

Fairphone 5: Information on how to repair and recycle

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FAIRPHONE

1. Product Identification

This document refers to the Fairphone 5 5G, a product by Fairphone, that was launched in the market on October 15, 2023.

The main technical specifications are as follows:

Display

6.46 inch Full HD+ OLED, 1224×2700 resolution

90 Hz refresh rate

300 Hz touch screen sample rate

880 nits peak brightness (800 nits typical brightness)

1.07 billion colors (P3)

1.000.000:1 contrast ratio

Pixelworks Processor for image enhancements including adaptive tone

Corning Gorilla Glass 5, fully laminated, oleophobic coating

20:9 aspect ratio

Selfie camera

Image Sensor: 50MP Samsung JN1, 1/2.76", 0,64 µm pixel size

Pixel binning 12.5 MP, 1.28 µm effective pixel size

22 mm full frame equivalent, F2.45 lens

Up to 1,5x digital zoom

Electronic Image Stabilization

Display usable as flash

Camera Modes

Super night mode, portrait, stop-motion, panorama, slow motion, pro mode, high pixel mode

Sound

Stereo speaker

The supported formats include: SBC, AAC, aptX, aptX HD, LDAC

Video

4k: 3840×2160p, 30 fps

Full HD: 1920×1080p, 30 fps or 60 fps

Slow Motion: Full HD: 1920×1080p, 120 fps or HD: 1280×720p, 240 fps

Main Camera:

50MP Sony IMX 800 sensor, 1/1.49", 1.0µm pixel size

Pixel Binning: 12.5MP, 2.0 µm effective pixel size

26 mm full frame equivalent, F1.88 lens, 6 lens elements

Autofocus, 10 cm minimum focusing distance, time of flight sensor

Up to 8x digital zoom

Optical image stabilization + electronic image stabilization

Operating system

Android™ 13

Android Enterprise Recommended

Software updates until 2031

Ultra Wide camera:

Image sensor: 50 megapixels SONY IMX 858, 1/2.51", 0.7 µm pixel size

Pixel binning 12.5 MP, 1.4 µm effective pixel size

13 mm full frame equivalent, F2.2, 6 elements

Autofocus, Macro Mode, 2.5 cm minimum focusing distance, time of flight sensor

Electronic image stabilization

Performance

Qualcomm QCM 6490 (extended life chipset)

64-bit Octa-Core processor

1x "Gold +" high performance core 2,7GHz

3x "Gold" high performance core 2,4GHz

4x "Silver" efficiency core 1,9 GHz

Qualcomm Adreno 643 @ 812MHz

8 GB Ram

Storage

256 GB internal storage

External storage capacity: micro-SD up to 2 TB

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Battery

4200mAh removable Li-ion battery
459 hours idle
38 hours phone calls
18 hours web browsing
50% charge in 20 minutes, 30W charging

Durability

IP 55
CE 60058-2-31 (1.8m)
MIL-810H (1.5m)

Connectivity & location

Wi-Fi 6E
Bluetooth® 5.2 LE
NFC
GPS/A-GPS, Beidou, Galileo, GLONASS,
Dual SIM (nano-SIM + eSIM, both 5G enabled)
Bands and Band-Combinations:
4G: B1/2/3/4/5/7/8/12/20/28/32/38/40/41/42/48/66/71
5G: n1/2/3/5/7/8/20/28/38/41/48/66/71/77/78
USB-C 3.0 (OTG capable)

Sensors & Security

Fingerprint scanner (integrated in power button)
Facial recognition
Magnetometer
Accelerometer
Gyroscope
Compass
Hall Switch
Light Sensor
Proximity Sensor

2. Repairs done by Fairphone

If you can not or do not want to repair the device yourself, you can always send it to us for repair. There are a few spare parts that we cannot offer for repair. At the time of writing this guide, the following components could be replaced by us:

1. Battery
2. Back Cover
3. Display
4. Top Unit
5. Wide Camera
6. Ultra-Wide Camera
7. Selfie Camera
8. Earpiece
9. Loud Speaker and Vibration Motor
10. USB-C Port
11. Mid-Frame
12. Top PCBA
13. Bottom PCBA

3. List of repair and test equipment needed

Repairing the Fairphone 5 is very simple, and the list of required tools is short. Most of the repairs will only require a Phillips screwdriver (PH00). For more complex repairs, you will need tools 2–8.

1. [Phillips screwdriver PH00](#)
2. Prying tool
3. USB-C cable (to test charging)
4. Battery Discharge Power measurement equipment
5. ESD protection gear
6. RF Connector tool
7. Soldering gun and soldering tin
8. Computer with Software flashing tool. You can find the instructions [here](#).

4. Technical manual

Anyone can access our technical manual online. There are tens of different guides depending on the needs. See below for a selection of the 10 most important articles.

1. [FP5. Charge your phone](#)
2. [FP5. Set up SIM card](#)
3. [FP5. Set up eSIM card \(embedded SIM\)](#)
4. [FP5. Connect to Mobile data](#)
5. [FP5. Connect to Bluetooth](#)
6. [FP5. Connect to a Wi-Fi](#)
7. [FP5. Migrate data from another phone](#)
8. [FP5. Update to the latest Fairphone OS](#)
9. [FP5. Maximize battery lifespan](#)
10. [FP5. Replace a spare part](#)

You can access all the rest [here](#)

5. Diagnostic faults and error codes

- We make use of Android's (AOSP) default logging and tracing mechanisms, which mostly means Android *logcat* messages generated by the Android framework, apps and HAL implementations, as well as kernel logs.

- Additionally, we use logging and diagnostics in components of third party suppliers, most of which comes from Qualcomm. These components use the same technical mechanisms as AOSP code: Android *logcat* and kernel logs.
- For modem and low-level implementations, we fully rely on the logging and diagnostics implemented by our chipset vendor Qualcomm and their proprietary tooling.
- We currently mostly use a "pure-AOSP" approach -- keeping customization compared to AOSP to a minimum -- which facilitates maintenance and longevity
- For any customization we add on top of AOSP and device-specific code (from Qualcomm and other suppliers), we again make use of Android *logcat* and kernel log.
- If you encounter a pop-up with an error code "There has been an error" then you can use USB debugging <https://developer.android.com/studio/debug/dev-options> and the "adb logcat" tool to get the full log that contains all the strings to help you figure out what the error code is.

In summary, our failure analysis relies on analyzing Android logcat, Linux kernel logs, and additionally Qualcomm modem logs where applicable, making use of existing tagging mechanisms from Android and Linux to identify failing components. Within the scope of the Android and Linux kernel, we currently do not have any proprietary formal error/fault codes (e.g., numerical error codes that follow certain specifications to identify which code would be related to what fault state). Our fault analysis relies on the mostly text-based analysis of Android and Linux logs.

6. Component information

For any question on this chapter, please contact

product.management@fairphone.com.

Fairphone 5 contains the following key components with the following key data points:

Component	Part details	Vendor	Key specs
Battery	Model: F5AC1	Kayo	Capacity : 4200 mAh Nominal Voltage: 3.87 V Cut off Voltage: 3.0 V Charging Voltage: 4.45 V Dimensions: 77.4 x 60.45 x 6.2 mm DC Internal Impedance < 130 mΩ Standard discharge: Continuous 0.2 to 3.0 V Operational Charging Temperature Range: 0-60 °C Operational Discharge Temperature Range: -20 - 60 °C Recommend full charge & discharge cycle once every 3-6 months.
Chipset	QCM6490	Qualcomm	64 bit application processor Low-power island (LPI): contains DSP and embedded AI accelerator Supports: GNSS, WLAN/BT, LTE, TD-SCDMA, WCDMA, GSM 5G NR and EN-DC. Support camera interfaces: 3 x 14 bit ISP + 2x ISP-lite, 22+22+22 MP Adreno 642L GPU Qualcomm® Universal Bandwidth Compression (UBWC) with camera, display, GPU, video, and compute DSP FHD+, 10 bit DisplayPort, eight hardware layers, improved HDR10+, and wide color Gamut, Qualcomm® Low-Power Picture Enhancement display feature, and Qualcomm® True Palette Display feature, VESA DSC 1.2 One 4-lane DSI DSC1.2, D-PHY 1.2, or C-PHY 1.0
Display	BF065GBM-TKO-7DP0	BOE	6.46" Outline: 68.15(W)*149.85(H)*0.038(T) mm Active area: 67.7484(W)*149.445(H) mm Number of dots: 1224(W)* 27000(H) Frequency: 60/90 Hz MIPI Differential Input: -0.3 to 1.35 V Supply Voltage -(I/I/LV): -0.3 to 3.6/5.5/1.26 V Logical input & output voltage: -0.3 to 0.3 V ELVDD: 4.6 V (4.6 to 5.0 V) ELVSS: -3.5 V (-6 to -0.8 V) AVDD: 7.6 V (4.5 to 8 V) VCI: 3.0 V (2.6 to 3.6 V) VDDIO: 1.8 V (1.65 to 1.95 V) DVDD: 1.2 V (1.1 to 1.25 V) VGH: 3 V to 15 V VGL: -15 V to -3 V Operating Temp: -40 to 85 °C

Board to Board Connector	BM23PF0.8-20DP-0.35V	Tohoku Hirose Electric Co.	Voltage 30 V AC/DC Signal contact 0.3 A Power Contact 5.0 A Operating Temperature: -55 °C to 85 °C Storage Temperature: -10 °C to 60 °C
Board to Board Connector	BM24-20DP /2-0.35V	Tohoku Hirose Electric Co.	Voltage 30 V AC/DC Signal contact 0.25 A Power Contact 5.0 A Operating Temperature: -40 °C to 85 °C Storage Temperature: -10 °C to 60 °C
Speaker Top	SLS1012A	AAC	Dimensions: 10 x 12 x 2.8 mm Impedance: 7 Ω @ 2 kHz Input DC Resistance: 6 Ω 50 mW Rated Power Operating Temperature: -20 °C to +70 °C Storage Temperature: -40 °C to 85 °C
Speaker Bottom	SLS1115D-01	AAC	Dimensions: 11 x 15 x 2.35 mm 8 Ω @ 2 kHz, 1 Vrms Input 1 W Rated Noise (1.5W Max) in 0.7cc 200-20 kHz Frequency range Operating Temperature: -20 °C to +70 °C Storage Temperature: -40 °C to 85 °C
Microphone	SM0103B-R S421-M02	AAC	Sensitivity: -42 dB Output Impedance: 450 Ω Supply Voltage: 2.75V to 3.6 V Rated Current: 100uA S/N Ratio: 64dB Power Supply Rejection -95dBV Load Resistor 5 kΩ Operating Temperature: -40 to +85 °C Soldering Information: Preheat 150-180°C for a maximum of 120 secs. Soldering Above 220°C for a maximum of 90 secs. Peak 260°C for a maximum of 30 seconds. Do not reflow more than 3 times.

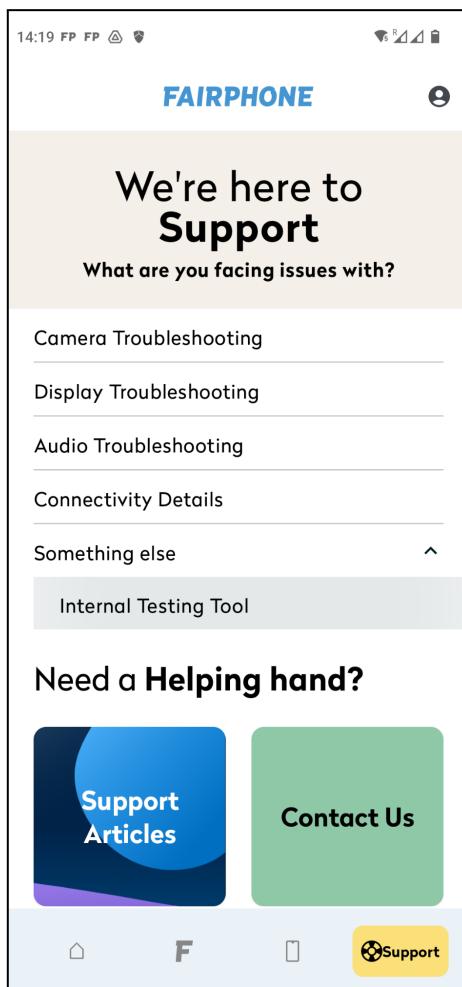
7. Diagnosis information

There are several components in your device that can be diagnosed. We advise you to follow our [diagnosis tree on our website](#).

You can also test one of the phone functions or components directly. To do so, please go to **My Fairphone App** on your phone. Please only do this under the instruction of our customer support :

- Open MyFairphone App
- Click on "Support" (4th item in Bottom Navigation Bar)
- Click on "Something else"
- Click on "Internal Testing Tool"

To exit the test mode, scroll down and press exit.



Internal Testing Tool in the MyFairphone-App

Diagnostic tests you can perform:

- a. Traceability test
- b. Fingerprint sensor (raw data)
- c. Touch panel (raw data)
- d. Sensor (raw data)
- e. SD Memory card
- f. SIM
- g. eSIM
- h. Earpiece (top speaker)
- i. Speaker (bottom speaker)
- j. Bluetooth
- k. Wi-Fi 2.4G
- l. Wi-Fi 5G
- m. GPS
- n. Fingerprint enroll (image capture)
- o. Touch panel
- p. LCD
- q. LCD Backlight LEDs
- r. Keyboard
- s. E-compass
- t. G-Sensor
- u. Gyroscope
- v. Front Camera
- w. Main Camera
- x. Ultra Wide Camera
- y. Camera LED
- z. Audio
- aa. Vibration sensor
- bb. NFC
- cc. Proximity sensor
- dd. Light sensor
- ee. Backlight Sensor
- ff. USB / Charger
- gg. USB Type-C
- hh. Accessory
- ii. USB 3.0
- jj. DP (video output)
- kk. USB NTC (for temperature)
- ll. Camera OTP
- mm. Attestation Key Check (tests public and private keys to validate SW in the device)
- nn. Calling

8. Instructions for software updates.

Fairphone OS releases for Fairphone 5 5G, based on Android 13 (A13), and we provide regular software updates.

Instructions on how to download and **install** these updates **directly on your phone** are [here](#).

Instructions on how to download and **install** these updates **using your computer** can be found [here](#).

[Here](#) you will also find the updated list of new features, bug fixes, and security patches for each release. The date and availability of system updates may vary by network carriers or country.

Instructions on how to make a factory reset can be found [here](#).

9. Data records of reported failure incidents

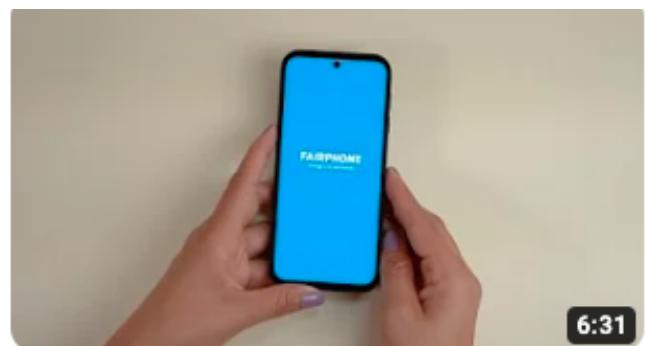
Fairphone maintains data records of failure incidents in accordance with GDPR regulations. When customers contact us about a reported failure, it is necessary for us to hold a certain amount of data to be able to process this failure and the potential return of the product to our repair center. We also maintain records of reported failures in an anonymized way where no customer data is required for varied business related purposes such as cost management and future warranty provisioning. We do not make this information available publicly. Furthermore, we do make information available about certain known failures of our products on a case-by-case basis. For any questions on this chapter, please contact product.management@fairphone.com.

10. Guidance for self-repair and technical manual.

Repairing the Fairphone 5 is very easy. The actions contained in this chapter have no consequence for your warranty coverage.

You can find any of our video self repair videos and a simple self-repair guide in this [link](#).

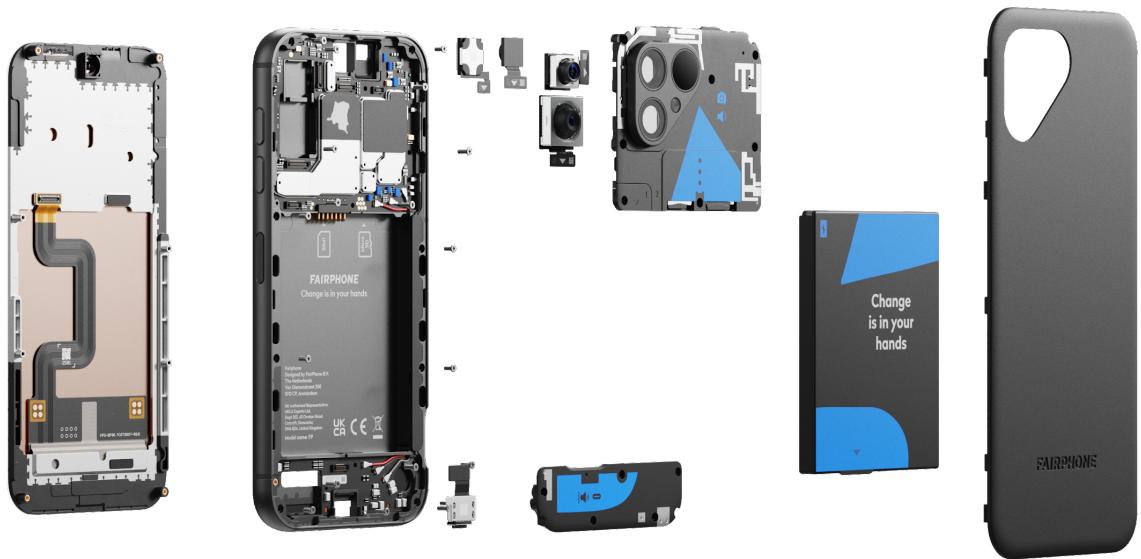
In this document, you can also find a printed version of our repair manuals.



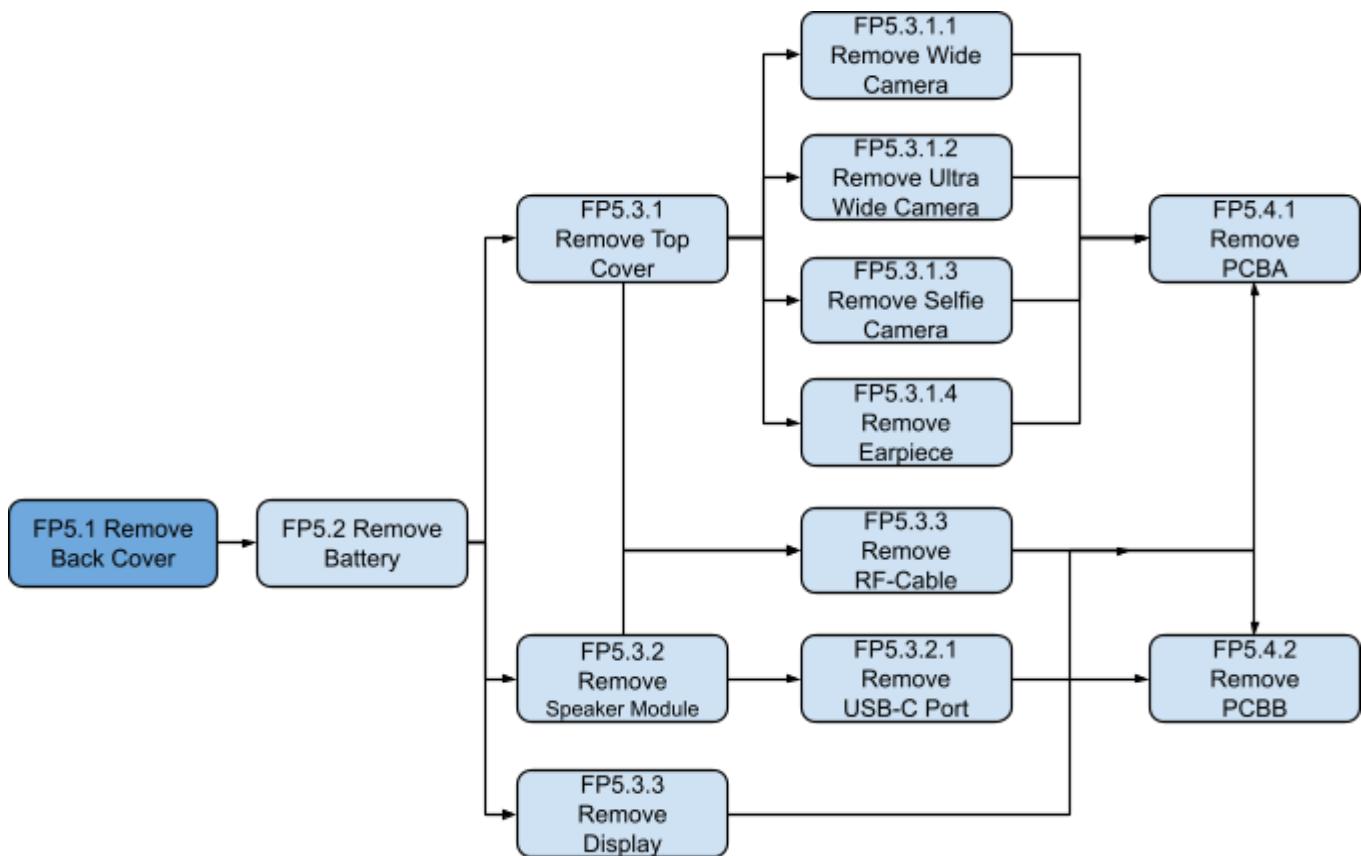
Getting Started | HOW TO FAIRPHONE 5

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a. Spare parts overview and disassembly map



b. Disassembly flow



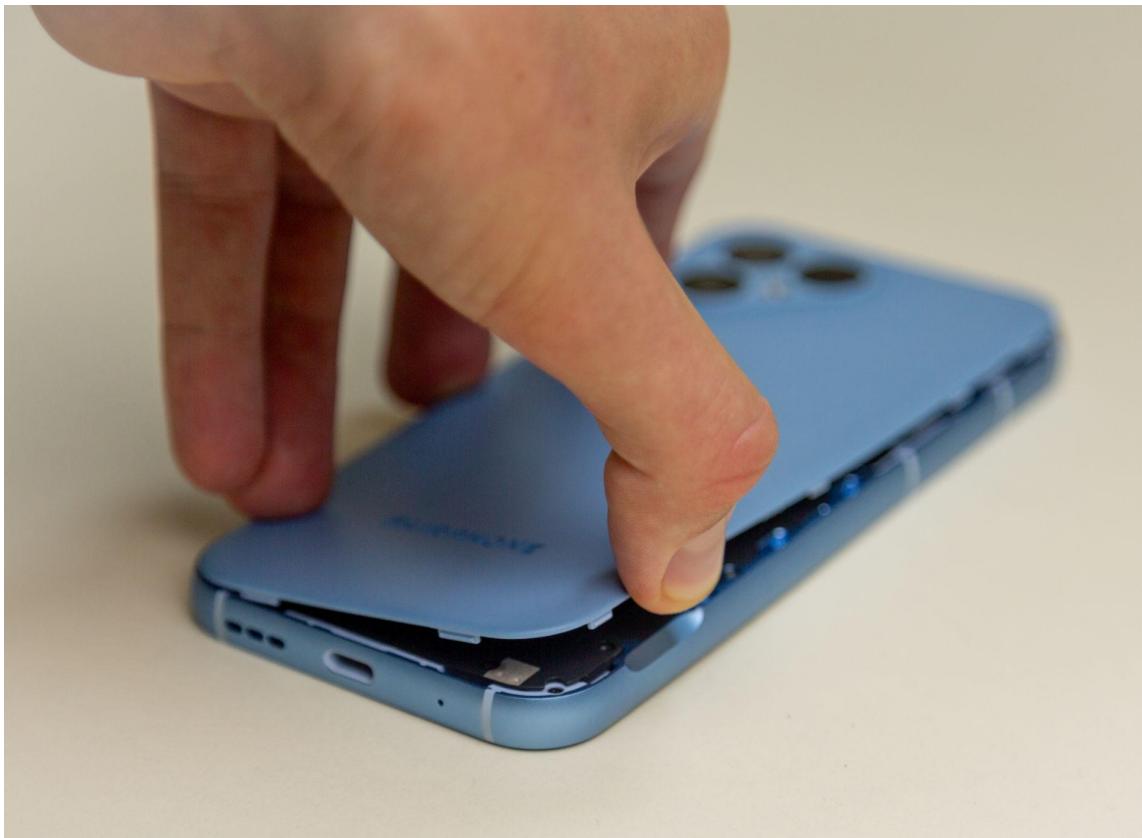
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c. Cautions before disassembly

- i. **Power off the device:** Before disassembly, please power off the device and take out the battery.
- ii. **Press the power button** more than 5 seconds after the battery is removed, to release the electricity residual in capacitors.
- iii. **ESD Protection:** Electronic-sensitive components inside (especially in winter); suggest releasing the static electricity on the body (e.g., finger touch metal objects).
- iv. **Pay attention to the two different types of screws:**
 1. Black Phillips head (M1.4) (for display repairs)
 2. Silver Phillips head (M1.4) (for other repairs)
- v. **Prepare your tools:**
 1. Phillips screwdriver PH00.
- vi. **If you are a professional repairer, consider the torque force** needed for screw/unscrew operation:
 1. Torque force for Philips screws: $0.8\pm0.15\text{KGF}$

d. Replacing back cover and battery

Step 1: Lift the back cover, starting at the opening position on the bottom right, and then remove it completely.



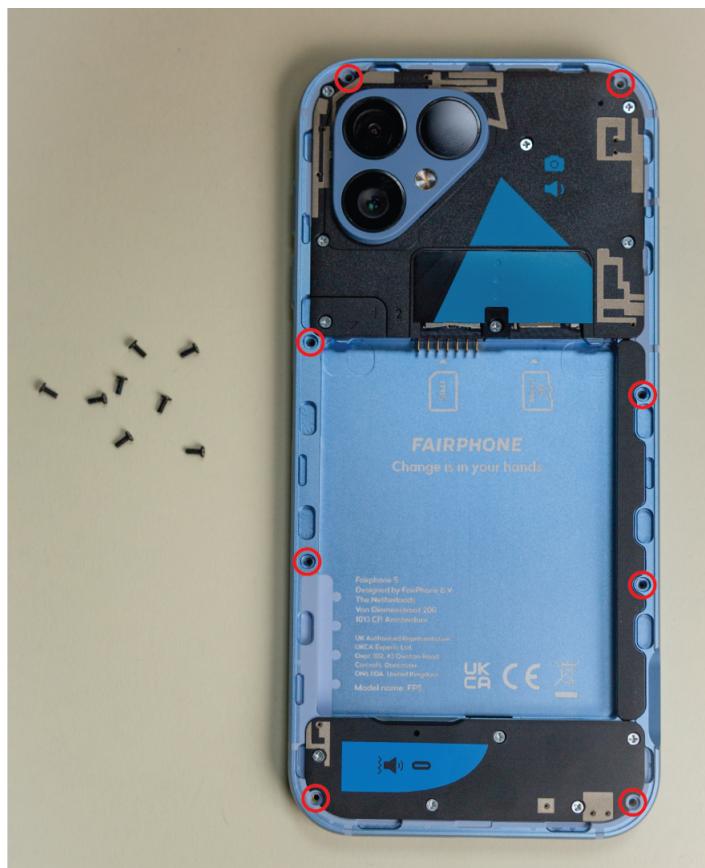
Step 2: Remove the battery by lifting it up from the tab at the bottom of the battery.



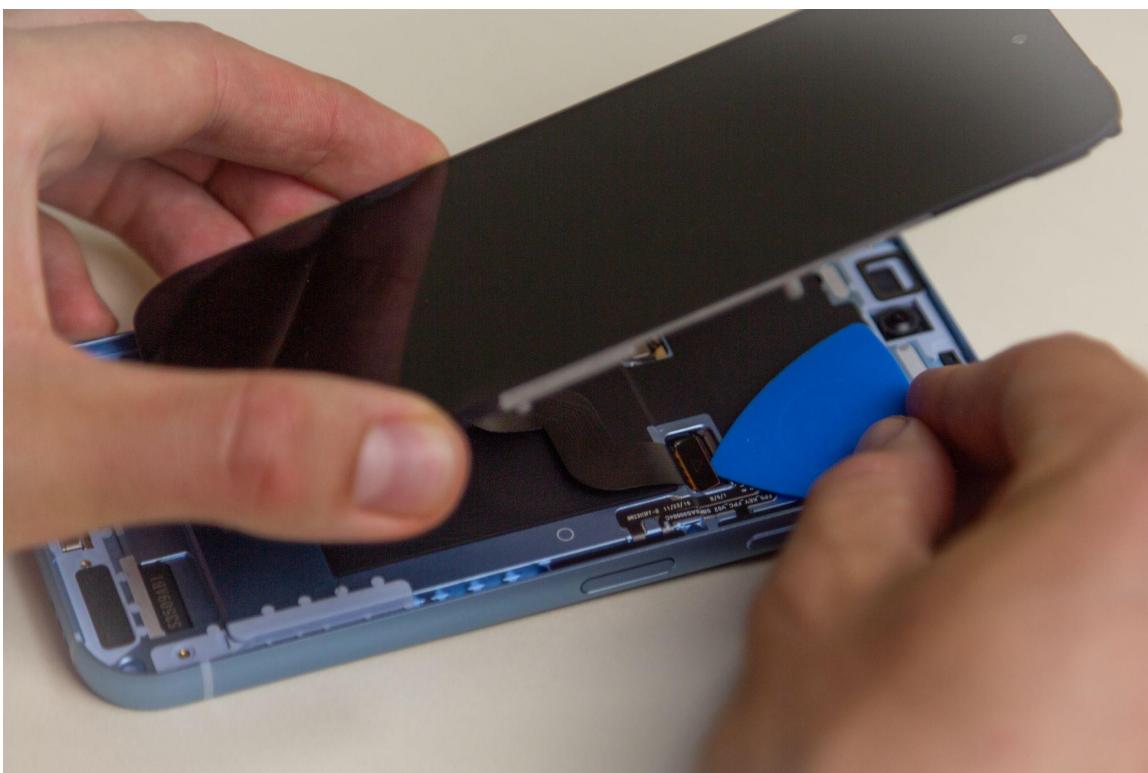
e. Replacing display

Step 1: Follow previous steps (d) to remove the back cover and the battery

Step 2: Remove the 8 black Phillips screws indicated in the picture below.



Step 3: Lift the display and disconnect the cable behind it.





Step 4: Connect the new display by first connecting the cable back. Simply push the connector in until you hear a click.

Step 5: To assemble again, repeat the actions in steps 3, 2, and 1 in reverse order.

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f. Replacing the rear cameras, selfie camera, or earpiece

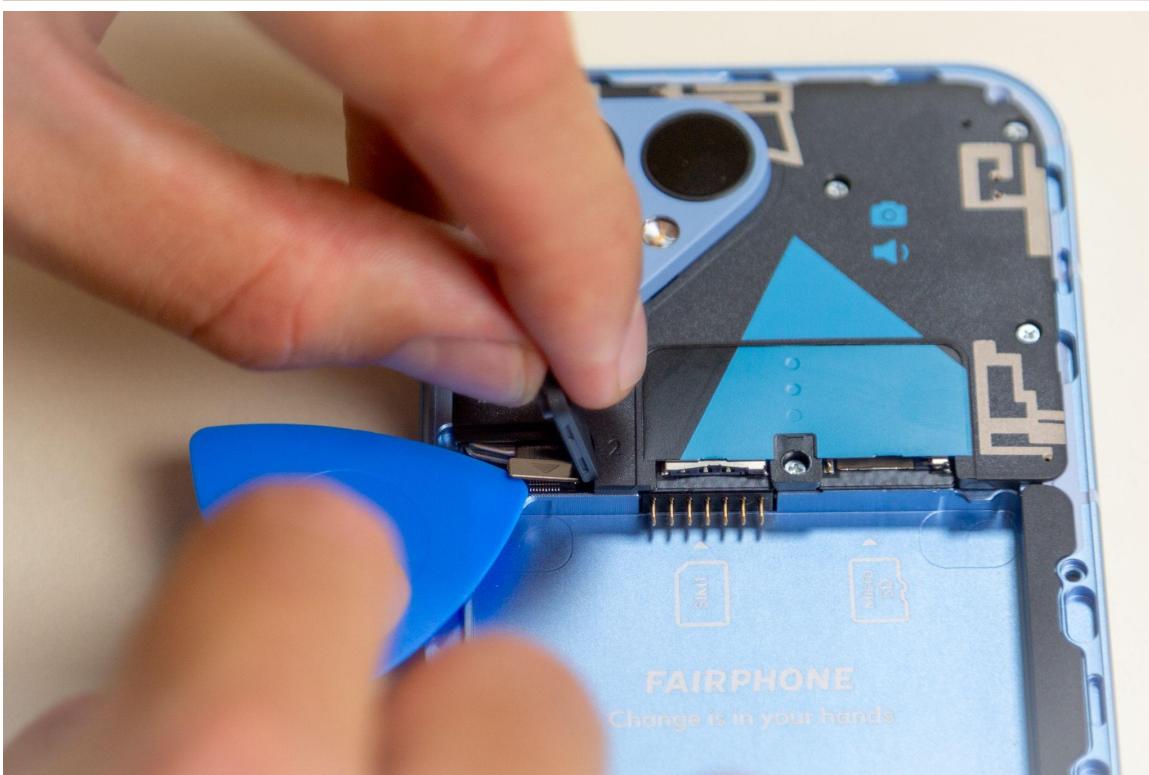
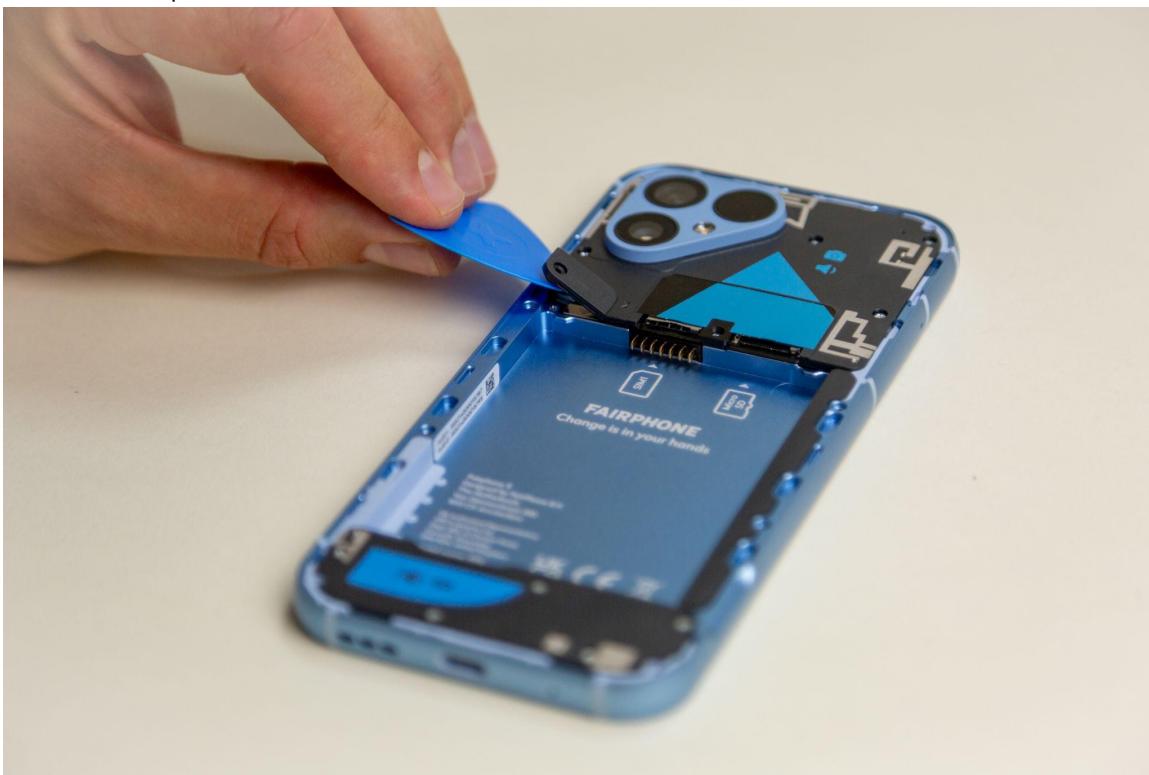
Step 1: Follow instructions for replacing the back cover and battery (e).

Step 2: Remove the top cover lid screw.



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Step 3: Lift the top connector lid and disconnect the connector.



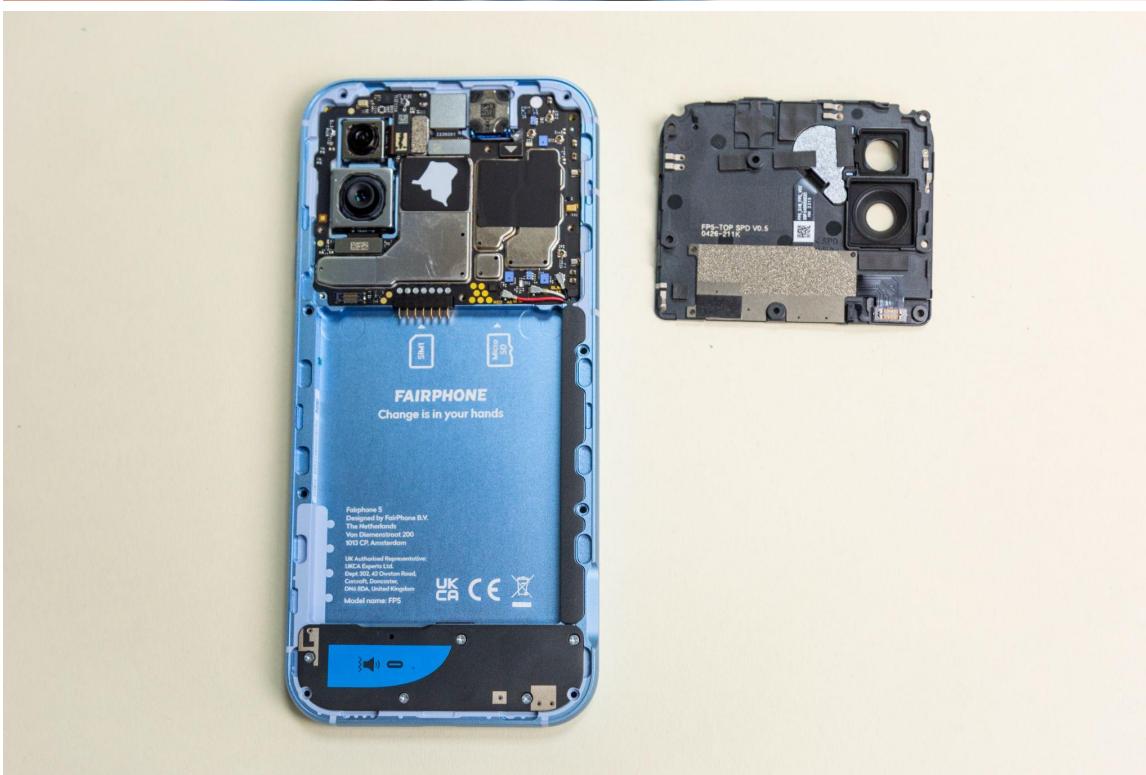
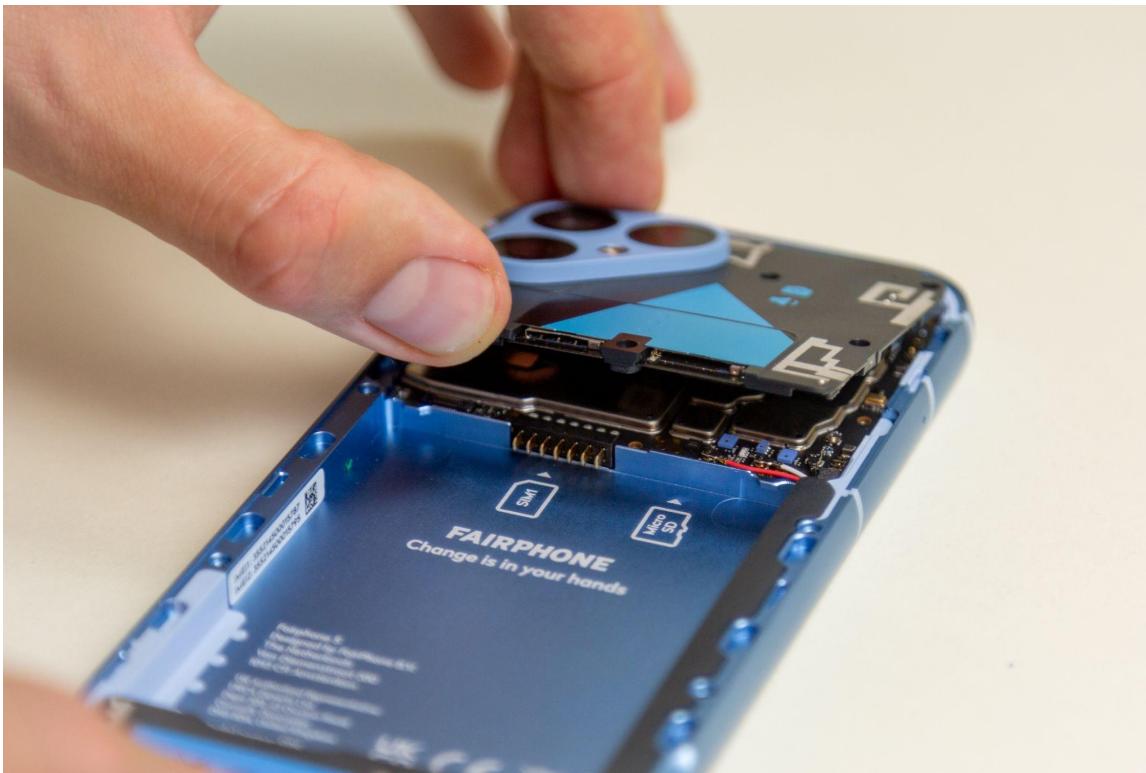
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Step 4: Remove the remaining six silver rear camera screws.

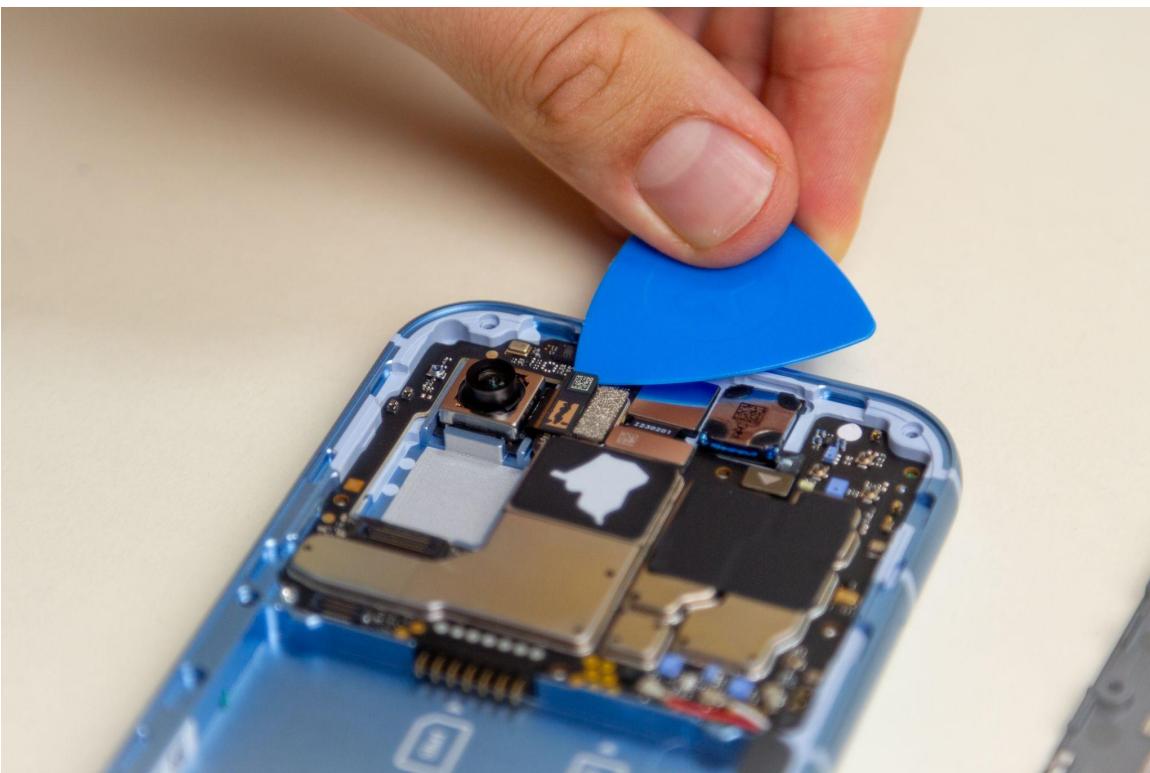
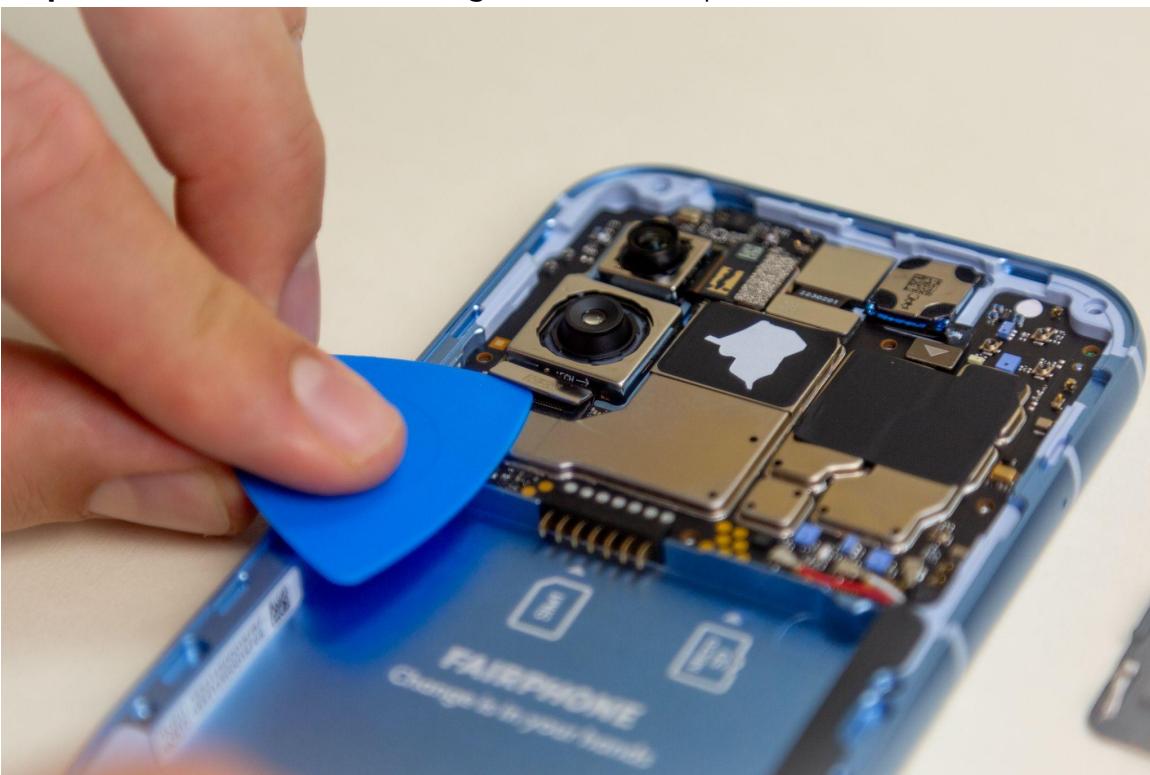


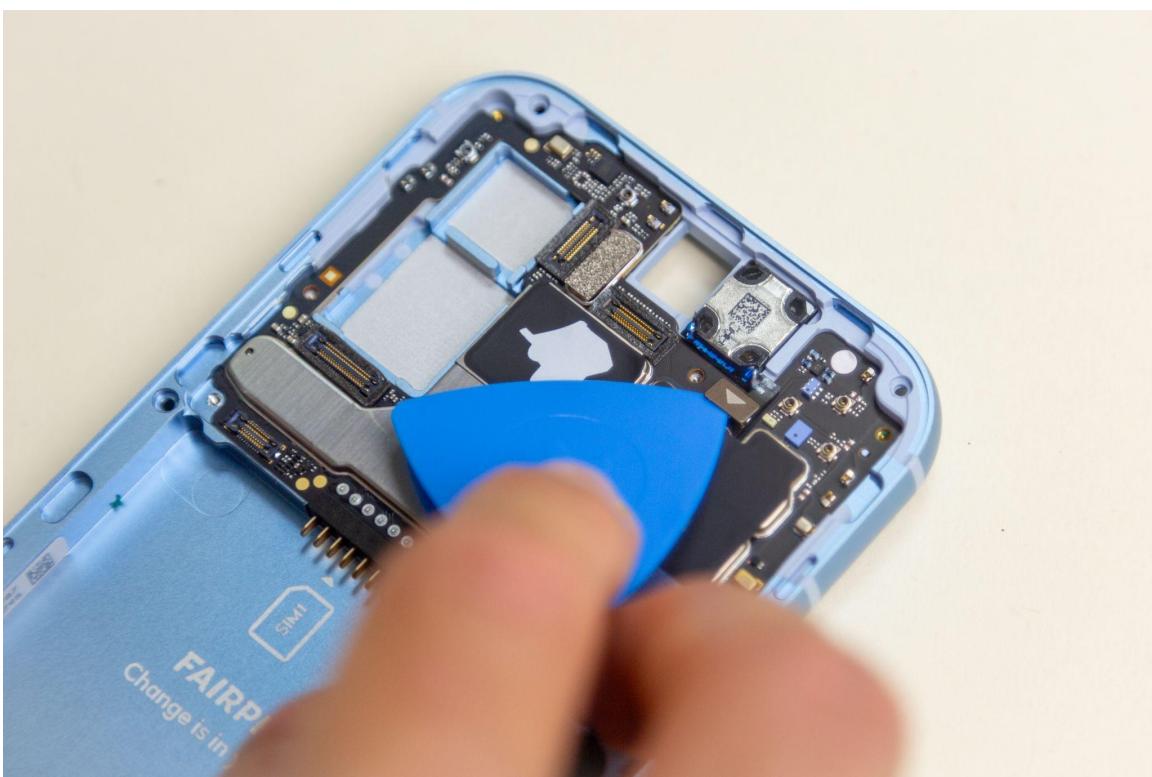
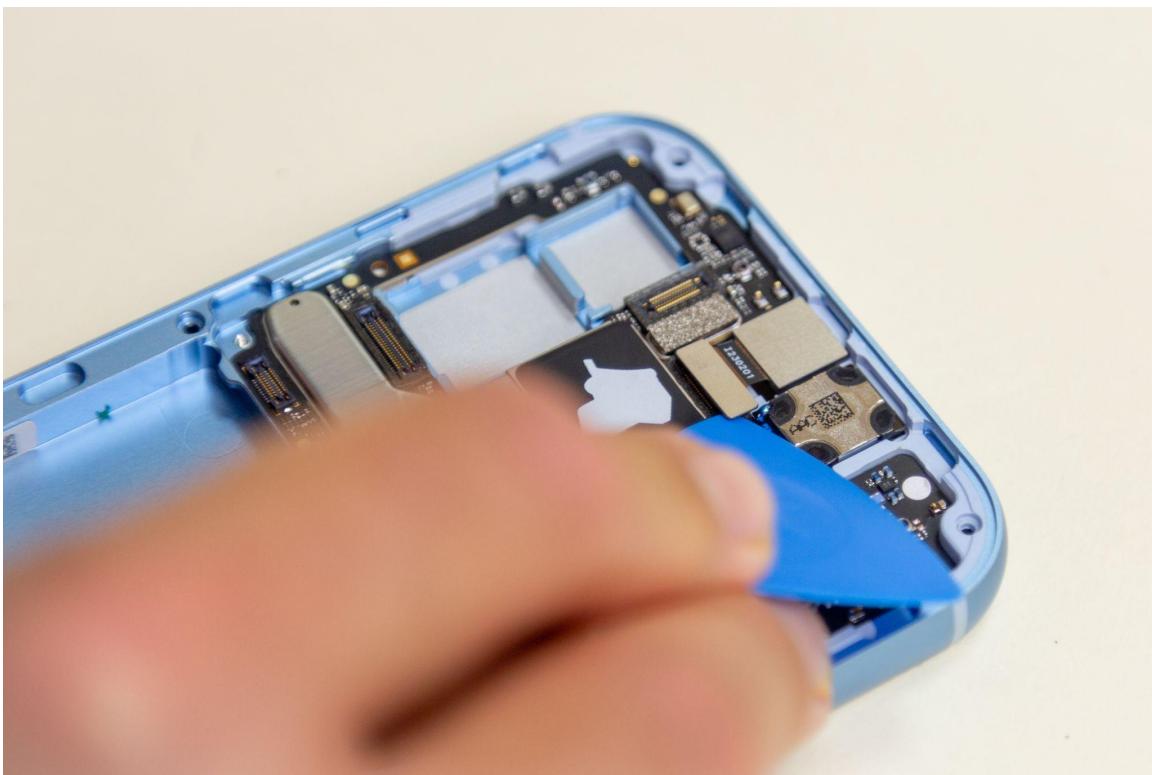
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Step 5: Lift the top cover.



Step 5: Disconnect the according Camera or Earpiece Connector





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Step 6: Remove the camera or earpiece.



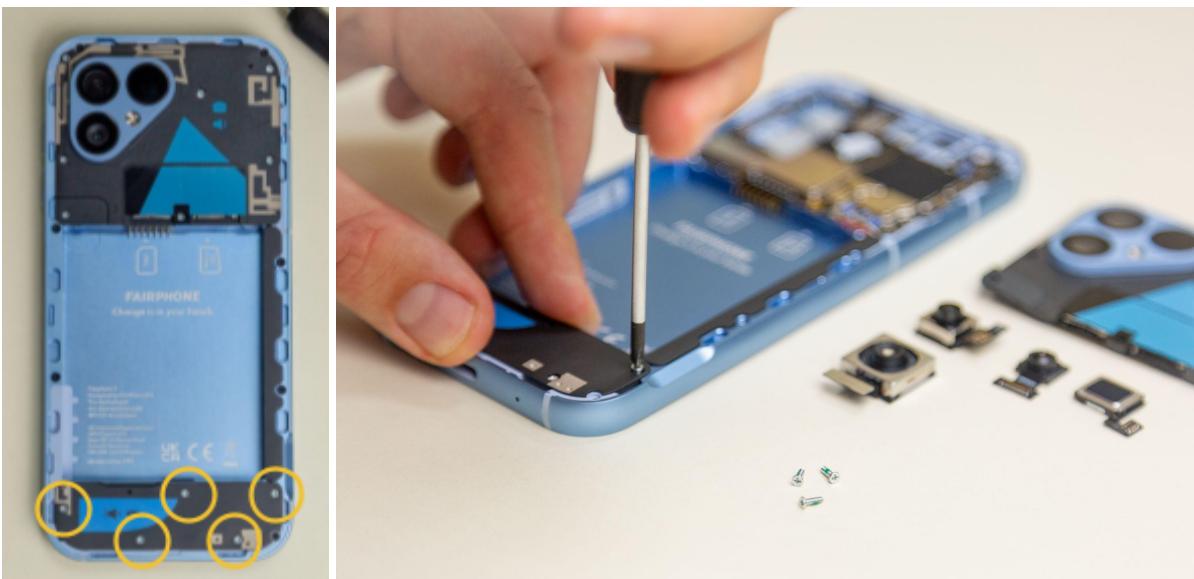
Step 7: Insert the new camera or earpiece and connect it to its appropriate connector.

Step 8: repeat actions in the steps 5 to 1 in reverse order

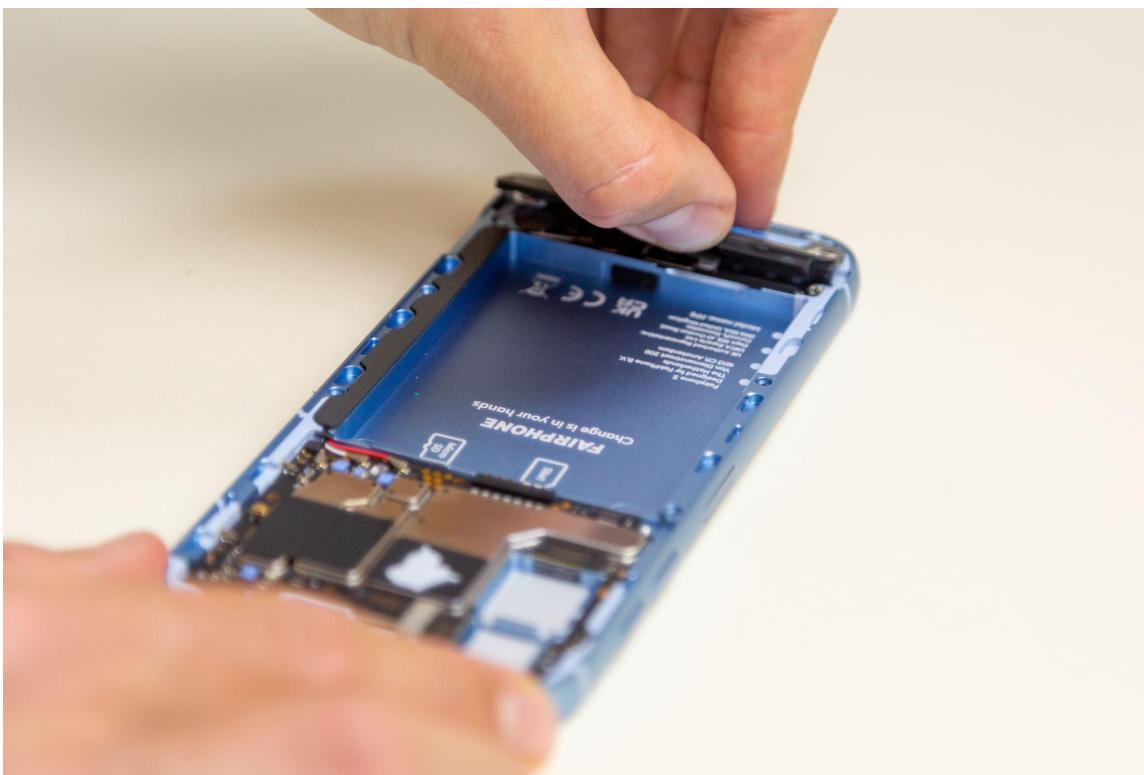
g. Replacing the loudspeaker, vibration motor, or USB-C port

Step 1: Follow the steps in e.

Step 2: Remove the five loudspeaker Phillips screws (silver).

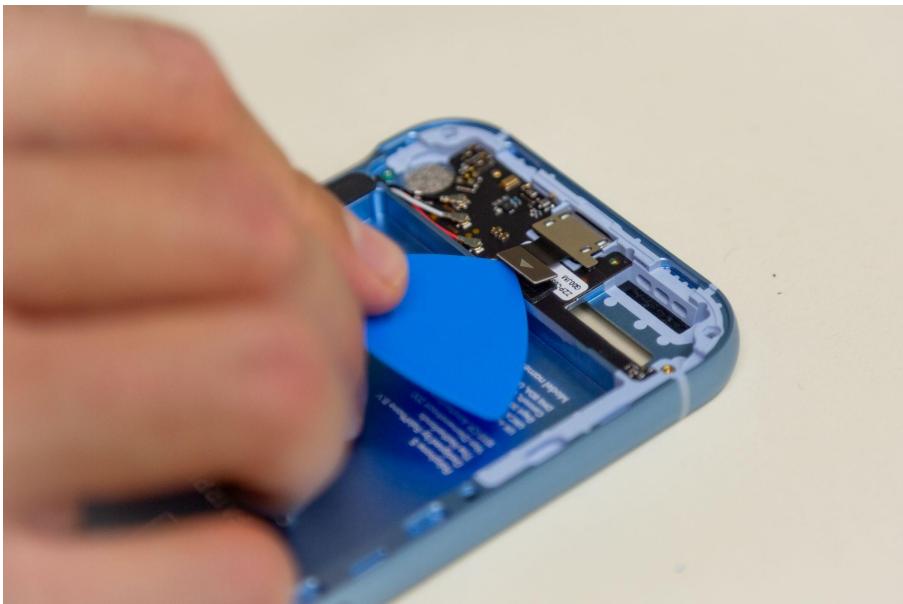


Step 3: Lift the loudspeaker by lifting the central lip and removing it. This part also contains the vibration mechanism.





Additional step: If you are replacing the USB-C port, you can now access it. For this, disconnect the USB-C port connector first. Please keep in mind that there is no screw holding the USB-C port at this point. You have already removed it when removing the loudspeaker screws. Place the new USB-C back in place and push the connector until you feel a click.



Step 4: Put the (new) loudspeaker in place. Click it in and place back the six screws.

h. Replacing the PCB and mid-frame

- Step 1:** Follow the steps in **e** to remove the back cover and battery.
- Step 2:** Follow the steps in **f** to remove the display.
- Step 3:** Follow steps in **g** to remove cameras and earpiece
- Step 4:** Follow steps in **h** to remove the loudspeaker and USB-C port.
- Step 5:** Use a prying tool to remove the FP5 coaxial cable cover.

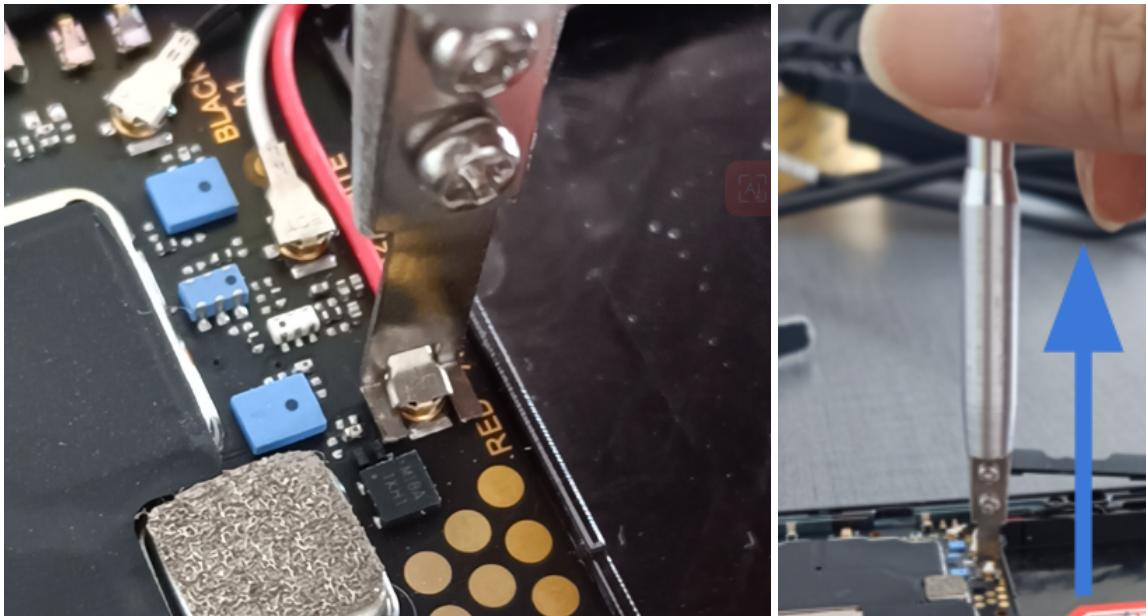


- Step 6:** Remove the RF cable rubber.

