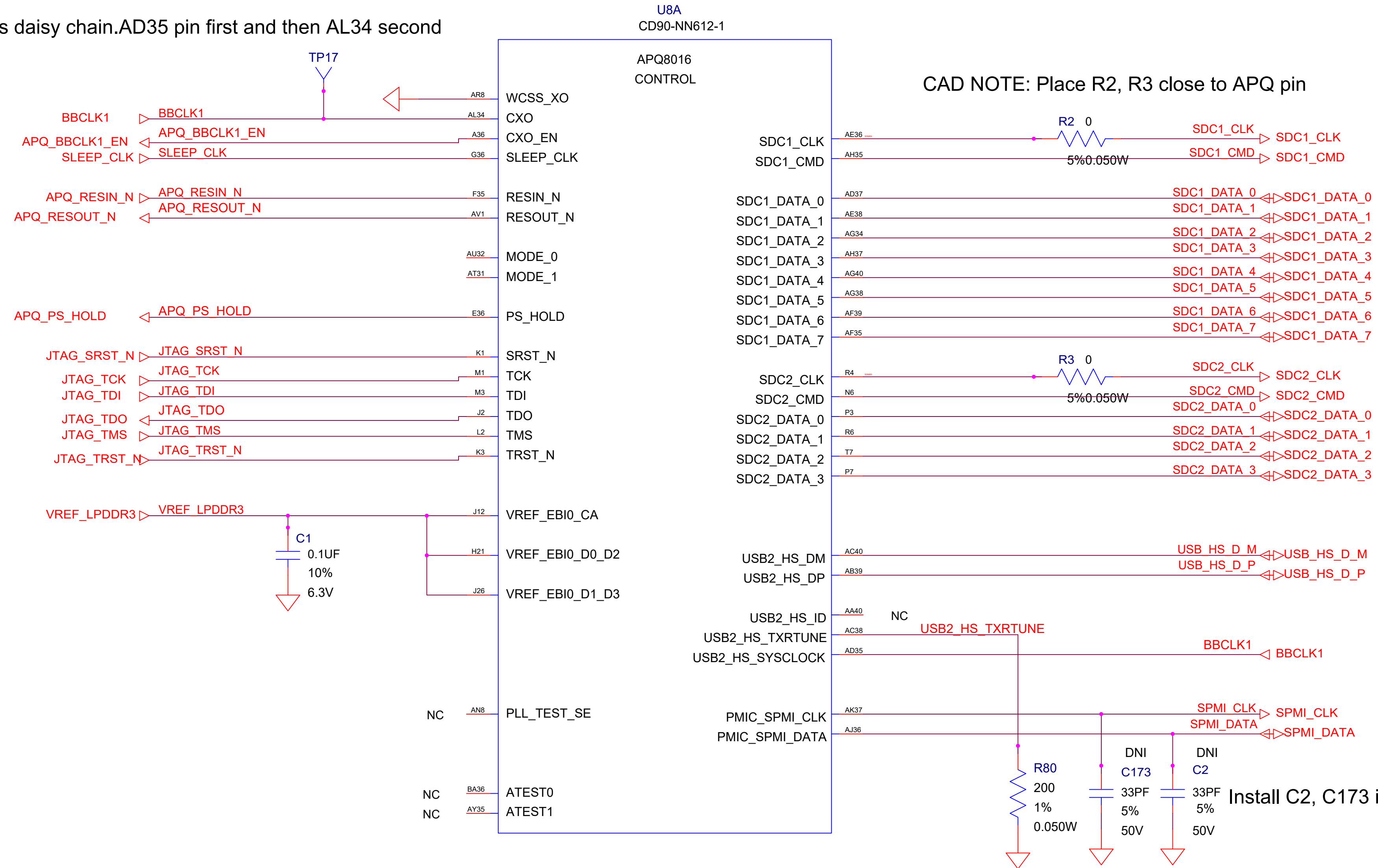


DragonBoard410c

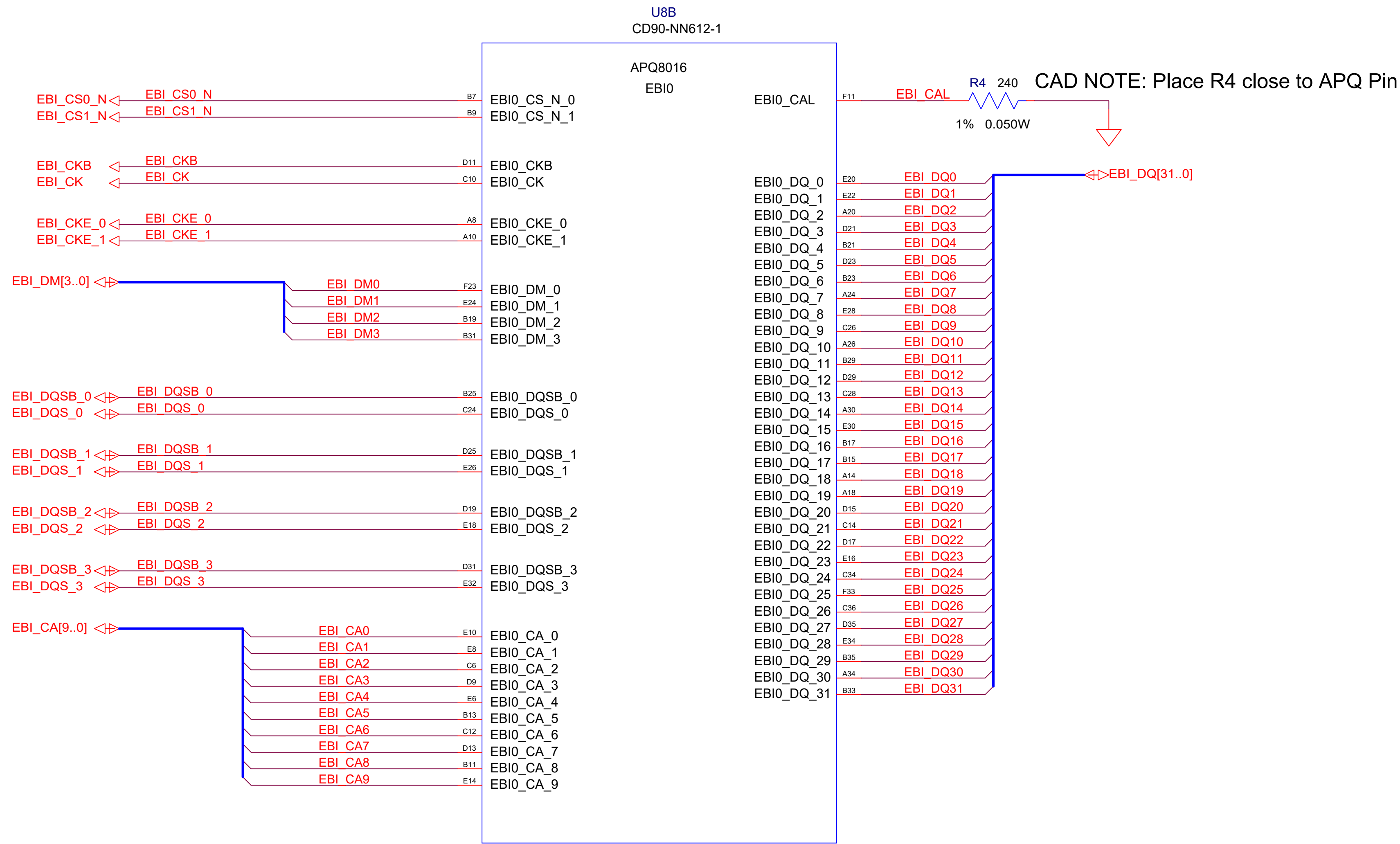
APQ8016 - CONTROL

Route BBCLK1 as daisy chain. AD35 pin first and then AL34 second

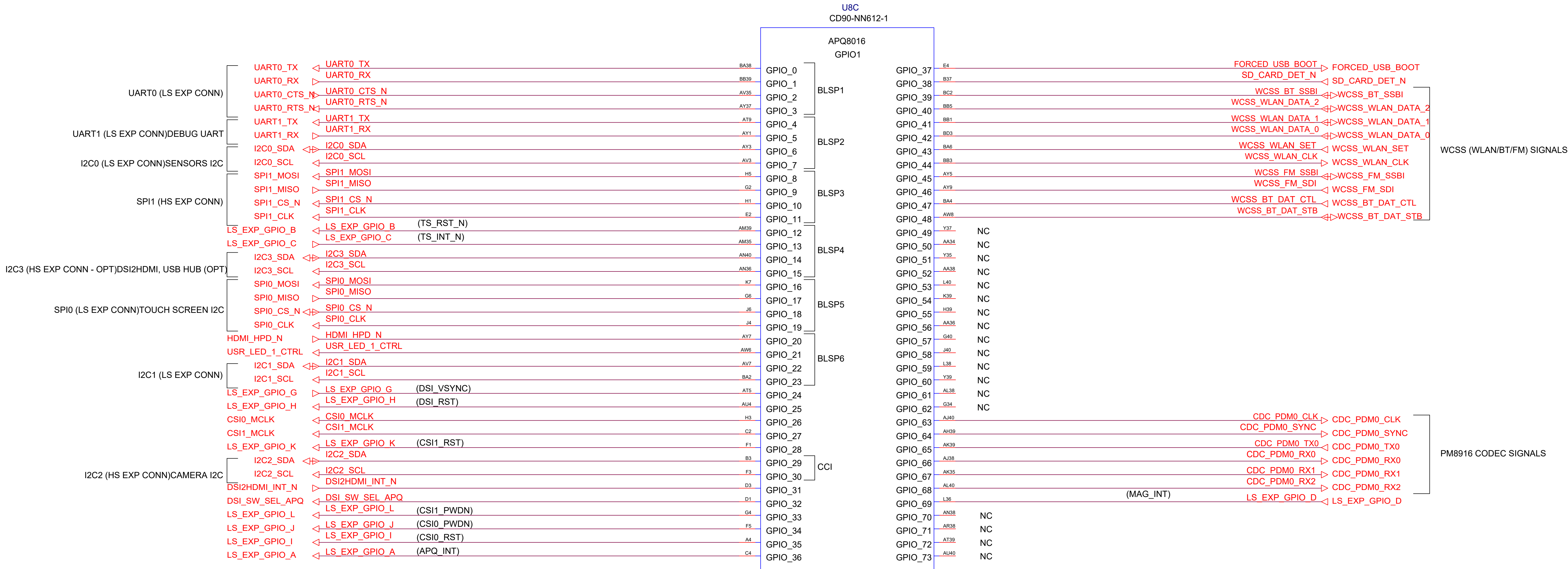


CAD NOTE: Place R80 close to APQ pin

APQ8016 - EBI0-LPDDR3

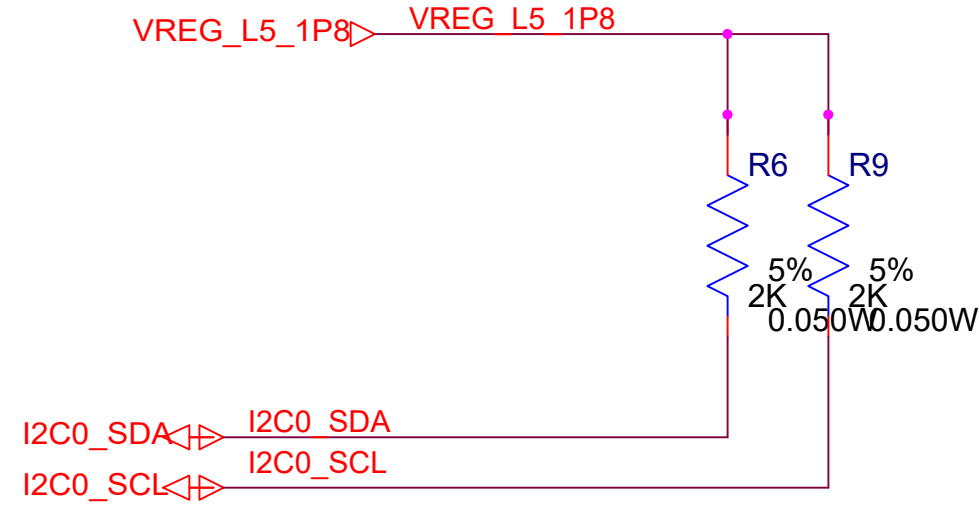


APQ8016 - GPIO 0-73

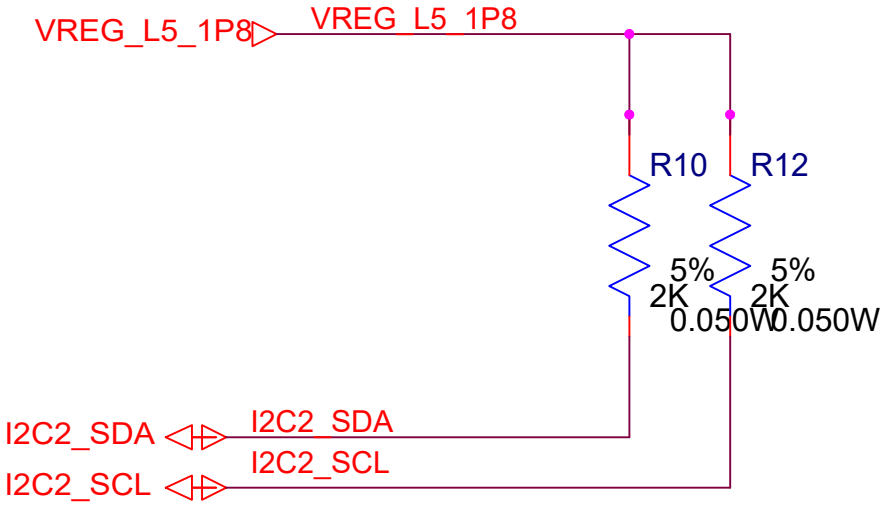


I2C PULL-UP RESISTORS

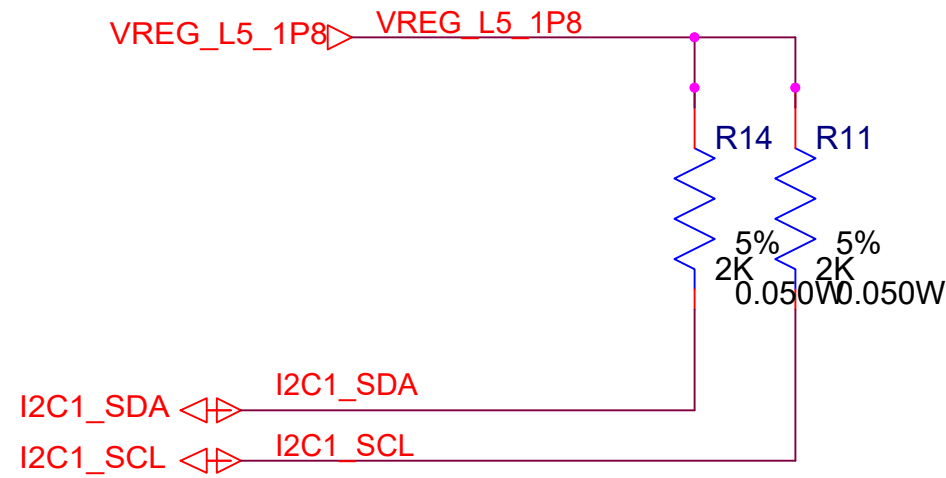
I2C0 (LS EXP CONN)SENSORS I2C



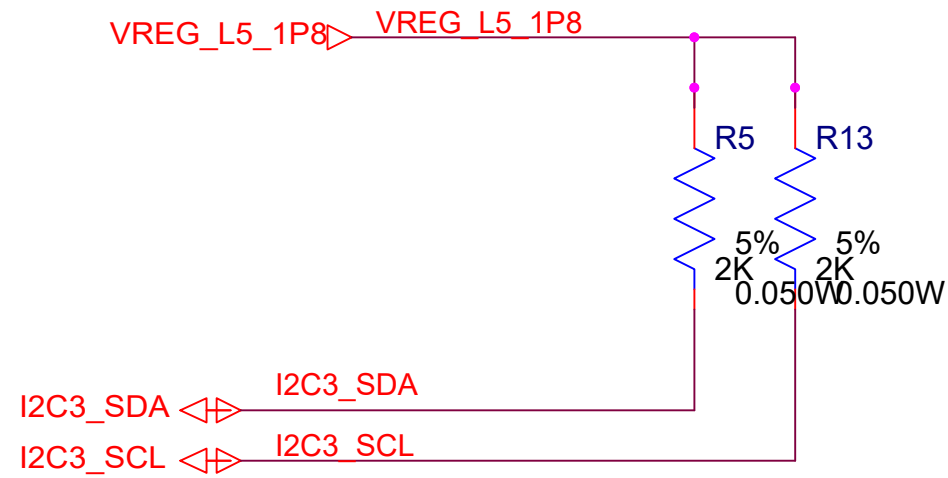
I2C2 (HS EXP CONN)CAMERA I2C



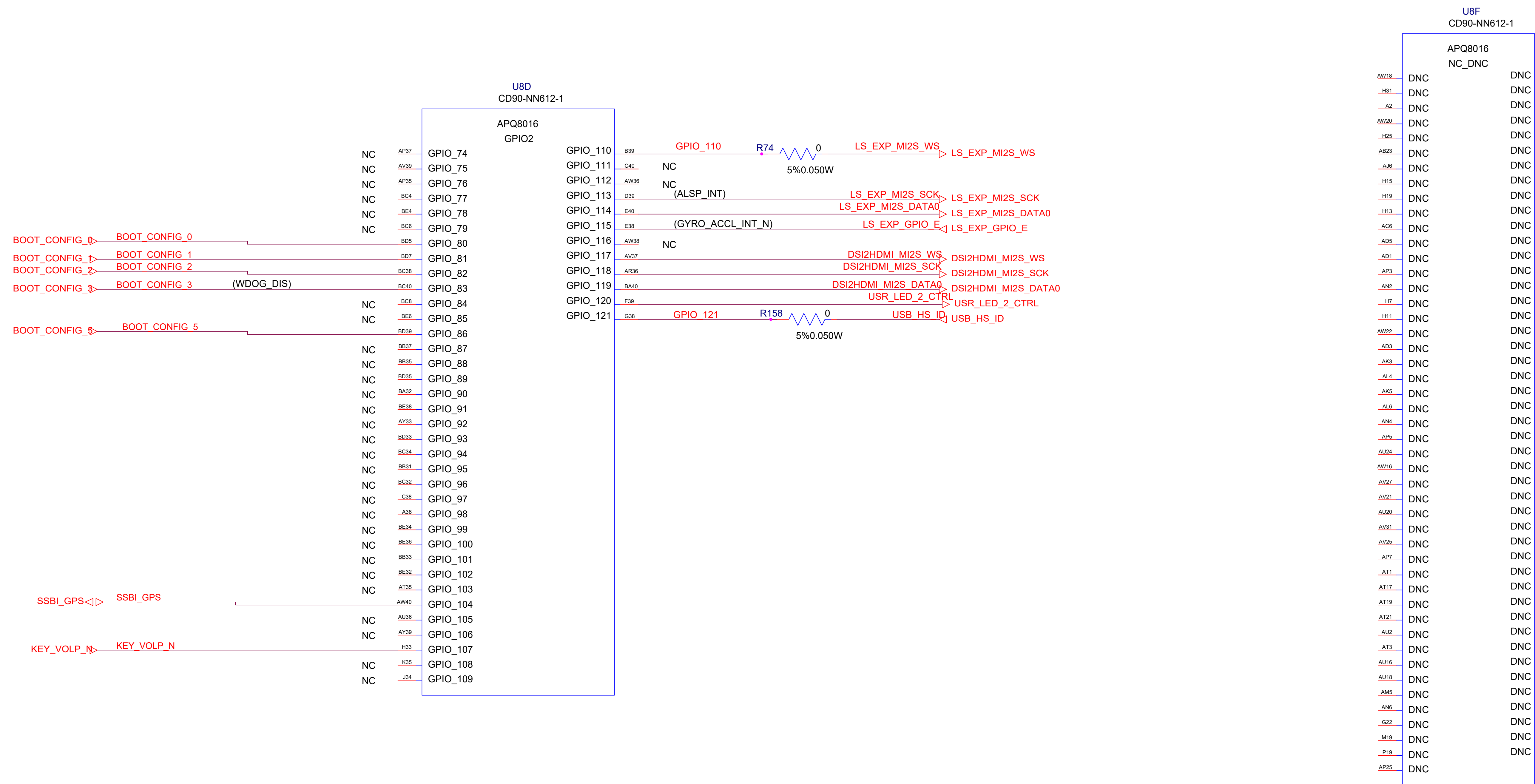
I2C1 (LS EXP CONN)



