

**Lenovo**

**Moto Edge 2023**

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**Moto Edge 2023**  
**Level 3 – Service Manual**

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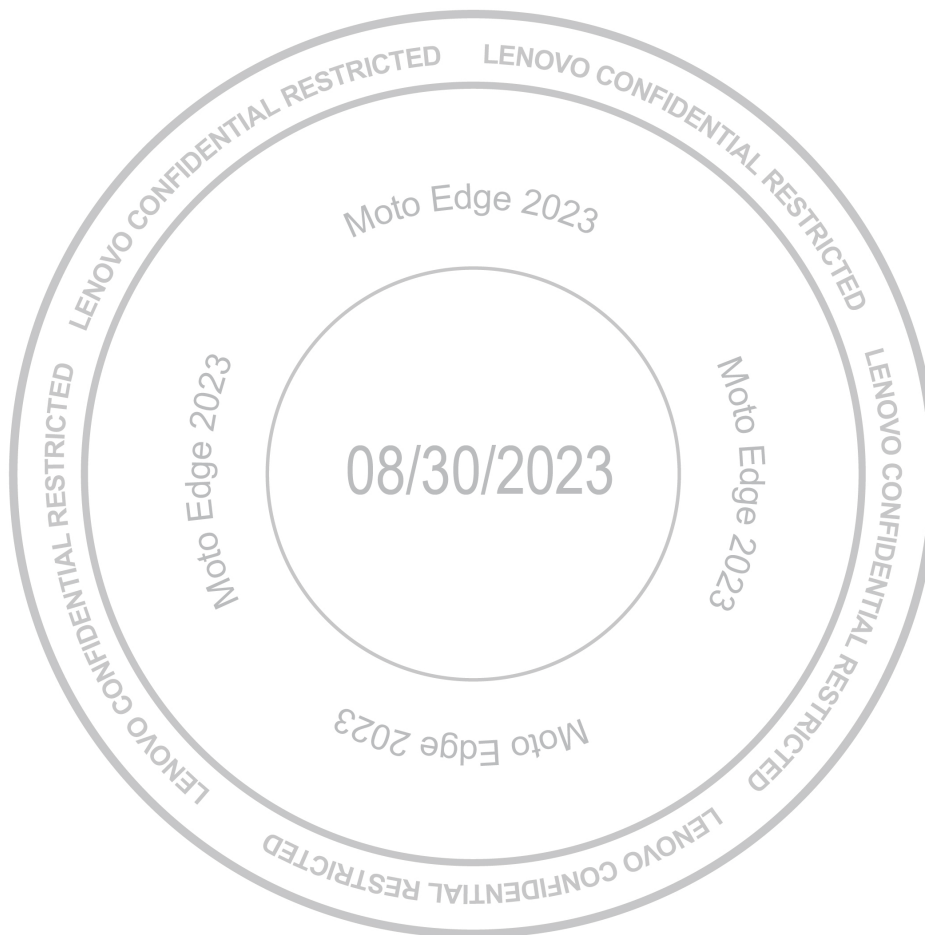
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## REVISION HISTORY

| <i>Revision</i> | <i>Date</i> | <i>Notes</i>     |
|-----------------|-------------|------------------|
| 1               | 08/30/2023  | Initial Release. |



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# L3 PARTS LIST AND IMAGE

Table 1. L3 Parts List

| Location | Part Number  | Ref.                | Commodity  | Qty | Part Level | Description                             | Function                             | Remark           |
|----------|--------------|---------------------|------------|-----|------------|-----------------------------------------|--------------------------------------|------------------|
| 1        | SC98D30562   | U2001               | IC         | 1   | L3         | IC,PMIC,WFBGA,167PINS, MT6363BW/A       | Power Management Integrated Circuits |                  |
| 2        | SC98D30563   | U8501               | IC         | 1   | L3         | IC,PMIC,WLCSP,42PINS, MT6685HP/B        |                                      |                  |
| 3        | SC98D30564   | U2601               | IC         | 1   | L3         | IC,PMIC,WLCSP,96PINS, MT6375P/A         |                                      |                  |
| 4        | SC98D31997   | U2301               | IC         | 1   | L3         | IC,PMIC,WFBGA,167PINS, MT6368AW/A       |                                      |                  |
| 5        | SC98D31998   | U1801               | IC         | 1   | L3         | IC,PMIC,WLCSP,45PINS, MT6319KP/A        |                                      |                  |
|          | 09014018002W | J2673               | Connector  | 1   | L3         | CONN,50 PIN RCPT                        |                                      |                  |
|          | SCA8C40525   | J2672, J4181, J4241 | Connector  | 3   | L3         | CON,BTB,24pin,0.35pitch, 0.77mm         |                                      |                  |
|          | SCA8C44152   | J4121, J4201        | Connector  | 2   | L3         | CON,BTB,40PINS,0.35,F, 0.8mm,Receptacle |                                      |                  |
|          | SCA8C55388   | J2671               | Connector  | 1   | L3         | CONN,BTB,2024360503                     |                                      |                  |
| 6        | SCA8D74741   | J2701, J2702        | Connector  | 2   | L2.5       | CONN,BAT,0.4BB CONN H=0.7 GCB7X REC     | Battery Connector                    |                  |
|          | SCA8C28294   | J001, J201, J501    | Connector  | 3   | L2.5       | CONN,RF,2x2x0.56,4PINS, F,0.56          |                                      |                  |
|          | SCA8D56795   | U501                | Connector  | 1   | L2.5       | CONN USB,CONN USB,24PIN TYPE C IP68     |                                      | On USB Sub Board |
|          | SCA8D52087   | J402                | Connector  | 1   | L2.5       | CONN,SIM,2.30H 2in2 Double-Deck CONN    |                                      | On SIM Board     |
|          | SM48D39549   | MK4661              | Microphone | 1   | L2.5       | AU,MIC,2.75x1.85mm,GP compliant         |                                      |                  |

