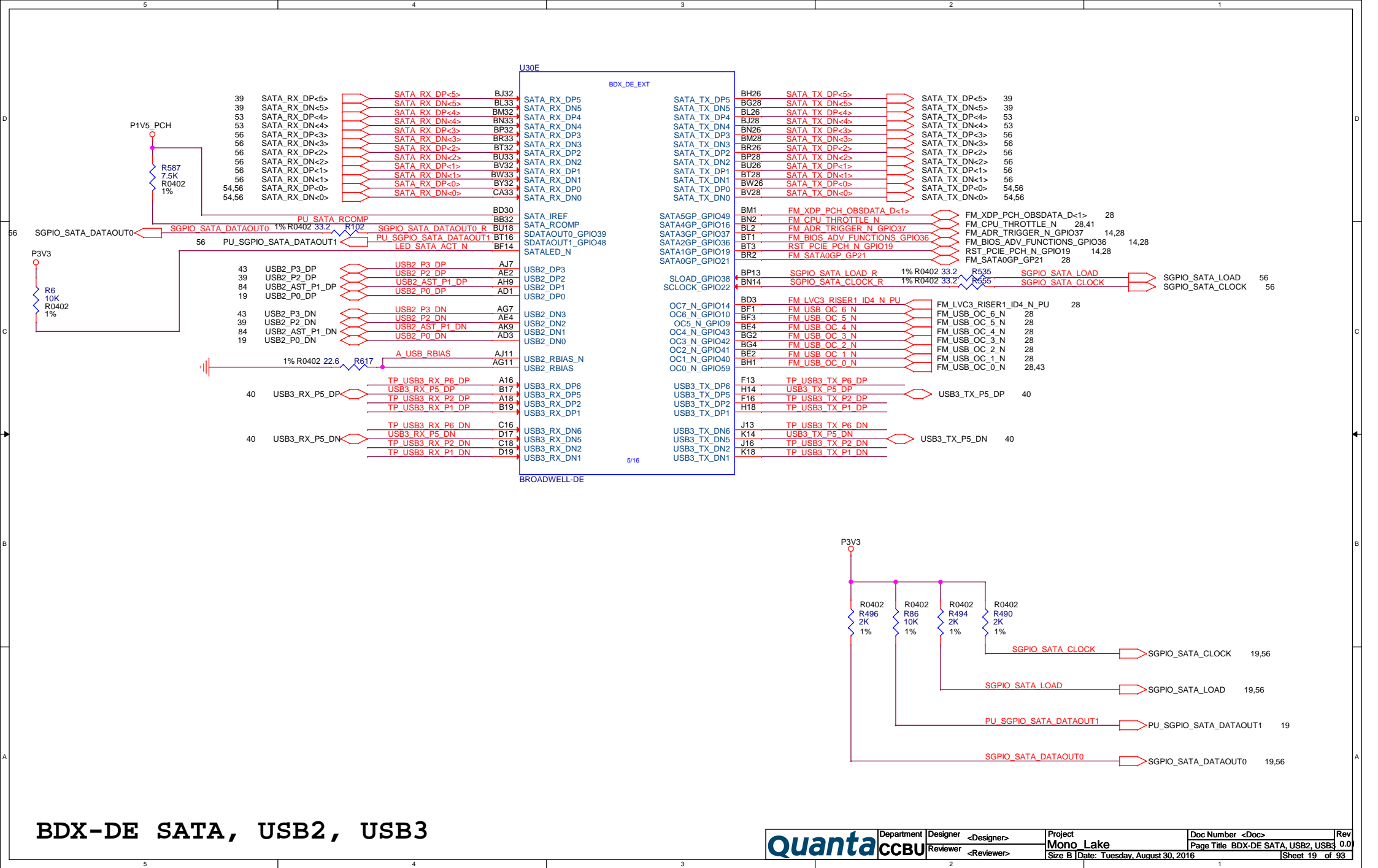
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|-------|--------------|--------------|------|--------------|------------------------|------|----------------|----------------|-------|
| 36,37 | M_B_DQ<63> | M_B_DQ<63> | BH76 | DDR1_DQ63 | DDR1_DQS_DP17 | CU32 | M_B_DQS_DP<17> | M_B_DQS_DP<17> | 36,37 |
| 36,37 | M_B_DQ<62> | M_B_DQ<62> | BH78 | DDR1_DQ62 | DDR1_DQS_DP16 | BK78 | M_B_DQS_DP<16> | M_B_DQS_DP<16> | 36,37 |
| 36,37 | M_B_DQ<61> | M_B_DQ<61> | BM76 | DDR1_DQ61 | DDR1_DQS_DP15 | BU77 | M_B_DQS_DP<15> | M_B_DQS_DP<15> | 36,37 |
| 36,37 | M_B_DQ<60> | M_B_DQ<60> | BM78 | DDR1_DQ60 | DDR1_DQS_DP14 | CE78 | M_B_DQS_DP<14> | M_B_DQS_DP<14> | 36,37 |
| 36,37 | M_B_DQ<59> | M_B_DQ<59> | BG75 | DDR1_DQ59 | DDR1_DQS_DP13 | CR76 | M_B_DQS_DP<13> | M_B_DQS_DP<13> | 36,37 |
| 36,37 | M_B_DQ<58> | M_B_DQ<58> | BG77 | DDR1_DQ58 | DDR1_DQS_DP12 | CV25 | M_B_DQS_DP<12> | M_B_DQS_DP<12> | 36,37 |
| 36,37 | M_B_DQ<57> | M_B_DQ<57> | BL75 | DDR1_DQ57 | DDR1_DQS_DP11 | CU17 | M_B_DQS_DP<11> | M_B_DQS_DP<11> | 36,37 |
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| 36,37 | M_B_DQ<55> | M_B_DQ<55> | BR75 | DDR1_DQ55 | DDR1_DQS_DP9 | CH2 | M_B_DQS_DP<9> | M_B_DQS_DP<9> | 36,37 |
| 36,37 | M_B_DQ<54> | M_B_DQ<54> | BR77 | DDR1_DQ54 | DDR1_DQS_DP8 | CT34 | M_B_DQS_DP<8> | M_B_DQS_DP<8> | 36,37 |
| 36,37 | M_B_DQ<53> | M_B_DQ<53> | BY75 | DDR1_DQ53 | DDR1_DQS_DP7 | BJ75 | M_B_DQS_DP<7> | M_B_DQS_DP<7> | 36,37 |
| 36,37 | M_B_DQ<52> | M_B_DQ<52> | BY77 | DDR1_DQ52 | DDR1_DQS_DP6 | BT76 | M_B_DQS_DP<6> | M_B_DQS_DP<6> | 36,37 |
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| 36,37 | M_B_DQ<49> | M_B_DQ<49> | BW76 | DDR1_DQ49 | DDR1_DQS_DP3 | CR26 | M_B_DQS_DP<3> | M_B_DQS_DP<3> | 36,37 |
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| 36,37 | M_B_DQ<12> | M_B_DQ<12> | CU5 | DDR1_DQ12 | DDR1_MA3 | CT49 | M_B_MA<3> | M_B_MA<3> | 36,37 |
| 36,37 | M_B_DQ<11> | M_B_DQ<11> | CR13 | DDR1_DQ11 | DDR1_MA2 | CR50 | M_B_MA<2> | M_B_MA<2> | 36,37 |
| 36,37 | M_B_DQ<10> | M_B_DQ<10> | CU13 | DDR1_DQ10 | DDR1_MA1 | CU50 | M_B_MA<1> | M_B_MA<1> | 36,37 |
| 36,37 | M_B_DQ<9> | M_B_DQ<9> | CR8 | DDR1_DQ9 | DDR1_MA0 | CV60 | M_B_MA<0> | M_B_MA<0> | 36,37 |
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| 36,37 | M_B_DQ<7> | M_B_DQ<7> | CK4 | DDR1_DQ7 | DDR1_CKE2 | CV40 | M_B_CKE<2> | M_B_CKE<2> | 37 |
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| 36,37 | M_B_DQ<5> | M_B_DQ<5> | CF4 | DDR1_DQ5 | DDR1_CKE0 | CT40 | M_B_CKE<0> | M_B_CKE<0> | 36 |
| 36,37 | M_B_DQ<4> | M_B_DQ<4> | CF2 | DDR1_DQ4 | DDR1_ODT3 | CV68 | M_B_ODT<3> | M_B_ODT<3> | 37 |
| 36,37 | M_B_DQ<3> | M_B_DQ<3> | CM3 | DDR1_DQ3 | DDR1_ODT2 | CR67 | M_B_ODT<2> | M_B_ODT<2> | 37 |
| 36,37 | M_B_DQ<2> | M_B_DQ<2> | CG3 | DDR1_DQ2 | DDR1_ODT1 | CR69 | M_B_ODT<1> | M_B_ODT<1> | 36 |
| 36,37 | M_B_DQ<1> | M_B_DQ<1> | CG1 | DDR1_DQ1 | DDR1_ODT0 | CV64 | M_B_ODT<0> | M_B_ODT<0> | 36 |
| 36,37 | M_B_DQ<0> | M_B_DQ<0> | | DDR1_DQ0 | | | | | |
| 36,37 | M_B_ECC<7> | M_B_ECC<7> | CR35 | DDR1_ECC7 | DDR1_CS_N5 | CT68 | M_B_CS_N<5> | M_B_CS_N<5> | 37 |
| 36,37 | M_B_ECC<6> | M_B_ECC<6> | CU35 | DDR1_ECC6 | DDR1_CS_N4 | CR65 | M_B_CS_N<4> | M_B_CS_N<4> | 37 |
| 36,37 | M_B_ECC<5> | M_B_ECC<5> | CR30 | DDR1_ECC5 | DDR1_CS_N3 | CV66 | M_B_CS_N<3> | M_B_CS_N<3> | 36 |
| 36,37 | M_B_ECC<4> | M_B_ECC<4> | CU30 | DDR1_ECC4 | DDR1_CS_N2 | CR63 | M_B_CS_N<2> | M_B_CS_N<2> | 36 |
| 36,37 | M_B_ECC<3> | M_B_ECC<3> | CT36 | DDR1_ECC3 | | | | | |
| 36,37 | M_B_ECC<2> | M_B_ECC<2> | CV36 | DDR1_ECC2 | | | | | |
| 36,37 | M_B_ECC<1> | M_B_ECC<1> | CT31 | DDR1_ECC1 | | | | | |
| 36,37 | M_B_ECC<0> | M_B_ECC<0> | CV31 | DDR1_ECC0 | | | | | |
| 37 | M_B_CK_DP<3> | M_B_CK_DP<3> | CV53 | DDR1_CLK_DP3 | DDR1_ACT_N_MA15 | CU41 | M_B_ACT_N | M_B_ACT_N | 36,37 |
| 37 | M_B_CK_DP<2> | M_B_CK_DP<2> | CU67 | DDR1_CLK_DP2 | DDR1_ALERT_N_PAR_ERR_N | CT42 | M_B_ALERT_N | M_B_ALERT_N | 36,37 |
| 37 | M_B_CK_DP<1> | M_B_CK_DP<1> | CU54 | DDR1_CLK_DP1 | DDR1_PAR | CR59 | M_B_PAR | M_B_PAR | 36,37 |
| 37 | M_B_CK_DP<0> | M_B_CK_DP<0> | CV58 | DDR1_CLK_DP0 | DDR1_BG0_BA2 | | | | |
| 37 | M_B_CK_DN<3> | M_B_CK_DN<3> | CT53 | DDR1_CLK_DN3 | DDR1_BG1_MA14 | CR41 | M_B_BG<0> | M_B_BG<0> | 36,37 |
| 37 | M_B_CK_DN<2> | M_B_CK_DN<2> | CR57 | DDR1_CLK_DN2 | | CV42 | M_B_BG<1> | M_B_BG<1> | 36,37 |
| 37 | M_B_CK_DN<1> | M_B_CK_DN<1> | CR54 | DDR1_CLK_DN1 | DDR1_BA1 | CT60 | M_B_BA<1> | M_B_BA<1> | 36,37 |
| 37 | M_B_CK_DN<0> | M_B_CK_DN<0> | CT58 | DDR1_CLK_DN0 | DDR1_BA0 | CR61 | M_B_BA<0> | M_B_BA<0> | 36,37 |

BROADWELL-DE

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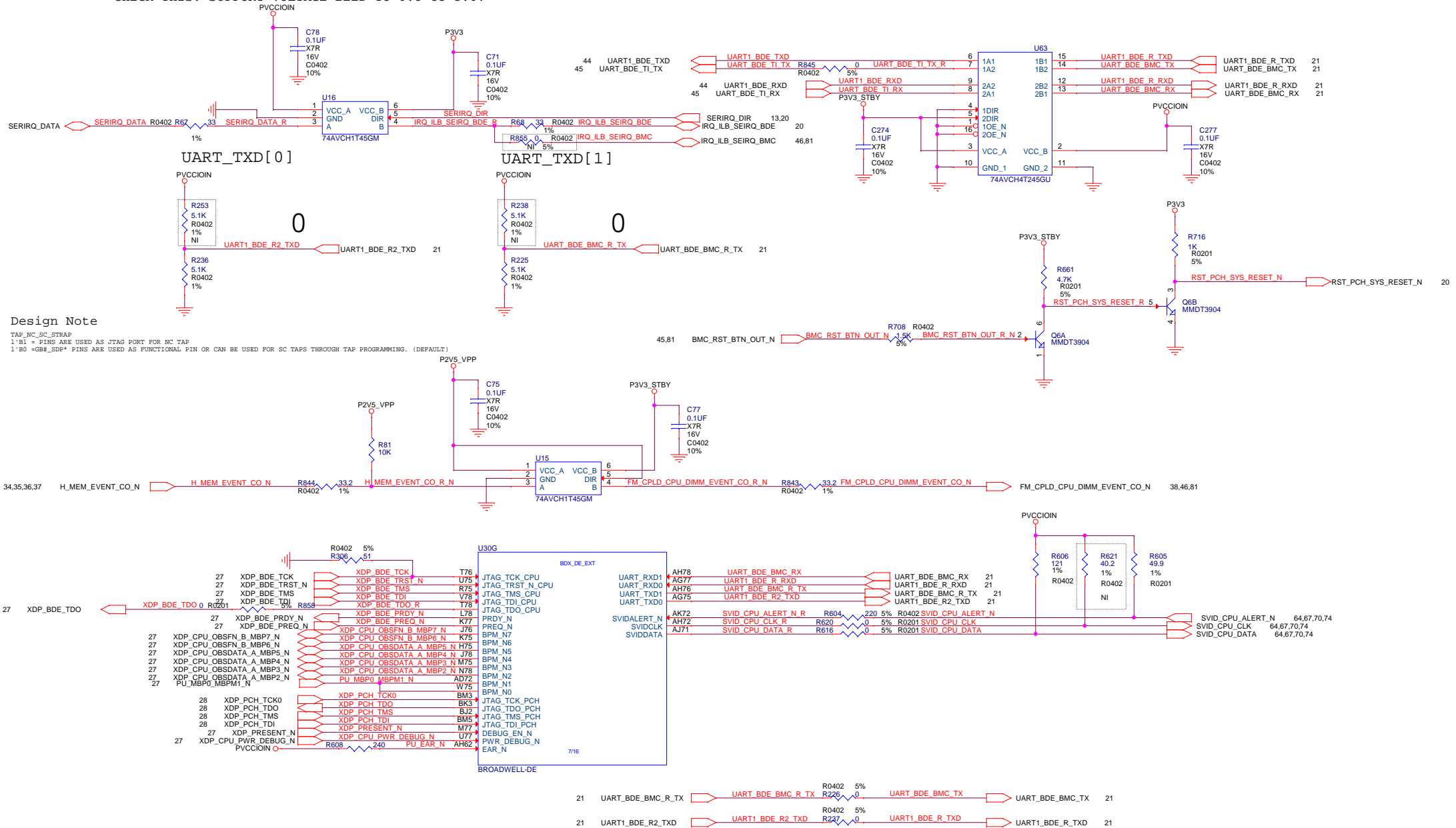


BDX-DE SATA, USB2, USB3

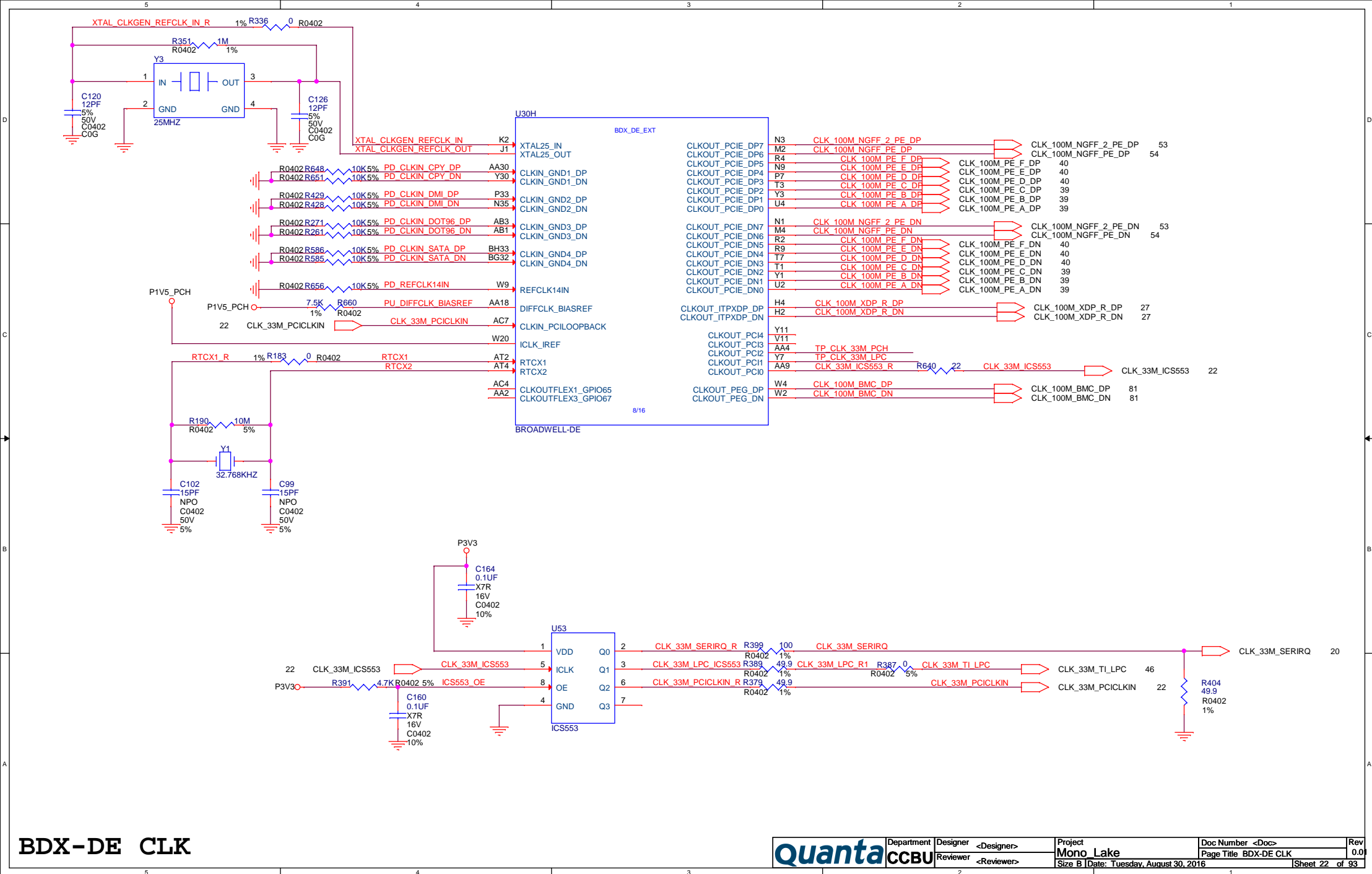


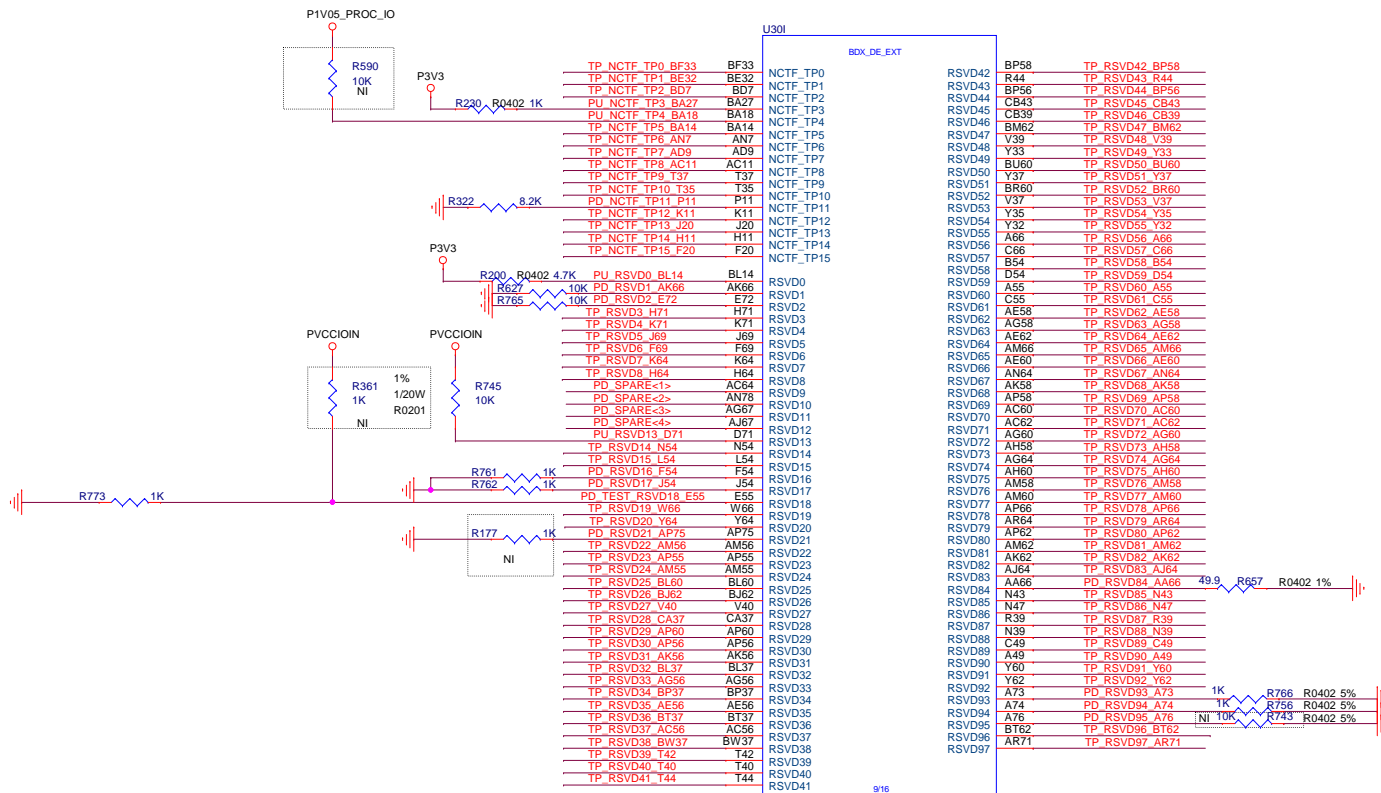
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| Department | Designer | Project | Doc Number | Rev |
| CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| Reviewer | <Reviewer> | Size B Date: Tuesday, August 30, 2016 | Page Title BDX-DE SATA, USB2, USB3 | Sheet 19 of 93 |