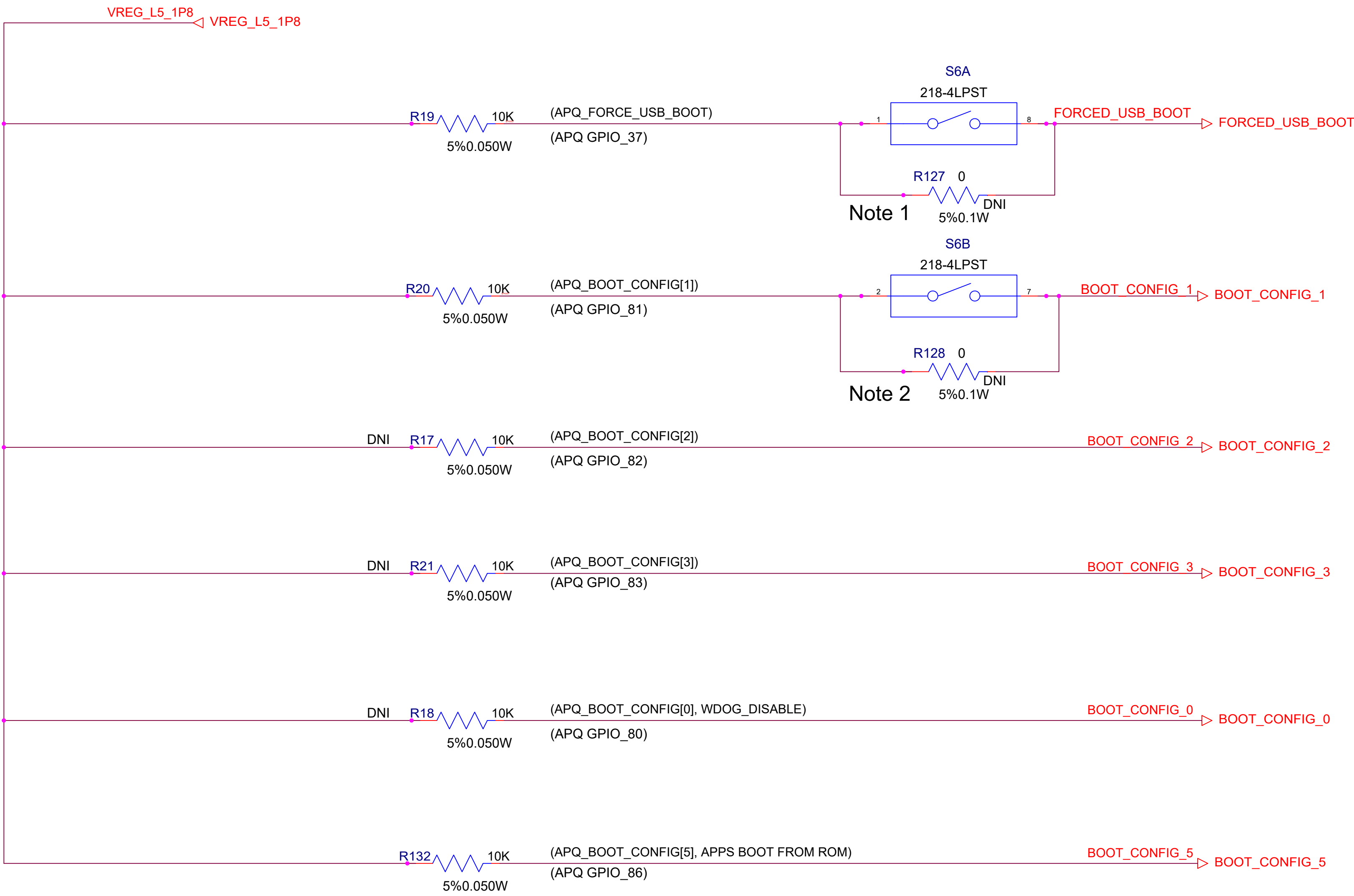
I2C3 (HS EXP CONN - OPT)DSI2HDMIUSB HUB (OPT)



APQ8016 - GPIO 74-121 / DNC



APQ8016 - BOOT CONFIG SW

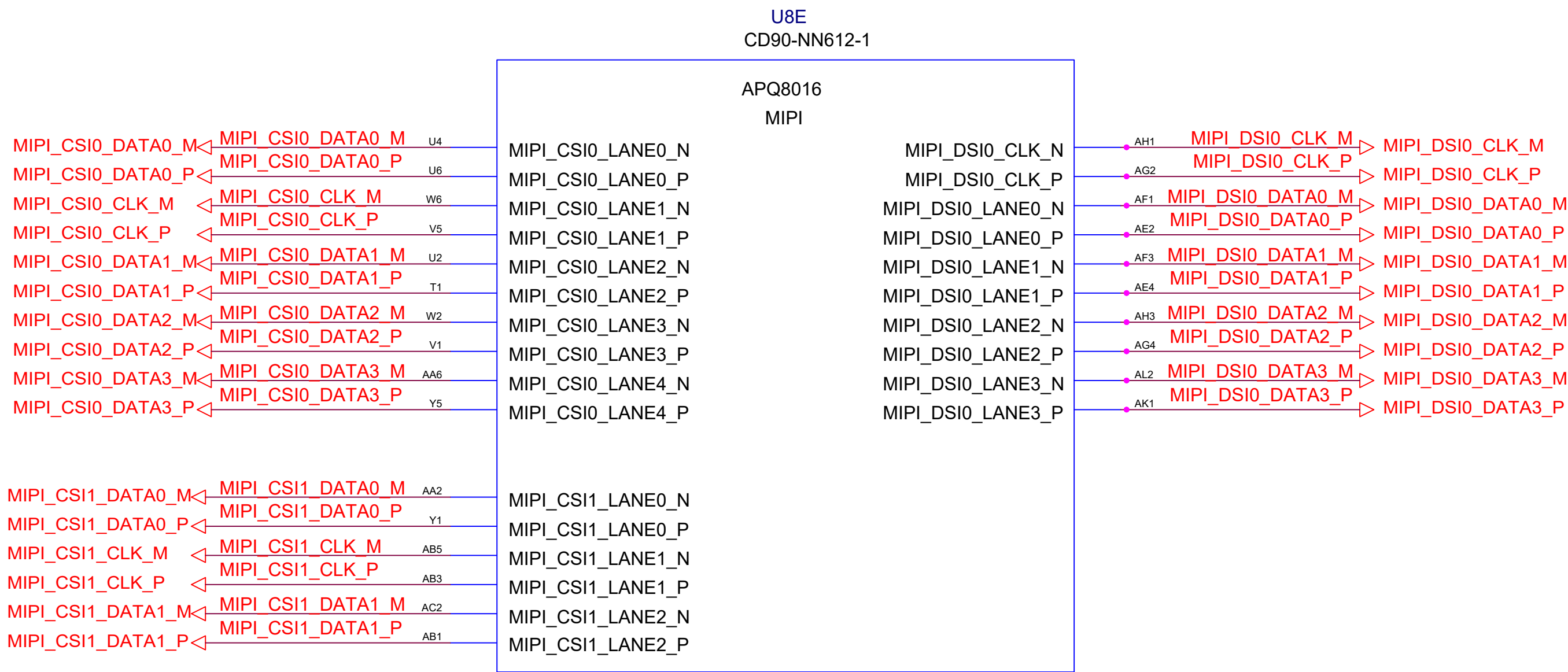


BOOT CONFIGURATIONS	
BOOT_CONFIG[3:1]	BOOT OPTIONS
0b000	SDC1 --> SDC2 --> USB2.0
0b001	SDC2 --> SDC1 --> USB2.0
0b010	SDC1 --> USB2.0
0b011	USB2.0

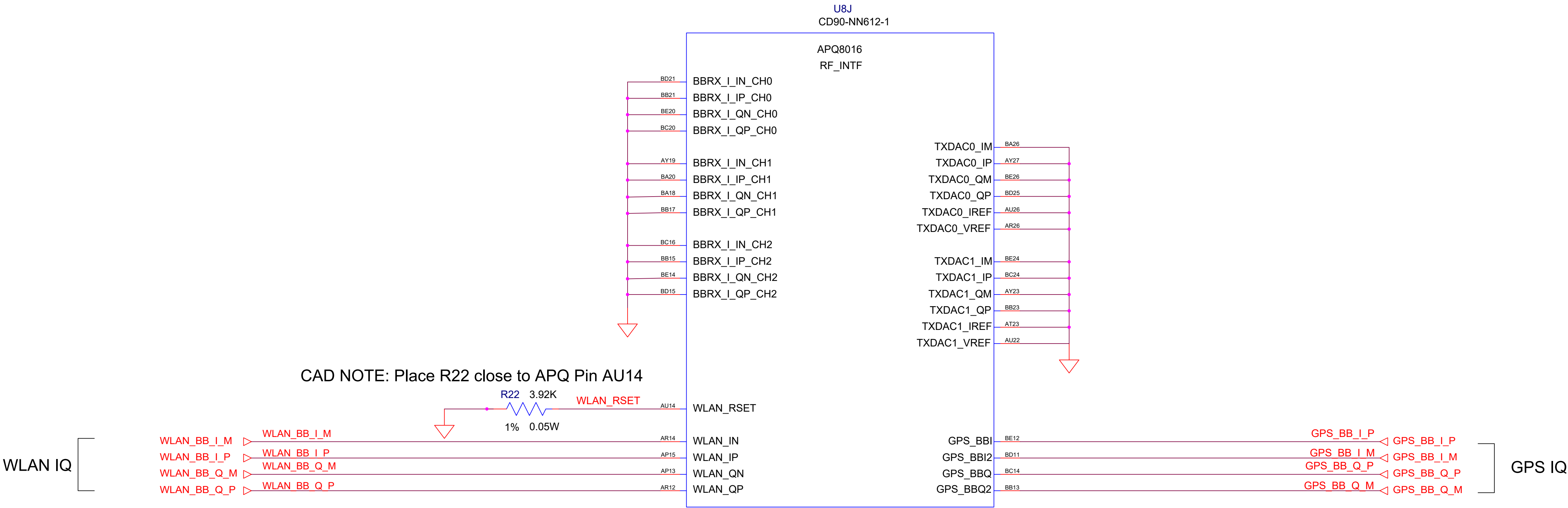
Default Boot Config (0b000) is eMMC on the SDC1

Note 1: Short between resistors pads to force boot from USB when dip-switch is not installed

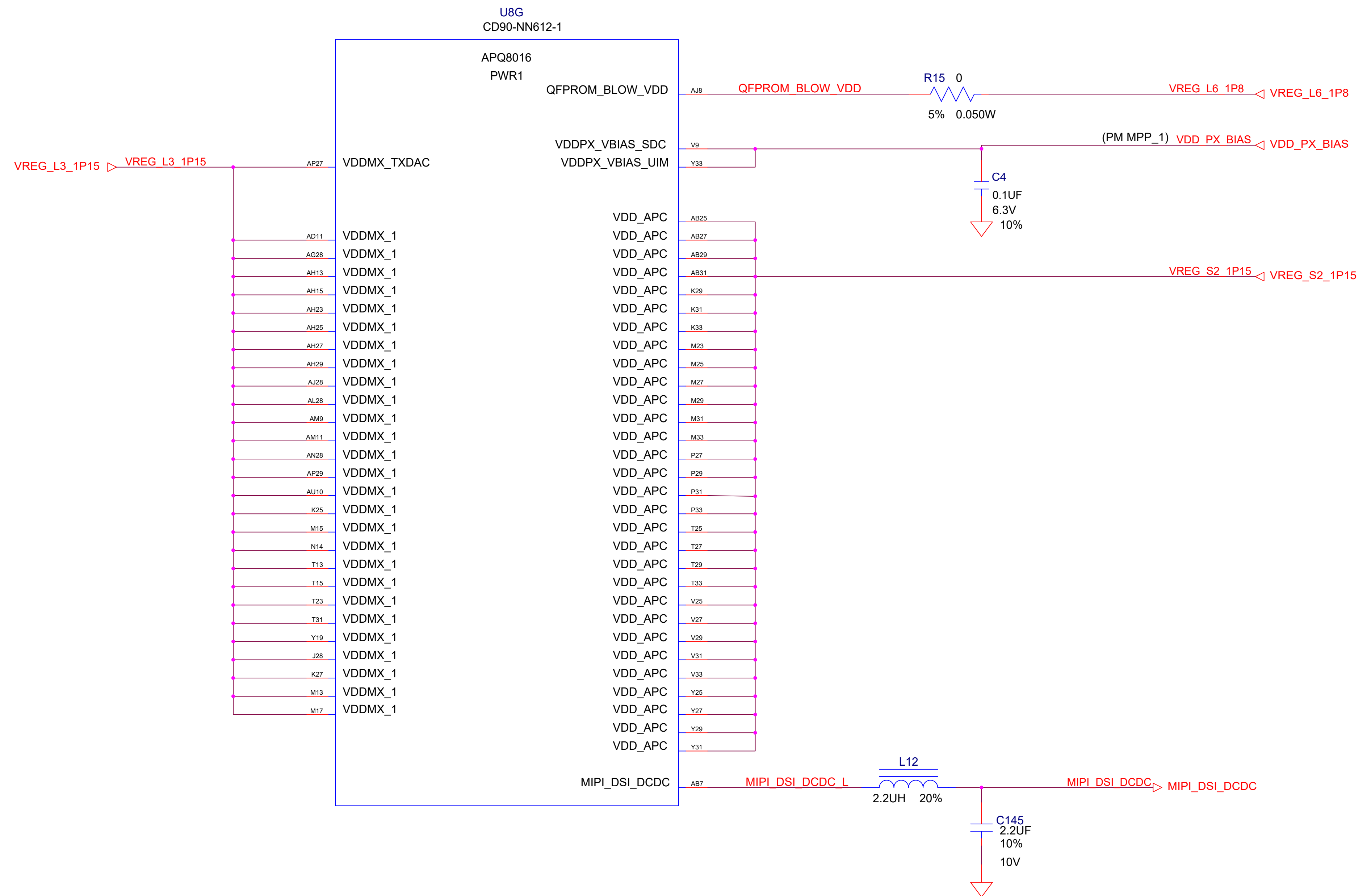
Note 2: Short between resistors pads to boot from uSD when dip-switch is not installed



APQ8016 - RF INTERFACE



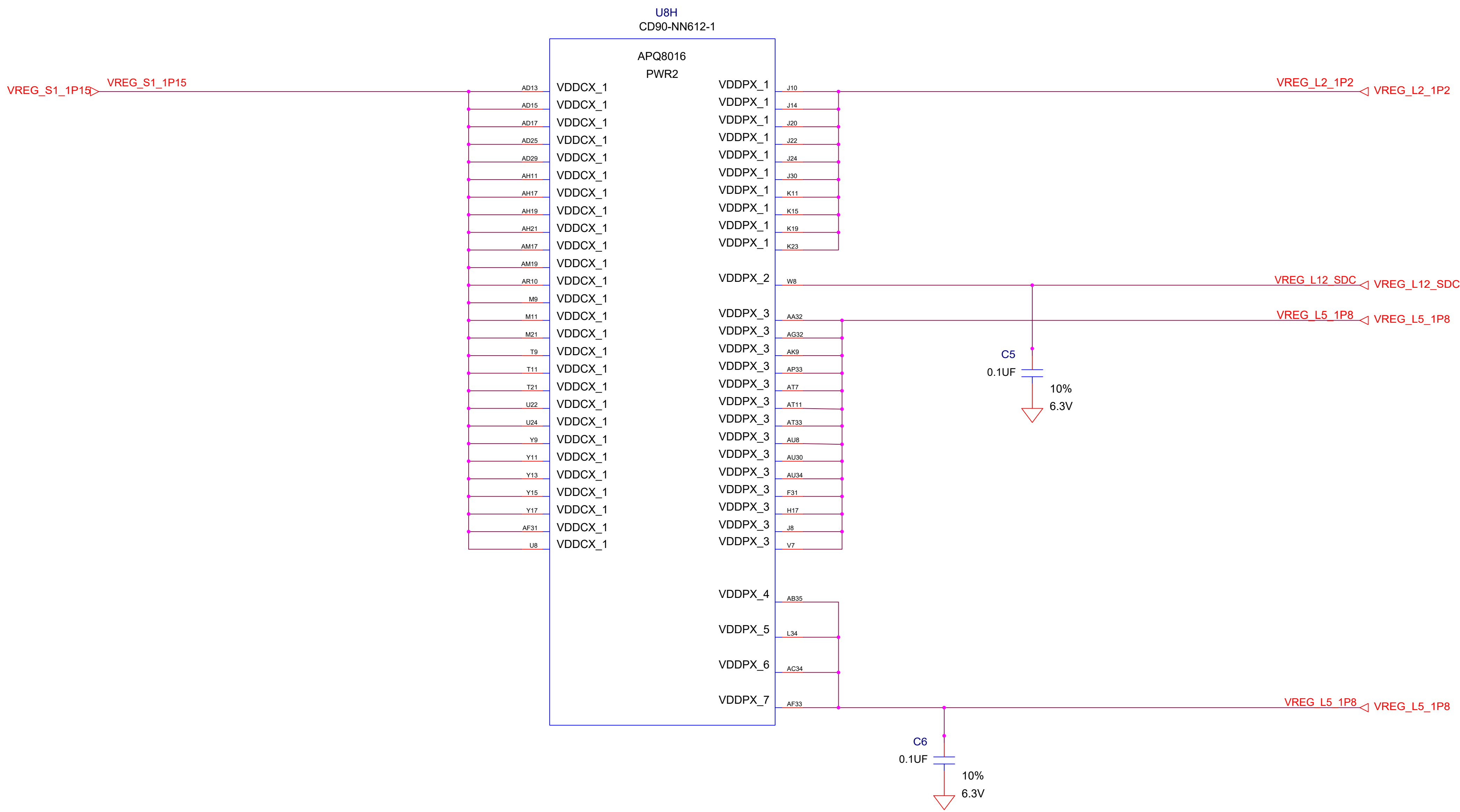
APQ8016 - PWR1



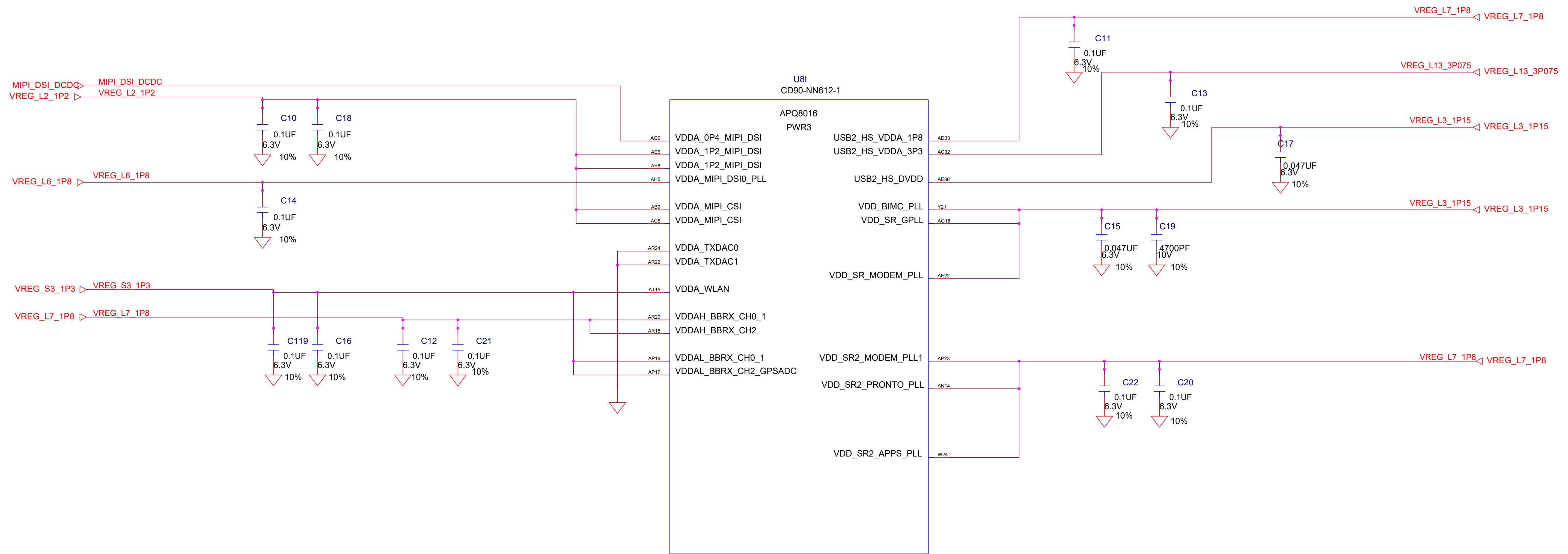
CAD NOTE: Loop to be shorted with MSM AG6 Pin