## NOTE

L3 parts are not commonly stocked, contact our USA distributors partners to request prices and lead times.

## Front View

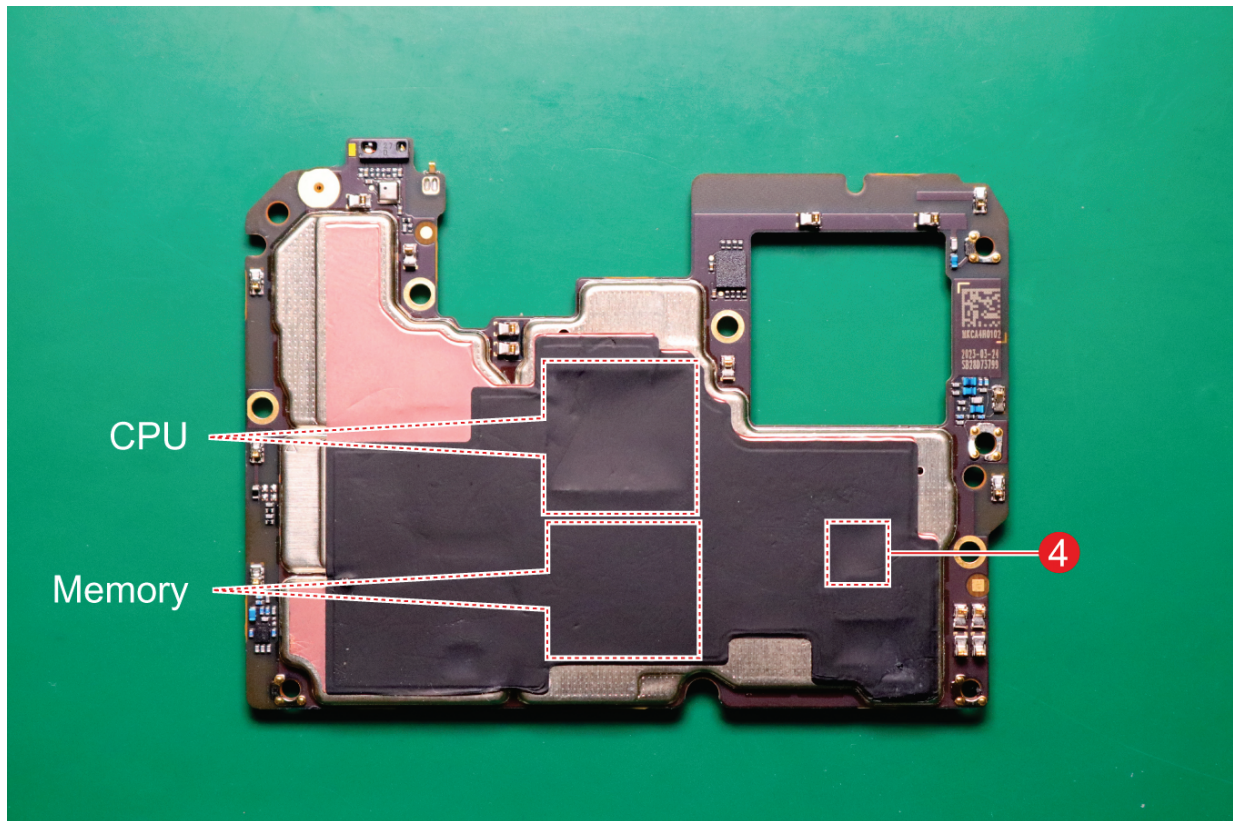


Figure 1. Front View



## Back View

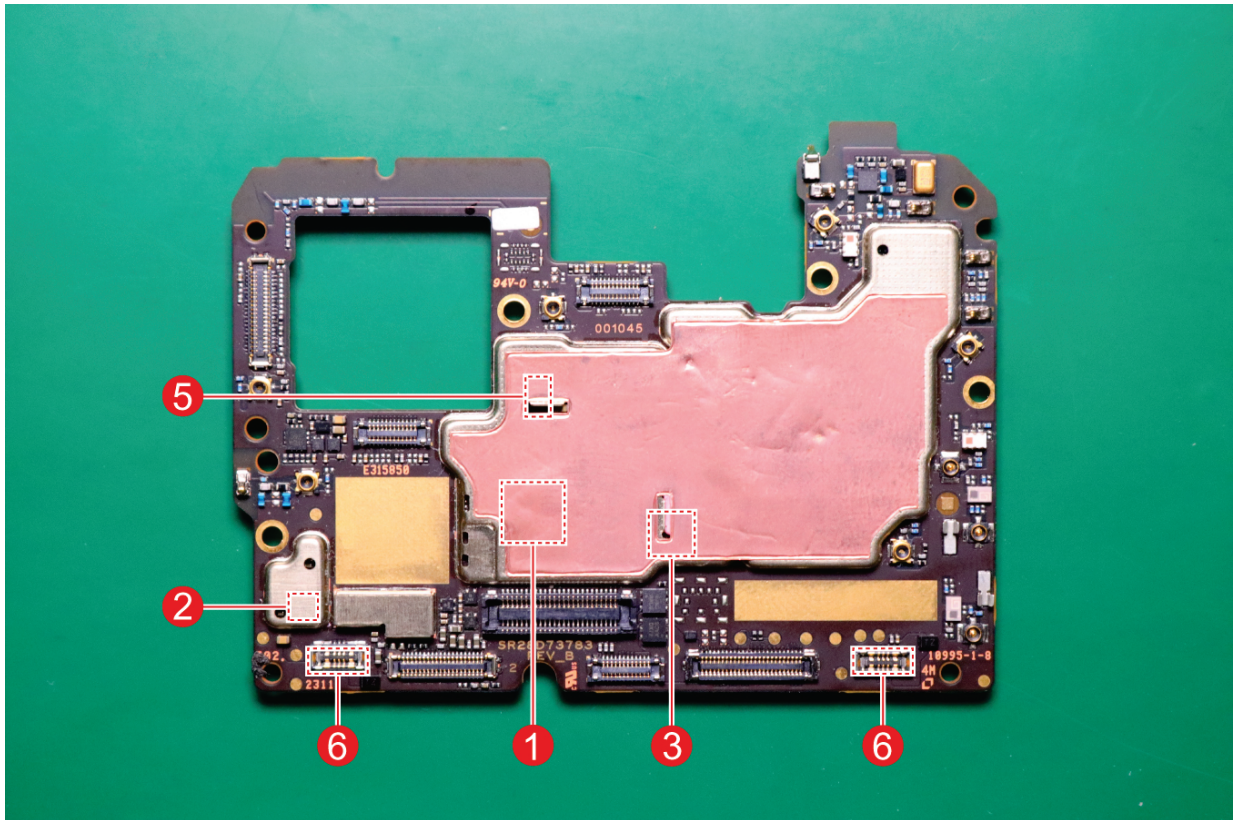


Figure 2. Back View

# TROUBLE SHOOTING GUIDE

## WLAN/BT/NFC TROUBLESHOOTING

### Bluetooth/Wi-Fi power-on failure

WLAN/BT power-on failure Symptoms:

- WLAN DL test firmware test commands fail.
- Bluetooth power-on test commands fail.