Need change to NXP and check CRB.
CHECK THIS. SUPPORT VOLTAGE BEED TO 0.8 to 3.6V

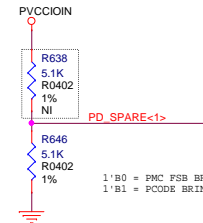


BDX-DE UART, JTAG, SVID

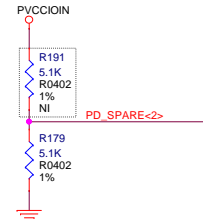




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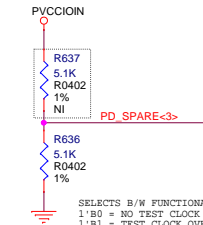


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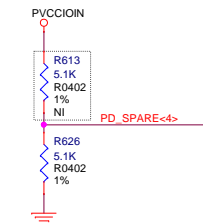


BYPASSES THE CRYSTAL CLOCK TO THE SCPLL
1'B0 = PICKS THE 25MHZ KR CRYSTAL CLOCK AS THE REFERENCE TO SCPLL (DEFAULT)
1'B1 = FORCES THE TEST DCK FROM TSTCLK_SC PINS

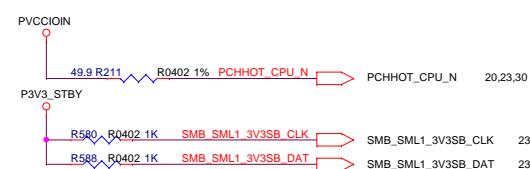
SPARE[3]



SPARE[4]



1'B0 = NORMAL REFERENCE CLOCK PATH WITH CR BASE REFERENCE CLOCK SELECTION(DEFAULT)
1'B1 = FORCE "REGULAR" REFERENCE CLOCKS TO BE SENT TO THE KK4 PLLS AS LONG AS TSTCLK_KK4_STRAP[2]=1'B0



BDX-DE TEST,DDR MISC,SMBus



BOM Note
The Battery has 35mm cable

U30M

BDX_DE_EXT

| | | | |
|-------|-------|------|--------|
| A20 | VSS0 | AM21 | VSS70 |
| A3 | VSS1 | AM28 | VSS71 |
| AA12 | VSS2 | AM30 | VSS72 |
| A5 | VSS3 | AM9 | VSS73 |
| A6 | VSS4 | AN5 | VSS74 |
| L69 | VSS5 | AN74 | VSS75 |
| A77 | VSS6 | AN76 | VSS76 |
| AA23 | VSS7 | AP14 | VSS77 |
| AA25 | VSS8 | AP19 | VSS78 |
| F3 | VSS9 | AP23 | VSS79 |
| BT4 | VSS10 | AR56 | VSS80 |
| AA55 | VSS11 | AR6 | VSS81 |
| AA60 | VSS12 | AR12 | VSS82 |
| AA62 | VSS13 | AR19 | VSS83 |
| AA69 | VSS14 | AR25 | VSS84 |
| AB5 | VSS15 | AR3 | VSS85 |
| AB74 | VSS16 | AR5 | VSS86 |
| AC12 | VSS17 | AR55 | VSS87 |
| AC21 | VSS18 | AR60 | VSS88 |
| AC16 | VSS19 | AR75 | VSS89 |
| AC18 | VSS20 | AU76 | VSS90 |
| AC2 | VSS21 | AU78 | VSS91 |
| AC27 | VSS22 | AU19 | VSS92 |
| AE14 | VSS23 | AU23 | VSS93 |
| AC58 | VSS24 | AU25 | VSS94 |
| F78 | VSS25 | AU28 | VSS95 |
| AD5 | VSS26 | AU3 | VSS96 |
| AE11 | VSS27 | AU30 | VSS97 |
| AE10 | VSS28 | AU5 | VSS98 |
| AE23 | VSS29 | AU55 | VSS99 |
| AE6 | VSS30 | AU56 | VSS100 |
| AE64 | VSS31 | AU58 | VSS101 |
| AE67 | VSS32 | AU62 | VSS102 |
| AF3 | VSS33 | AU66 | VSS103 |
| AF74 | VSS34 | AU72 | VSS104 |
| AF76 | VSS35 | AU74 | VSS105 |
| AF78 | VSS36 | AV6 | VSS106 |
| AF79 | VSS37 | AV64 | VSS107 |
| AG62 | VSS38 | AV67 | VSS108 |
| AH12 | VSS39 | AV71 | VSS109 |
| AG12 | VSS40 | AV75 | VSS110 |
| AH15 | VSS41 | AV77 | VSS111 |
| AH16 | VSS42 | AV85 | VSS112 |
| AH18 | VSS43 | AW9 | VSS113 |
| AH19 | VSS44 | B2 | VSS114 |
| AH25 | VSS45 | B2 | VSS115 |
| AH27 | VSS46 | B7 | VSS116 |
| AH28 | VSS47 | B7 | VSS117 |
| AH3 | VSS48 | B93 | VSS118 |
| AH5 | VSS49 | BP35 | VSS119 |
| AH53 | VSS50 | BA12 | VSS120 |
| AH56 | VSS51 | BA16 | VSS121 |
| AH58 | VSS52 | BA28 | VSS122 |
| AH6 | VSS53 | BA3 | VSS123 |
| AH69 | VSS54 | BA3 | VSS124 |
| AH74 | VSS55 | BB19 | VSS125 |
| AK16 | VSS56 | BB35 | VSS126 |
| AK19 | VSS57 | BD1 | VSS127 |
| AP33 | VSS58 | BD33 | VSS128 |
| AK53 | VSS59 | BD5 | VSS129 |
| AK60 | VSS60 | BD28 | VSS130 |
| AK75 | VSS61 | BE35 | VSS131 |
| AK77 | VSS62 | BE6 | VSS132 |
| AL11 | VSS63 | BE69 | VSS133 |
| AL64 | VSS64 | BT69 | VSS134 |
| AL67 | VSS65 | BT74 | VSS135 |
| AL7 | VSS66 | BT76 | VSS136 |
| AL71 | VSS67 | BU2 | VSS137 |
| AM19 | VSS68 | BU30 | VSS138 |
| VSS69 | VSS69 | BU37 | VSS139 |

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BROADWELL-DE

U30N

BDX_DE_EXT

| | | | |
|------|--------|------|--------|
| BF30 | VSS140 | BU4 | VSS210 |
| BF5 | VSS141 | BU4 | VSS211 |
| BF6 | VSS142 | BU13 | VSS212 |
| BF64 | VSS143 | BU24 | VSS213 |
| BF67 | VSS144 | BV35 | VSS214 |
| BF71 | VSS145 | BV38 | VSS215 |
| BF74 | VSS146 | BV62 | VSS216 |
| BF76 | VSS147 | BV69 | VSS217 |
| BF78 | VSS148 | BV8 | VSS218 |
| BG24 | VSS149 | BW11 | VSS219 |
| BG35 | VSS150 | BW14 | VSS220 |
| BG42 | VSS151 | BW30 | VSS221 |
| BG69 | VSS152 | BW39 | VSS222 |
| AR1 | VSS153 | BW40 | VSS223 |
| AR12 | VSS154 | BW42 | VSS224 |
| AR19 | VSS155 | BW43 | VSS225 |
| AR25 | VSS156 | BW45 | VSS226 |
| AR3 | VSS157 | BW47 | VSS227 |
| AR5 | VSS158 | BW49 | VSS228 |
| AR55 | VSS159 | BW5 | VSS229 |
| AR60 | VSS160 | BW50 | VSS230 |
| AR75 | VSS161 | BW52 | VSS231 |
| AU76 | VSS162 | BW54 | VSS232 |
| AU78 | VSS163 | BW55 | VSS233 |
| AU19 | VSS164 | BW58 | VSS234 |
| AU23 | VSS165 | BW60 | VSS235 |
| AU25 | VSS166 | BW64 | VSS236 |
| AU28 | VSS167 | BW7 | VSS237 |
| AU3 | VSS168 | BW74 | VSS238 |
| AU30 | VSS169 | BY15 | VSS239 |
| AU5 | VSS170 | BY20 | VSS240 |
| AU55 | VSS171 | BY24 | VSS241 |
| AU56 | VSS172 | BY28 | VSS242 |
| AU58 | VSS173 | BY35 | VSS243 |
| AU62 | VSS174 | BY39 | VSS244 |
| AU66 | VSS175 | BY43 | VSS245 |
| AU72 | VSS176 | BY54 | VSS246 |
| AU74 | VSS177 | BY58 | VSS247 |
| AV6 | VSS178 | BY62 | VSS248 |
| AV64 | VSS179 | BY66 | VSS249 |
| AV67 | VSS180 | BY69 | VSS250 |
| AV71 | VSS181 | BY72 | VSS251 |
| AV75 | VSS182 | C1 | VSS252 |
| AV77 | VSS183 | C2 | VSS253 |
| AV85 | VSS184 | C20 | VSS254 |
| AW9 | VSS185 | C16 | VSS255 |
| B2 | VSS186 | C33 | VSS256 |
| B2 | VSS187 | C35 | VSS257 |
| B7 | VSS188 | C77 | VSS258 |
| B7 | VSS189 | C78 | VSS259 |
| B93 | VSS190 | C81 | VSS260 |
| BP35 | VSS191 | CA11 | VSS261 |
| BA12 | VSS192 | CA22 | VSS262 |
| BA16 | VSS193 | CA28 | VSS263 |
| BA28 | VSS194 | CA30 | VSS264 |
| BA3 | VSS195 | CA41 | VSS265 |
| BB19 | VSS196 | CA46 | VSS266 |
| BB35 | VSS197 | CA46 | VSS267 |
| BD1 | VSS198 | CA49 | VSS268 |
| BD33 | VSS199 | CA5 | VSS269 |
| BD5 | VSS200 | CA51 | VSS270 |
| BE35 | VSS201 | CA52 | VSS271 |
| BE6 | VSS202 | CA56 | VSS272 |
| BE69 | VSS203 | CA60 | VSS273 |
| BT69 | VSS204 | CA62 | VSS274 |
| BT74 | VSS205 | CA71 | VSS275 |
| BT76 | VSS206 | CA74 | VSS276 |
| BU2 | VSS207 | CA76 | VSS277 |
| BU30 | VSS208 | CA78 | VSS278 |
| BU37 | VSS209 | CB12 | VSS279 |

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BROADWELL-DE

U30O

BDX_DE_EXT

| | | | |
|------|--------|------|--------|
| CB35 | VSS280 | CP31 | VSS360 |
| CB47 | VSS281 | CP34 | VSS361 |
| CB51 | VSS282 | CP36 | VSS362 |
| CB54 | VSS283 | CP4 | VSS363 |
| CB58 | VSS284 | CP21 | VSS364 |
| CB62 | VSS285 | CP24 | VSS365 |
| CB67 | VSS286 | CP27 | VSS366 |
| CB71 | VSS287 | CP70 | VSS367 |
| CB74 | VSS288 | CP72 | VSS368 |
| CB78 | VSS289 | CP77 | VSS369 |
| CB83 | VSS290 | CP78 | VSS370 |
| CB87 | VSS291 | CP8 | VSS371 |
| CB9 | VSS292 | CP9 | VSS372 |
| CB37 | VSS293 | CR1 | VSS373 |
| CB41 | VSS294 | CR2 | VSS374 |
| CB46 | VSS295 | CR21 | VSS375 |
| CB5 | VSS296 | CR3 | VSS376 |
| CB39 | VSS297 | CR37 | VSS377 |
| CB42 | VSS298 | CR4 | VSS378 |
| CB43 | VSS299 | CR7 | VSS379 |
| CB45 | VSS300 | CR77 | VSS380 |
| CB47 | VSS301 | CR78 | VSS381 |
| CB49 | VSS302 | CT14 | VSS382 |
| CB5 | VSS303 | CT25 | VSS383 |
| CB52 | VSS304 | CT29 | VSS384 |
| CB54 | VSS305 | CT37 | VSS385 |
| CB55 | VSS306 | CT4 | VSS386 |
| CB58 | VSS307 | CT7 | VSS387 |
| CB59 | VSS308 | CT77 | VSS388 |
| CB62 | VSS309 | CT8 | VSS389 |
| CB67 | VSS310 | CT14 | VSS390 |
| CB71 | VSS311 | CT25 | VSS391 |
| CB74 | VSS312 | CT29 | VSS392 |
| CB78 | VSS313 | CT37 | VSS393 |
| CB83 | VSS314 | CT4 | VSS394 |
| CB87 | VSS315 | CT7 | VSS395 |
| CB9 | VSS316 | CT77 | VSS396 |
| CB37 | VSS317 | CT8 | VSS397 |
| CB41 | VSS318 | CT9 | VSS398 |
| CB46 | VSS319 | CT14 | VSS399 |
| CB5 | VSS320 | CT25 | VSS400 |
| CB39 | VSS321 | CT29 | VSS401 |
| CB42 | VSS322 | CT37 | VSS402 |
| CB43 | VSS323 | CT4 | VSS403 |
| CB45 | VSS324 | CT7 | VSS404 |
| CB47 | VSS325 | CT77 | VSS405 |
| CB49 | VSS326 | CT8 | VSS406 |
| CB5 | VSS327 | CT14 | VSS407 |
| CB52 | VSS328 | CT25 | VSS408 |
| CB54 | VSS329 | CT29 | VSS409 |
| CB55 | VSS330 | CT37 | VSS410 |
| CB58 | VSS331 | CT4 | VSS411 |
| CB59 | VSS332 | CT7 | VSS412 |
| CB62 | VSS333 | CT77 | VSS413 |
| CB67 | VSS334 | CT8 | VSS414 |
| CB71 | VSS335 | CT9 | VSS415 |
| CB74 | VSS336 | CT14 | VSS416 |
| CB78 | VSS337 | CT25 | VSS417 |
| CB83 | VSS338 | CT29 | VSS418 |
| CB87 | VSS339 | CT37 | VSS419 |
| CB9 | VSS340 | CT4 | VSS420 |

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BROADWELL-DE

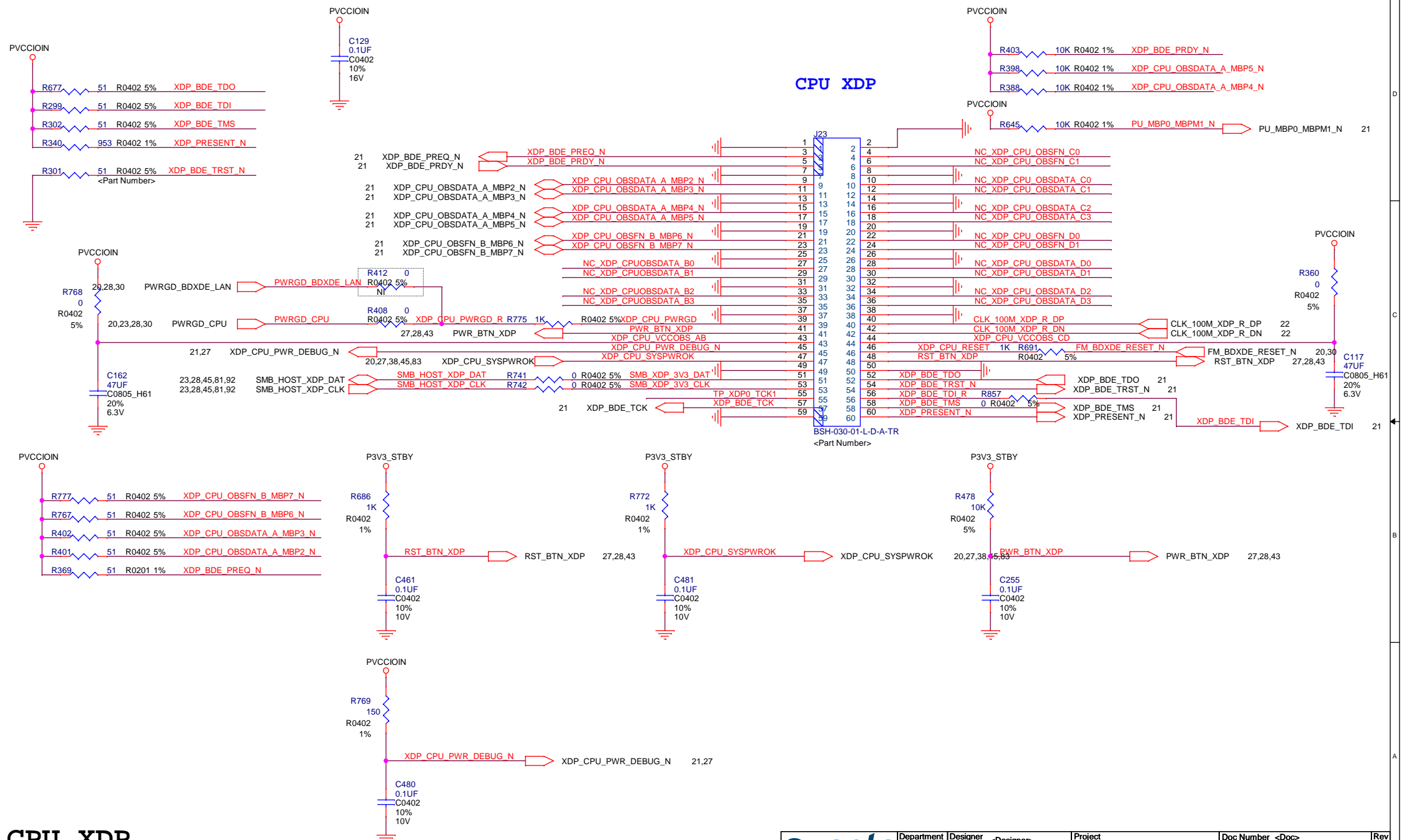
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BDX_DE_EXT