Title DragonBoard410c				
Size D	Document Number <Doc>			Rev A
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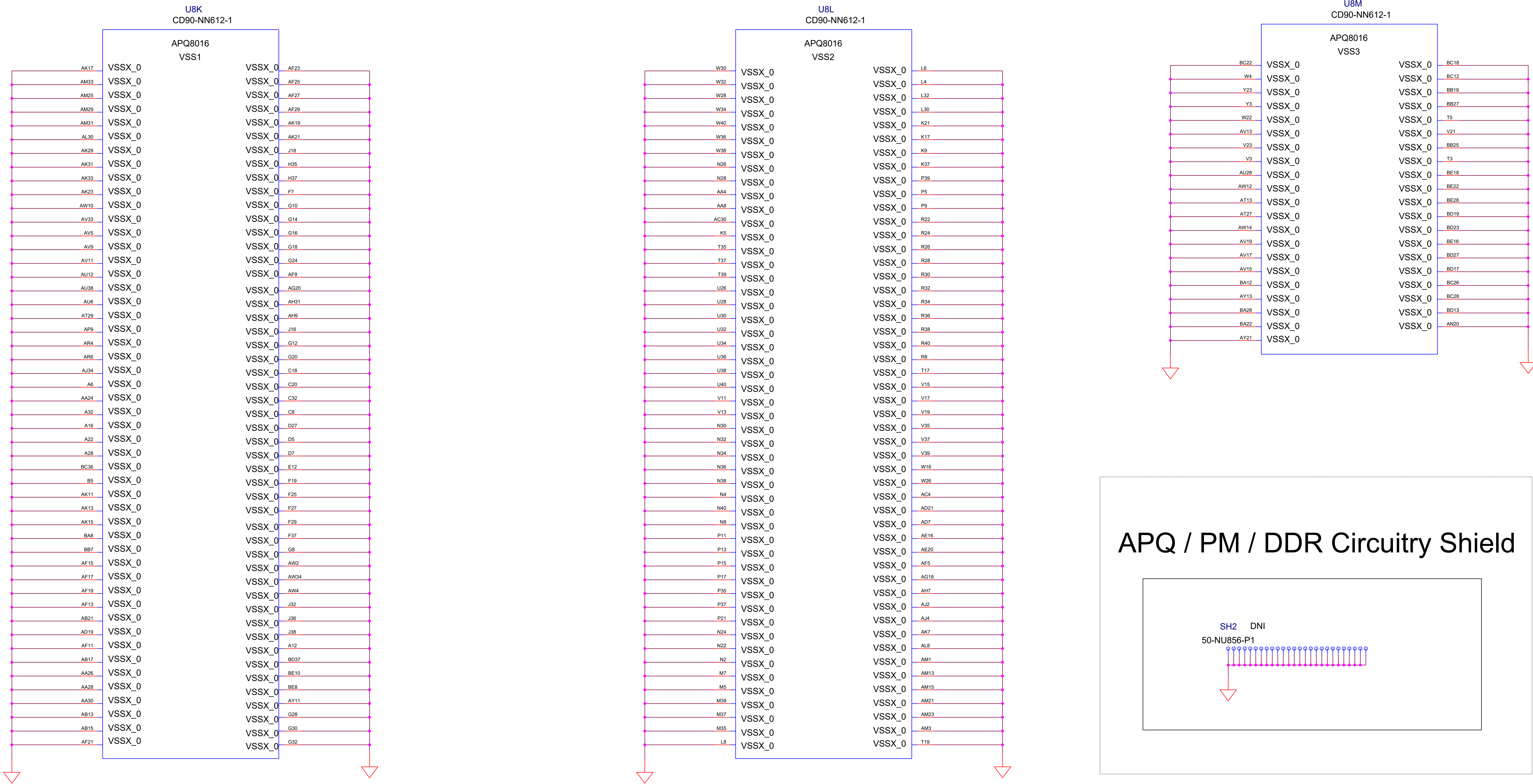
APQ8016 - PWR2



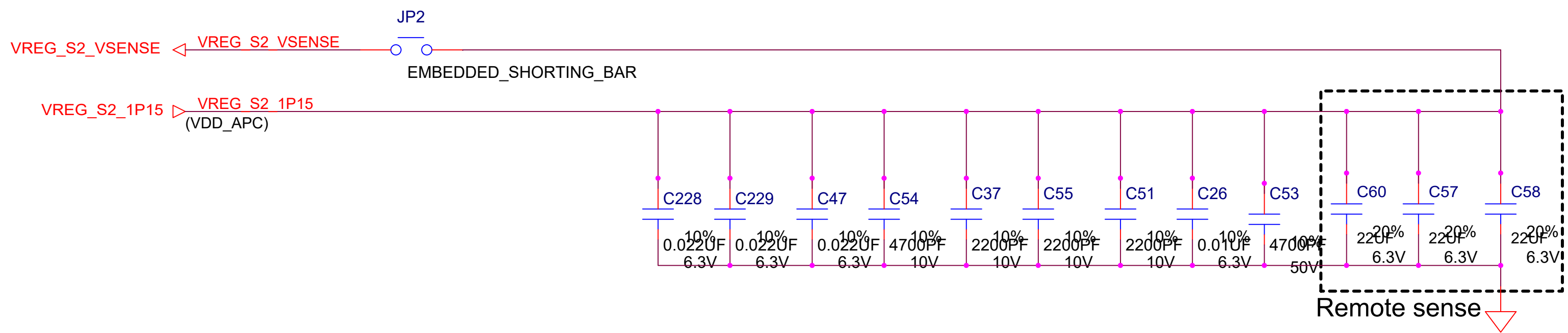
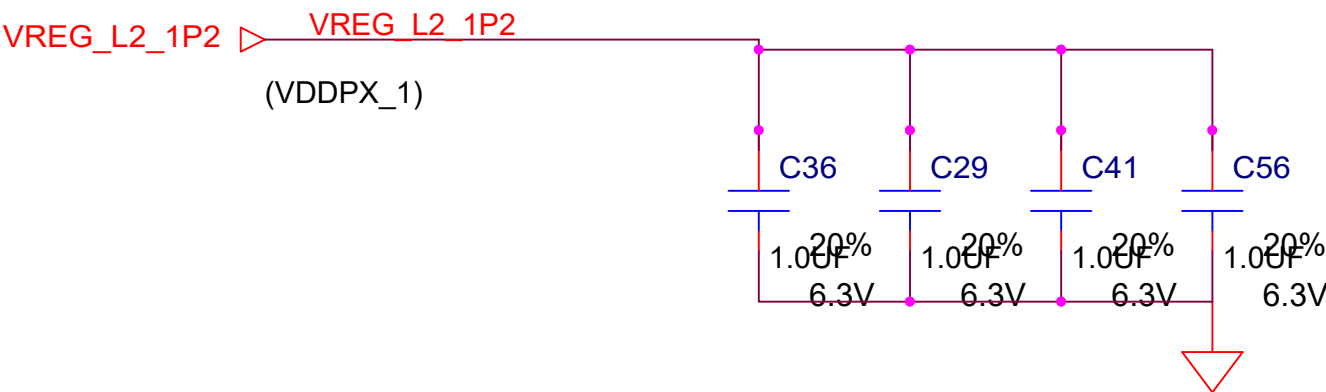
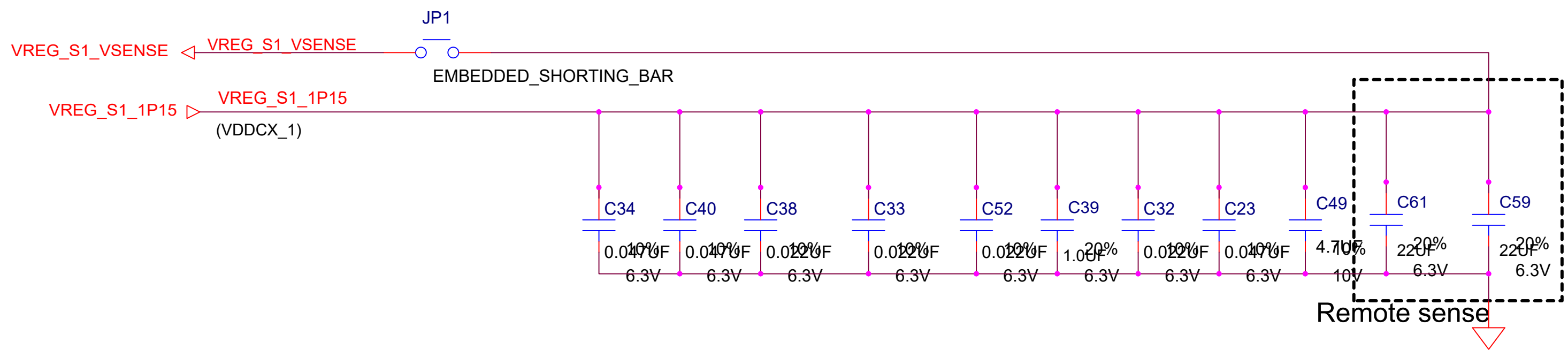
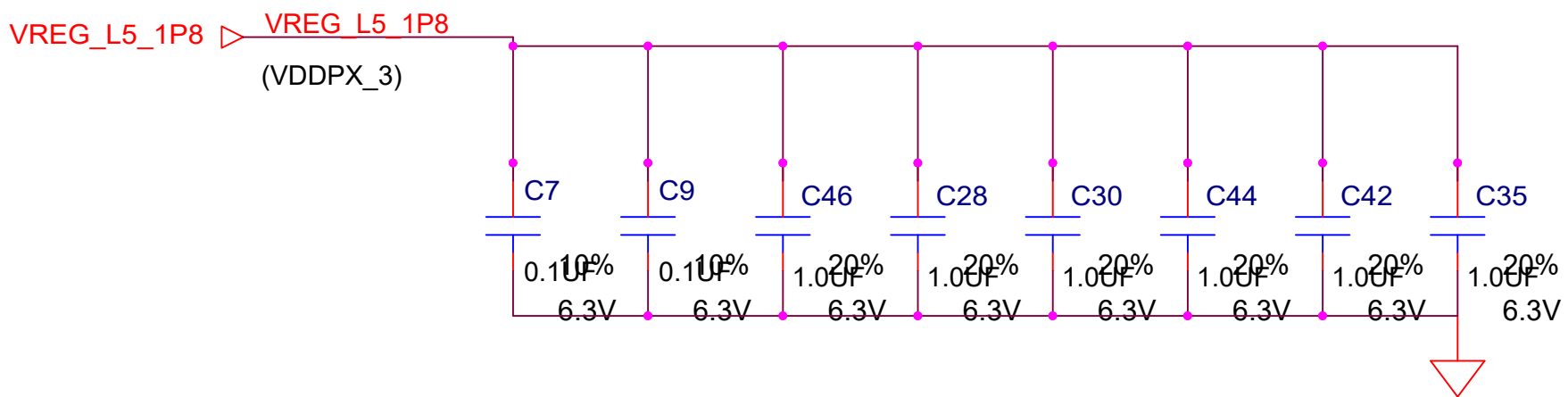
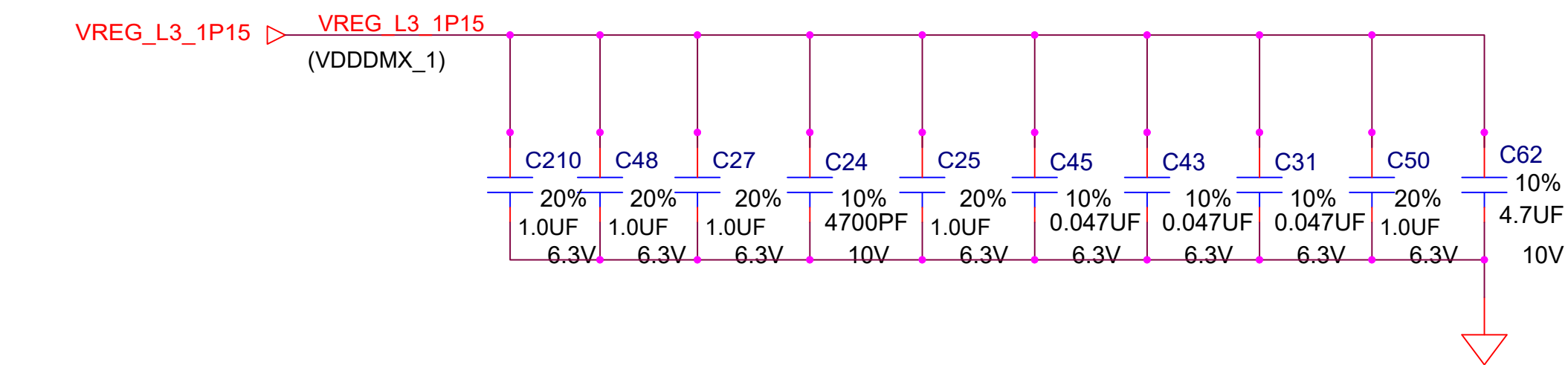
APQ8016 - PWR3



APQ8016 - GND



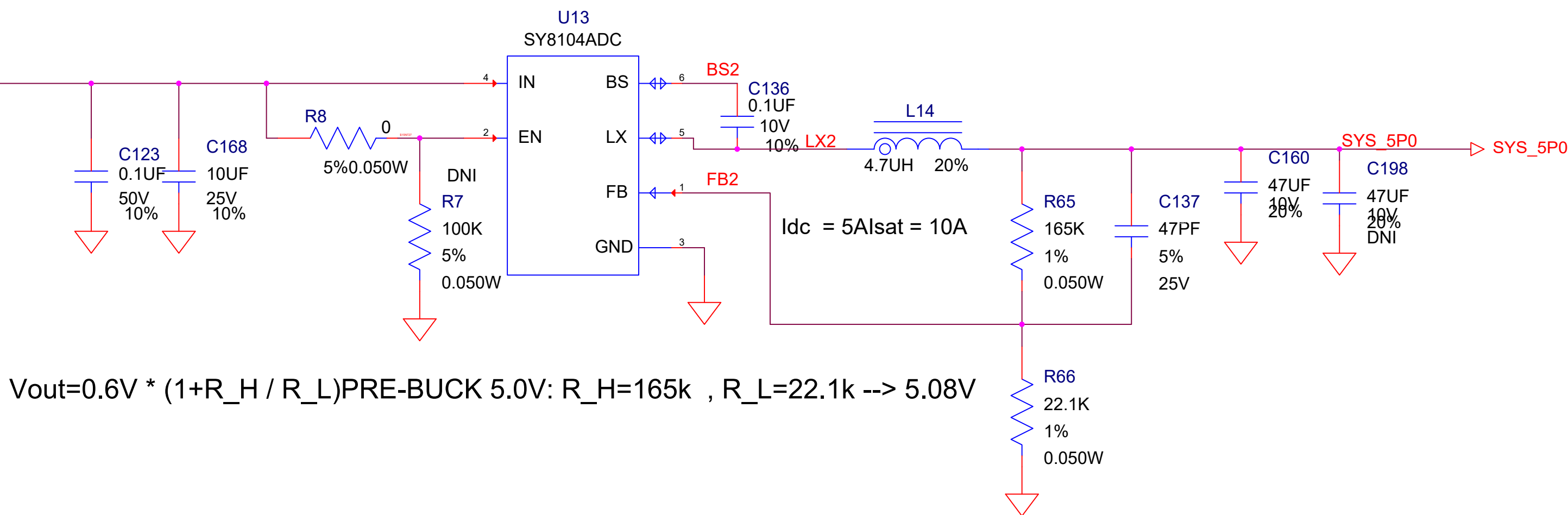
APQ8016 BYPASS CAPACITORS



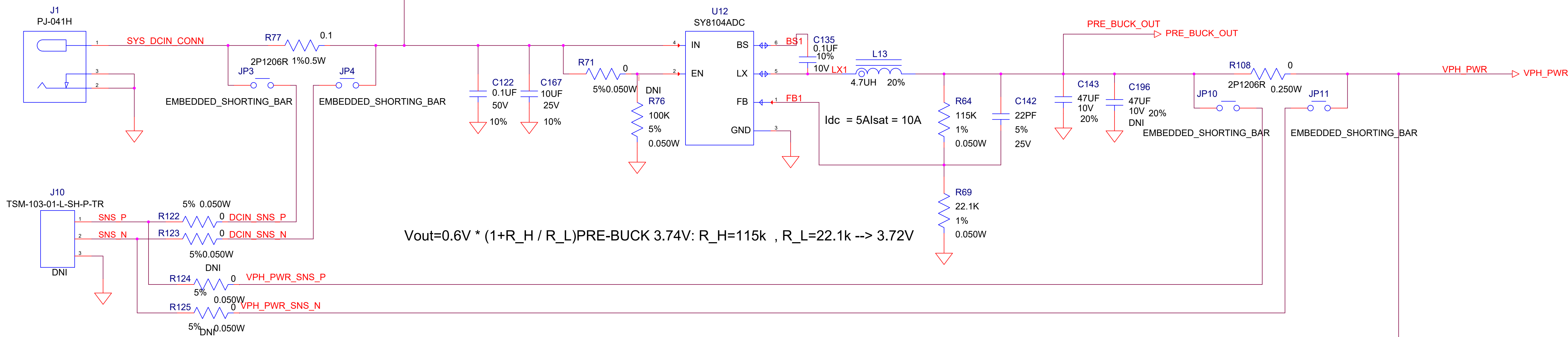
EXTERNAL BUCK REGULATORS

To/From LS EXP CONN

PRE-BUCK - 5.0V



PRE-BUCK - 3.7V

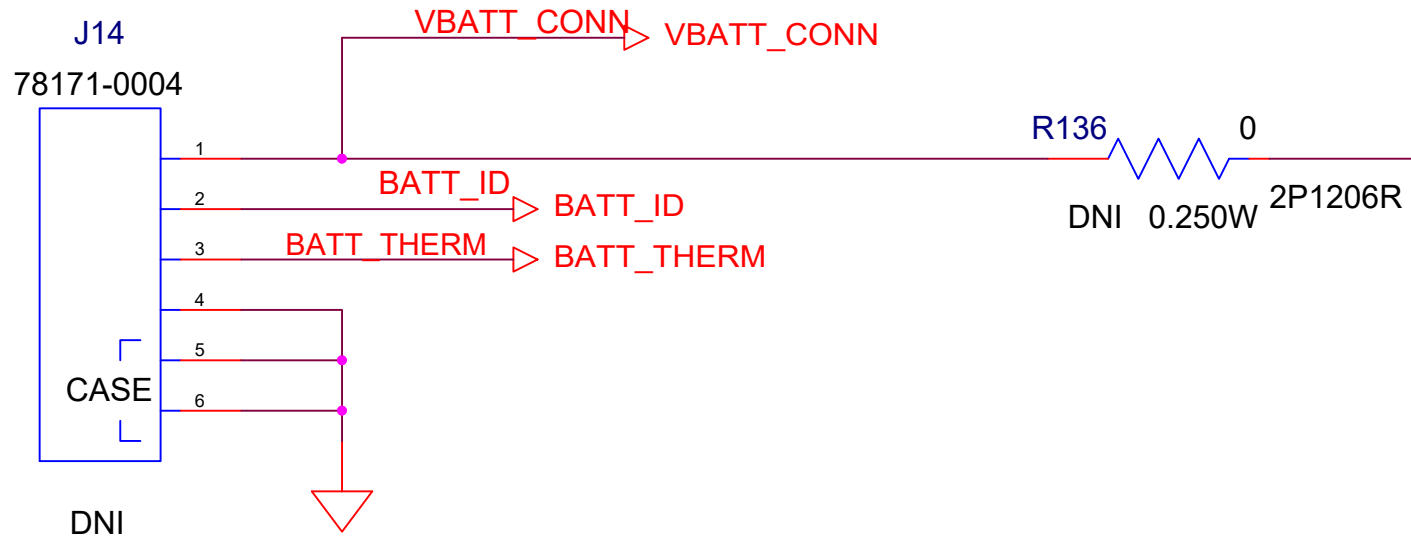


ARM ENERGY PROBE (PWR MEAS)