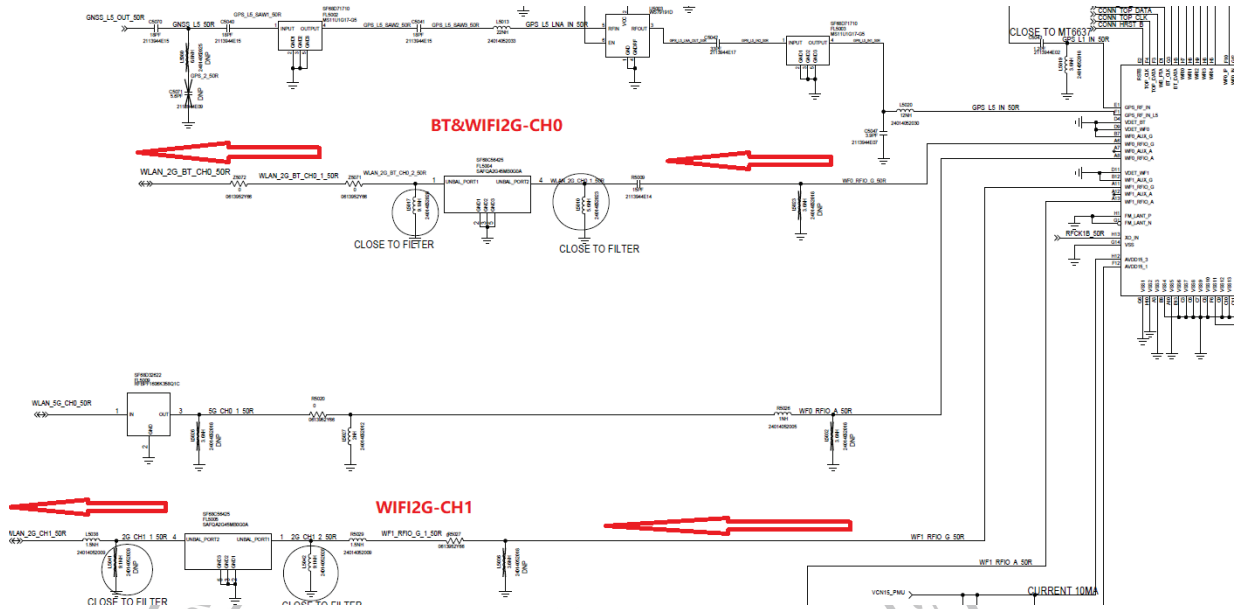
### Step 1 for BT/Wi-Fi 2.4GHz power-on failure

- Check if the other functionality fails as well, e.g. check WLAN “power on” if Bluetooth can not be powered on. Check Bluetooth “power on” if WLAN can not be powered on.
- Both WLAN and Bluetooth share the same IC and most of the circuit, so if one of the BT/Wi-Fi fails, the other should fail as well. If only one of them fails, it is highly likely that it is not a hardware problem and it could just that the BT/Wi-Fi is turned on through the UI already and the test commands can not turn it on again.

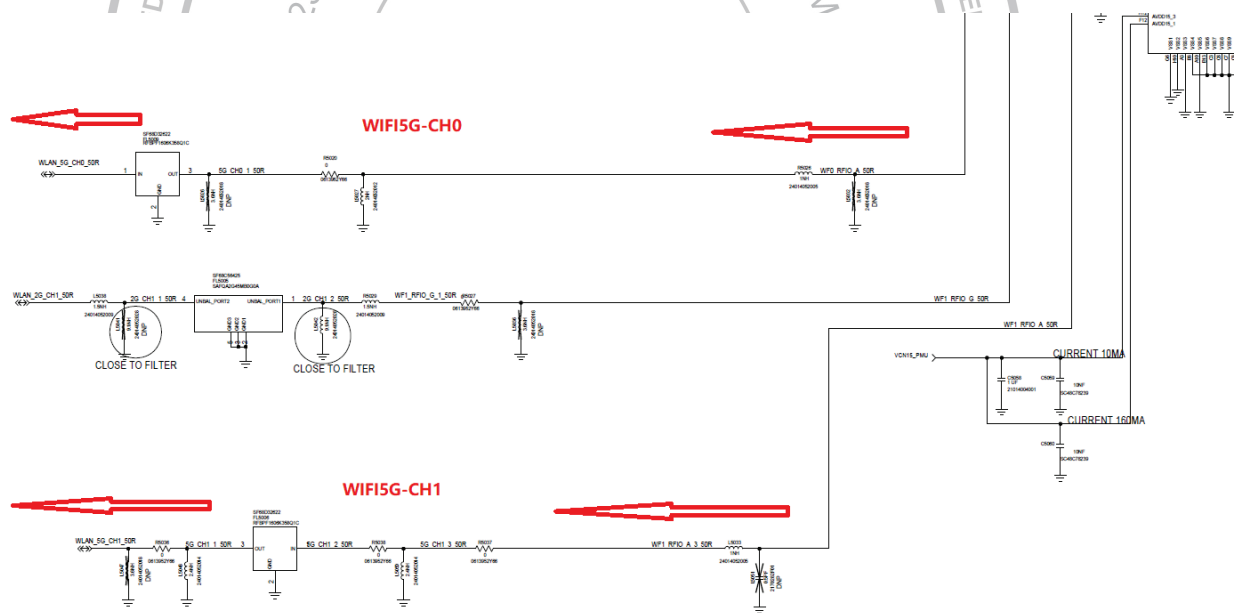
### Step 2 for BT/Wi-Fi power-on failure

If both BT and WLAN fails, it is highly indicative of a hardware failure. Location of the Bluetooth and WLAN circuit (shown on the next few pages). Check for any visible damage around the BT/WLAN antenna/IC area.