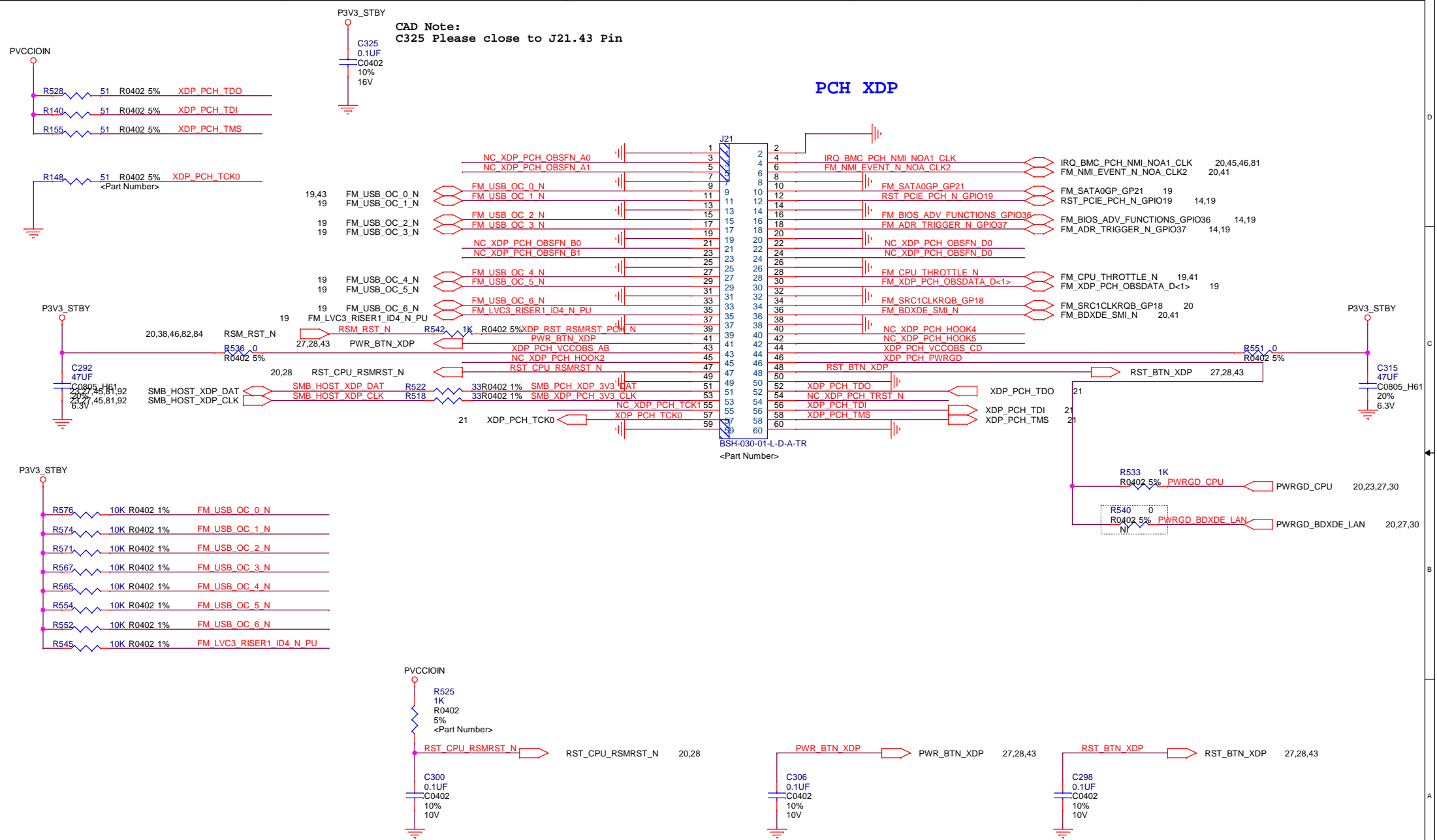
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| E66 | VSS421 | T39 | VSS491 |
| E68 | VSS422 | T60 | VSS492 |
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| E7 | VSS424 | U13 | VSS494 |
| E74 | VSS425 | U16 | VSS495 |
| E77 | VSS426 | U20 | VSS496 |
| E78 | VSS427 | U24 | VSS497 |
| E9 | VSS428 | U28 | VSS498 |
| F1 | VSS429 | U32 | VSS499 |
| K56 | VSS430 | U66 | VSS500 |
| BM55 | VSS431 | U9 | VSS501 |
| H60 | VSS432 | V14 | VSS502 |
| H67 | VSS433 | V18 | VSS503 |
| BN56 | VSS434 | V22 | VSS504 |
| B76 | VSS435 | V26 | VSS505 |
| B77 | VSS436 | V30 | VSS506 |
| B78 | VSS437 | V35 | VSS507 |
| B79 | VSS438 | V42 | VSS508 |
| B87 | VSS439 | V44 | VSS509 |
| B93 | VSS440 | V46 | VSS510 |
| C1 | VSS441 | V5 | VSS511 |
| C11 | VSS442 | V55 | VSS512 |
| C12 | VSS443 | V60 | VSS513 |
| C13 | VSS444 | V62 | VSS514 |
| C14 | VSS445 | V64 | VSS515 |
| C15 | VSS446 | V7 | VSS516 |
| C16 | VSS447 | V71 | VSS517 |
| C17 | VSS448 | V75 | VSS518 |
| C18 | VSS449 | V8 | VSS519 |
| C19 | VSS450 | V39 | VSS520 |
| C2 | VSS451 | V40 | VSS521 |
| C21 | VSS452 | V42 | VSS522 |
| C22 | VSS453 | V46 | VSS523 |
| C23 | VSS454 | V5 | VSS524 |
| C24 | VSS455 | V55 | VSS525 |
| C25 | VSS456 | V74 | VSS526 |
| C26 | VSS457 | V76 | VSS527 |
| C27 | VSS458 | V8 | VSS528 |
| C28 | VSS459 | V3 | VSS529 |
| C29 | VSS460 | V33 | VSS530 |
| C3 | VSS461 | V414 | VSS531 |
| C31 | VSS462 | V416 | VSS532 |
| C32 | VSS463 | V418 | VSS533 |
| C33 | VSS464 | V419 | VSS534 |
| C34 | VSS465 | V420 | VSS535 |
| C35 | VSS466 | V421 | VSS536 |
| C36 | VSS467 | V422 | VSS537 |
| C37 | VSS468 | V423 | VSS538 |
| C38 | VSS469 | V424 | VSS539 |
| C39 | VSS470 | V425 | VSS540 |
| C4 | VSS471 | V426 | VSS541 |
| C41 | VSS472 | V427 | VSS542 |
| C42 | VSS473 | V428 | VSS543 |
| C43 | VSS474 | V429 | VSS544 |
| C44 | VSS475 | V430 | VSS545 |
| C45 | VSS476 | V431 | VSS546 |
| C46 | VSS477 | V432 | VSS547 |
| C47 | VSS478 | V433 | VSS548 |
| C48 | VSS479 | V434 | VSS549 |
| C49 | VSS480 | V435 | VSS550 |
| C5 | VSS481 | V436 | VSS551 |
| C51 | VSS482 | V437 | VSS552 |
| C52 | VSS483 | V438 | VSS553 |
| C53 | VSS484 | V439 | VSS554 |
| C54 | VSS485 | V440 | VSS555 |
| C55 | VSS486 | V441 | VSS556 |
| C56 | VSS487 | V442 | VSS557 |
| C57 | VSS488 | V443 | VSS558 |
| C58 | VSS489 | V444 | VSS559 |
| C59 | VSS490 | V445 | VSS560 |

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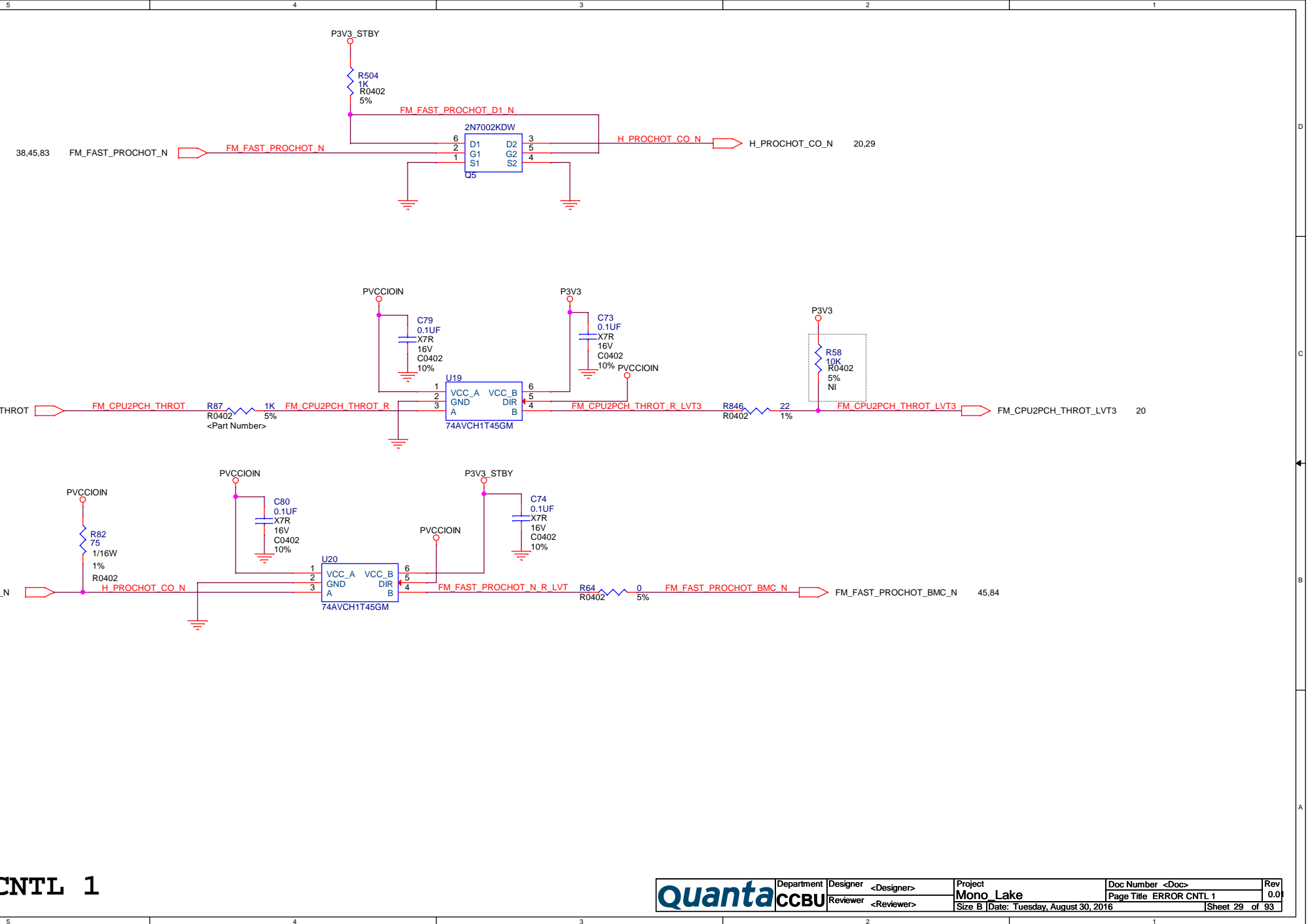
BROADWELL-DE



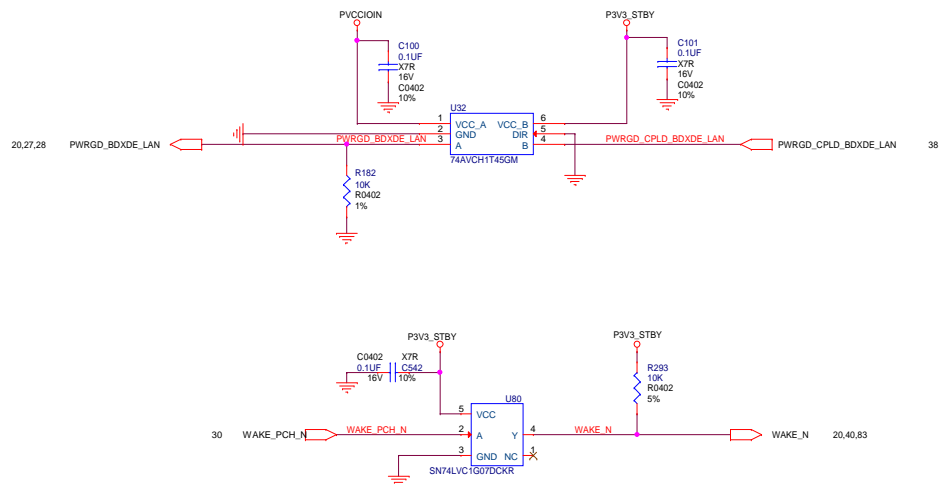
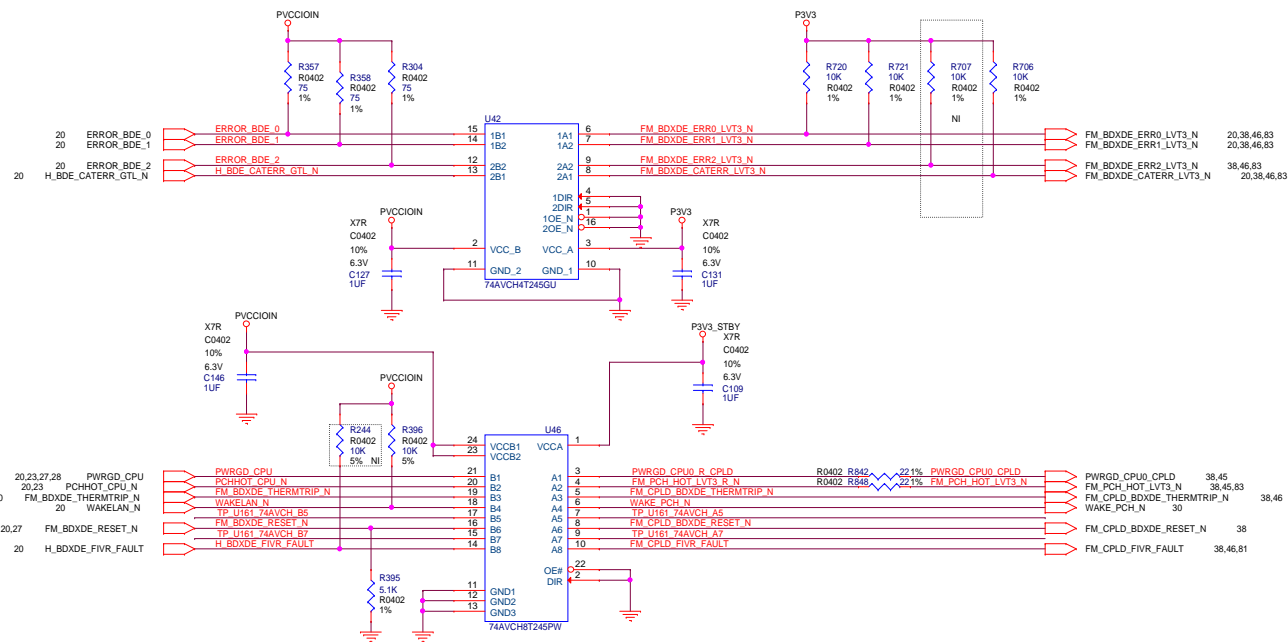
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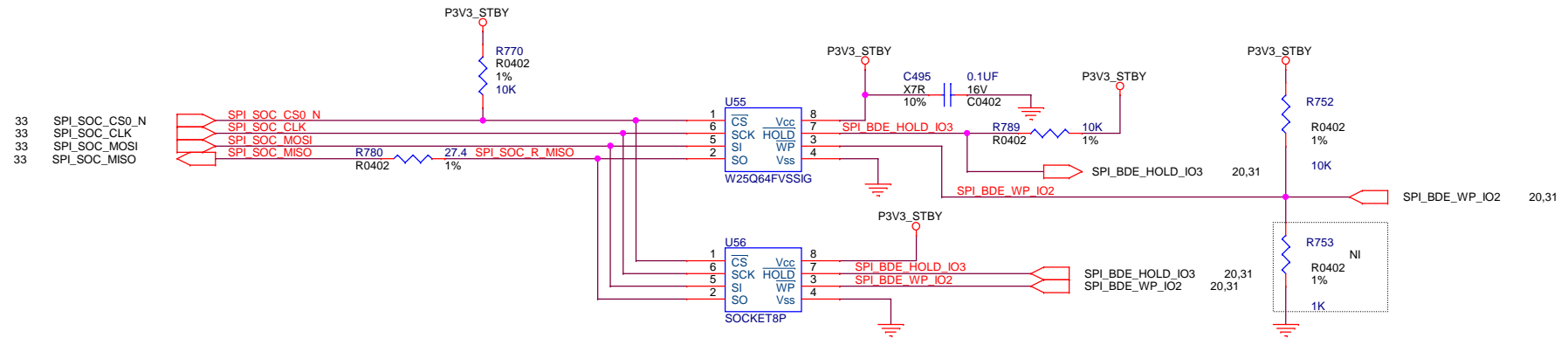


PCH XDP



ERROR CNTL 1

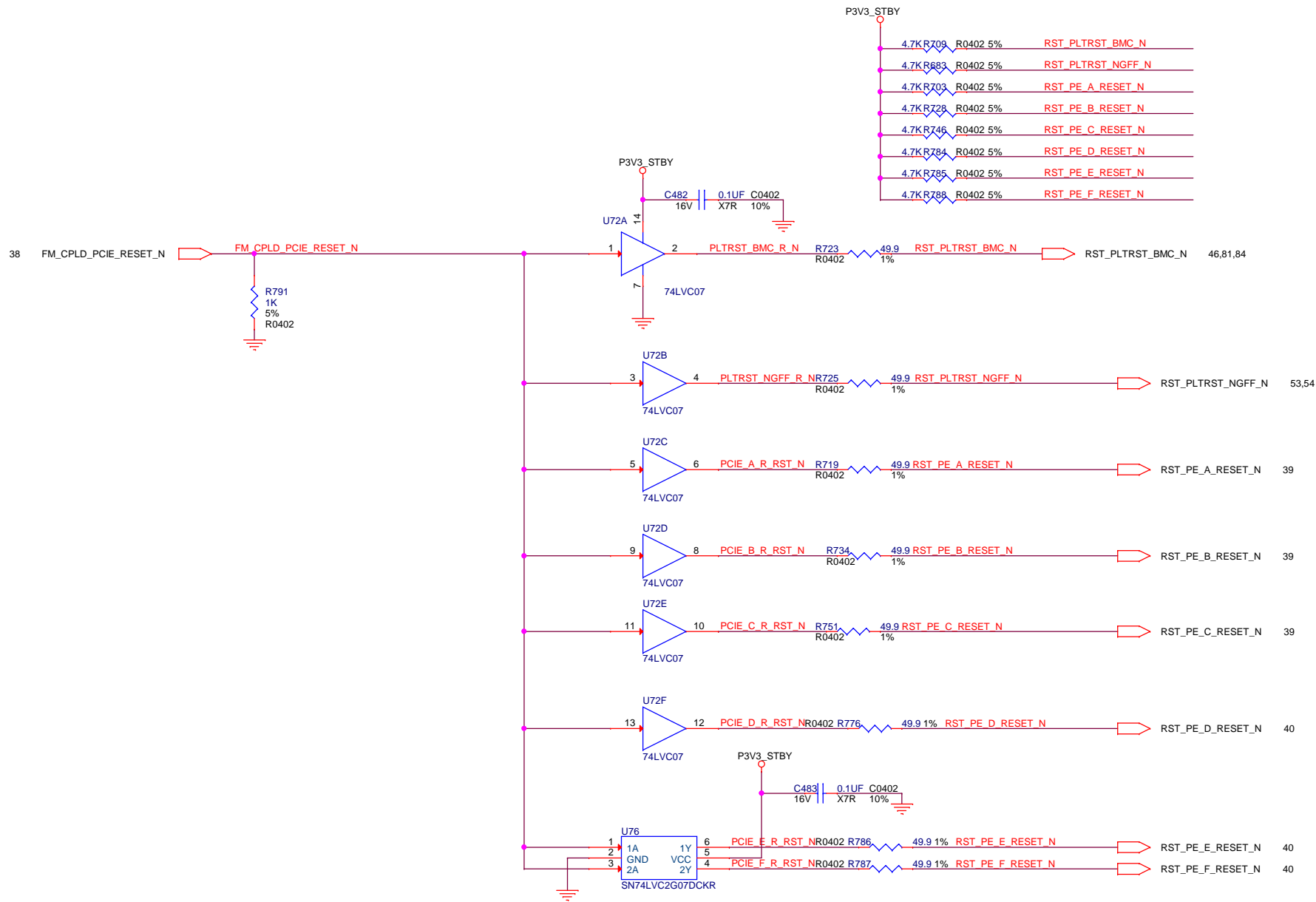




CAD Note:
THIS PART WILL CO-LAY WITH SOCKET
USE ALT SYMBOL ASSOCIATED WITH SOCKET FOOTPRINT

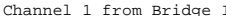
CPU SPI

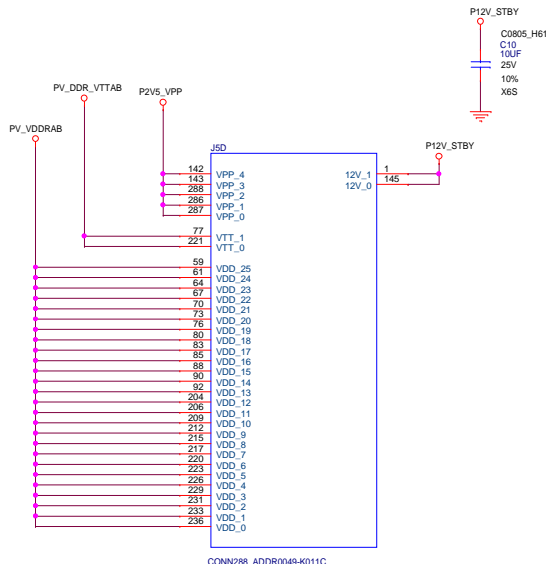
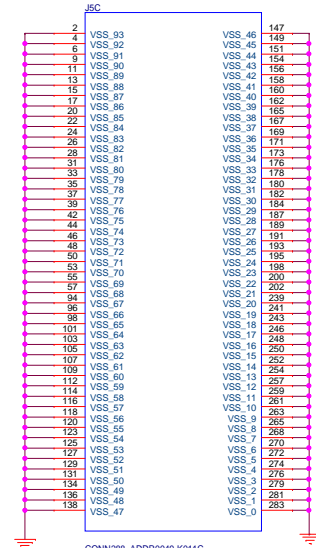
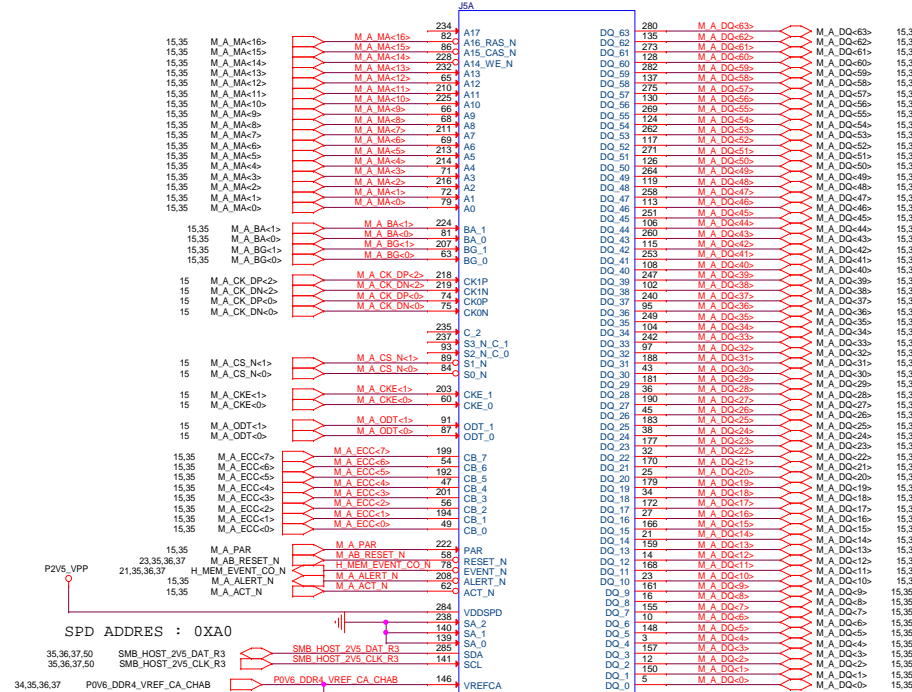
| | | | | | |
|--|------------|------------|--------------------------------|------------|----------------|
| | Department | Designer | Project | Doc Number | Rev |
| | CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| | Reviewer | <Reviewer> | Size B | Page Title | Sheet 31 of 93 |
| | | | Date: Tuesday, August 30, 2016 | CPU SPI | |