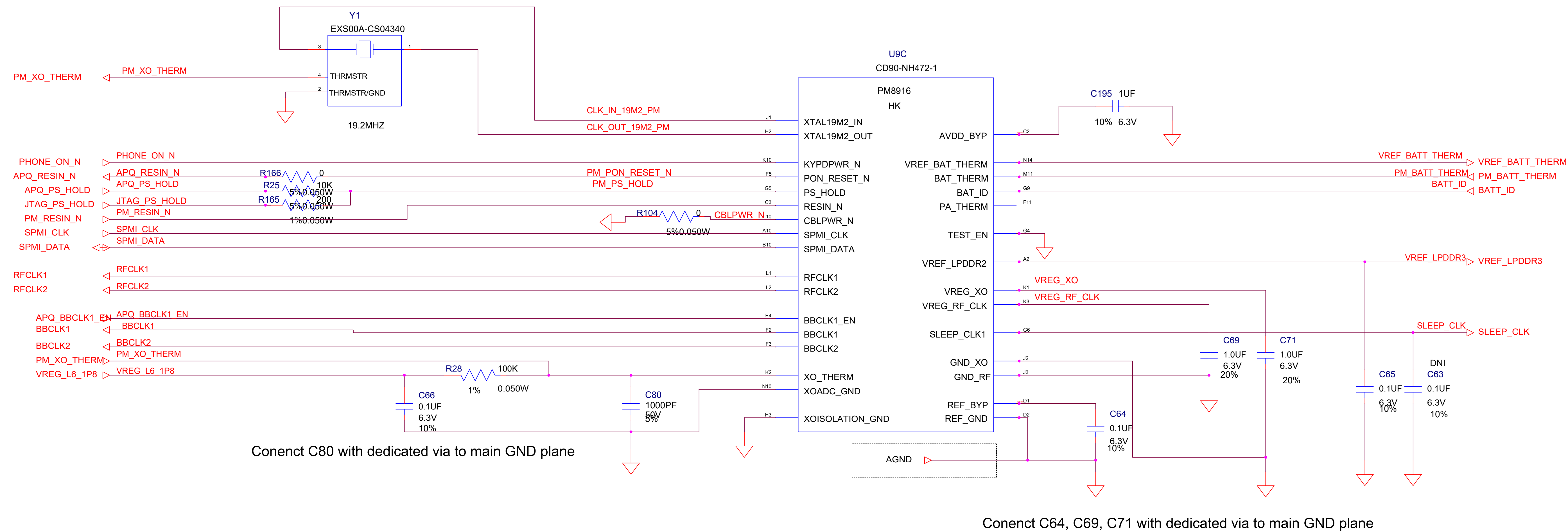
SUPPORTED	ASSY OPTION
YES	INSTALL J10
NO	DNI J10

VPH_PWR SOURCE

BOM CONFIG	SUPPORTED	ASSY OPTION
Hx0x, HX5X	3.7V BUCK	INSTALL R108 DNI J14, R136
NONE	BATTERY	DNI R108 INSTALL J14, R136

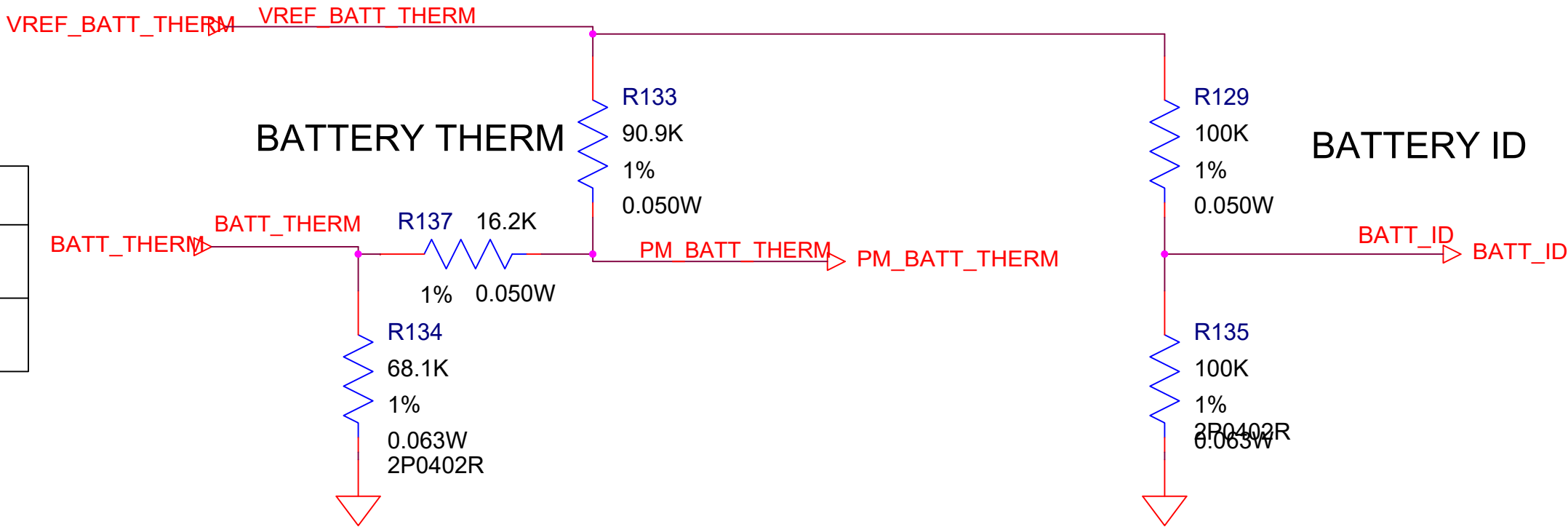


PM8916 - CONTROL/CLOCKS



VPH_PWR SOURCE

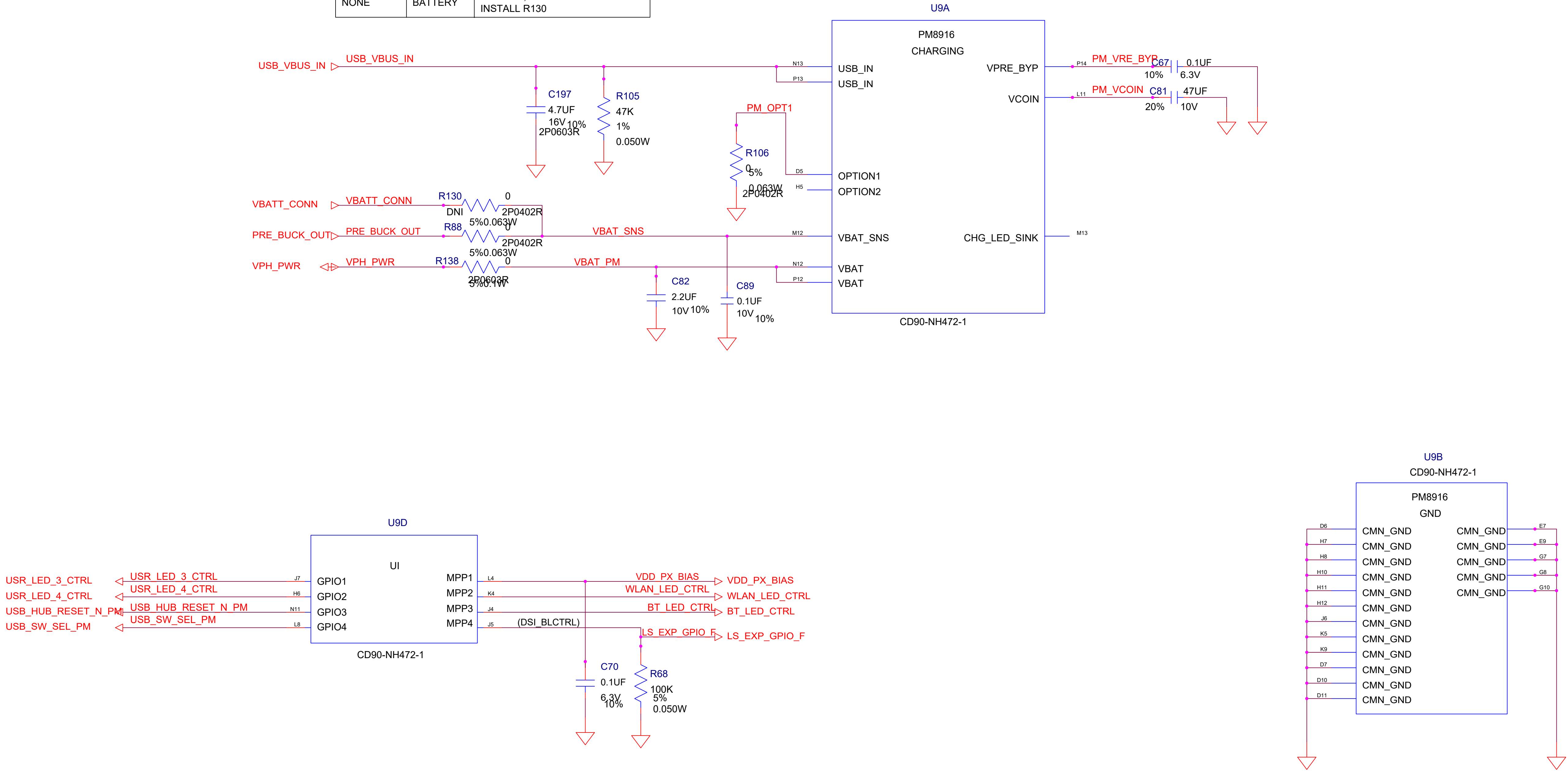
BOM CONFIG	SUPPORTED	ASSY OPTION
Hx0x, HX5X	3.7V BUCK	INSTALL R134,R135
NONE	BATTERY	DNI R134,R135



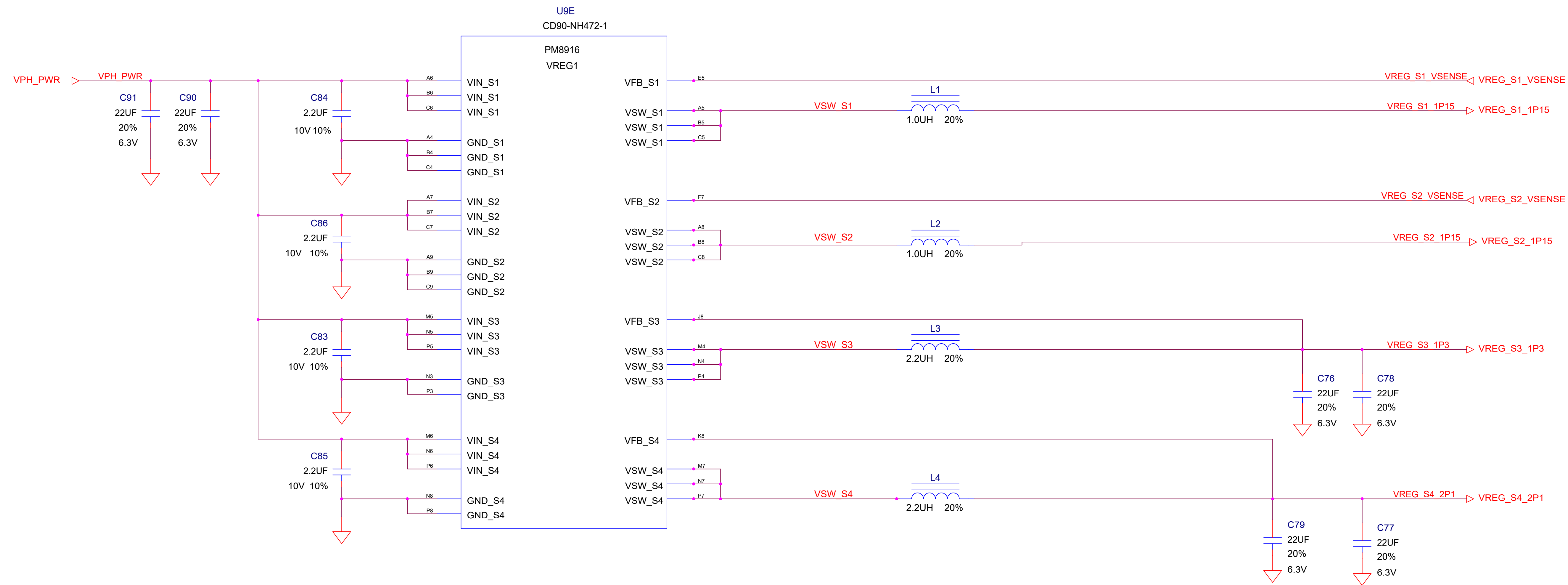
PM8916 - CHARGER/GPIOS/MPPS

VPH_PWR SOURCE

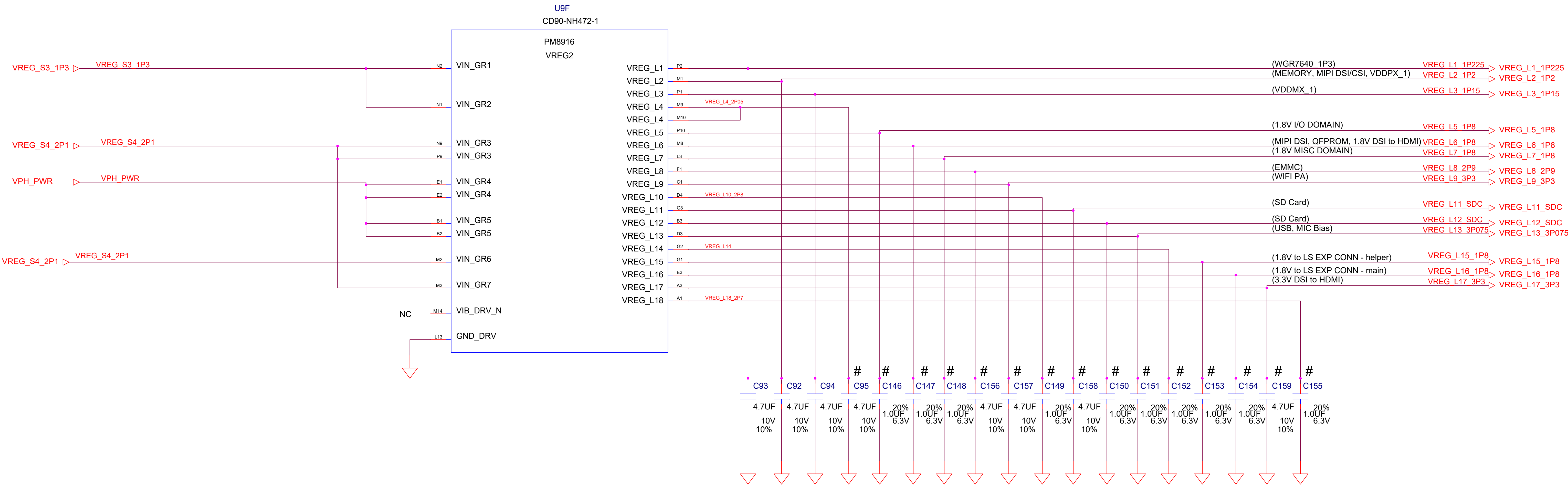
BOM CONFIG	SUPPORTED	ASSY OPTION
Hx0x, HX5X	3.7V BUCK	INSTALL R106,R88 DNI R130
NONE	BATTERY	DNI R106,R88 INSTALL R130



PM8916 - SMPS



PM8916 - LDOs



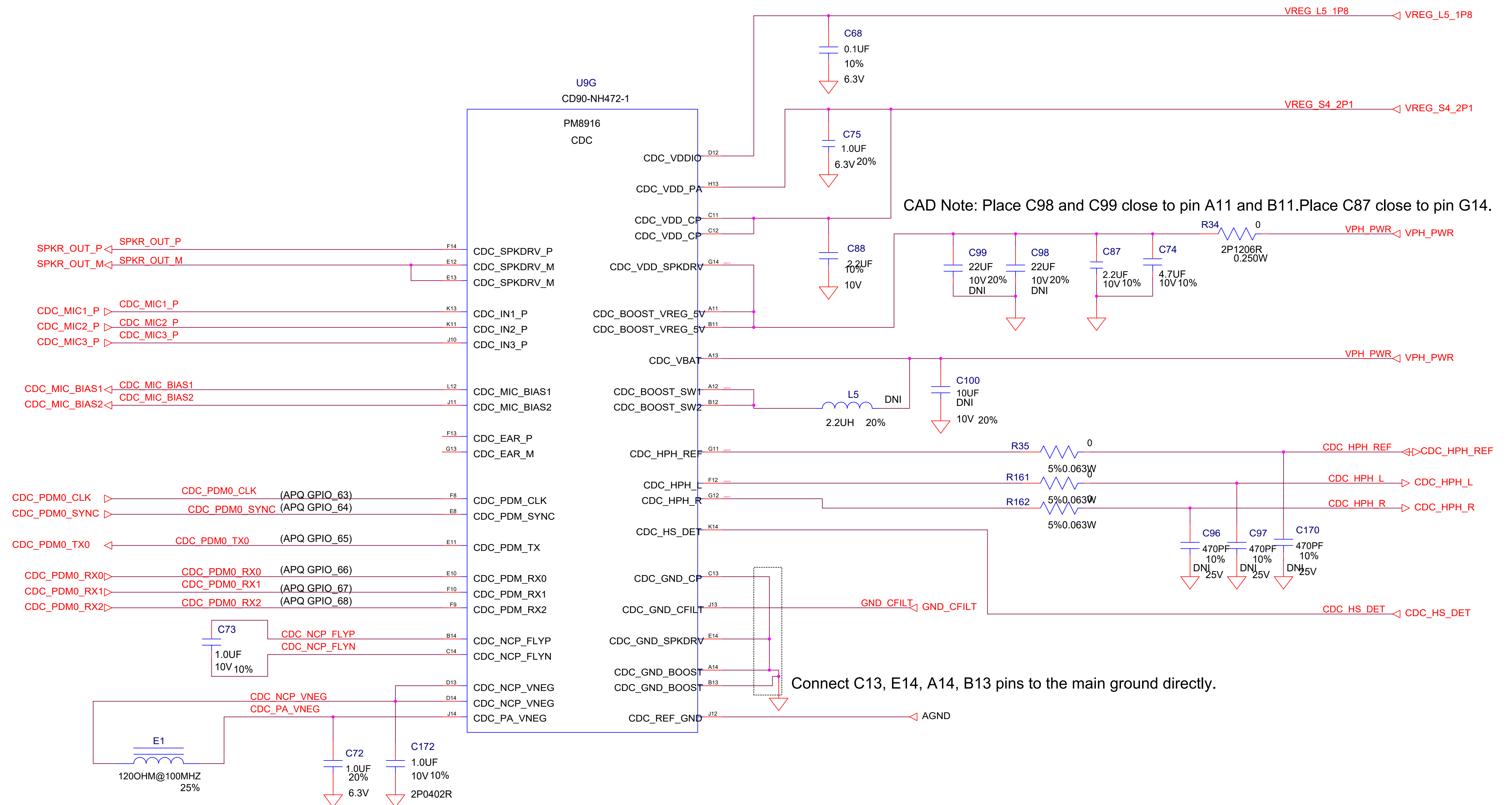
NOTES:

Effective output capacitanceLDOs L1, L2, L3, L4, L8, L9, L11, L17 --> Cout_eff = 4.7uFLDOs L5, L6, L7, L10, L12, L13, L14, L15, L16, L18 --> Cout_eff = 1.0uF