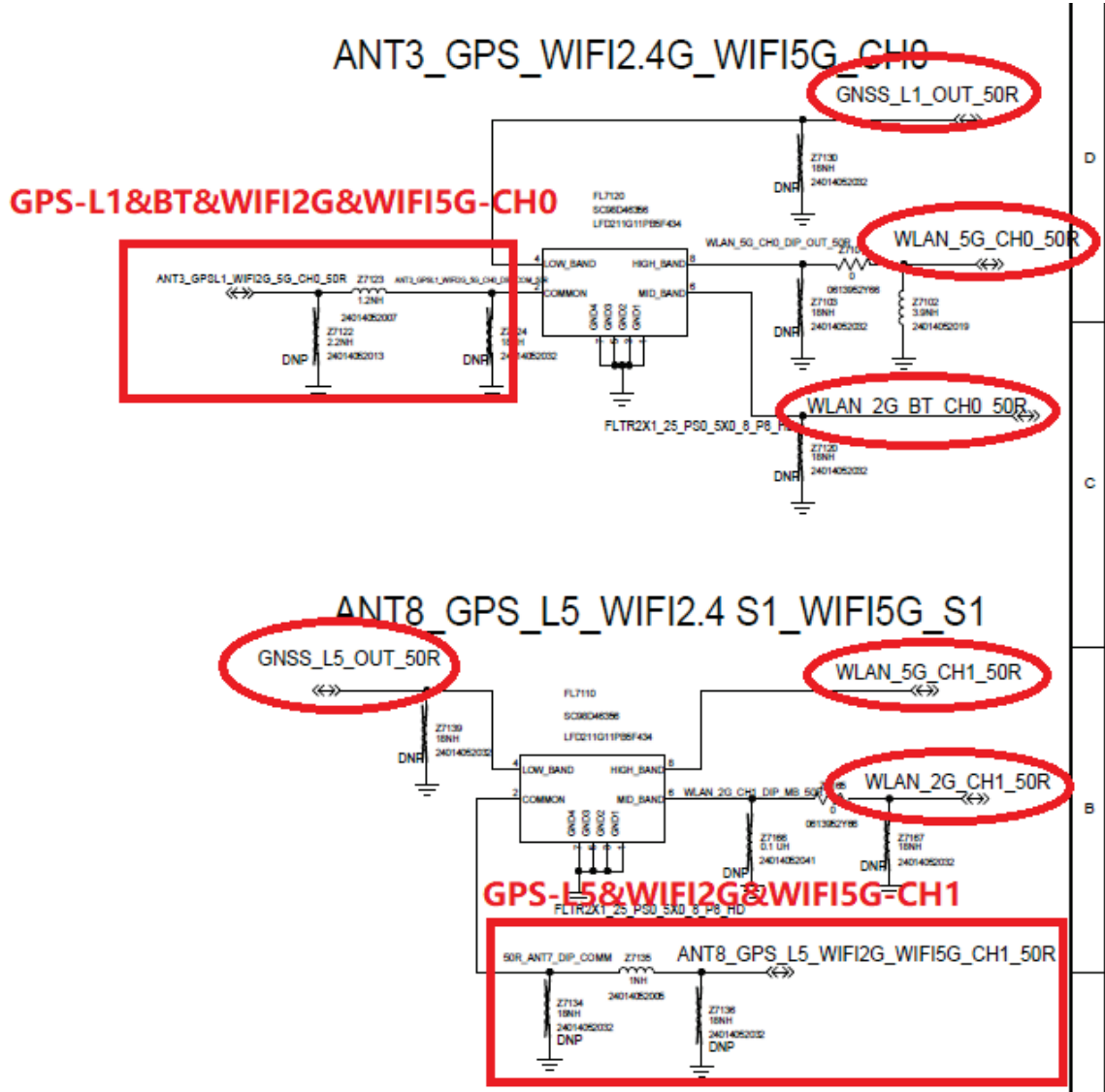
## BT/WIFI2G-CH0/CH1 PA Schematic



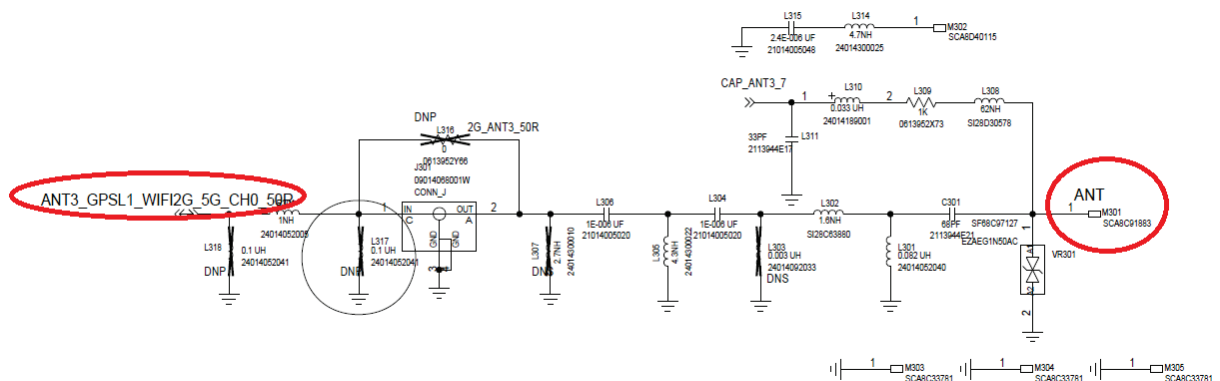
## WIFI5G-CH0/CH1 PA Schematic



## WIFI2.4G/WIFI5GHz-CH0/CH1 Schematic



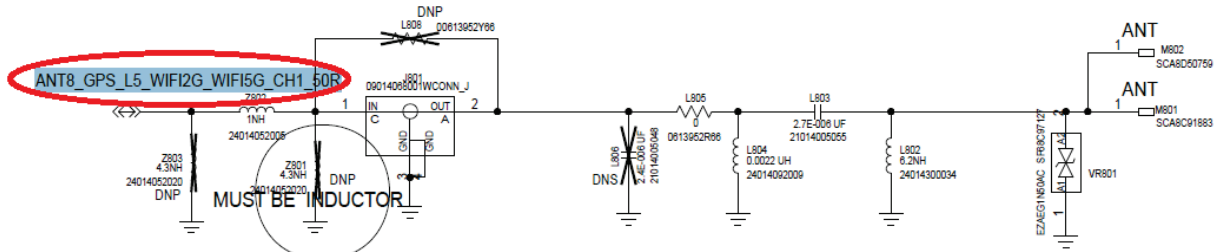
## WIFI2.4G&5G-CH0/BT/GPS L1 ANT3 Schematic