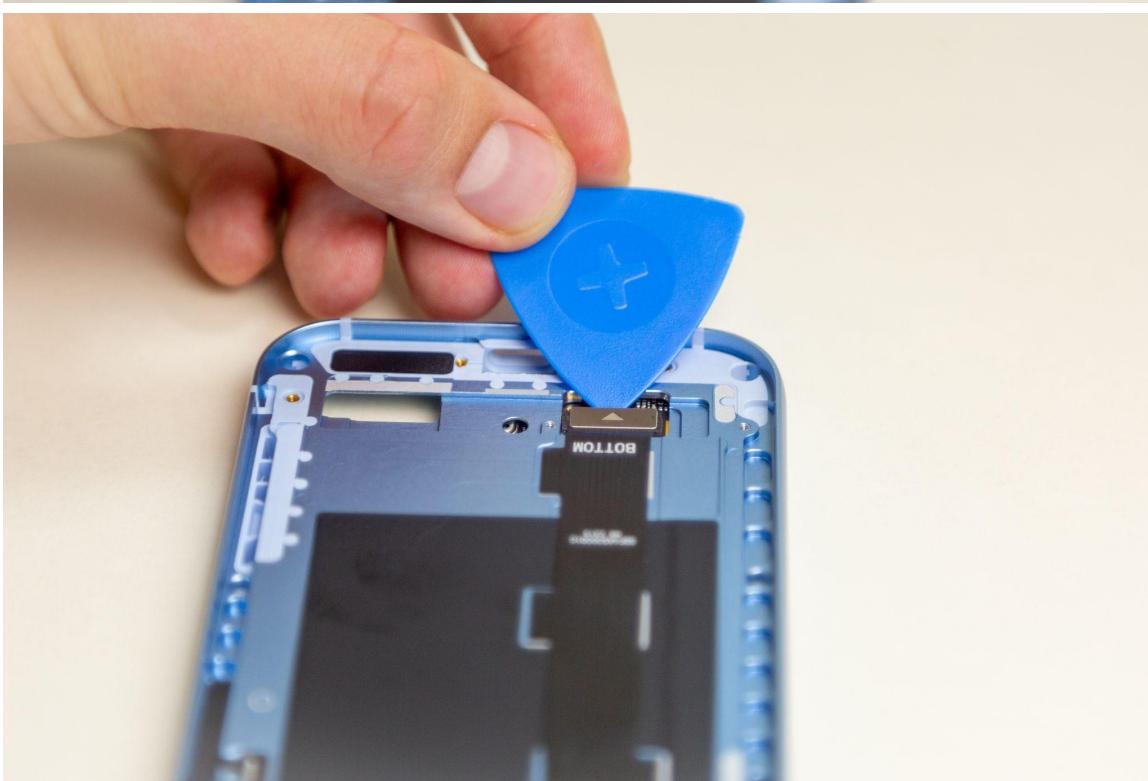
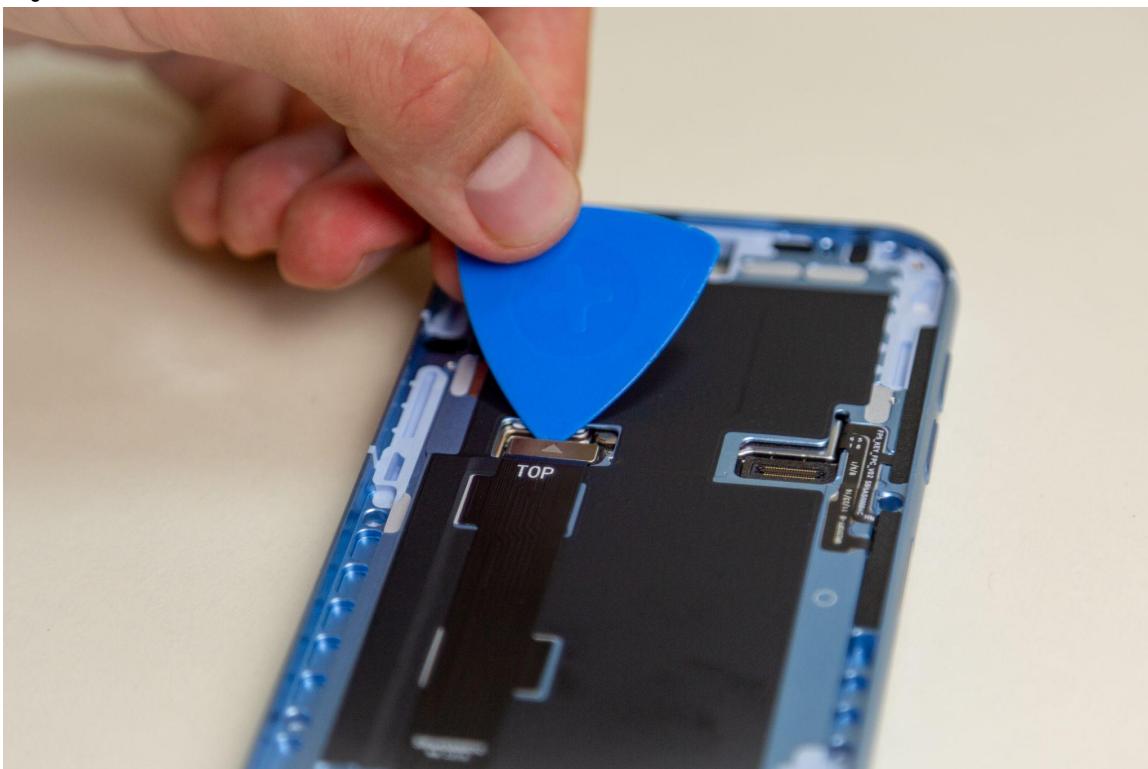


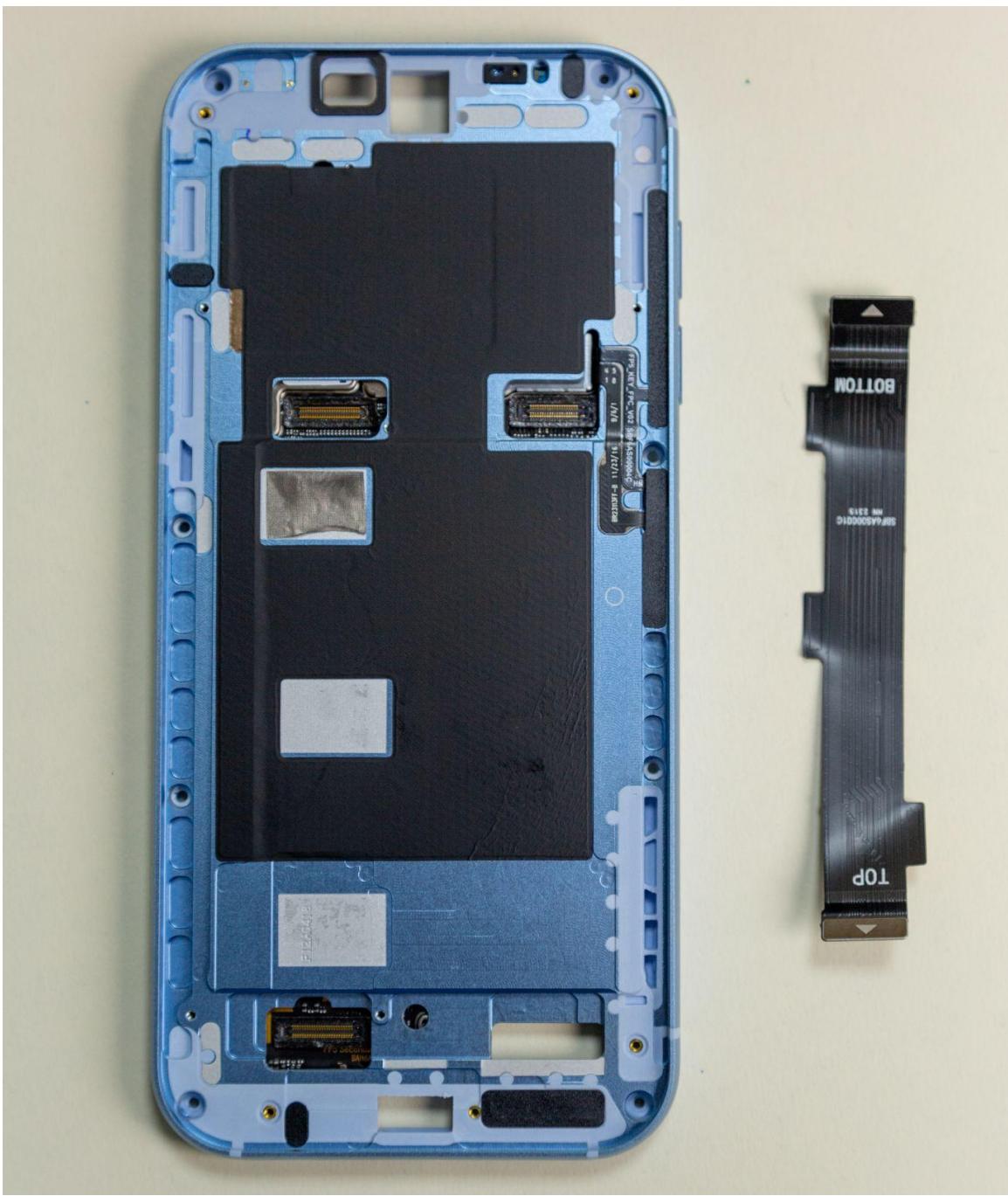
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Step 7: Gently disconnect the red, black, and white RF-Cables, connected to the top PCBA and bottom PCBB, by hooking the RF-Cable connectors and then applying the force upward (vertical) to the receptacle.



Step 8: Gently disconnect the PCB connector cable, which is located between the display and the mid-frame.



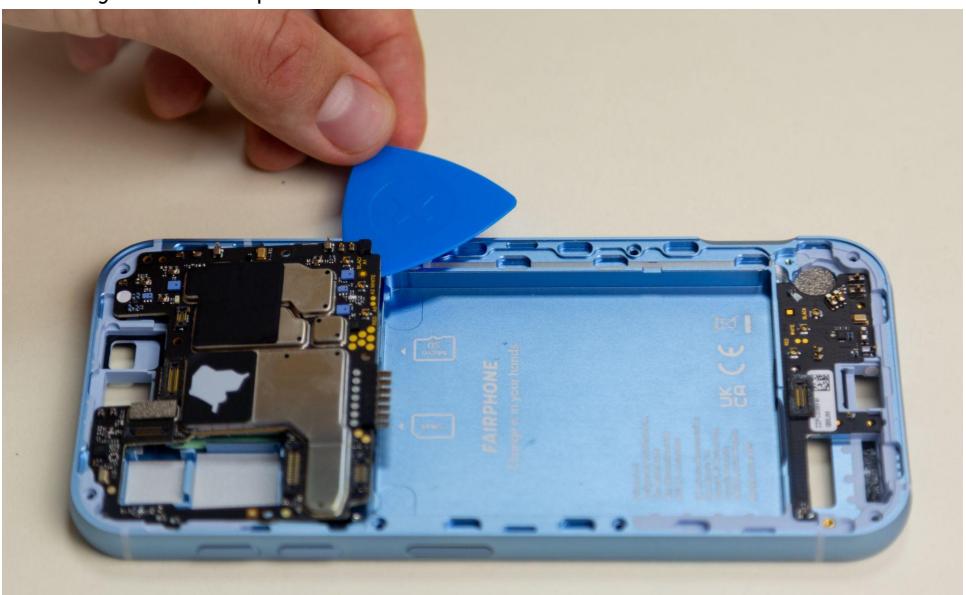


Step 9: Gently push the top PCBA with your fingers through the two holes in the direction of the display.



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Step 10: Gently lift the top PCBA and bottom PCBA each from the bottom right.



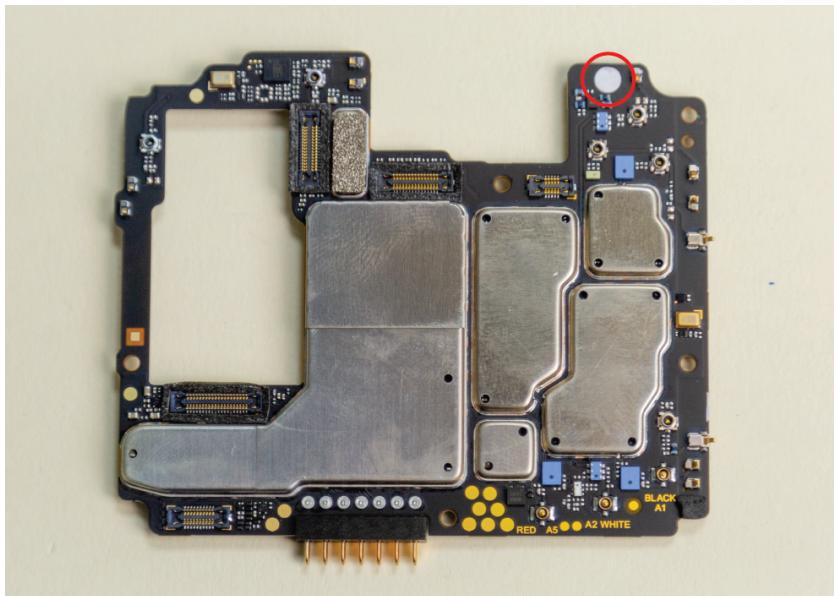


Attention: The PCBA will include a copy of the IMEI sticker. Every time there is a PCBA or mid-frame swap, please make sure the IMEI on the PCBA matches the IMEI label on the mid-frame.

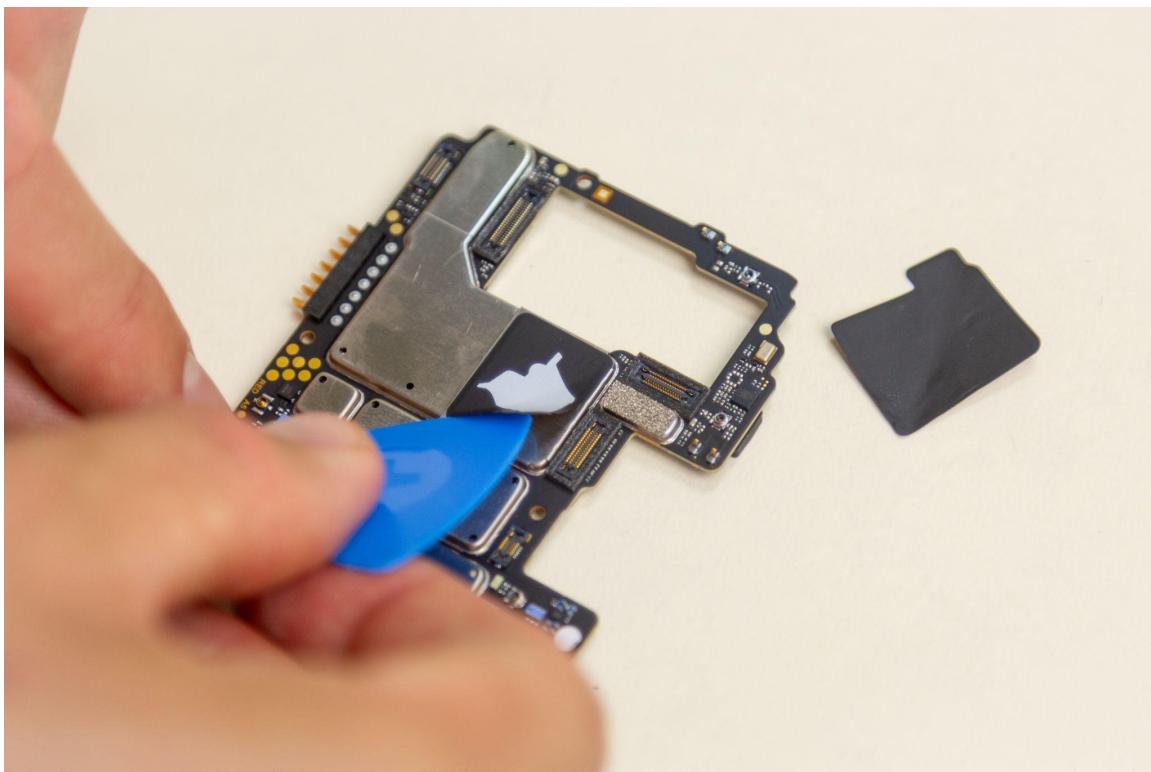
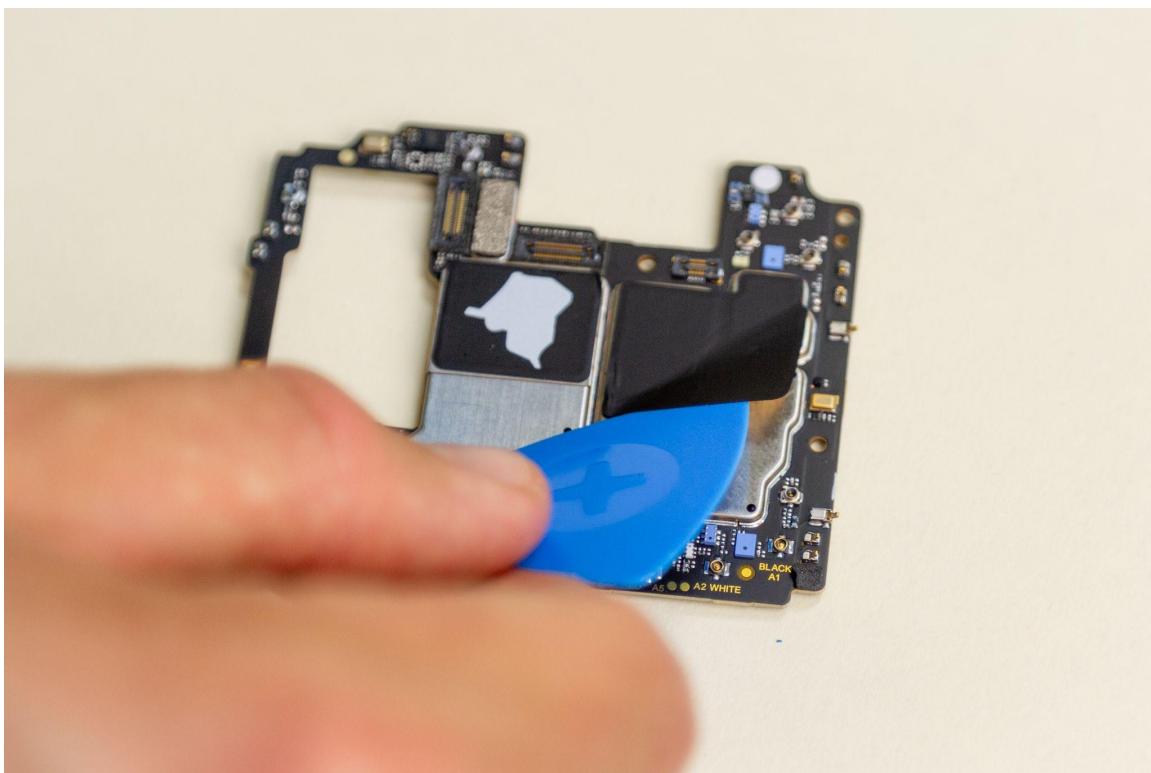
i. Check for water ingress

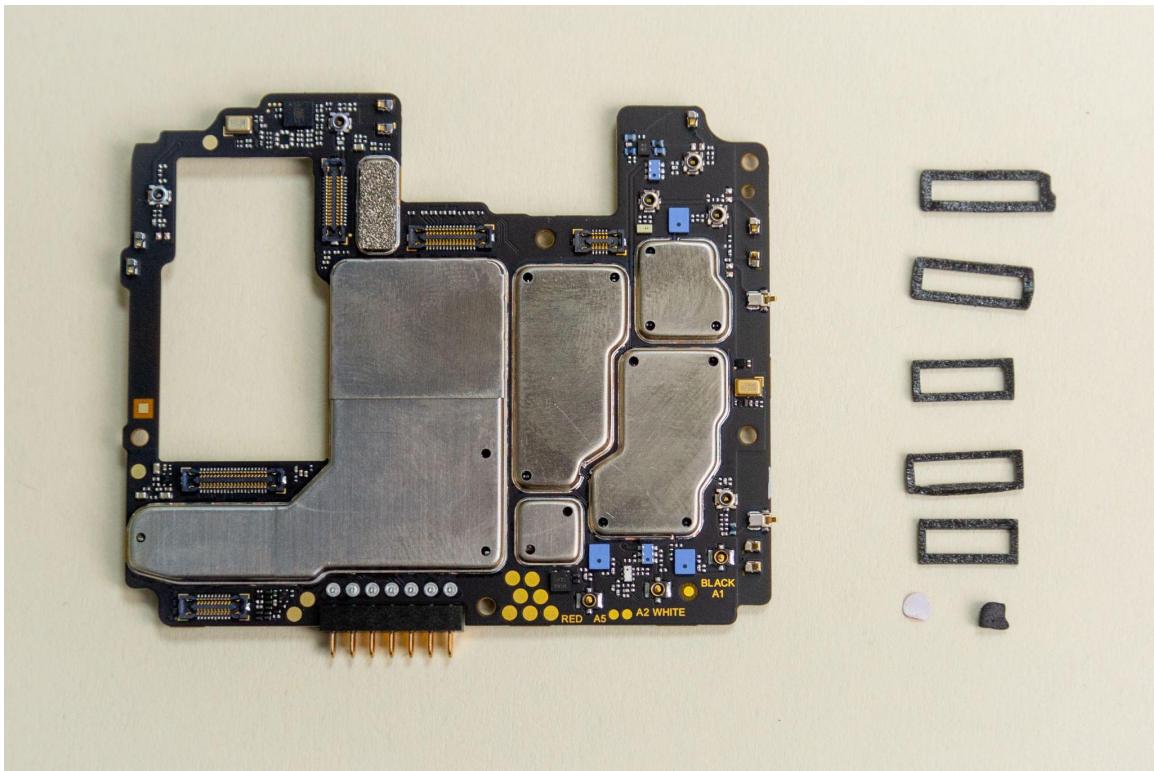
Step 1: Disassemble the device as described in steps (d) to (h)

Step 2: Check the rear water marker

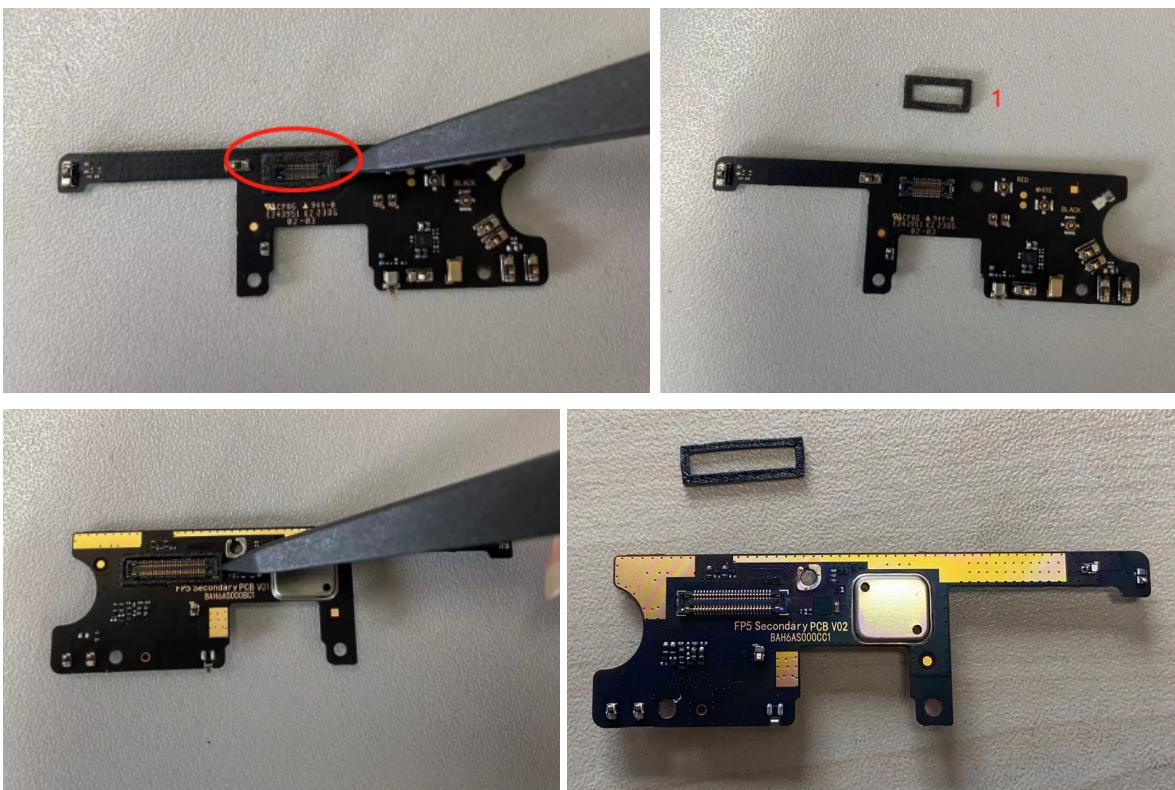


j. Remove the accessories from the main PCBA





k. Remove accessories from the secondary PCBA



I. Complete disassembly



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m. Additional resources

[Fairphone Website](#) (where you can find our spare parts)

[Fairphone Support Page](#) (where you can ask us questions)

[Fairphone YouTube channel](#) (with all video repair guides)

11. Material information for recyclers

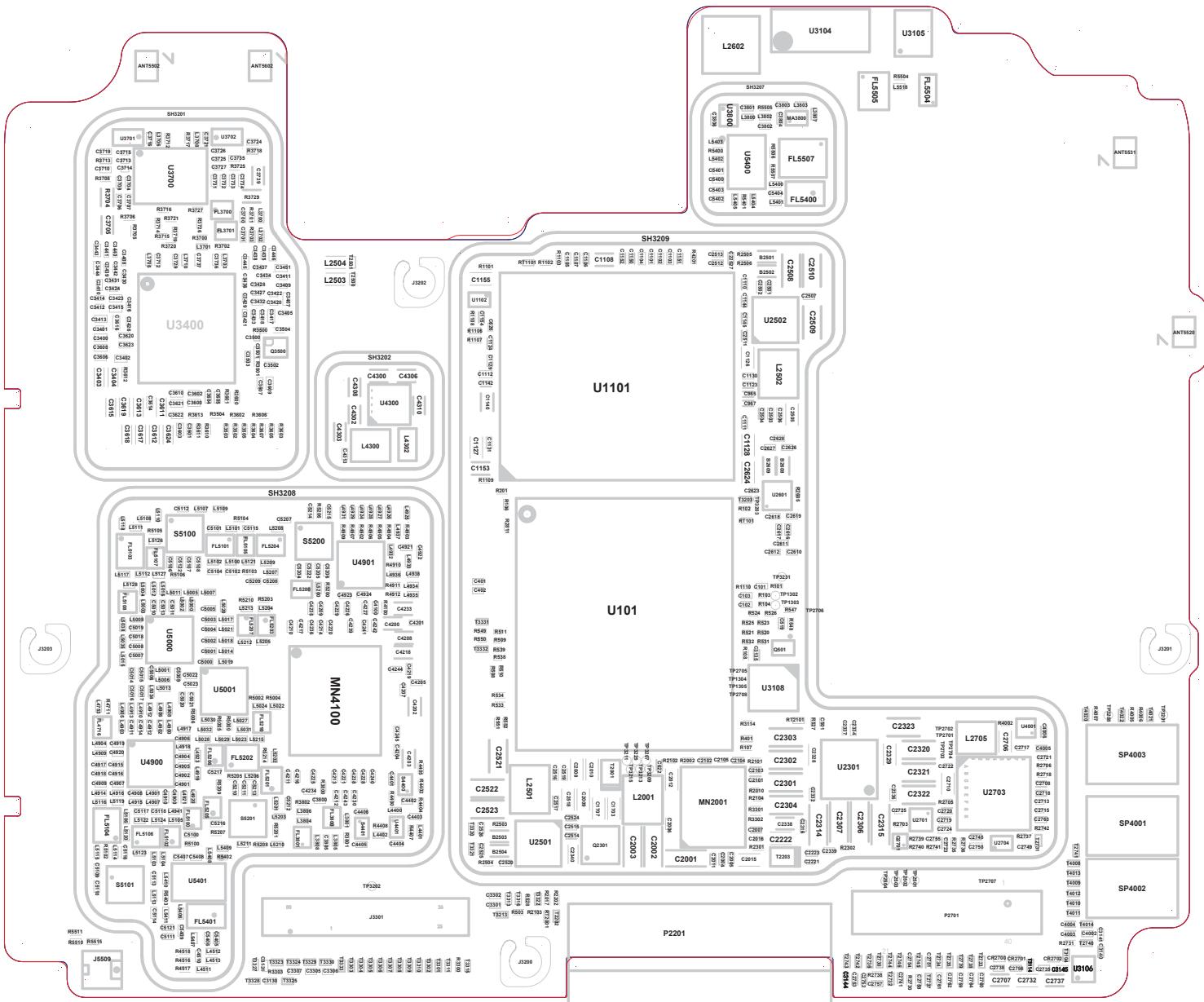
Below, you can find materials and information about the Fairphone 5. We have focused on the materials that we think are most important for recyclers and indicated where they are mostly situated. This weight information is to help recyclers estimate the value of recycling the phone. The exact weight of each material can vary due to the calculation method and the limitations of the analytical techniques.

Material	CAS no.	Total mass in FP5 (g)	Components You can find mainly in these components	% of total mass in FP5	Modules The components belong to these modules	Modules
Tungsten	7440-10-0	0.75	Vibration Mechanism	99%	PCBA	PCBA
Tin	7440-10-0	0.87	Solder paste in PCBA	51%	PCBA	PCBA
			Solder paste in Battery	25%	Battery	Battery
Aluminum	7429-90-5	38.69	Mid-frame	94.40%	Mid-frame	Mid-frame
Rare Earth Elements	see rare earth	0.15	Speaker, Vibration Mechanism, cameras	100%	Loudspeaker, cameras	Loudspeaker, cameras
Nickel	7440-02-0	3.05	Shields Copper alloy	41.50%	PCBA	PCBA
			Battery cell	16.80%	Battery	Battery
			Battery steel sheet	19.50%	Battery	Battery
Zinc	7440-10-0	1.03	Shields Copper alloy	94%	PCBA	PCBA
Copper	7440-50-8	16.85	Shields Copper alloy	25.60%	PCBA	PCBA
			PCB	28.40%	PCBA	PCBA
			Battery	6.10%	Battery	Battery
			Copper foil	9.00%	Display	Display
Magnesium	7439-95-4	4.96	Display frame	91.00%	Display	Display
Gold	7440-57-5	0.023	Cameras, PCB, connectors, etc.	100.00%	Almost all modules	Almost all modules
Plastics	PC+30%G	3.06	FP5-display-frame	100%	Display	Display

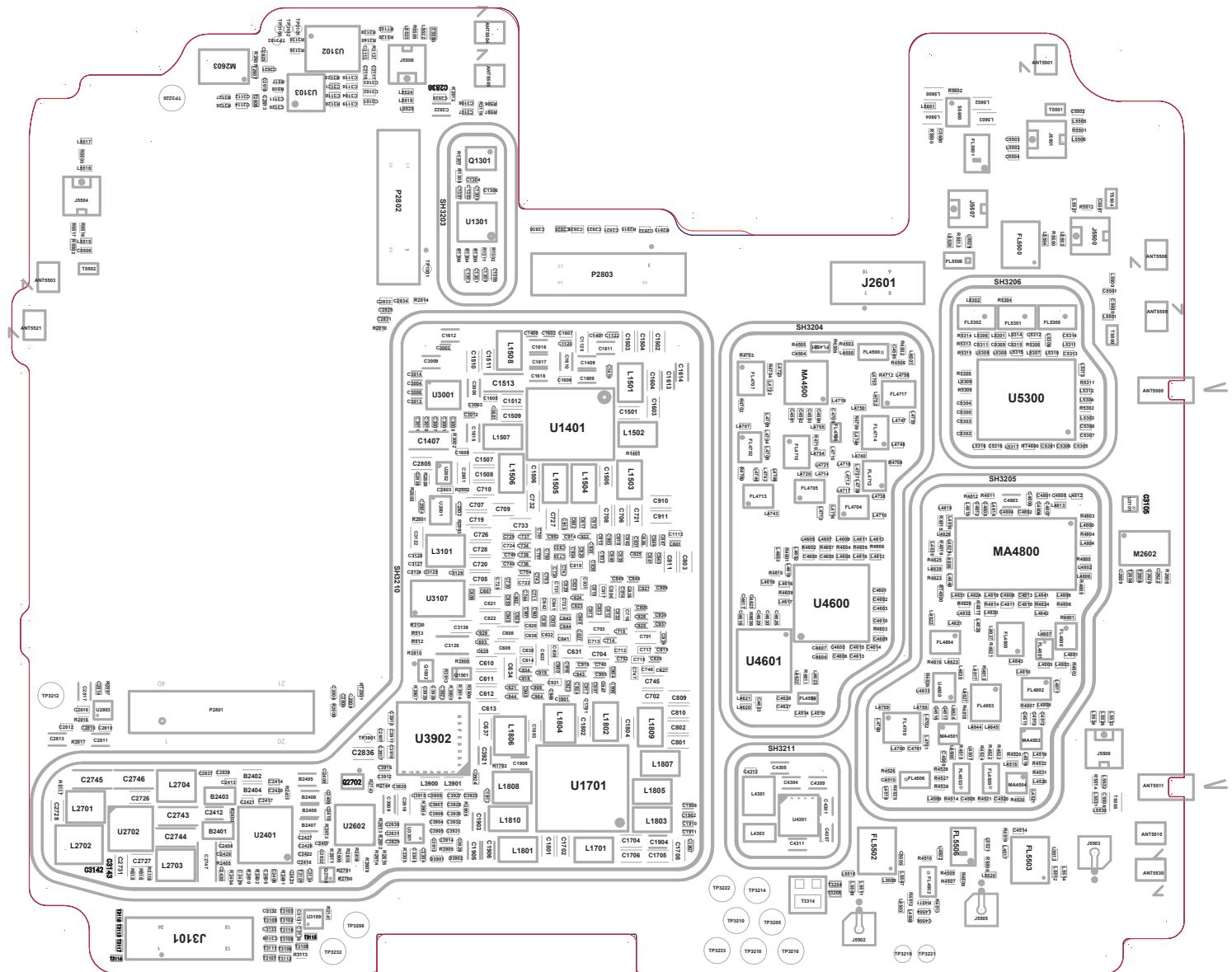
FAIRPHONE

	F					
Plastic	PBT+30% GF	5.75	FP5-middle-frame	Main Camera, Ultra-Wide Camera	mid-frame	mid-frame
	PC	5.33	FP5-top-antenna-cover		Top Unit	Top Unit
	PC	0.56	FP5-camera-island		PCBA	Main Camera, Ultra-Wide Camera
	PC	0.17	FP5-connector-cover		RF cable	PCBA
	PC	0.44	FP5-rf-cable-frame		Loudspeaker	RF cable
	PC	1.940000	FP5-SPK-cover		Back Cover	Loudspeaker
	PC	12.68	FP5-Back-cover		Battery	Back Cover
	PC/ABS	2.32	FP5- battery frame			Battery
Indium	7440-74-6	0.00	Display panel	76.80%	Display	Display
Cobalt	7440-48-4	12.32	battery	99.80%	Battery	Battery
Lithium	7439-93-2	1.47	battery	98.80%	Battery	Battery
Silver	7440-22-4	0.083	Solder paste	22%	PCBA	PCBA
			battery package	14%	Battery	Battery
			passives	19%	PCBA	PCBA
Mica	12001-26-2	0.01700	BTB connector	100%	PCBA	PCBA
Palladium	7440-05-03	0.00	ICs, passive	100%	PCBA	PCBA
Platinum	7440-06-04	0.00	ICs	100%	PCBA	PCBA

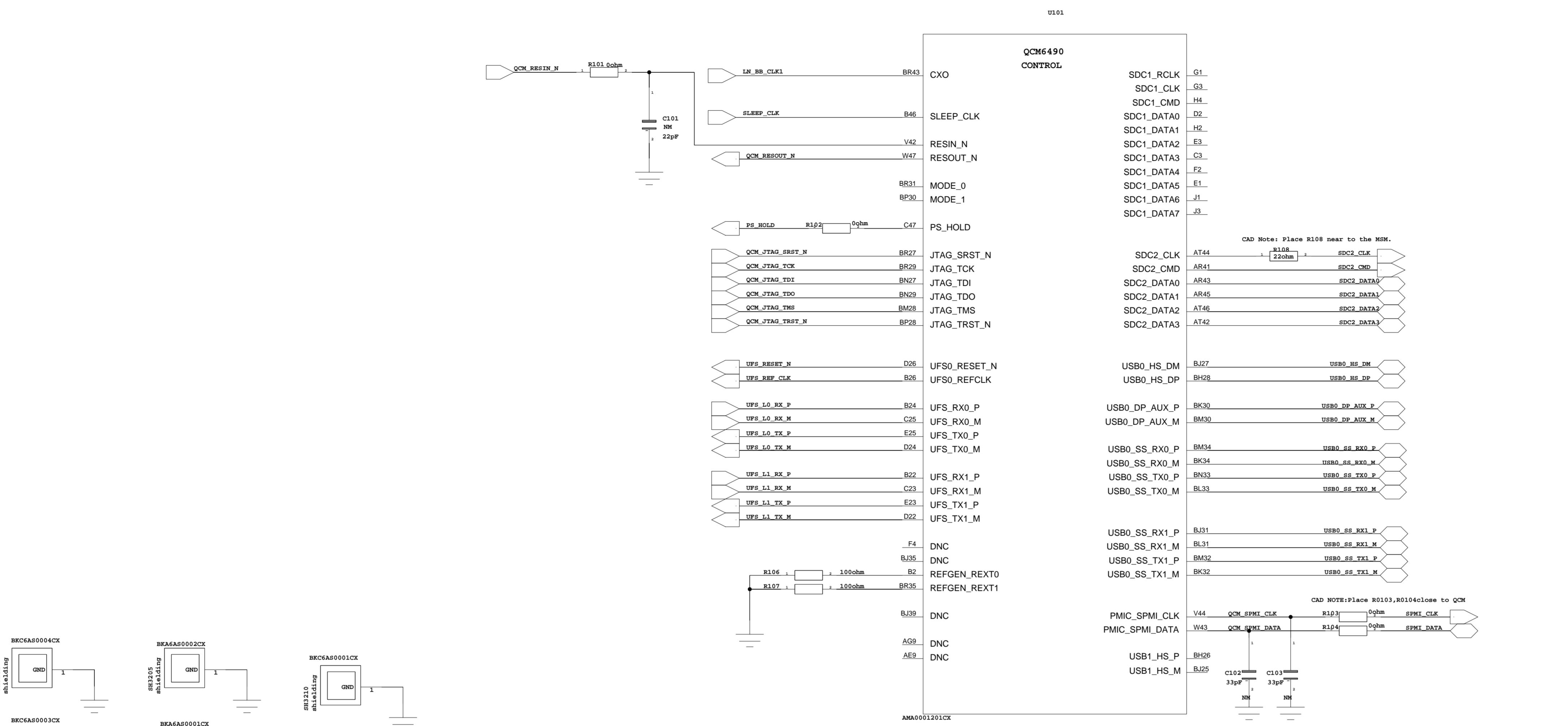
TOP



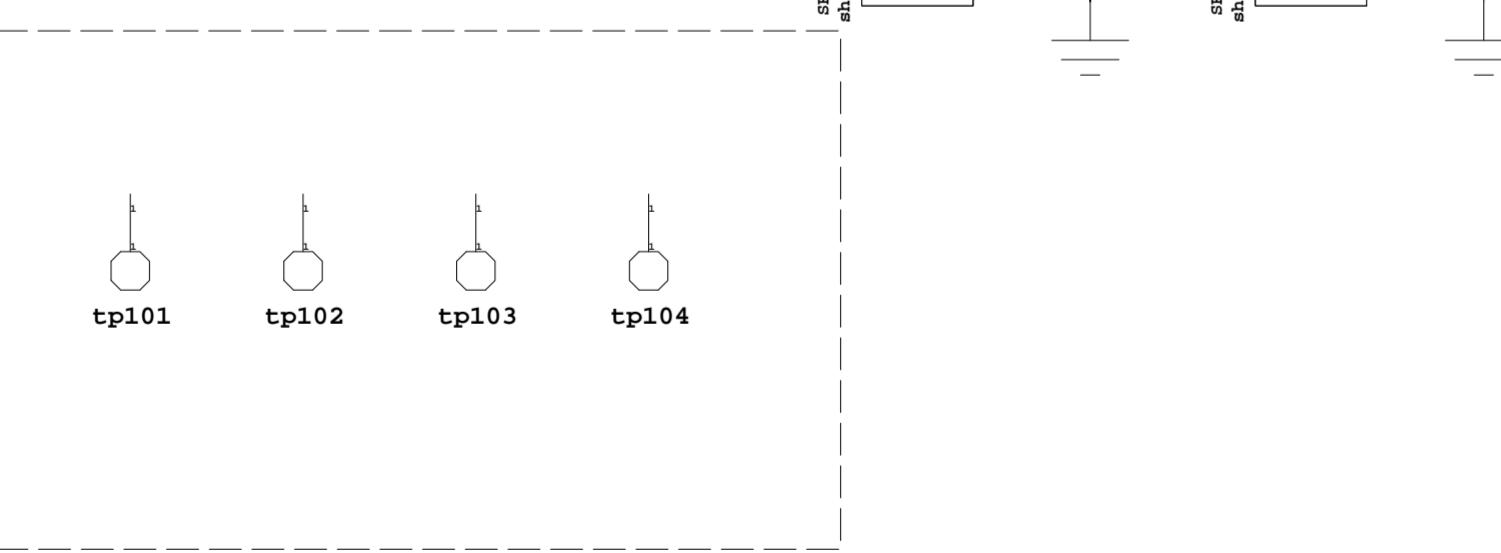
BOT



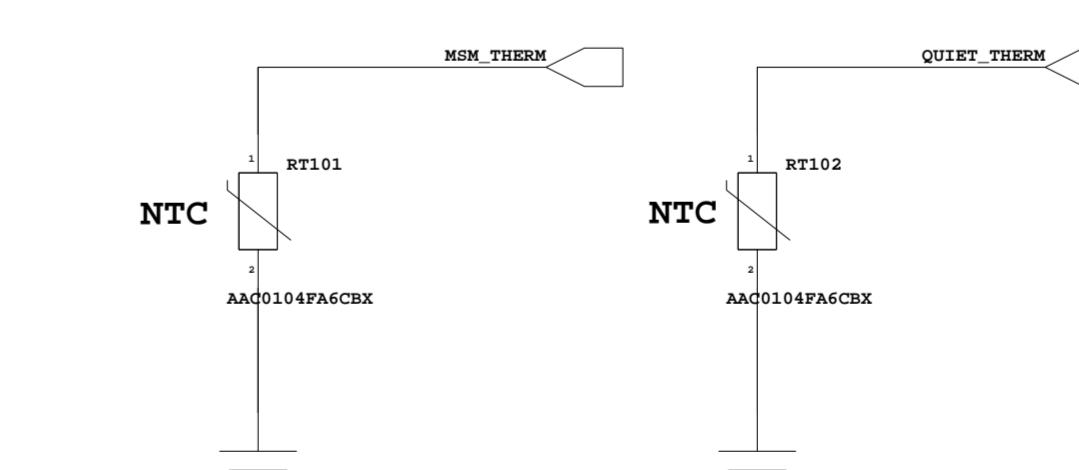
QCM6490 CONTROL



MARK



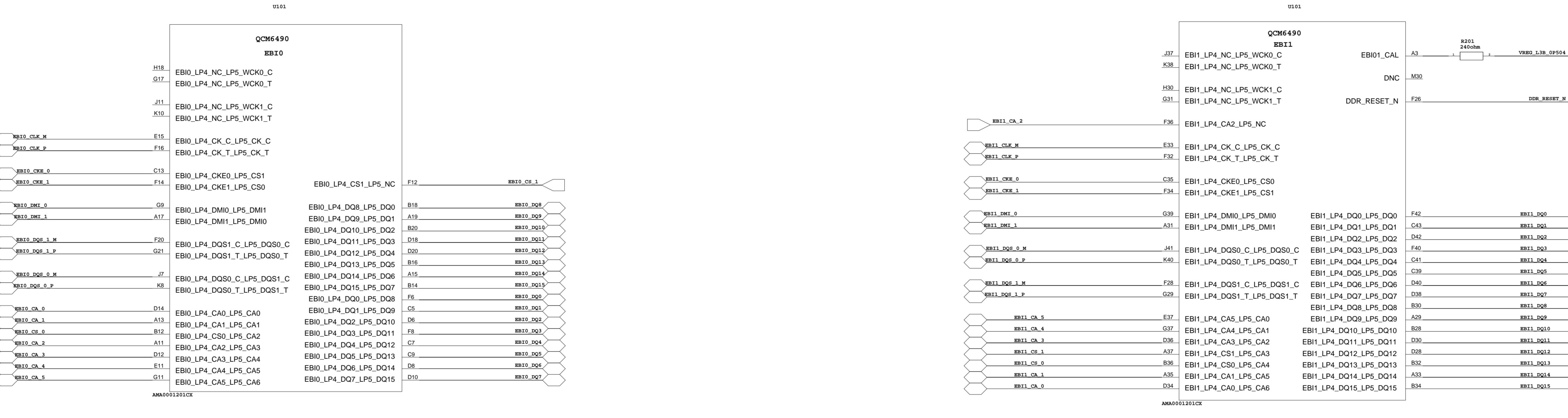
Kodiak - Thermistors



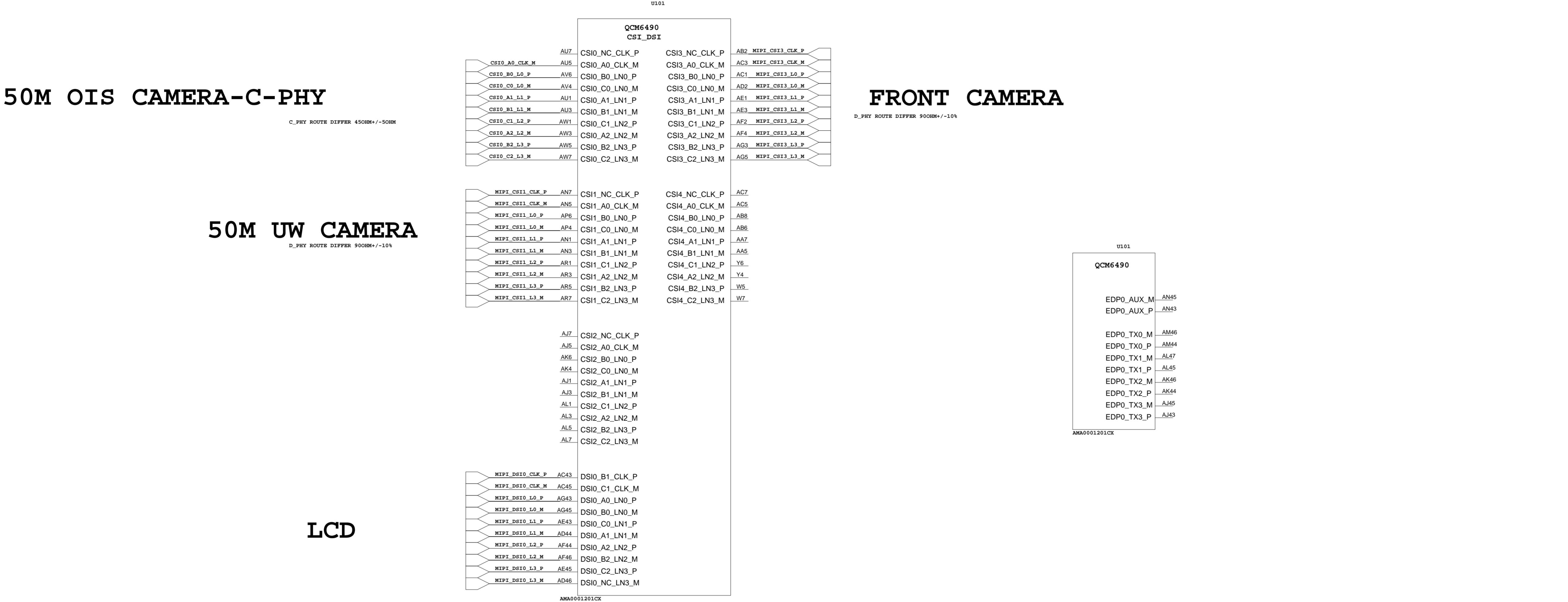
RT101:Place Near MSM

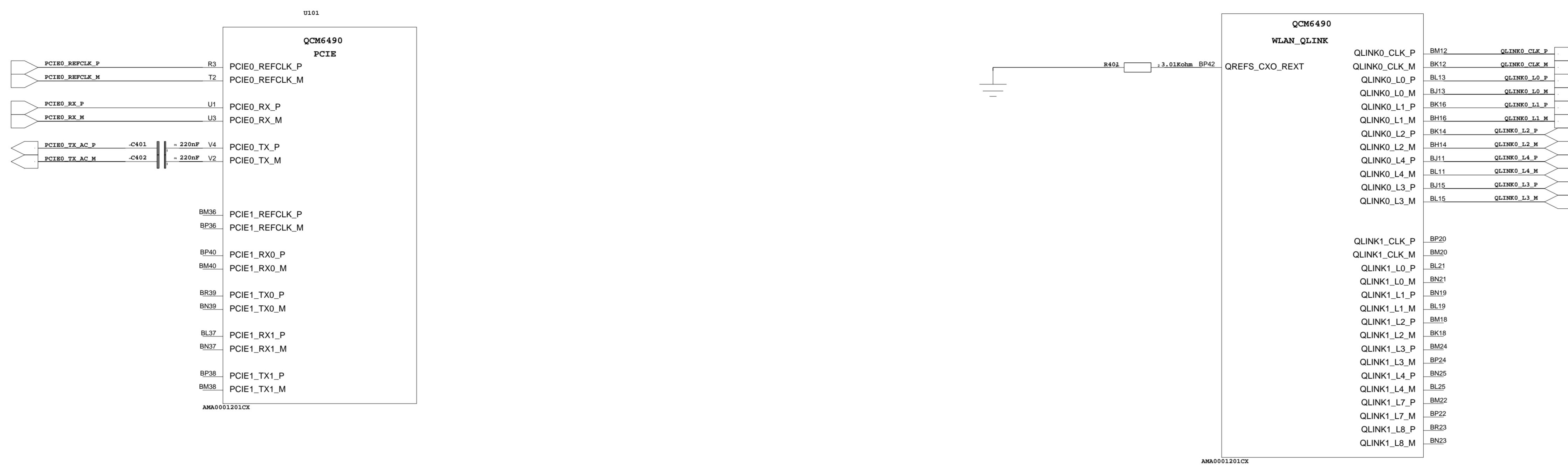
RT102:Place away from PMIC and heat-sources

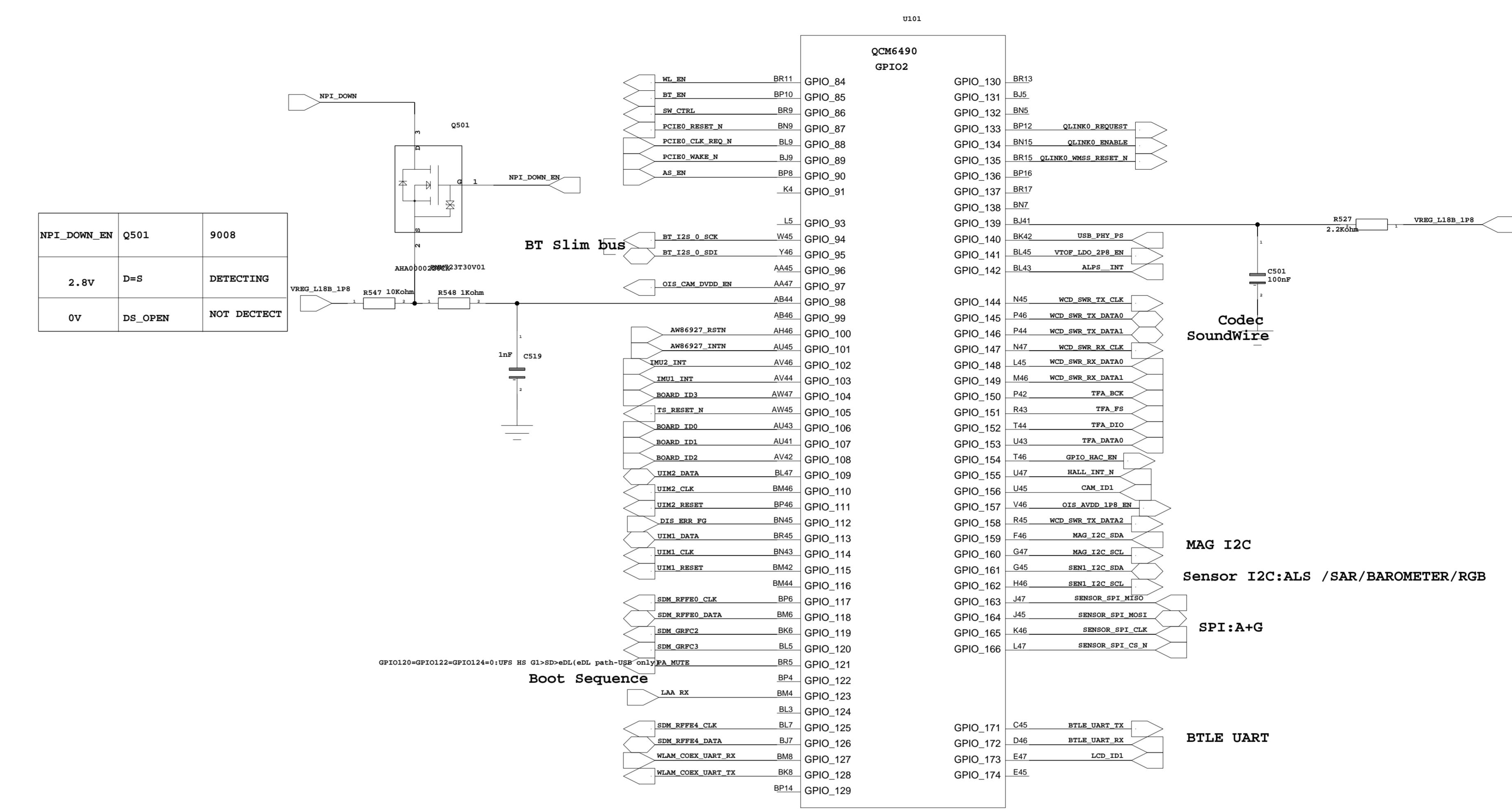
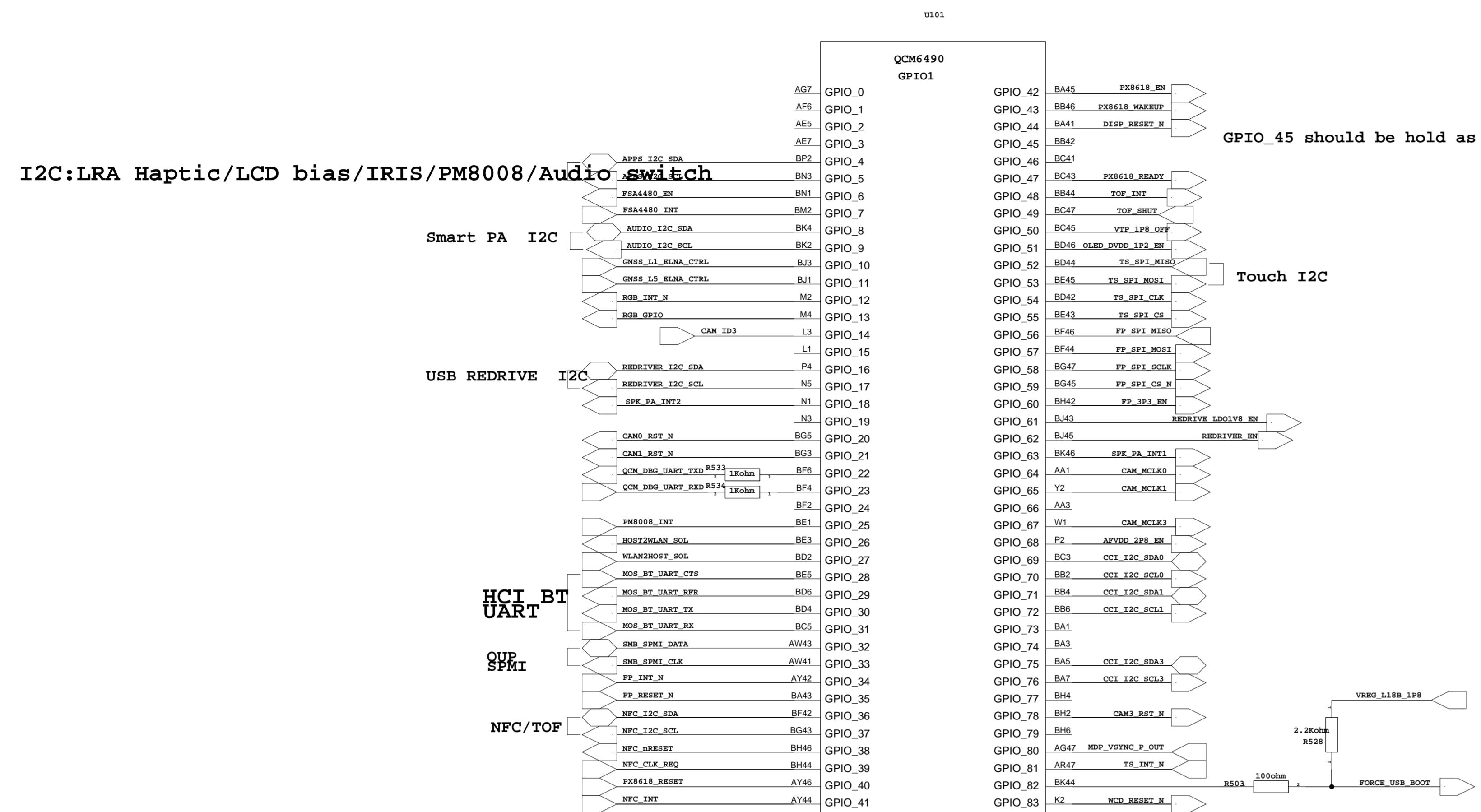
QCM6490 EBI



SM7325 DS1/CSI

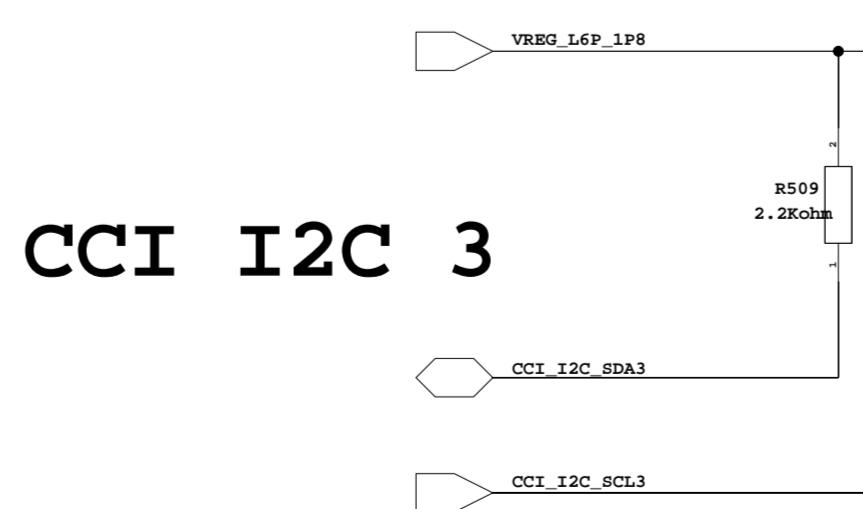
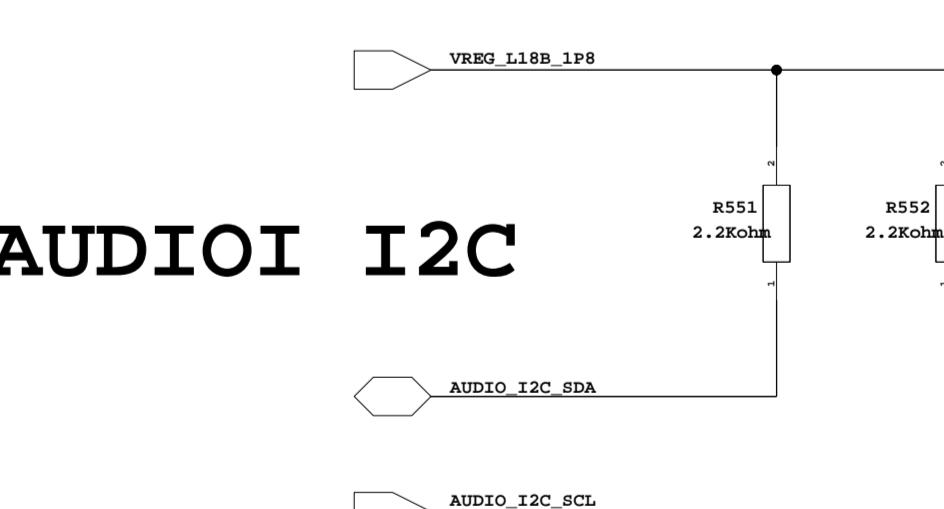
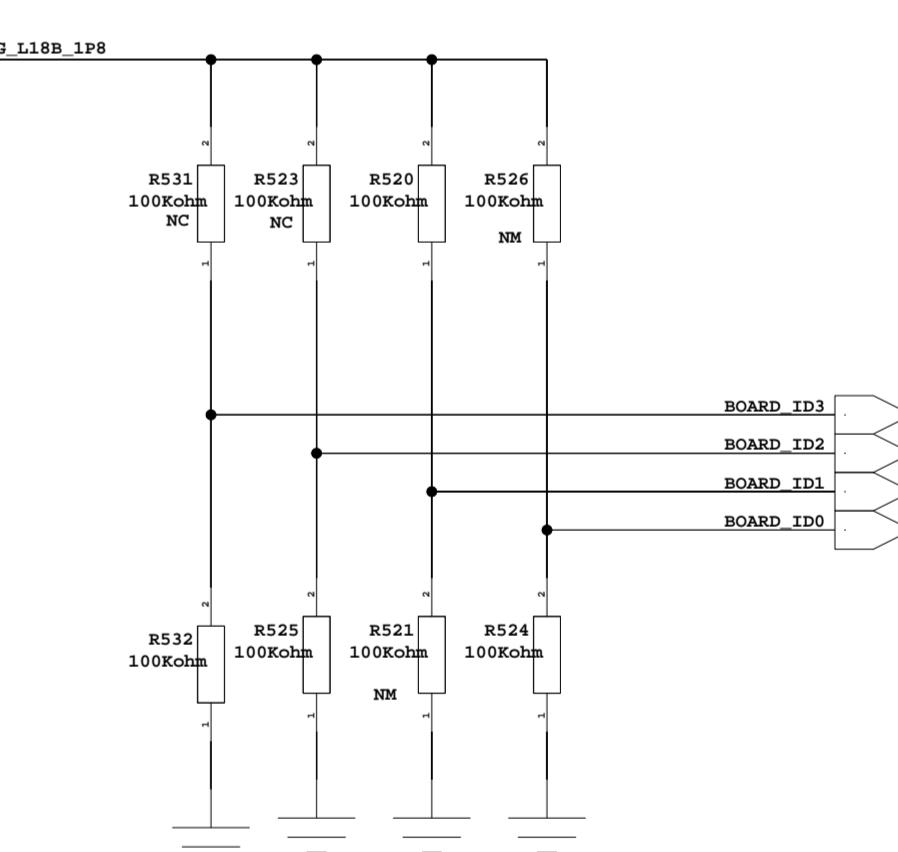
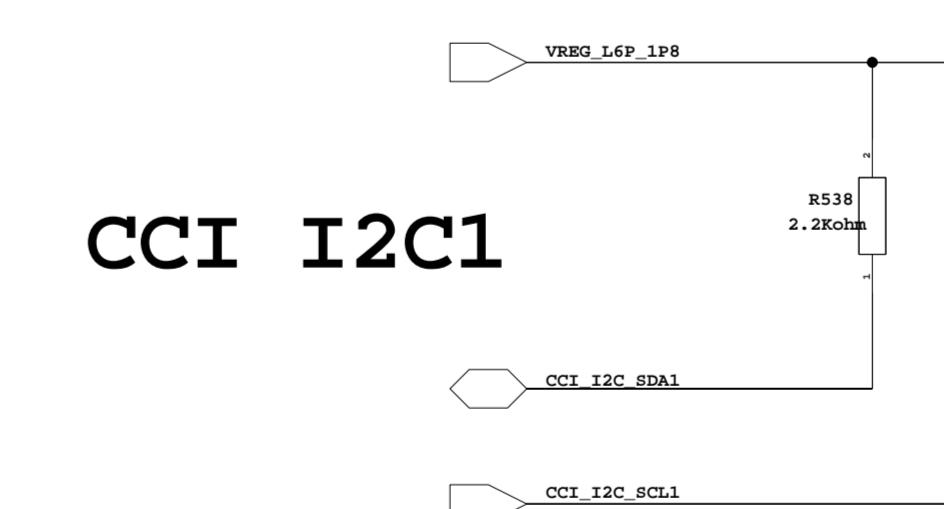
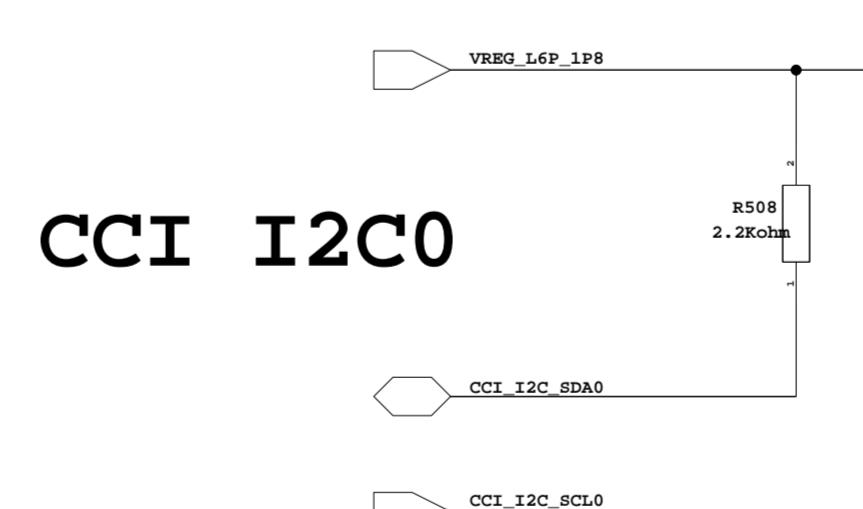
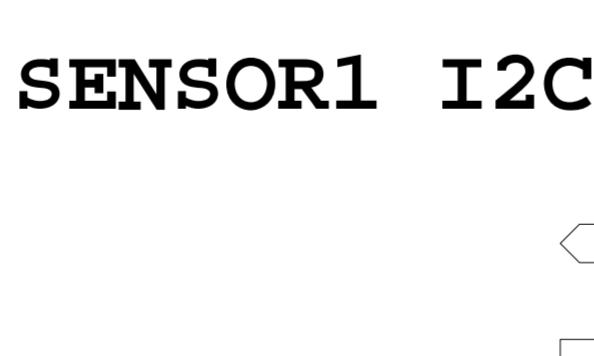
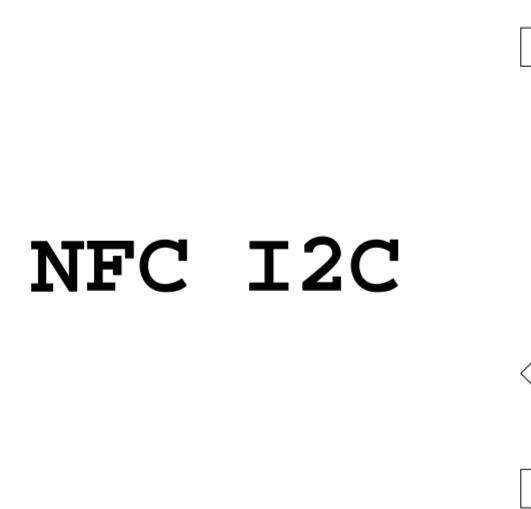
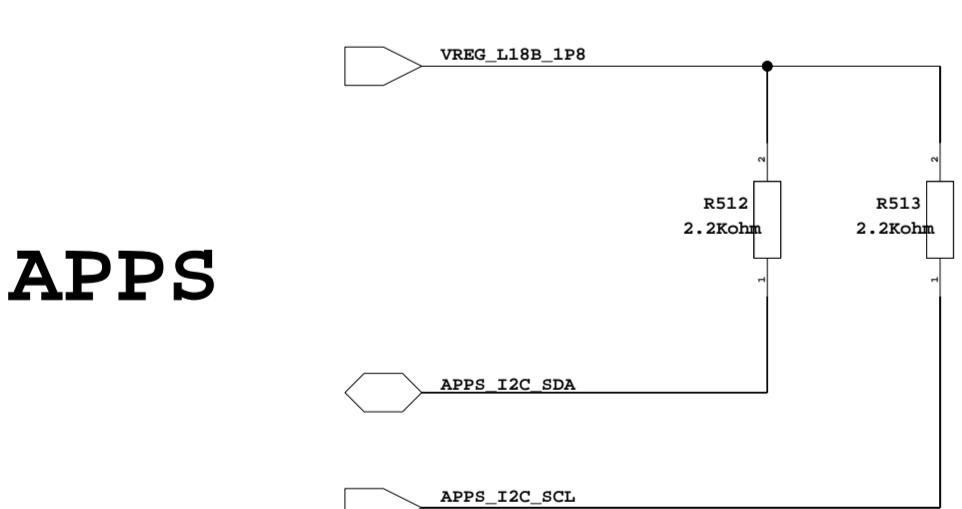