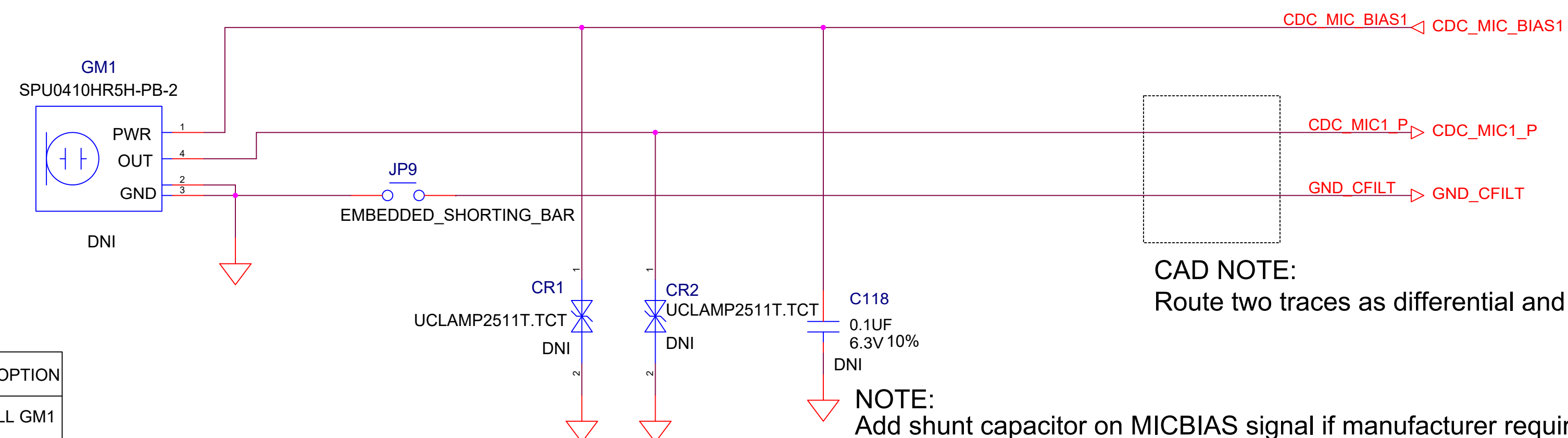
PSEUDO CAPLESS LDOs (indicated by # near the capacitor)L4, L5, L6, L7, L8, L9, L10, L11, L12, L13, L14, L15, L16, L17, L18

PSEUDO CAPLESS LDOs capacitors location is defined in 80-NK808-21

PM8916 - AUDIO



ANALOG MIC

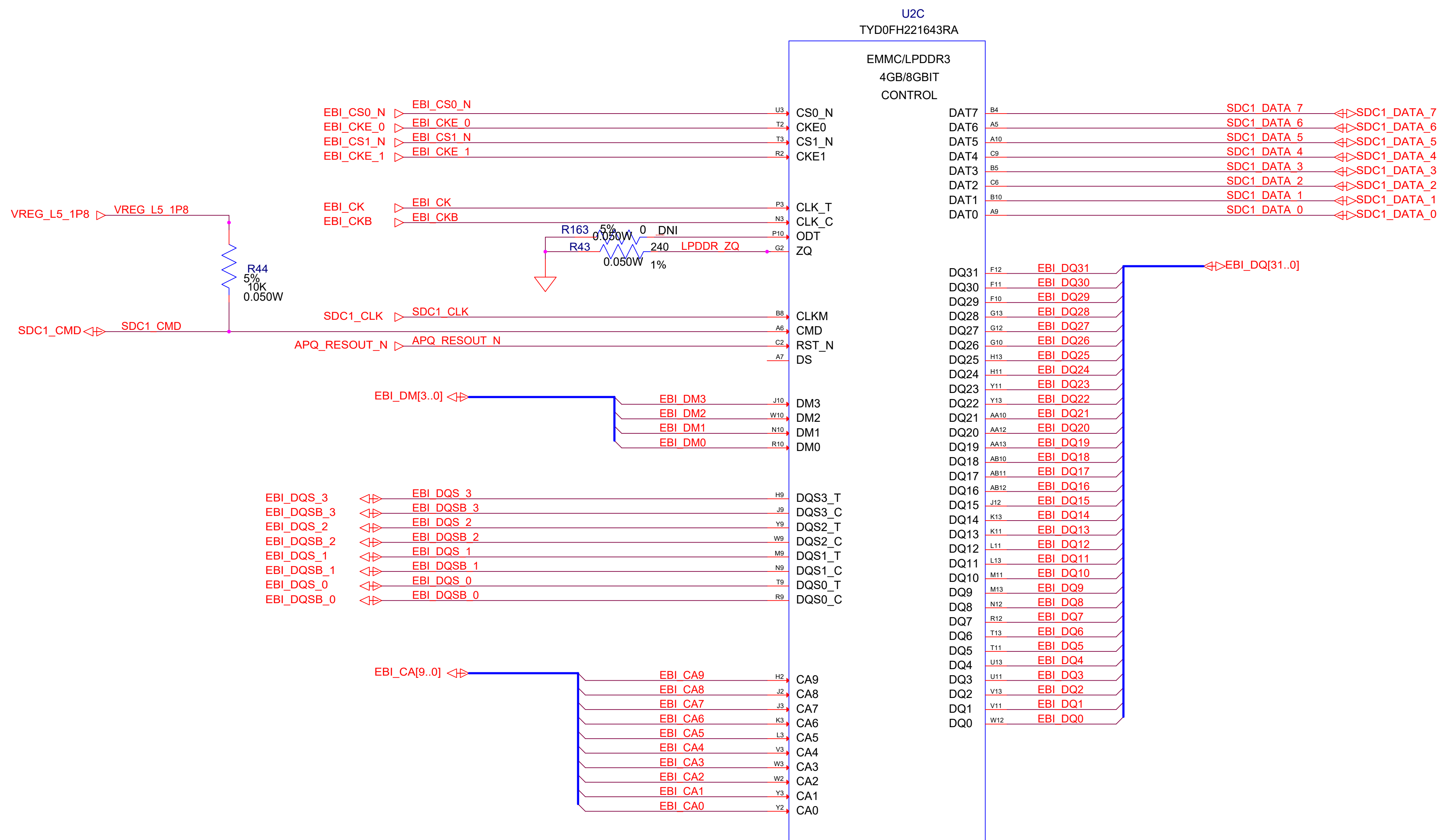


SUPPORTED	ASSY OPTION
YES	INSTALL GM1
NO	DNI GM1

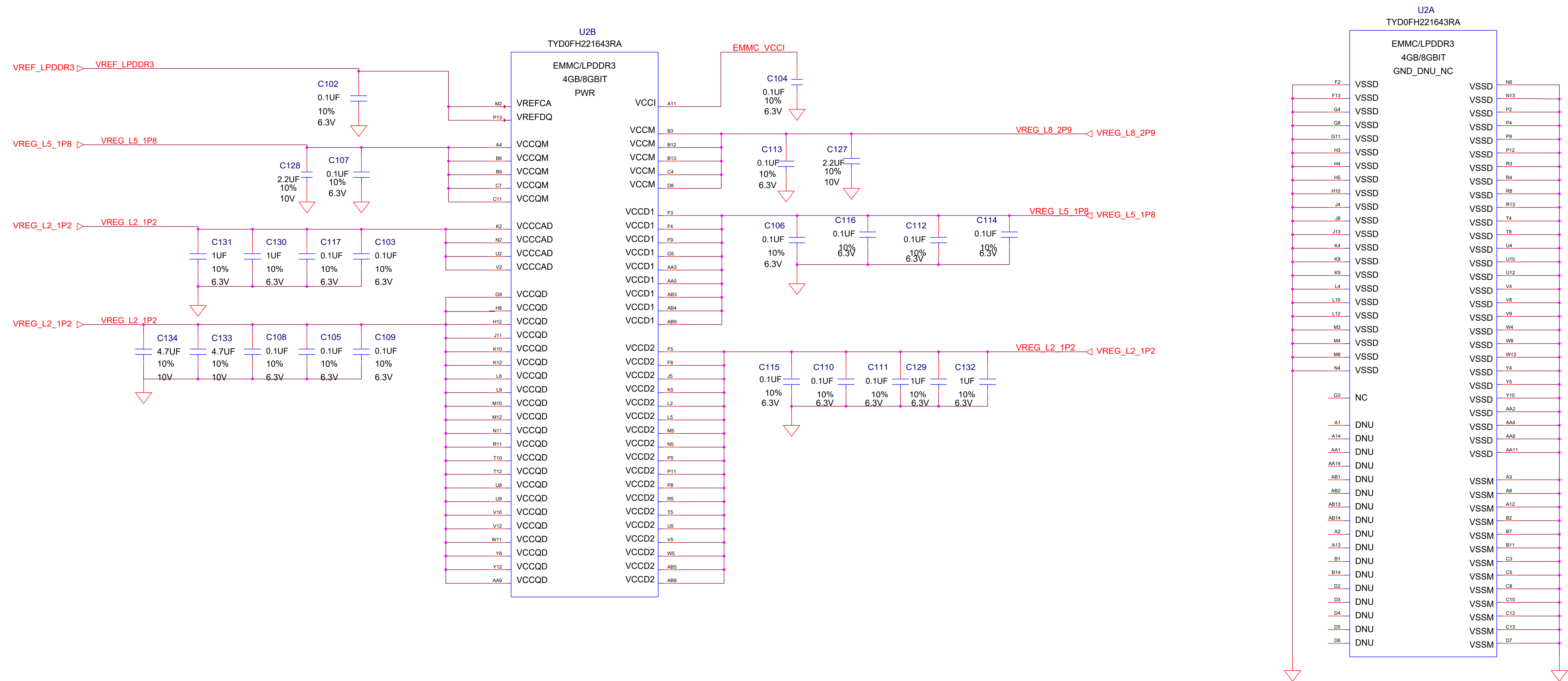
CAD NOTE:
Route two traces as differential and

NOTE:
Add shunt capacitor on MICBIAS signal if manufacturer requires it.

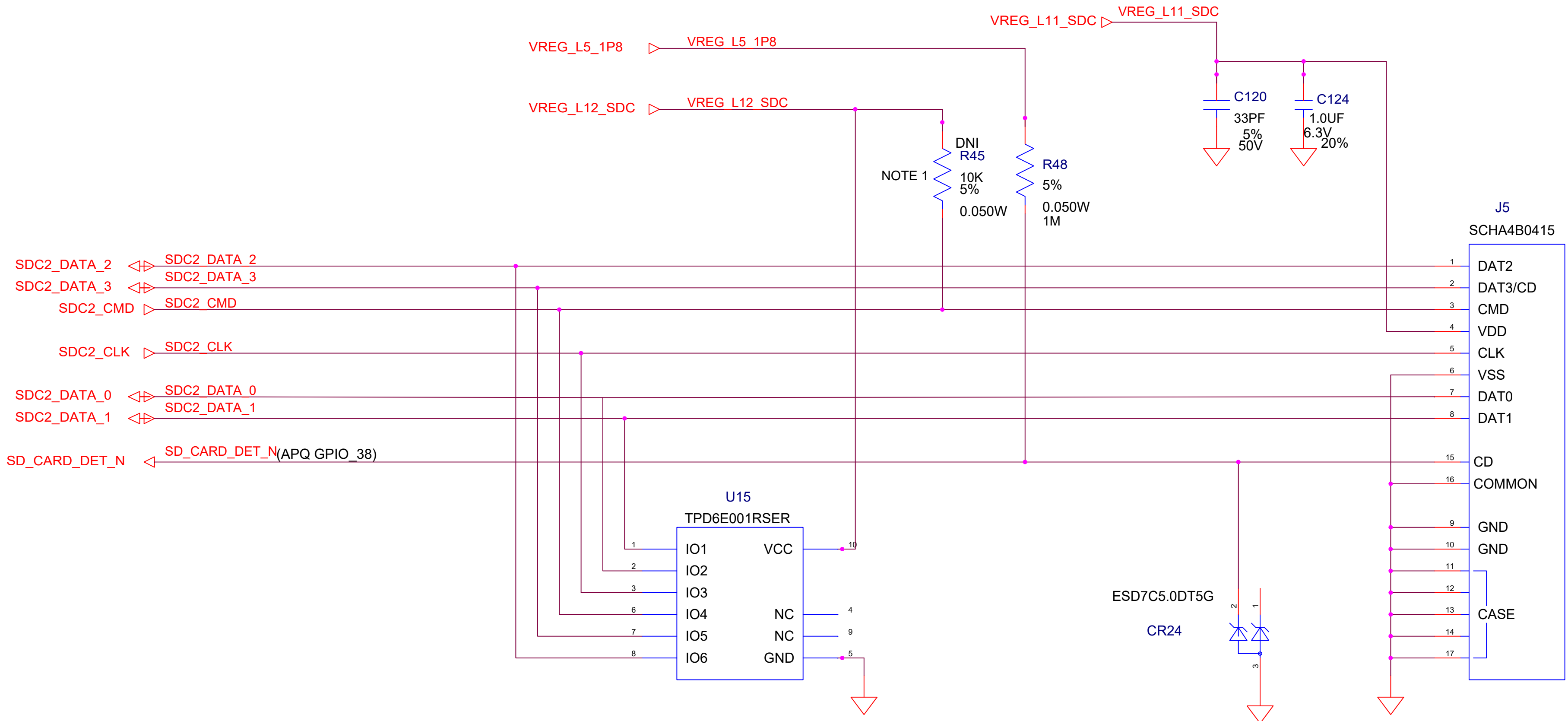
MEMORY - LPDDR3 + EMMC - CONTROL



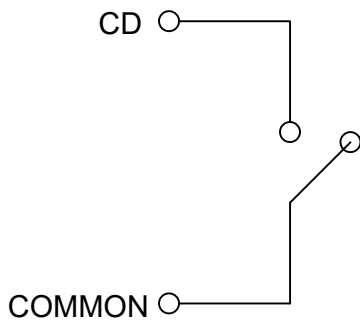
MEMORY - LPDDR3 + EMMC - CONTROL



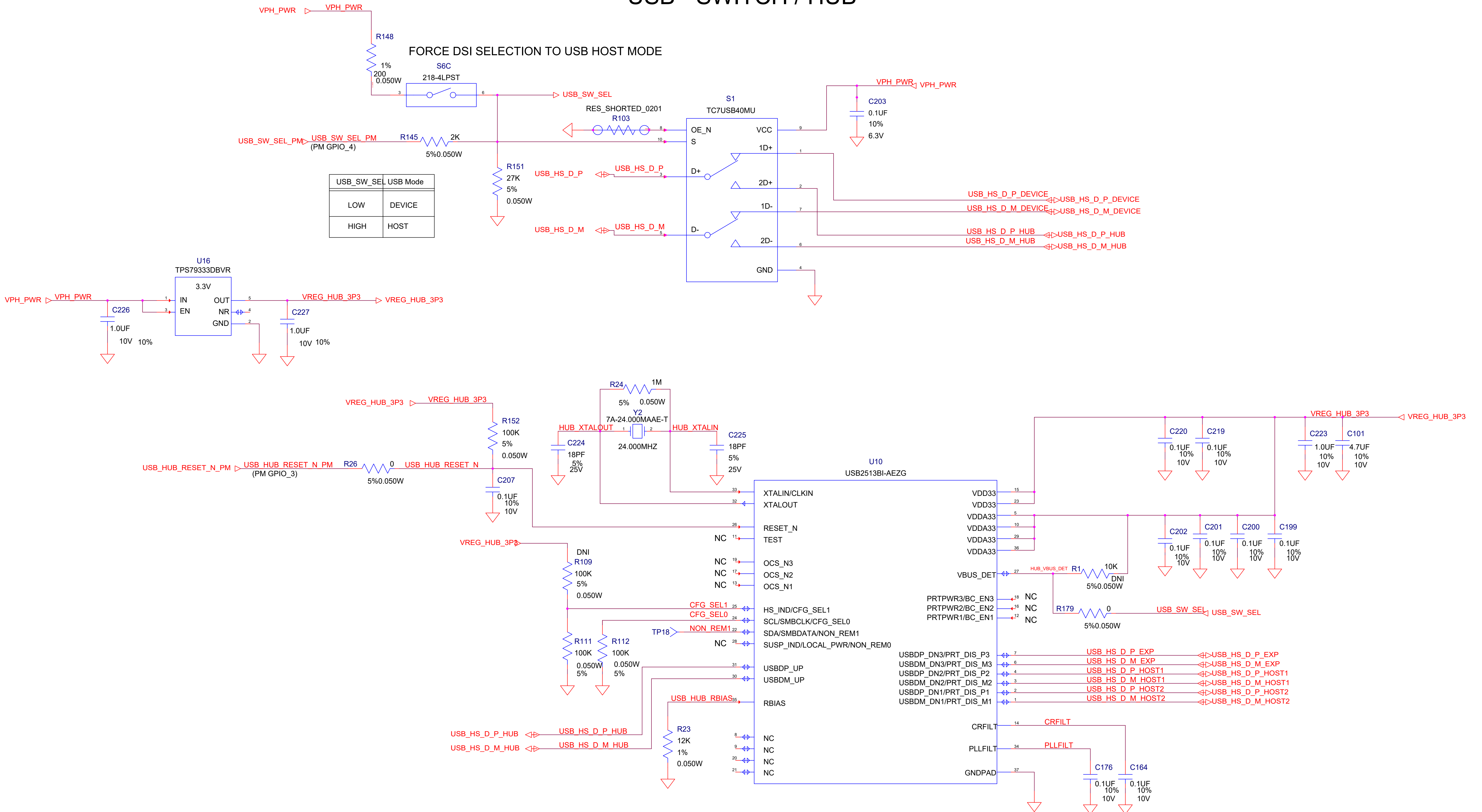
MEMORY - uSD CONNECTOR



CARD DETECT	CASE
CARD NOT INSTALLED	CD-COMMON SW=OFF
CARD INSTALLED	CD-COMMON SW=ON



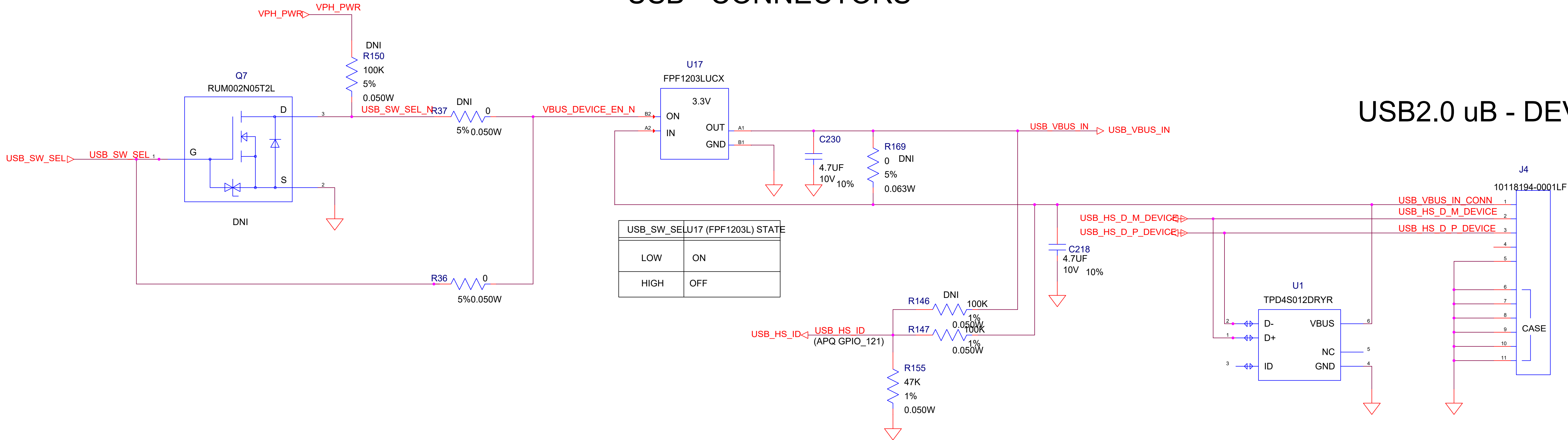
USB - SWITCH / HUB



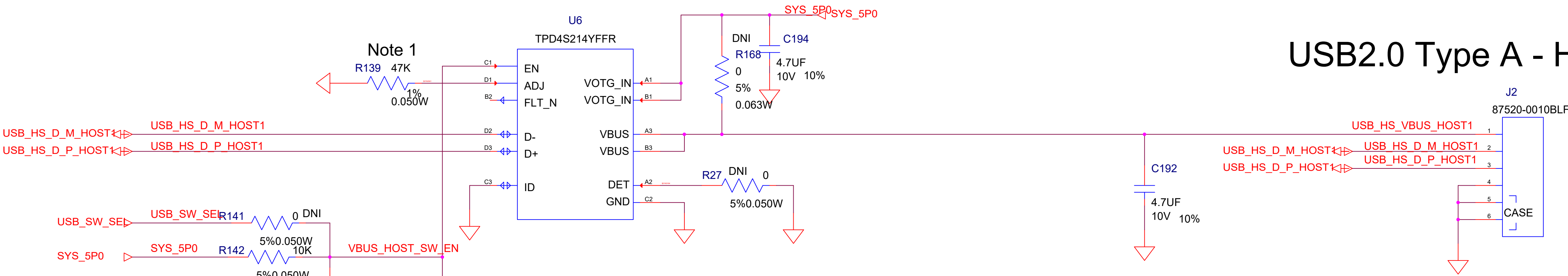
Note 1:
REF_SEL[1:0] = '10' --> REFVCLK=19.2MHz