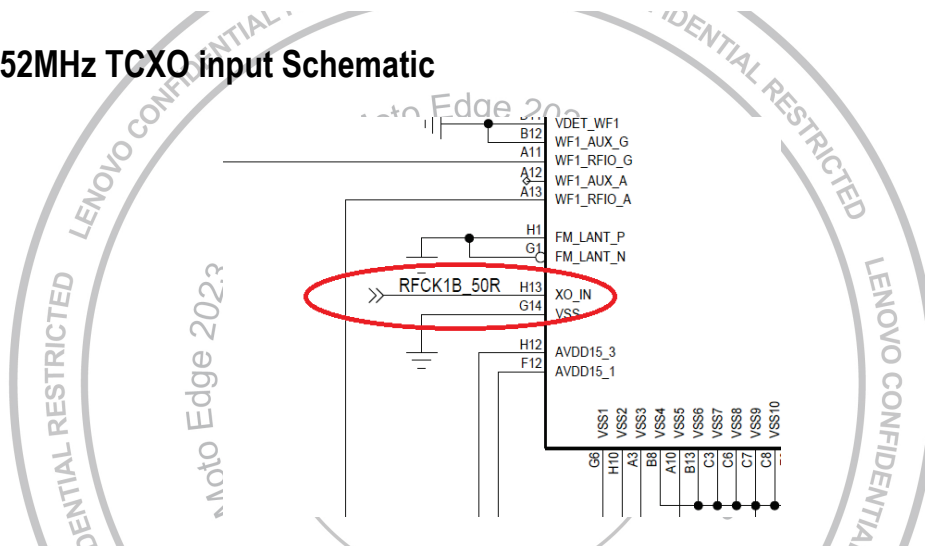


## WIFI2G&5G-CH1&GPS-L5 ANT8 Schematic

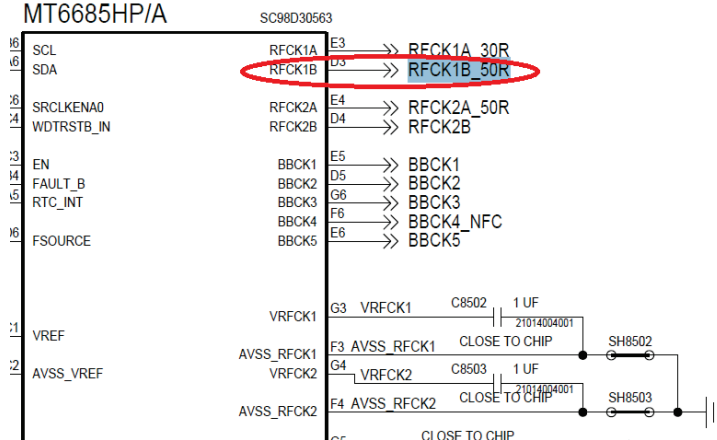
ANT8: GPS L5+WIFI 2.4GTRX1+WIFI5G TRX1



## RF & 52MHz TCXO input Schematic



U8501  
MT6685HP/A



## RF CLOCKS

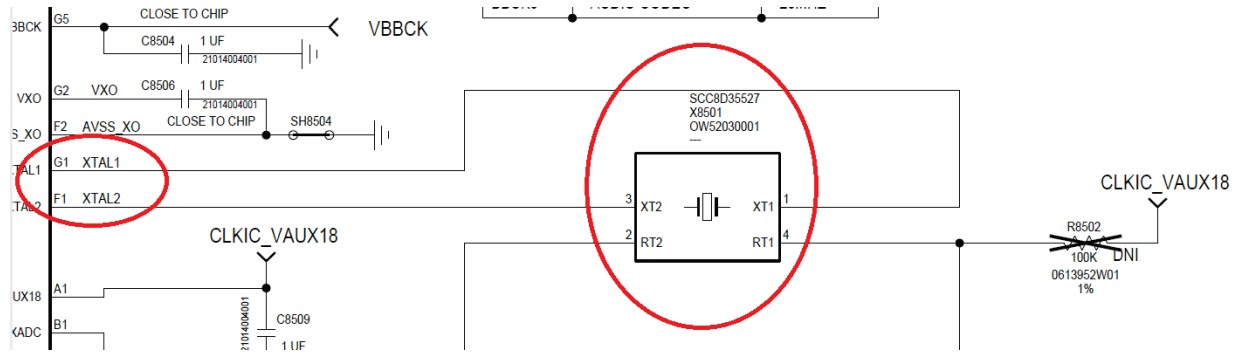
| BALL NAME | CLK RECEIVER         | FREQ.(MHZ) |
|-----------|----------------------|------------|
| RFCK1A    | MM-WAVE RF           | XTAL 52MHZ |
| RFCK1B    | CONSYS RF            | XTAL 52MHZ |