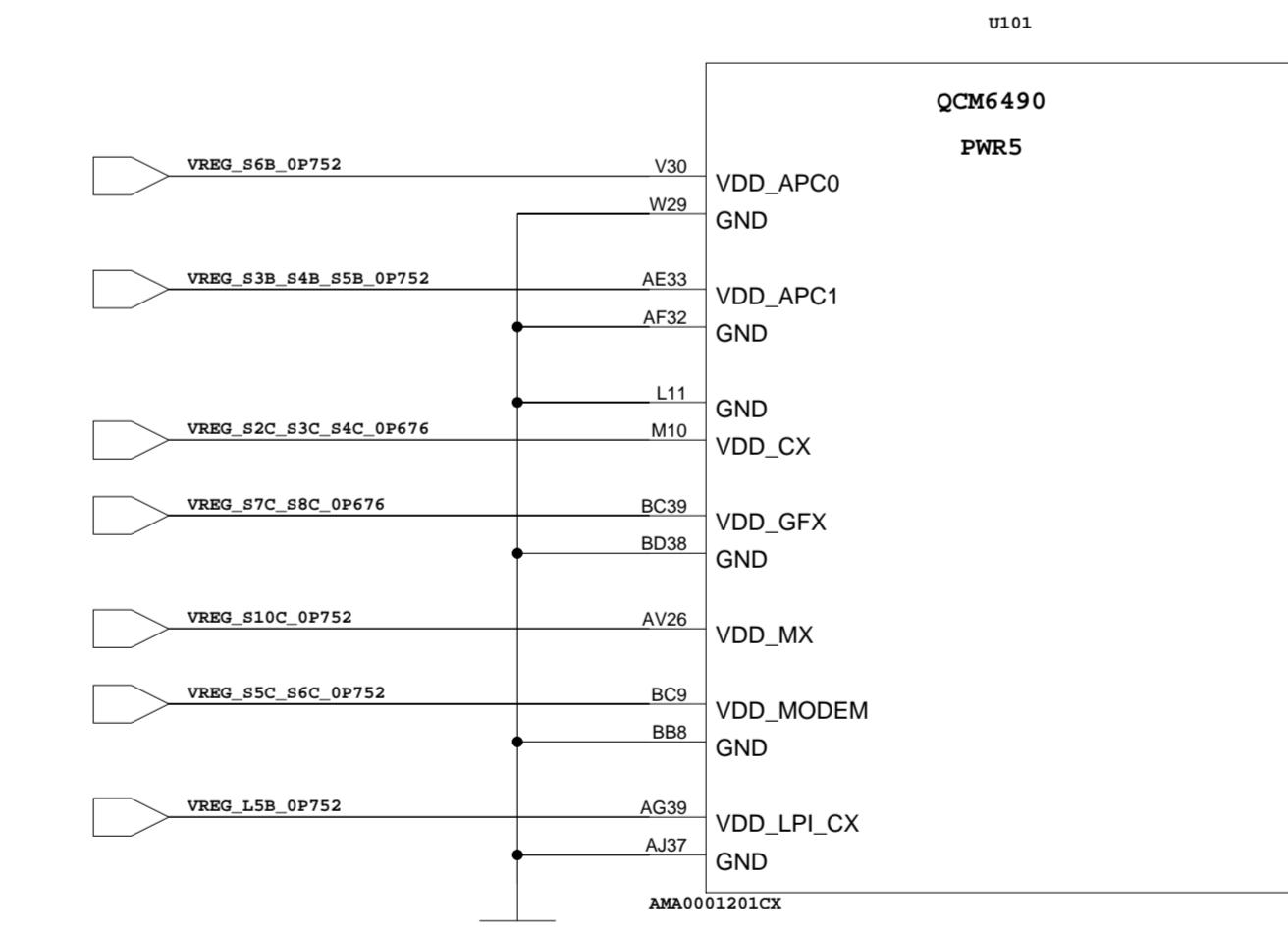
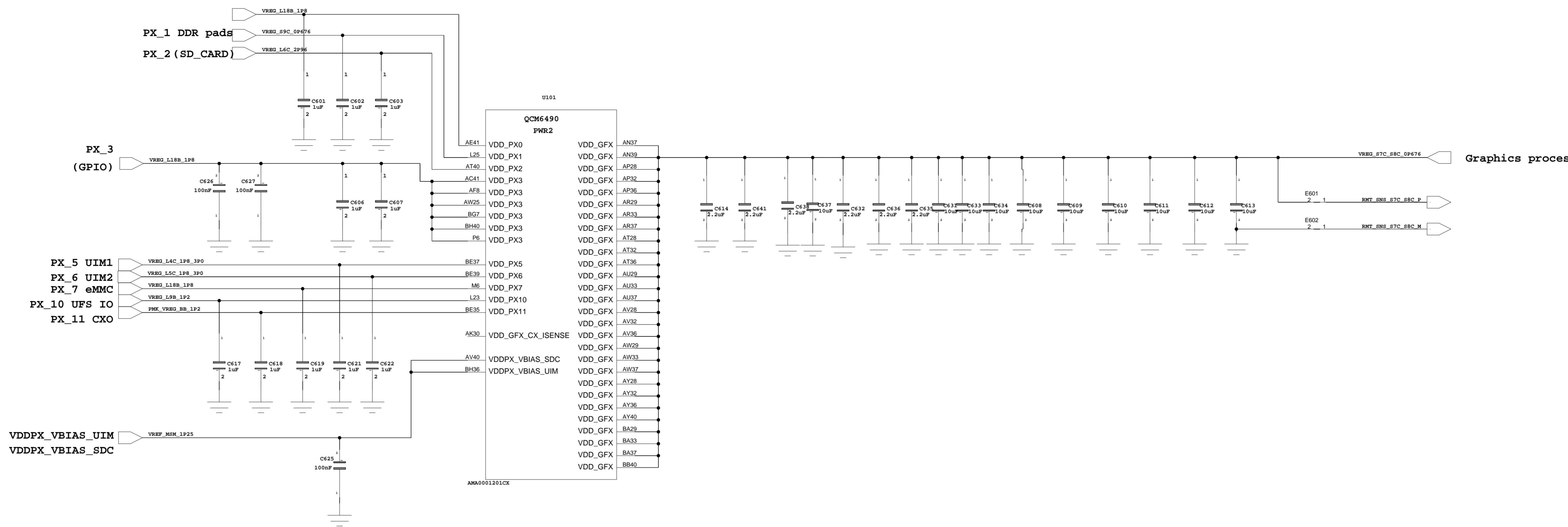


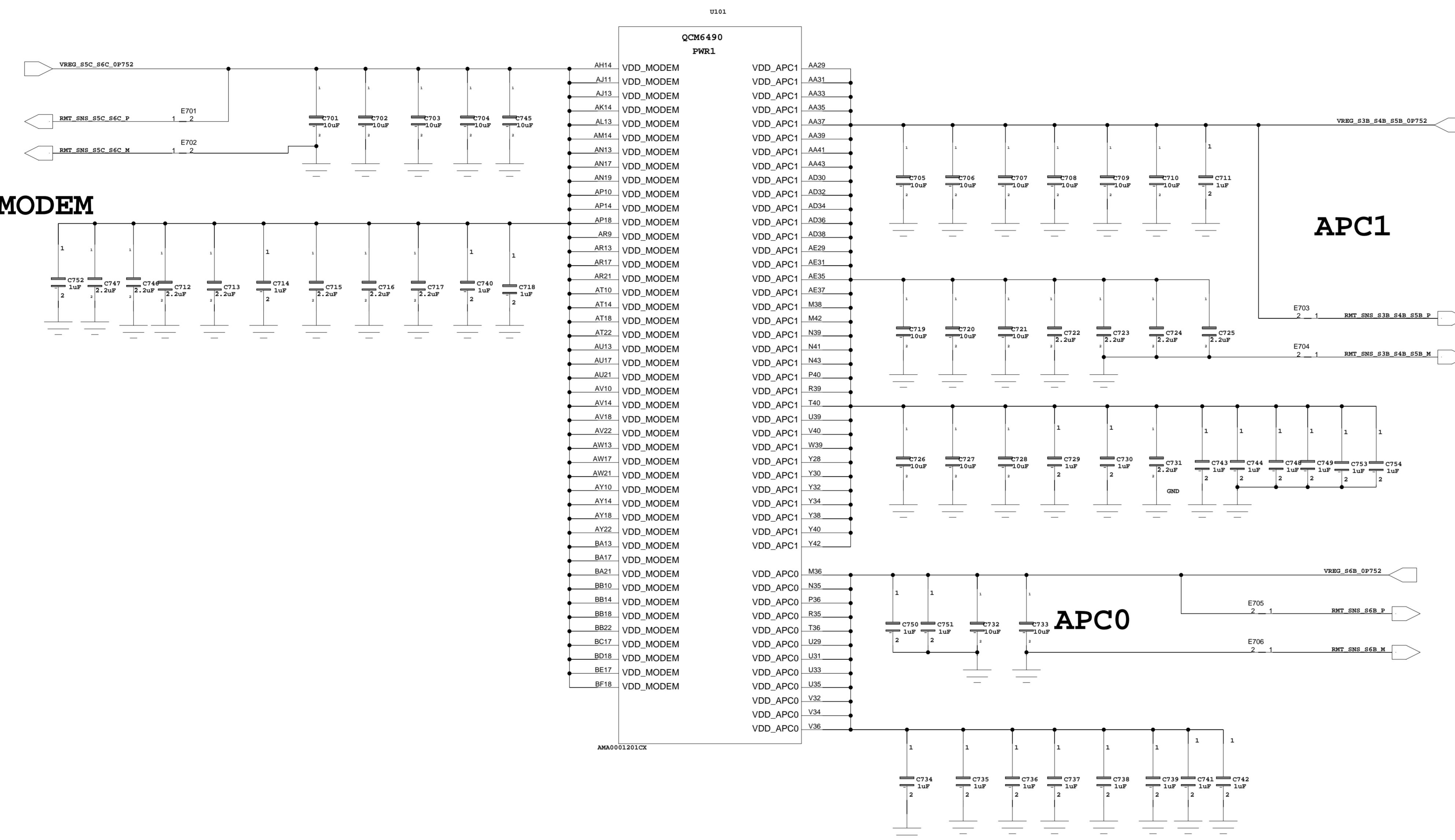


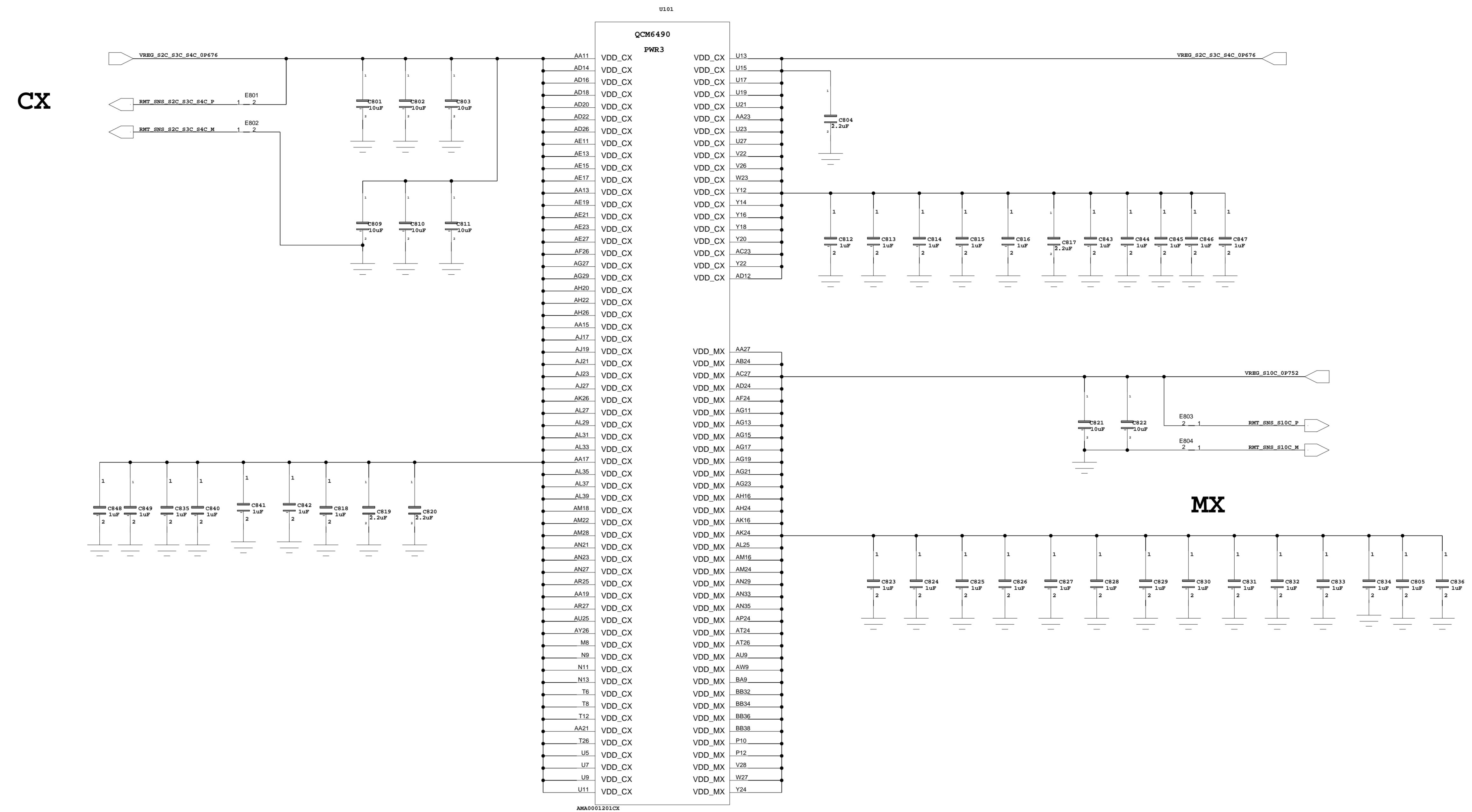
I2C PULL- UP RESISTORS

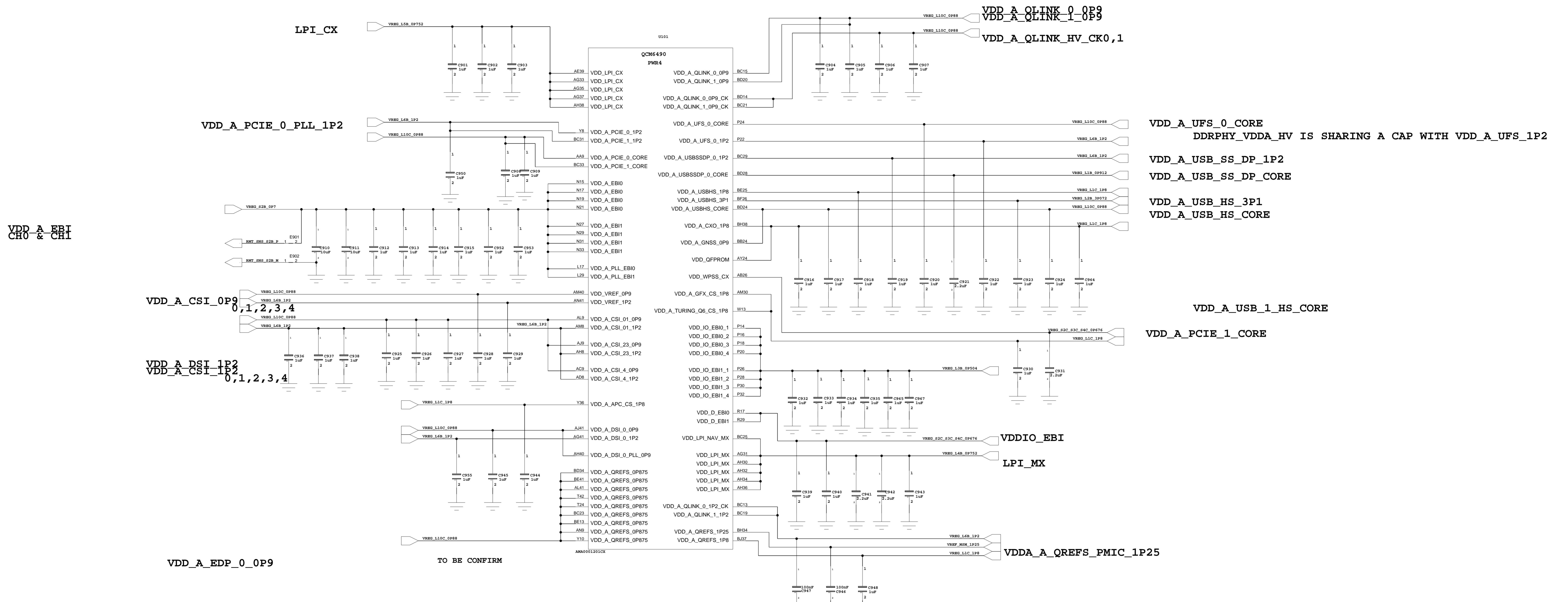
Board ID3	Board ID2	Board ID1	Board ID0	Options
0	0	0	0	v00
0	0	0	1	v01
0	0	1	0	v02
0	1	0	0	v03
0	0	1	1	
0	1	0	1	
0	1	1	0	
0	1	1	1	
0	0	0	0	

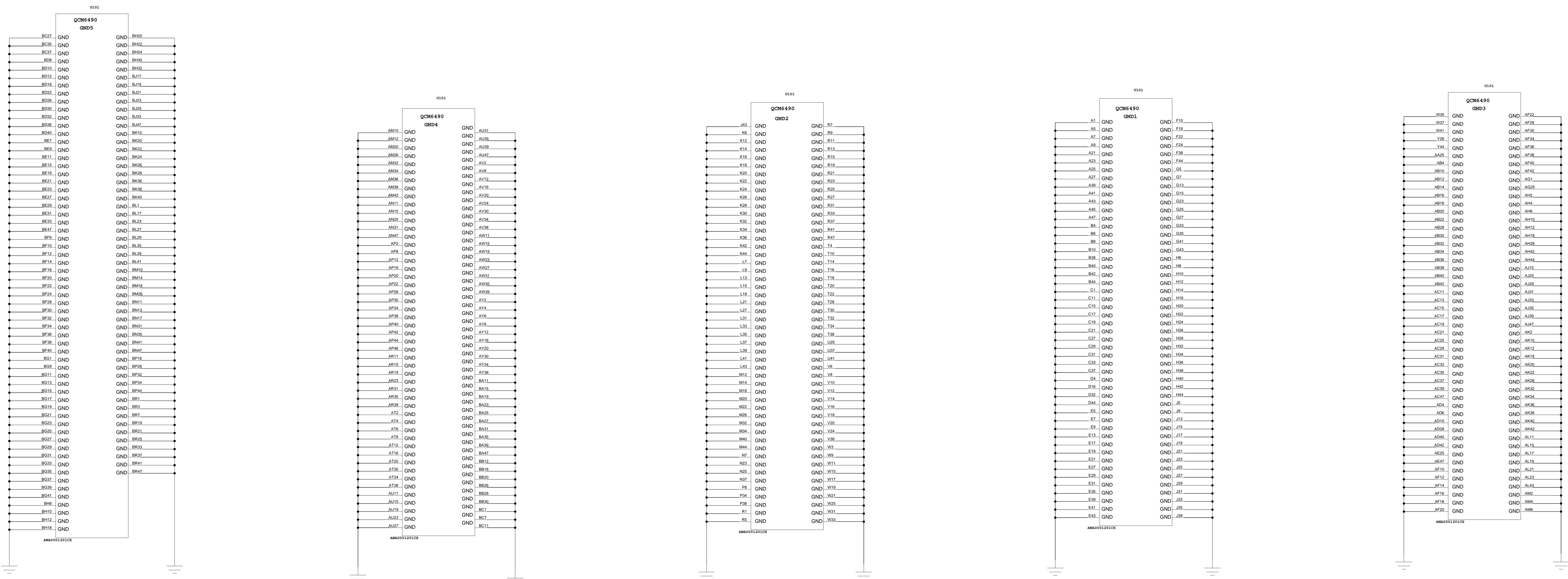





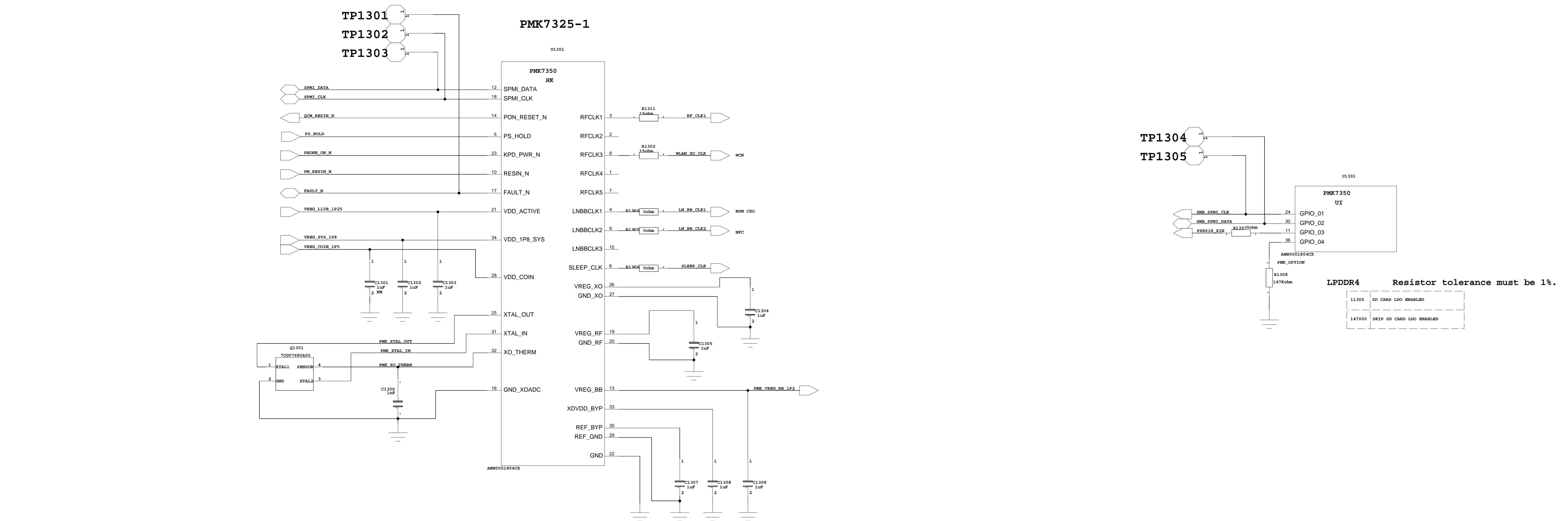


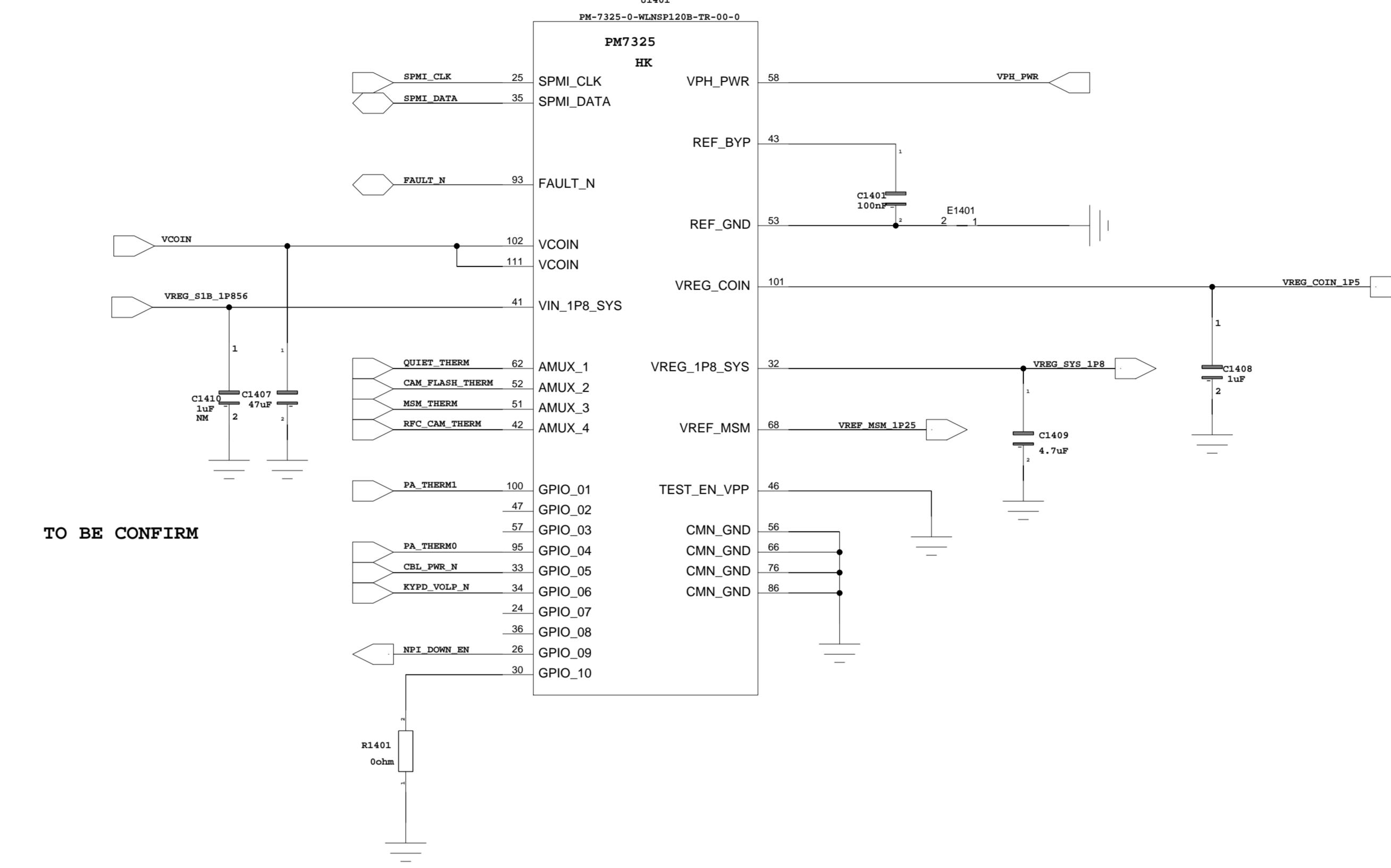


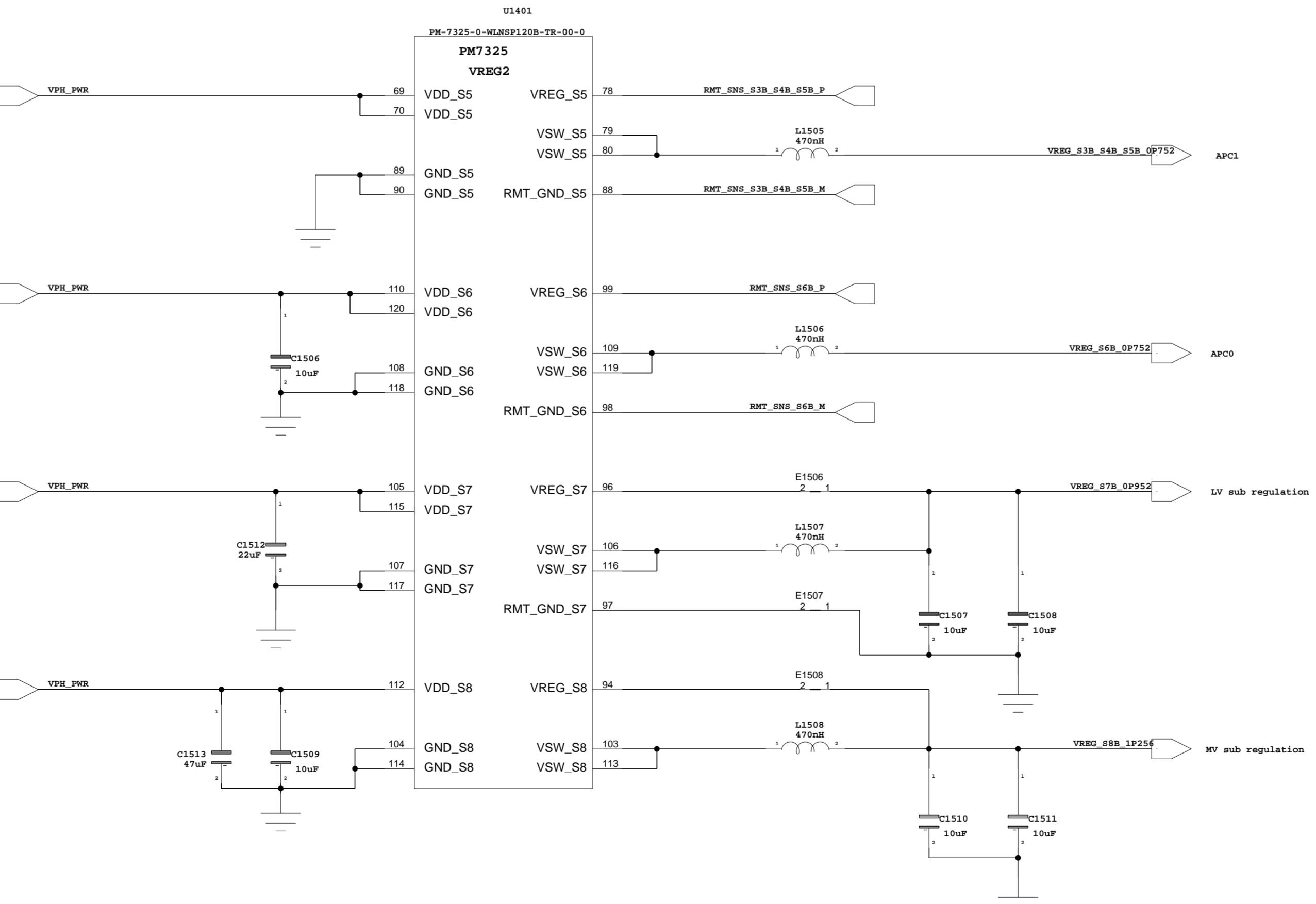
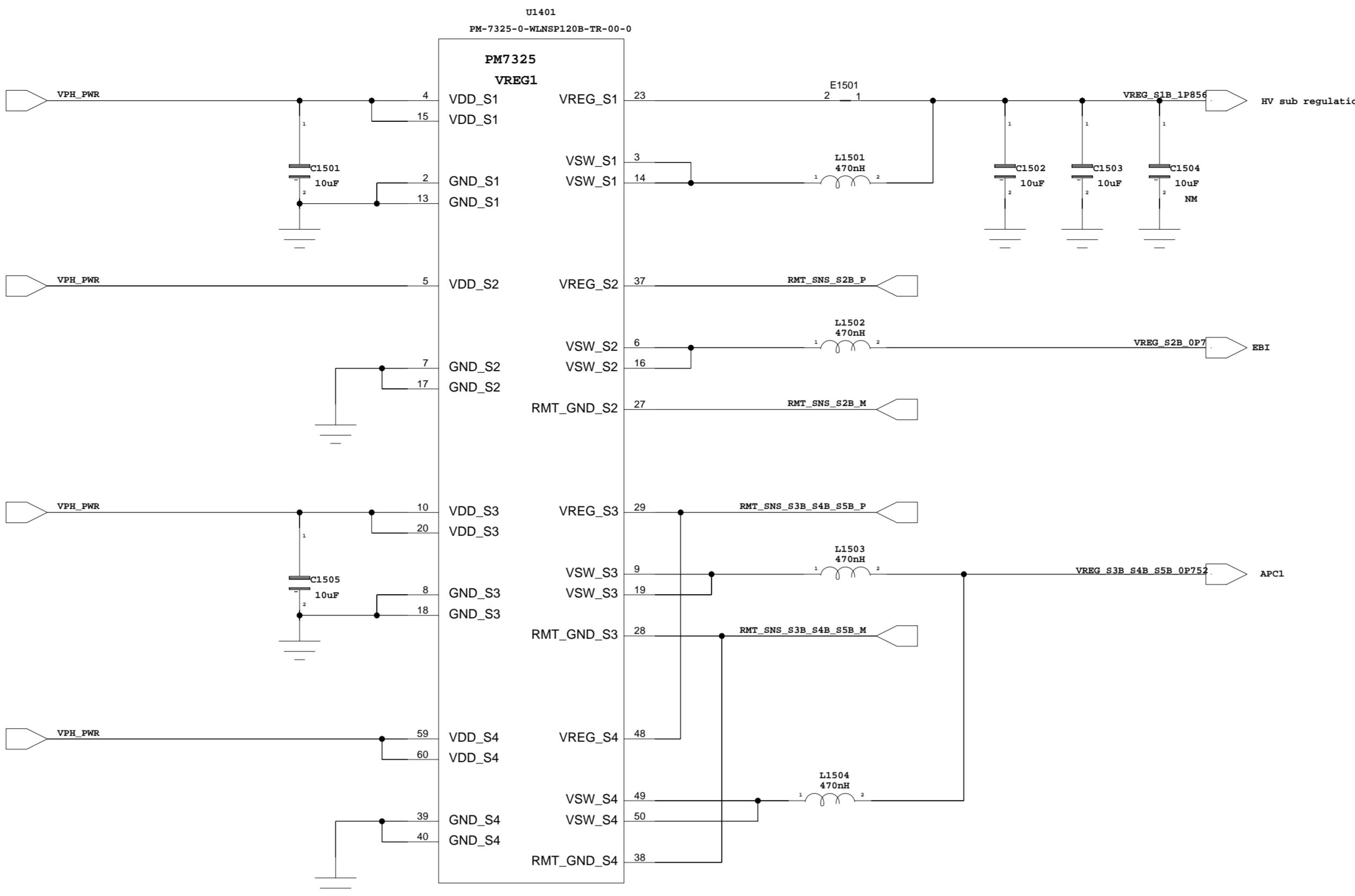


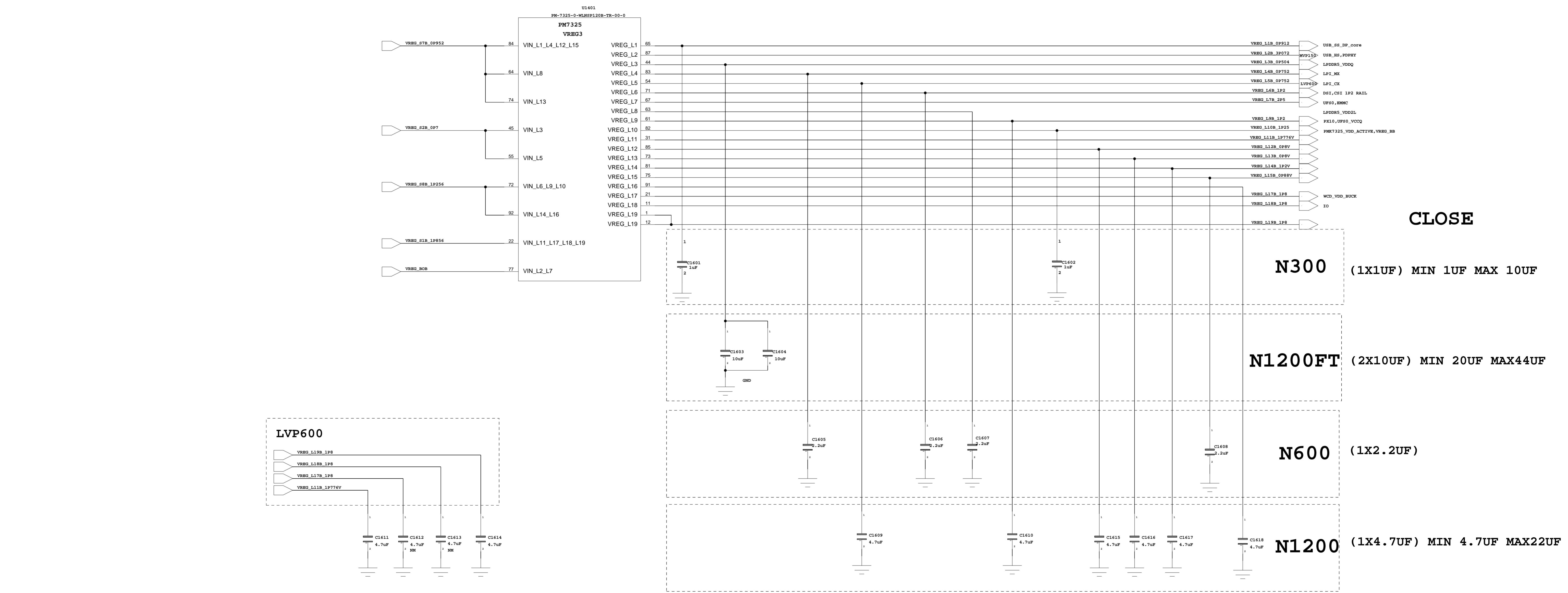


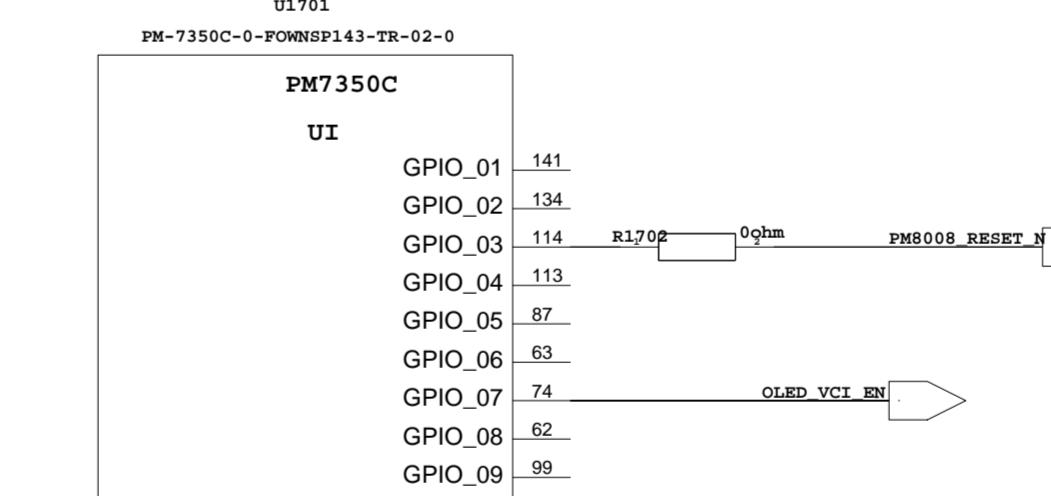
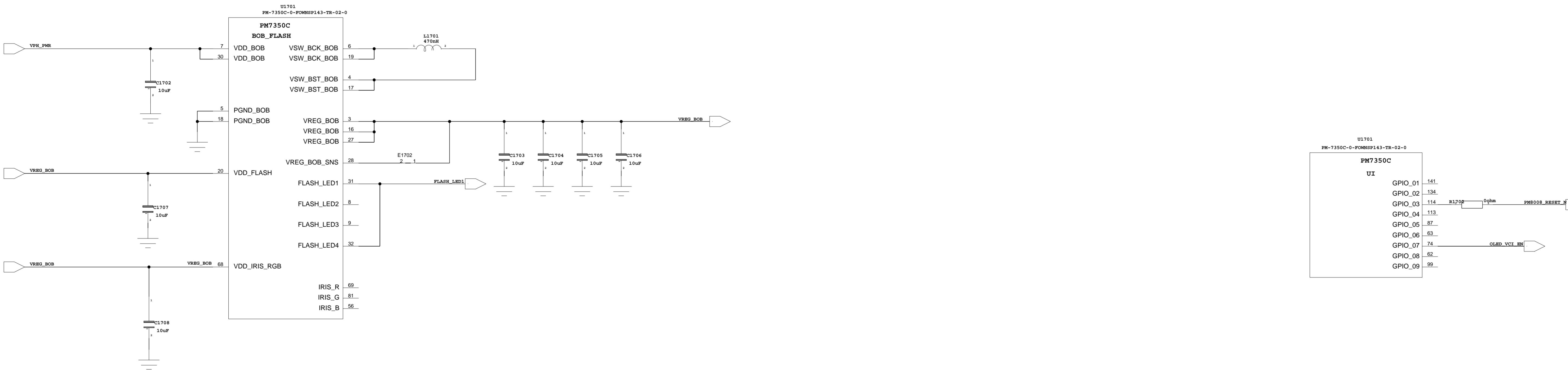






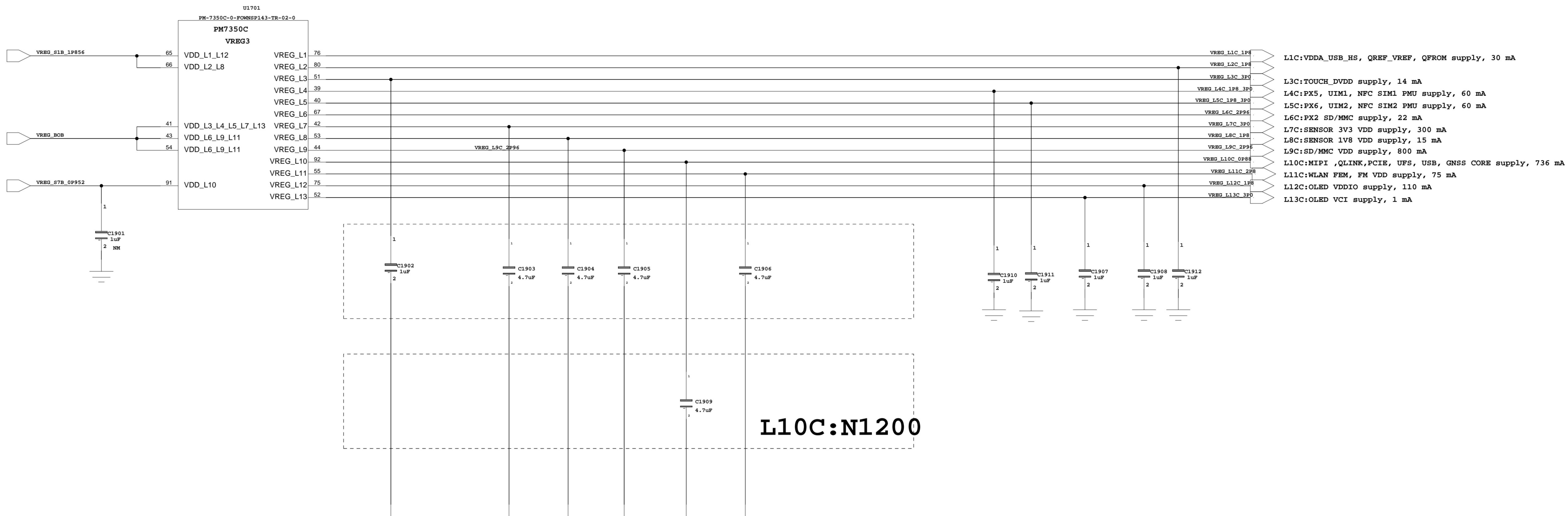




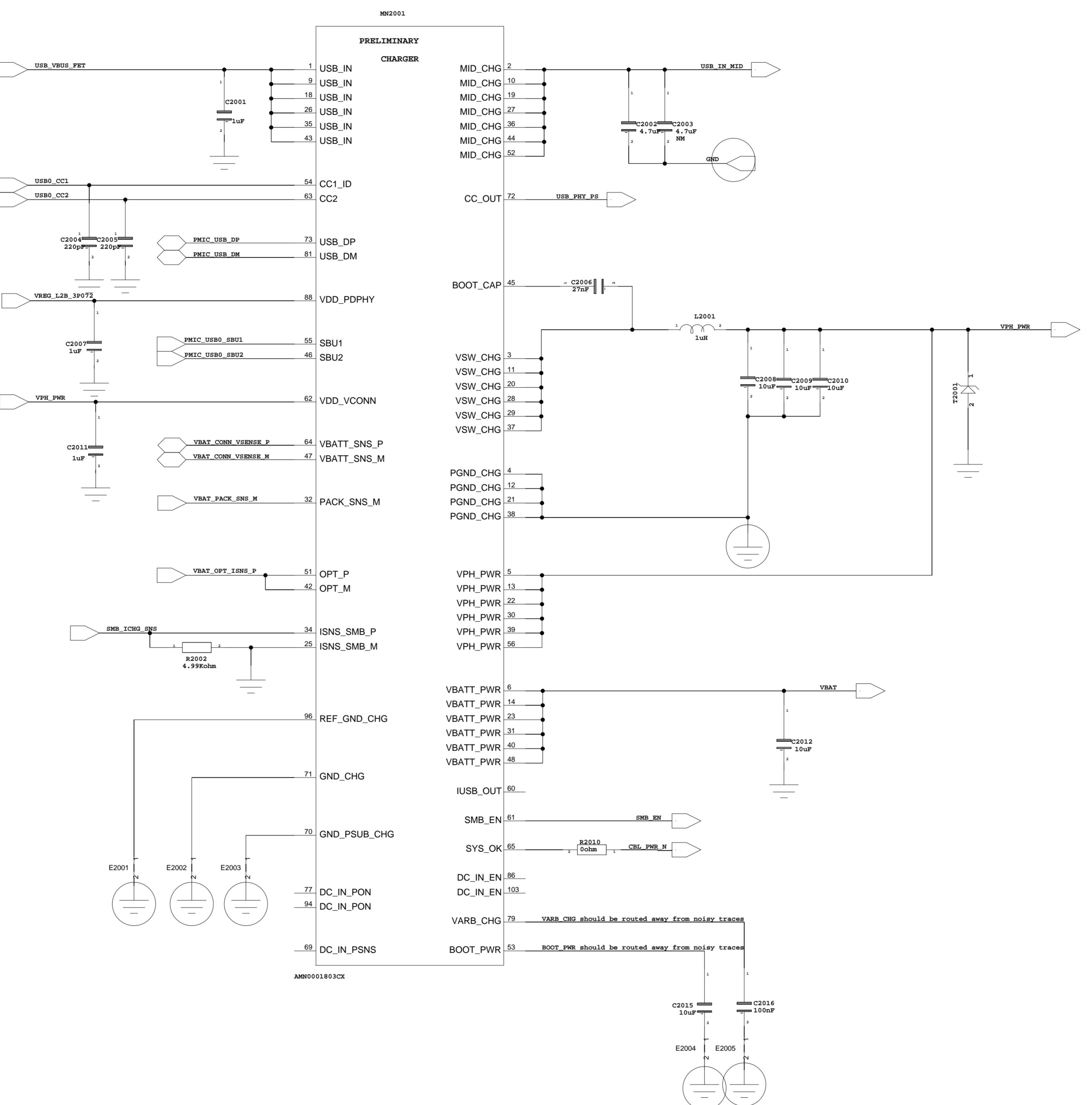




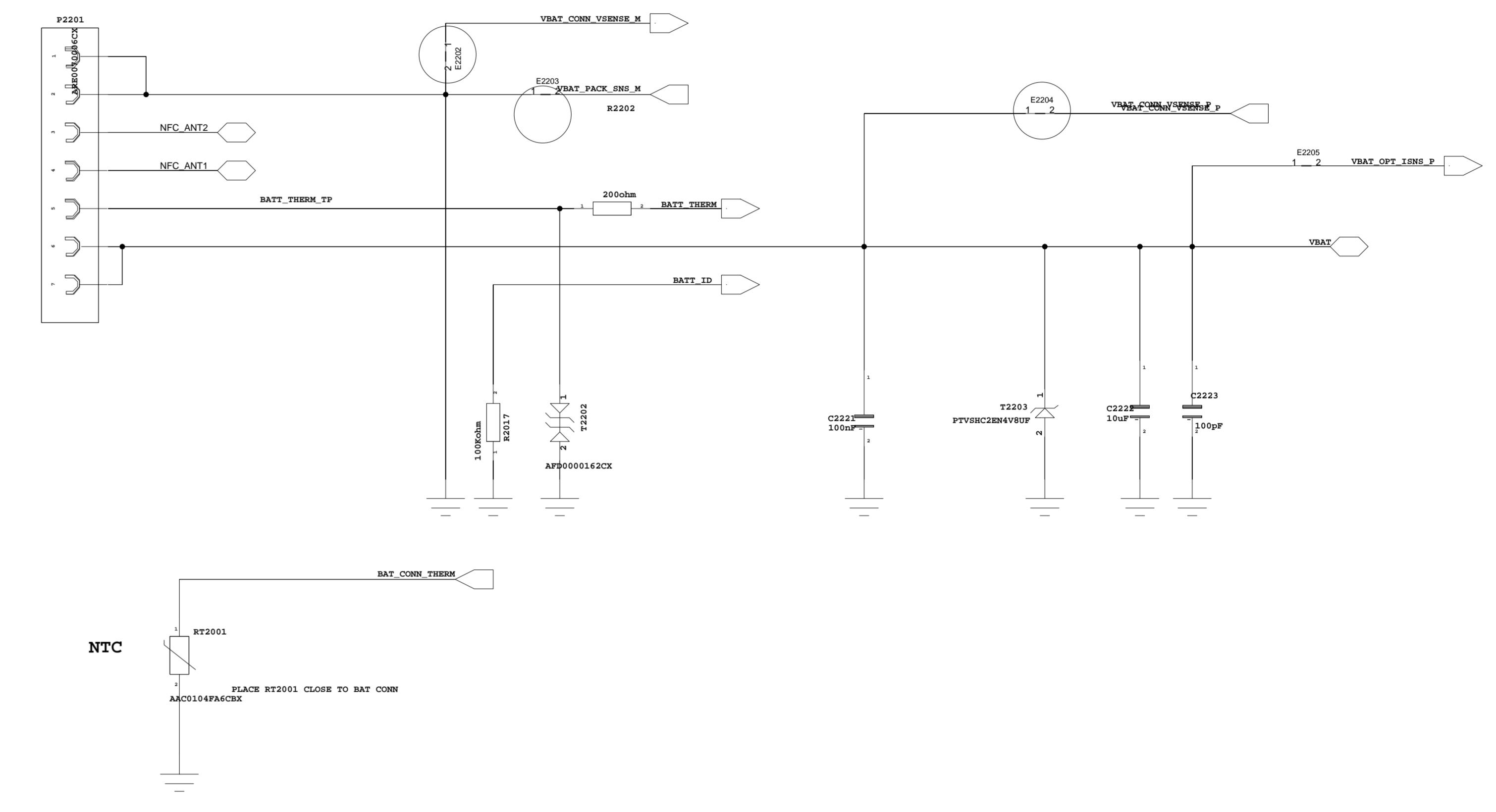
LDOs



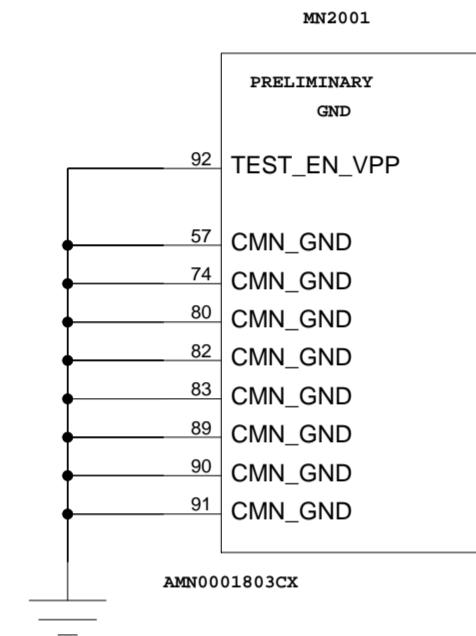
PM7250B_CHARGE/FG



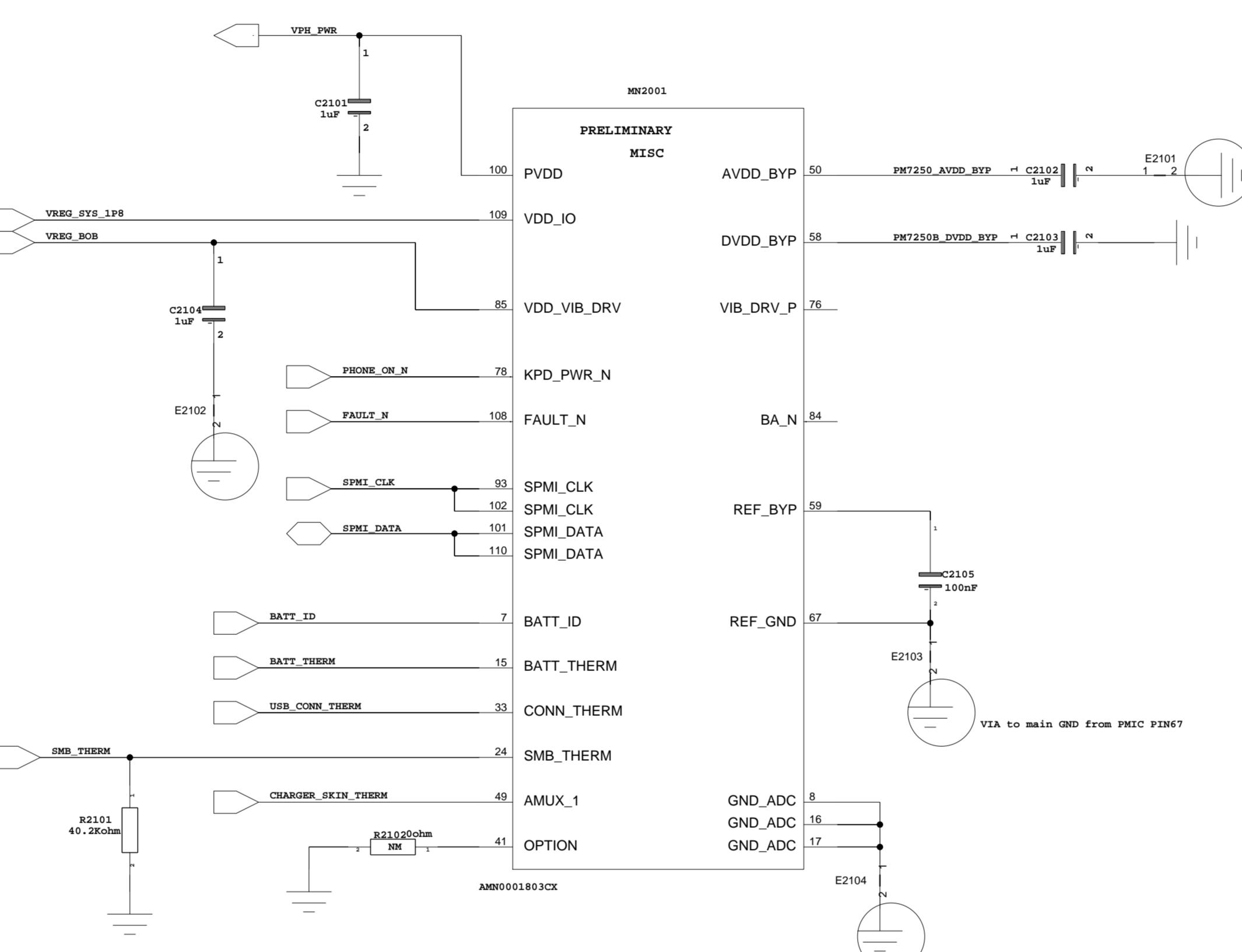
BATTERY CONNECTOR



PM7250B_GND

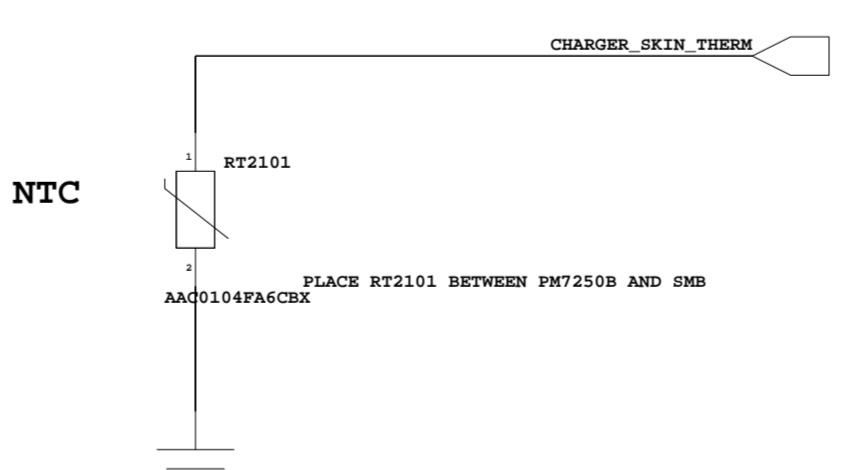
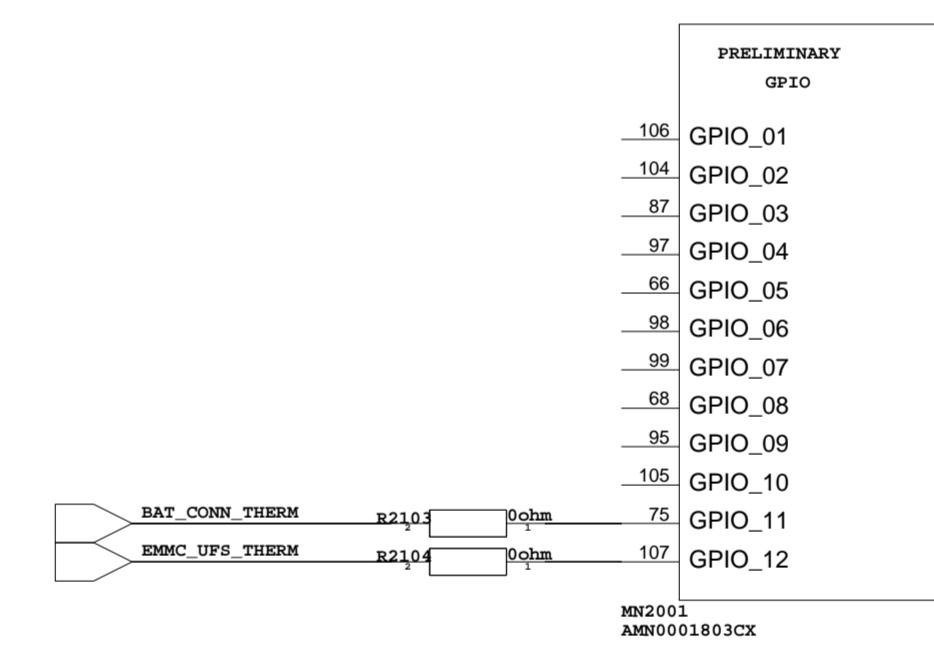


PM7250B_HK

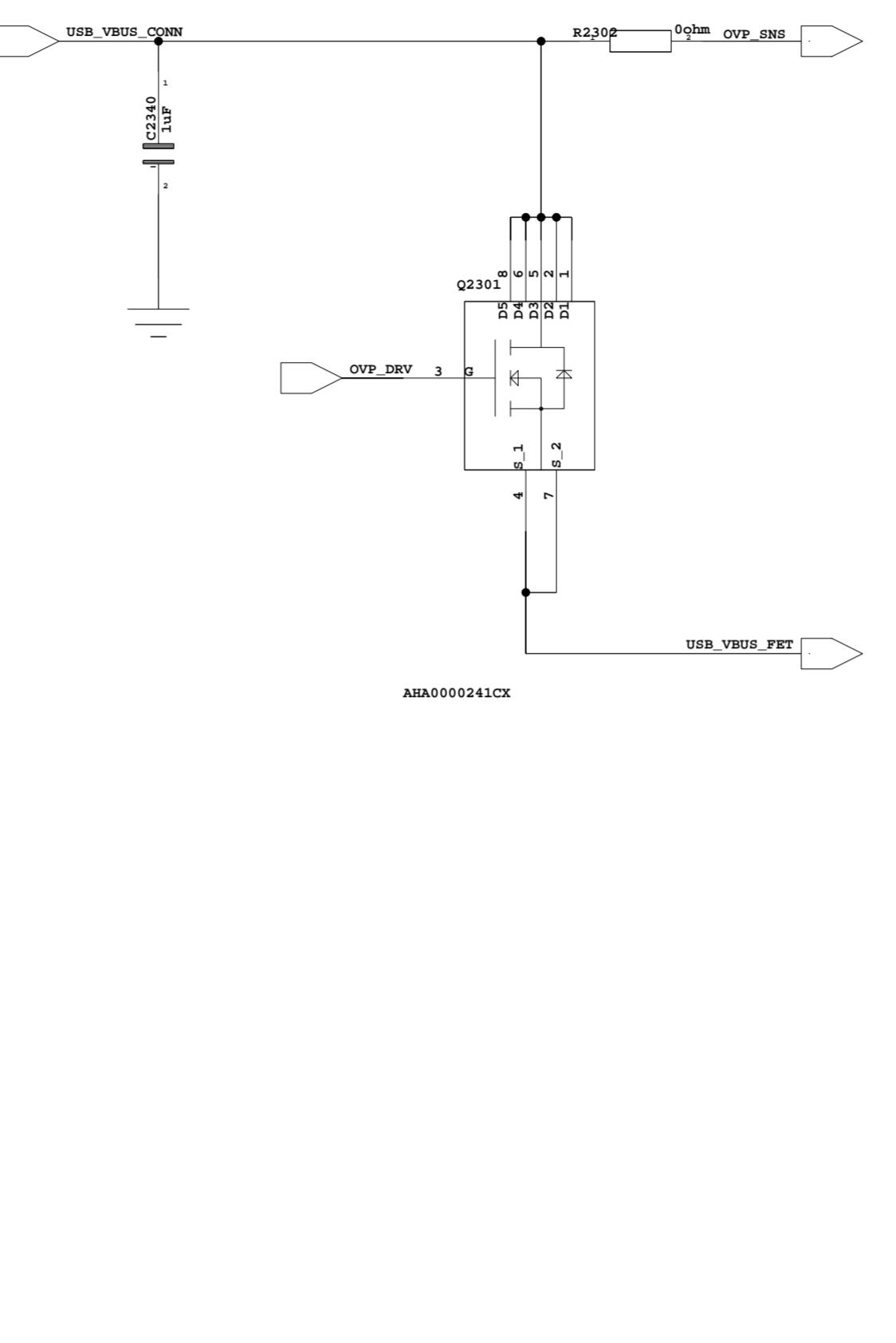
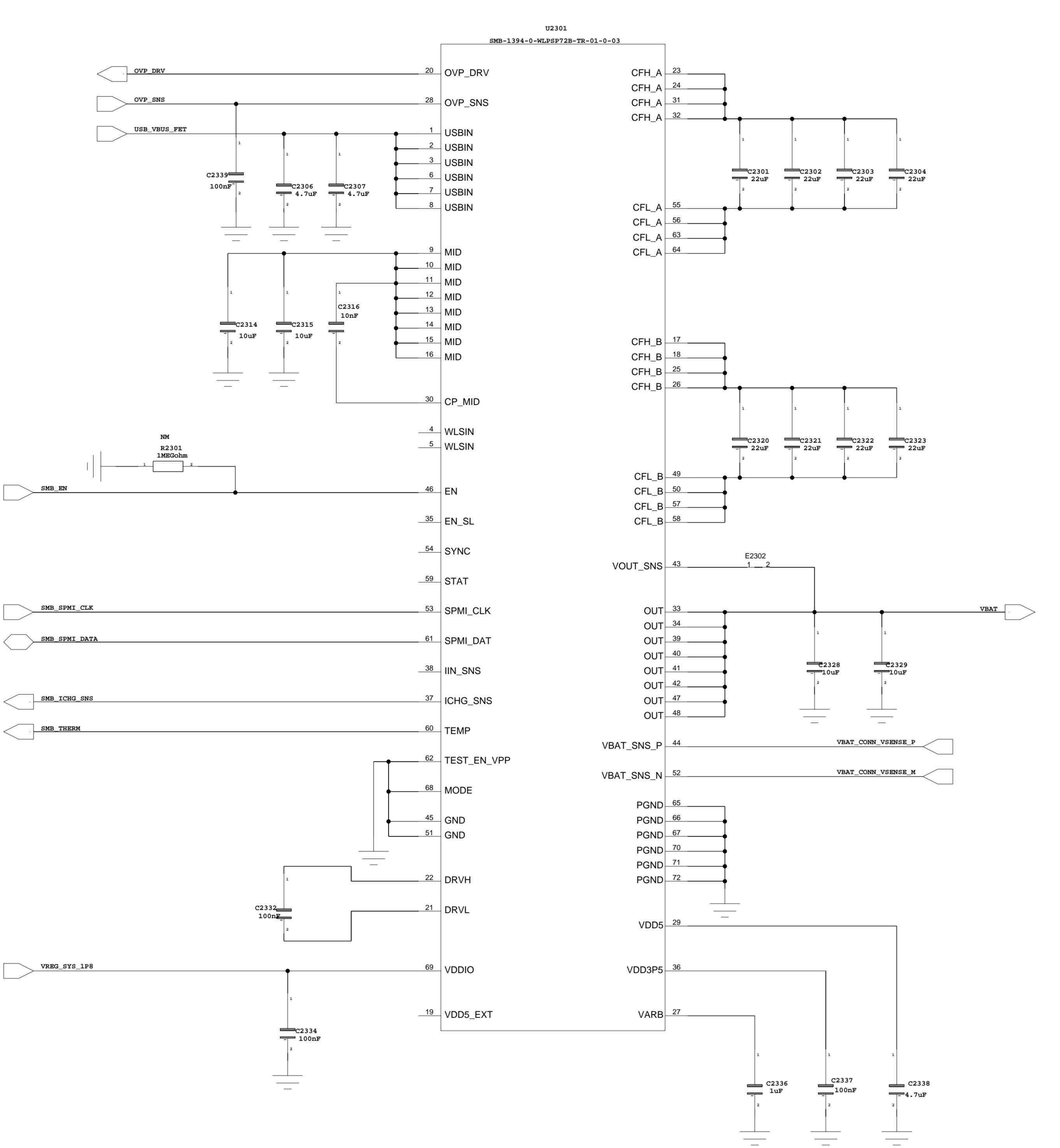


PON Configuration	OPTION Resistor Range
Micro USB,SPMI,FMB_DISABLE	R=(GND,1K,1.2K,2.2K,2.4K)
Micro USB,SPMI,FMB_ENABLE	R=(3.3K,3.6K,5.1K,5.6K)
Micro USB,I2C,FMB_DISABLE	R=(8.2K,10K,15K,16K)
Micro USB,I2C,FMB_ENABLE	R=(22K,27K,36K,39K)
Type-C,I2C,FMB_DISABLE	R=(56K,68K,91K,100K)
Type-C,I2C,FMB_ENABLE	R=(130K,150K,220K,240K)
Type-C,SPMI,FMB_ENABLE	R=(300K,330K,470K,560K)
Type-C,SPMI,FMB_DISABLE	R=(820K,910K,1.2M,Open)