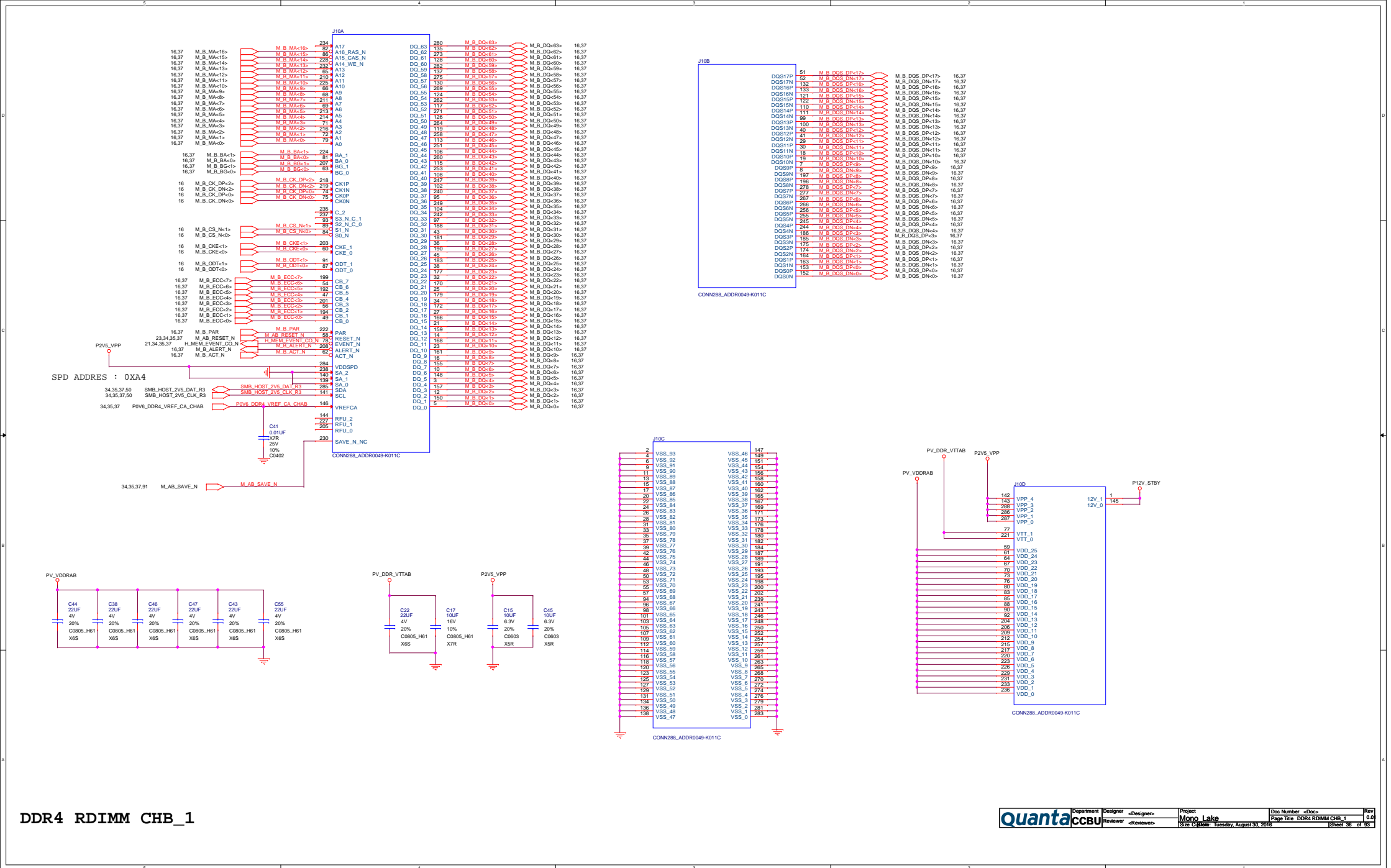


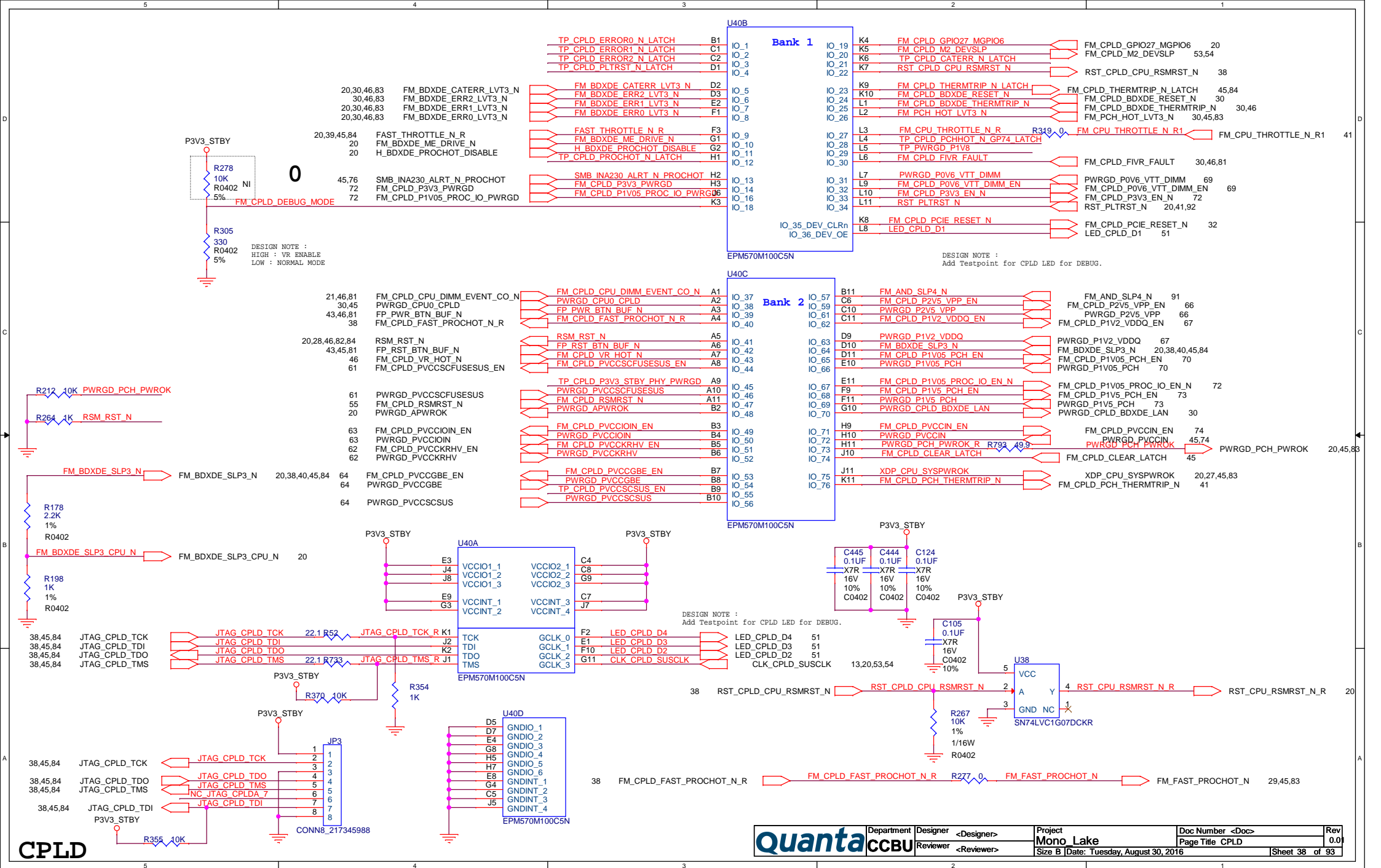
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| P3V3_STBY | 4.7KR709 | R0402 5% | RST_PLTRST_BMC_N |
| | 4.7KR683 | R0402 5% | RST_PLTRST_NGFF_N |
| | 4.7KR703 | R0402 5% | RST_PE_A_RESET_N |
| | 4.7KR728 | R0402 5% | RST_PE_B_RESET_N |
| | 4.7KR746 | R0402 5% | RST_PE_C_RESET_N |
| | 4.7KR784 | R0402 5% | RST_PE_D_RESET_N |
| | 4.7KR785 | R0402 5% | RST_PE_E_RESET_N |
| | 4.7KR788 | R0402 5% | RST_PE_F_RESET_N |

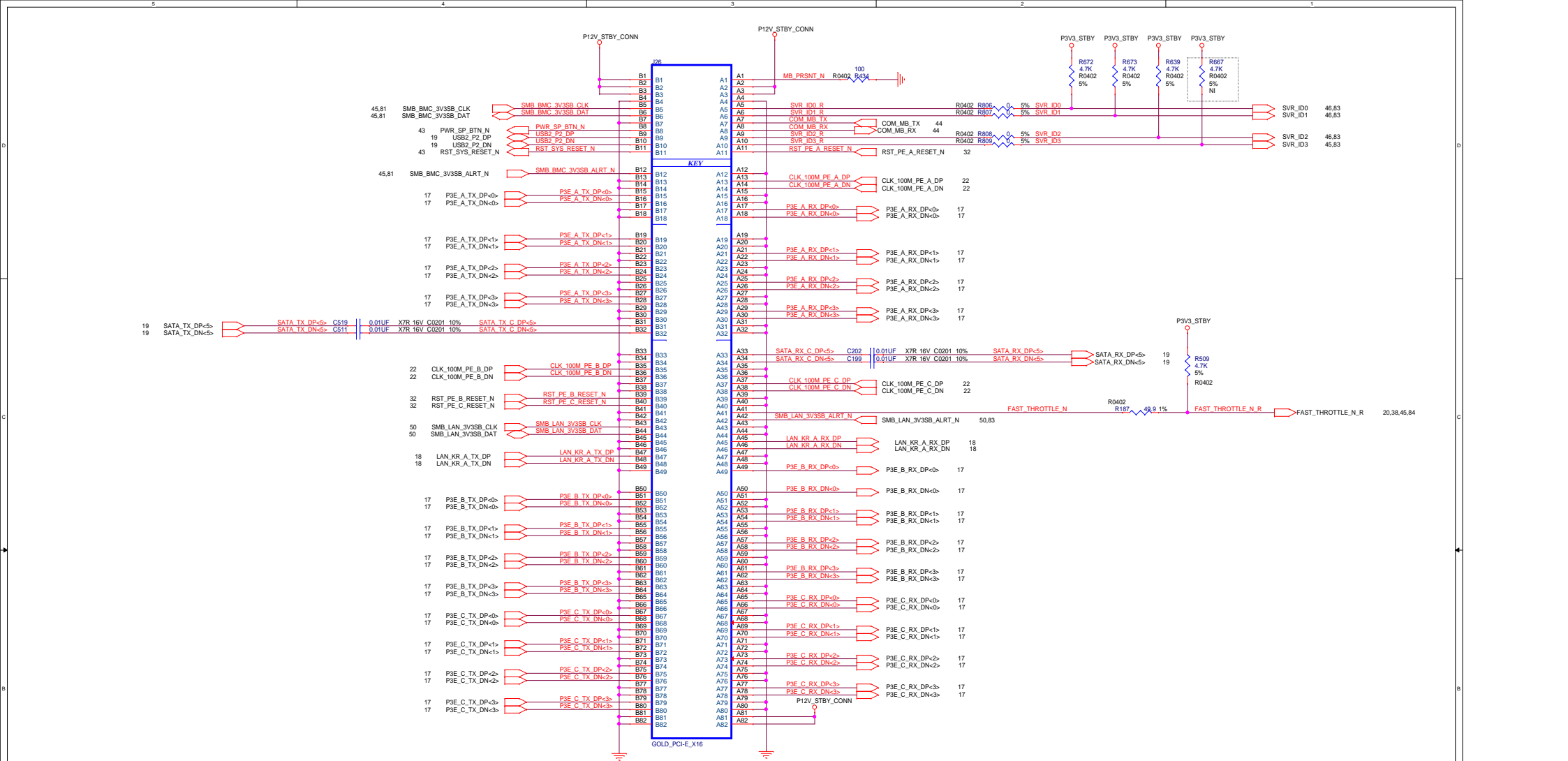
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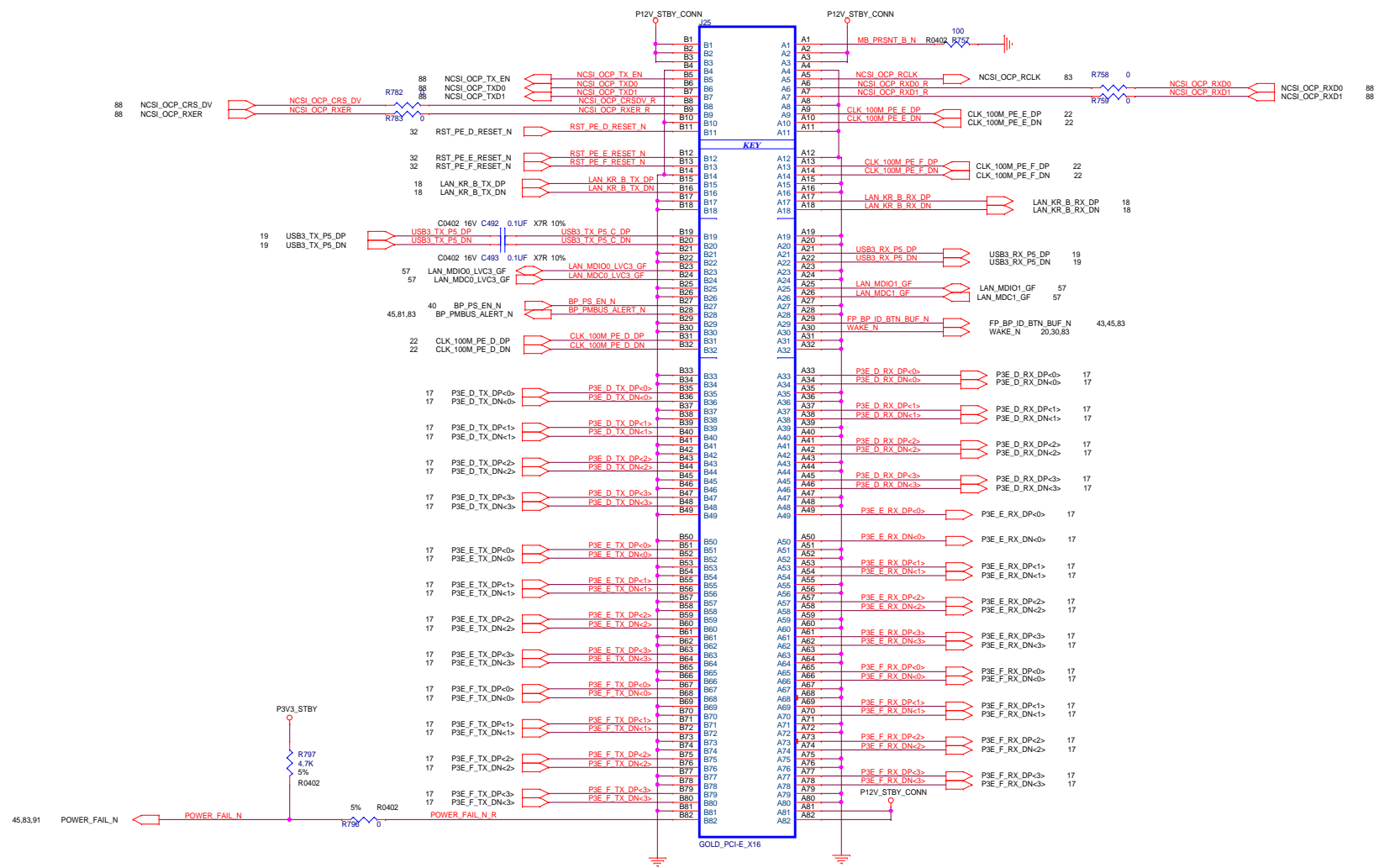