| RFCK2A    | SBU-6G RF            | 26MHZ      |
| RFCK2B    | AP CK4 (MM-WAVE ABB) | 26MHZ      |

## BB CLOCKS

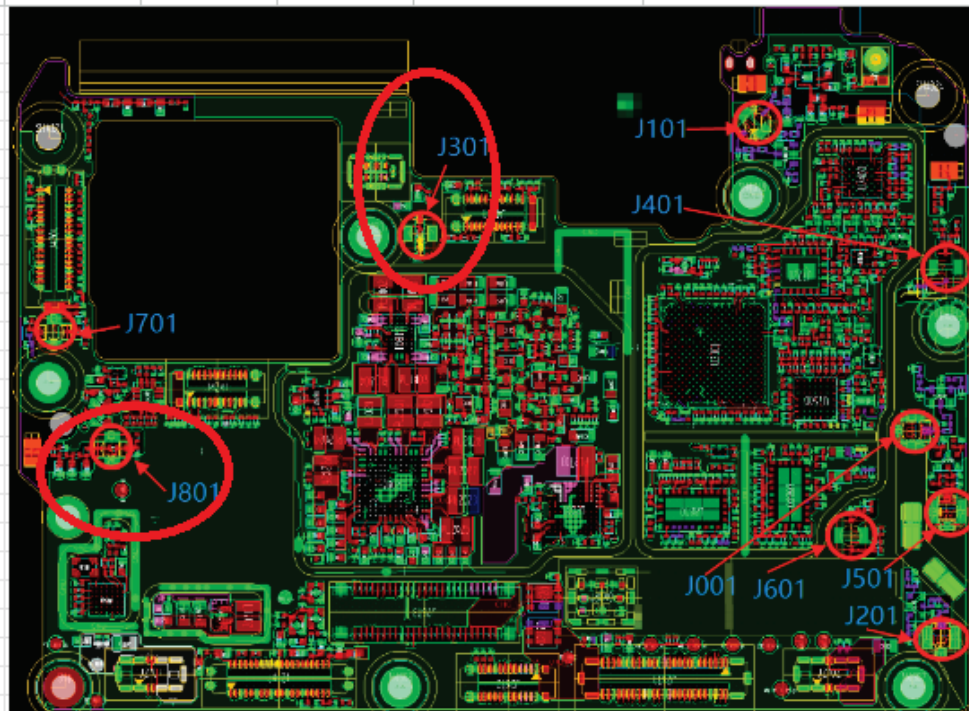
| BALL NAME | CLK RECEIVER        | FREQ.(MHZ) |
|-----------|---------------------|------------|
| BBCK1     | AP CK1(SYSTEM-BOOT) | 26MHZ      |
| BBCK2     | AP CK2(WBG)         | 26MHZ      |
| BBCK3     | AP CK3(UFS)         | 26MHZ      |
| BBCK4     | NC(NFC)             | 26MHZ      |
| BBCK5     | AUDIO CODEC         | 26MHZ      |