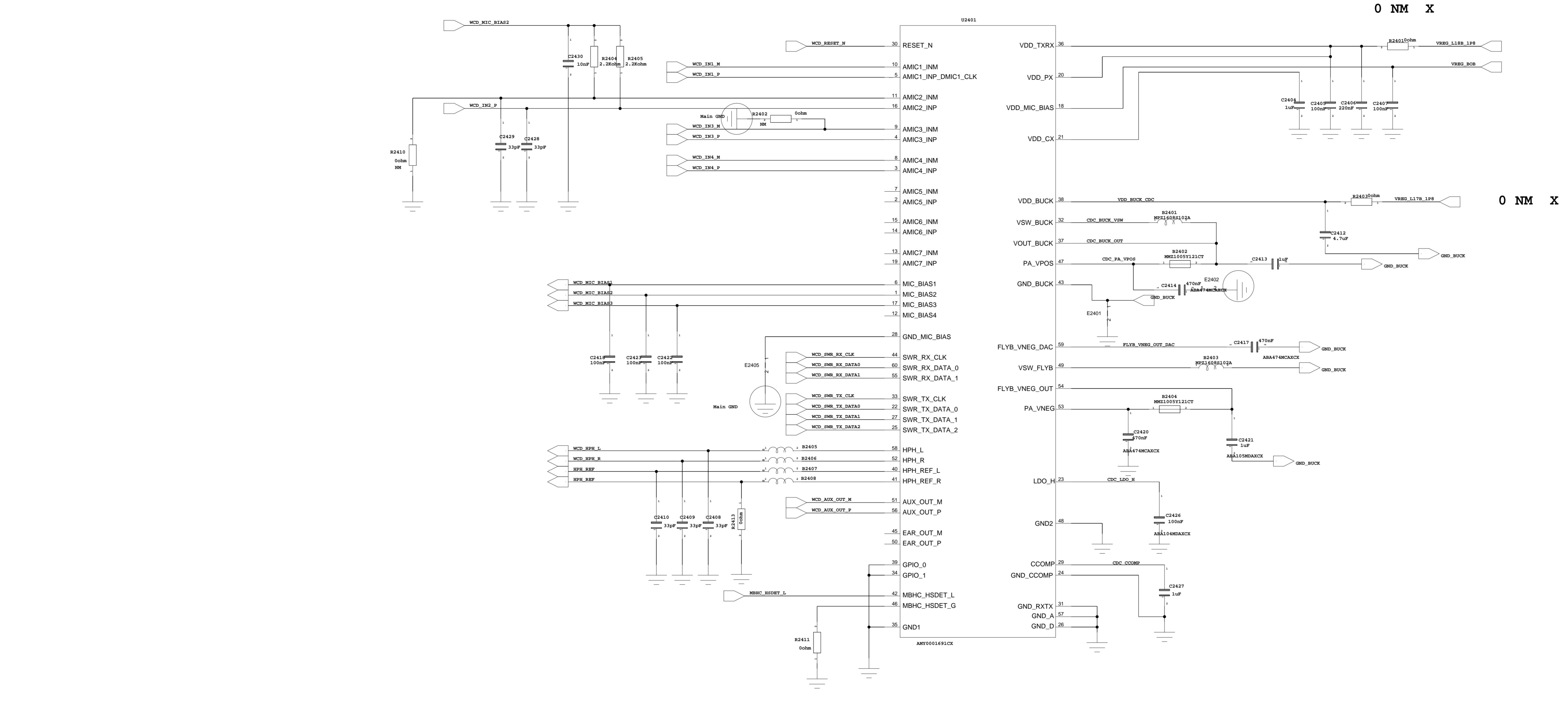
PM7250B_GPIO



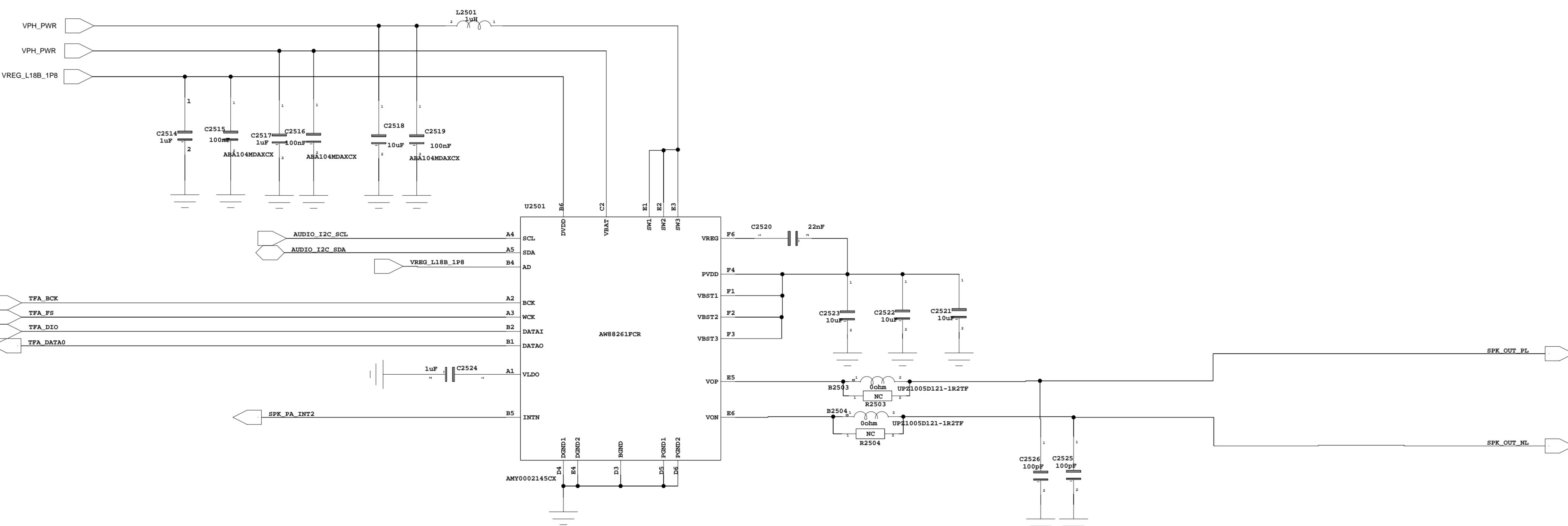
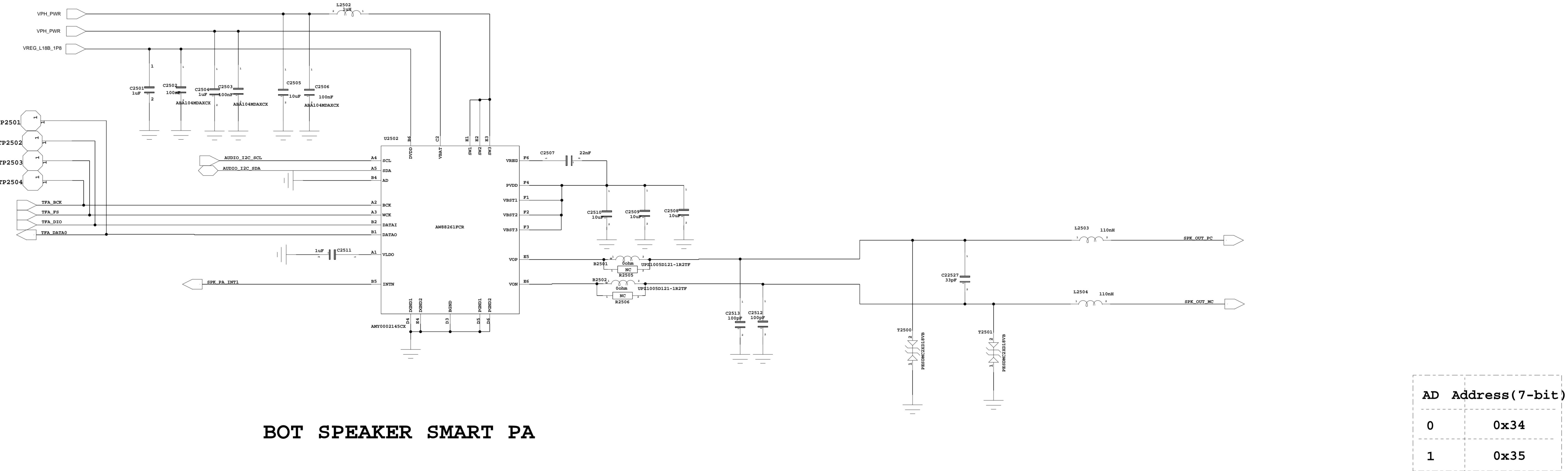
MASTER SMB1394



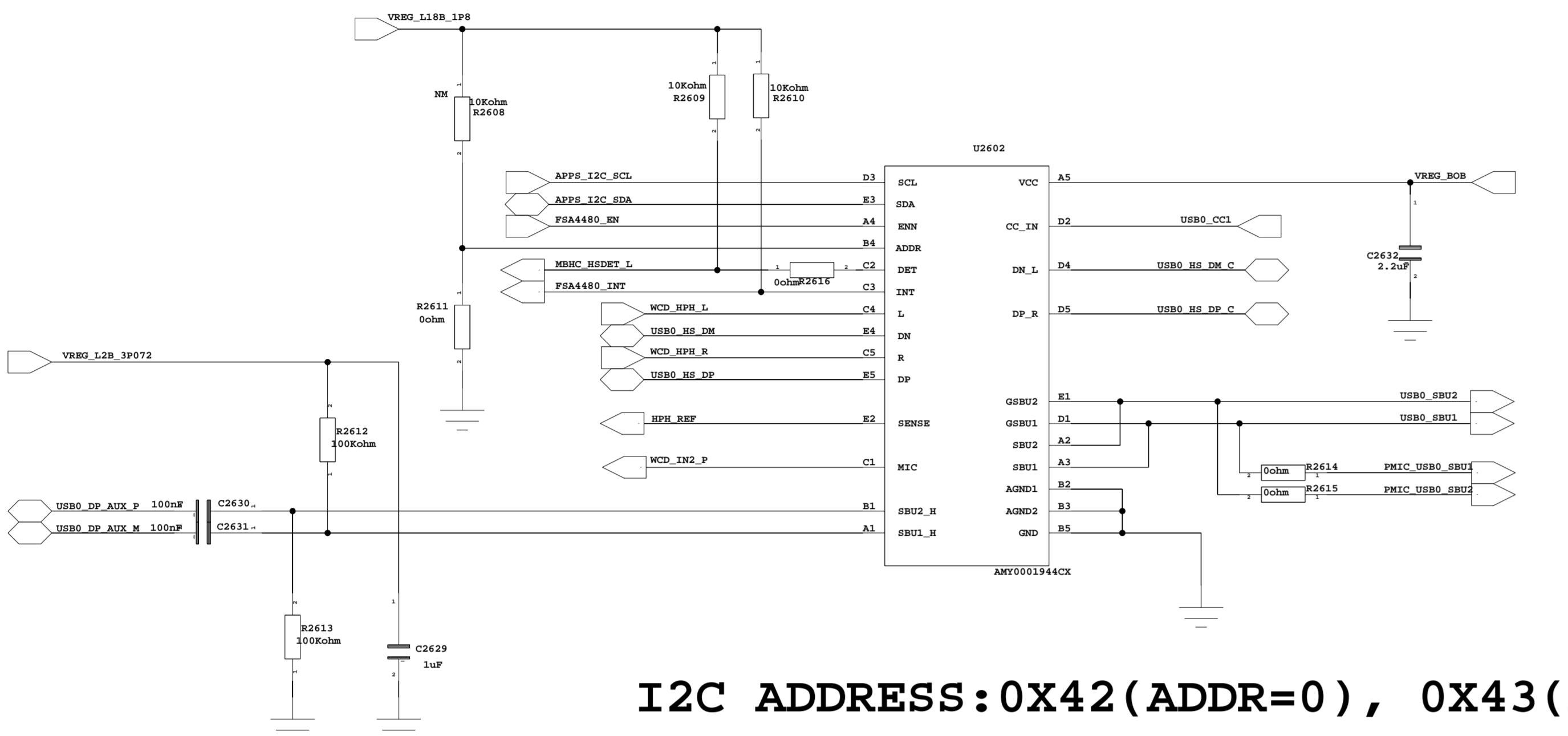
WCD9385



TOP RCV & SPEAKER SMART PA

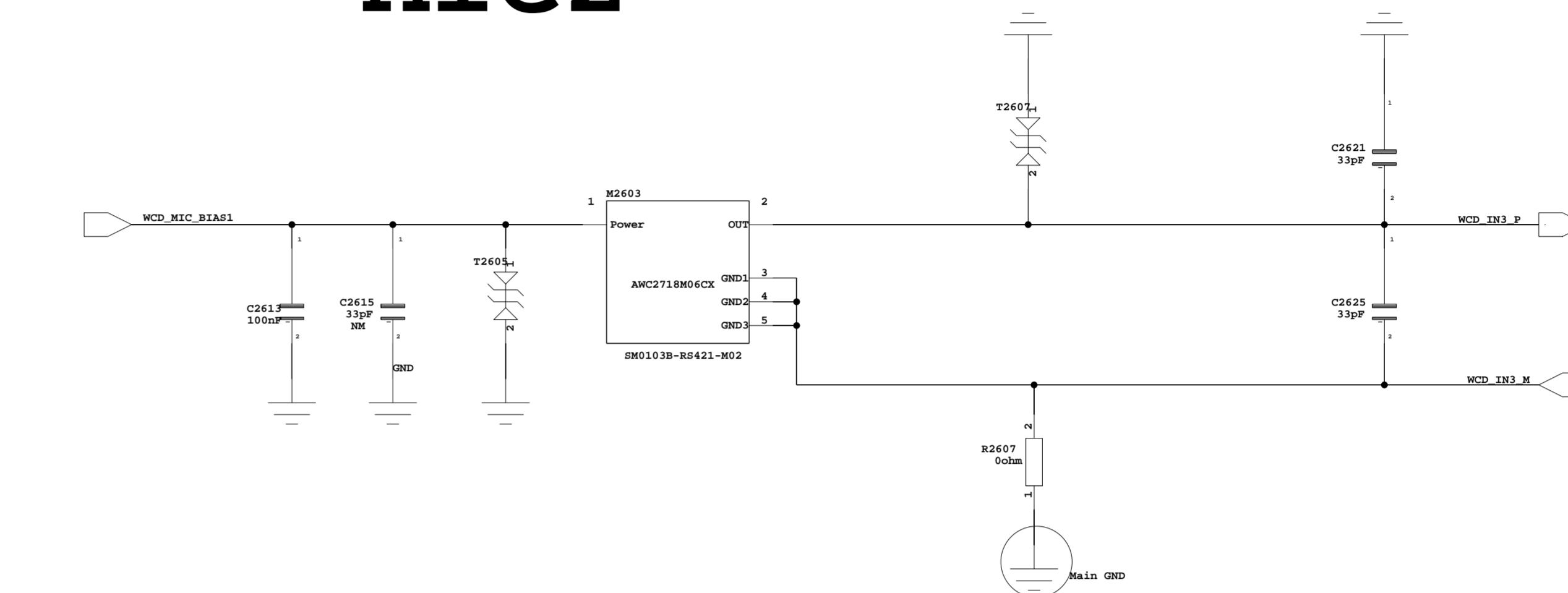


TYPEC AUDIO SWITCH

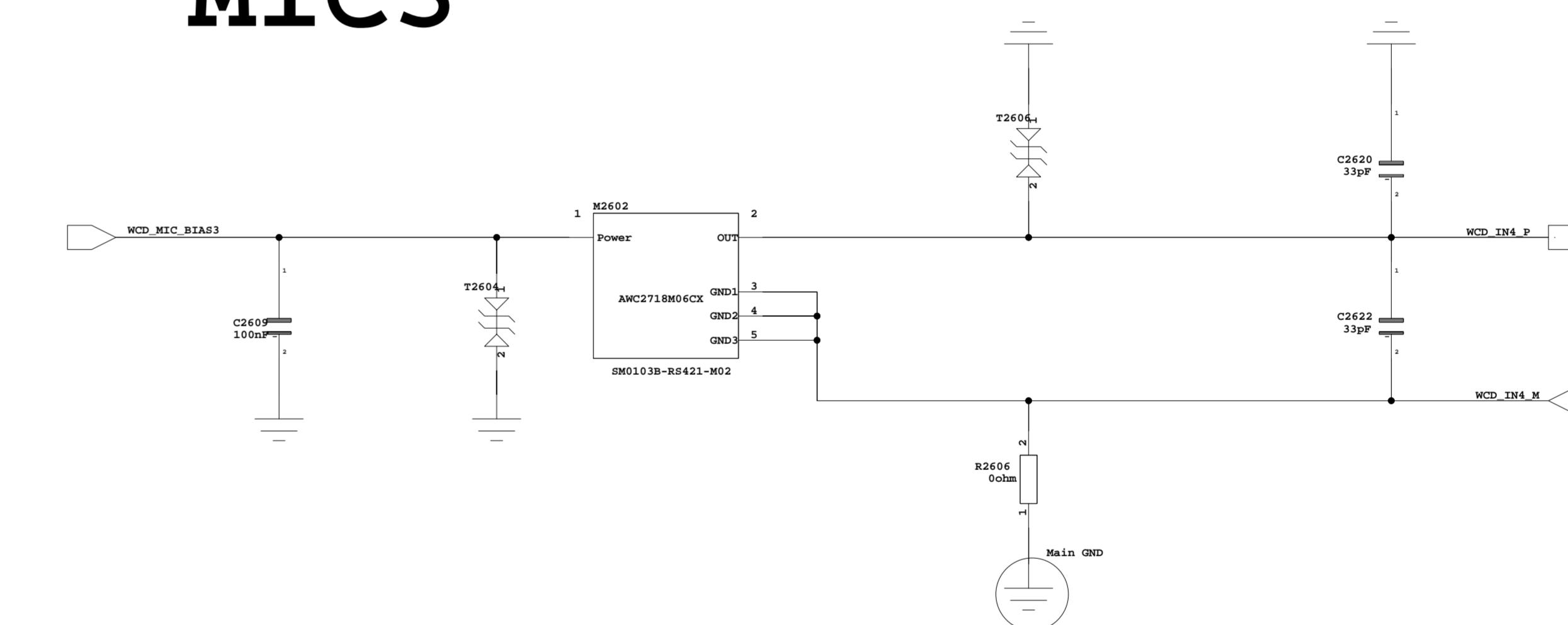


I2C ADDRESS: 0X42(ADDR=0), 0X43(ADDR=1)

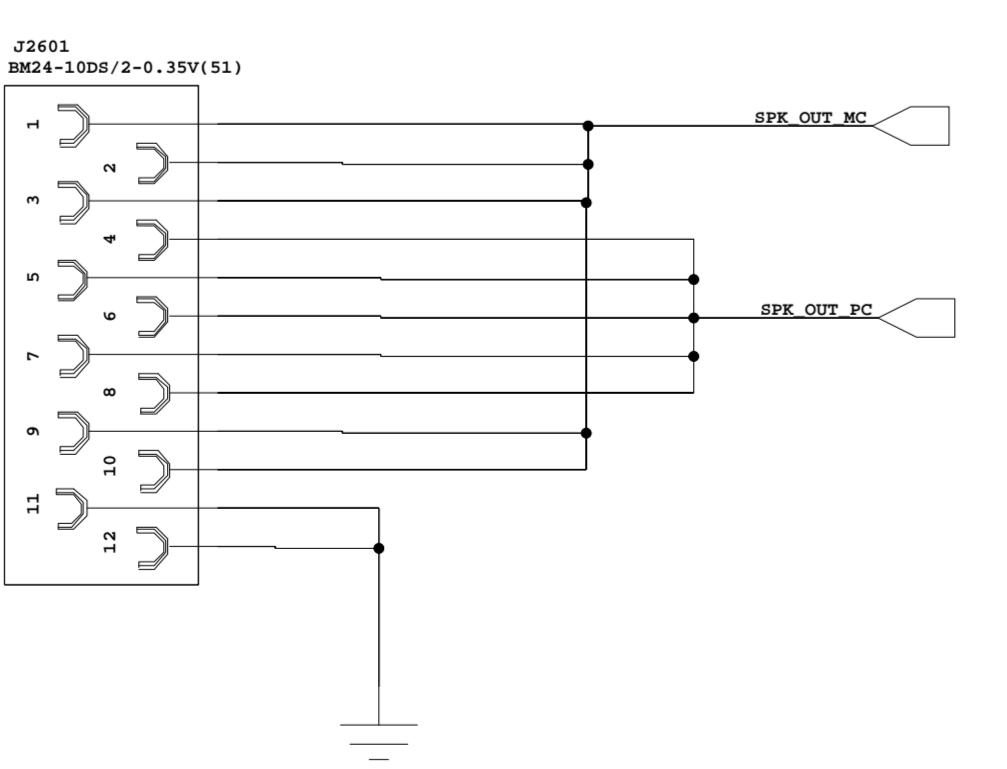
MIC2



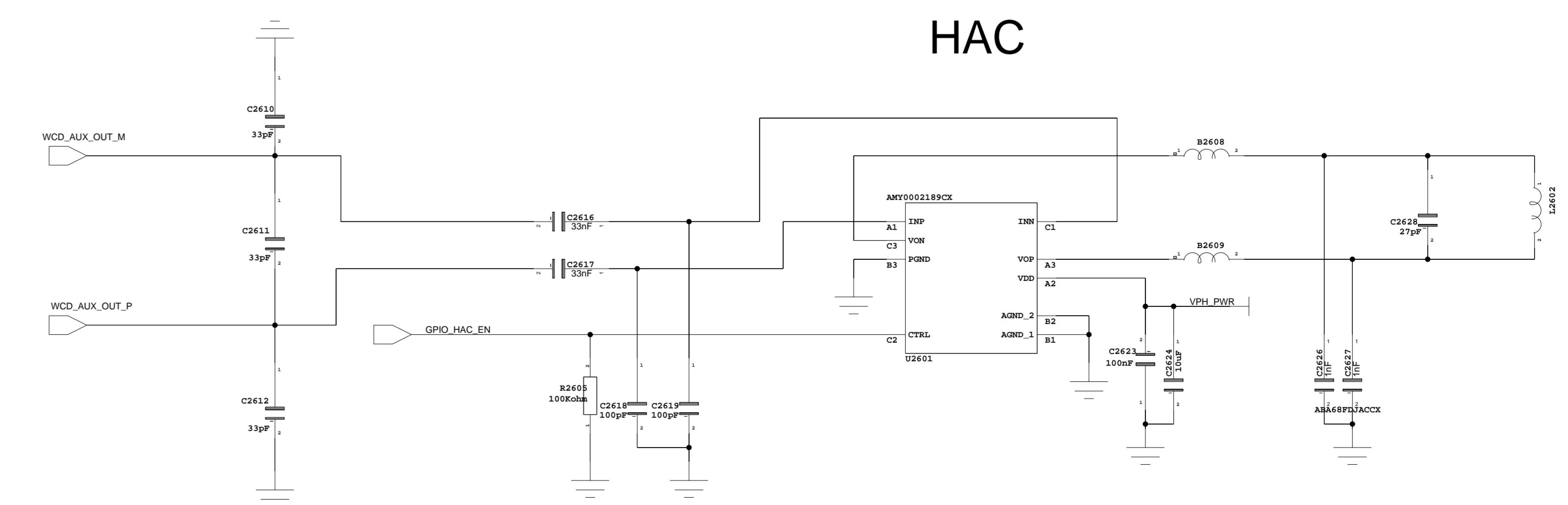
MIC3



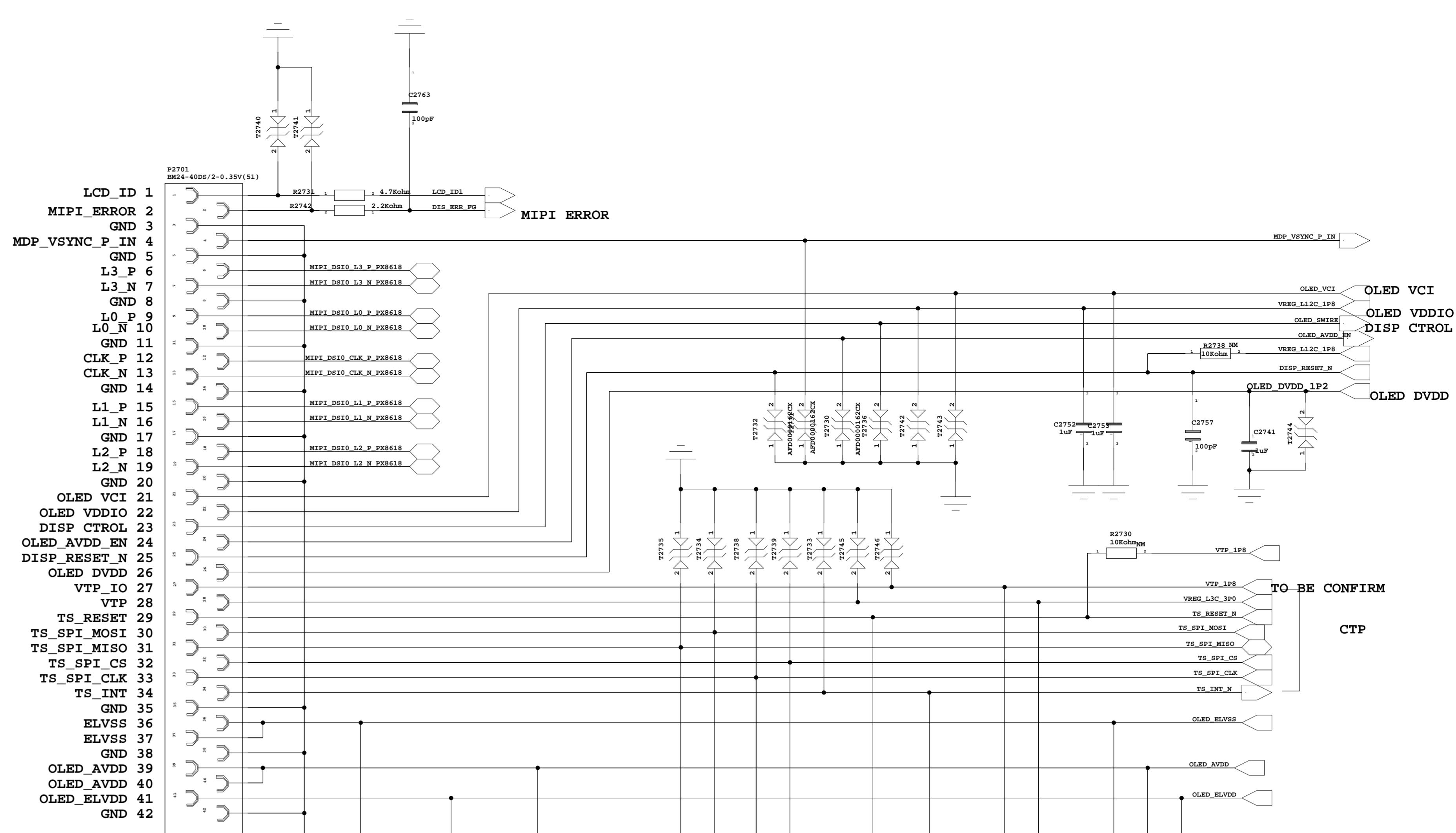
top speaker connector



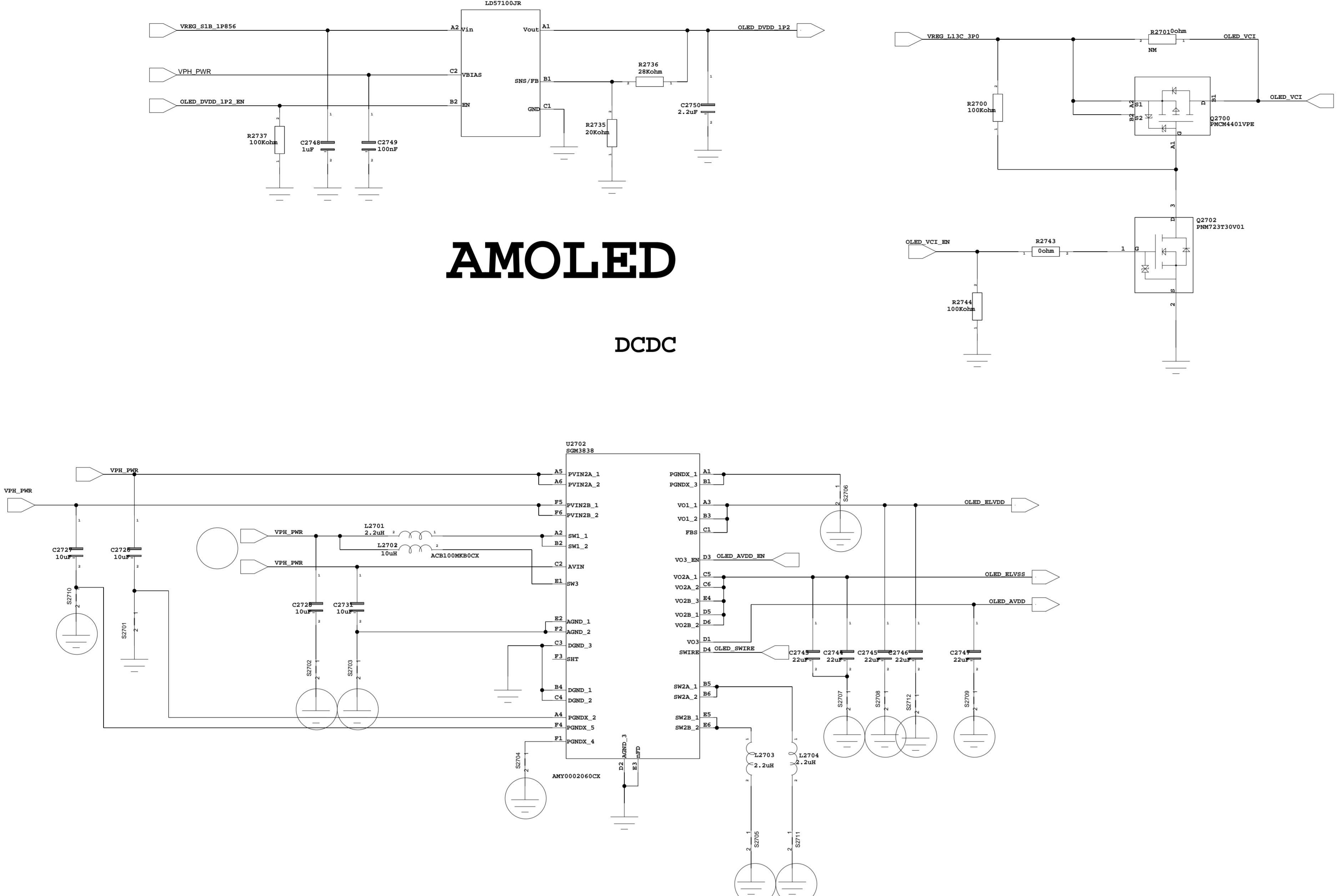
HAC



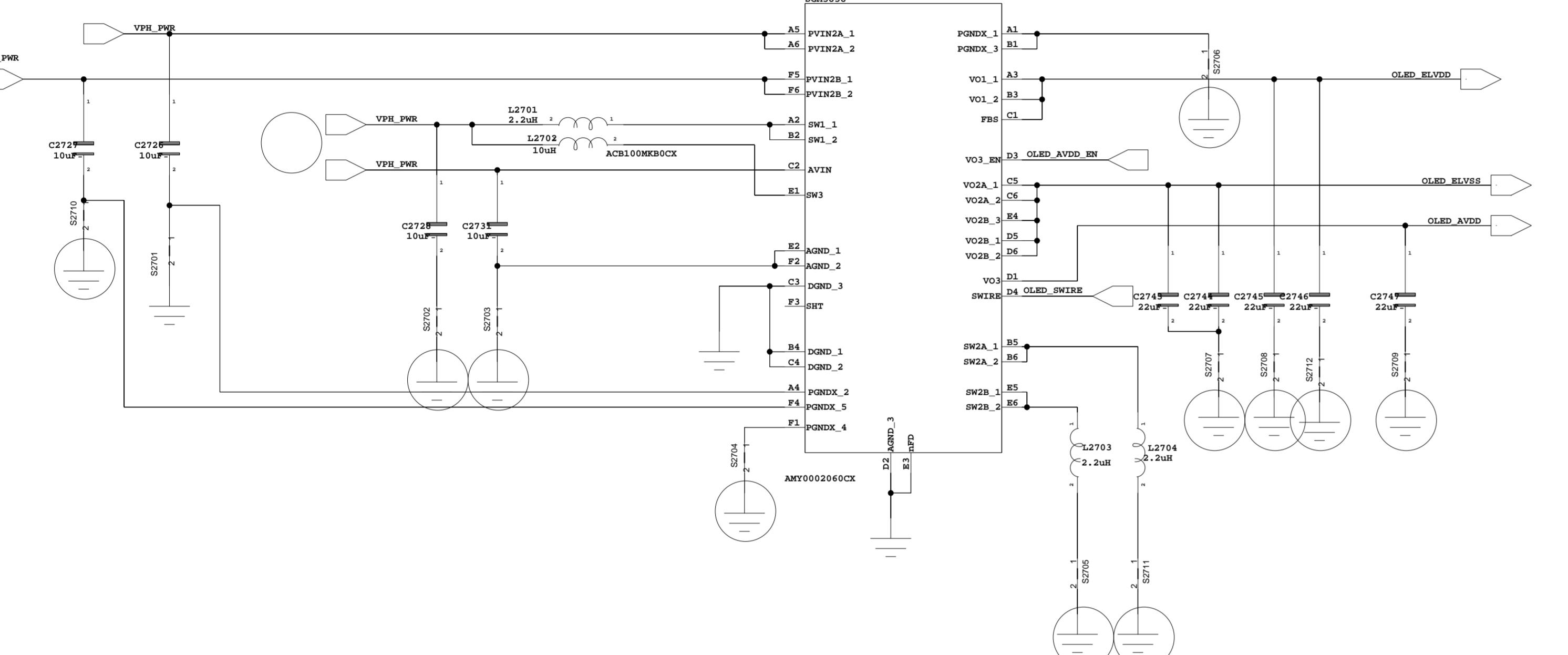
LCD CONN



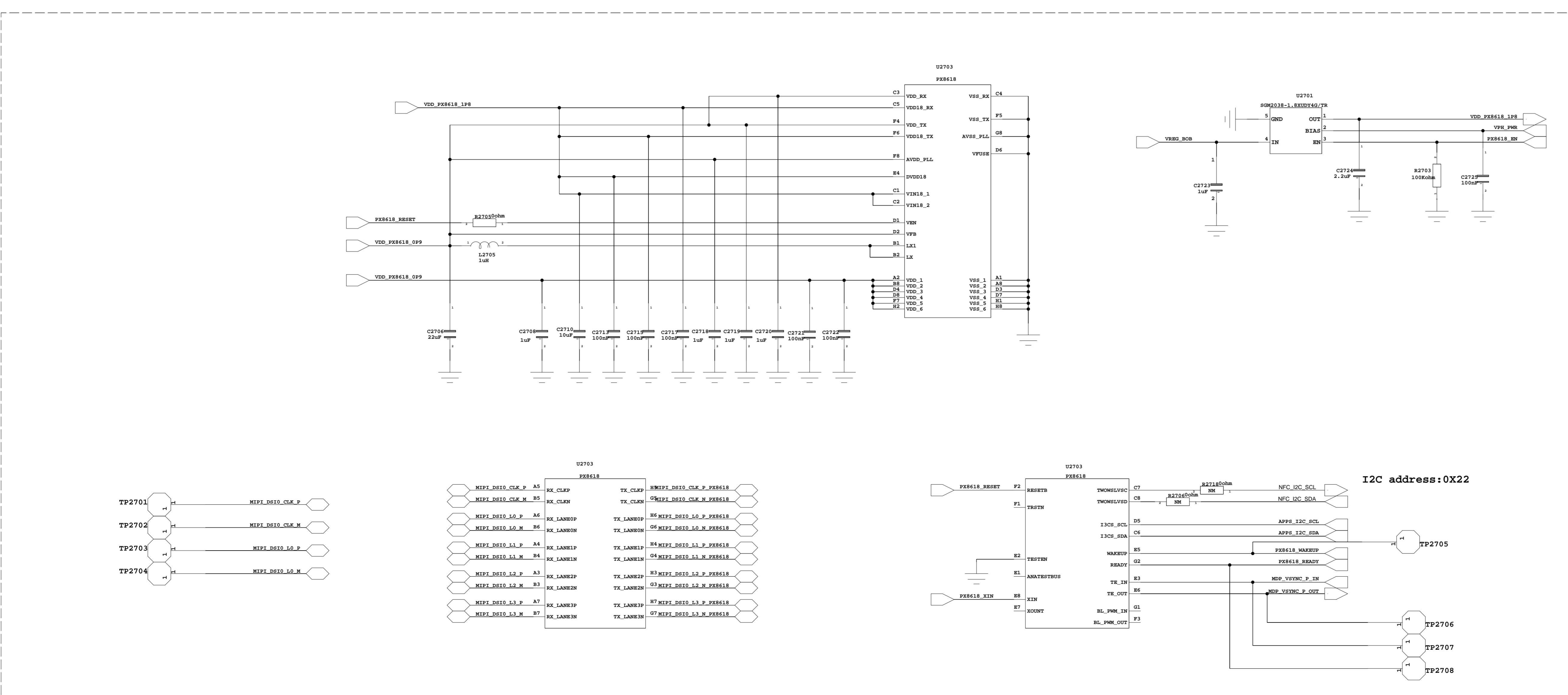
AMOLED



DCDC

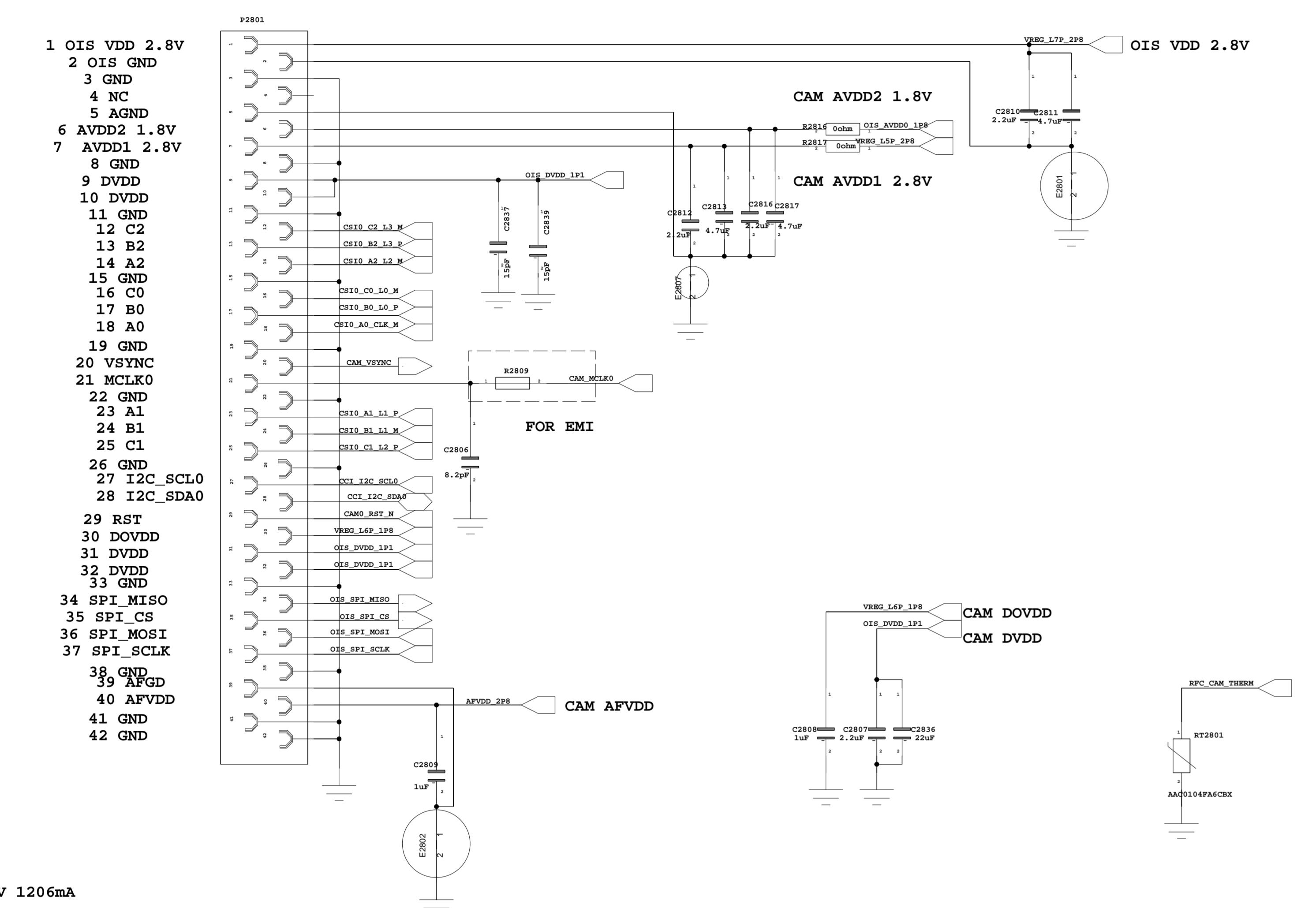


IRIS6

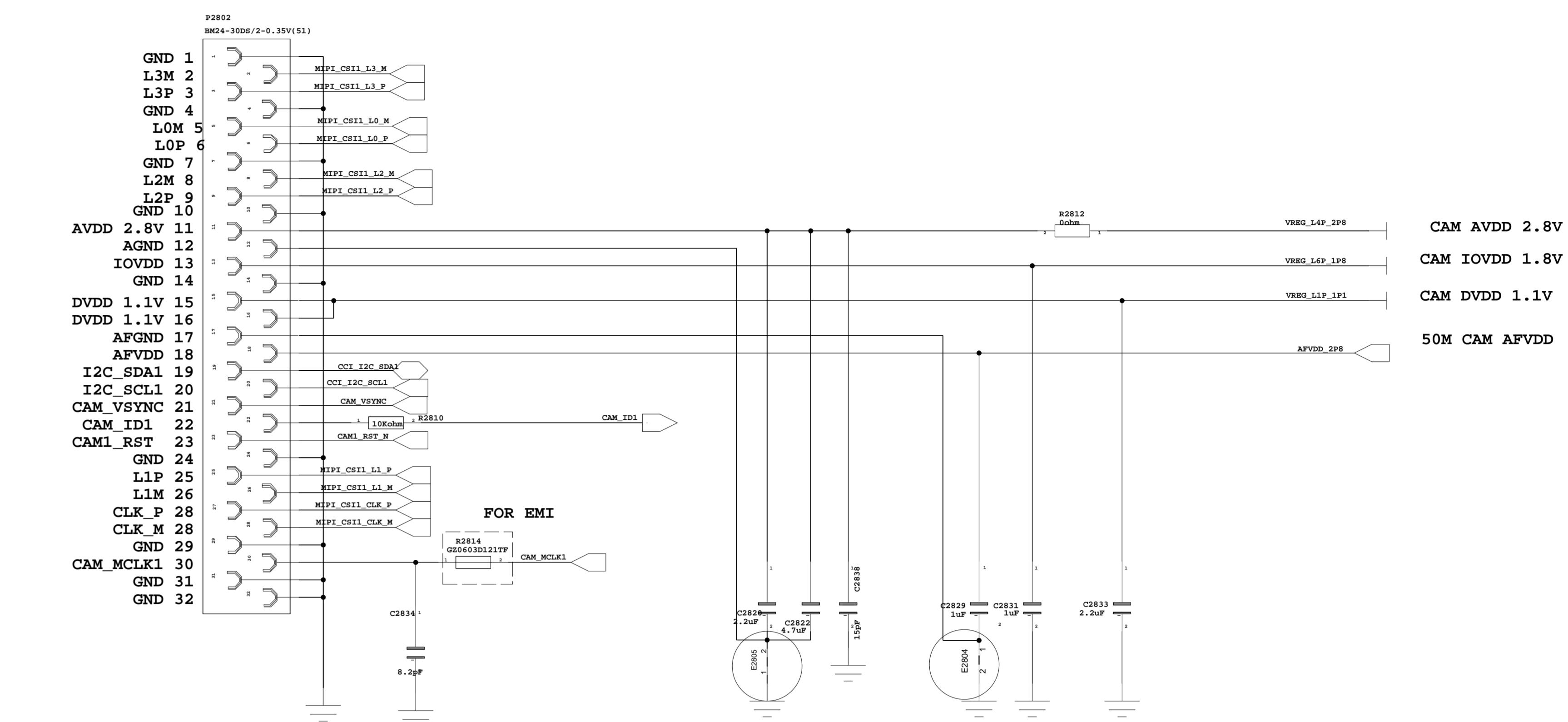


50M UW CAMERA

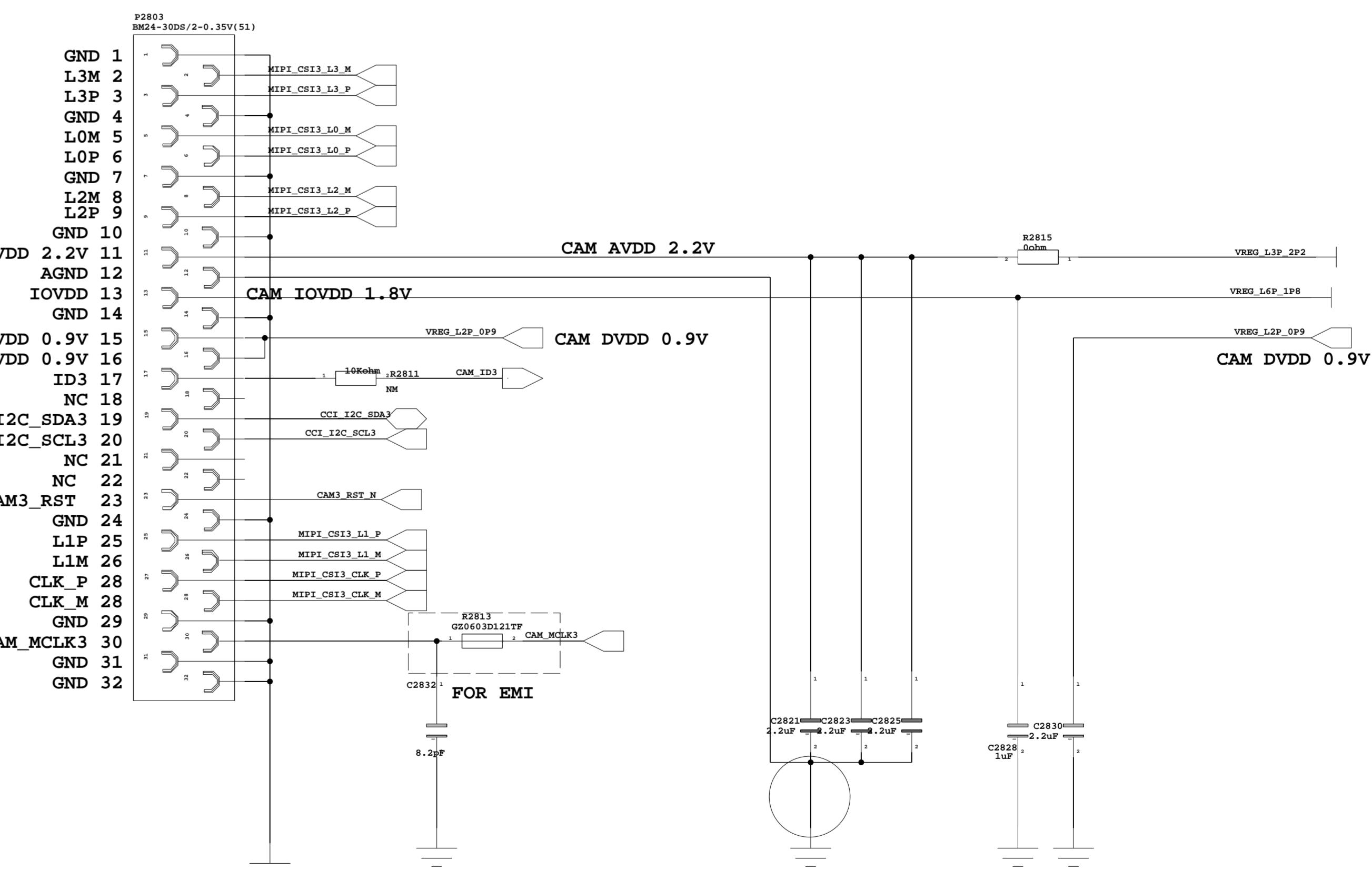
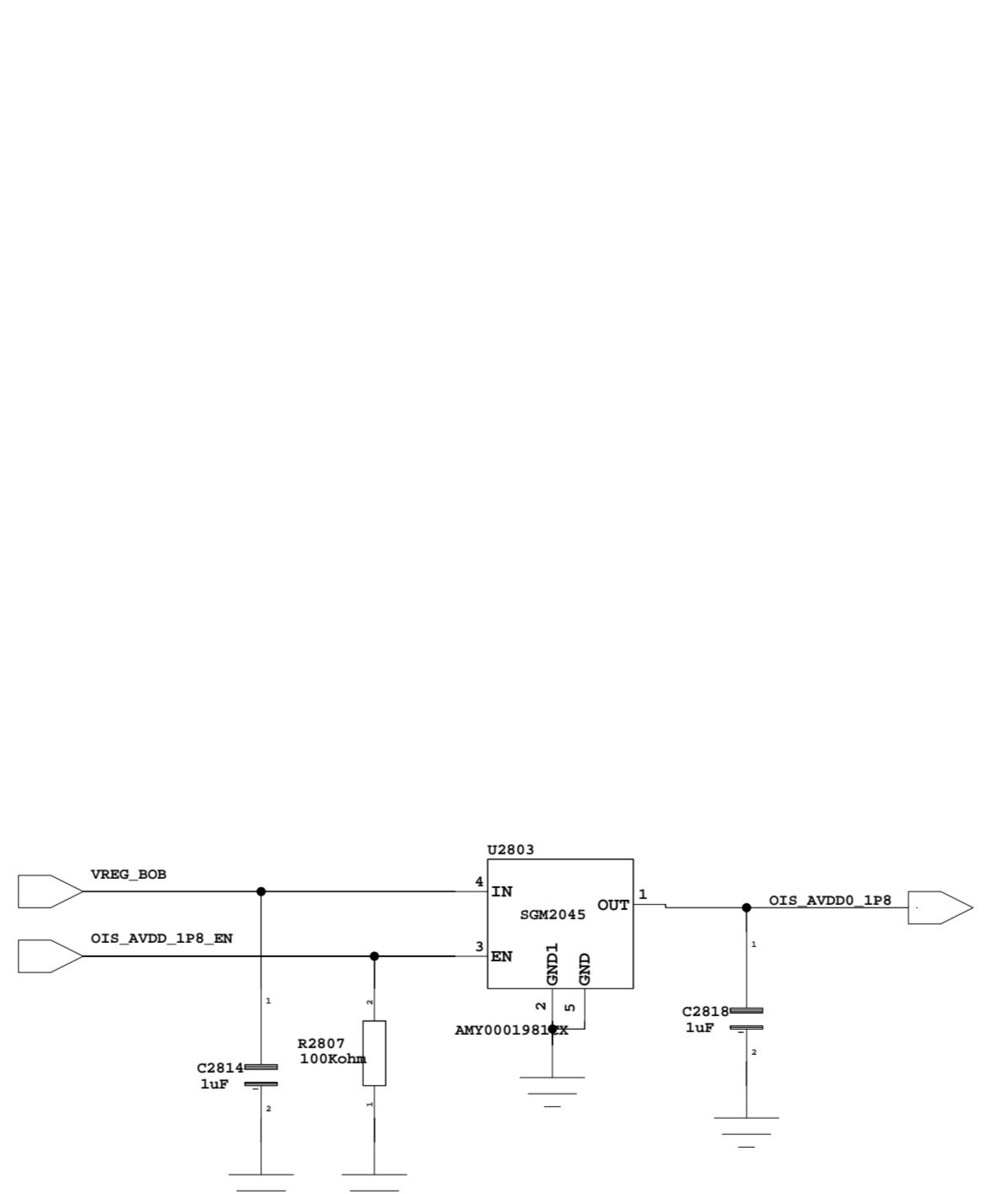
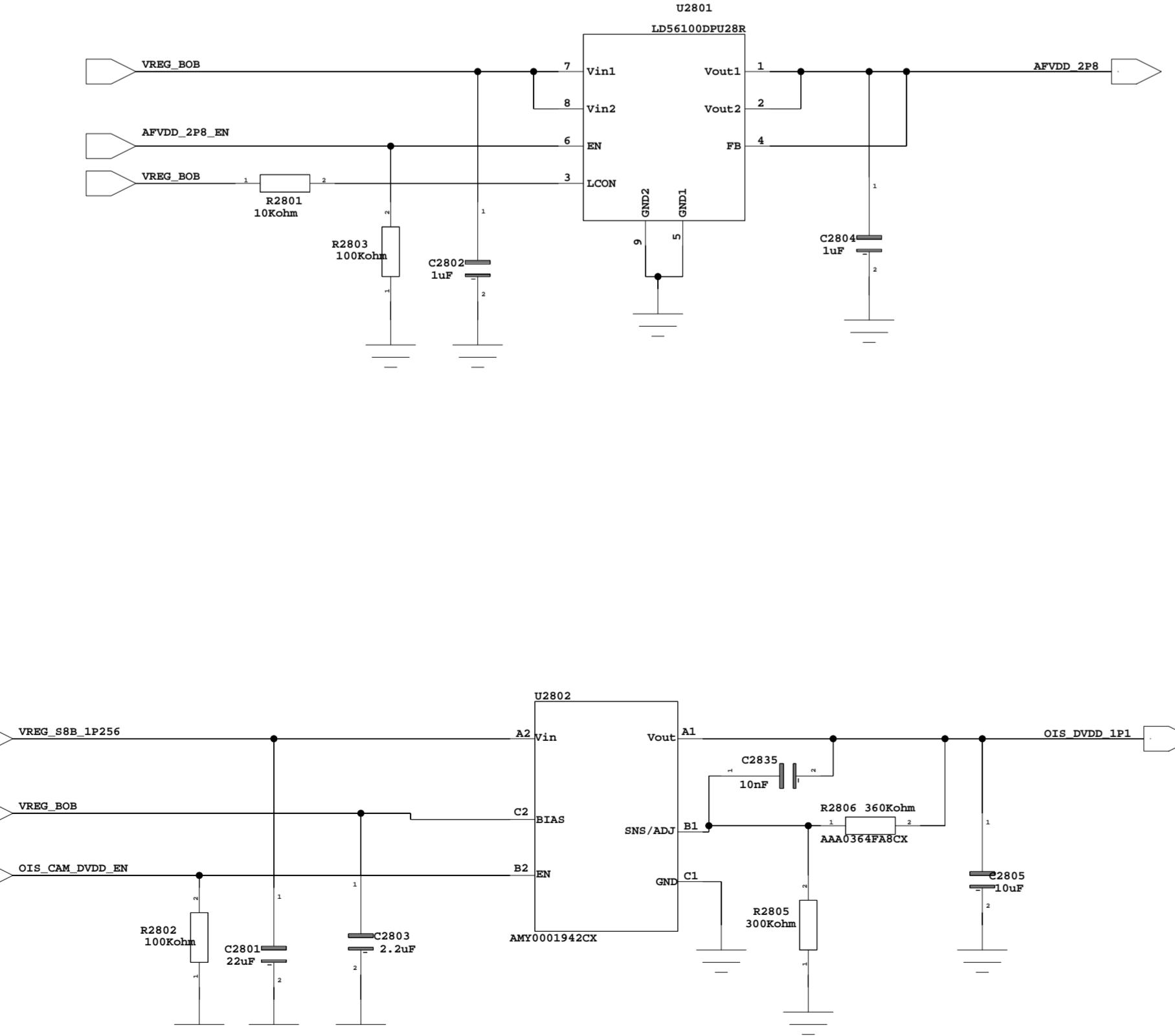
50M OIS CAMERA