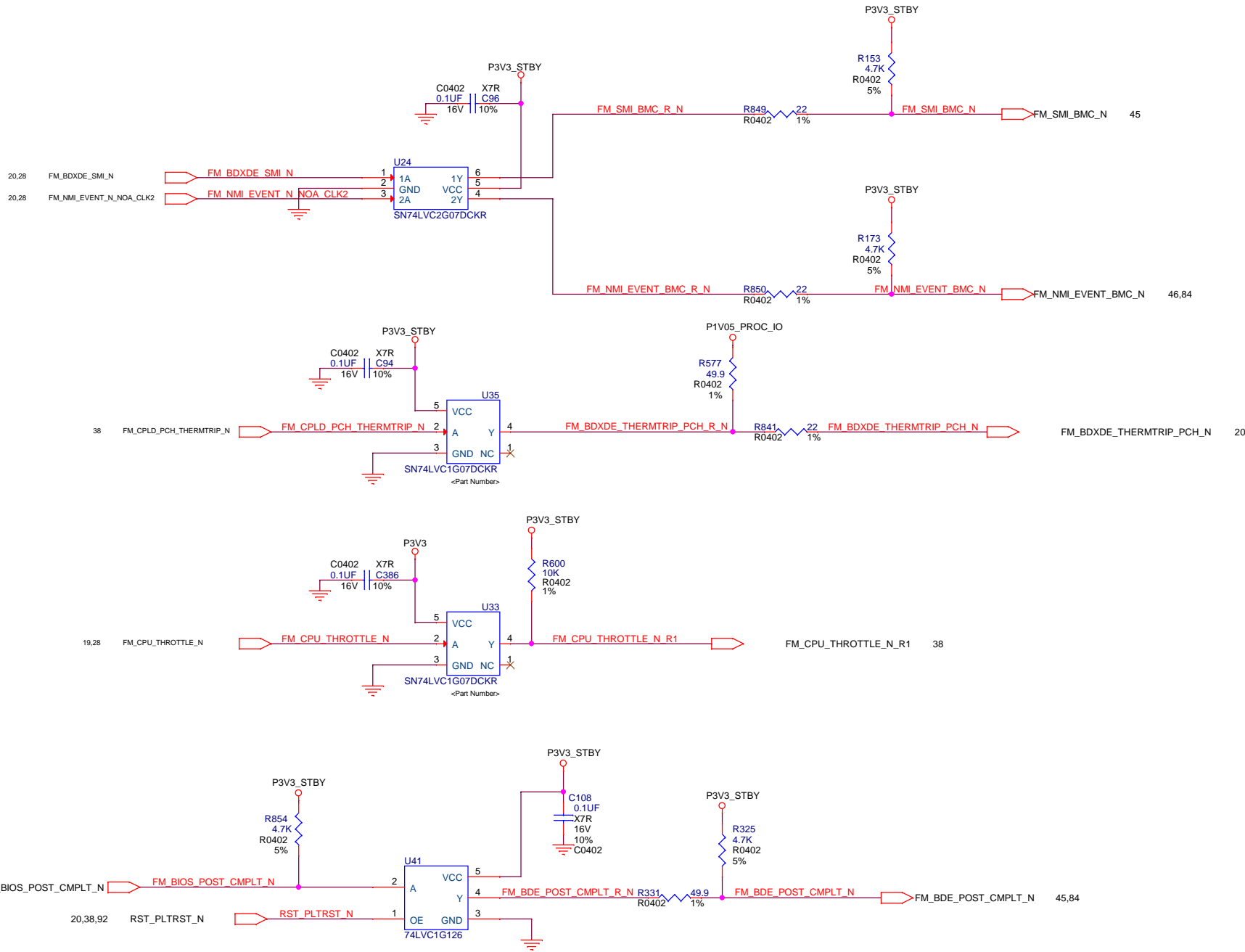








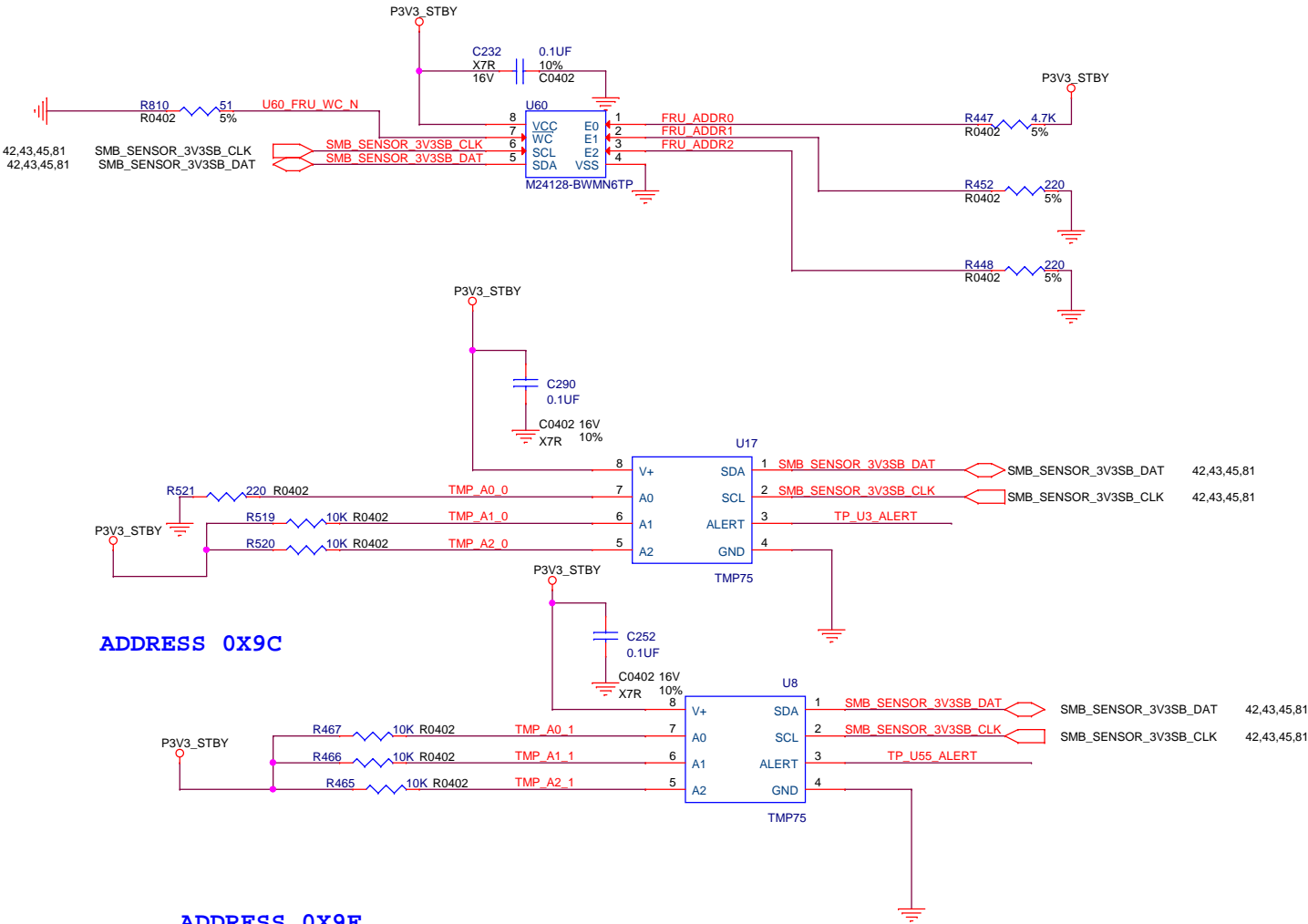




LEVEL_SHIFT

SMBus (8-bit) Address:0xA2

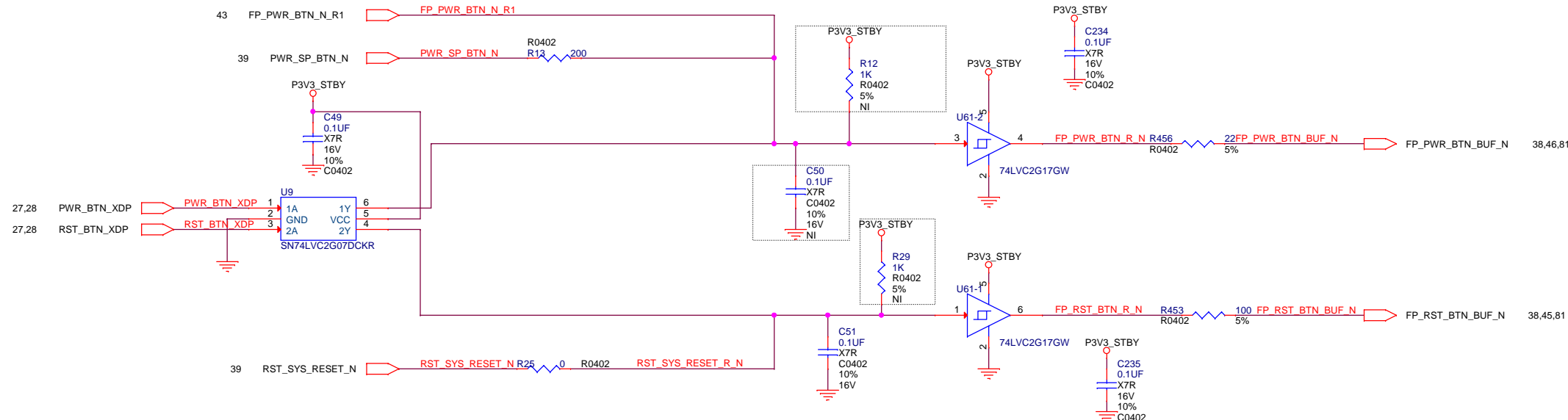
FRU



SYS_SENSOR

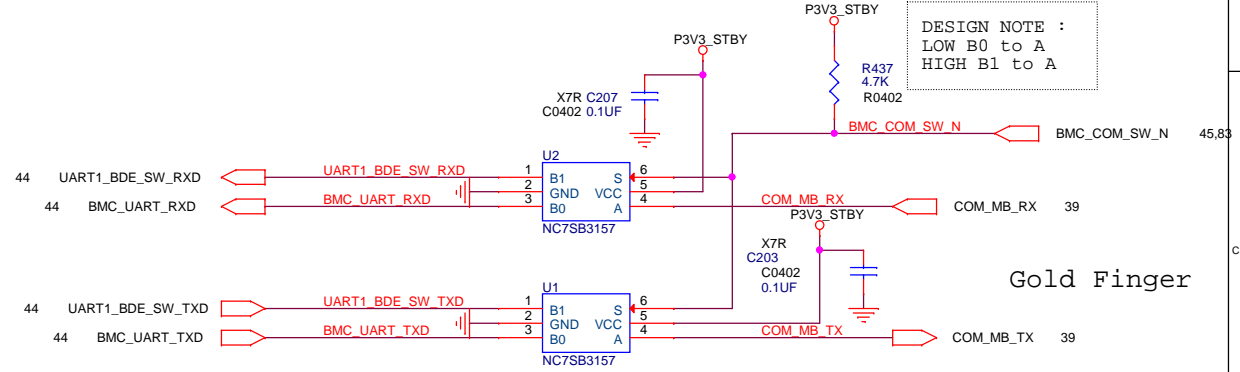
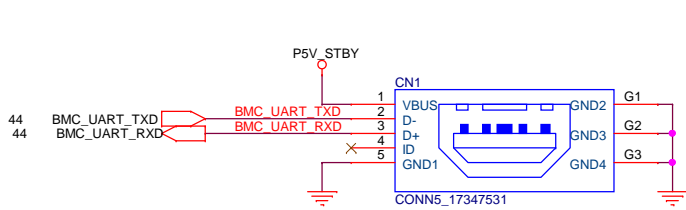
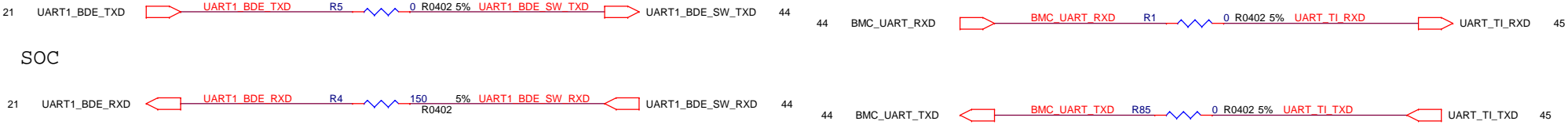


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| Department | Designer | Project | Doc Number | Rev |
| CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| Reviewer | <Reviewer> | Size B | Page Title | Sheet 42 of 93 |
| | | Date: Tuesday, August 30, 2016 | SYS_SENSOR | |

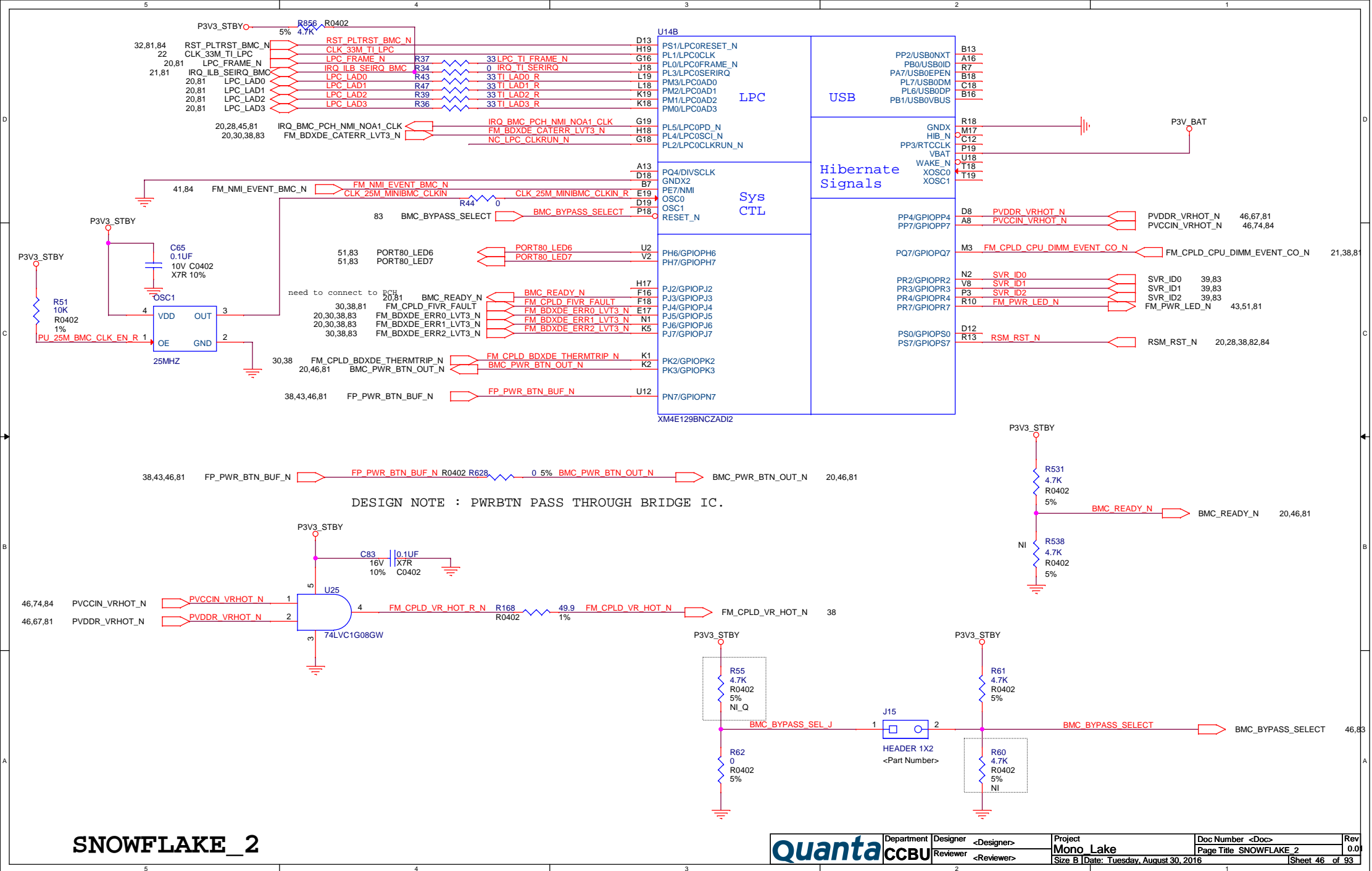


Front panel connector

SOC

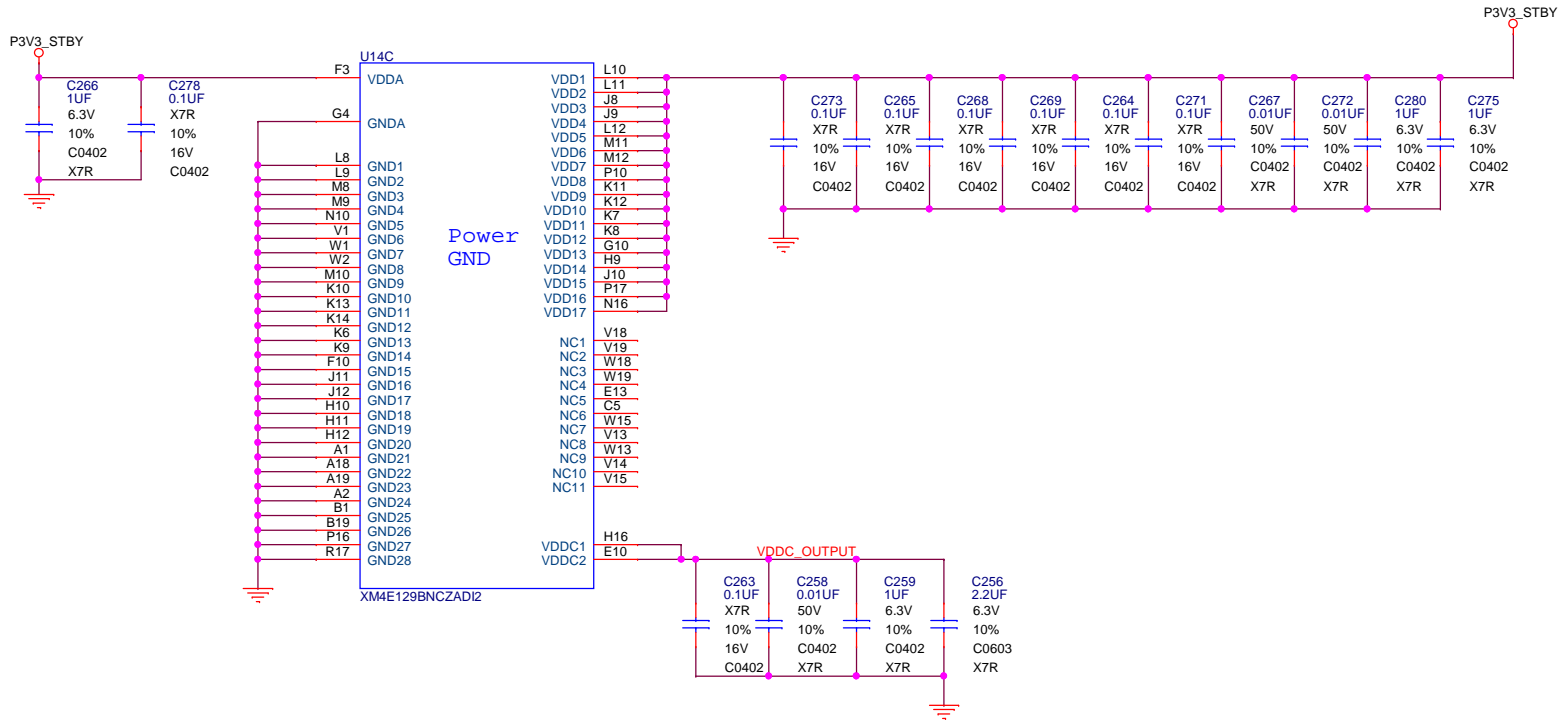


Debug UART

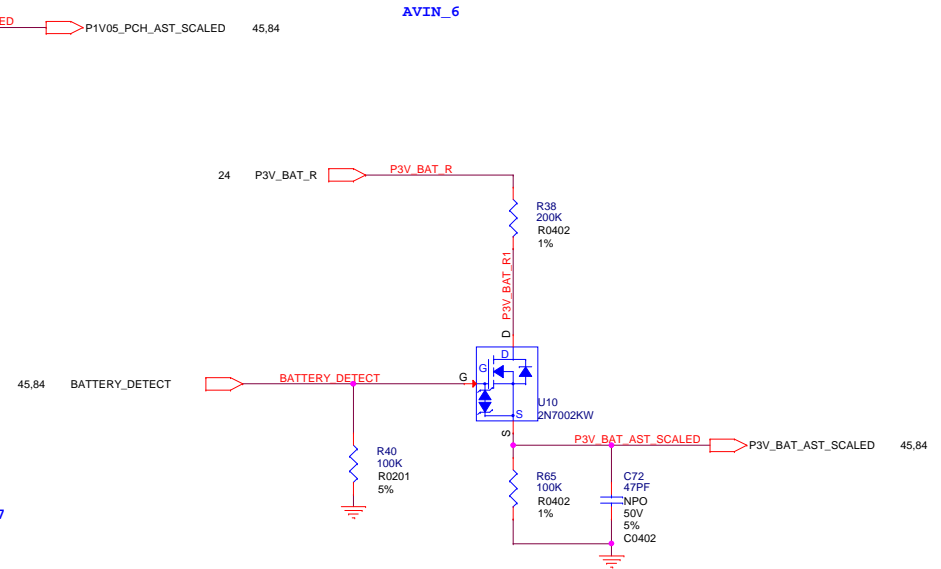
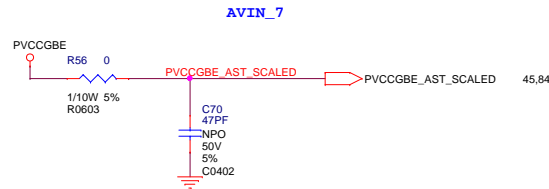
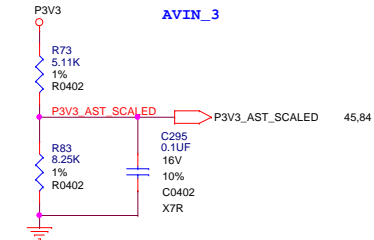
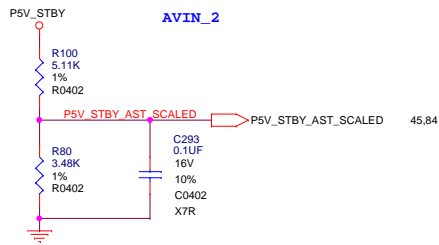
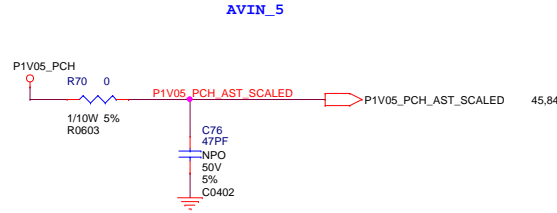
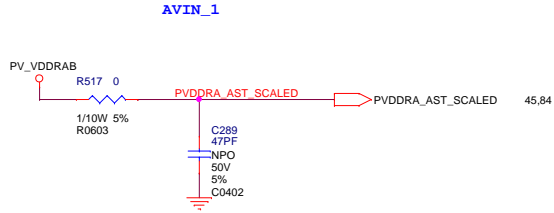
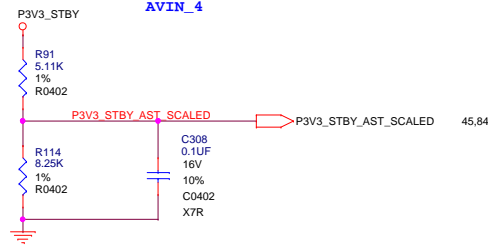
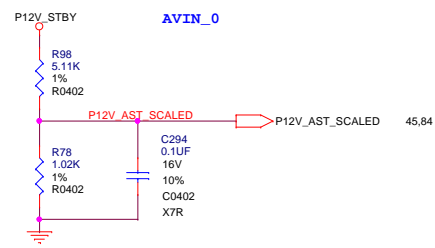


SNOWFLAKE_2

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| Quanta | Department | Designer | Project | Doc Number | Rev |
| | CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| | Reviewer | <Reviewer> | Size B | Page Title | Sheet |
| | | | Date: Tuesday, August 30, 2016 | SNOWFLAKE 2 | 46 of 93 |

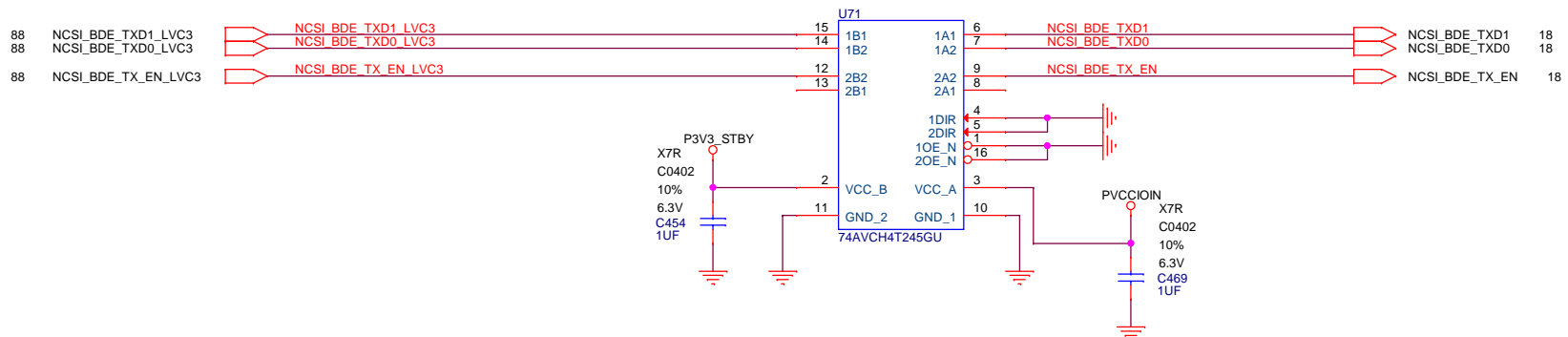
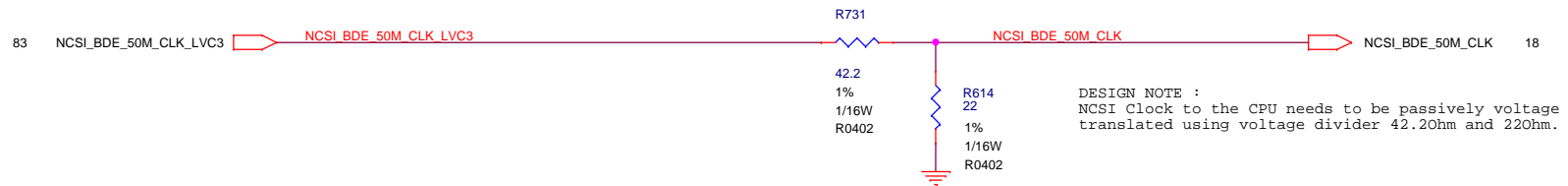
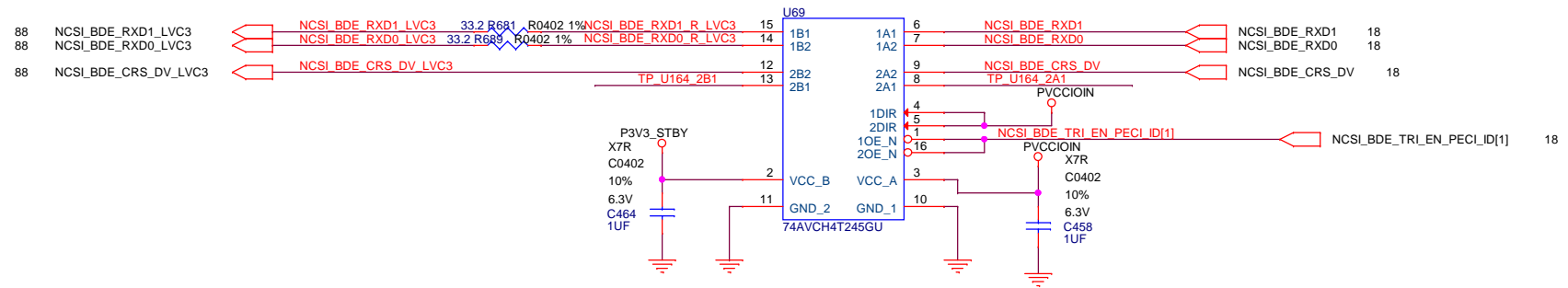