USB - CONNECTORS

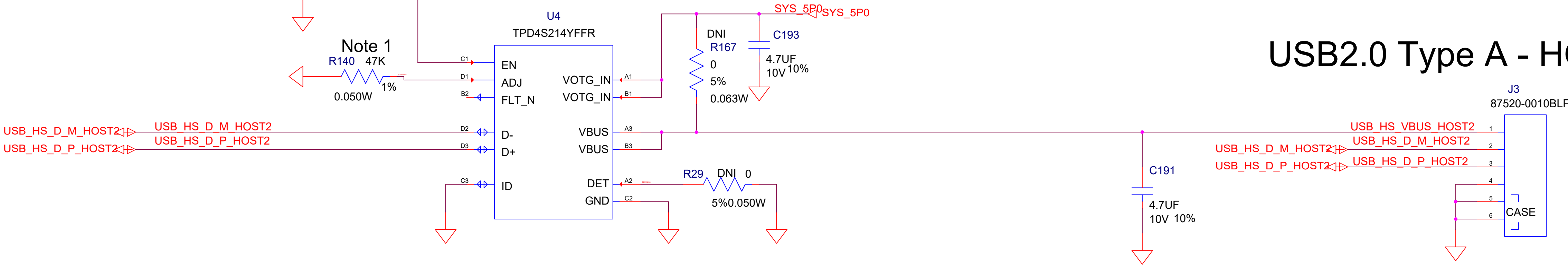
USB2.0 uB - DEVICE



USB2.0 Type A - HOST1

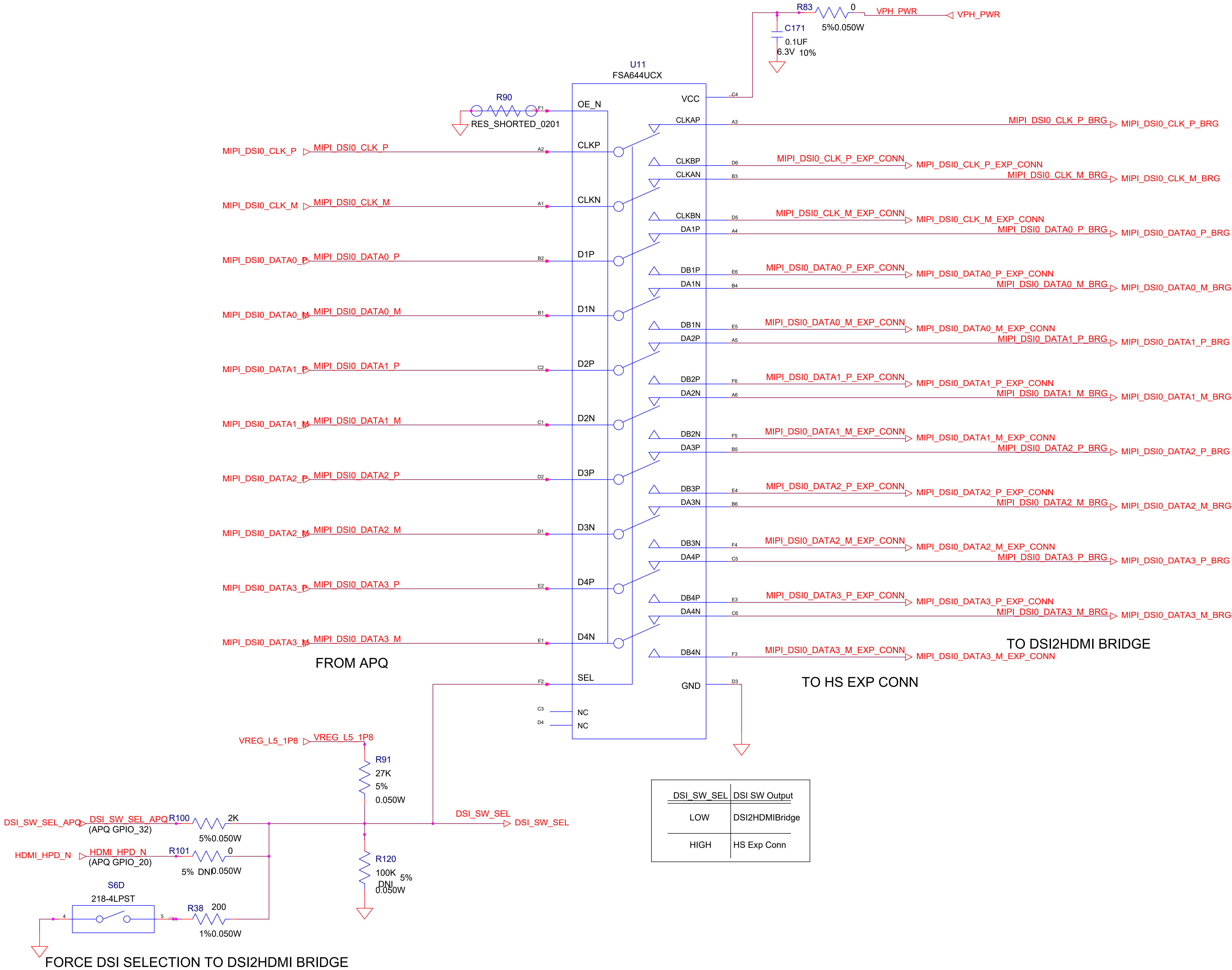


USB2.0 Type A - HOST2

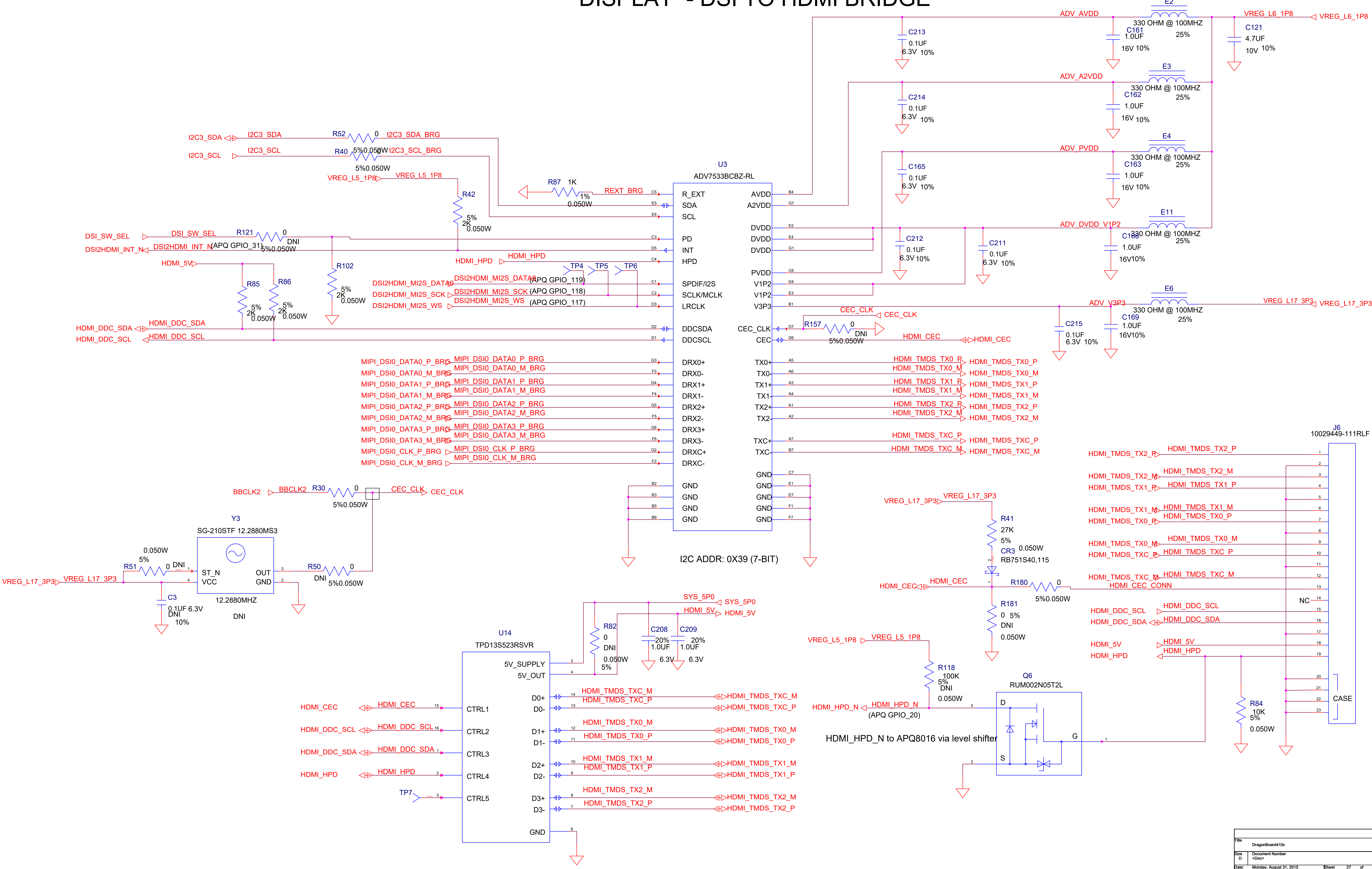


Notes:1. Current Limit = 55.358 / Radj [komh] = 1.18mA2. Connect USB ID pin on connector when uAB conenctor is used (10104111)