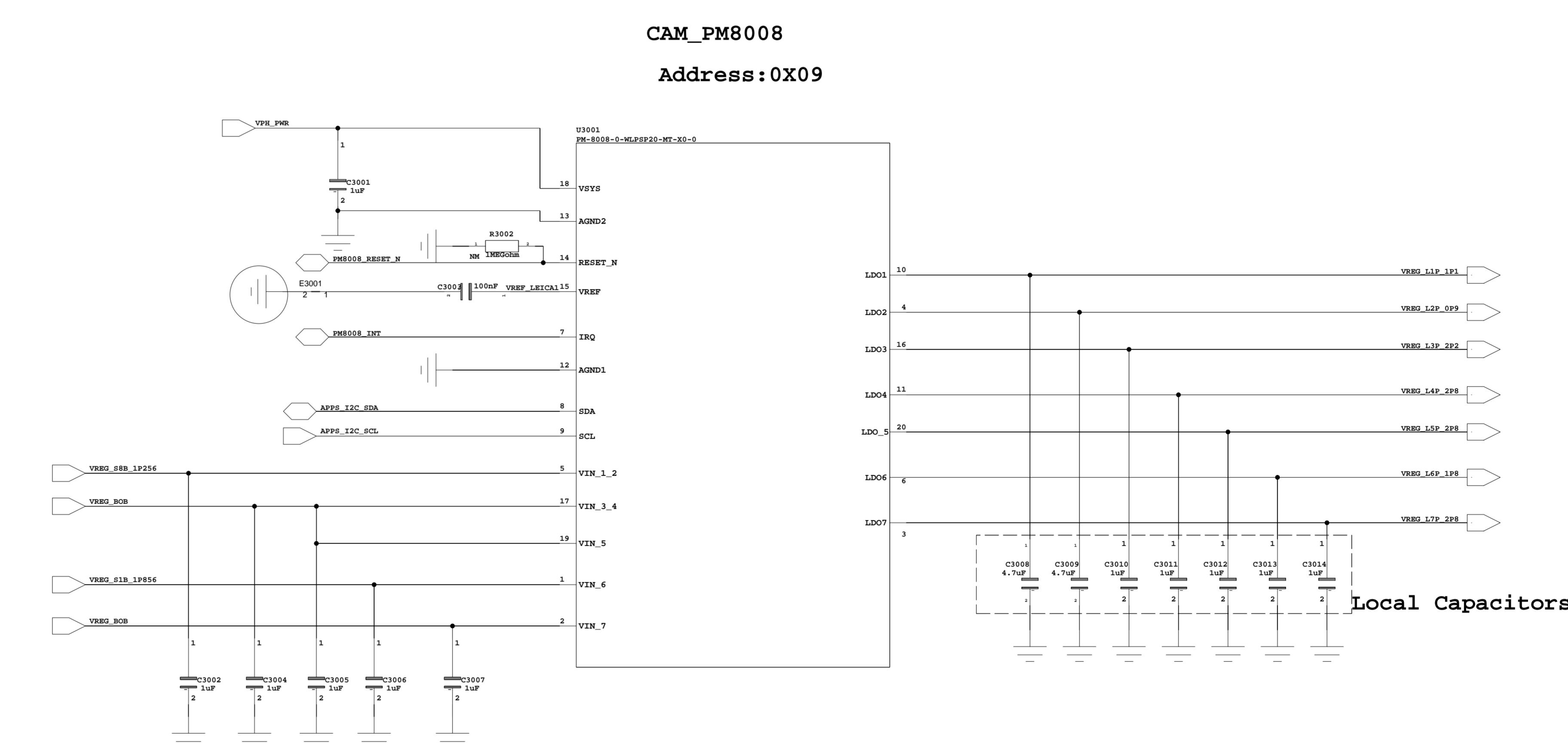


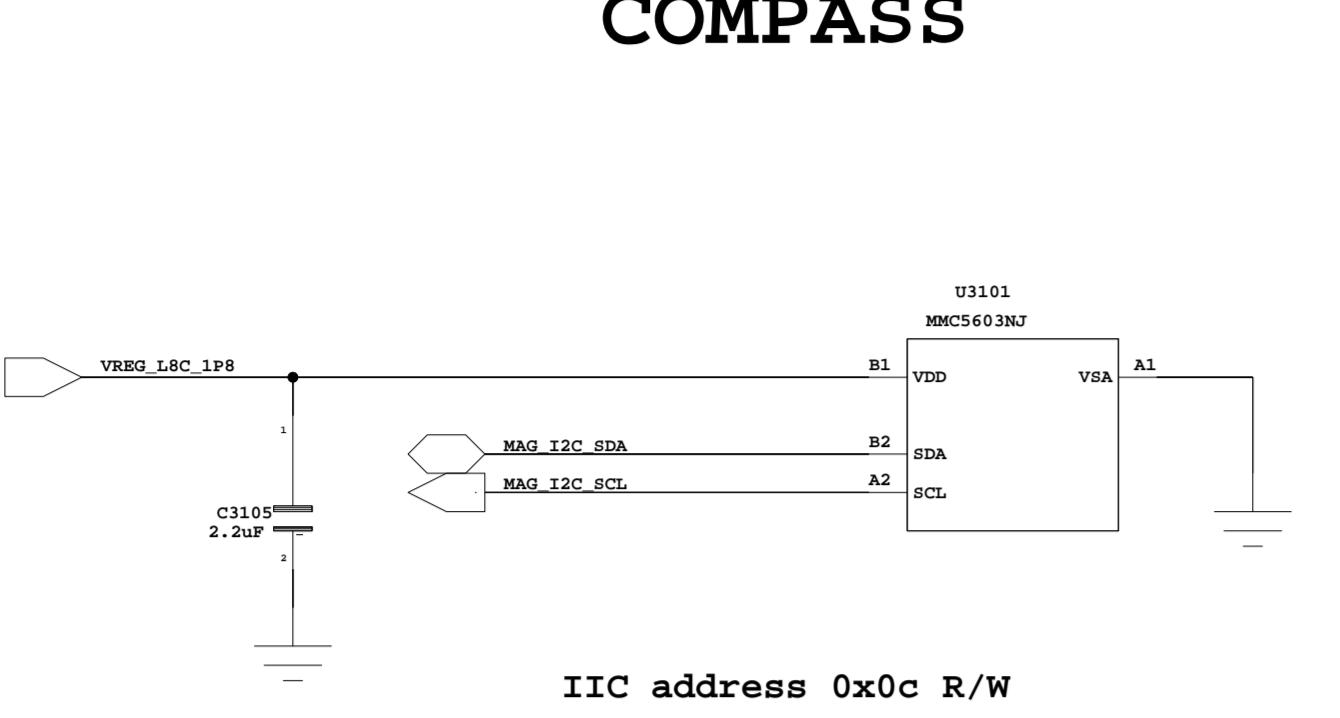
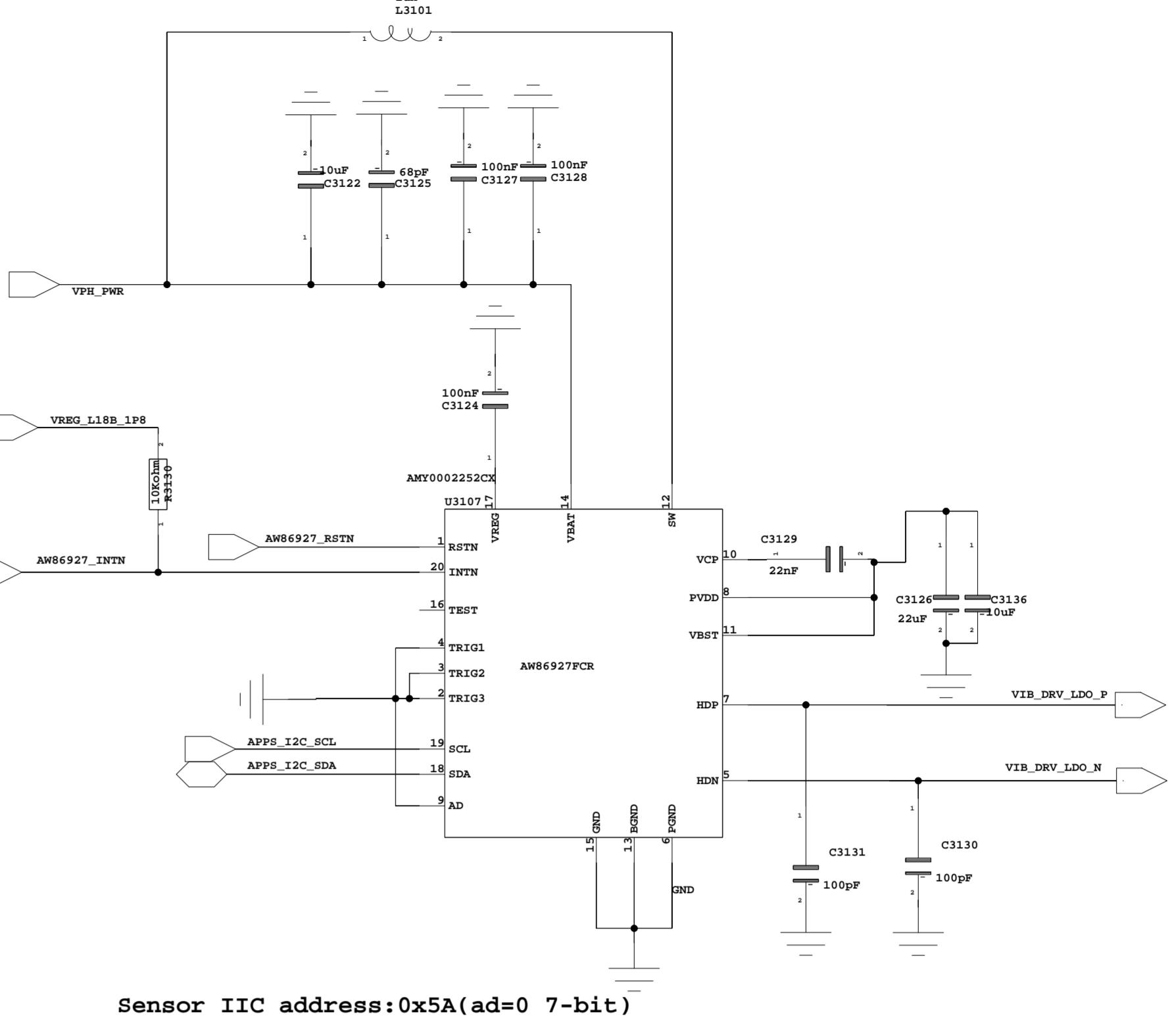
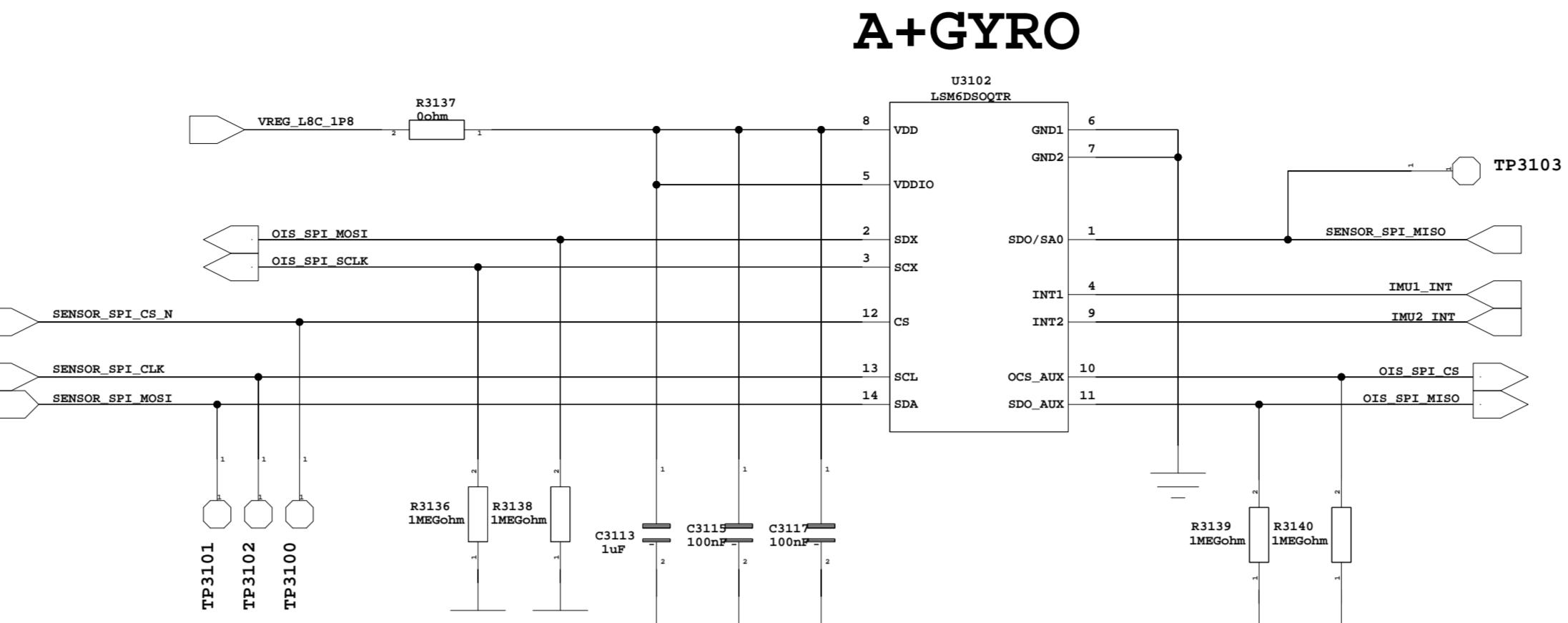
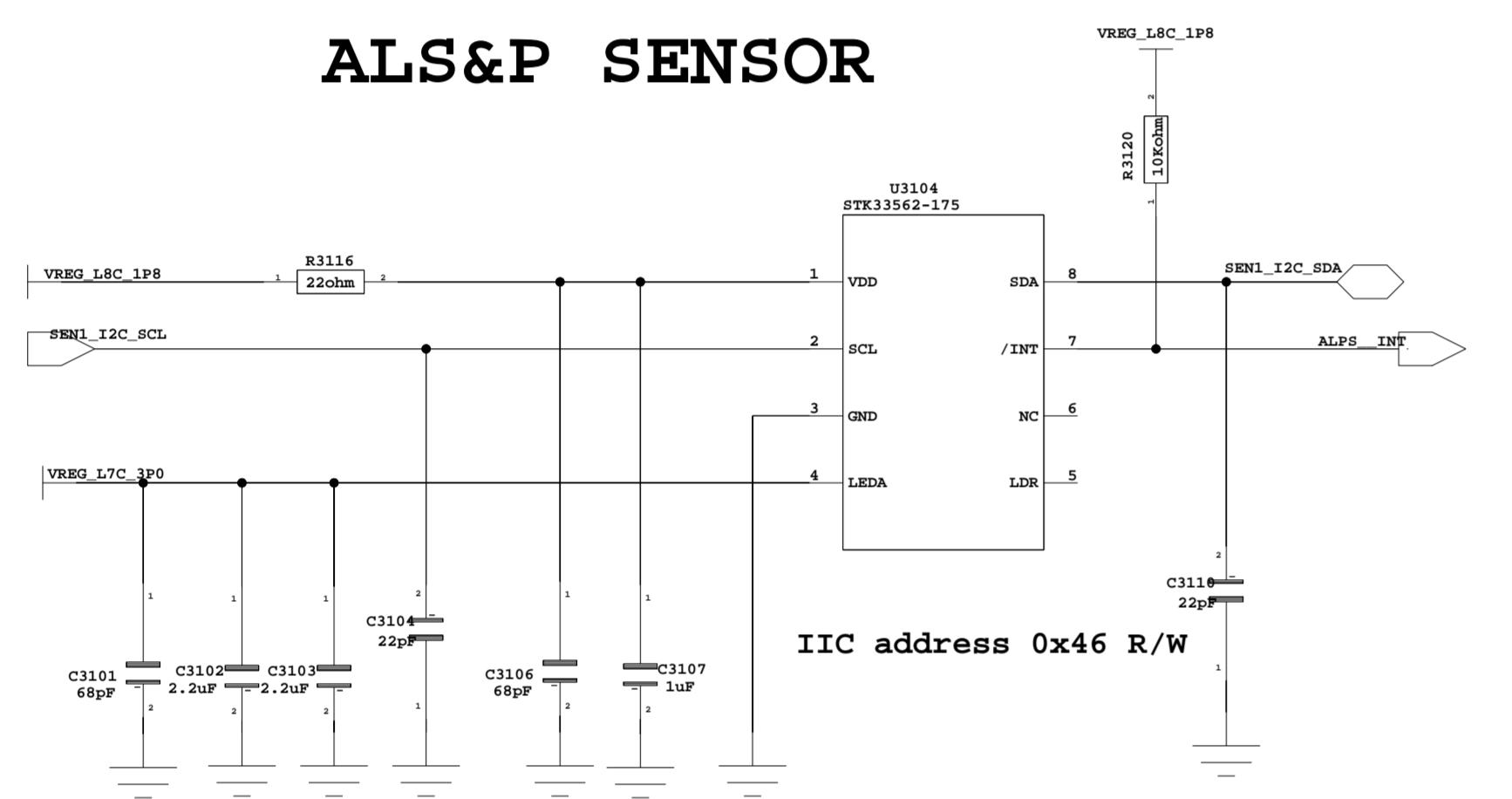
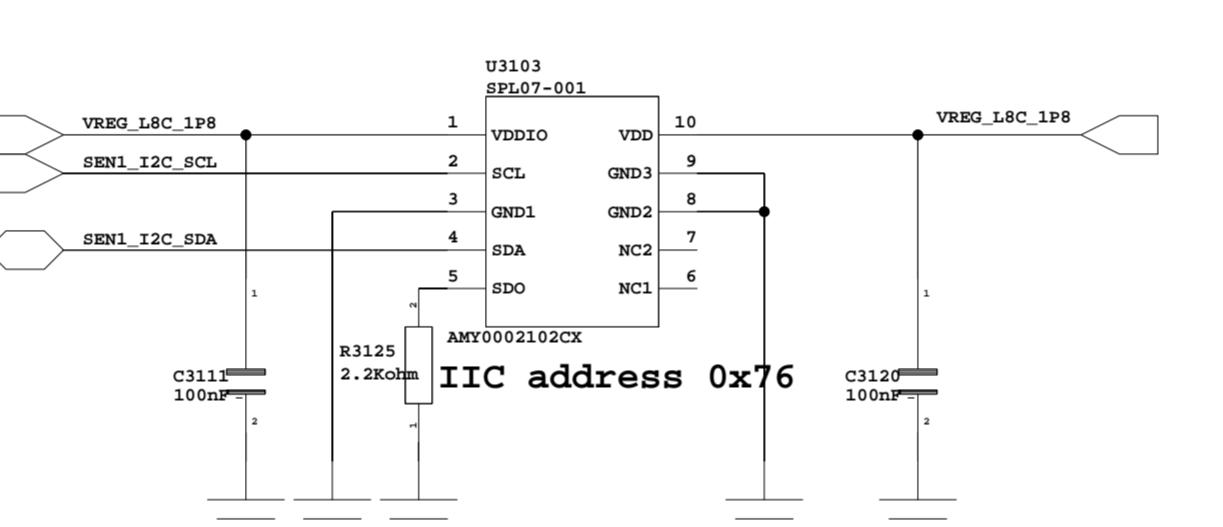
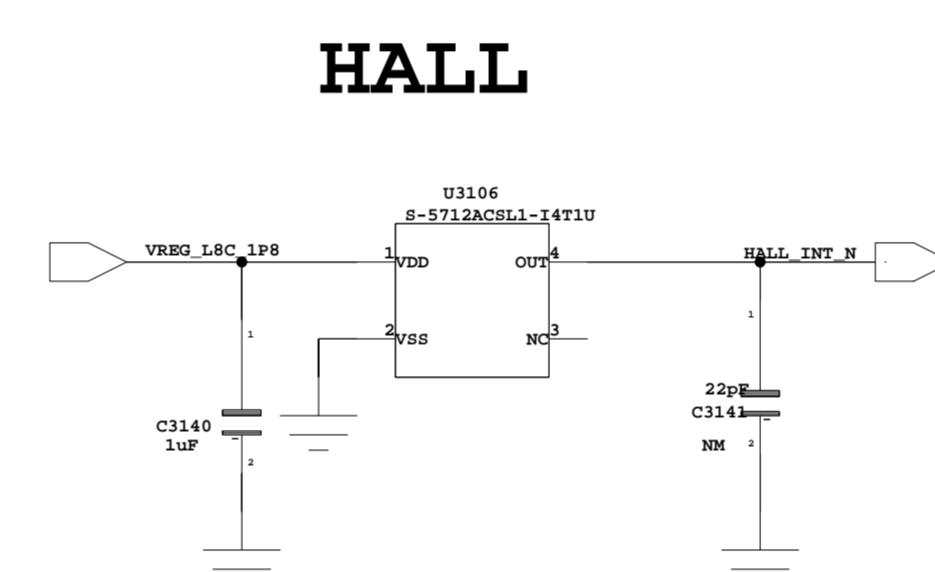
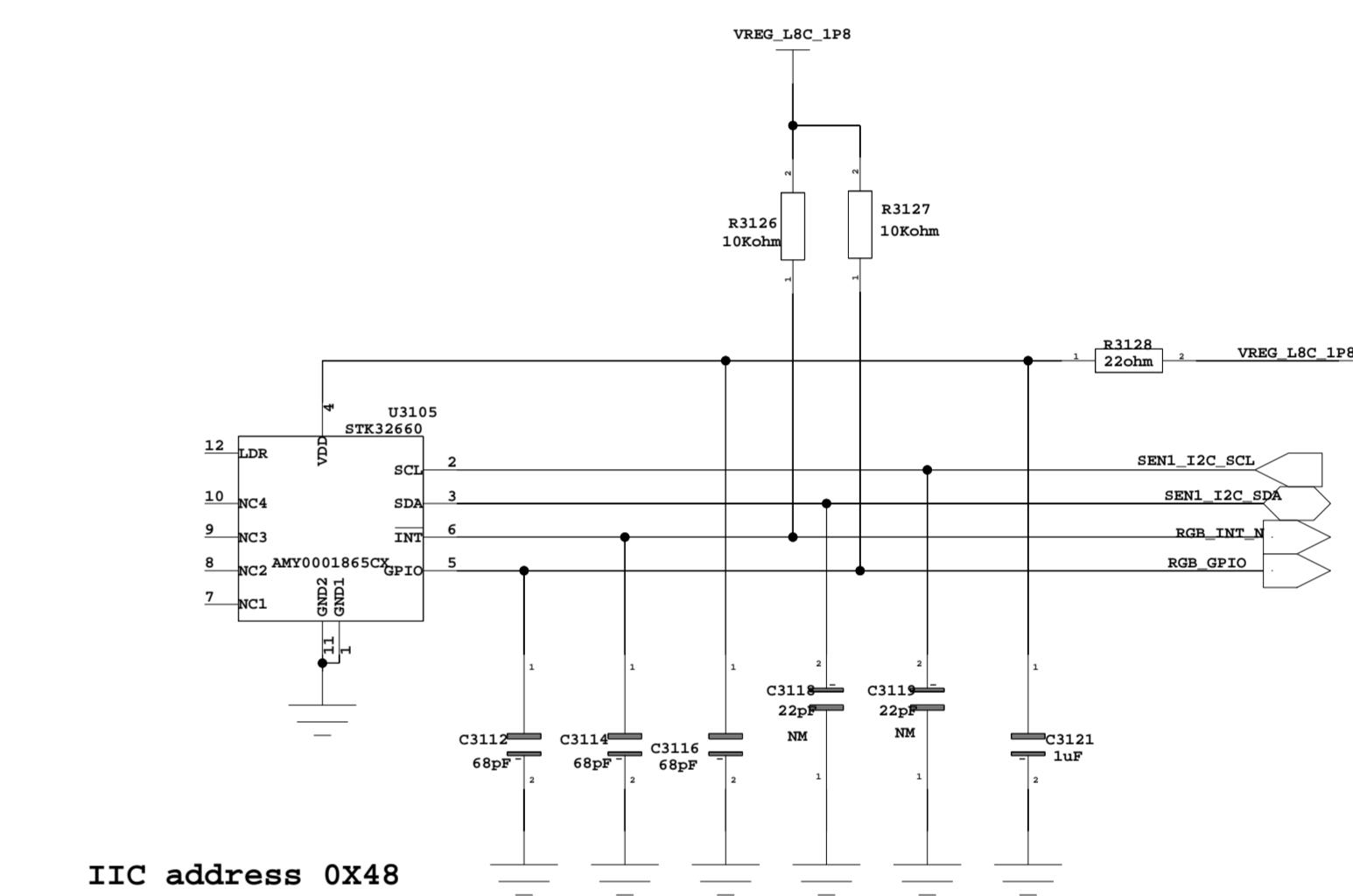
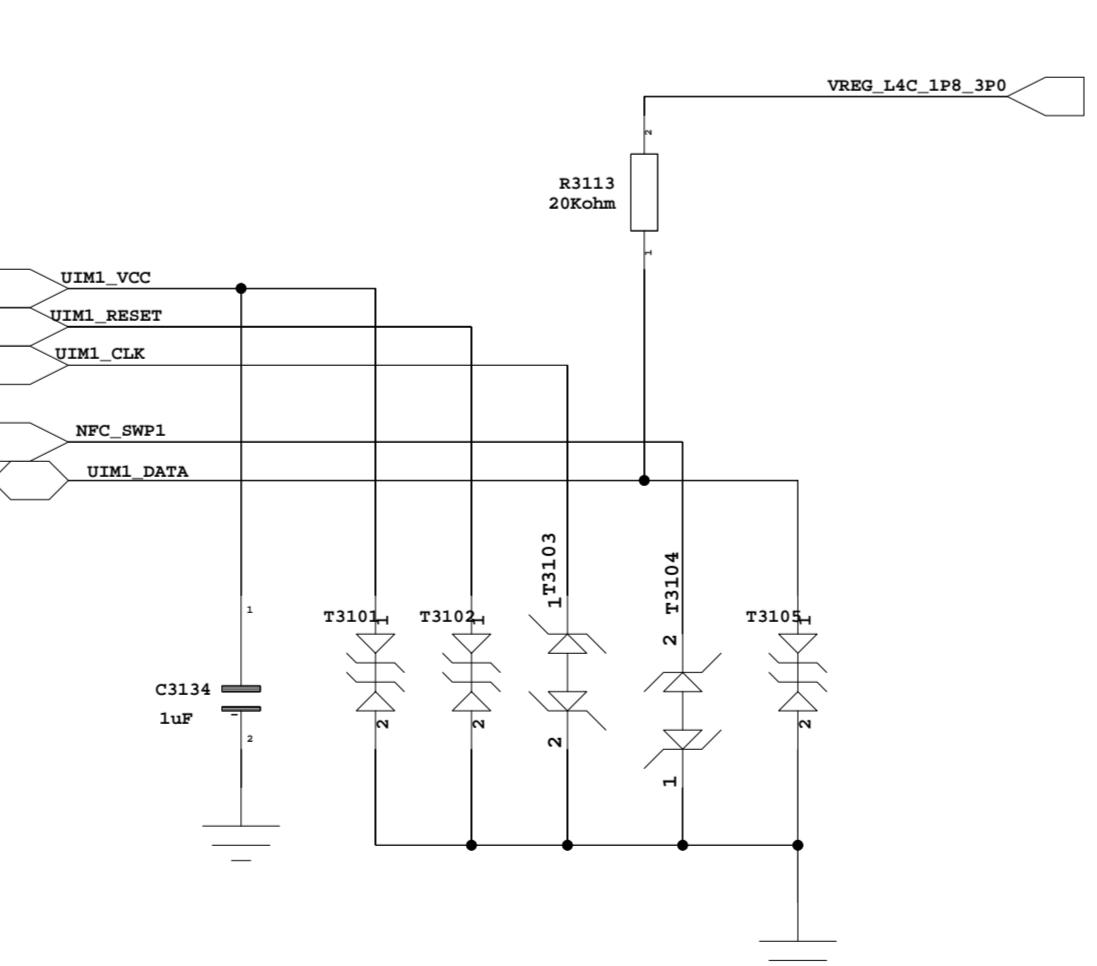
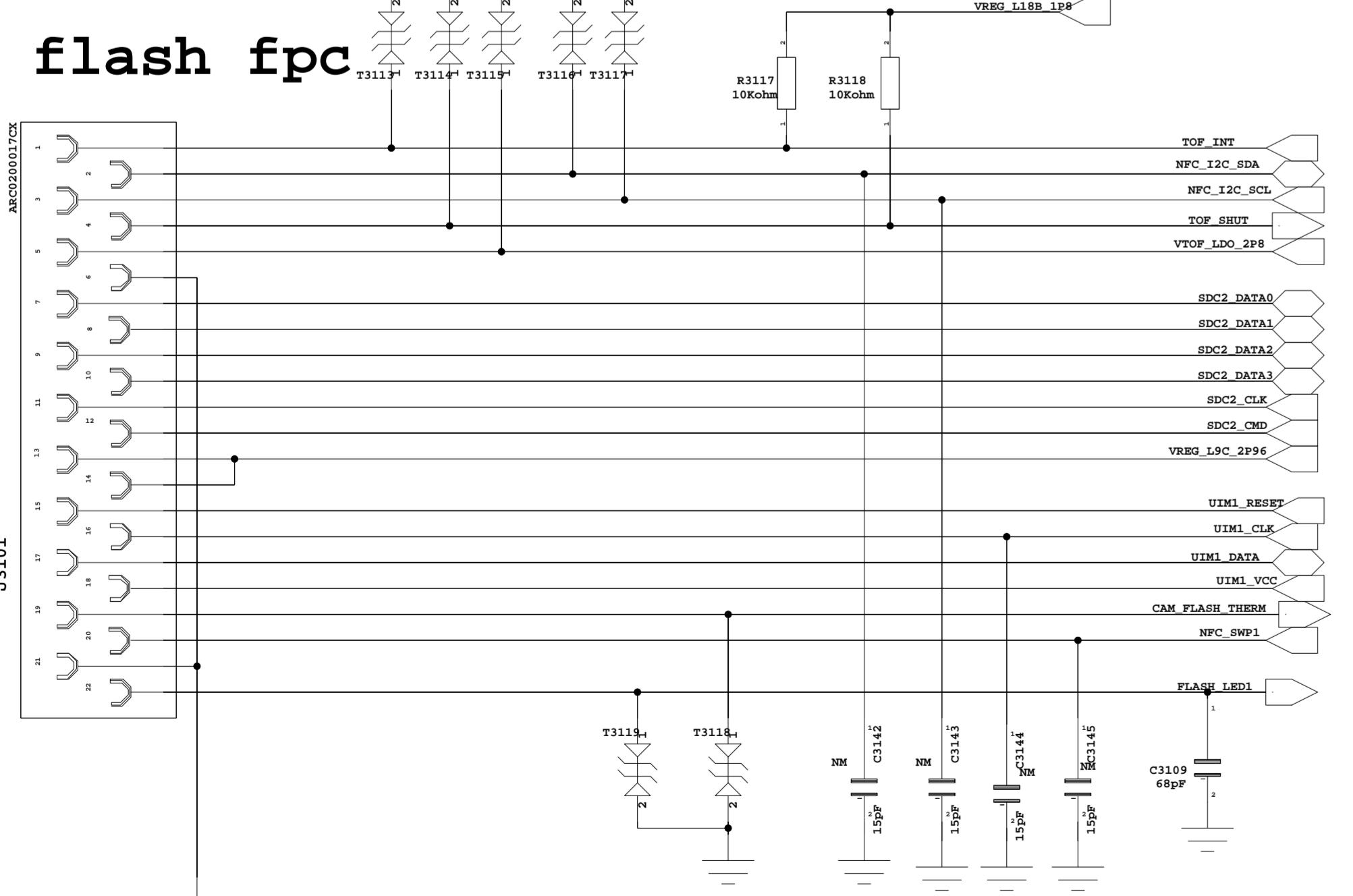
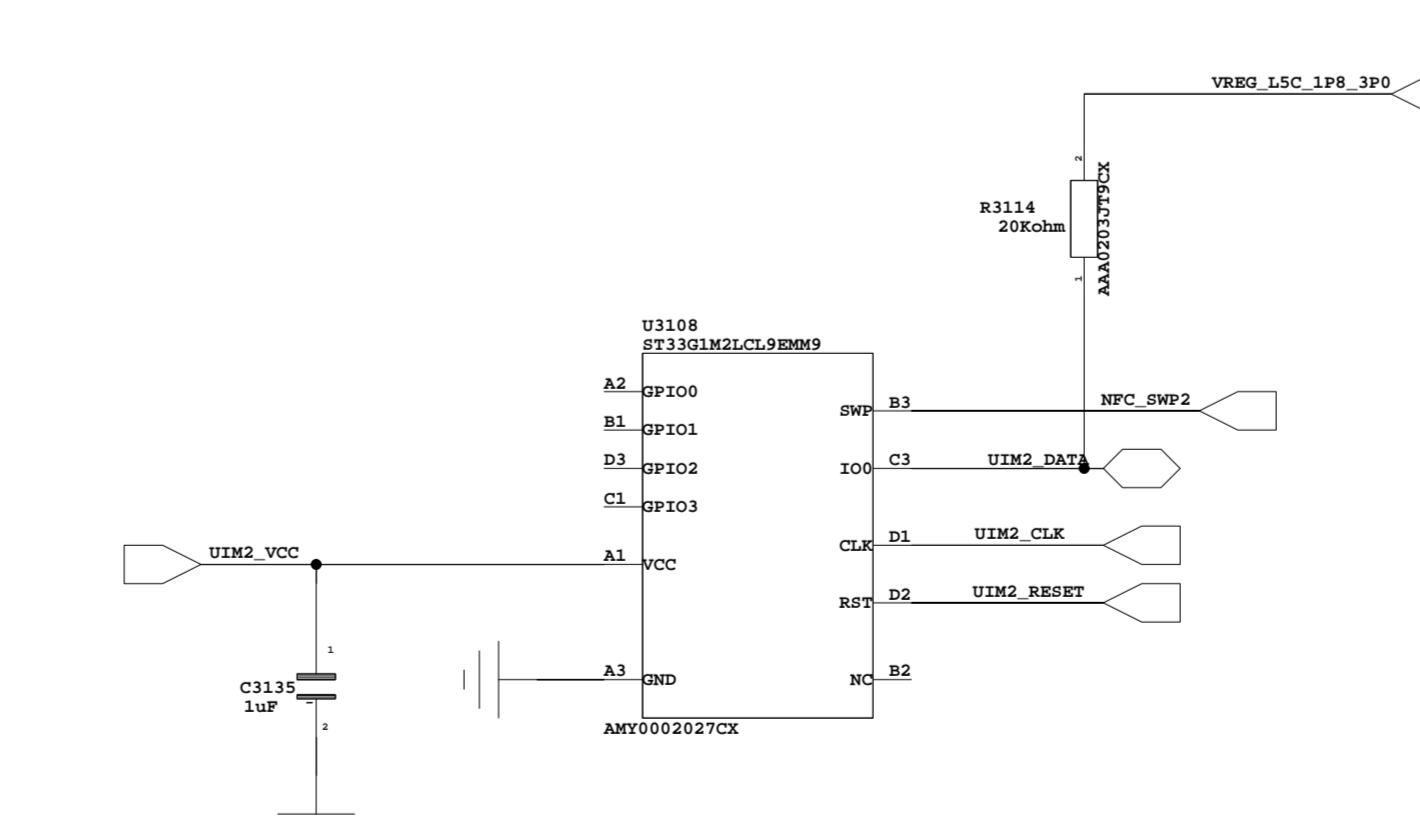
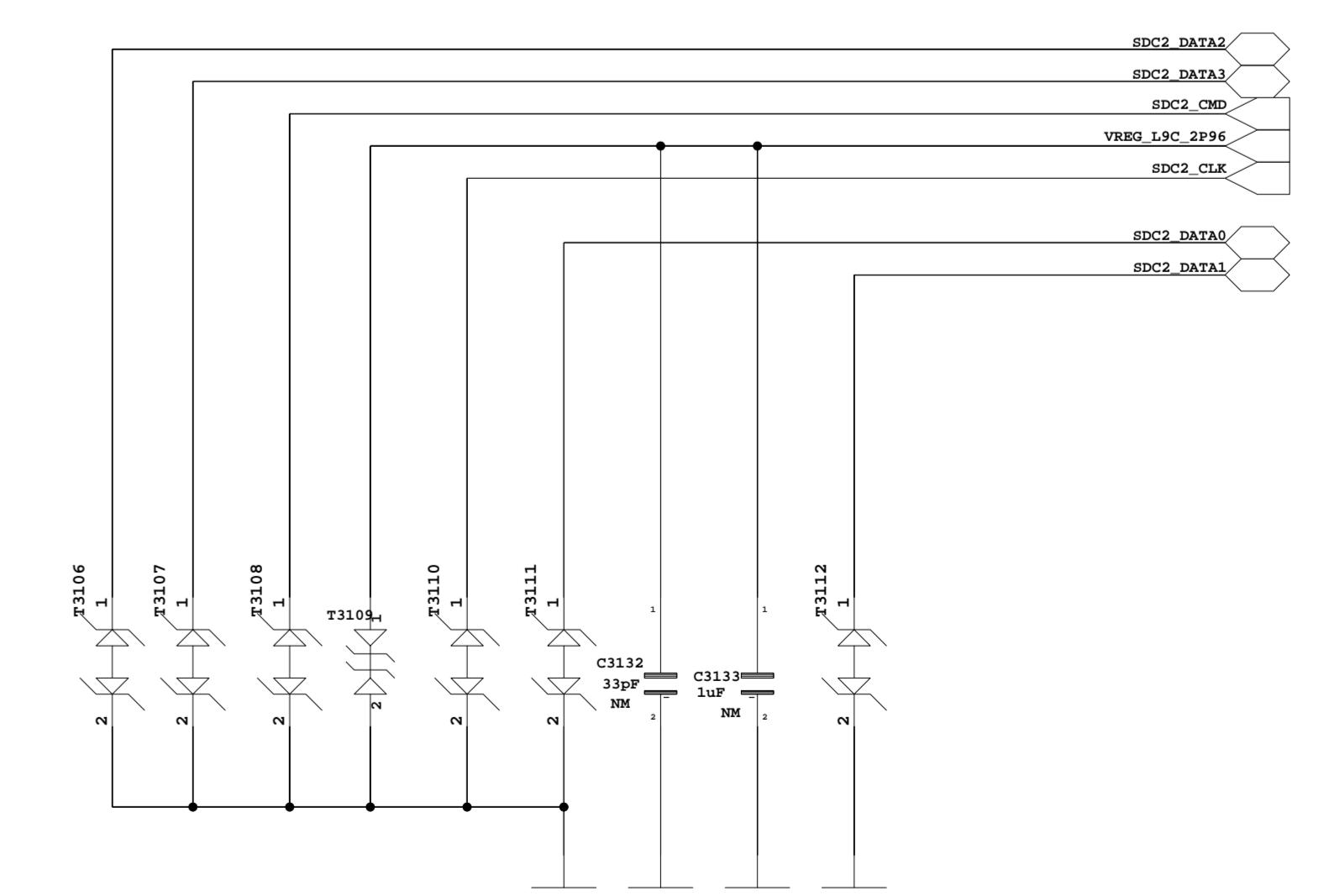
DVDD 1.0-1.2V 1206mA
AVDD28 2.7-2.9V 99mA
AVDD18 1.7-1.9V 74mA
DVDD 1.7-1.9V 3.5mA



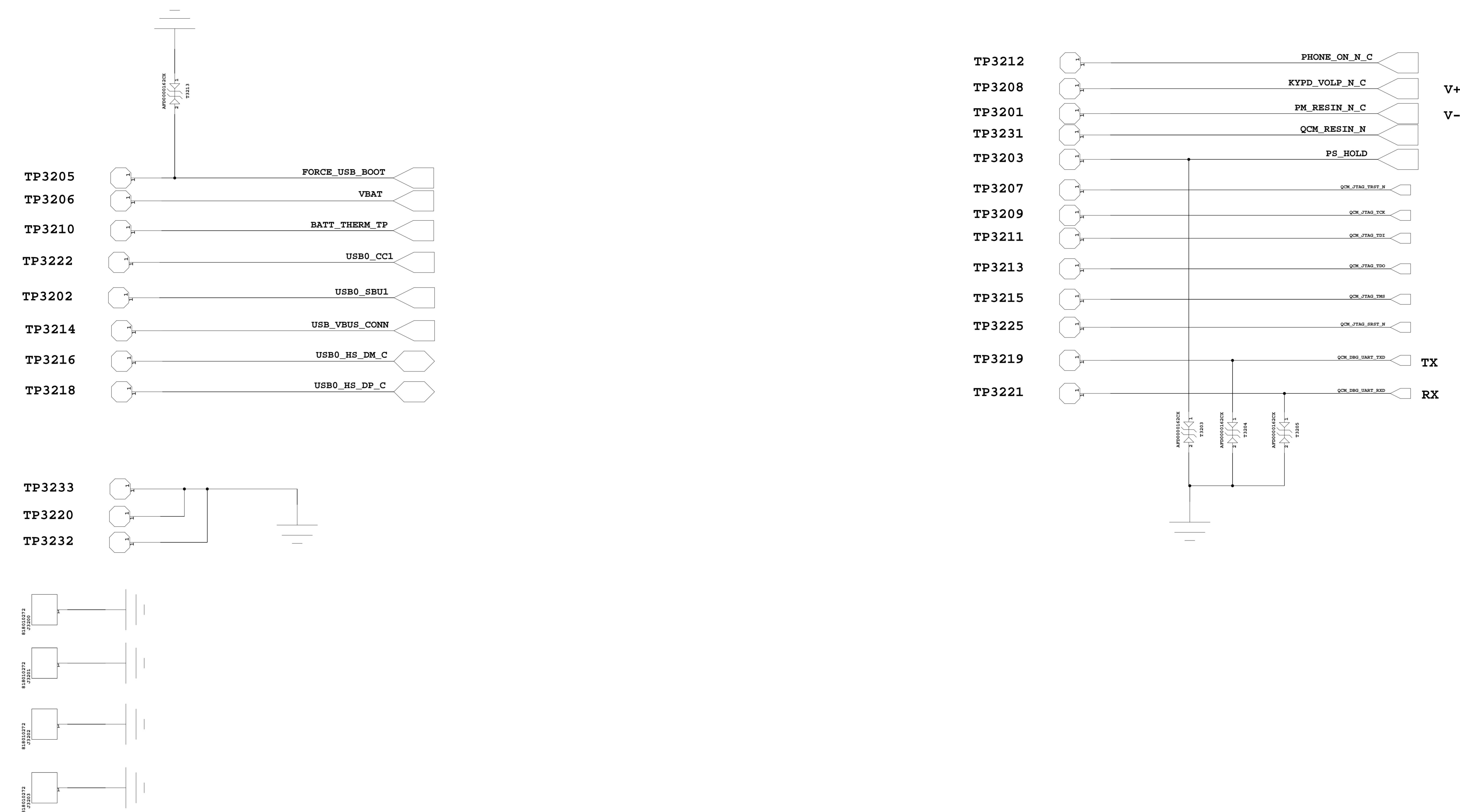
50M front camera



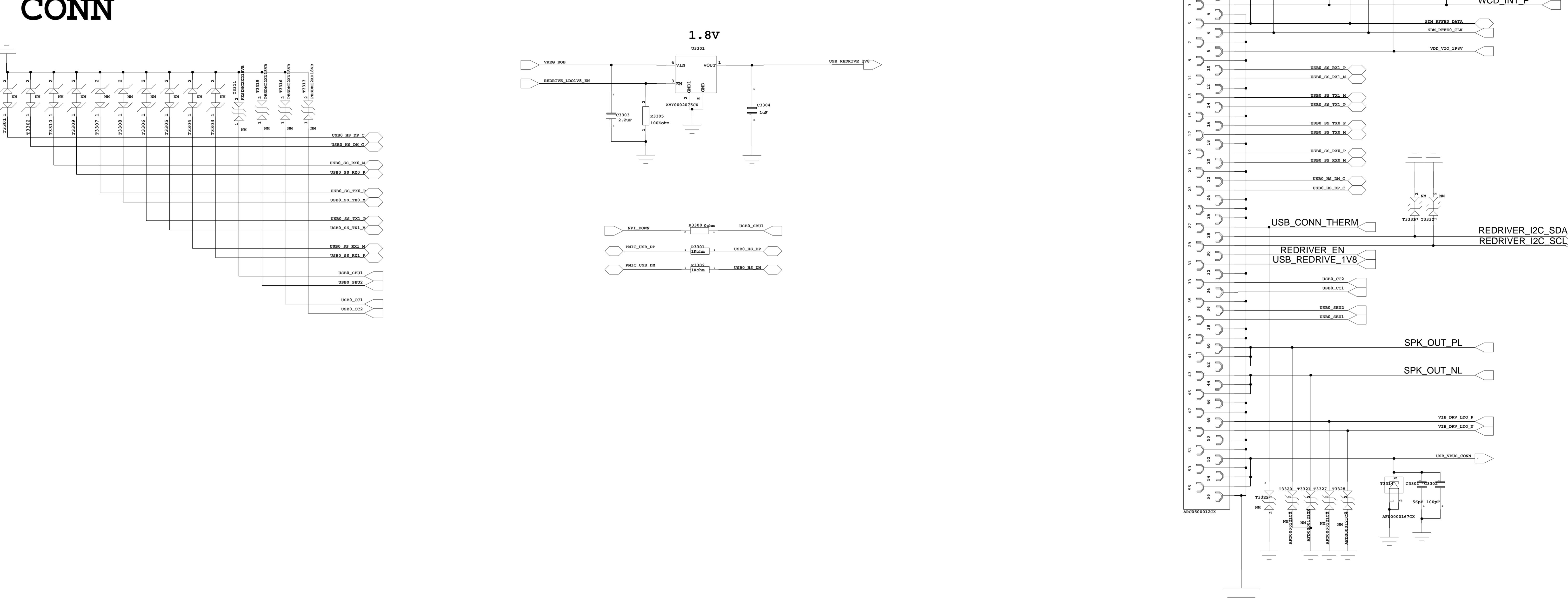


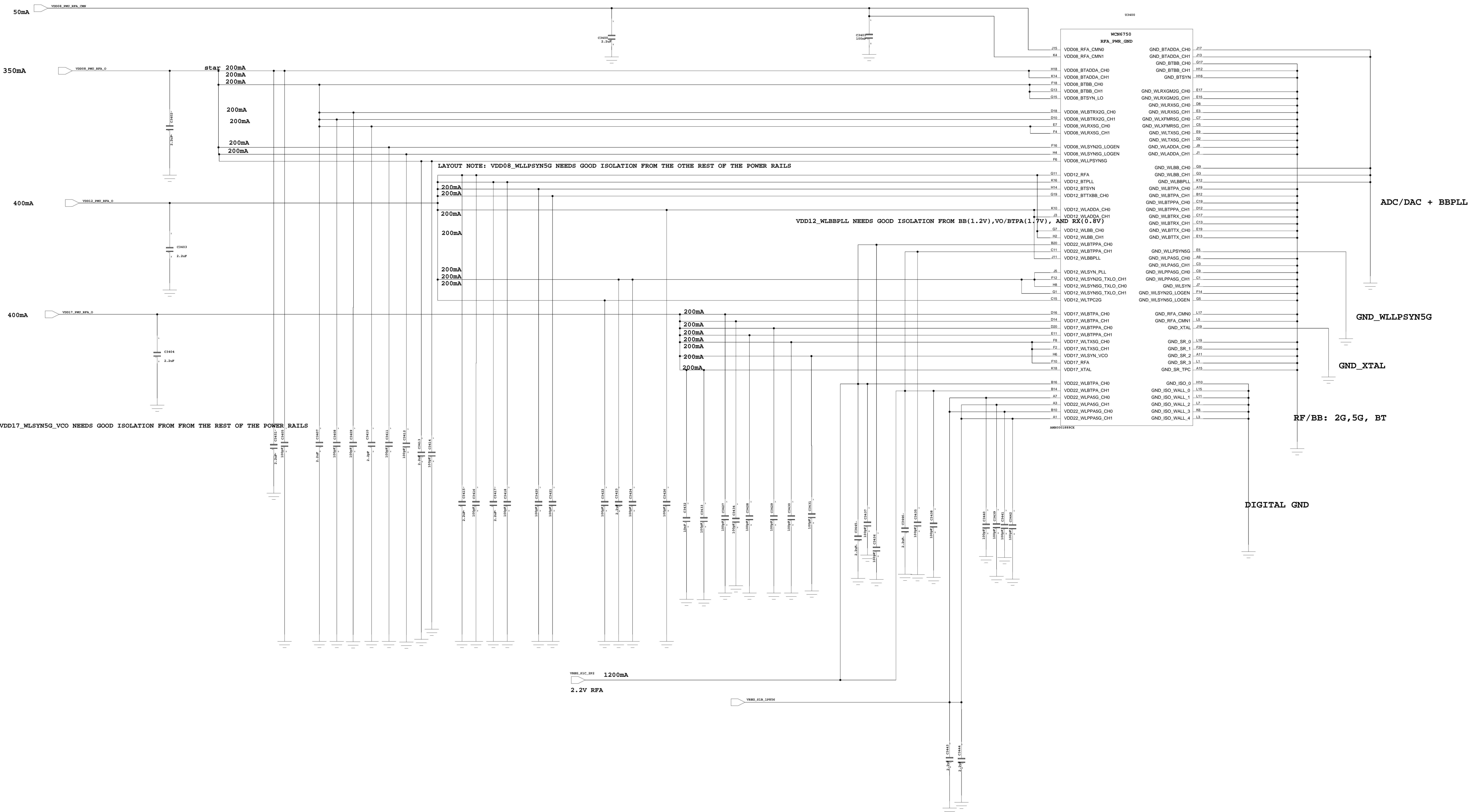
COMPASS**A+GYRO****VIBRATOR****ALS&P SENSOR****Barometer****HALL****RGB SENSOR****SIM CARD****E-SIM2****SD CARD**

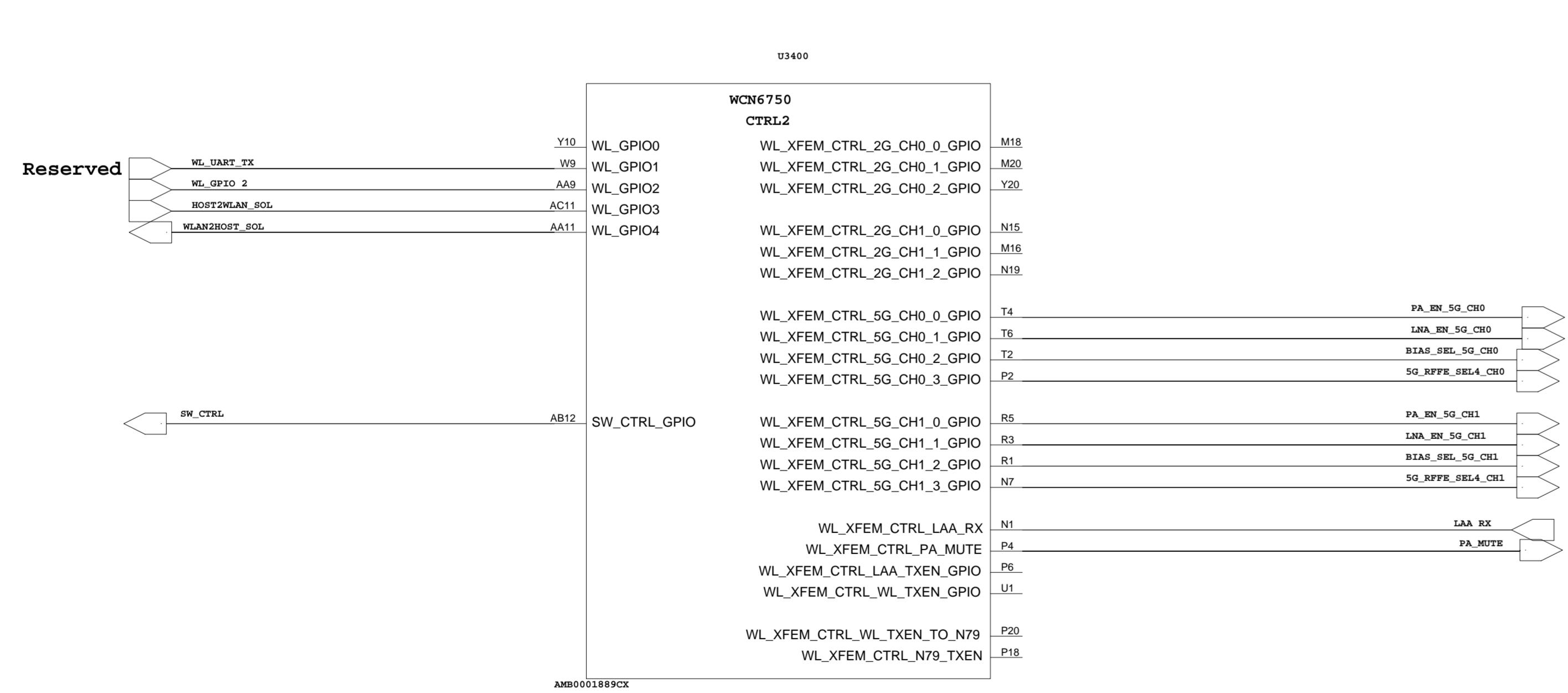
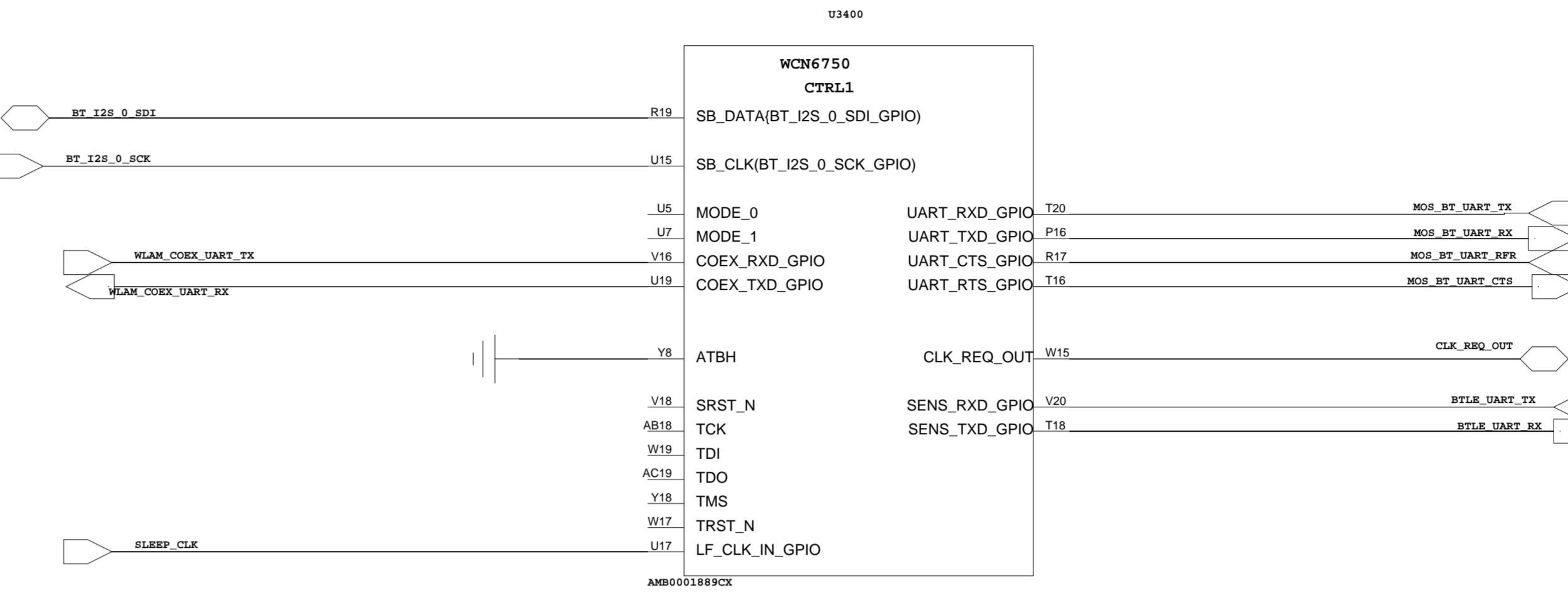
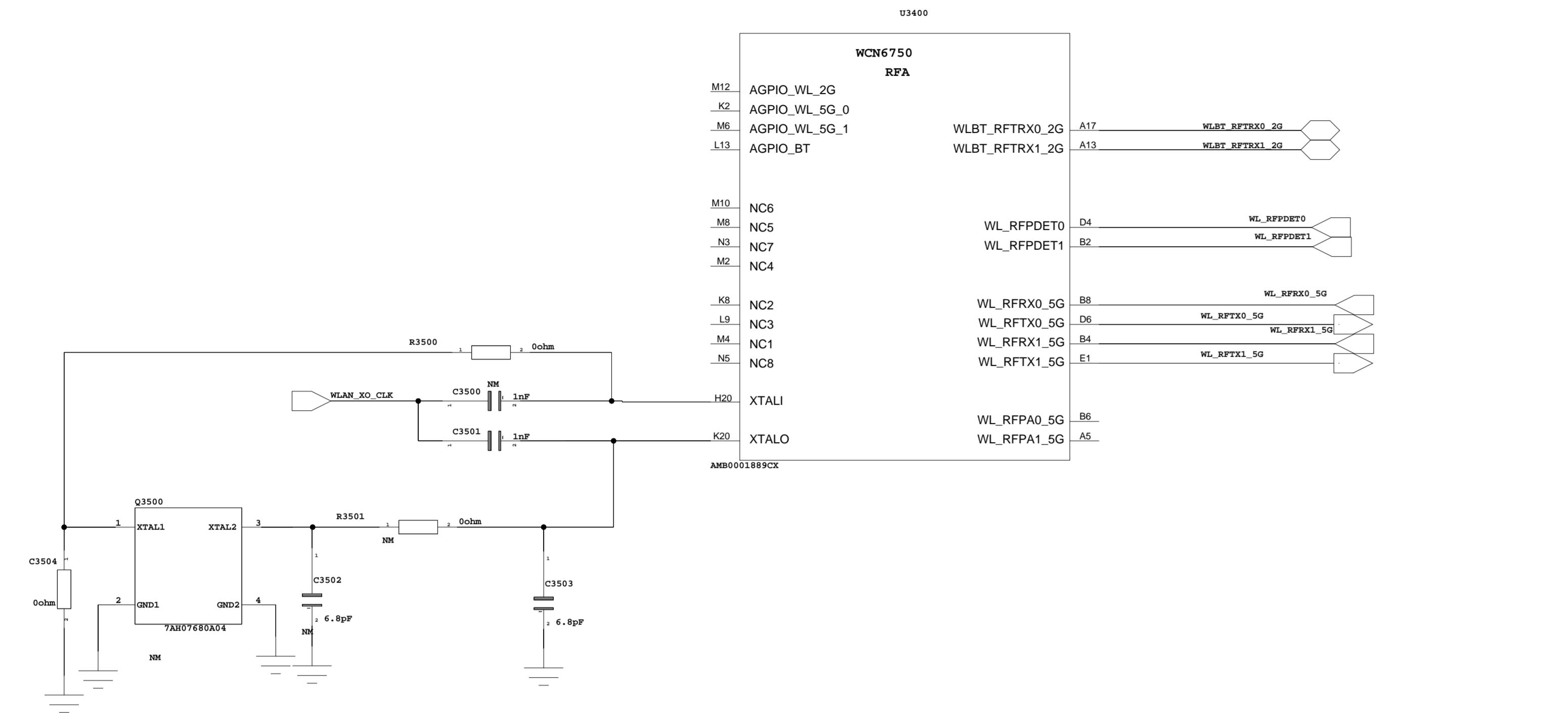
TP FOR NPI TEAM

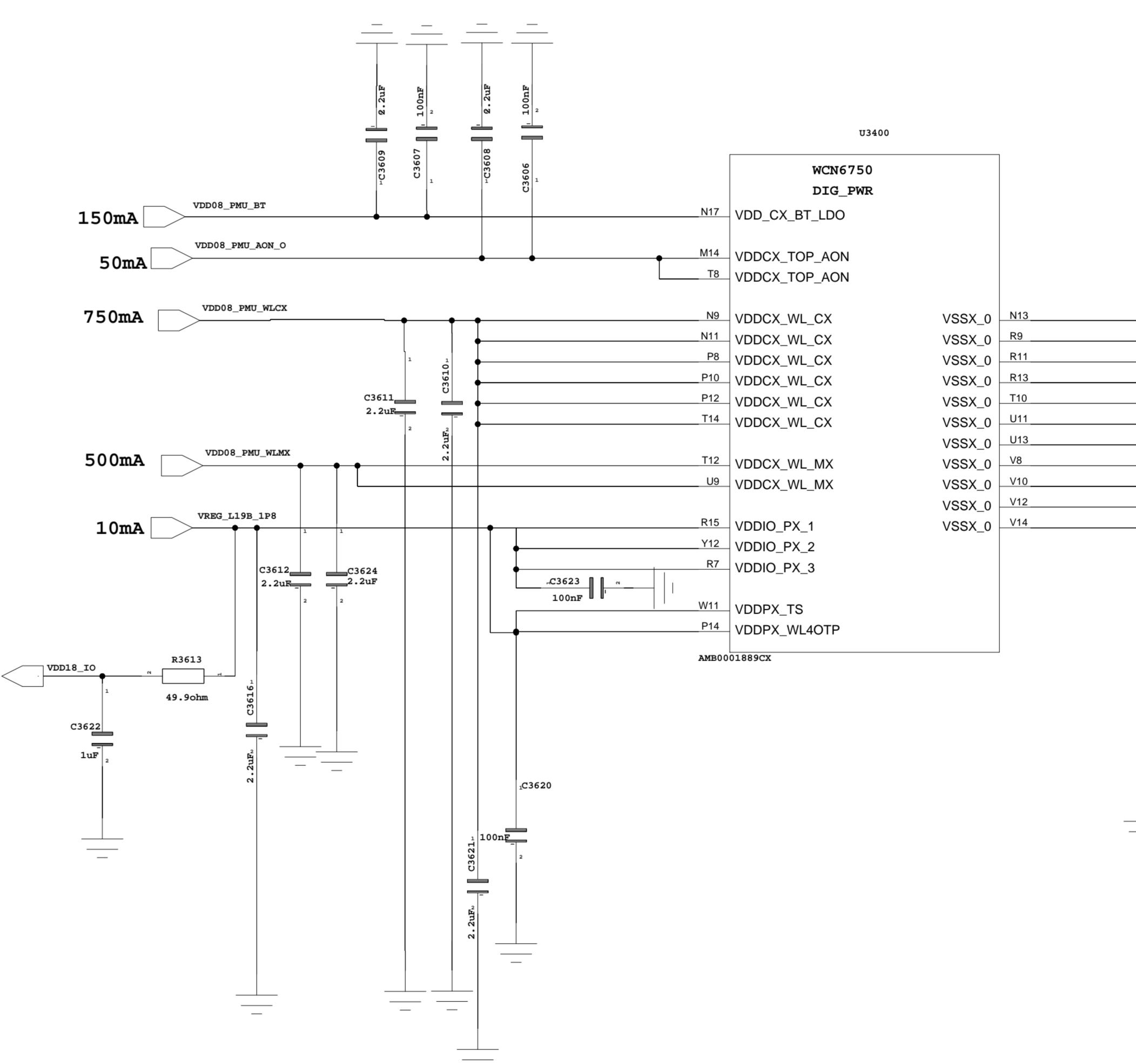
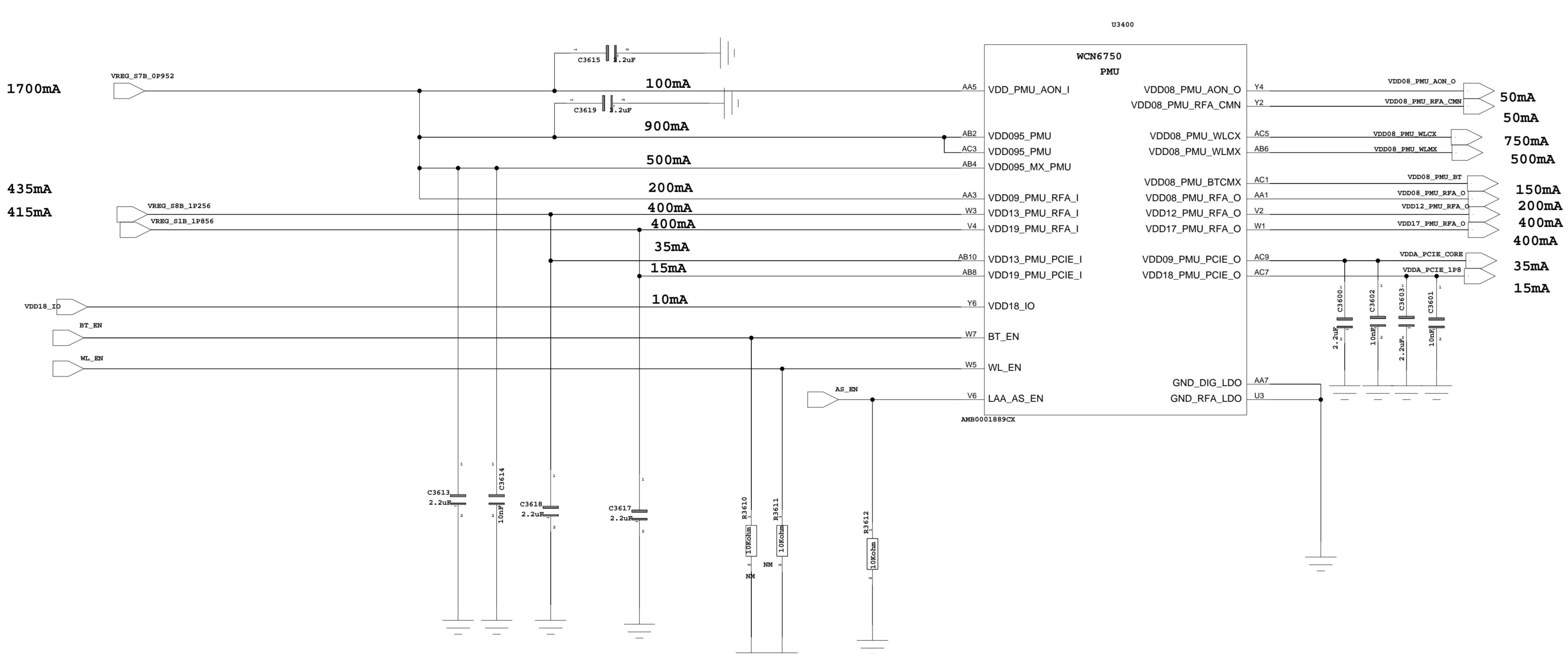
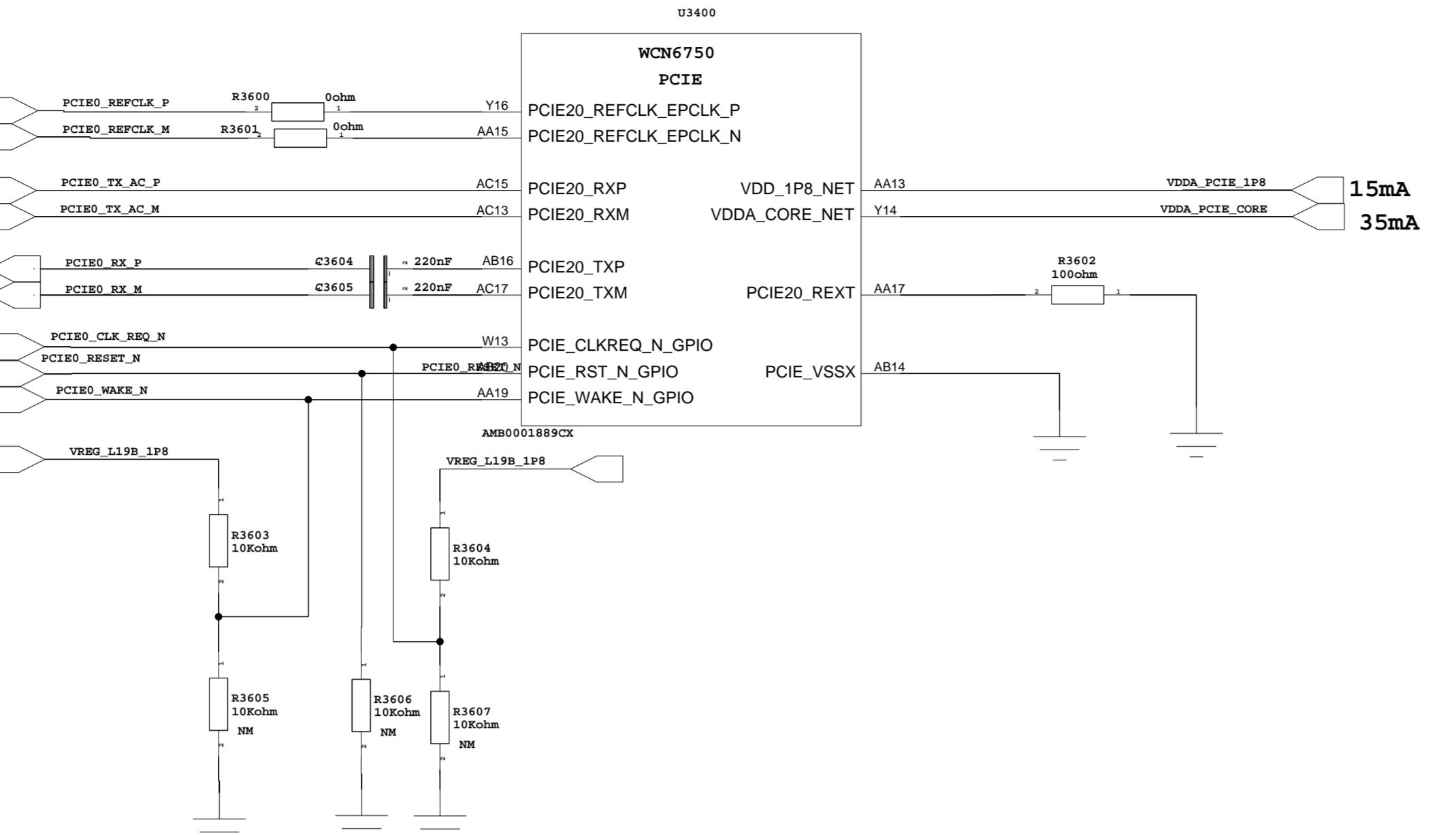


SUB CONN

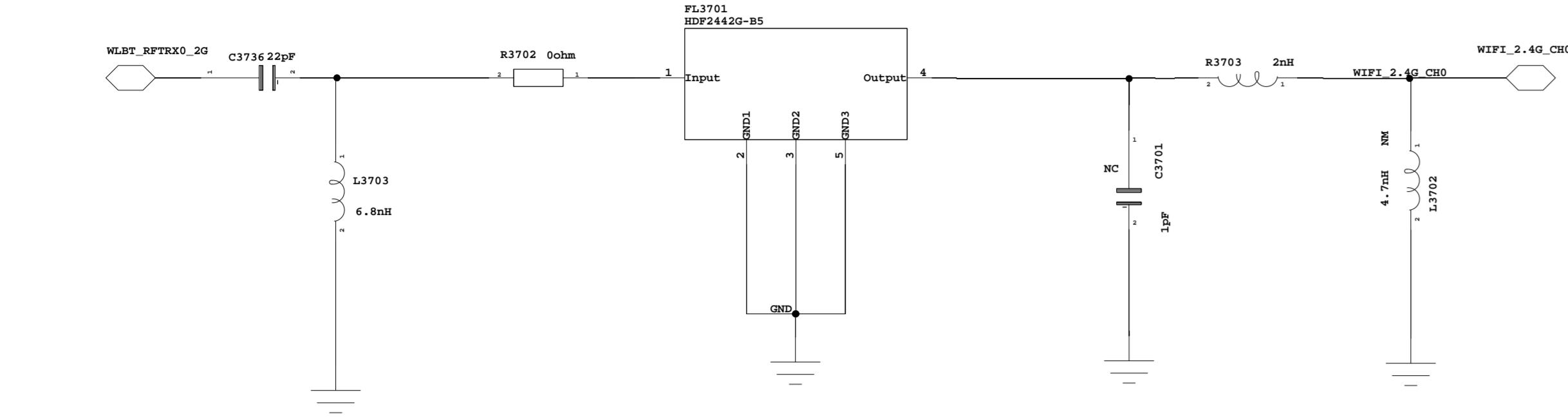




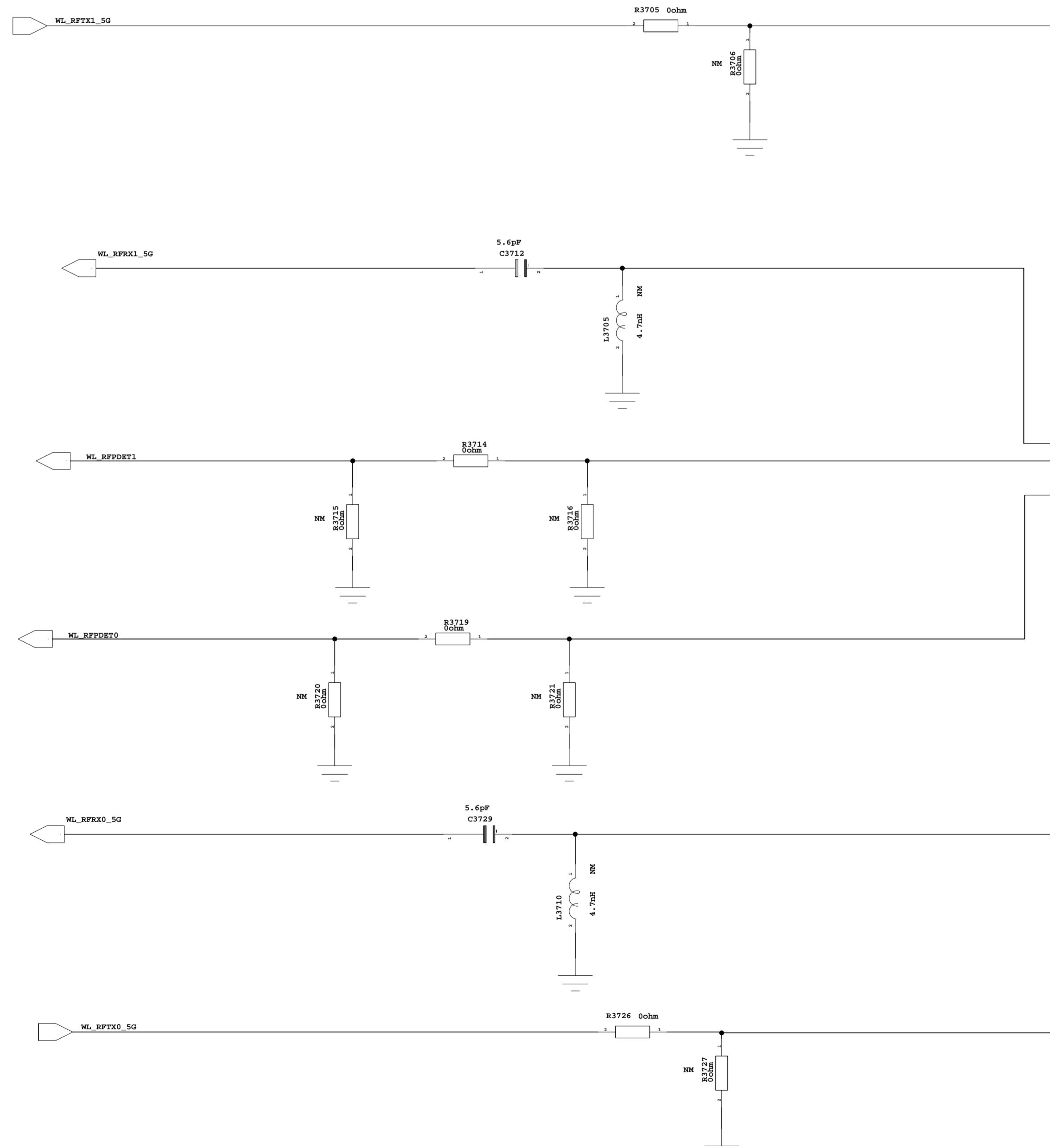
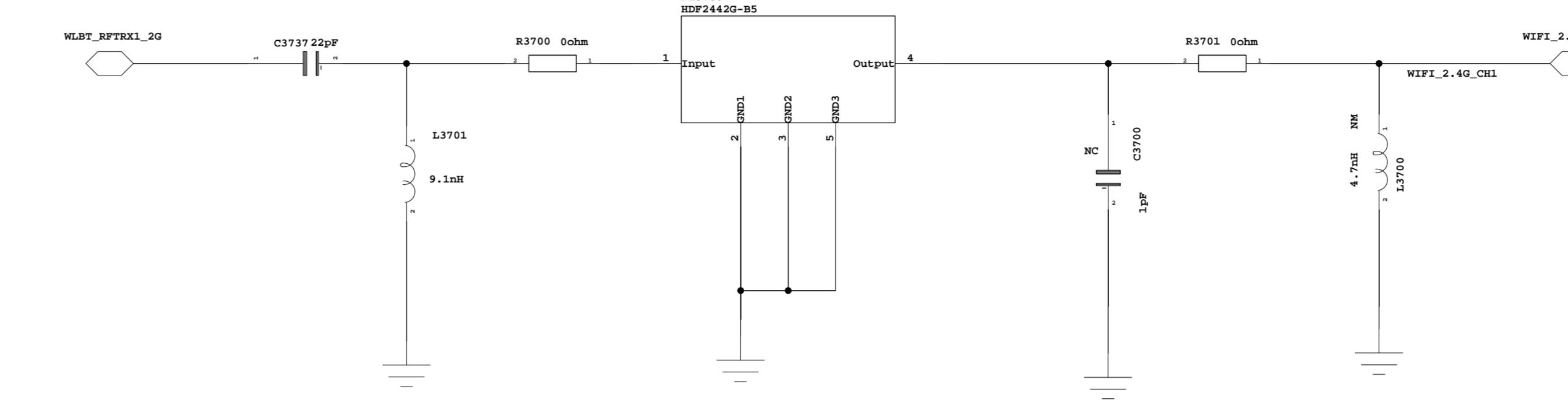