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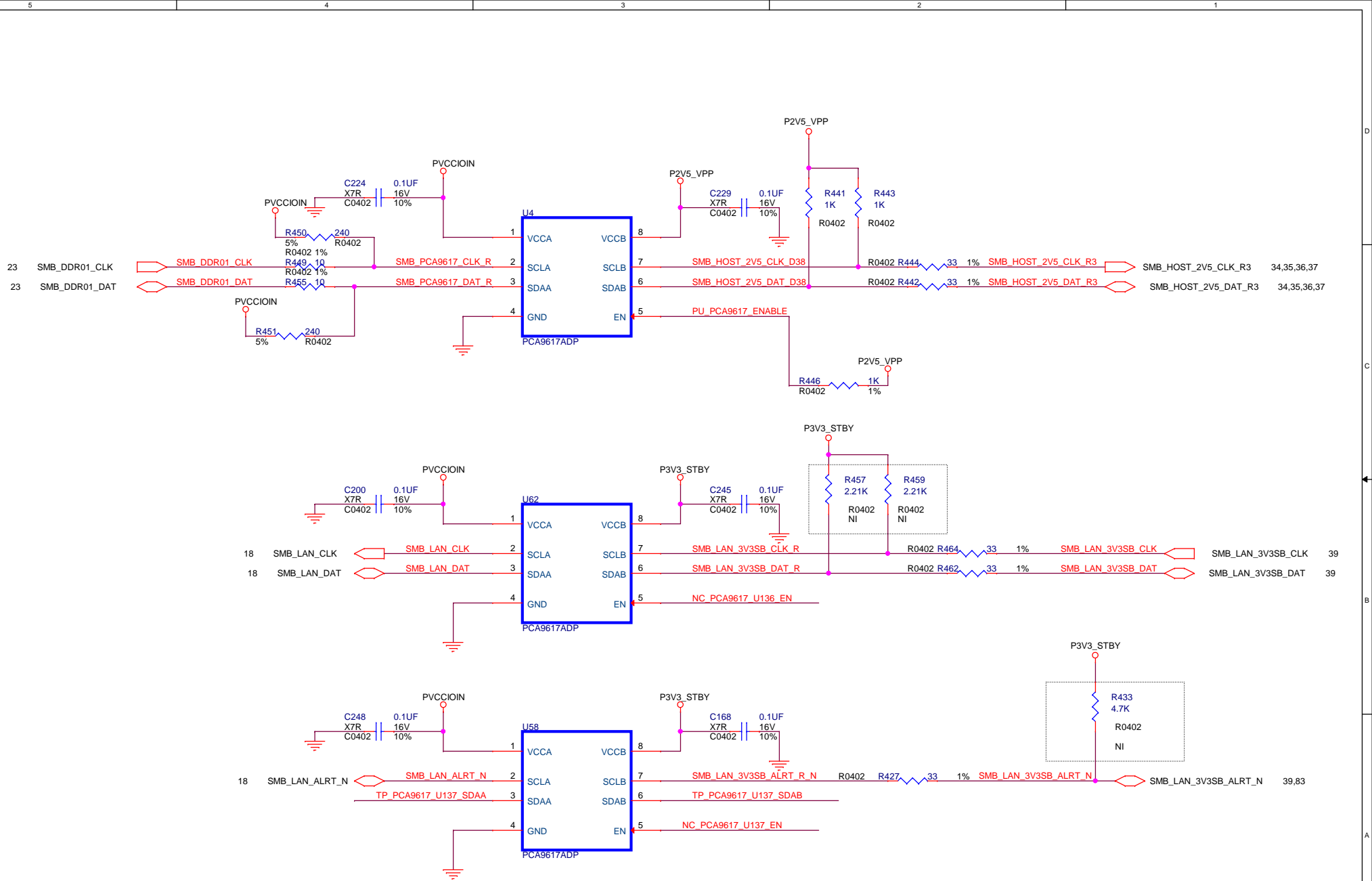


VOLTAGE MONITOR

| | | | | | |
|--|------------|----------|-----------|------------|----------------|
| | Department | Designer | Project | Doc Number | Rev |
| | CCBU | Reviewer | Mono Lake | <Doc> | 0.0 |
| | | | Size C4 | Page Title | Sheet 48 of 93 |

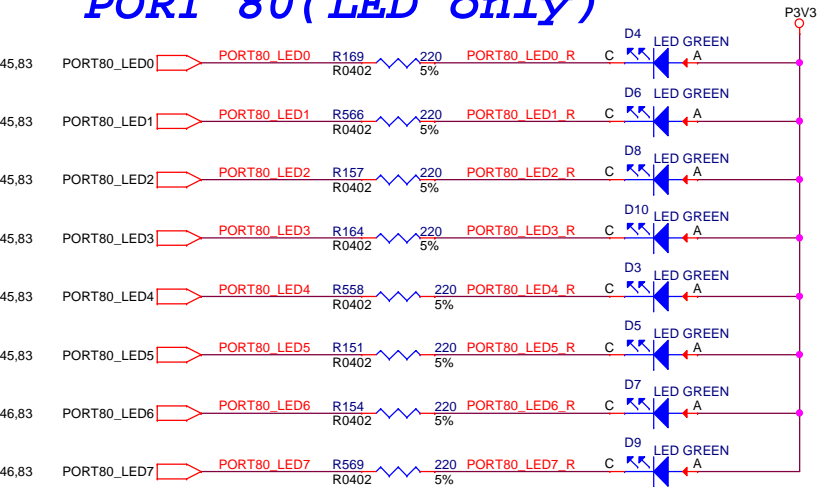


NCSI LEVEL SHIFT

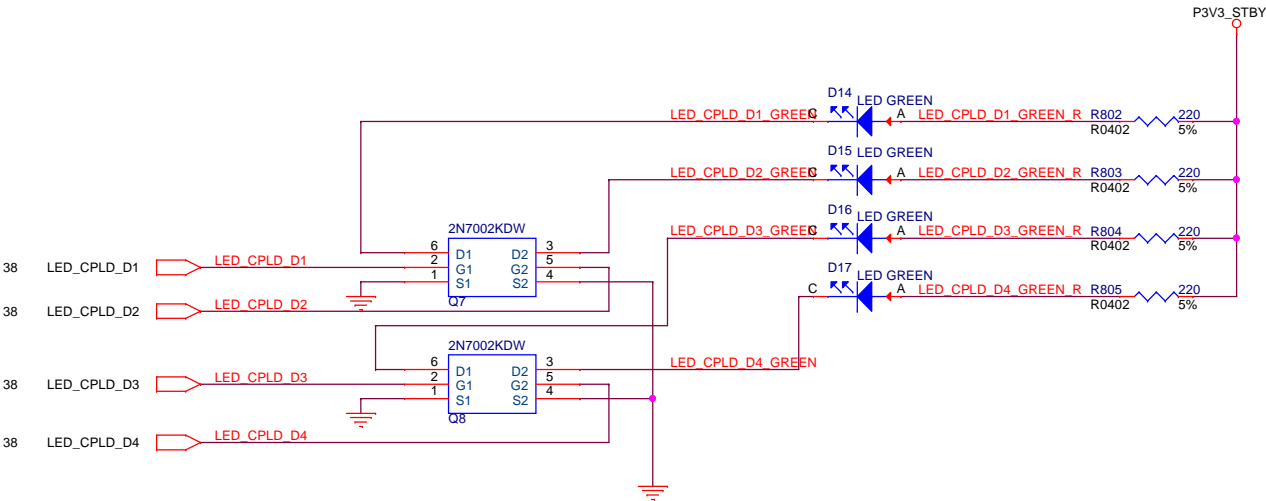
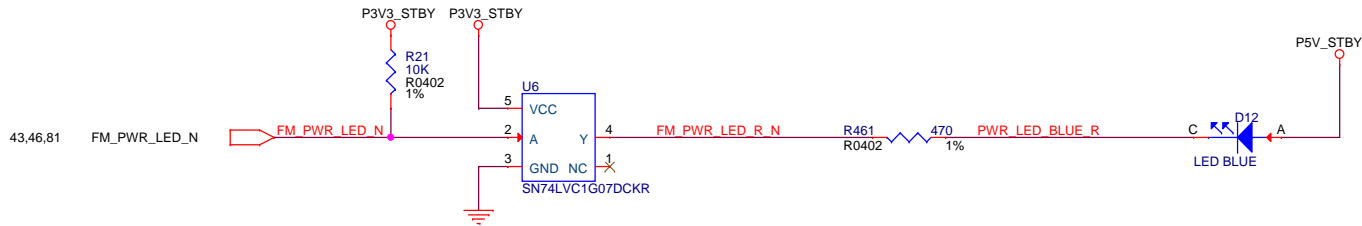


SMBUS ISOLATOR

PORT 80(LED only)

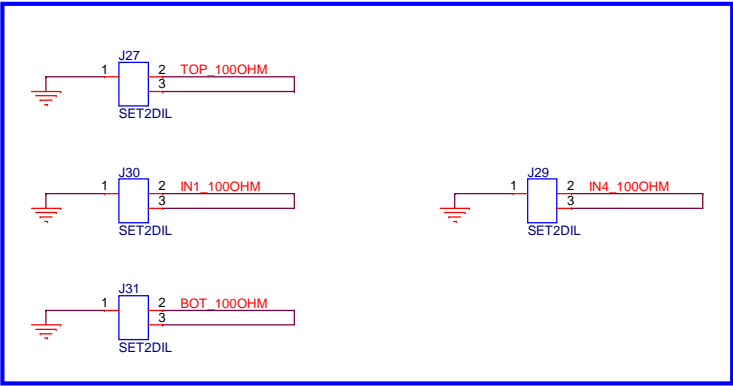
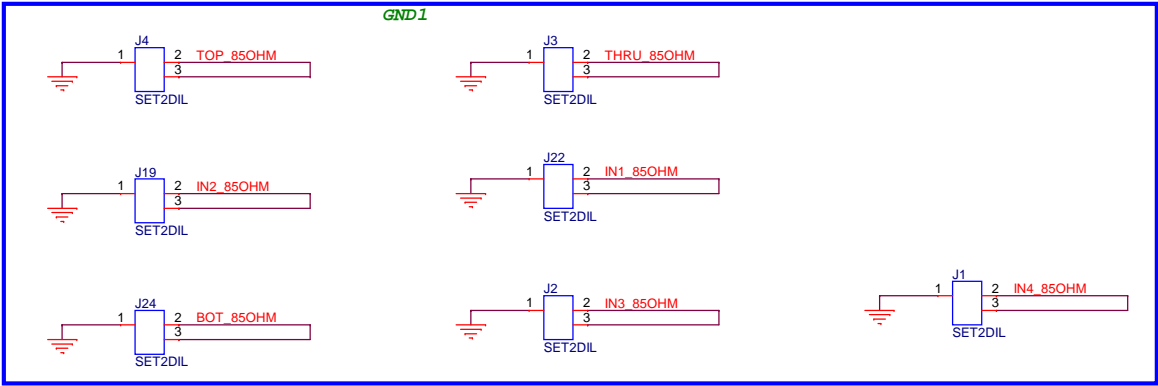


POWER LED (BLUE)

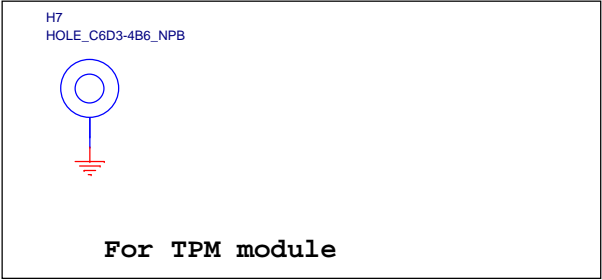


PWR/ PORT 80 LED

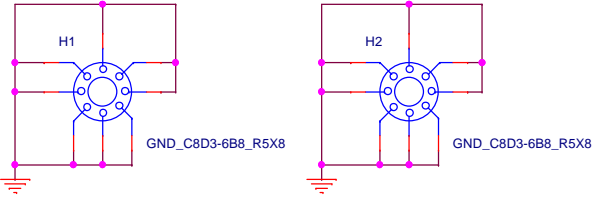
SET2DEL



Screw Hole

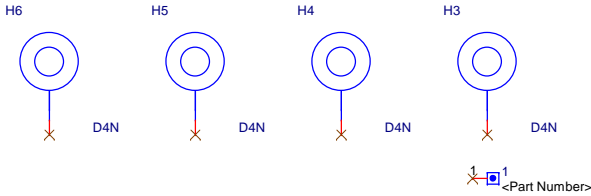


- TP_M2_LATCH
- TP_HEAT_SINK1
- TP_CPU_BACKPLANE
- TP_SCREW_1
- TP_SCREW_2
- TP_BATTERY_CABLE
- TP_BIOS_LABEL
- TP_JUMPER_1
- TP_JUMPER_2
- TP_SCREW_3

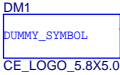


SCREW/TP

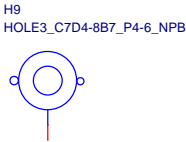
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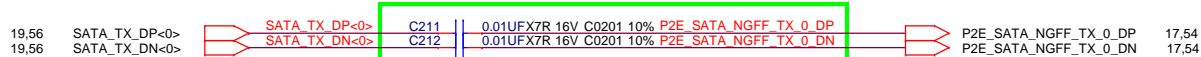
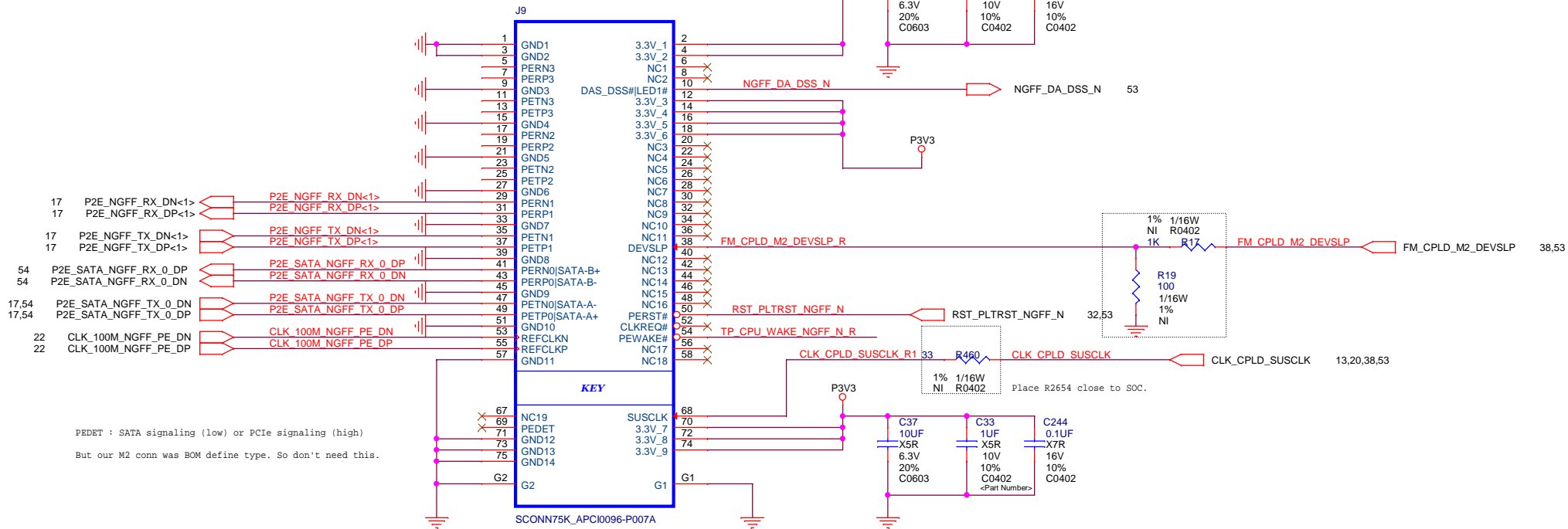


CE Logo

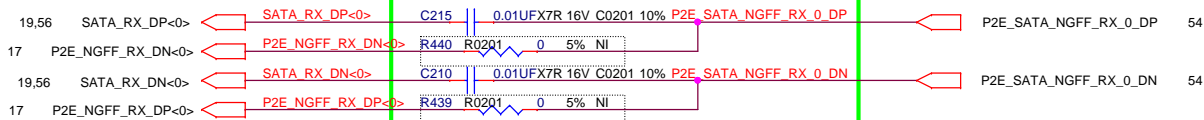


NGFF HOLE





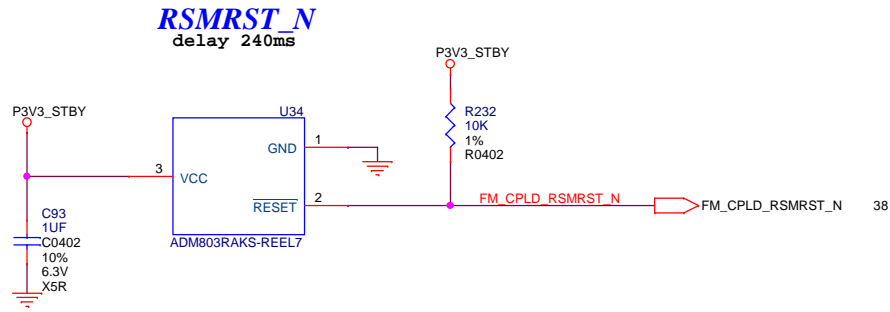
Unstuff R1975, R1976 since M2 connector default setting is SATA BUS.