DISPLAY - DSI SWITCH

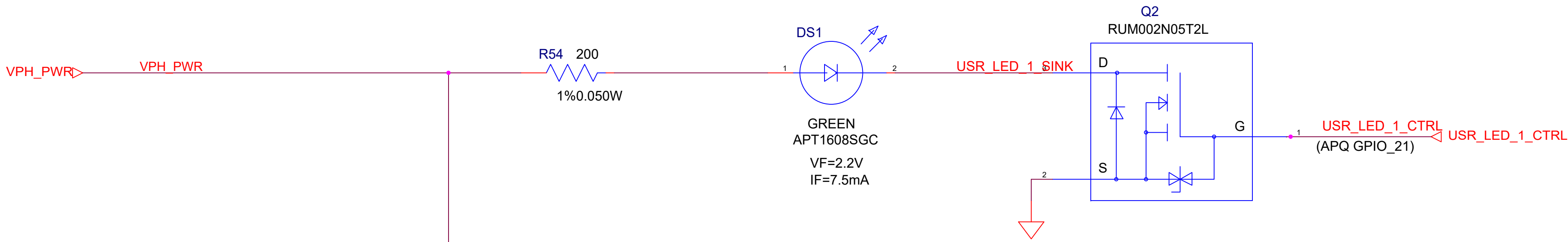


DISPLAY - DSI TO HDMI BRIDGE

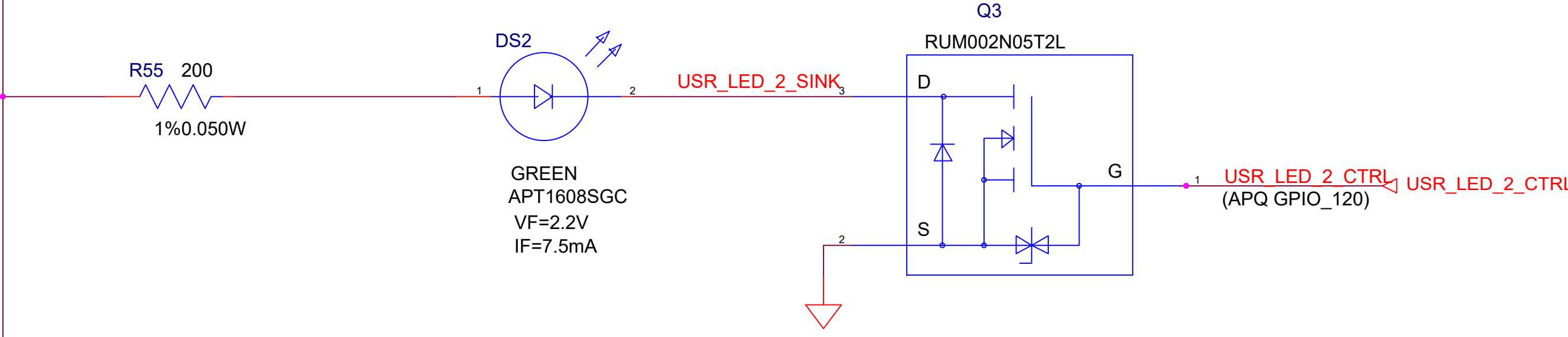


SWITCHES / LEDS

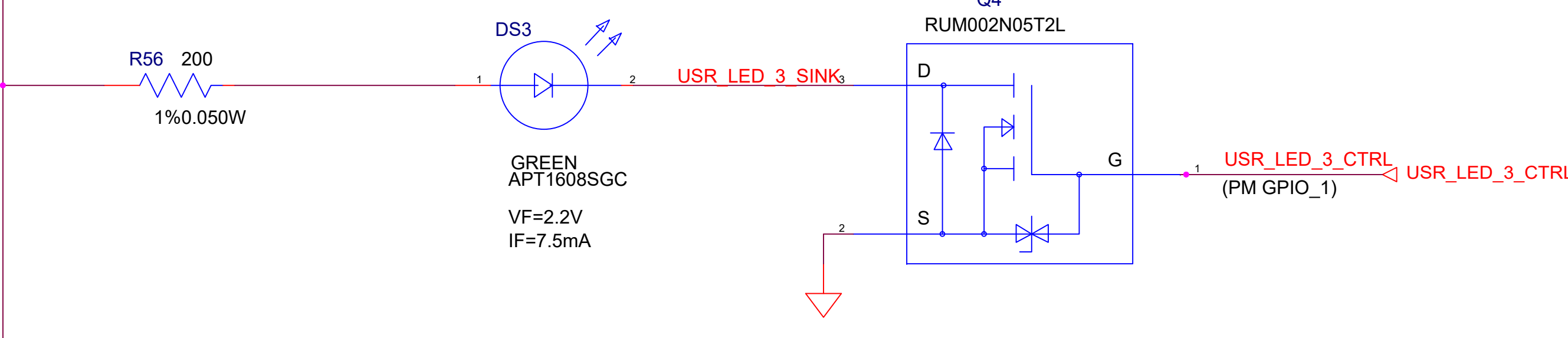
USER LED 1



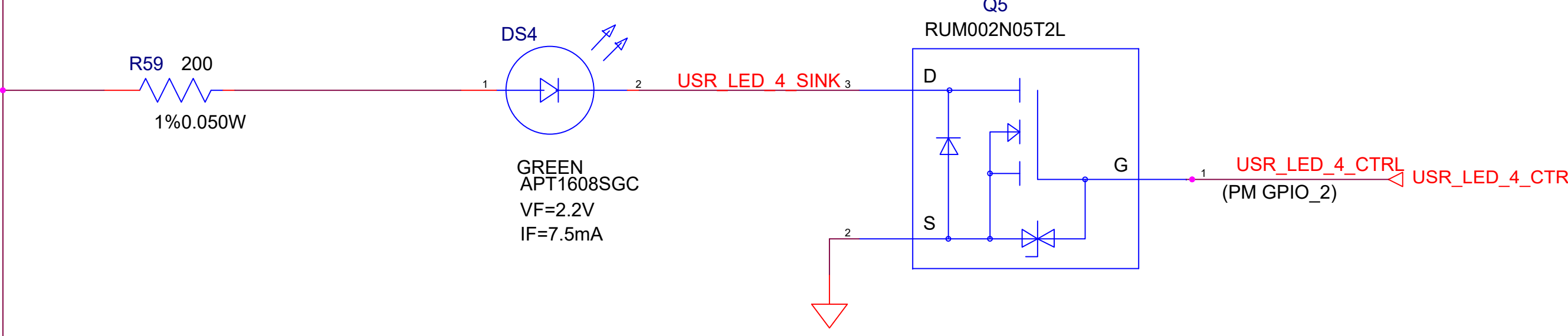
USER LED 2



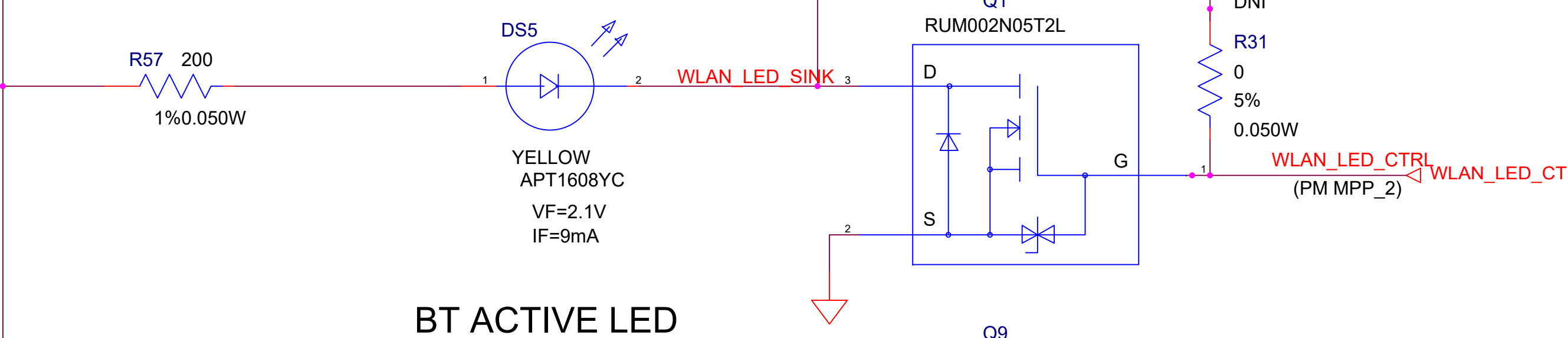
USER LED 3



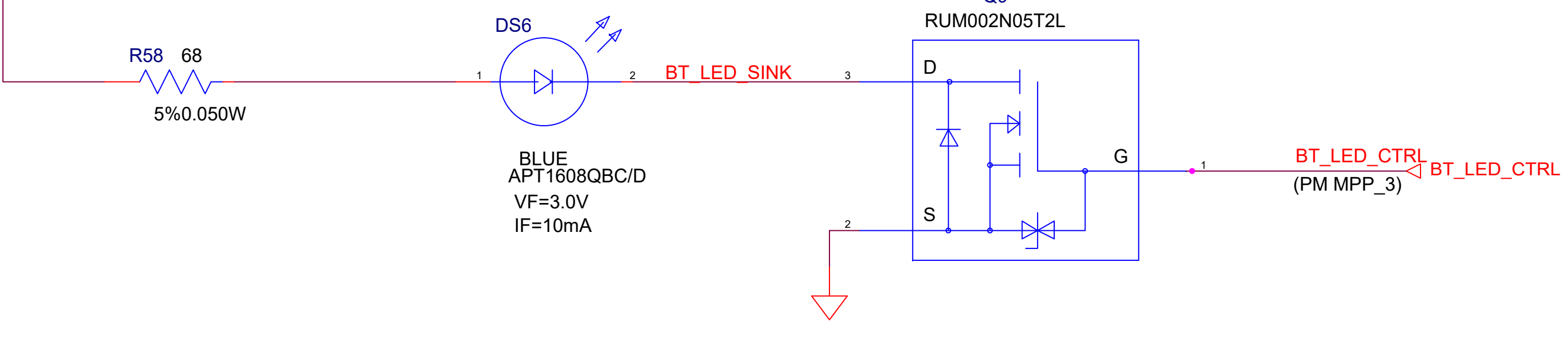
USER LED 4



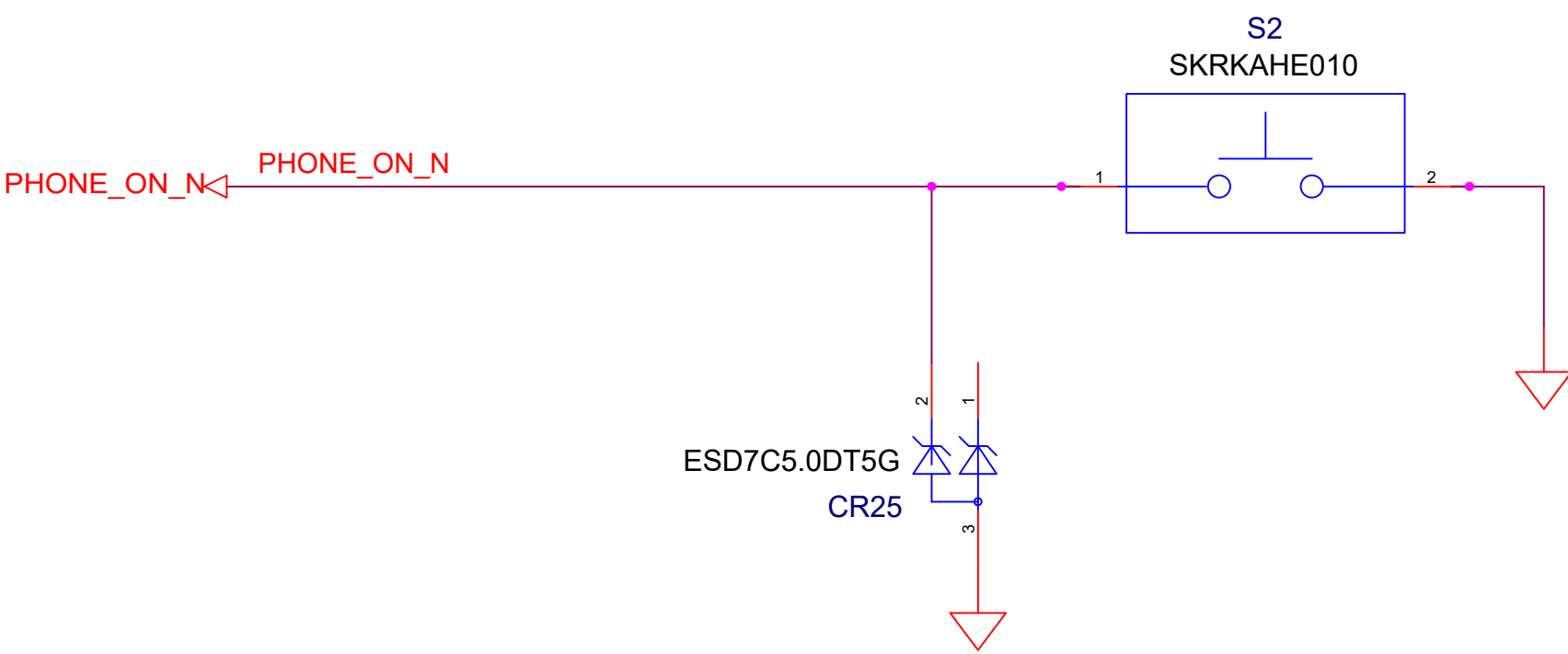
WLAN ACTIVE LED



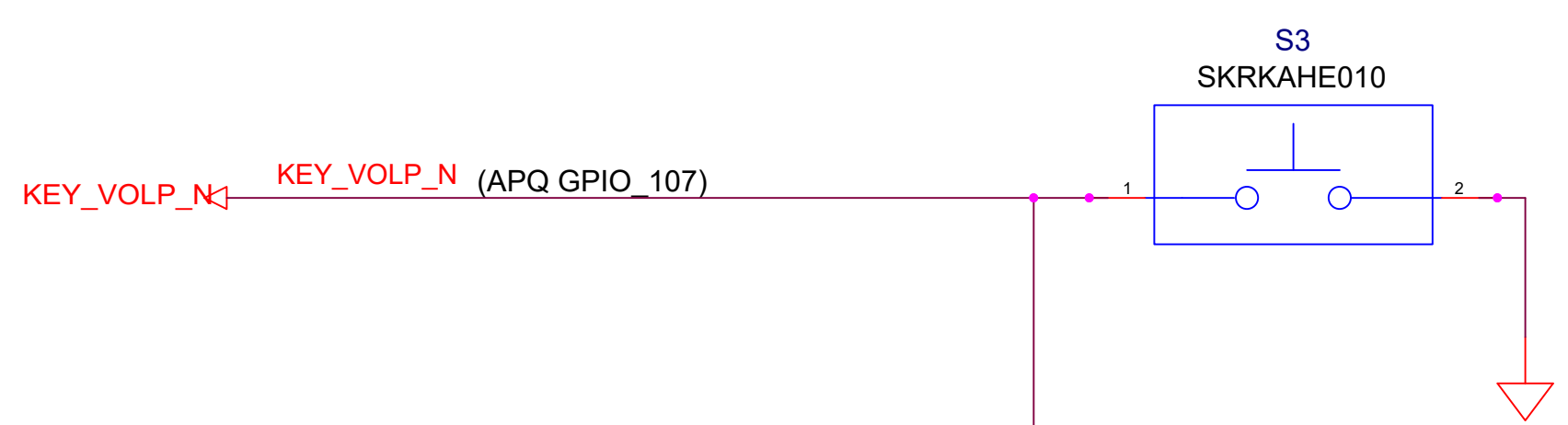
BT ACTIVE LED



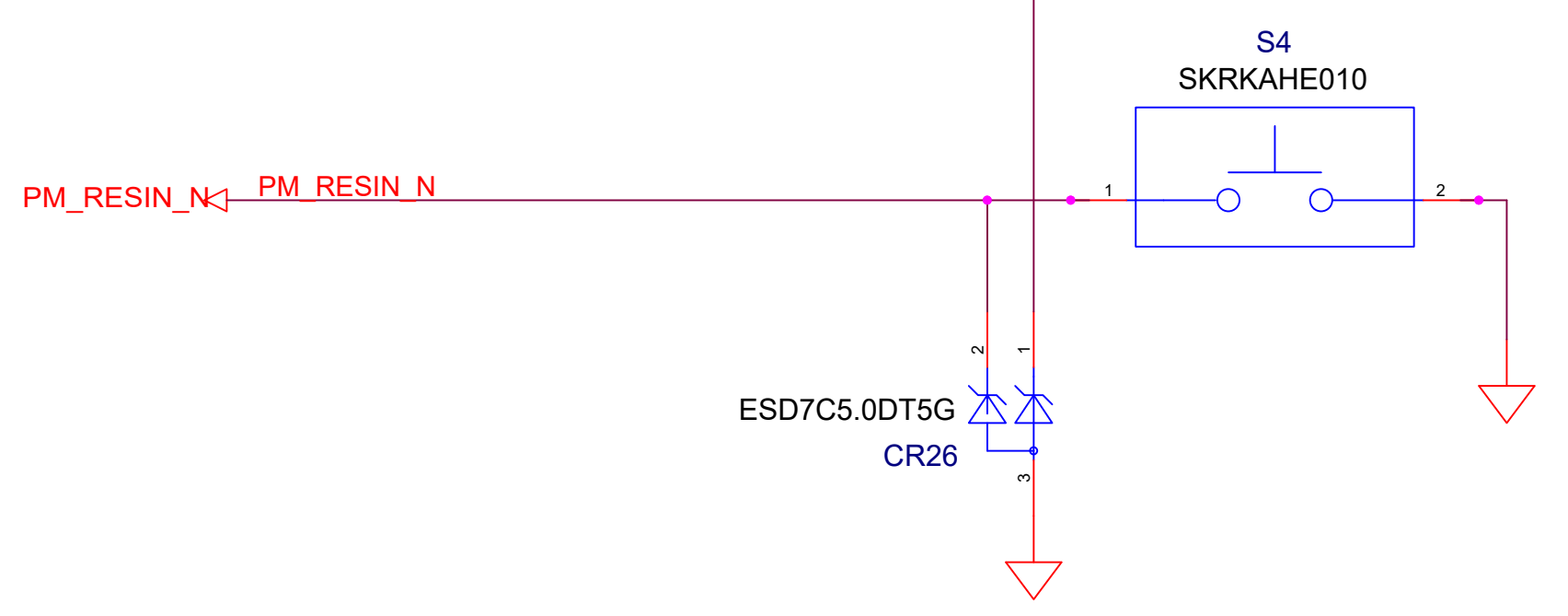
PWR SWITCH



VOL/ZOOM+

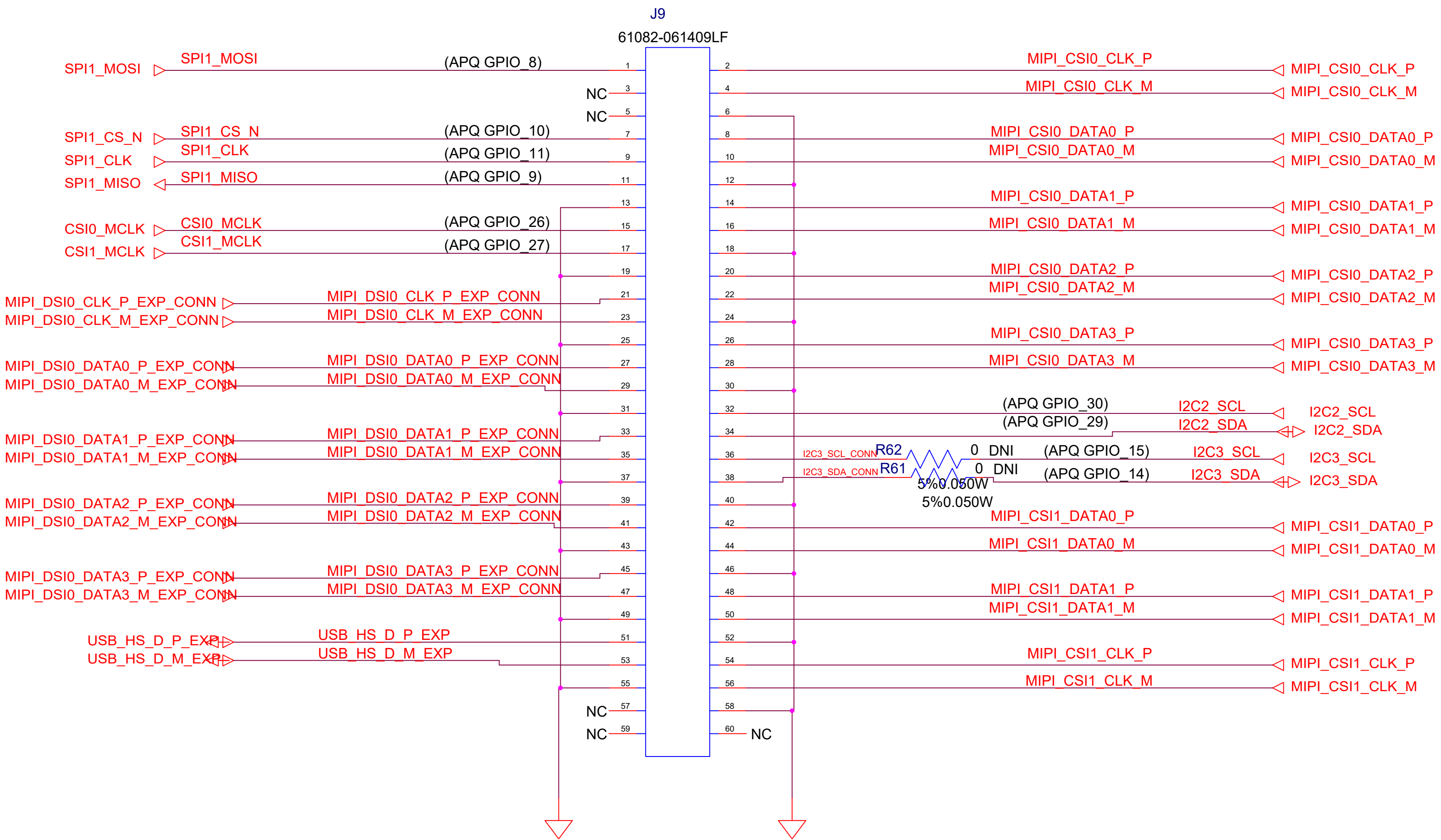


VOL/ZOOM-

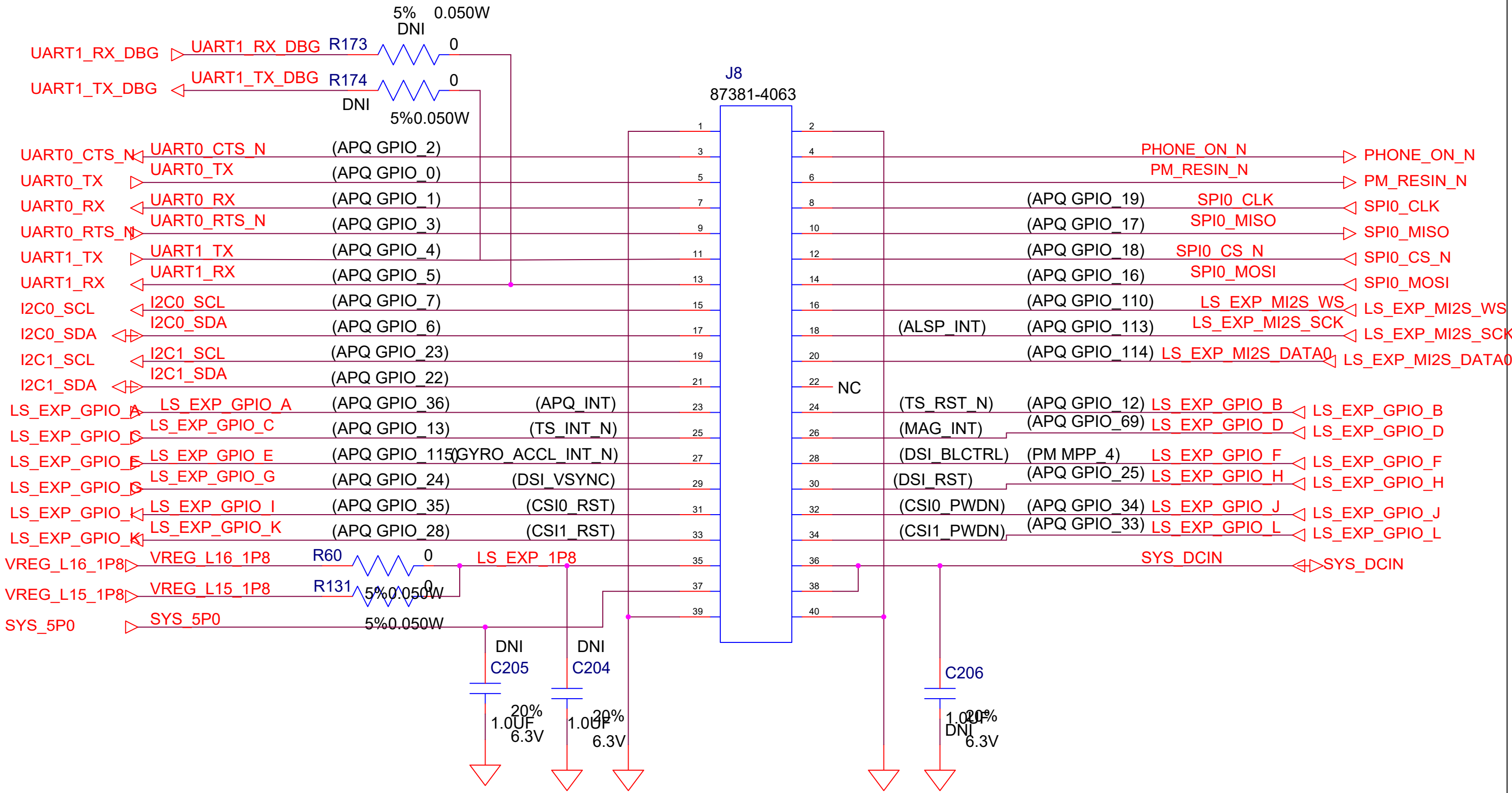


LS / HS EXPANSION CONNECTORS

HS EXPANSION CONNECTOR

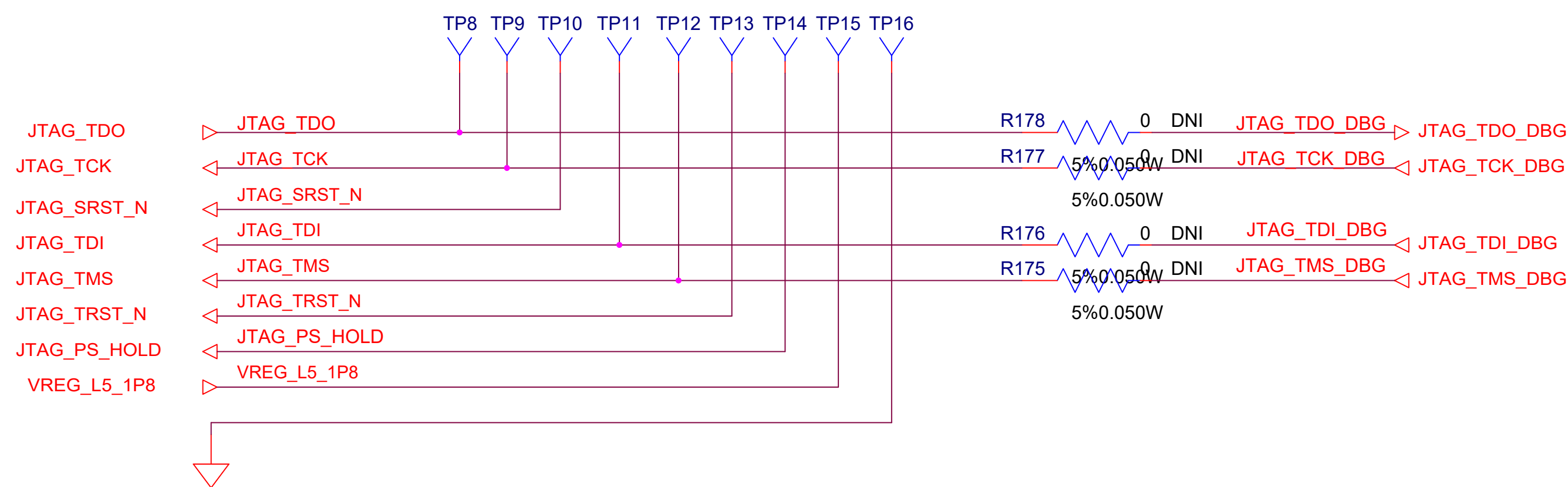


LS EXPANSION CONNECTOR

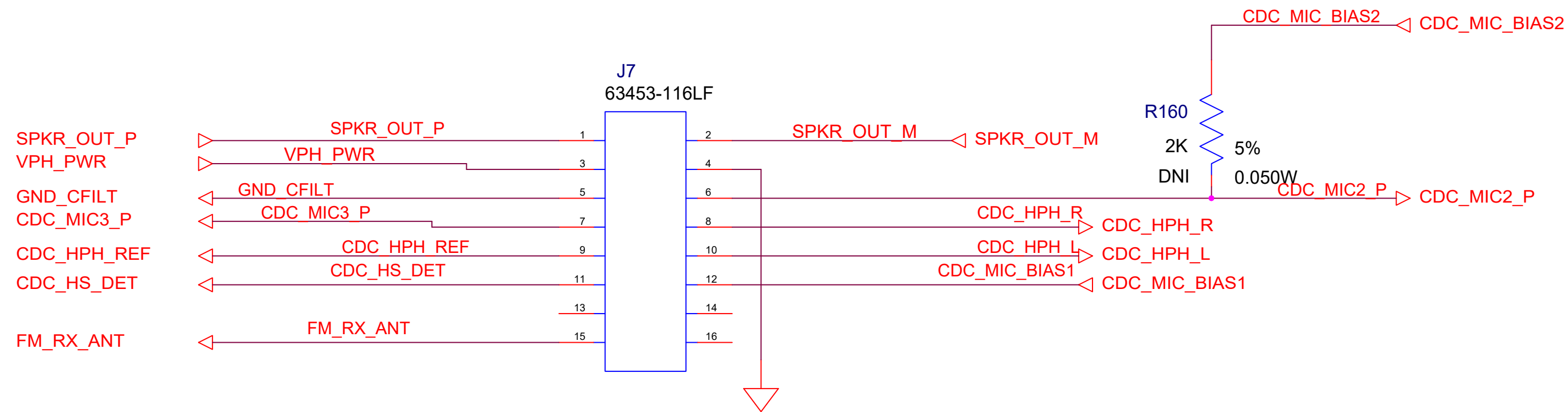


JTAG / UART / ANALOG EXPANSION CONNECTORS

JTAG INTERFACE (TOP)