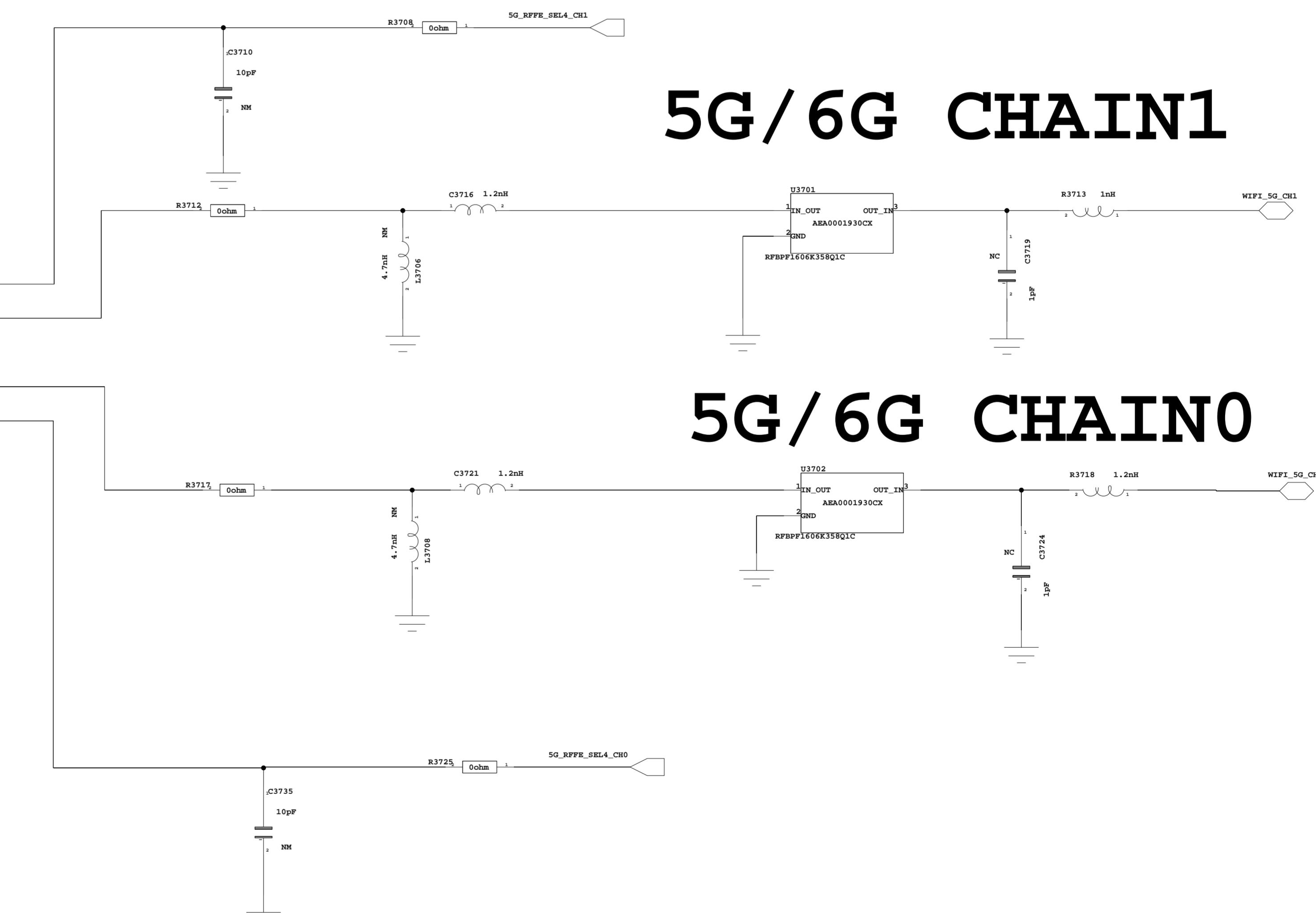
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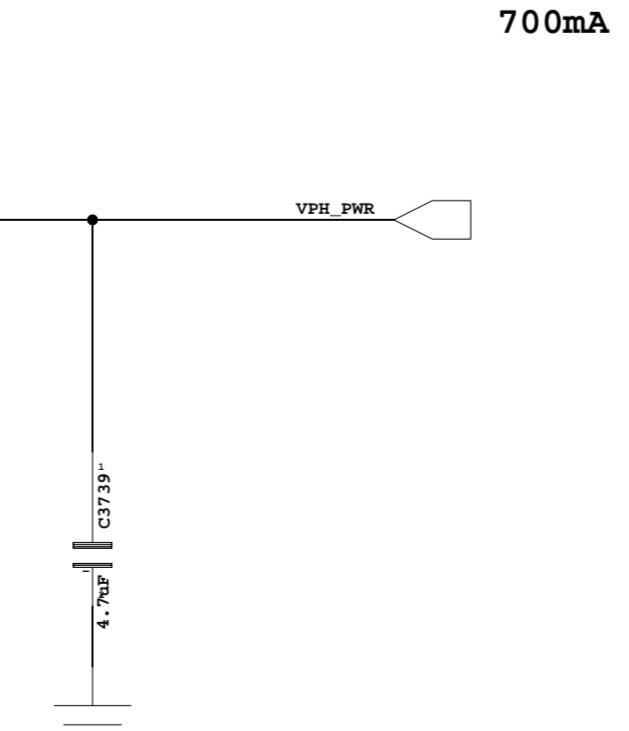
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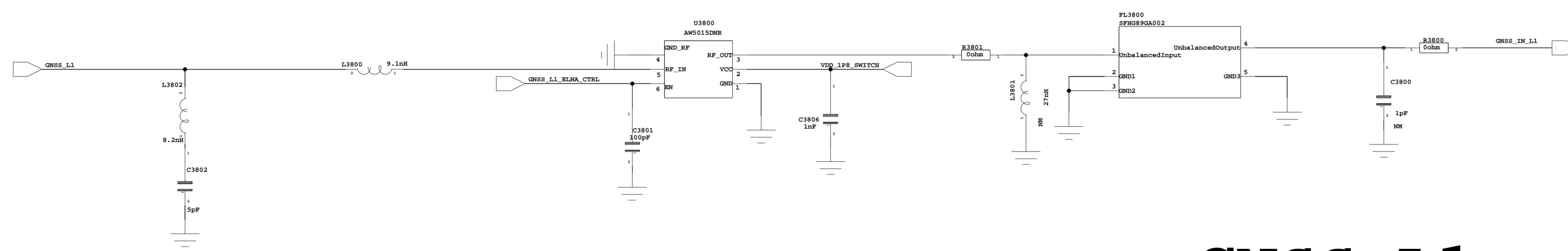


5G/6G CHAIN1

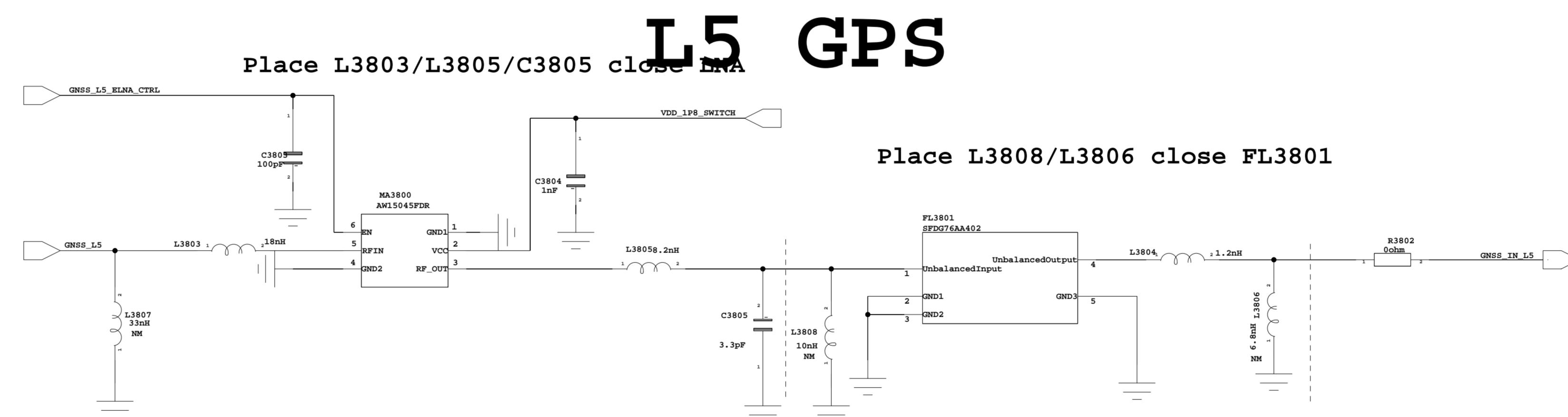


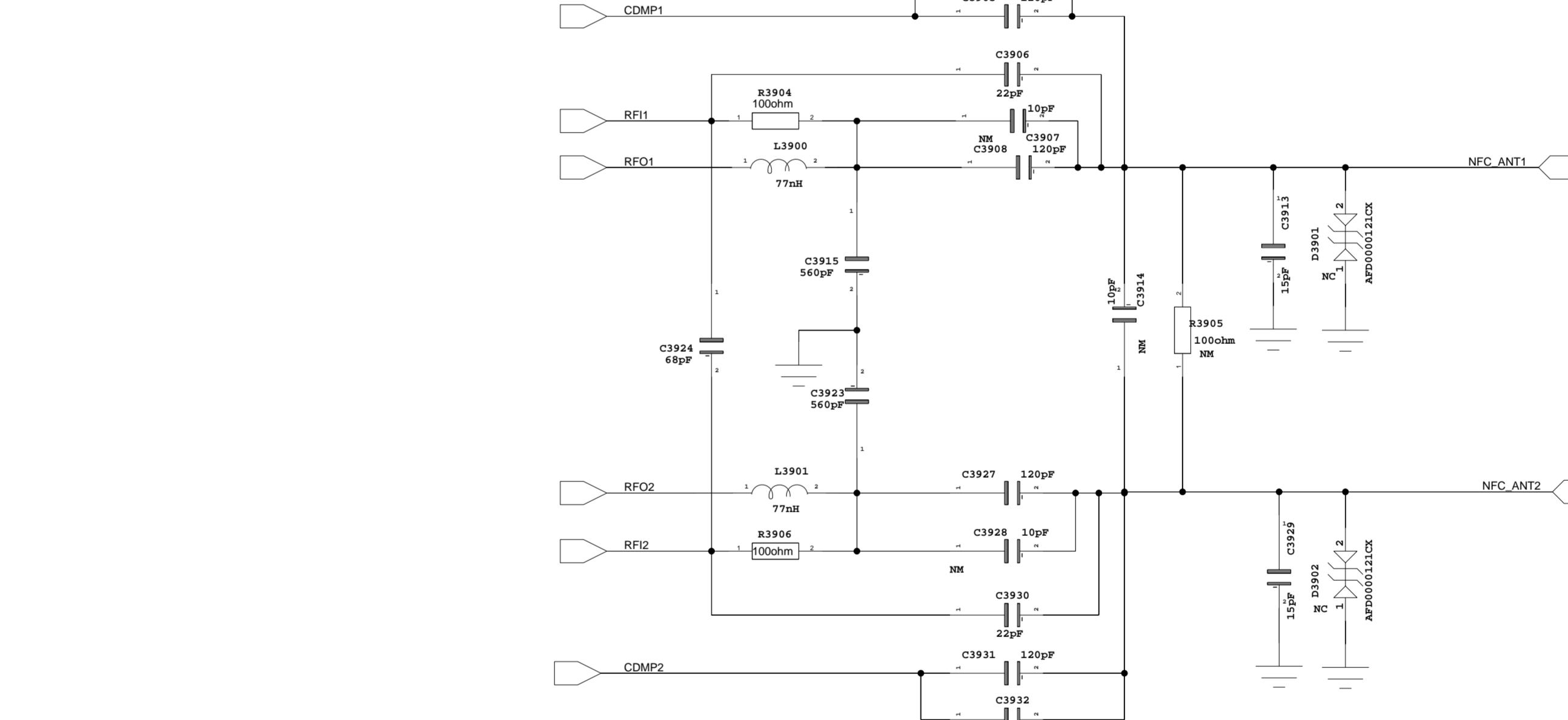
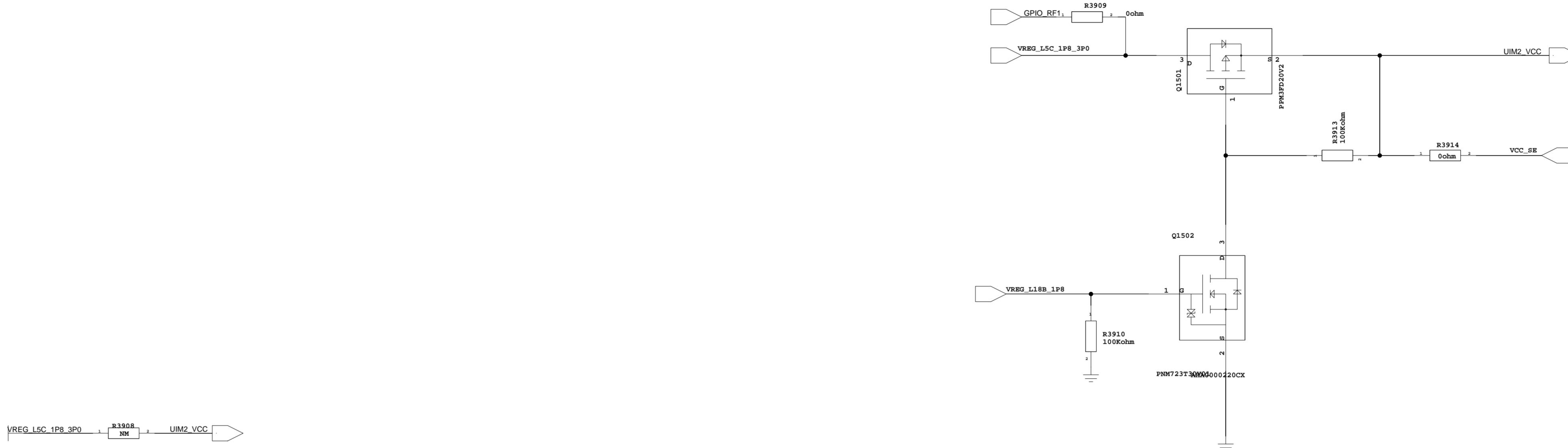
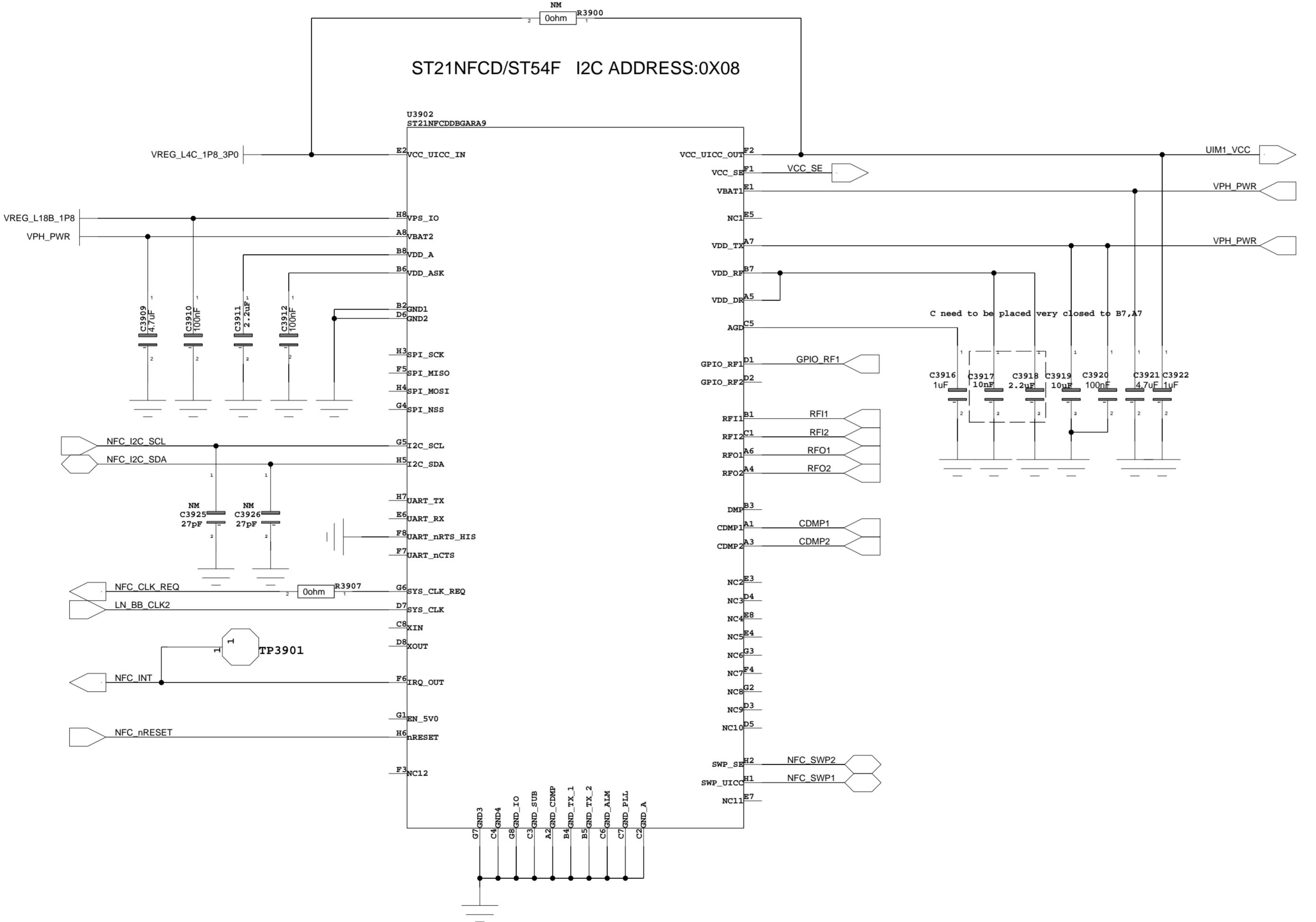
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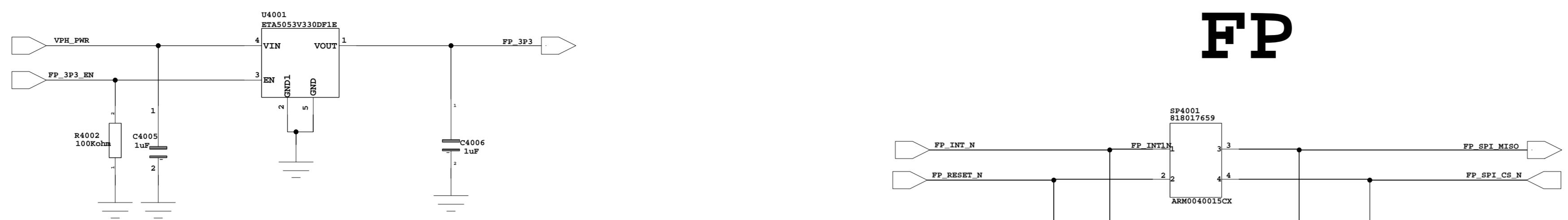




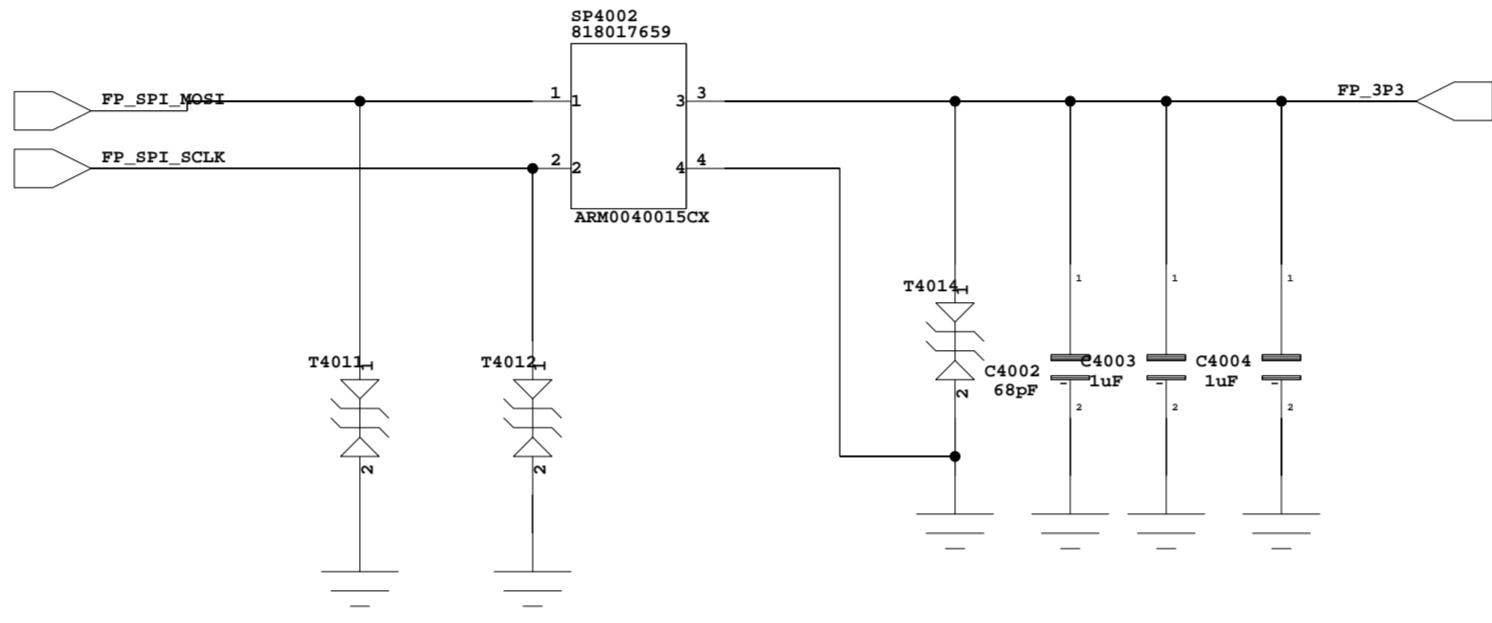
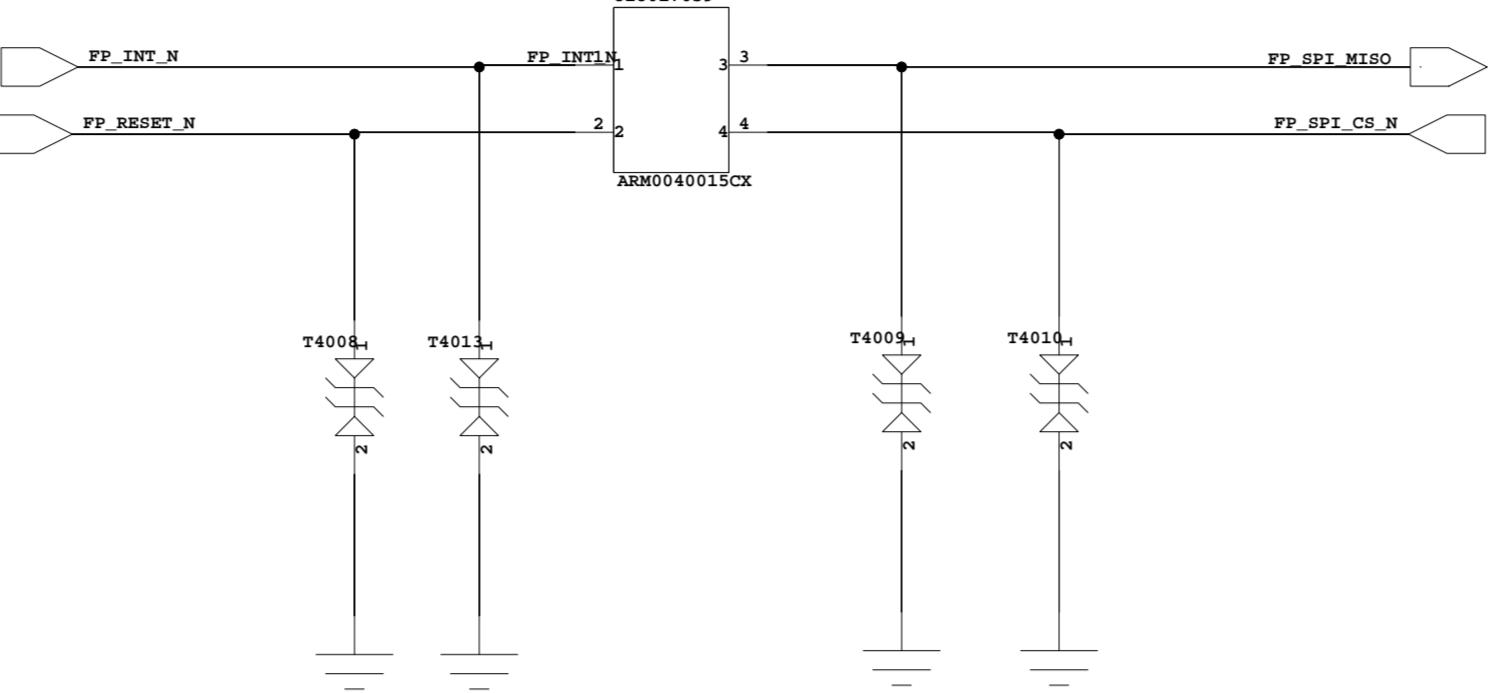
GNSS L1



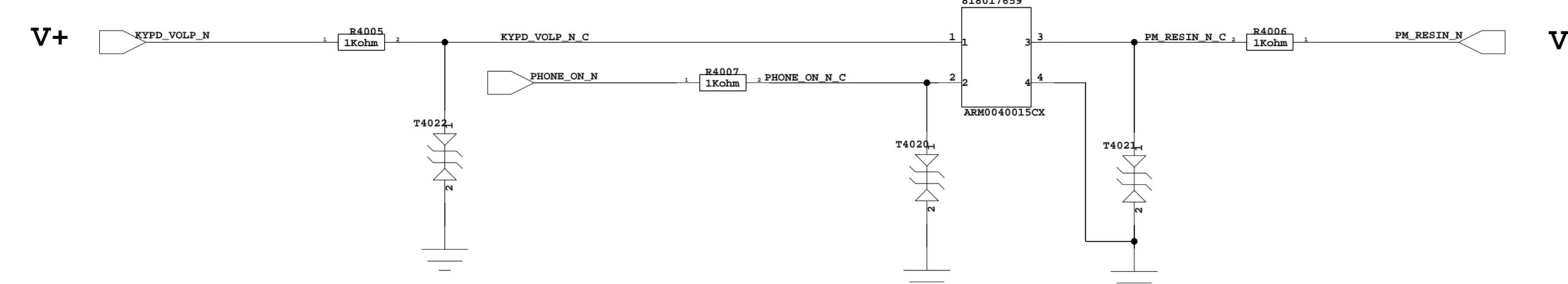




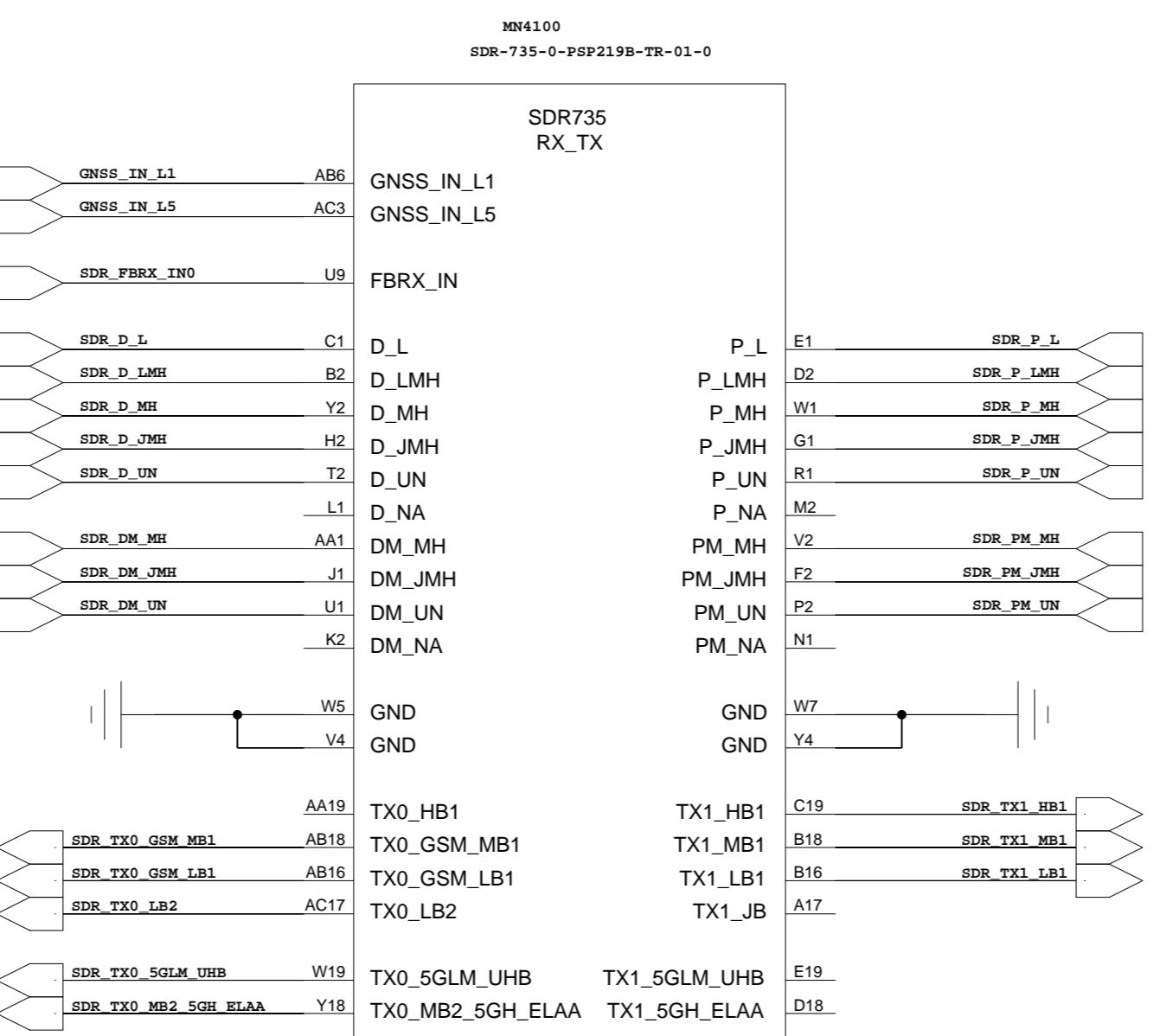
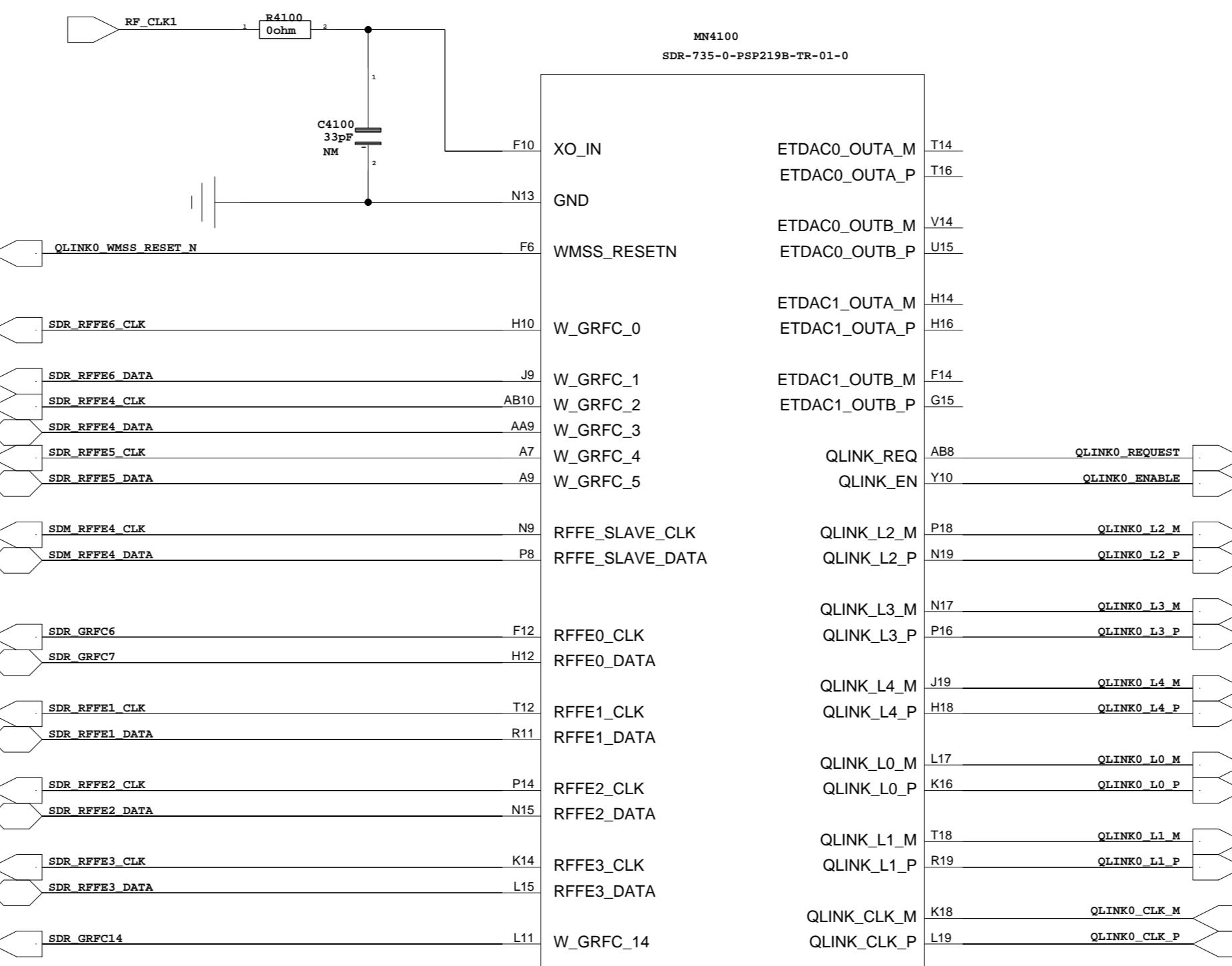
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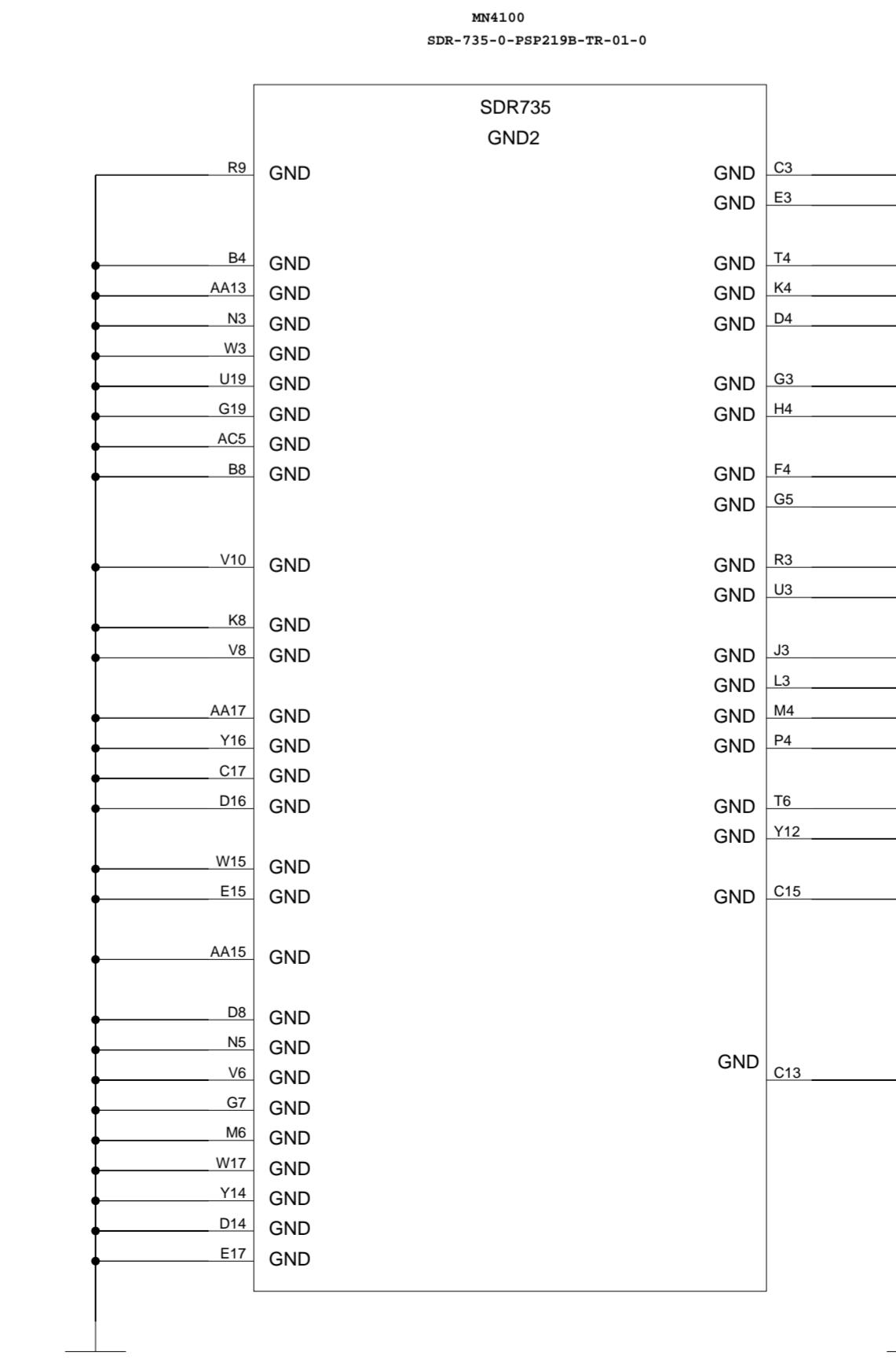
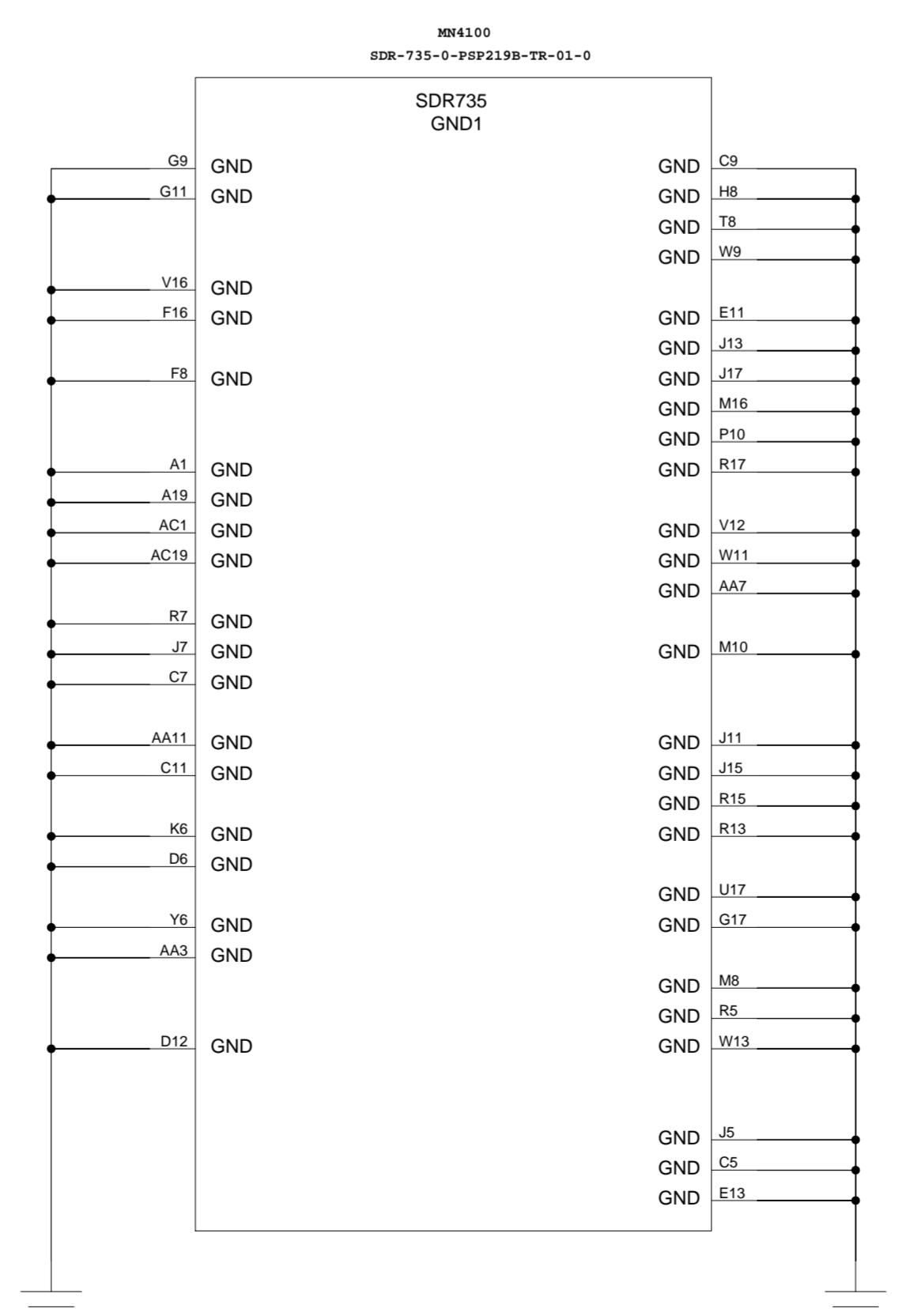
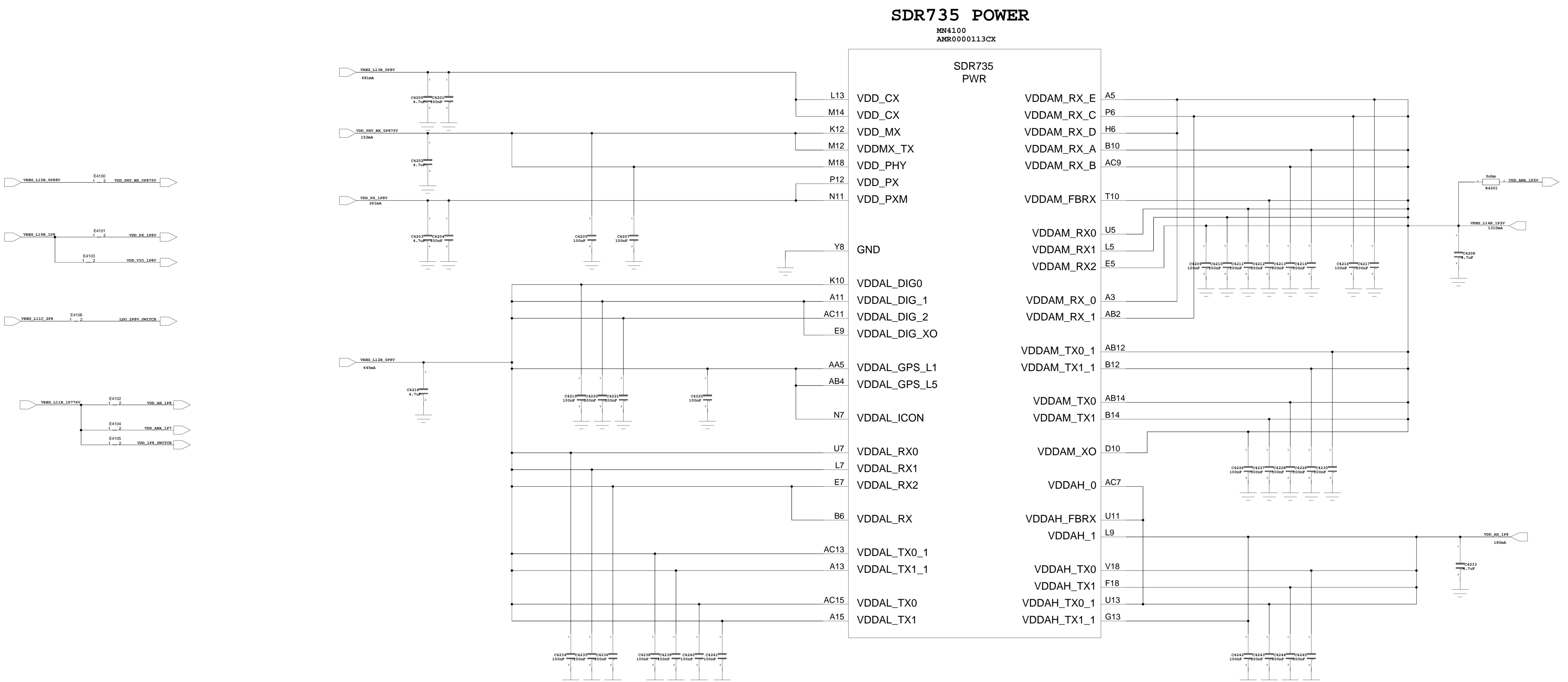


sidekey BTB

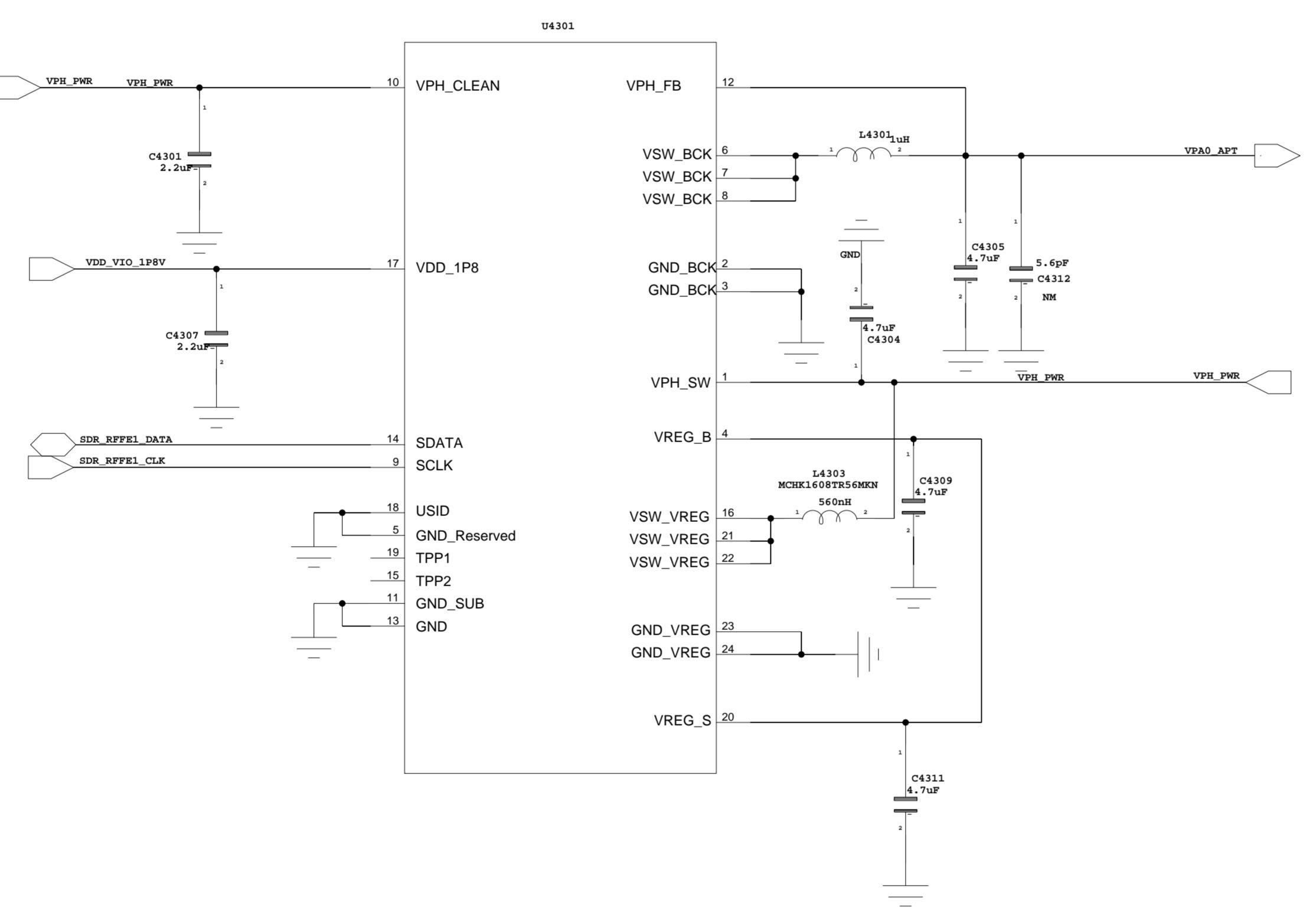


SDR735 CONTROL

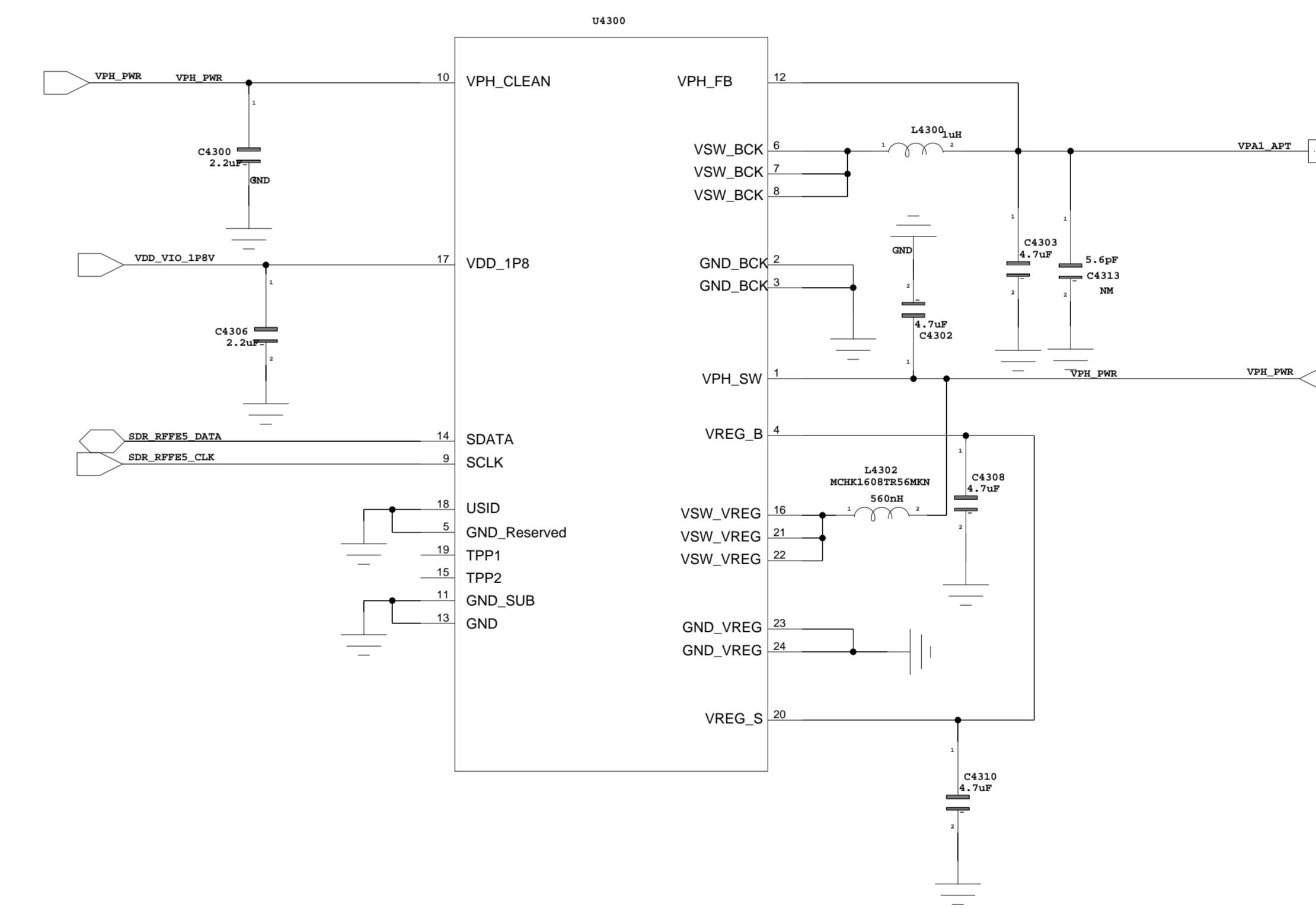




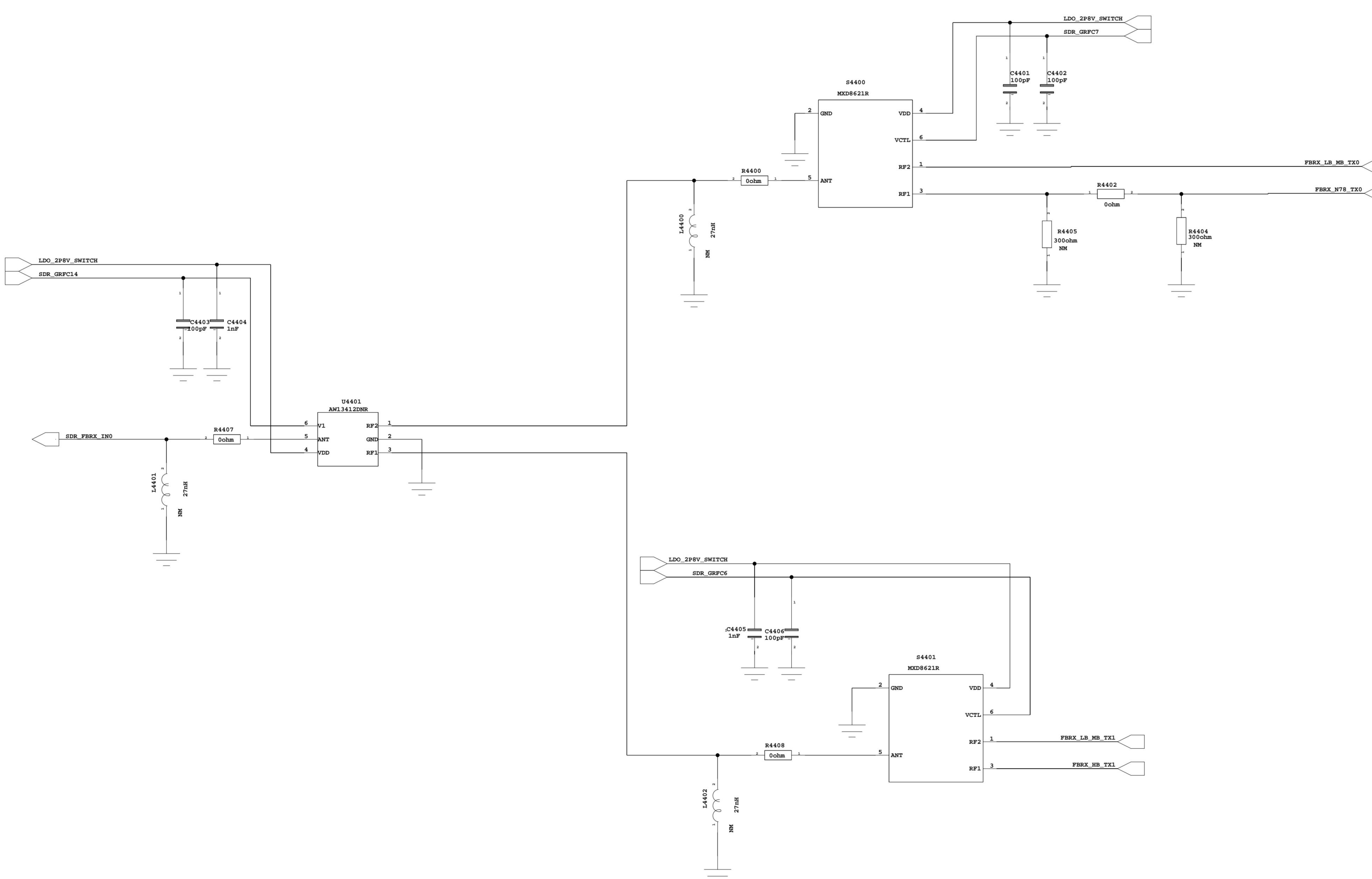
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