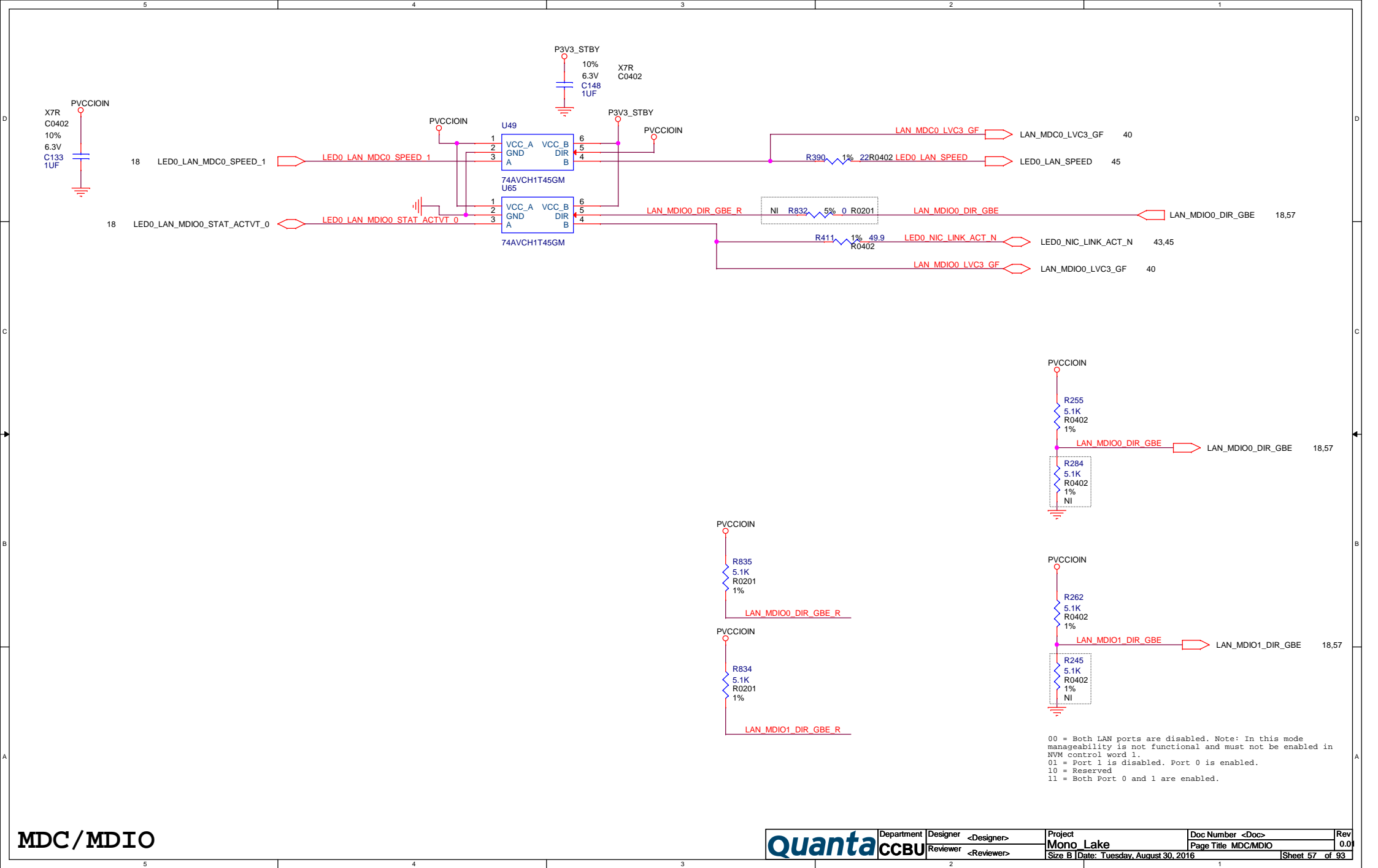
The 1st M.2 CONN

| | | | | | | | | | |
|---------------|------------|----------|------------|---------|--------------------------------|------------|------------------|----------|-------|
| Quanta | Department | Designer | <Designer> | Project | Mono Lake | Doc Number | <Doc> | Rev | 0.0 |
| | CCBU | Reviewer | <Reviewer> | Size B | Date: Tuesday, August 30, 2016 | Page Title | The 1st M.2 CONN | Sheet 54 | of 93 |

RSMRST



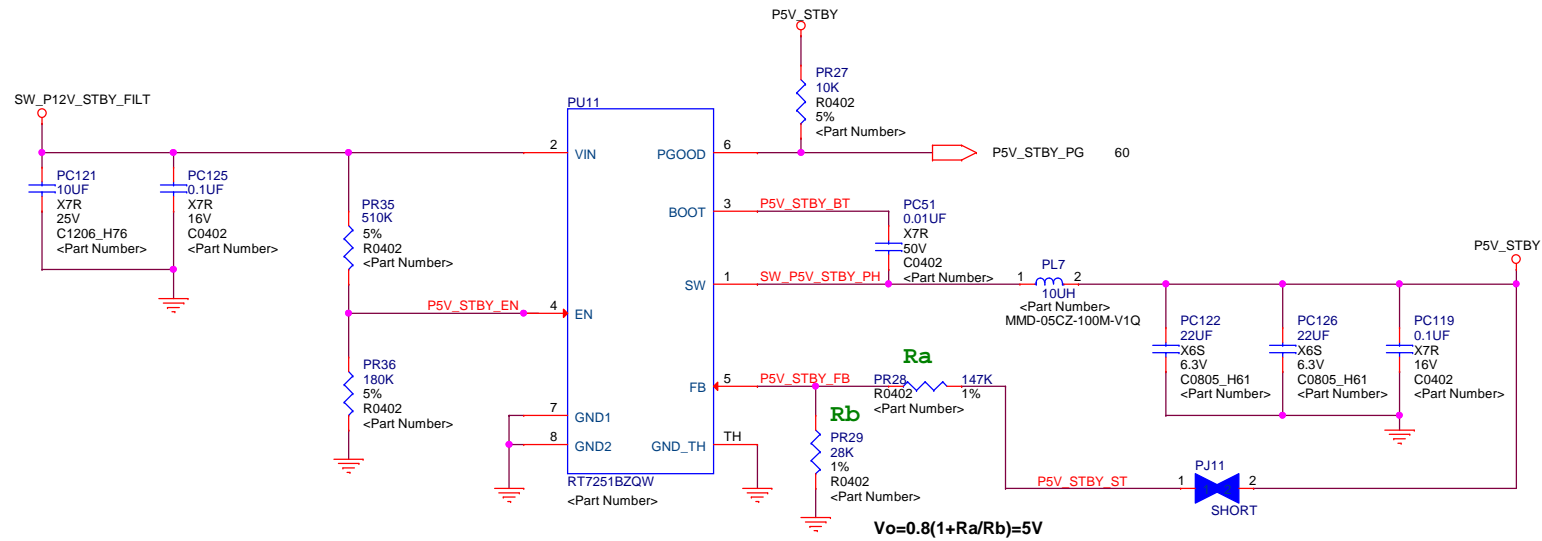
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| Department | Designer | Project | Doc Number | Rev |
| CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| Reviewer | <Reviewer> | Size B | Page Title | Sheet 55 of 93 |
| | | Date: Tuesday, August 30, 2016 | RSMRST | |



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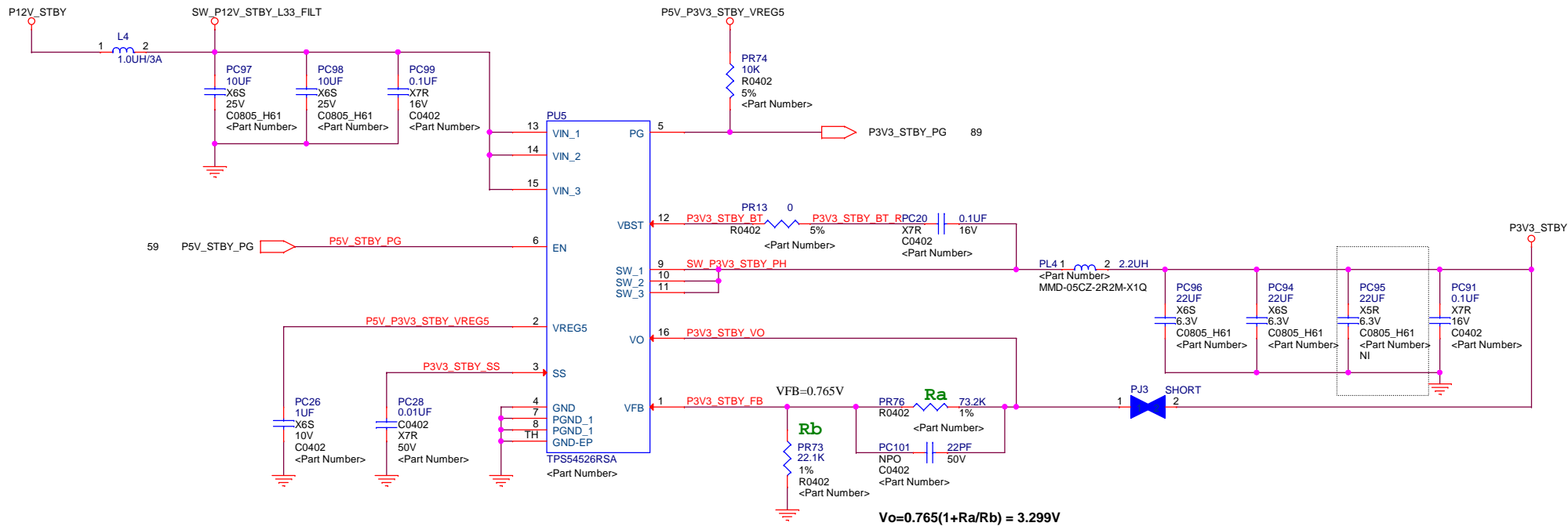


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| CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| Reviewer | <Reviewer> | Size B | Date: Tuesday, August 30, 2016 | Page Title BLANK |
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P5V_STBY

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|--|------------|------------|--------------------------------|------------|-------|
| | Department | Designer | Project | Doc Number | Rev |
| | CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| | Reviewer | <Reviewer> | Size B | Page Title | |
| | | | Date: Tuesday, August 30, 2016 | P5V STBY | |
| | | | | Sheet 59 | of 93 |

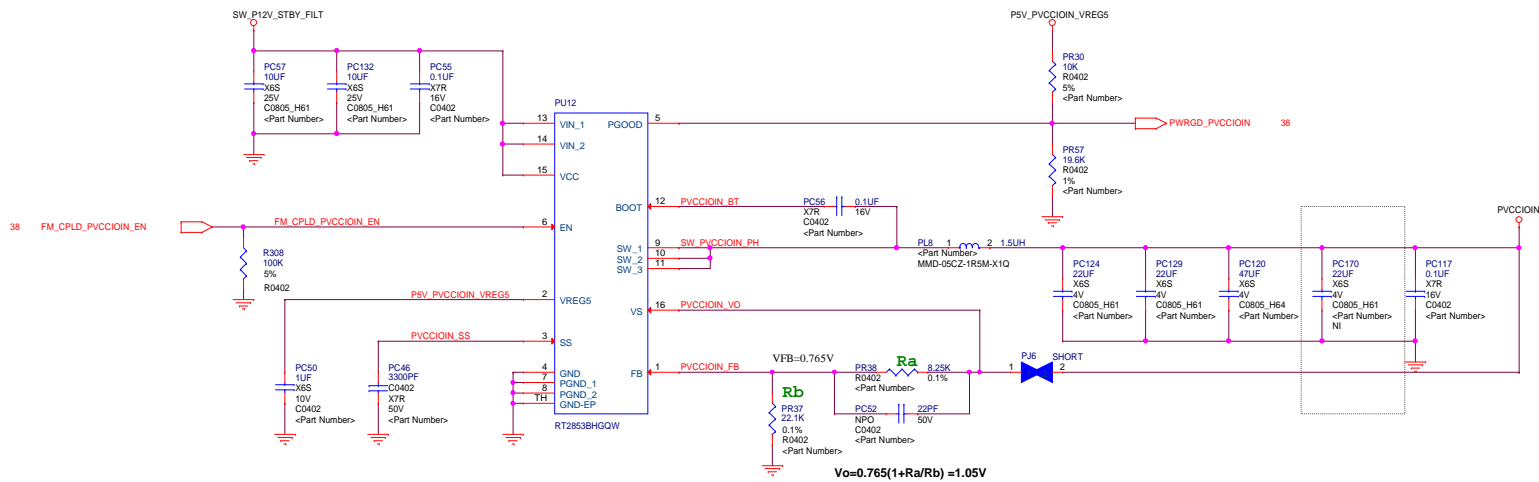


P3V3_STBY

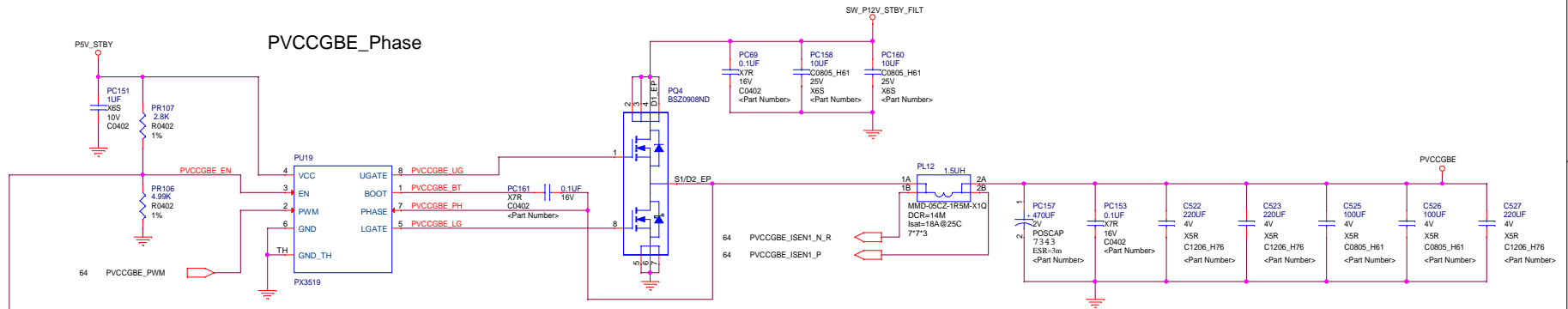
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| <div> <div>Quanta</div> <div>CCBU</div> </div> | Department | Designer | Project | Doc Number | Rev |
| | Designer | Mono Lake | Date: Tuesday, August 30, 2016 | Page Title P3V3_STBY | 0.0 |
| | Reviewer | Reviewer | Size B | Sheet 60 of 93 | 0.0 |



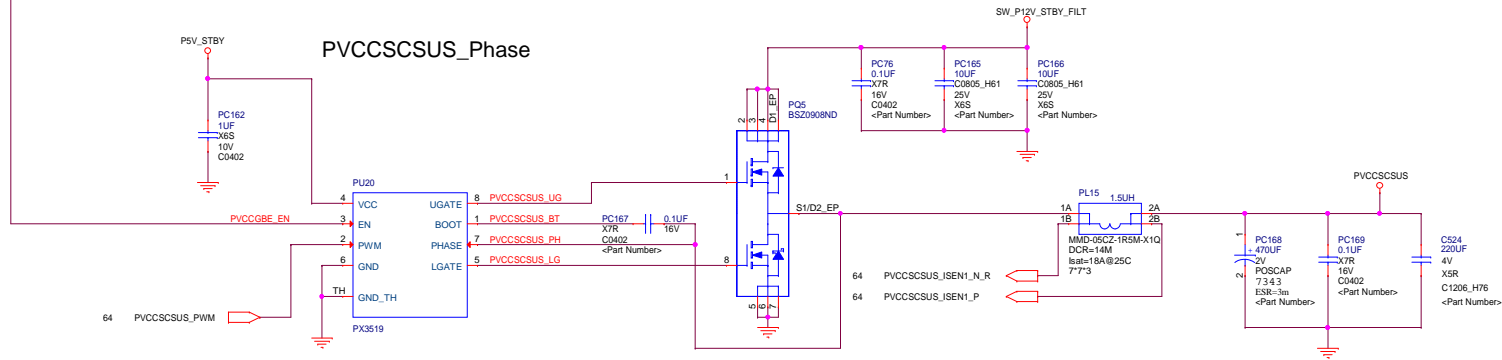




PVCCGBE_Phase



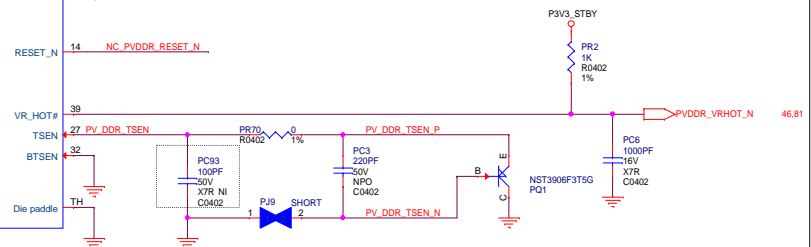
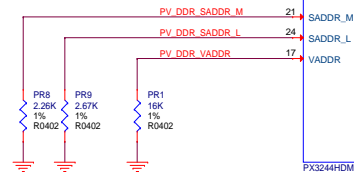
PVCCSCSUS_Phase



| SVID SLAVE ADDRESS TABLE | | | |
|--------------------------|------|-------|--------|
| VADDR(PIN17) | SVID | SLAVE | ADDRES |
| 2.67 | C | A | 0 |
| 3.16 | A | A | 0 |
| 4.02 | B | A | 0 |
| 5.36 | C | A | 0 |
| 8.06 | D | A | 0 |
| 16.0 | E | A | 0 |
| OPEN | | | 0 |


| I2C ADDRESS TABLE | | SADDR_M | |
|-------------------|----|---------|----|
| SADDR_L | | | |
| 2.26 | F0 | DC | BC |
| 2.67 | F8 | D8 | B8 |
| 3.16 | F4 | D4 | B4 |
| 4.02 | F0 | D0 | B0 |
| 5.36 | EC | CC | AC |
| 8.06 | E8 | C8 | A8 |
| 16.0 | E4 | C4 | A4 |
| OPEN | E0 | C0 | A0 |

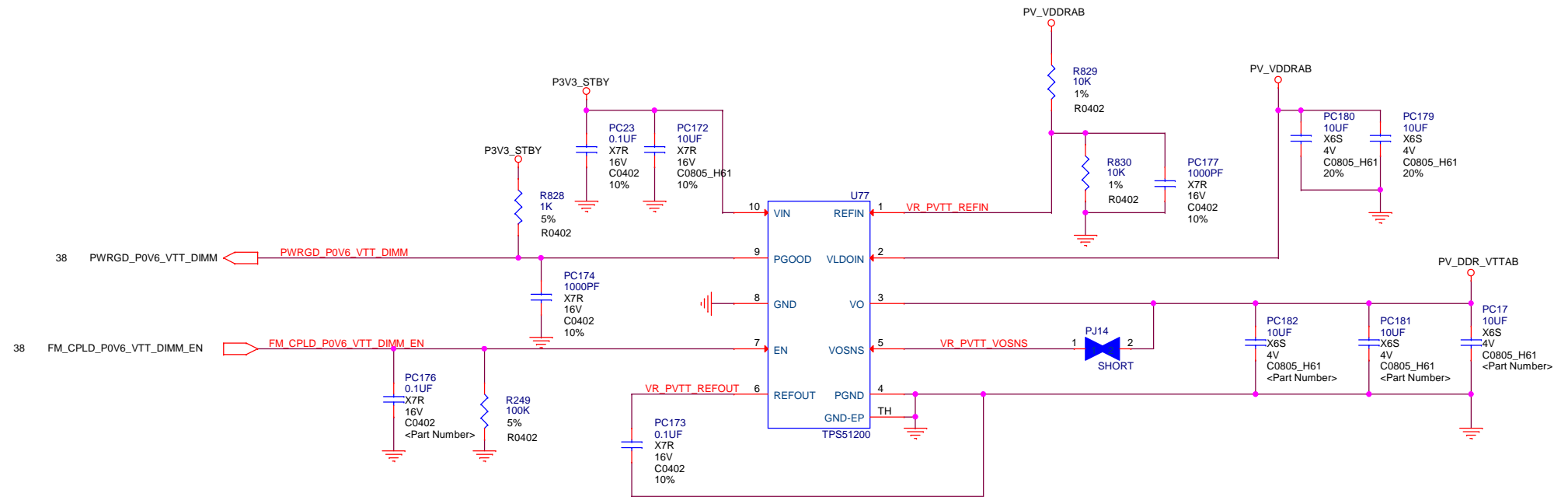
SM-BUS Address=0xF8H



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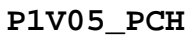


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| Size C | Document Number | Rev 0.01 |

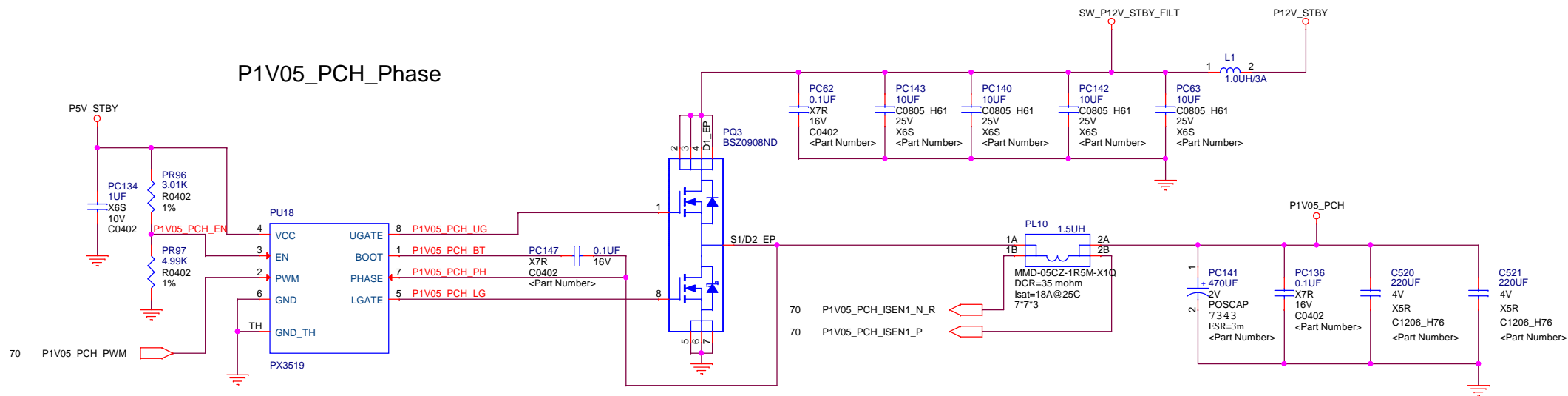


PV_DDR_VTTAB

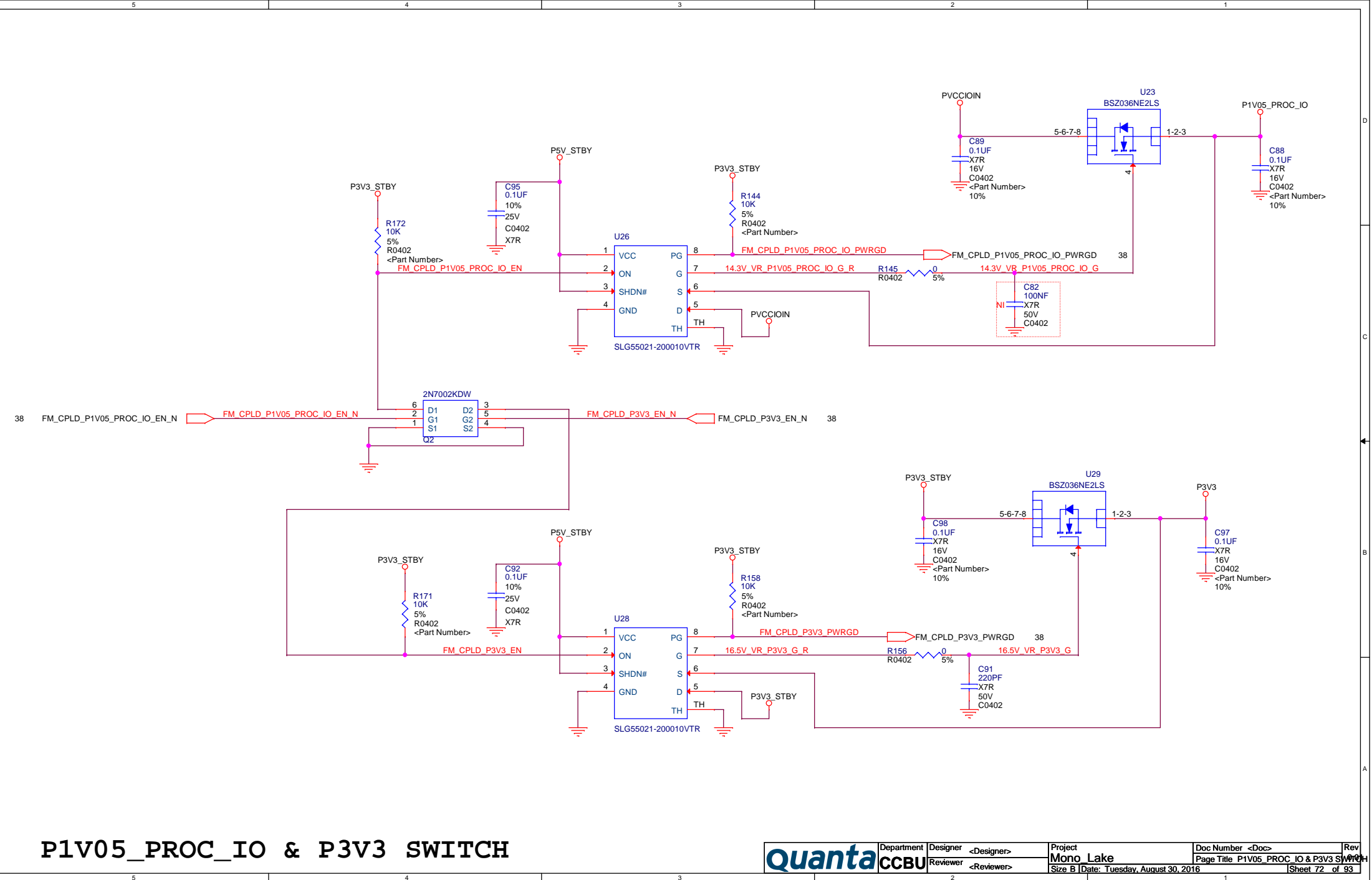
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| | Department | Designer | Project | Doc Number | Rev |
| | CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| | Reviewer | <Reviewer> | Size B Date: Tuesday, August 30, 2016 | Page Title PV_DDR_VTTAB | Sheet 69 of 93 |