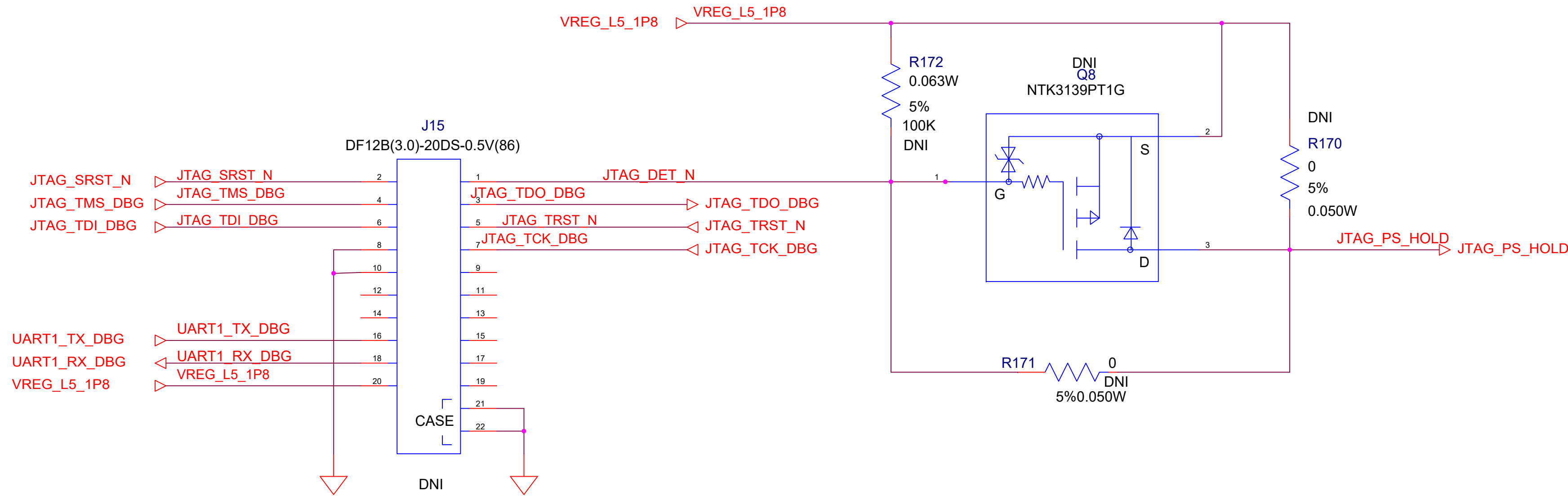
ANALOG EXPANSION CONNECTOR



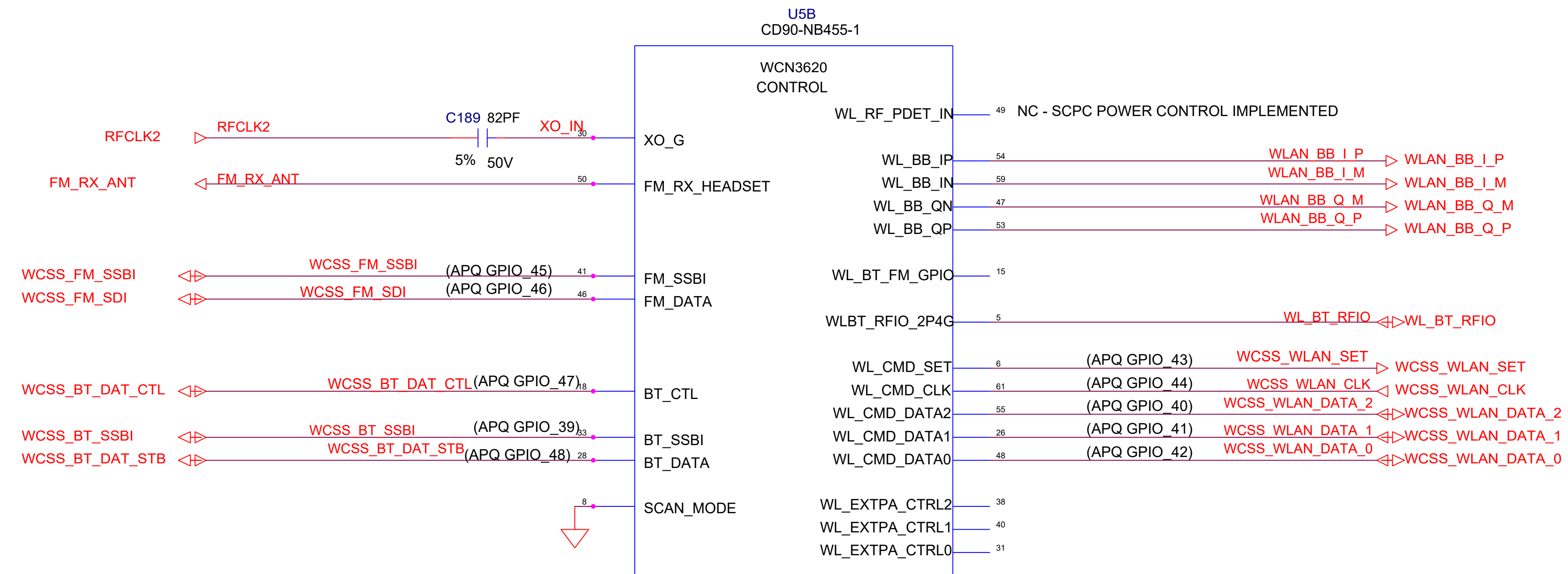
ANALOG INTERFACES

BOM CONFIG	SUPPORTED	ASSY OPTION
Hx0x	YES	INSTALL J15
Hx5x	NO	DNI J15

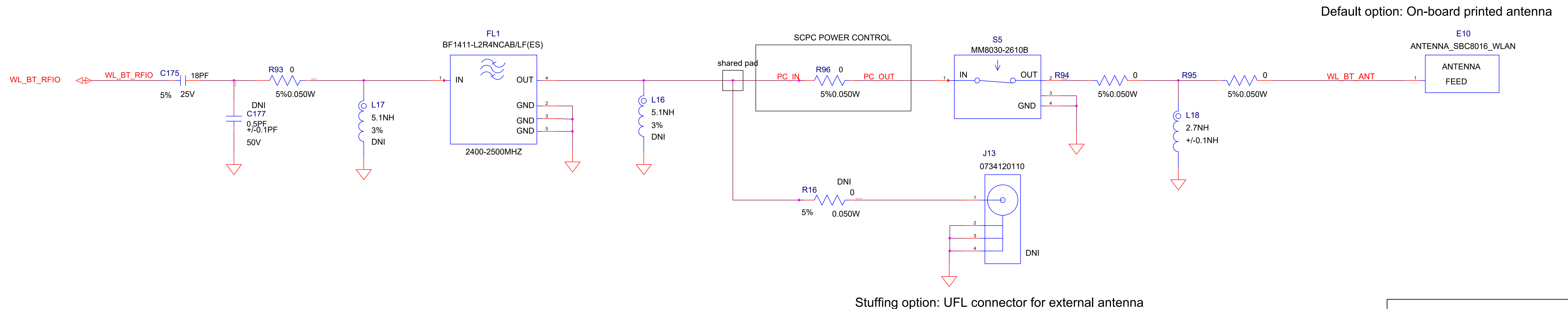
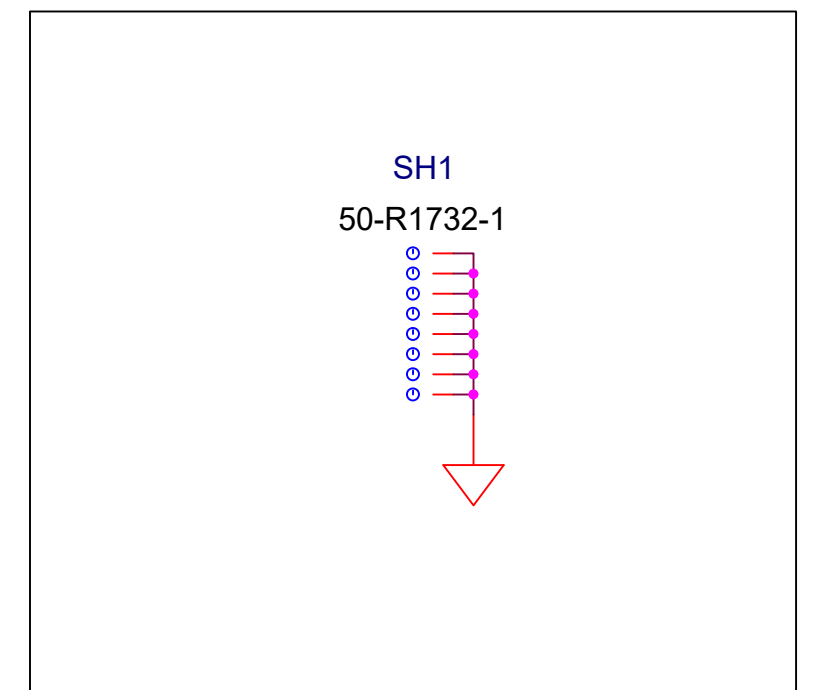
JTAG/UART INTERFACE TO 20-NR332 (BOTTOM)
(BACKUP OPTION)



WCN3620 RF & CONTROL

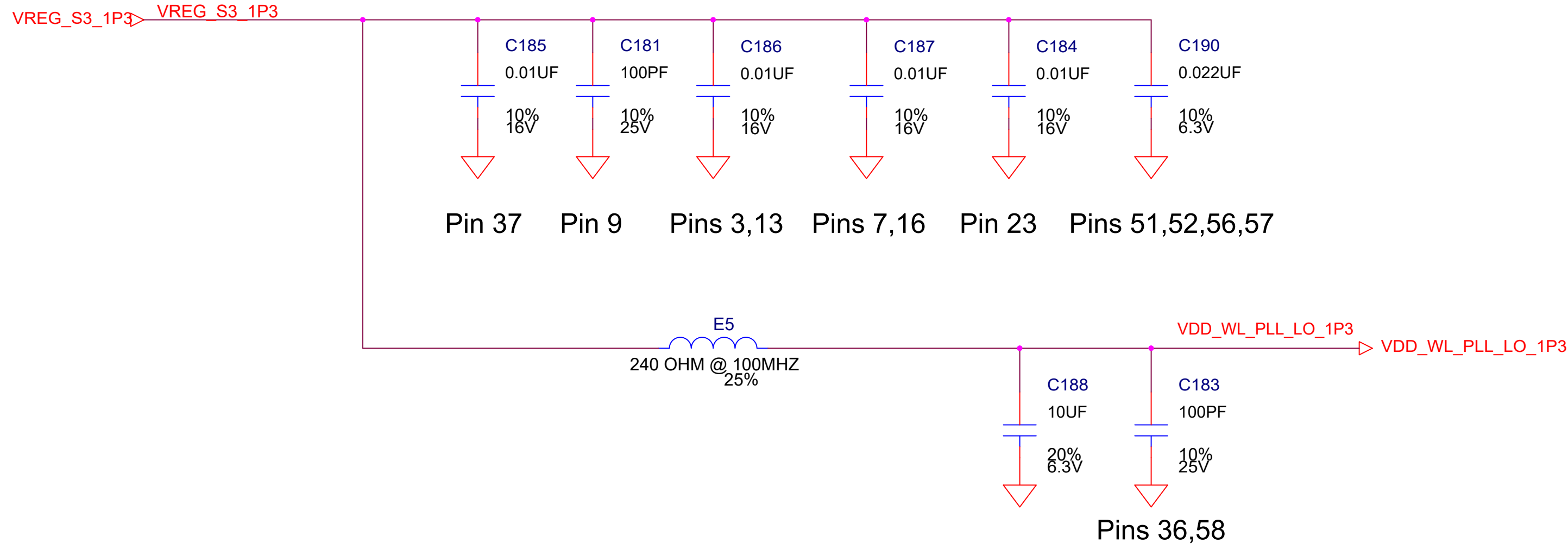


WCN & WGR Circuitry Shield

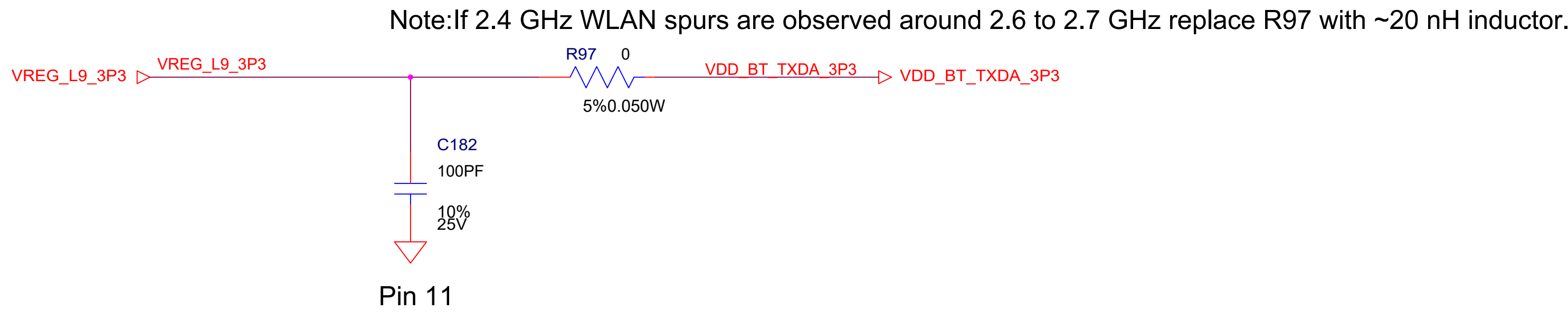


WCN3620 PWR & GND

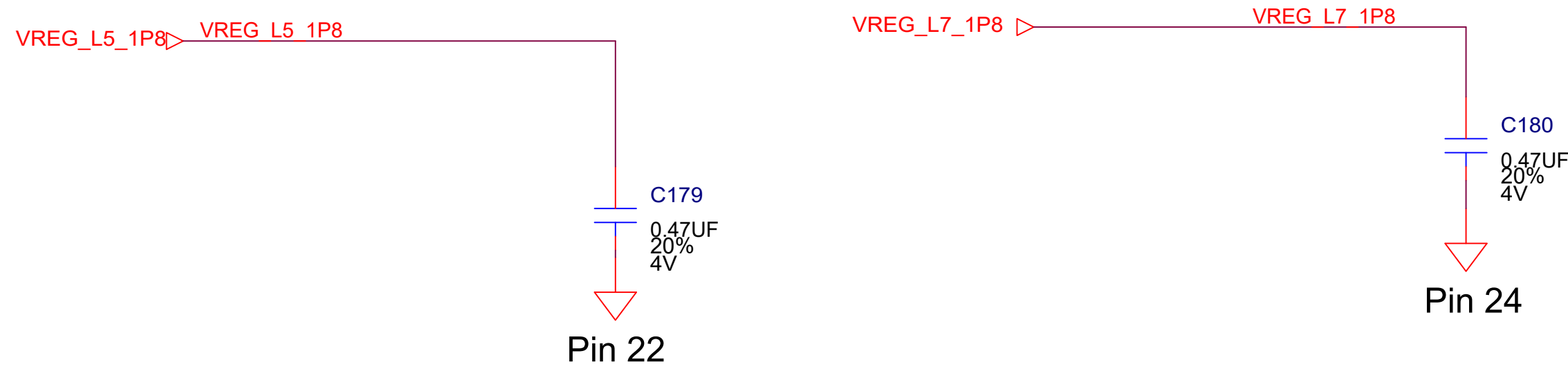
1.3V



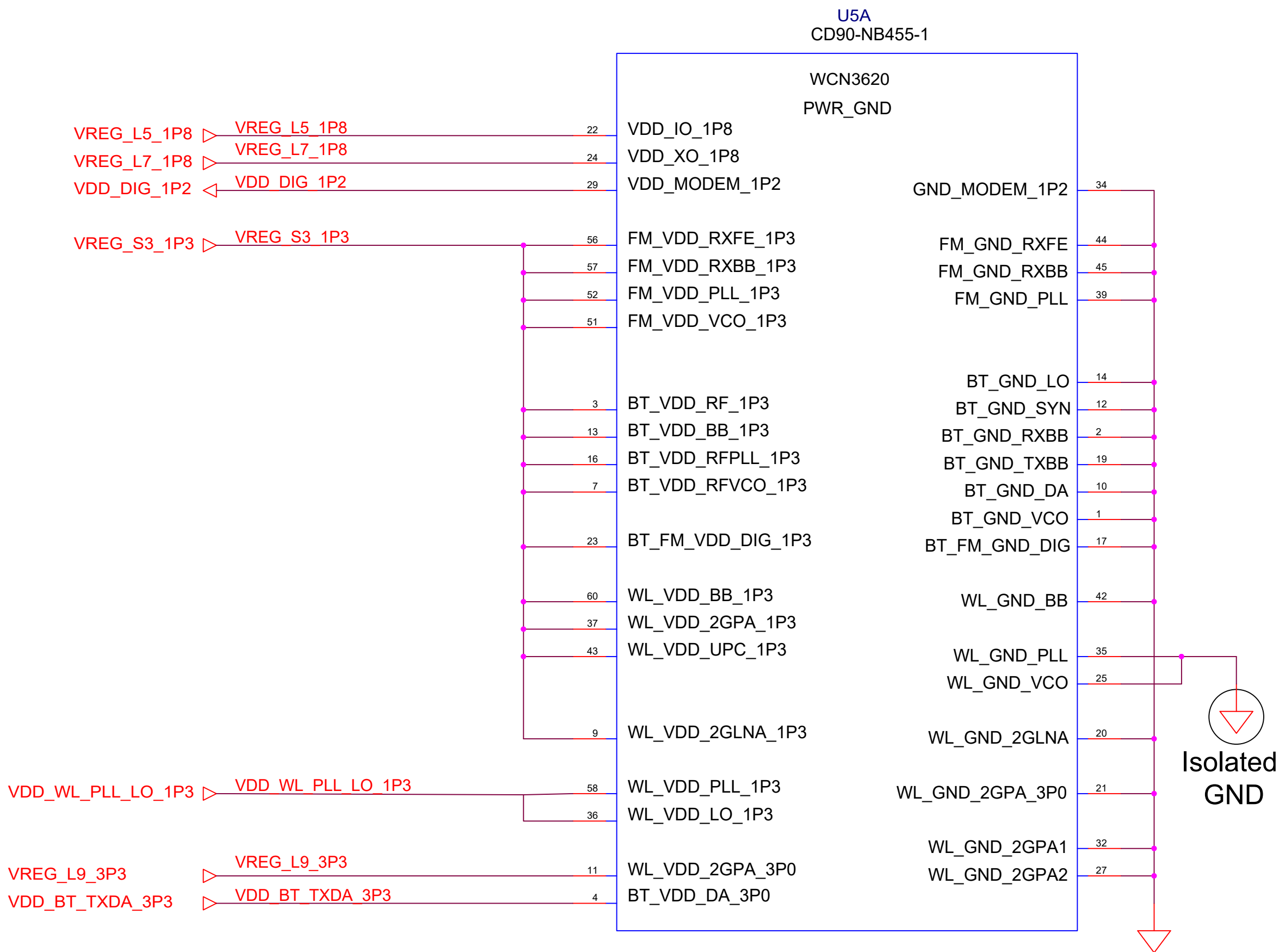
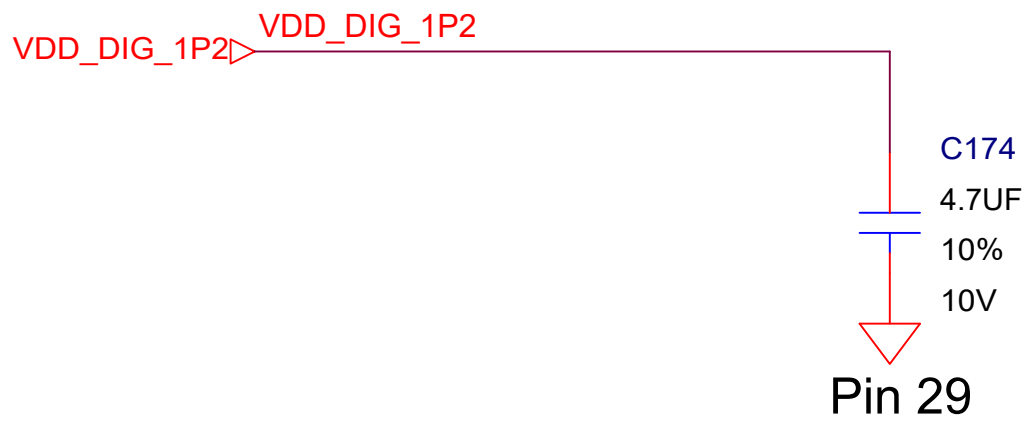
3.3V



1.8V



1.2V



WGR7640 - GPS