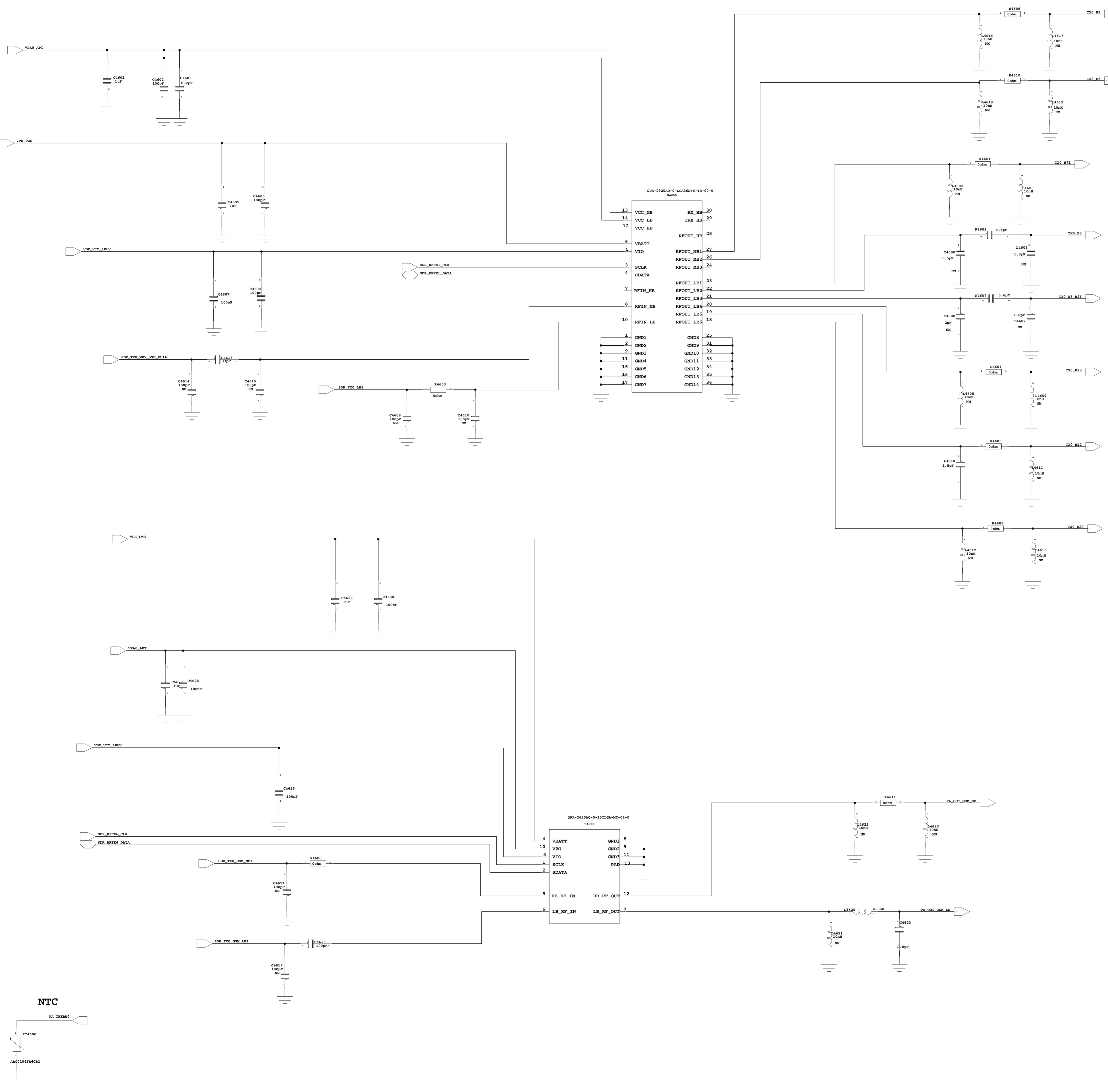
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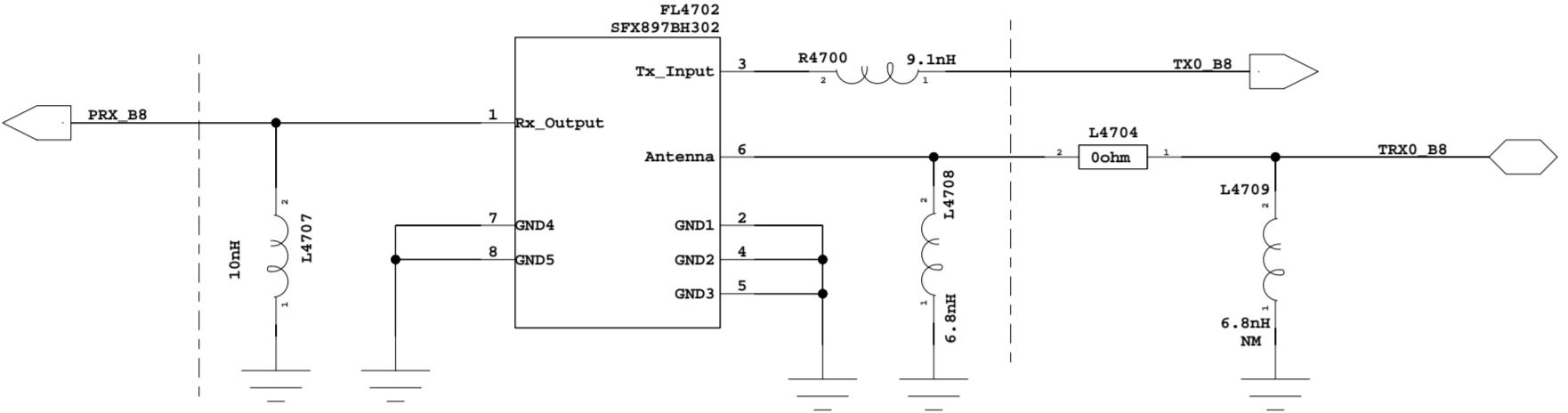
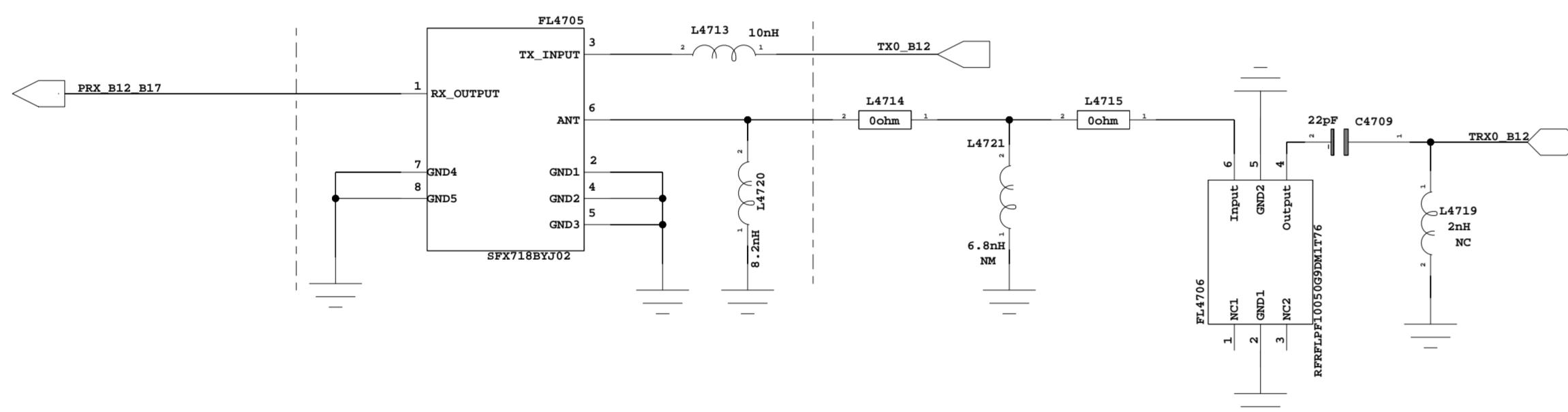
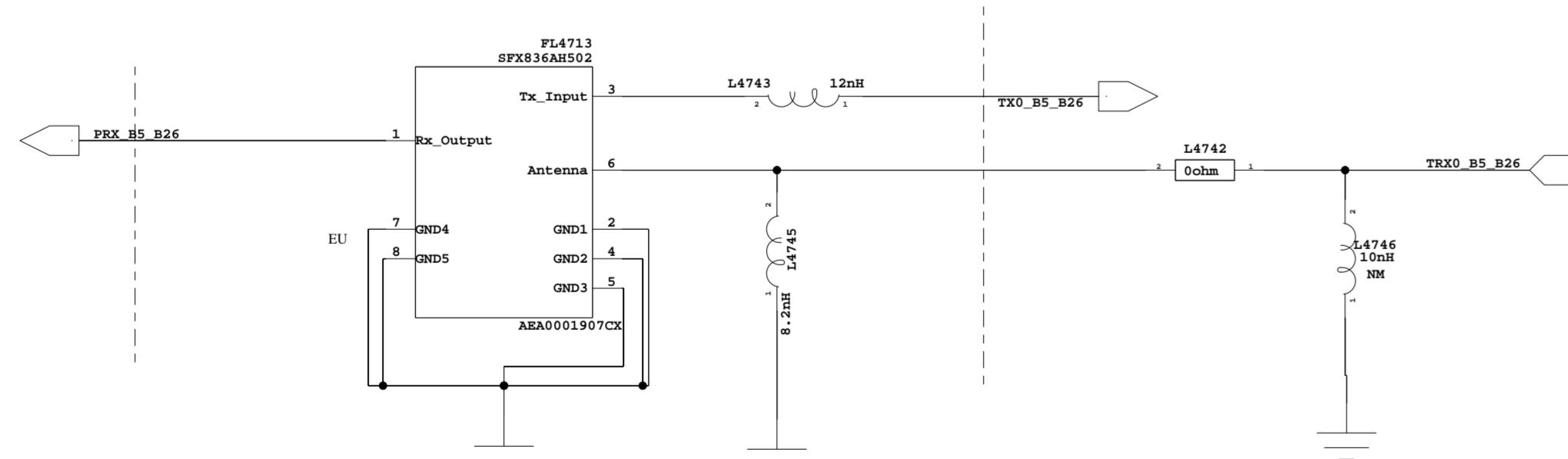
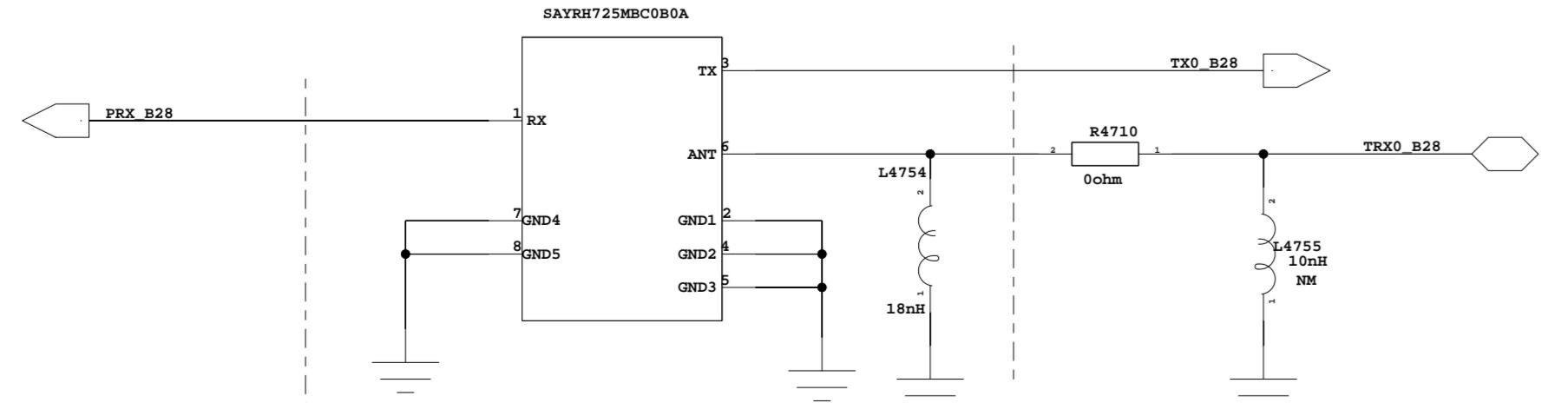
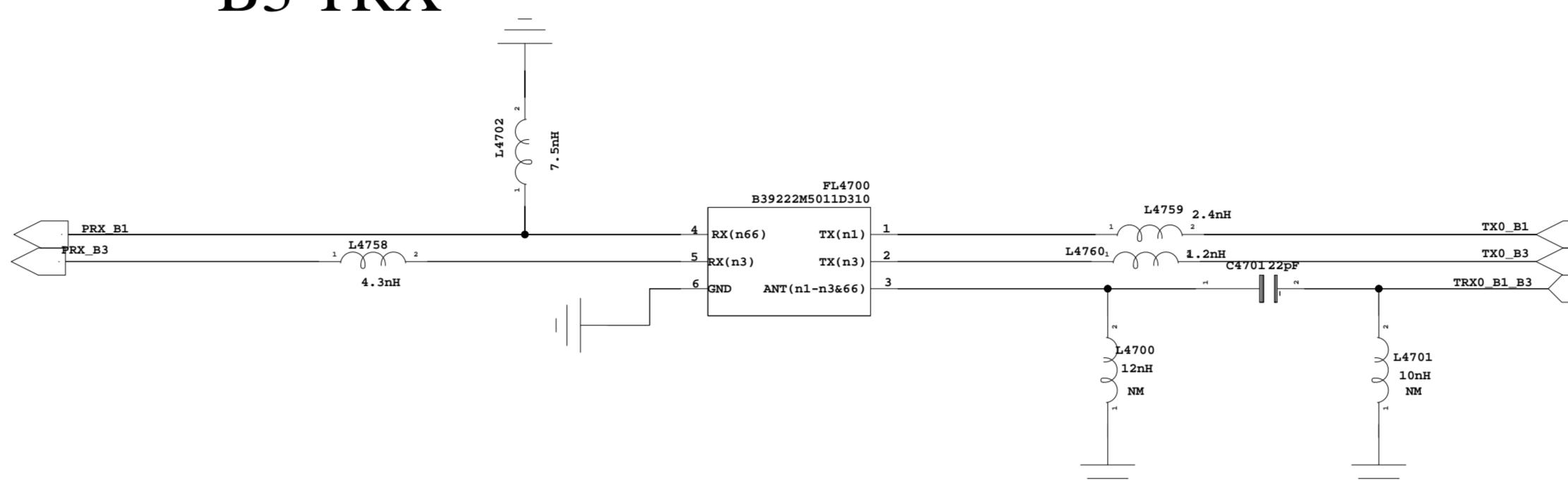
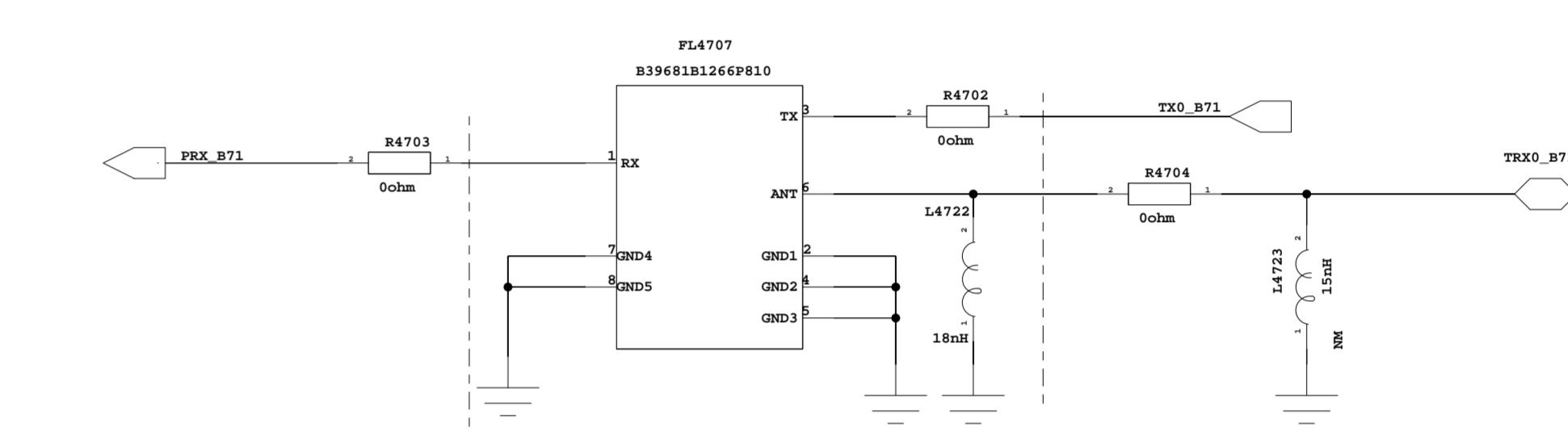
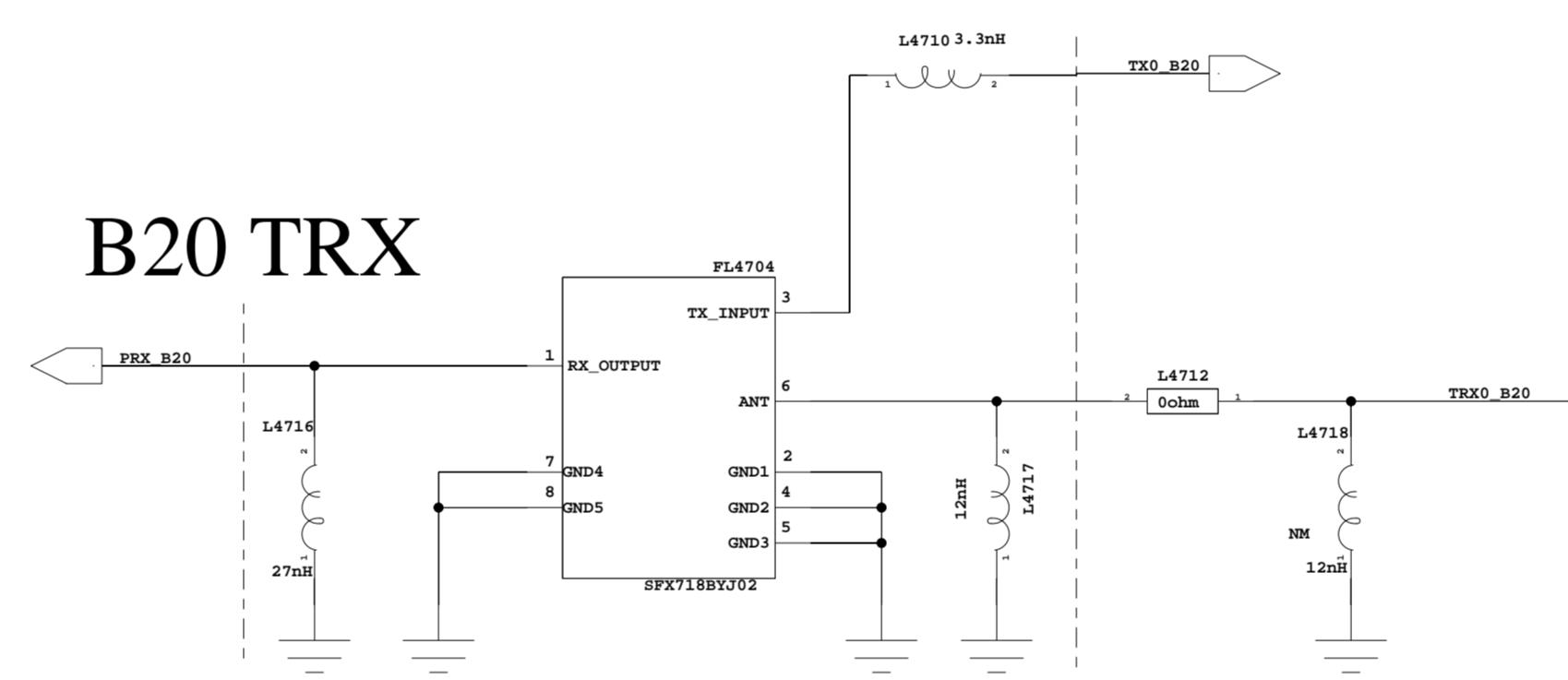
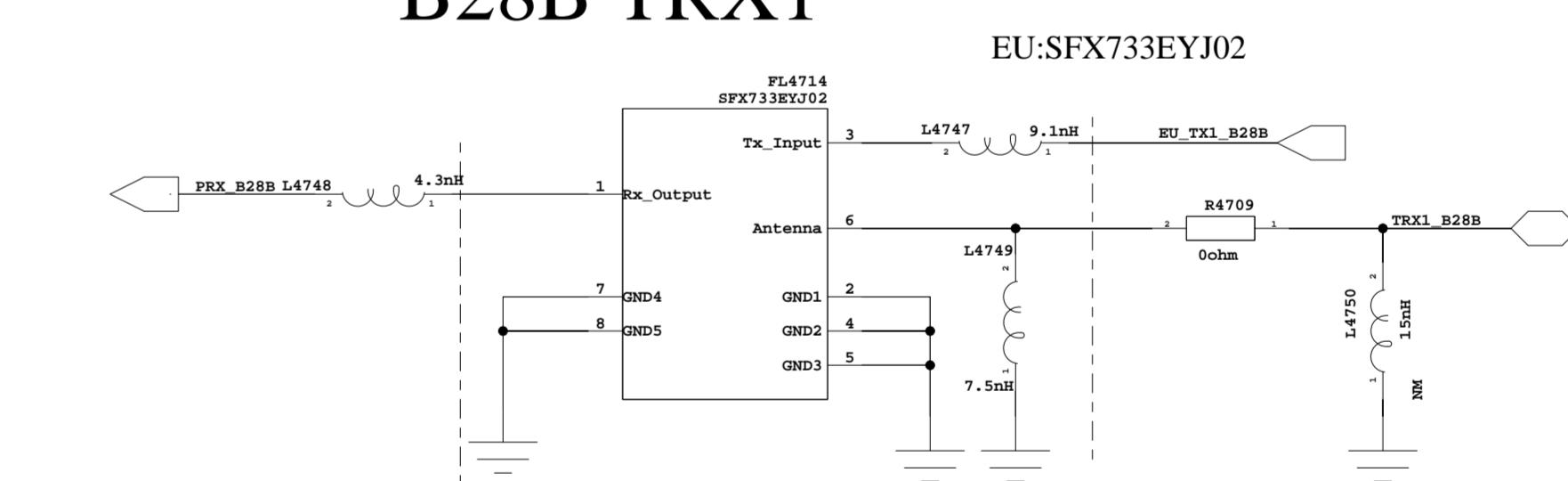
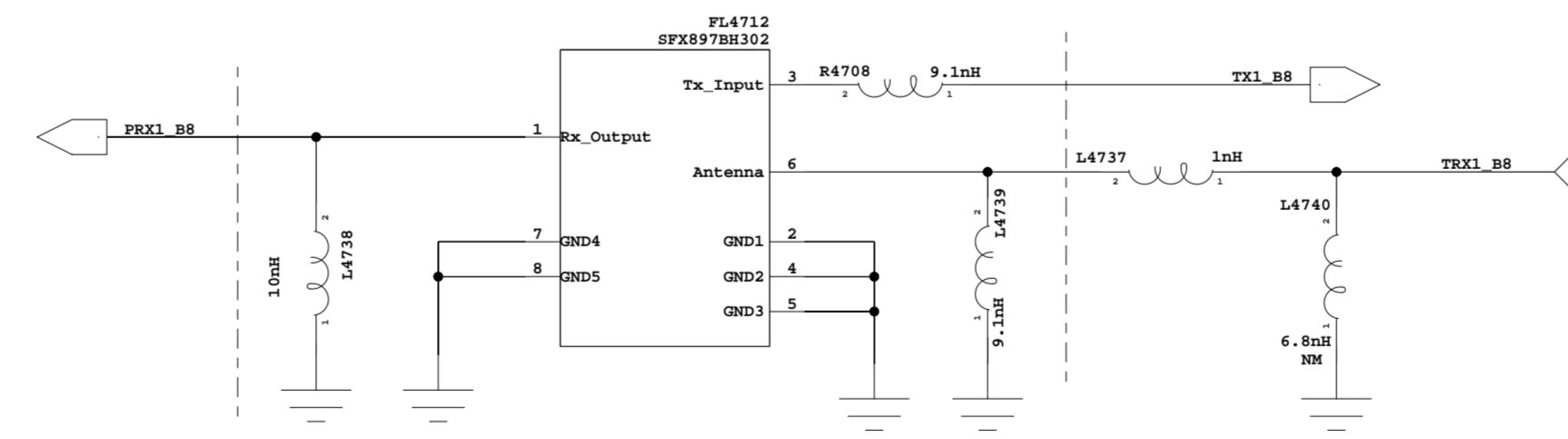
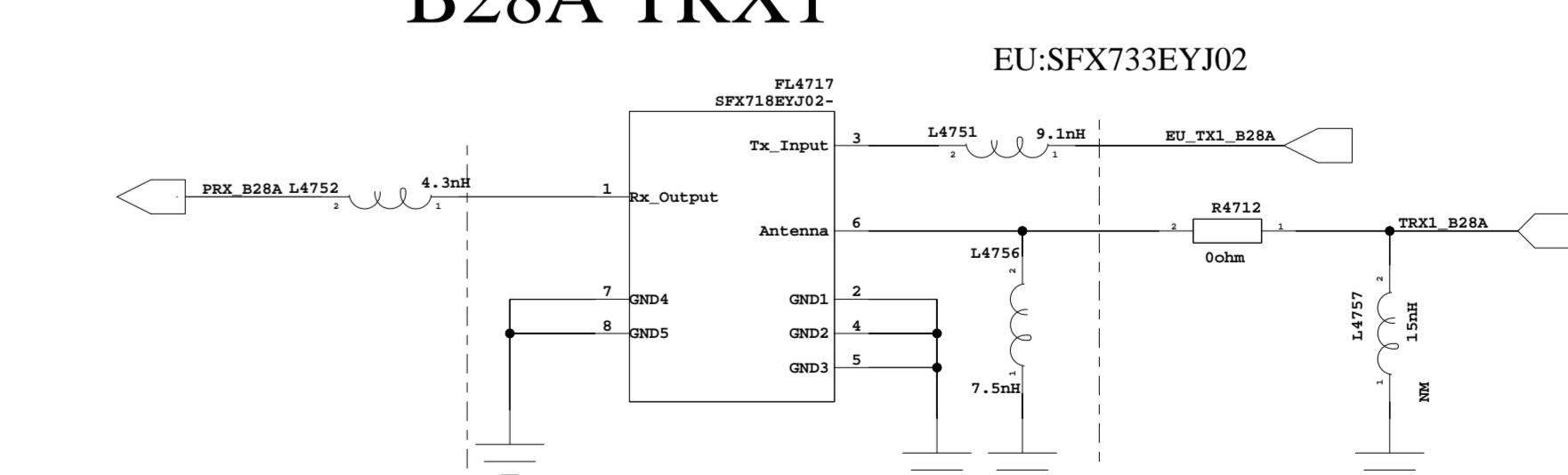
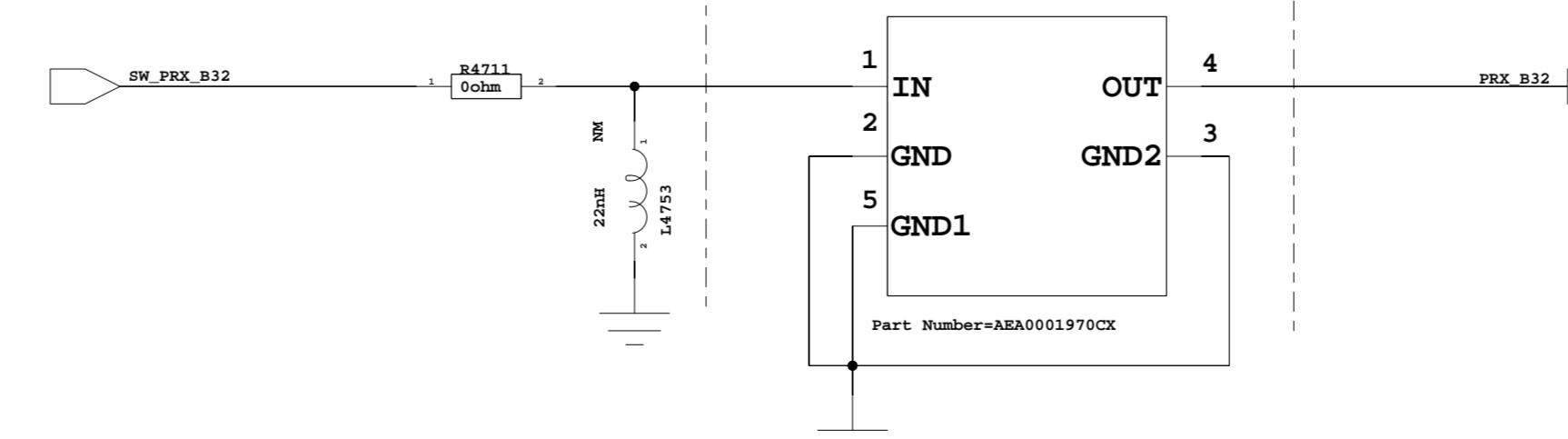


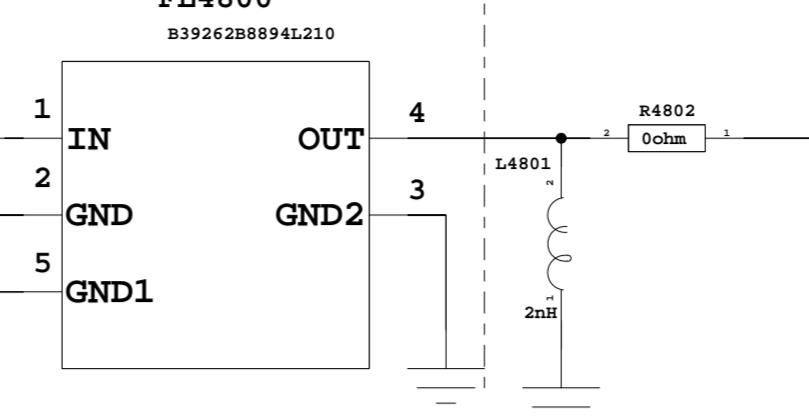
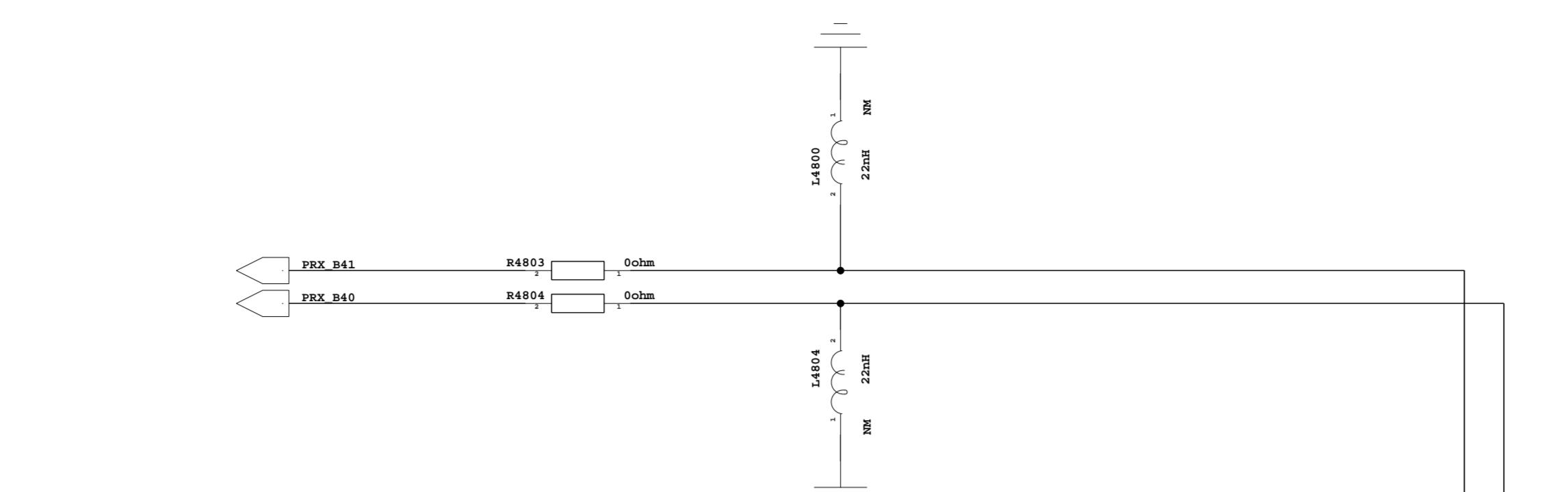
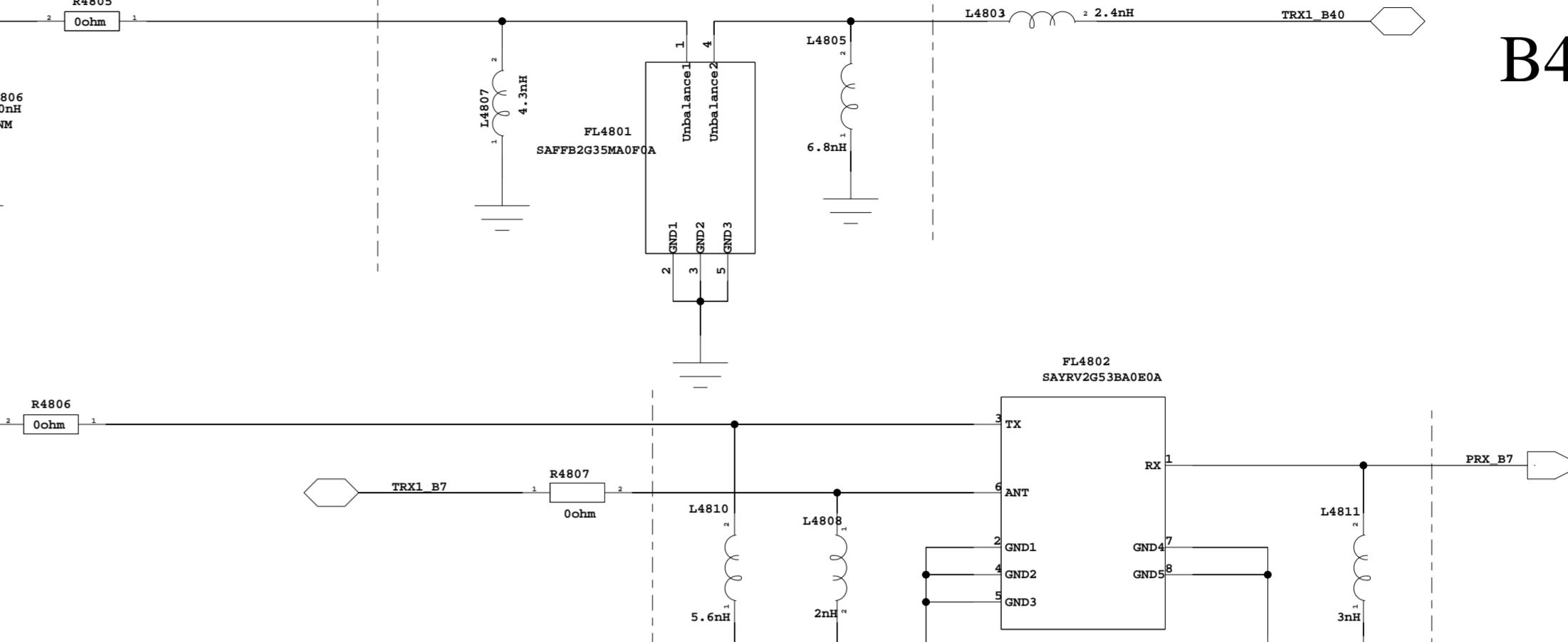
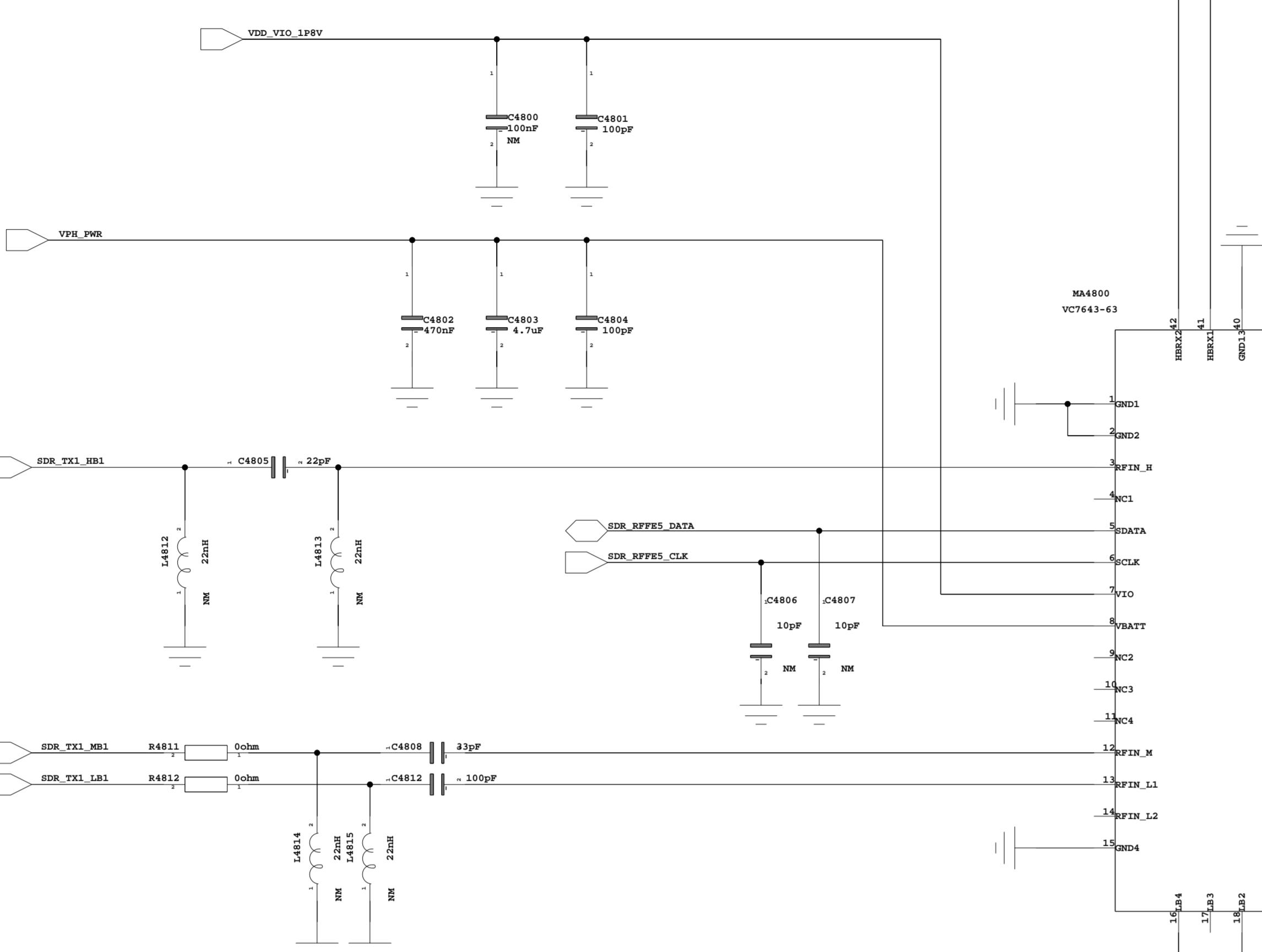
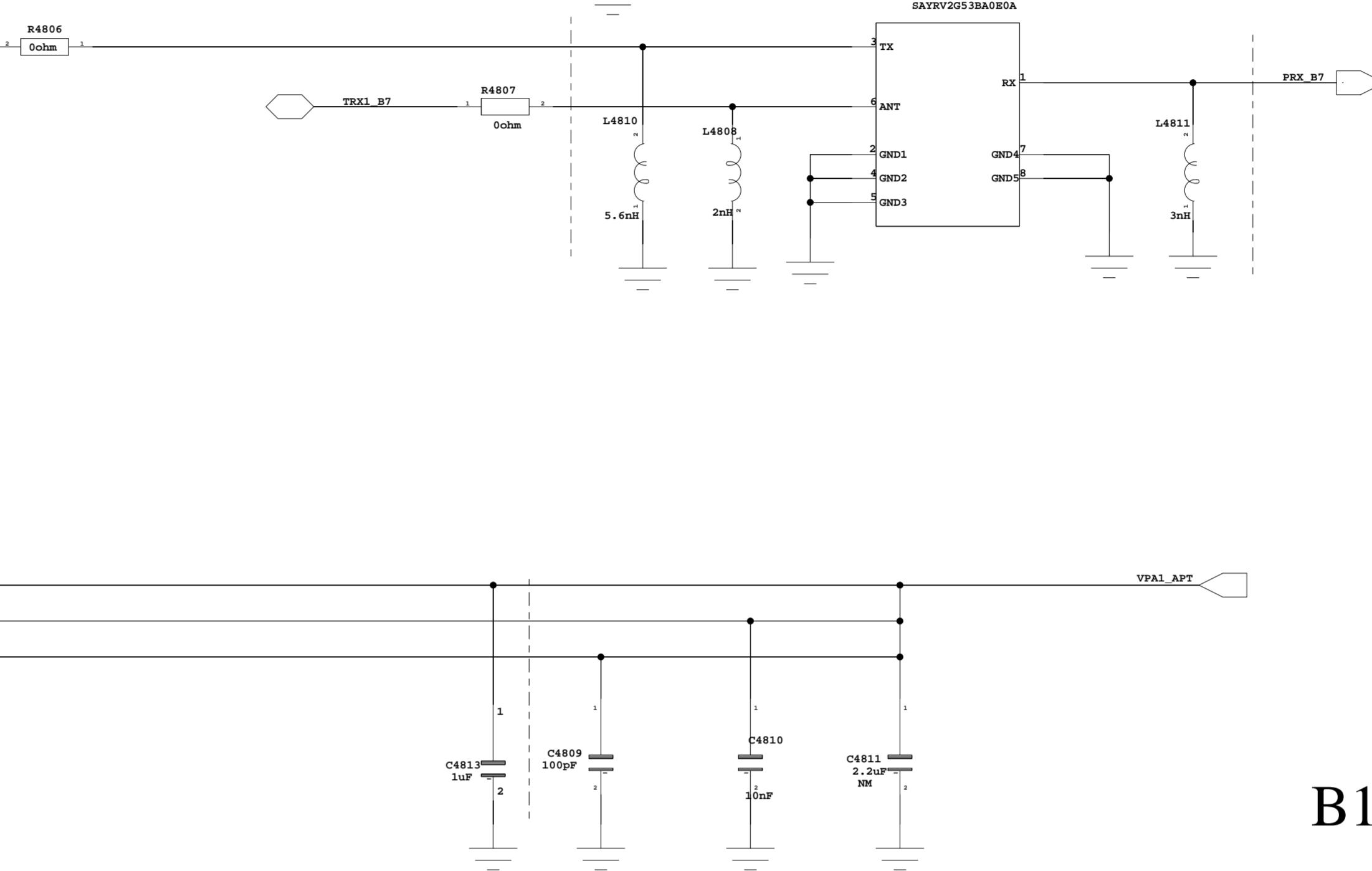
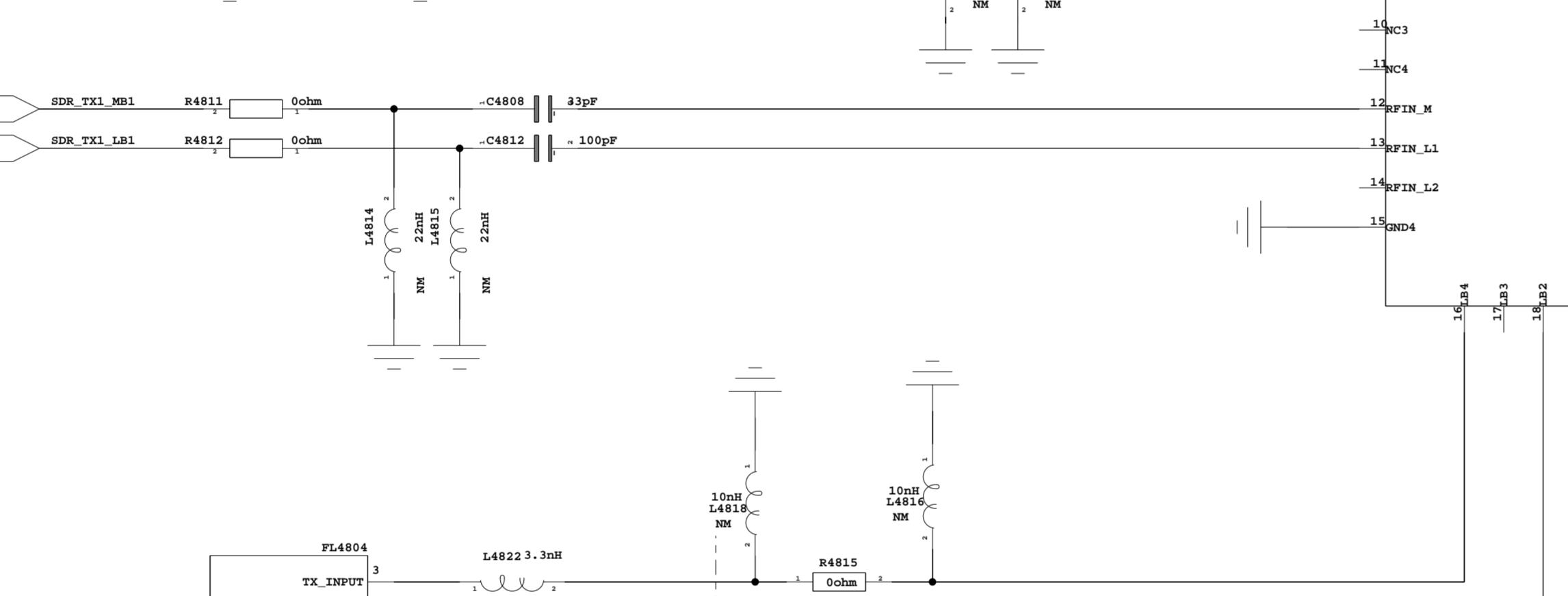
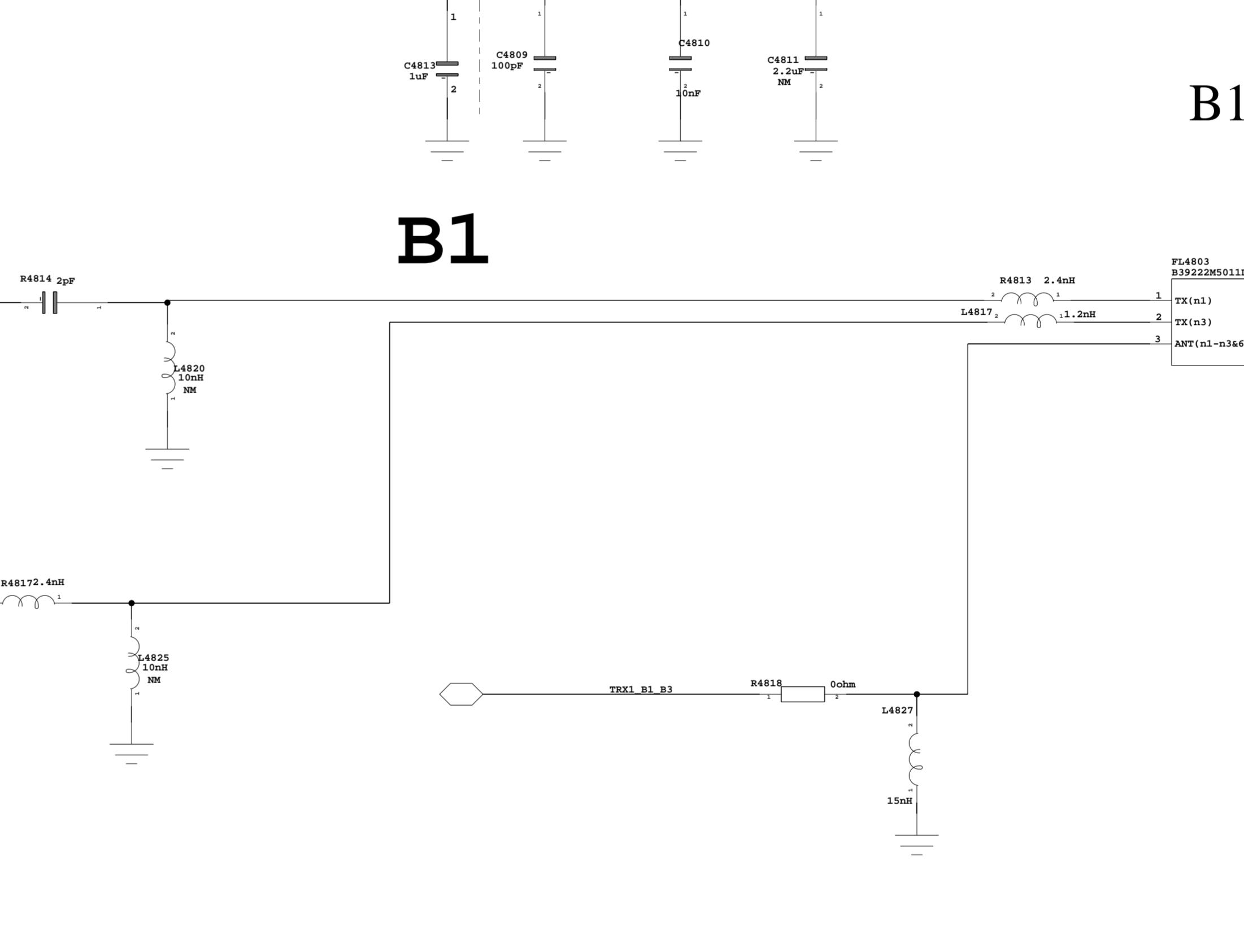
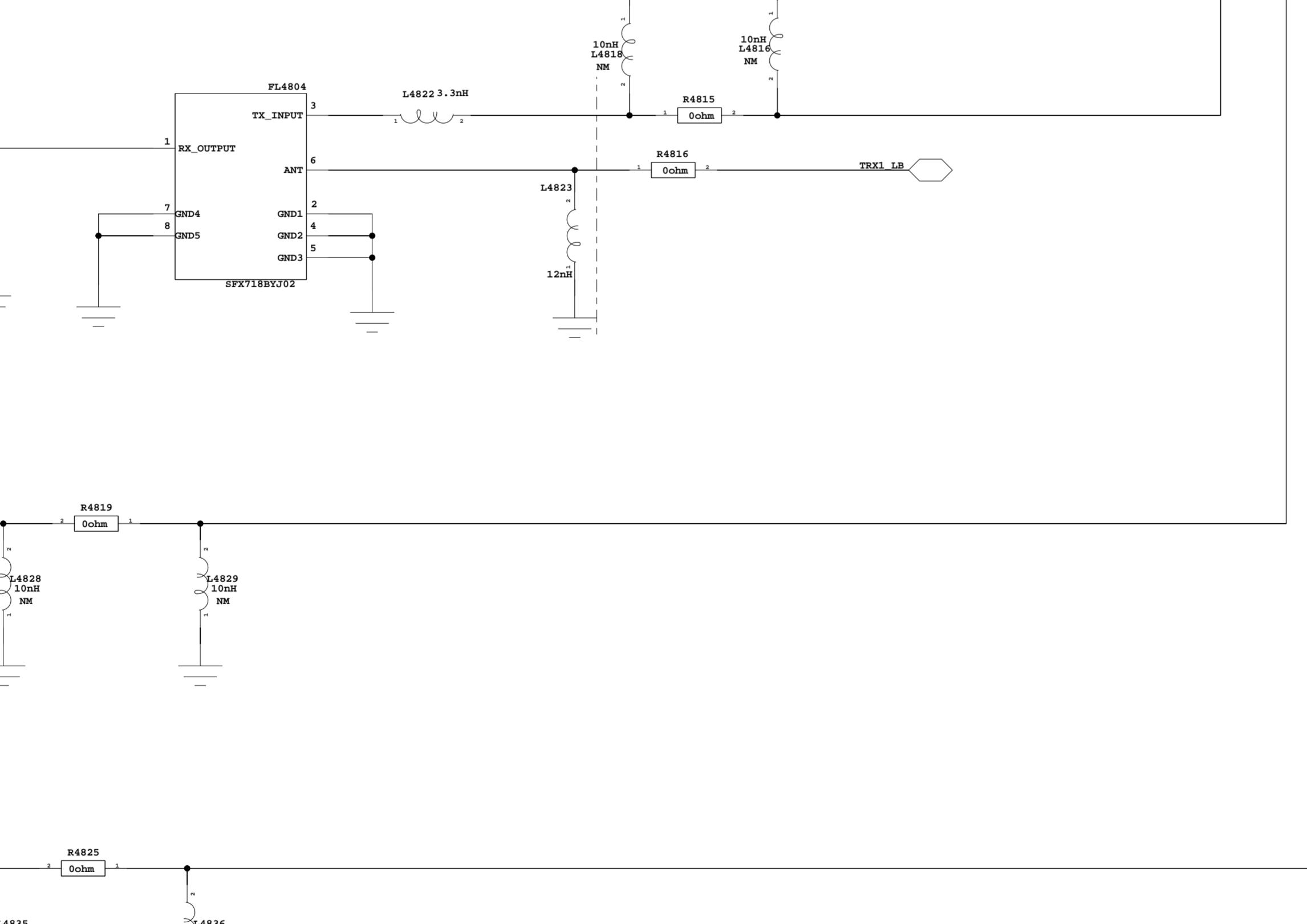
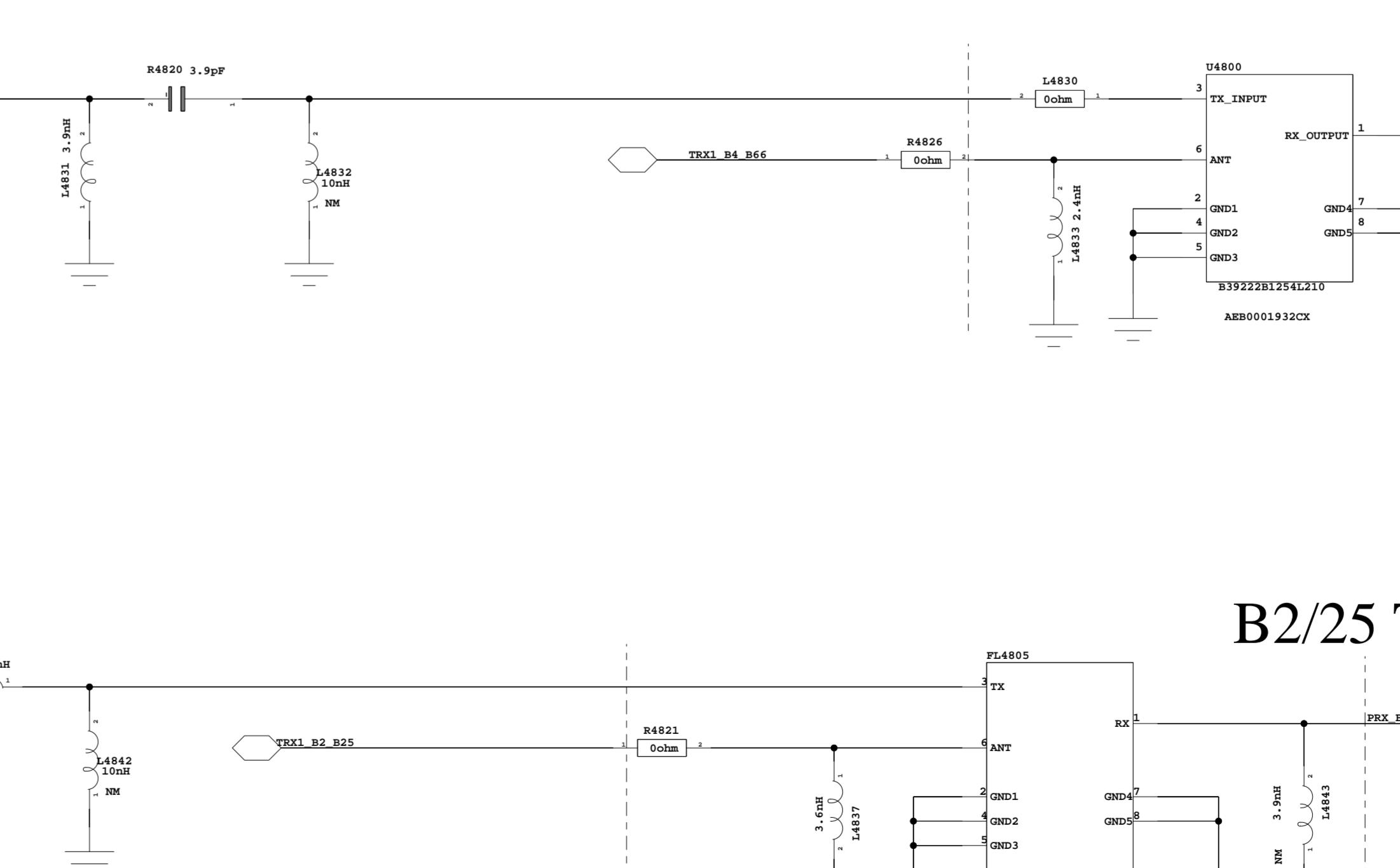
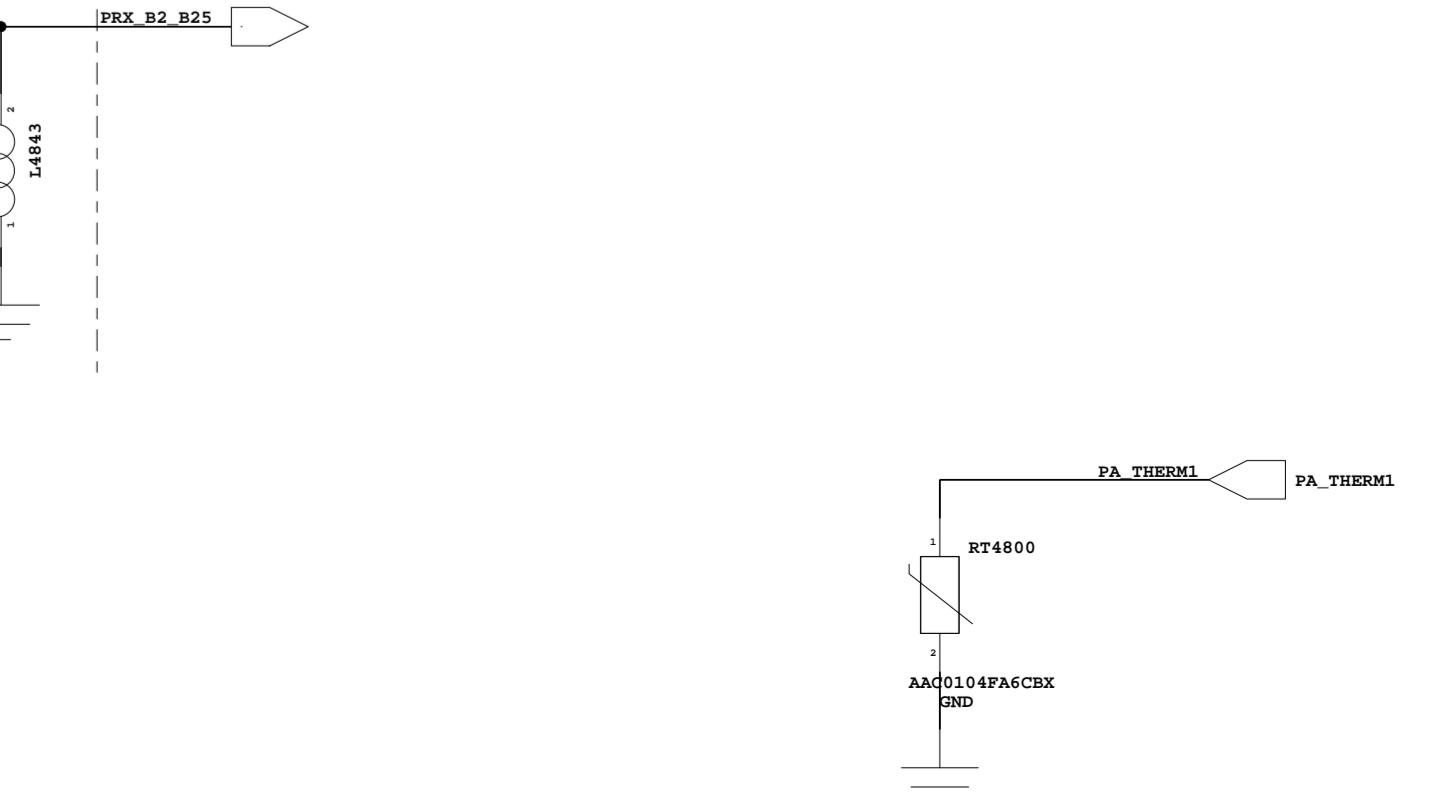
FBRX SWITCH

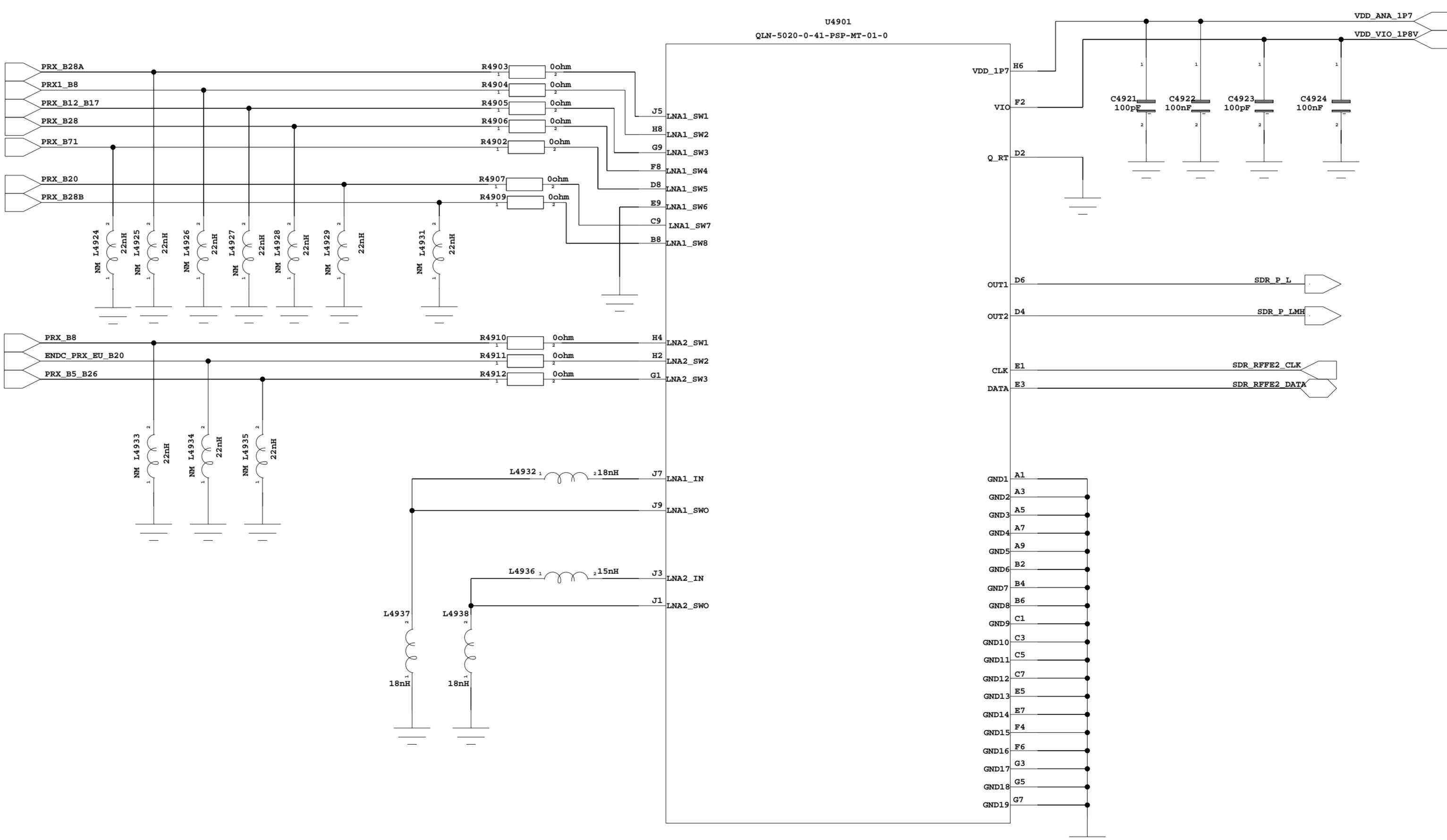
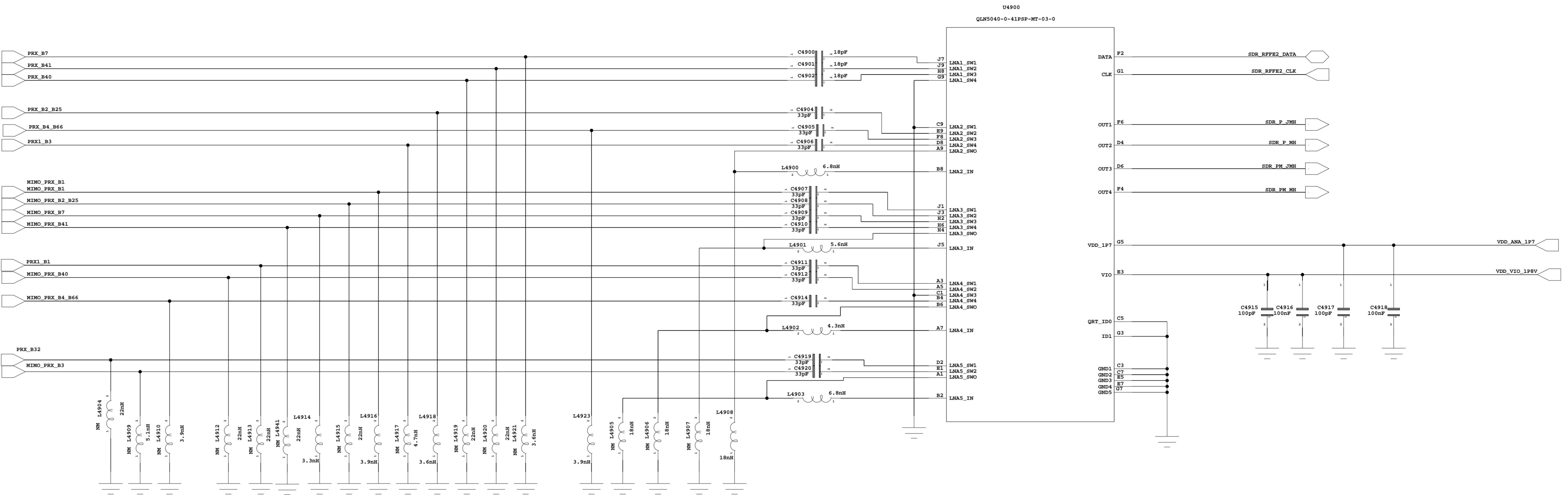


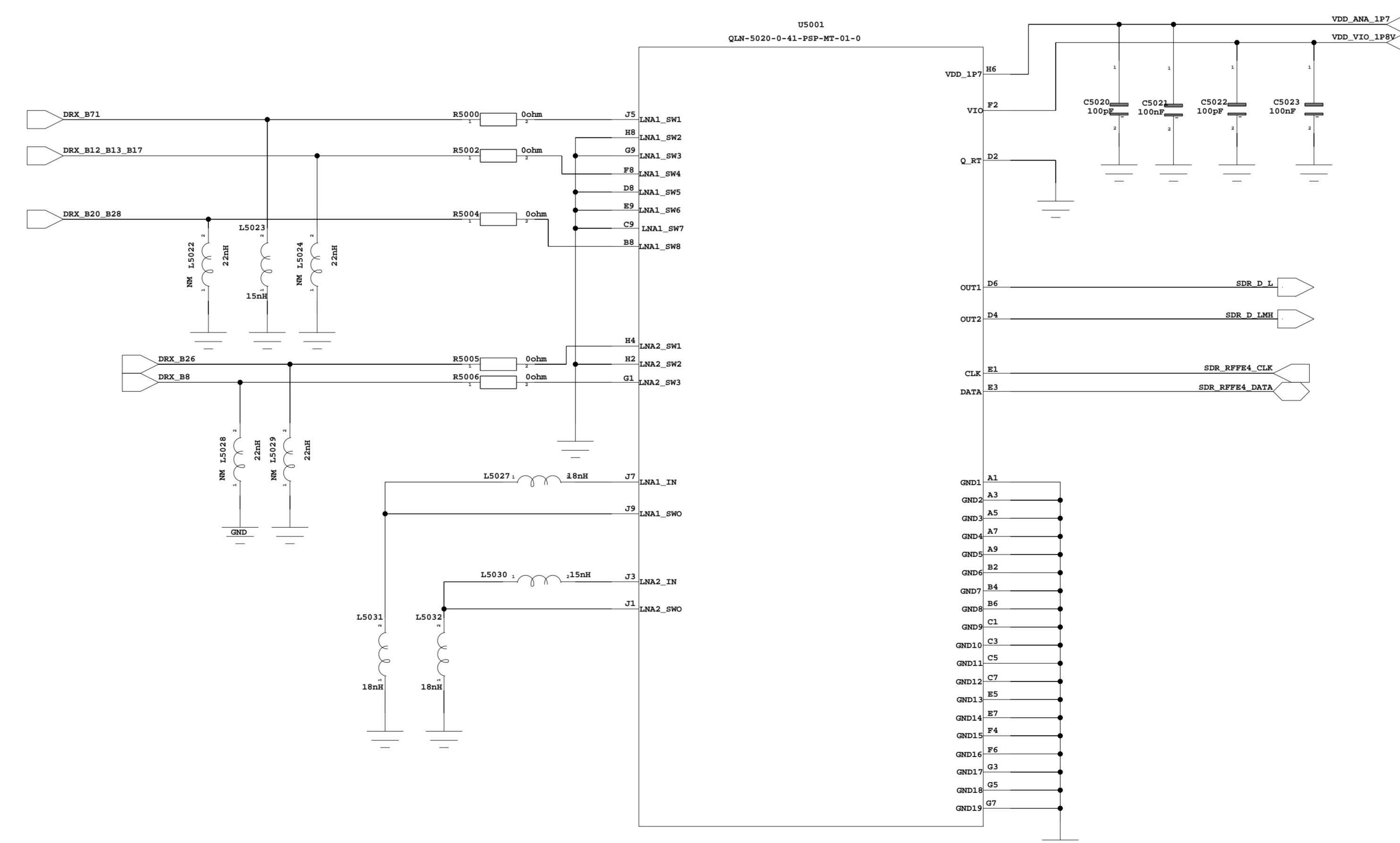
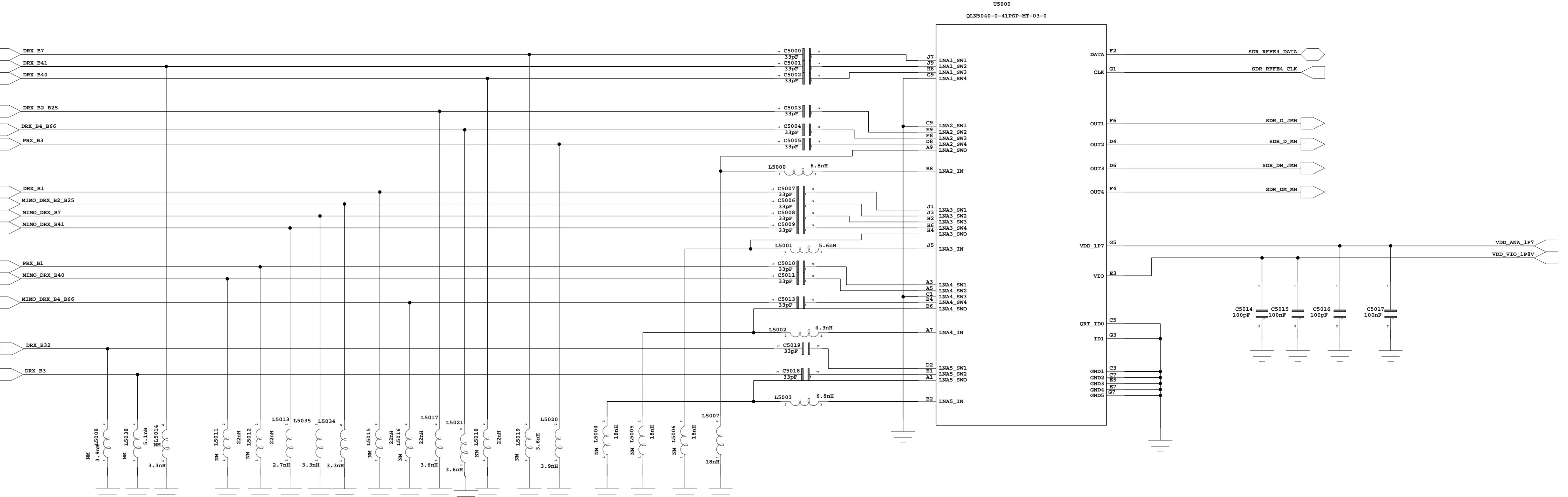





B8 TRX**B12 TRX****B5 B26****B28 TRX****B1 TRX
B3 TRX****B71 TRX****B20 TRX****B28B TRX1****B8 TRX1****B28A TRX1****B32 PRX**

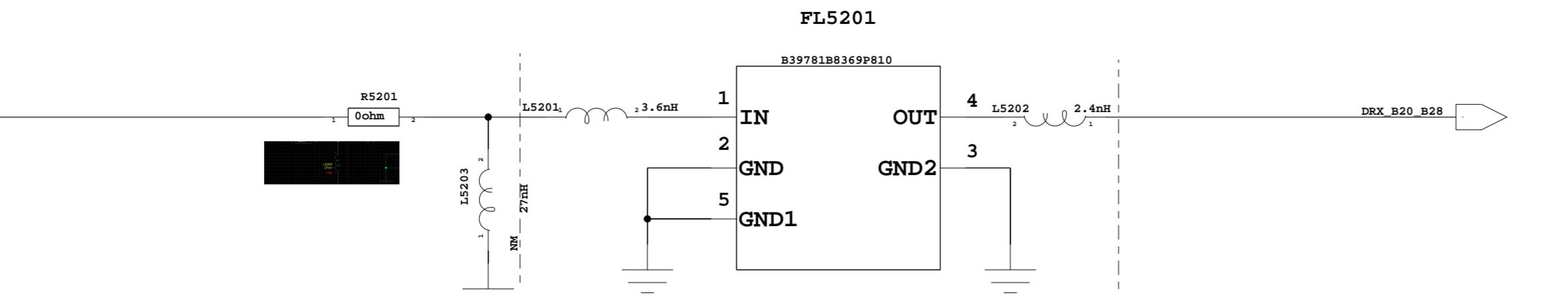
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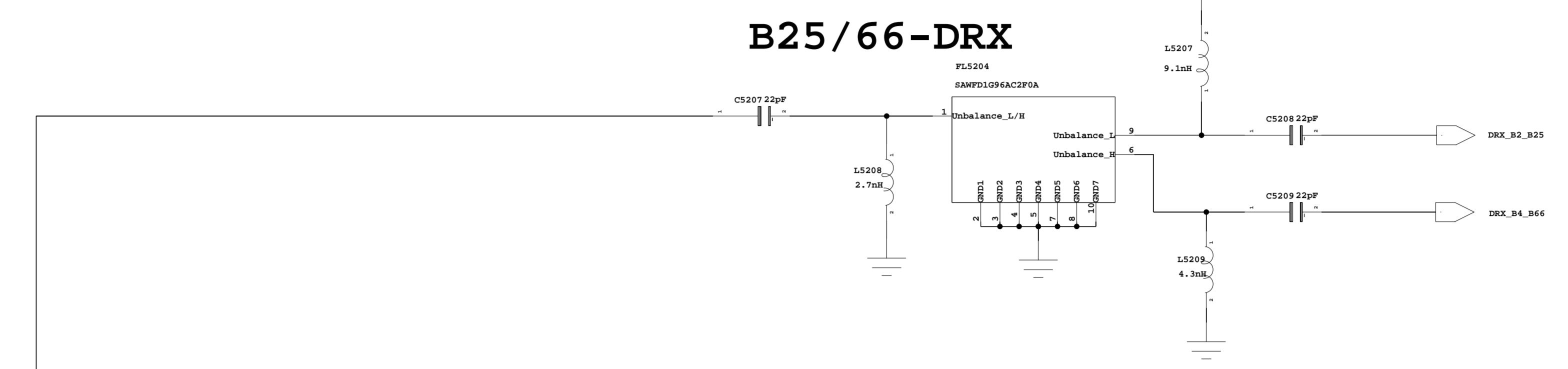