P1V05_PCH_Phase

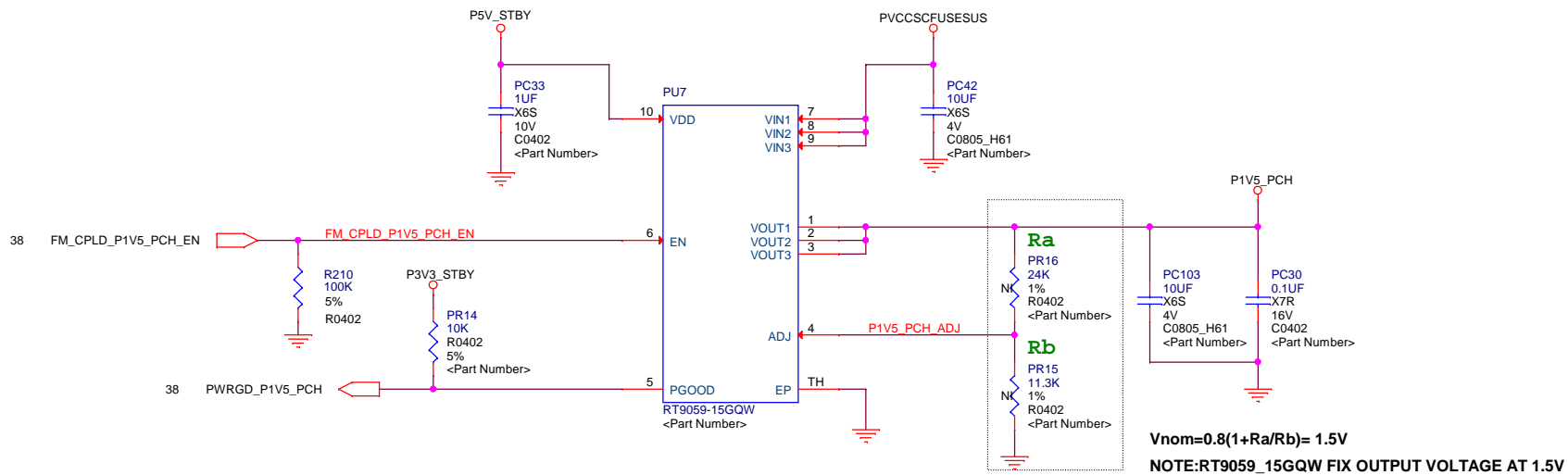


P1V05_PCH PHASE



P1V05_PROC_IO & P3V3 SWITCH

| | | | | | |
|---|------------|--------------------------|--|---|-------|
|  | Department | Designer | Project | Doc Number | Rev |
| | CCBU | <Designer> <Reviewer> | Mono Lake Size B Date: Tuesday, August 30, 2016 | <Doc> Page Title P1V05_PROC_IO & P3V3 SWITCH Sheet 72 of 93 | <Rev> |



P1V5_PCH

| | | | | | |
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| | Department | Designer | Project | Doc Number | Rev |
| | CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| | Reviewer | <Reviewer> | Size B Date: Tuesday, August 30, 2016 | Page Title P1V5_PCH | Sheet 73 of 93 |

21,64,67,70 SVID_CPU_CLK
21,64,67,70 SVID_CPU_DATA
21,64,67,70 SVID_CPU_ALERT_N

64,67,70,81 SMB_VR12_SCL
64,67,70,81 SMB_VR12_SDA

DIFF PAIR
10MIL
WIDTH
5MIL
SPACING

SM-BUS Address=0xFC

SVID SLAVE ADDRESS TABLE

| VADDR(PIN17) | SVID | SLAVE | ADDRESS |
|--------------|------|-------|---------|
| 2,6,7 | FC | 7C | 0 |
| 3,16 | 7C | 7C | 0 |
| 4,0,2,3 | 7C | 7C | 0 |
| 9,2,3,6 | 7C | 7C | 0 |
| 16,0 | 7C | 7C | 0 |
| OPEN | 7C | 7C | 0 |

I2C ADDRESS TABLE

| SADDR_L | 2,26 | 2,67 | 3,16 | SADDR_M | 4,02 | 5,36 | 8,06 | 16,0 | OPEN |
|---------|------|------|------|---------|------|------|------|------|----------|
| 2,26 | FC | DC | BC | 9C | 7C | 5C | 3C | 1C | |
| 2,67 | FC | D8 | B8 | 98 | 78 | 58 | 38 | 18 | |
| 3,16 | FC | D4 | B4 | 94 | 74 | 54 | 34 | 14 | |
| 4,0,2,3 | FC | D0 | B0 | 90 | 70 | 50 | 30 | 10 | |
| 9,2,3,6 | FC | CC | AC | 8C | 6C | 4C | 2C | 0C | |
| 16,0 | FC | C8 | A8 | 88 | 68 | 48 | 28 | 08 | |
| OPEN | FC | C0 | A0 | 80 | 60 | 40 | 20 | 00 | RESERVED |

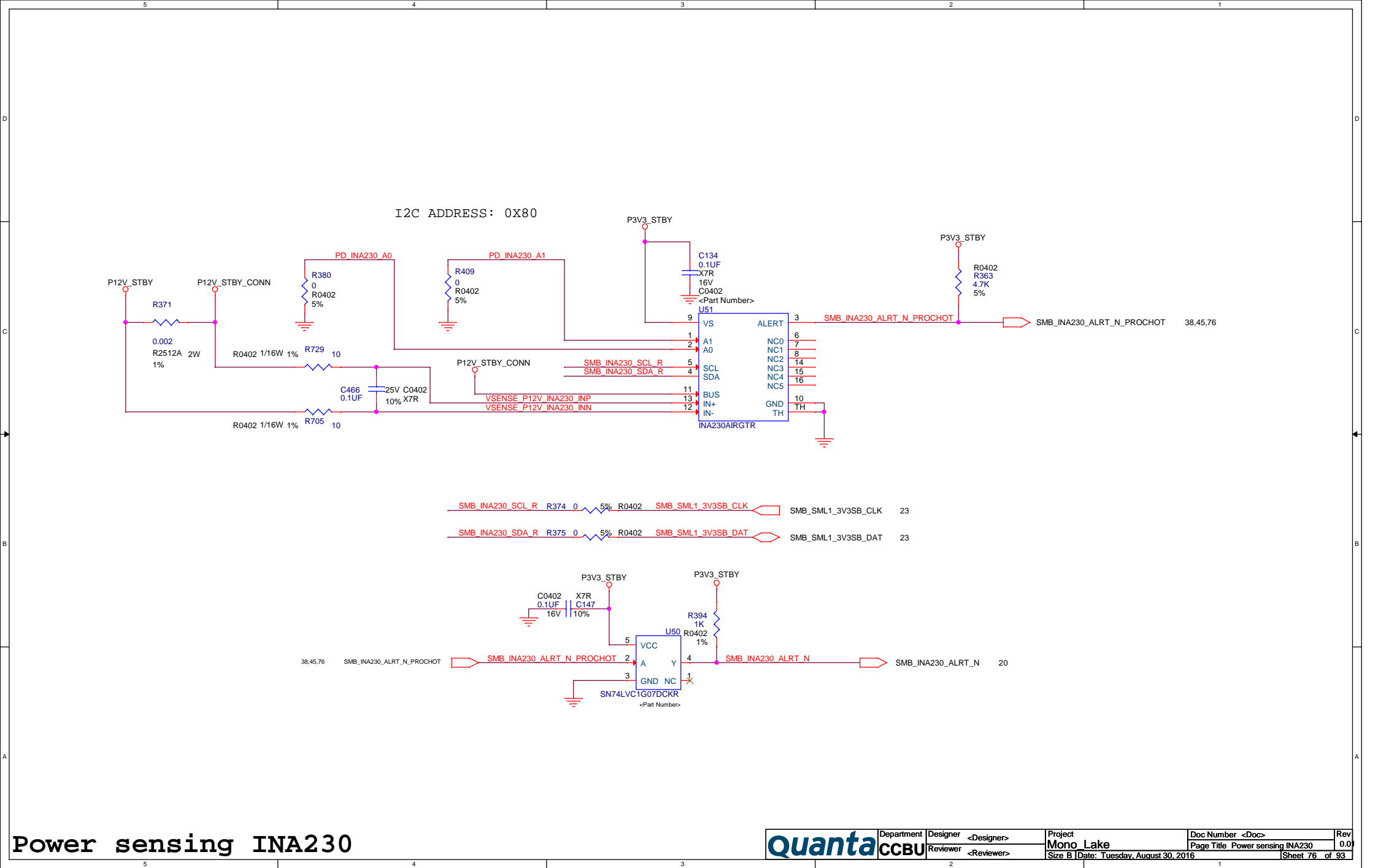
PVCCIN

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Quanta Computer Inc.

Size C Document Number
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|  | Department | Designer <Designer> | Project | Doc Number <Doc> | Rev |
| | CCBU | Reviewer <Reviewer> | Mono Lake Size B Date: Tuesday, August 30, 2016 | Page Title BLANK | 0.0 |
| Sheet 77 of 93 | | | | | |

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Department
CCBU

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| Designer | <Designer> |
| Reviewer | <Reviewer> |

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| Project | Mono_Lake |
| Size B | Date: Tue |

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| Doc Number <Doc> |
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| Department | Designer | Project | Doc Number | Rev |
| CCBU | <Designer> | Mono Lake | <Doc> | 0.0 |
| Reviewer | <Reviewer> | Page Title | BLANK | |
| Size B | Date: Tuesday, August 30, 2016 | Sheet 79 | of 93 | |

Blank drawing area with grid lines A-D and 1-5.

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|  | Department | Designer <Designer> | Project | Doc Number <Doc> | Rev |
| | CCBU | Reviewer <Reviewer> | Mono Lake | Page Title BLANK | 0.0 |
| Size B | | | Date: Tuesday, August 30, 2016 | | Sheet 80 of 93 |

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5 4 3 2 1

D

D

C

C

B


B

A

A

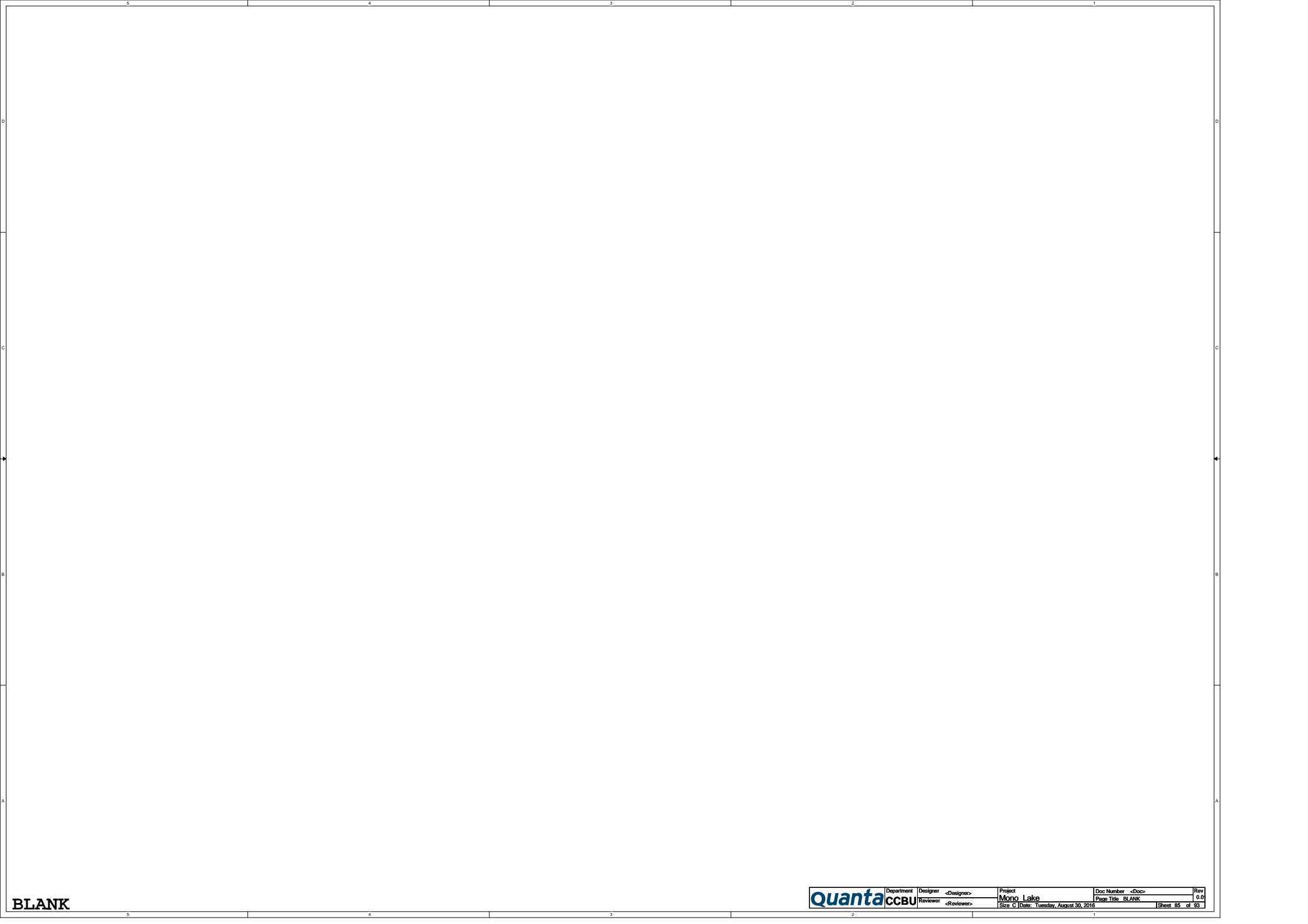
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5 4 3 2 1


| | | | | | | | |
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| | Site C Date: Tuesday, August 30, 2016 | | | Sheet 82 of 83 | | | |

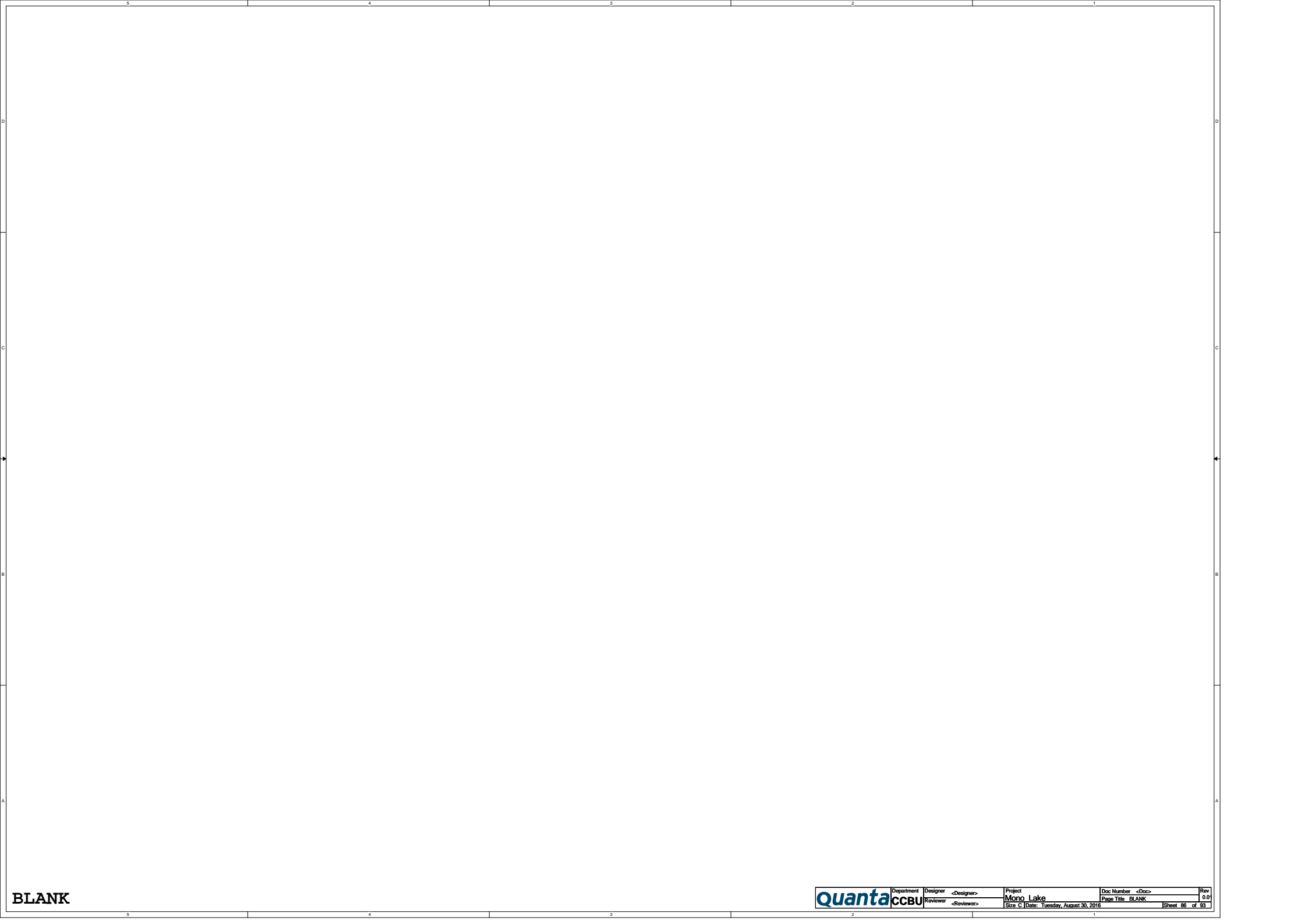
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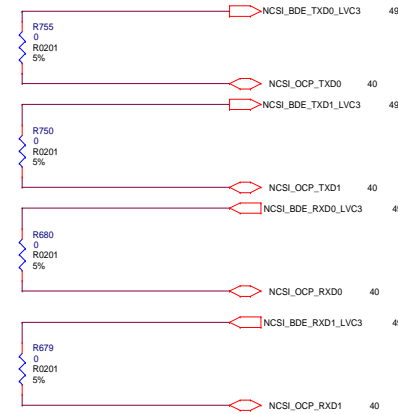
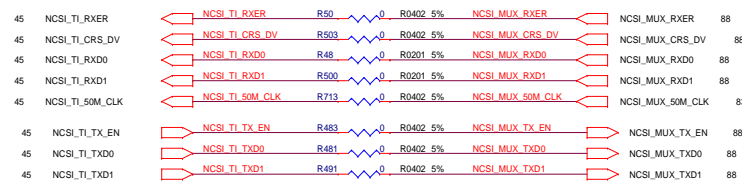
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| | Size C Date: Tuesday, August 30, 2016 | | | Sheet 85 of 89 | | | |



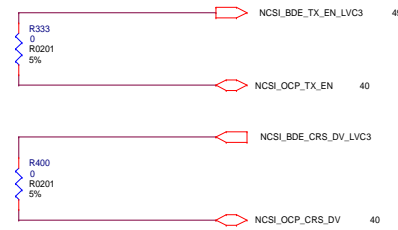
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Channel 0 : BDE
Channel 1 : GF



Channel 0 : BDE
Channel 1 : GF

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