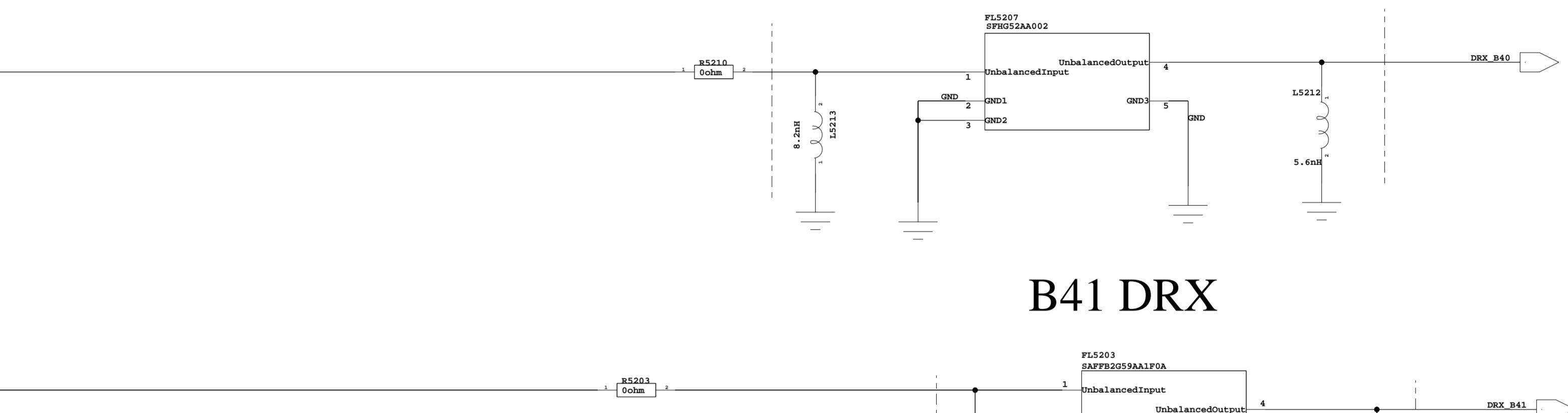
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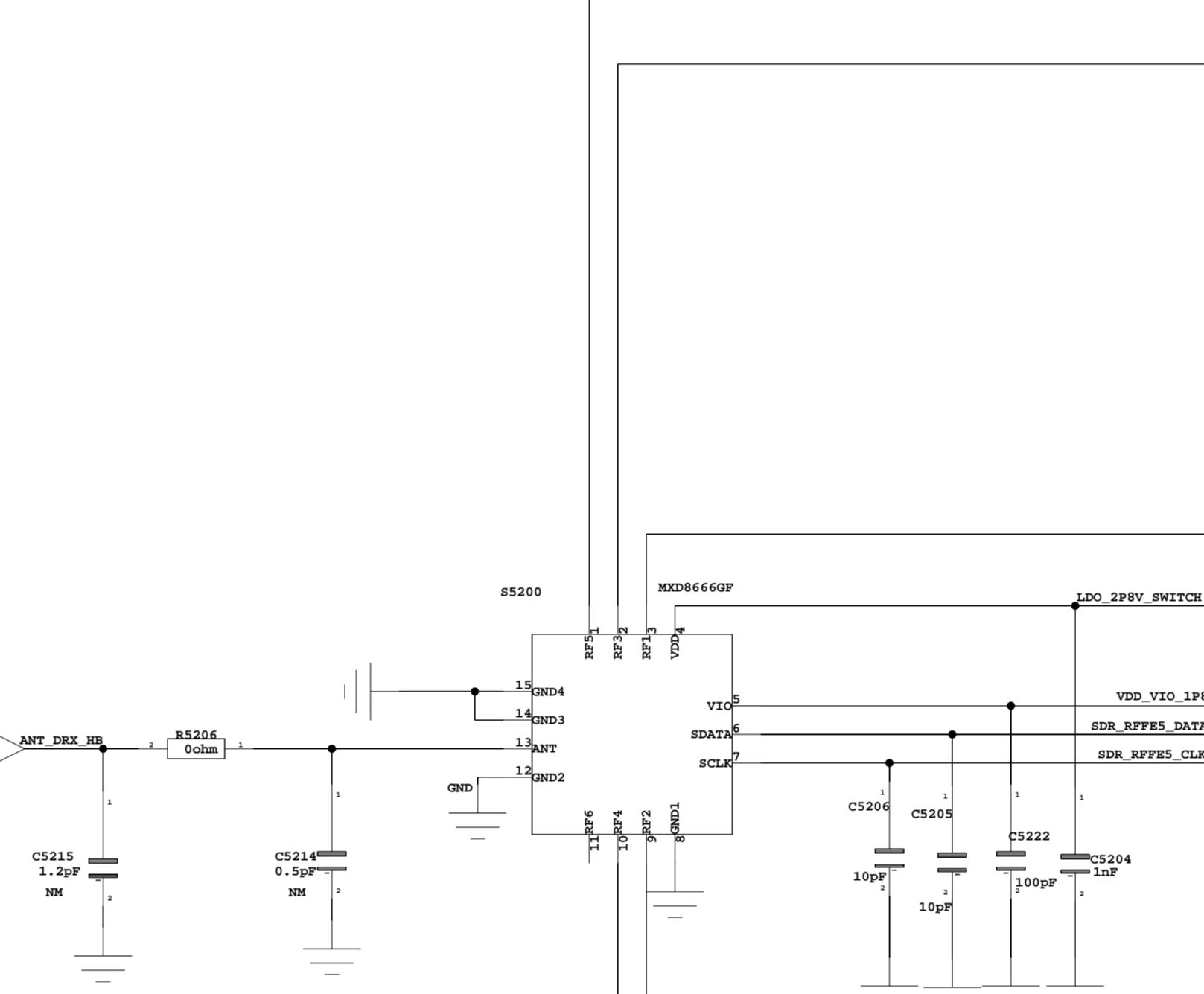
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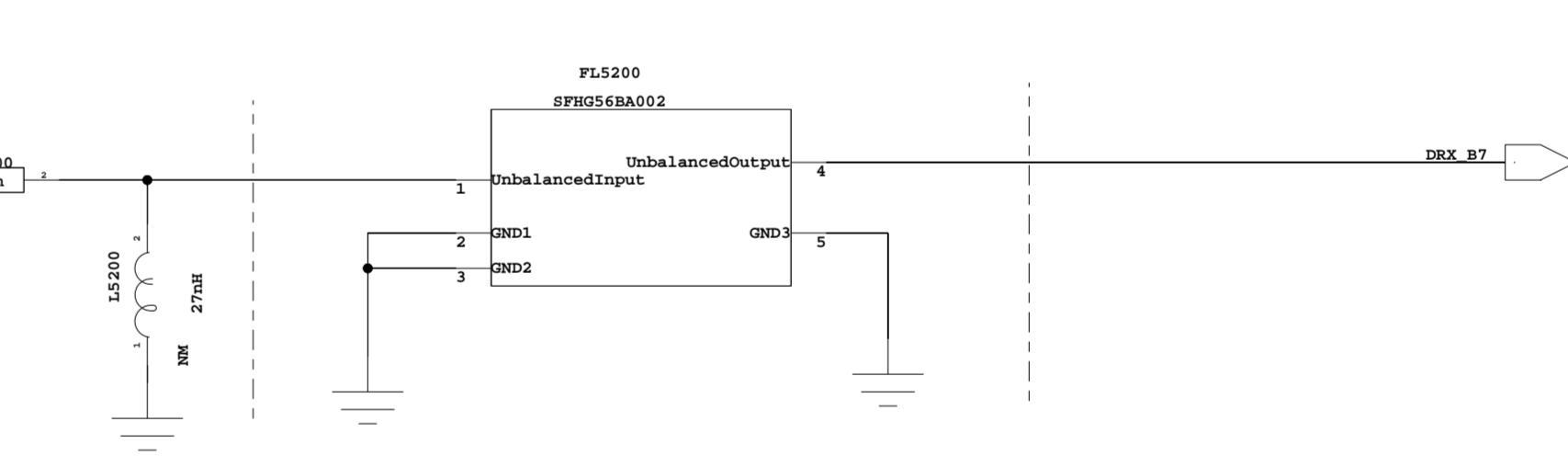
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B41 DRX



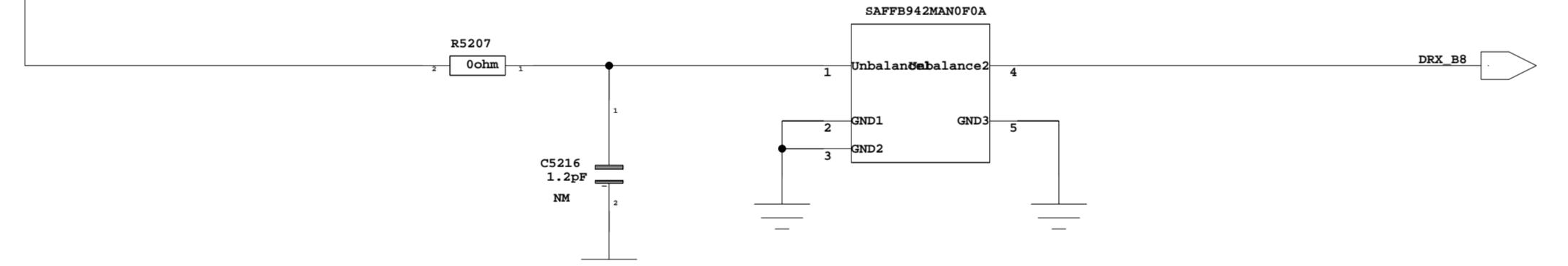
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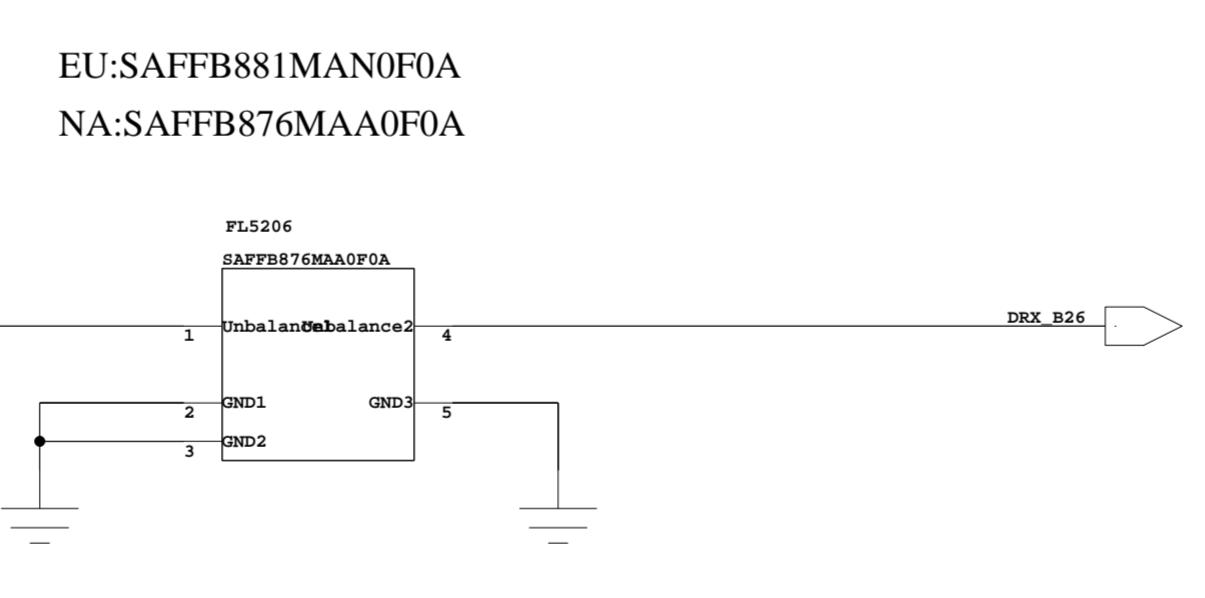
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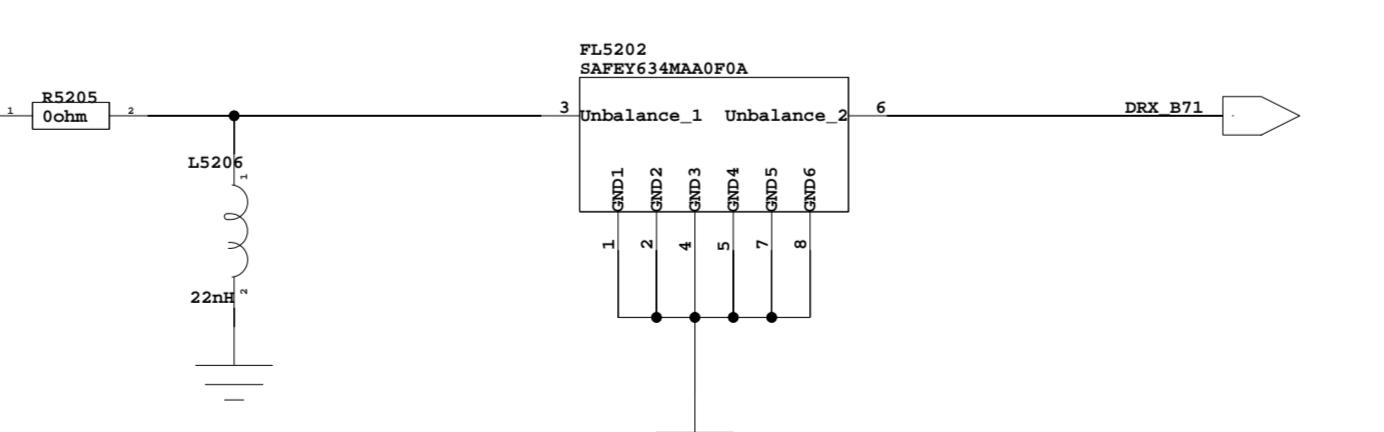
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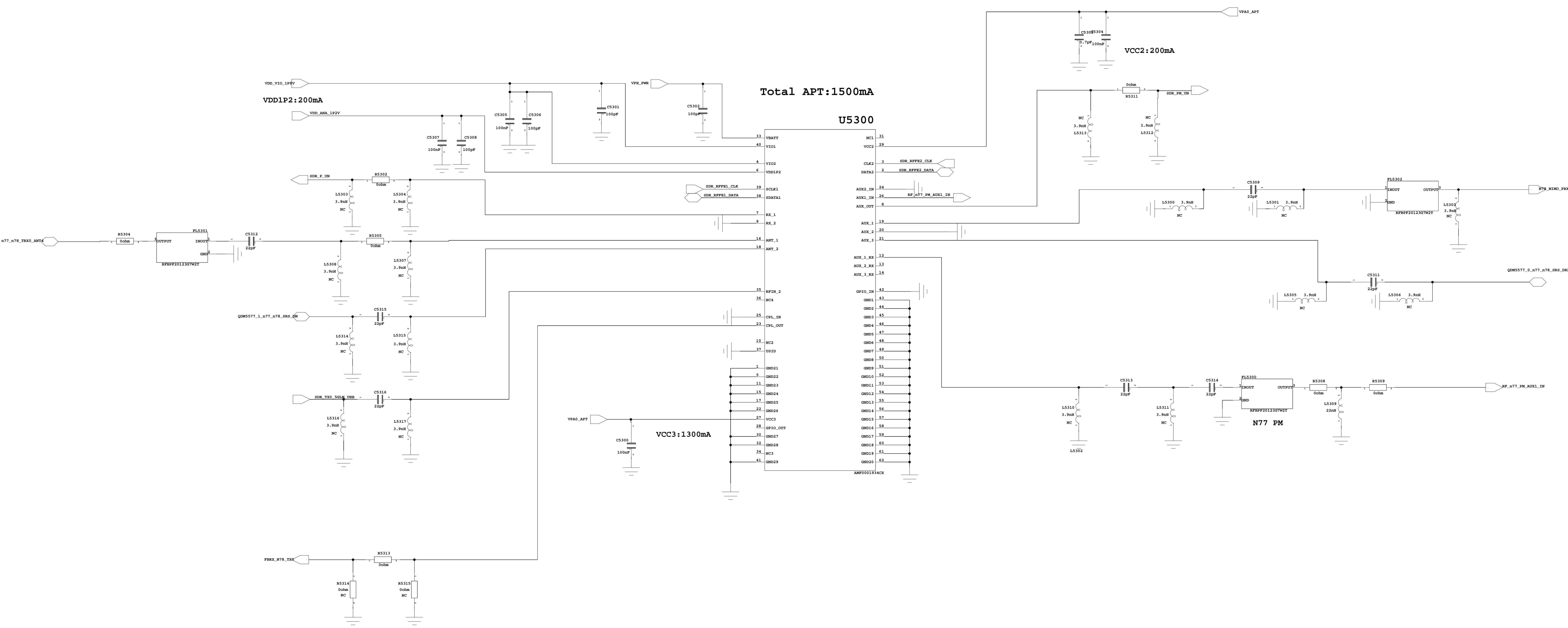
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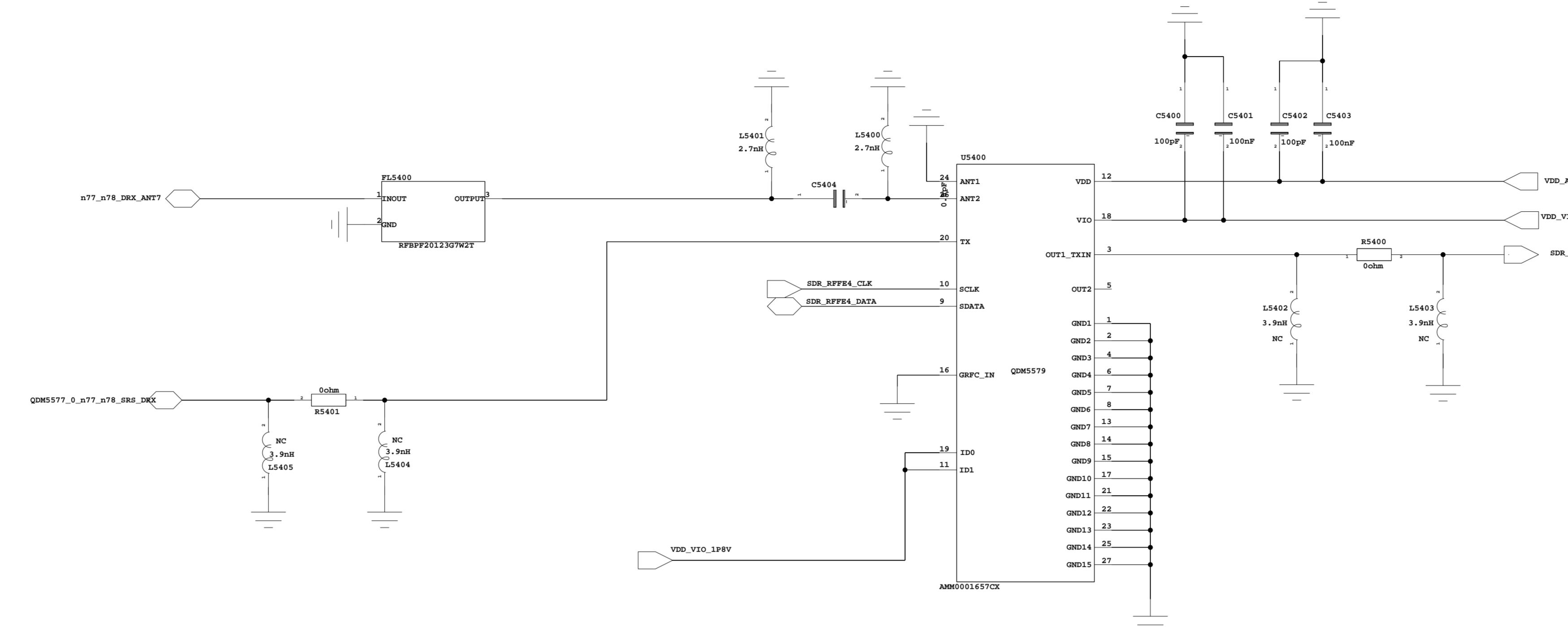
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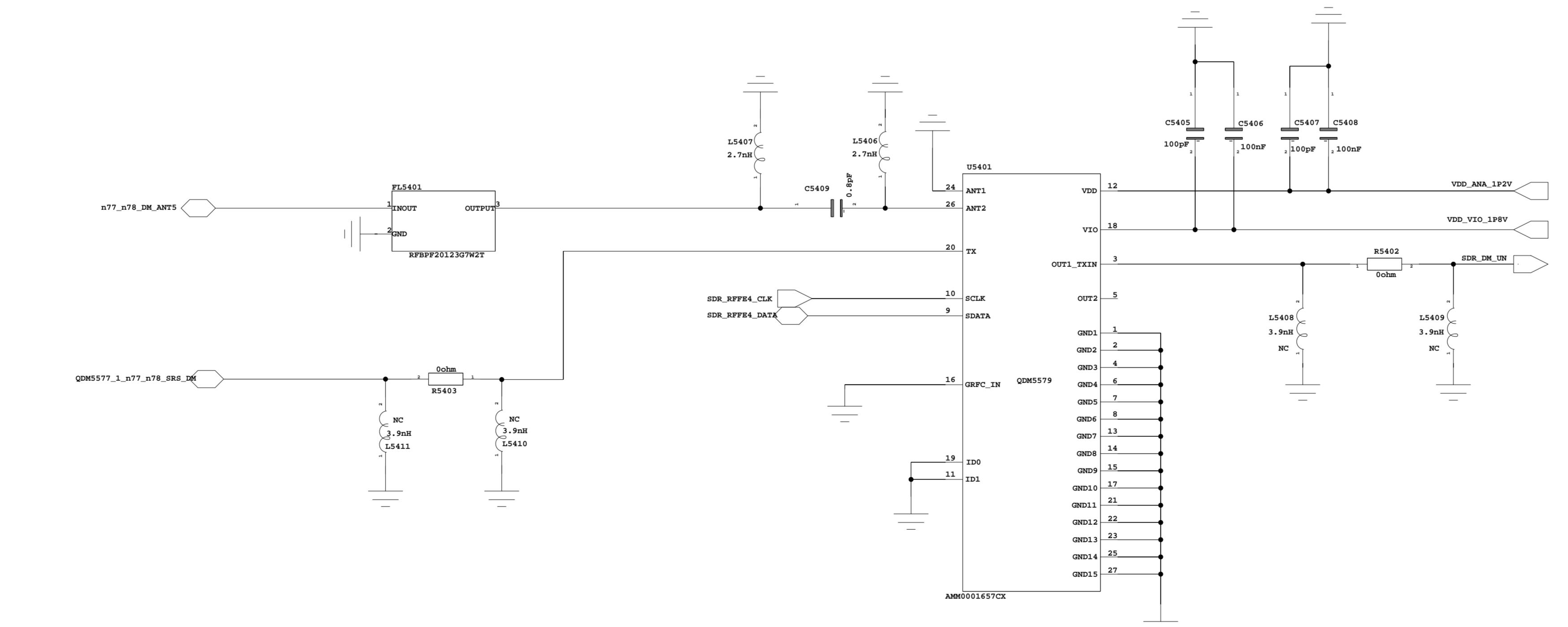
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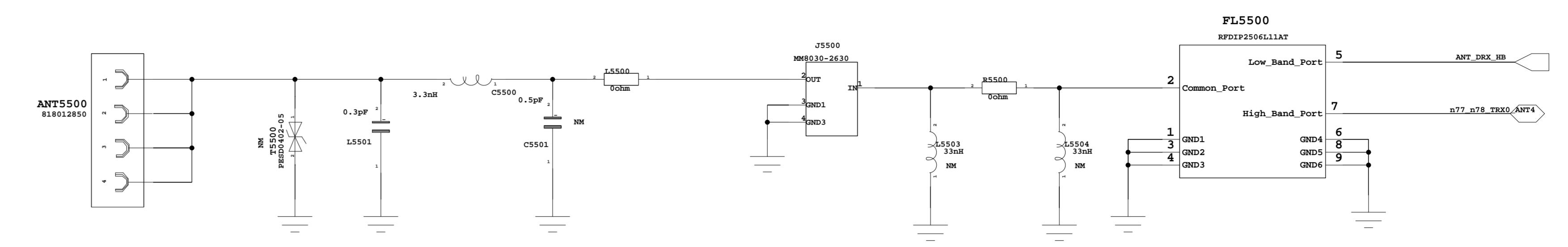
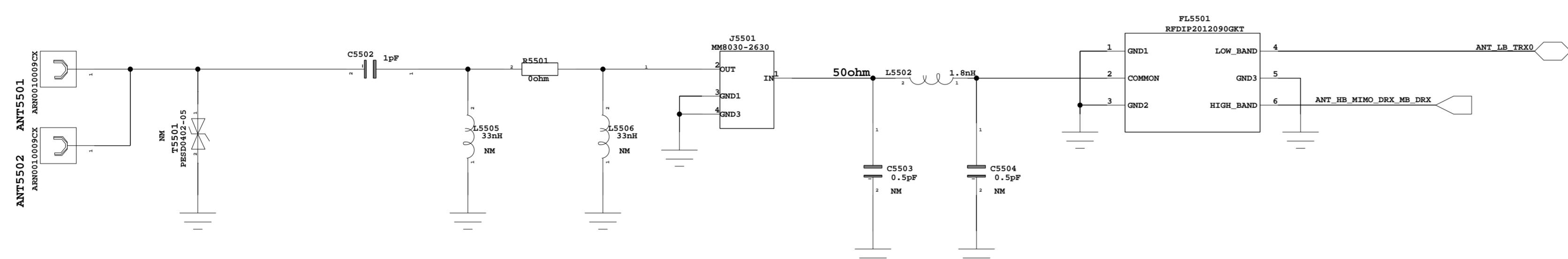
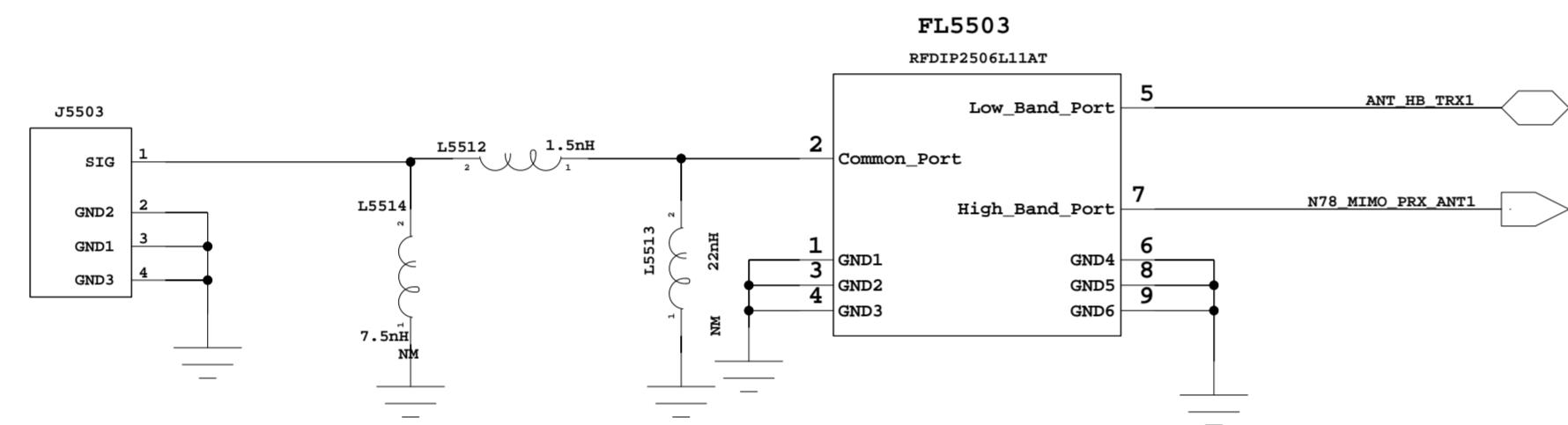
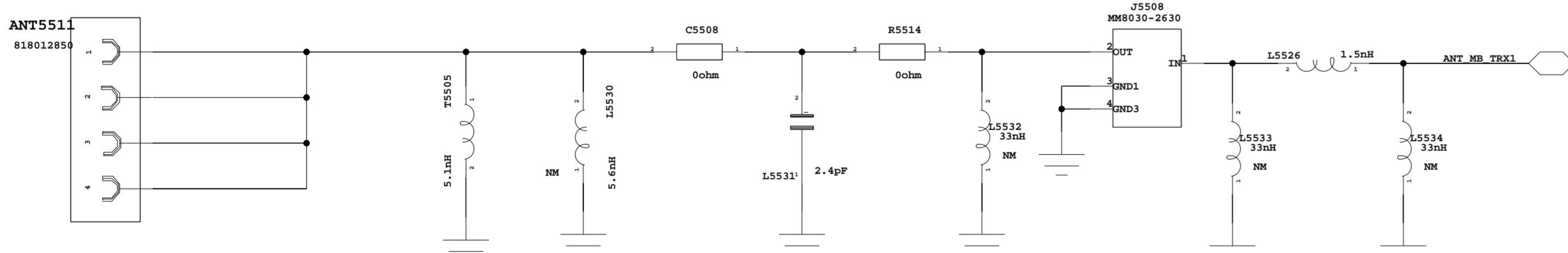
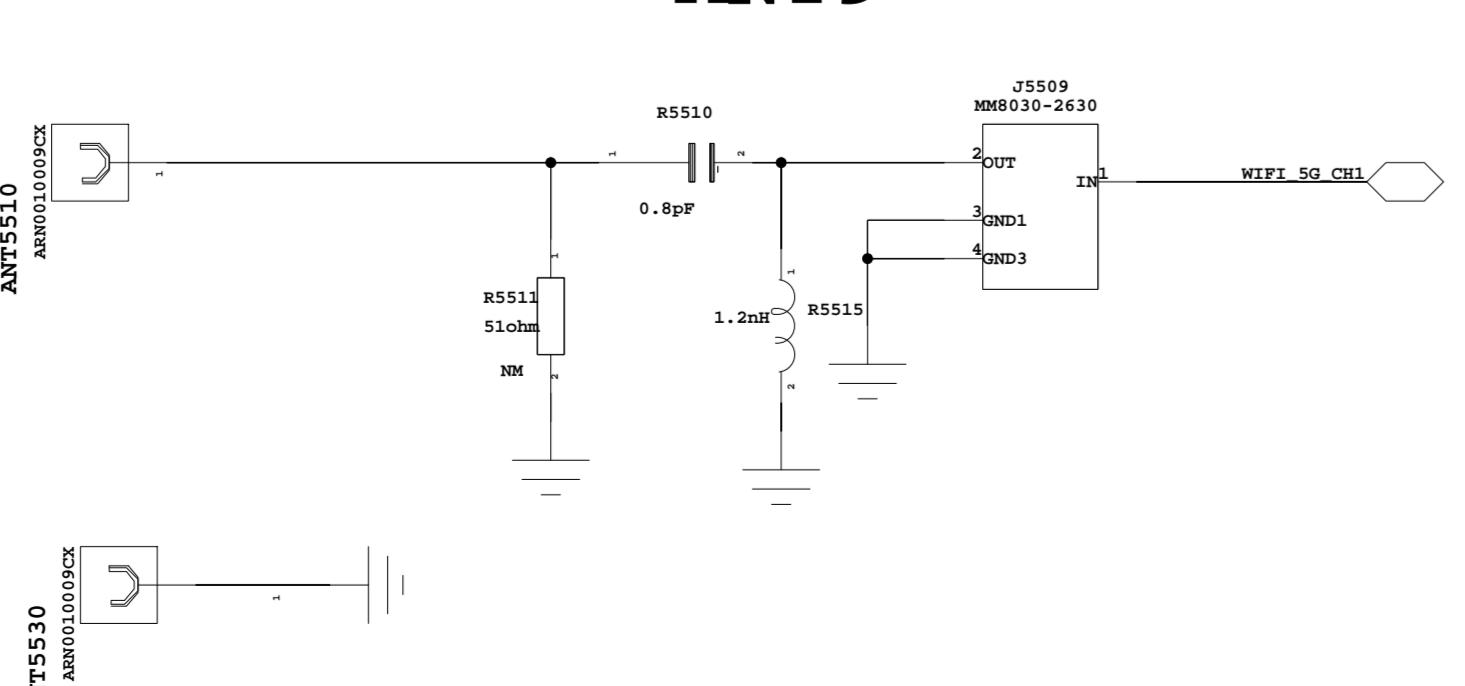
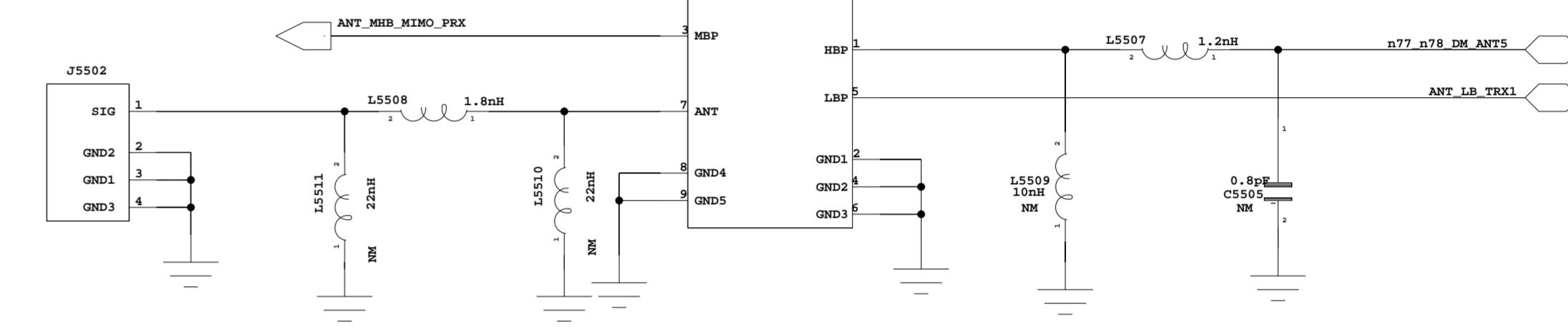
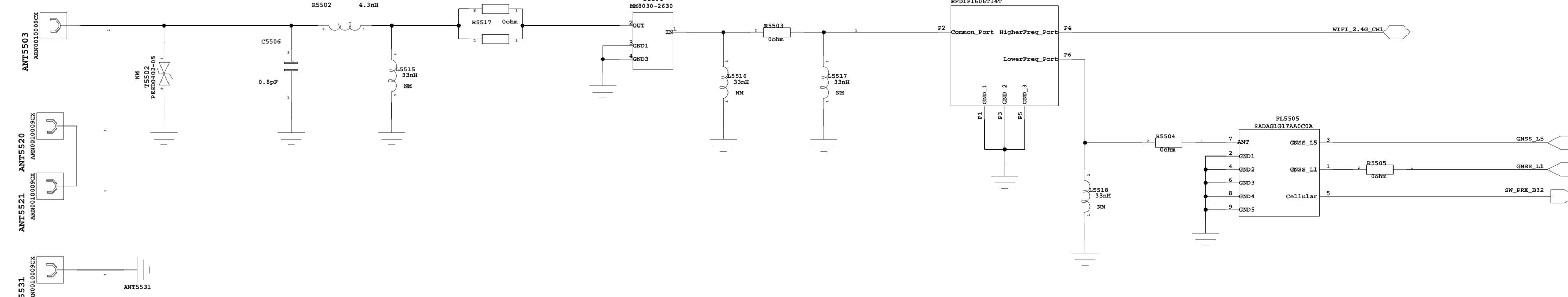
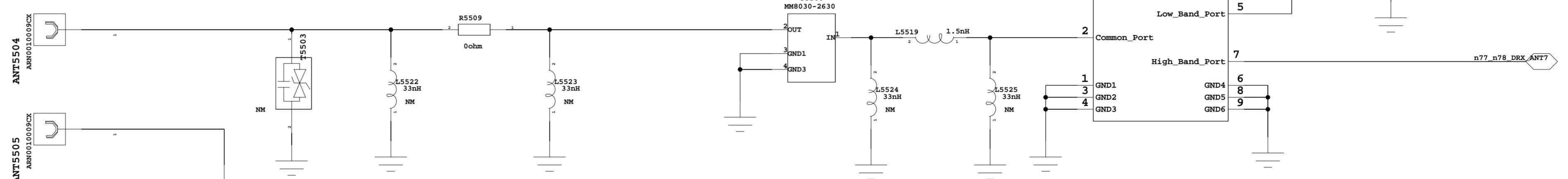
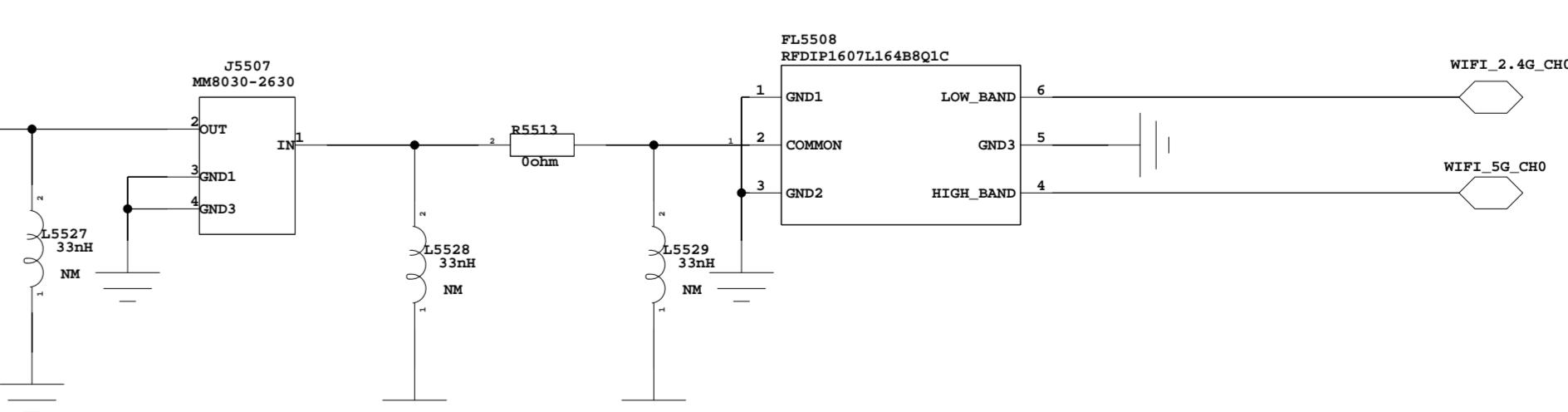
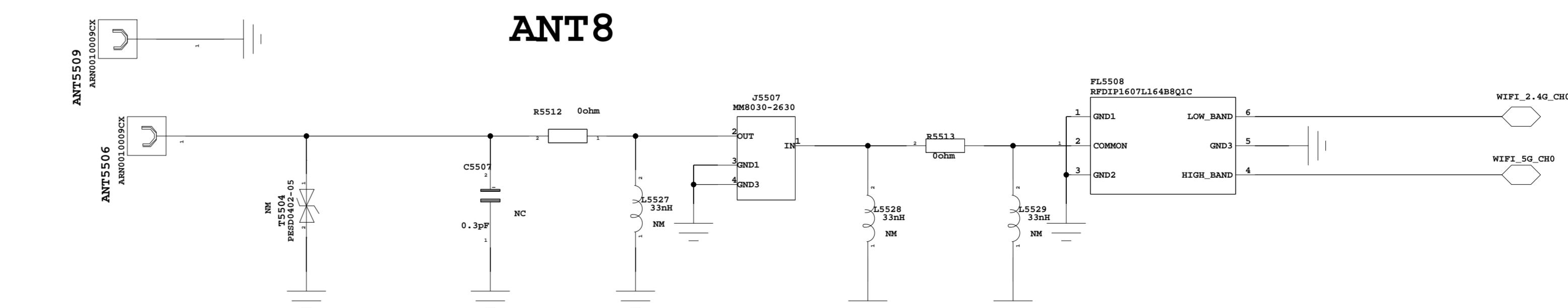


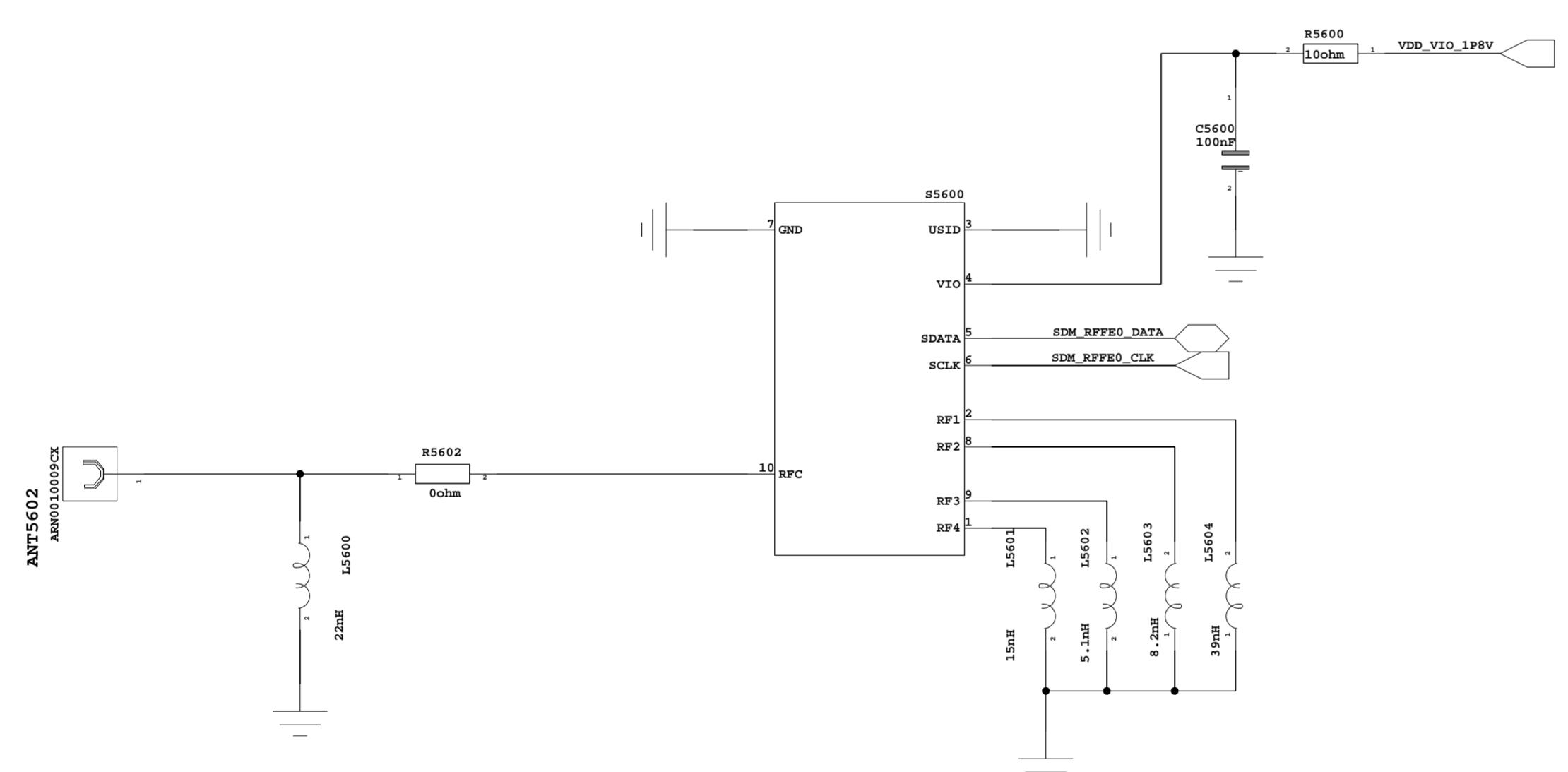
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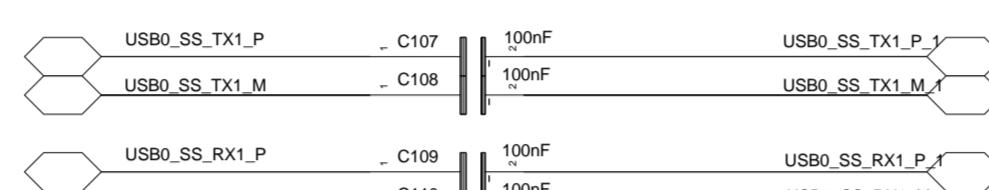
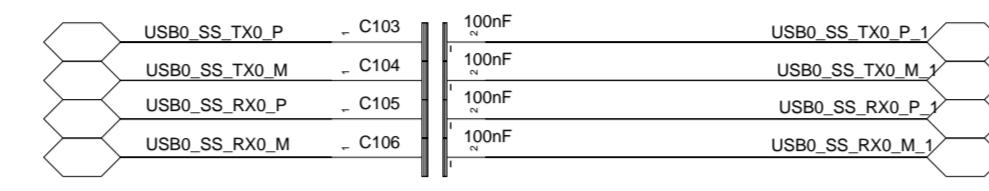
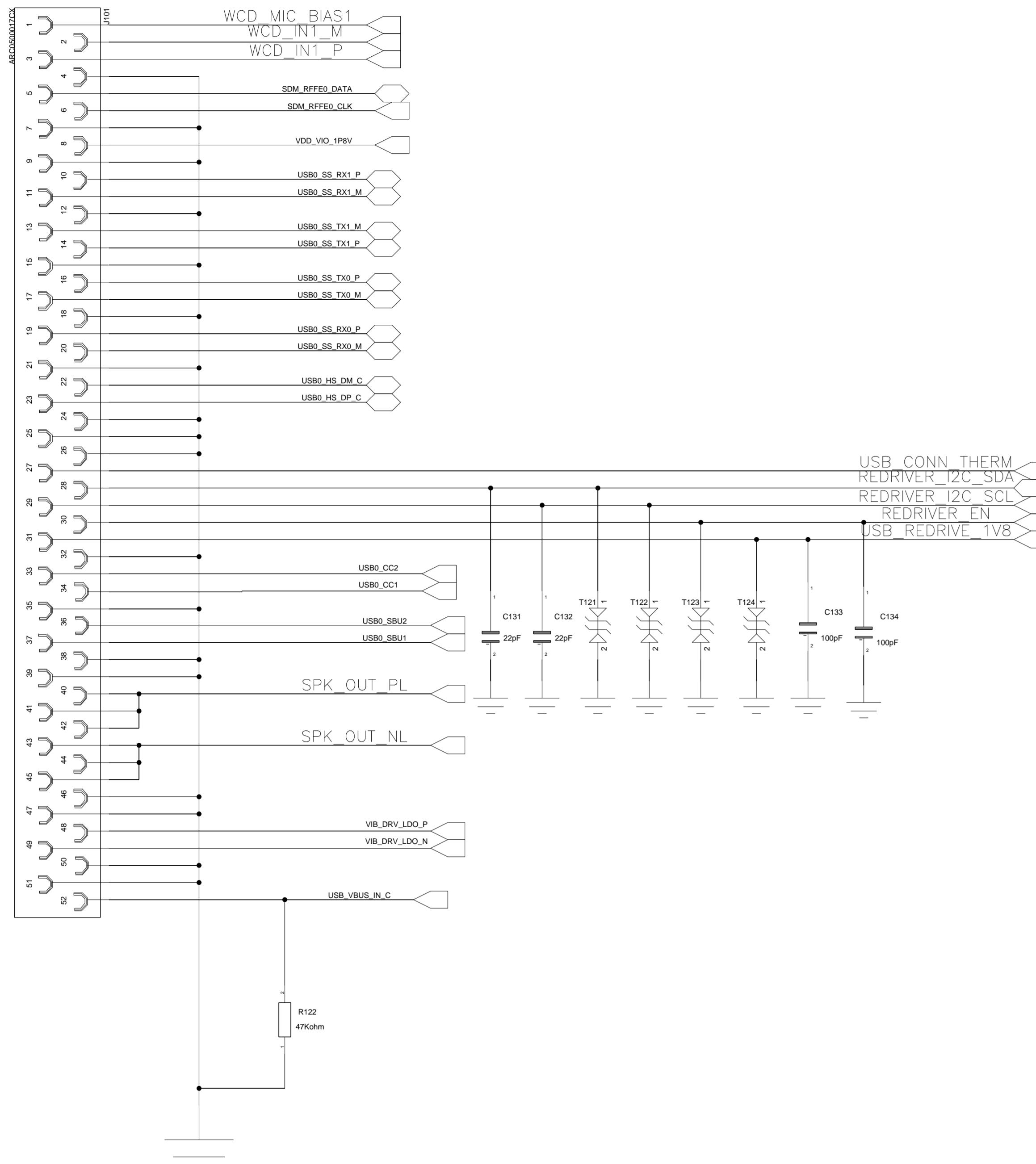
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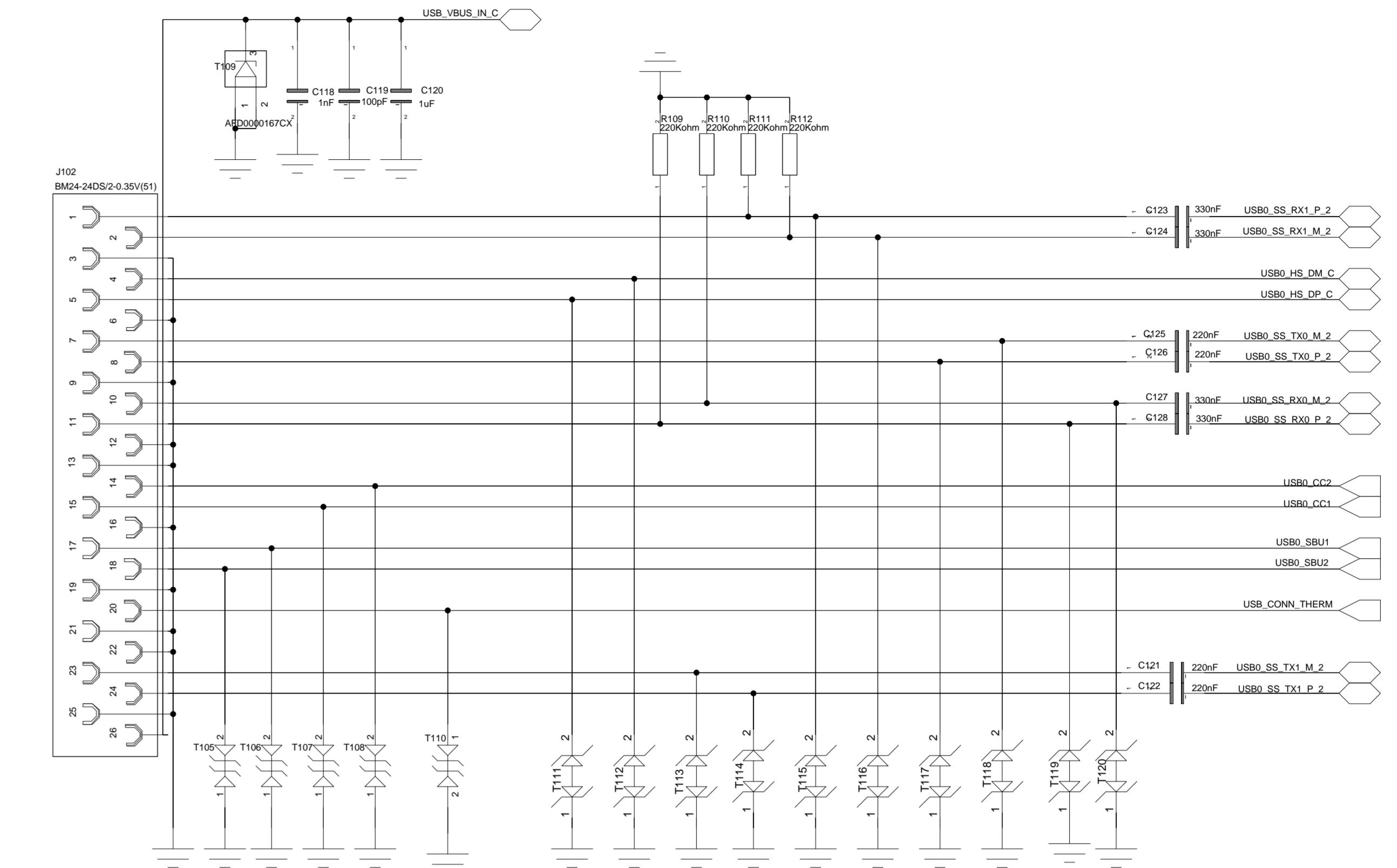
ANT4**ANT0****ANT1****ANT2****ANT3****ANT9****ANT5****ANT6****ANT7****ANT8**



SUB BOARD CONN

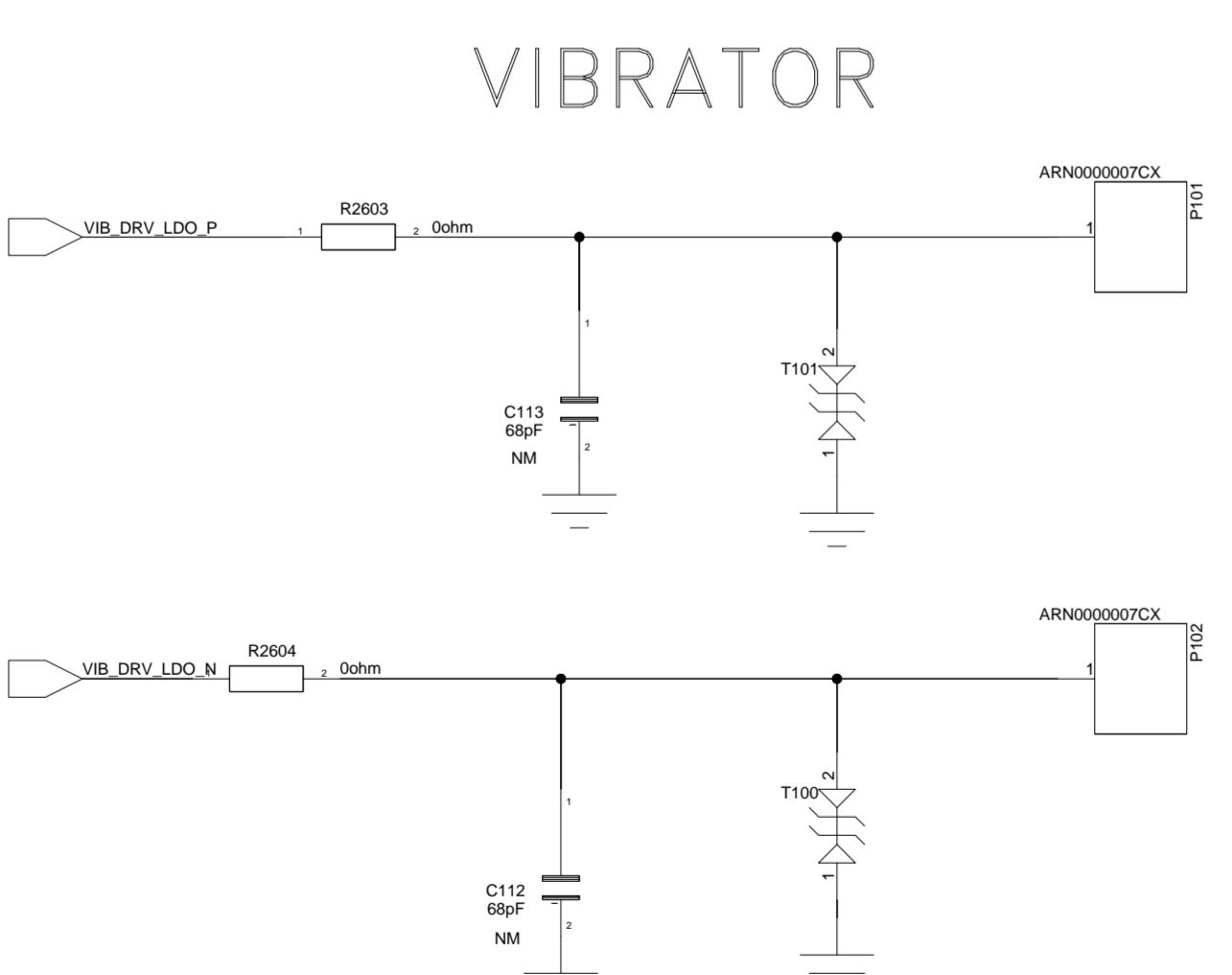


USB BTB

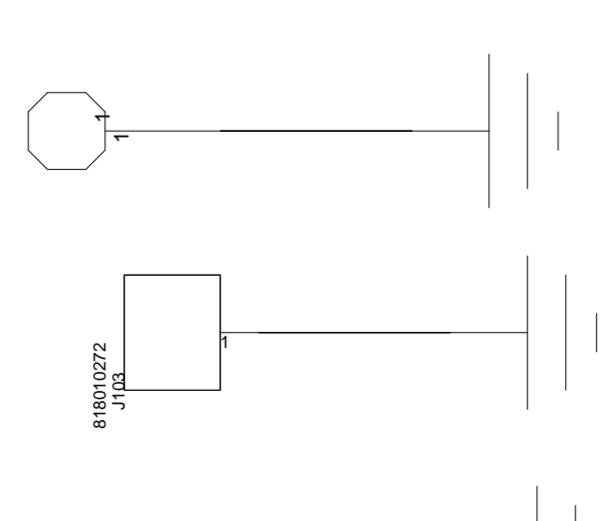


Place close to USB Connector.

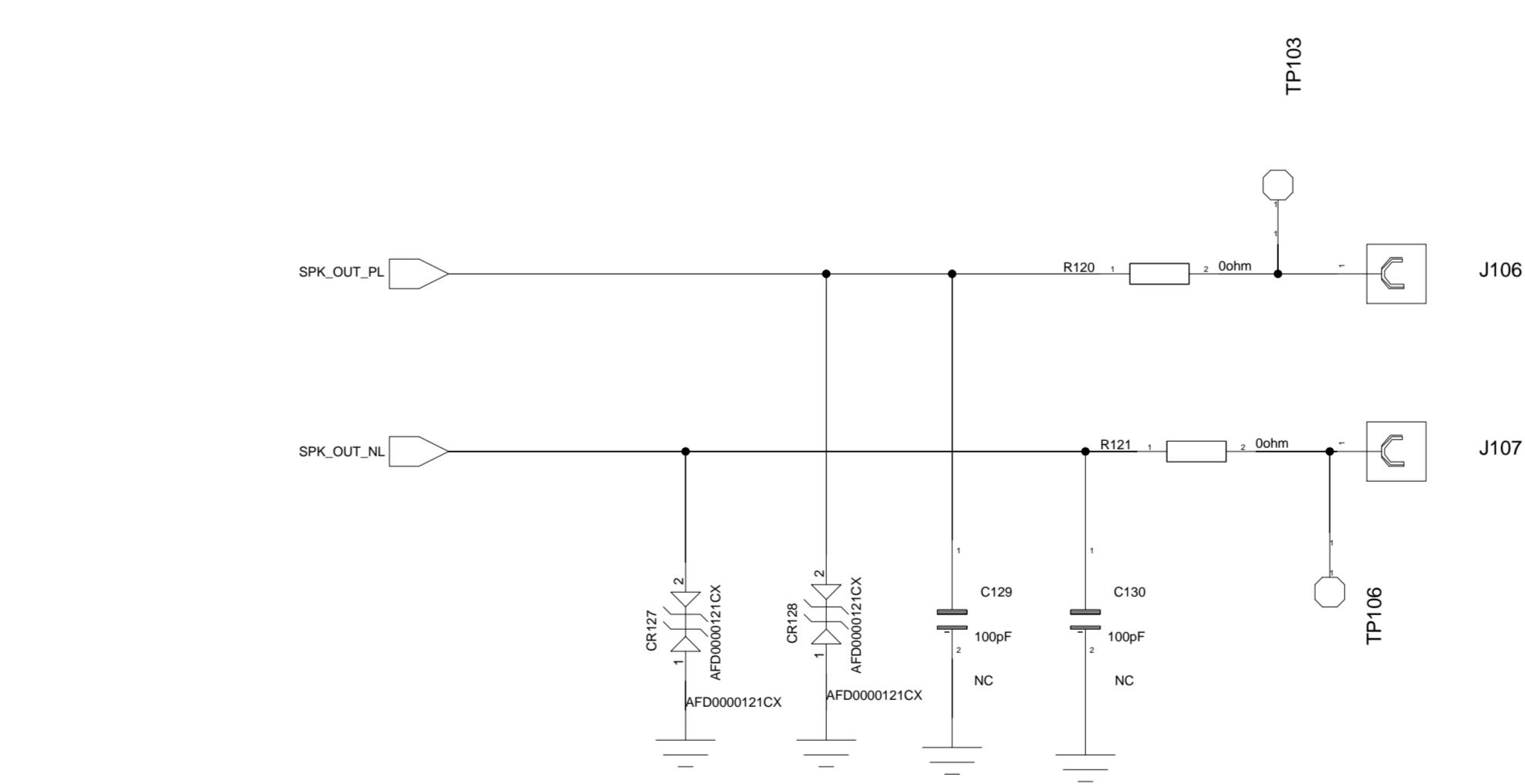
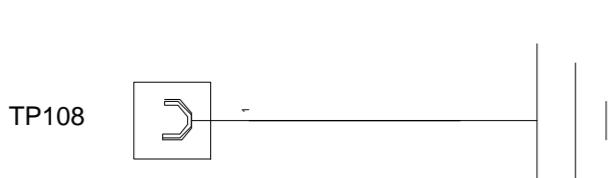
SPEAKER



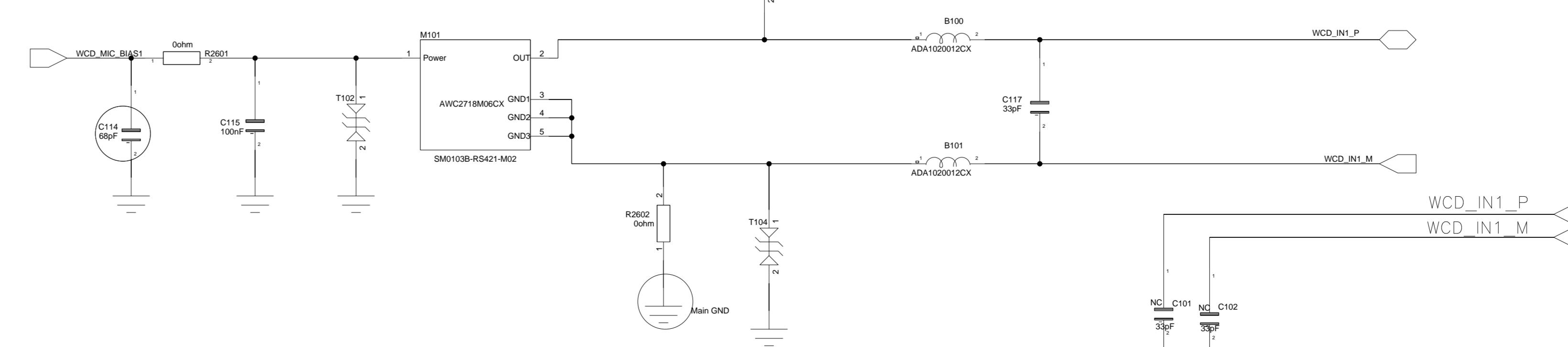
SH101



TP104



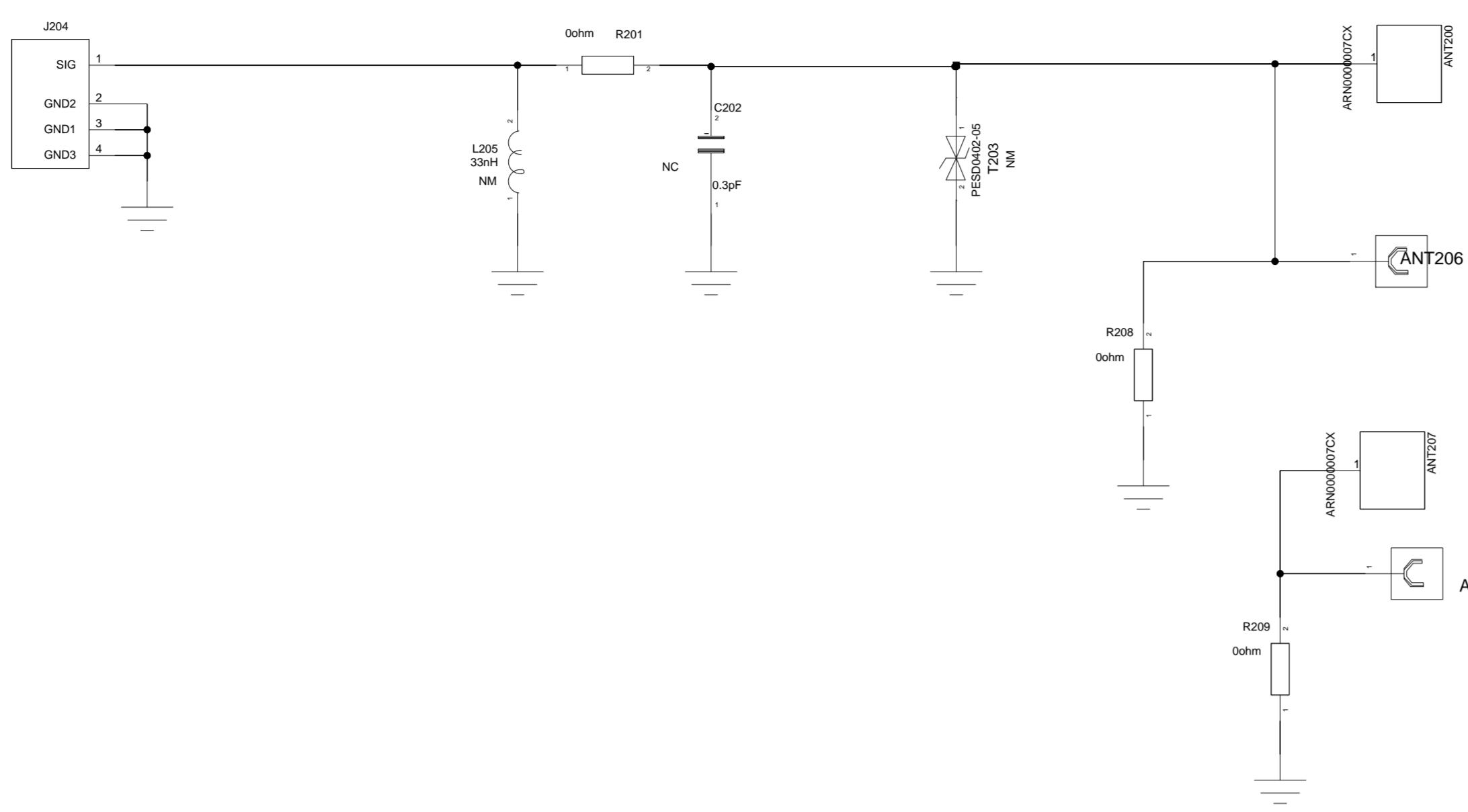
MIC1



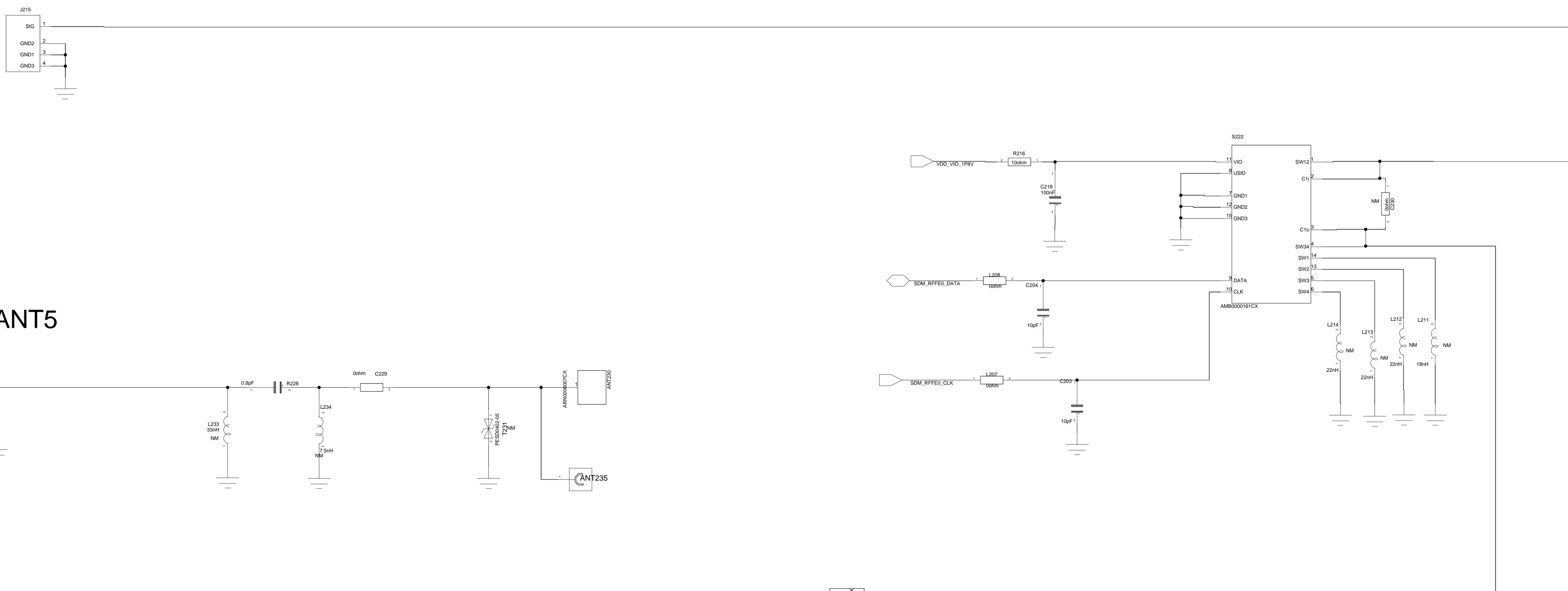
Connect to Main GND

MARK101 MARK102 MARK103 MARK104

ANT1



ANT2



ANT5