# Moto Edge 2023

## Level 3 – Service Manual



### BT/2.4GHz & 5GHz Wi-Fi RF/Antenna Part placement



| Connector | Ref Des | Moto P/N     | Vendor P/N     | 线名                                |
|-----------|---------|--------------|----------------|-----------------------------------|
| 0         | J001    | SCA8C28294   | 818002131      | LMHB LTE TRX0 & LMHB NR RX1       |
| 1         | J101    | 09014068001W | MM8030-2610RJ3 | LMHB NR TRX0 / LMHB LTE RX1       |
| 2         | J201    | SCA8C28294   | 818002131      | LMHB LTE NR RX2                   |
| 3         | J301    | 09014068001W | MM8030-2610RJ3 | GPSL1/WIFI 2.4G S0/ WIFI 5G S0    |
| 4         | J401    | 09014068001W | MM8030-2610RJ3 | LMHB NR RX3                       |
| 5         | J501    | SCA8C28294   | 818002131      | NR Sub 6 Rx3/TX TAS/ 5th MB Rx    |
| 6         | J601    | 09014068001W | MM8030-2610RJ3 | MHB LTE /NR RX2/N41 TX0 SRS/TAS   |
| 7         | J701    | 09014068001W | MM8030-2610RJ3 | NR Sub 6 Rx3/TX TAS               |
| 8         | J801    | 09014068001W | MM8030-2610RJ3 | GPSL 5/ WIFI 2.4G S 1/ WIFI 5G S1 |

1. BT&WIFI2G/WIFI5G-CH0&GPS-L1---ANT3
2. GPS-L5/WIFI2G&5G-CH1---ANT8

### Step 3 for BT/Wi-Fi power-on failure

If no visible damage can be seen, open up the shield and check for any visible damage on the IC and components. Look for misplaced or damaged components.

### Debugging BT/WLAN low TX power

- Probe and measure the output power at the antenna contact area and see in a spectrum analyzer if you see if the phone is transmitting any power.
- Please measure the output power in FTM mode (\*##3646633#\*\*) using the **MTK-FTM** and procedures WIFI&BT-FTM-TX test.

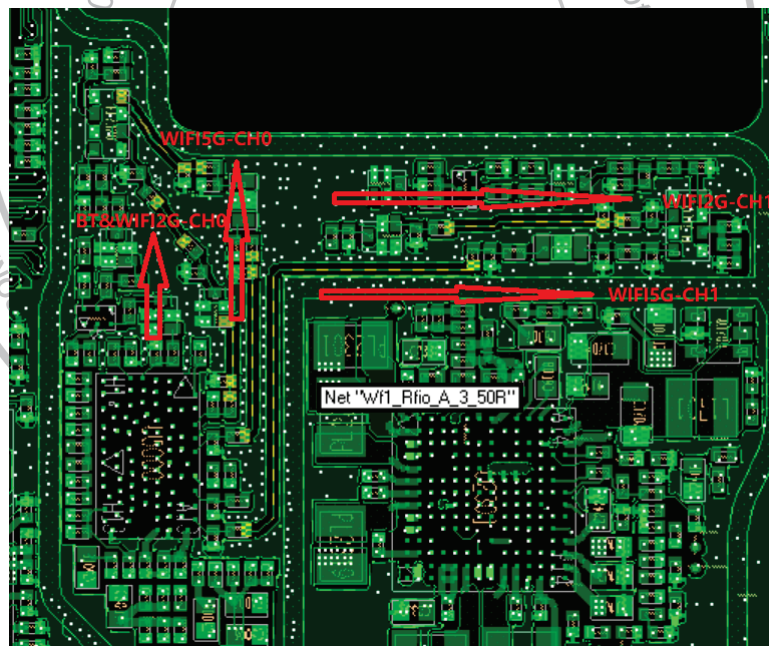
### Bluetooth/Wi-Fi TX/RX RF failure

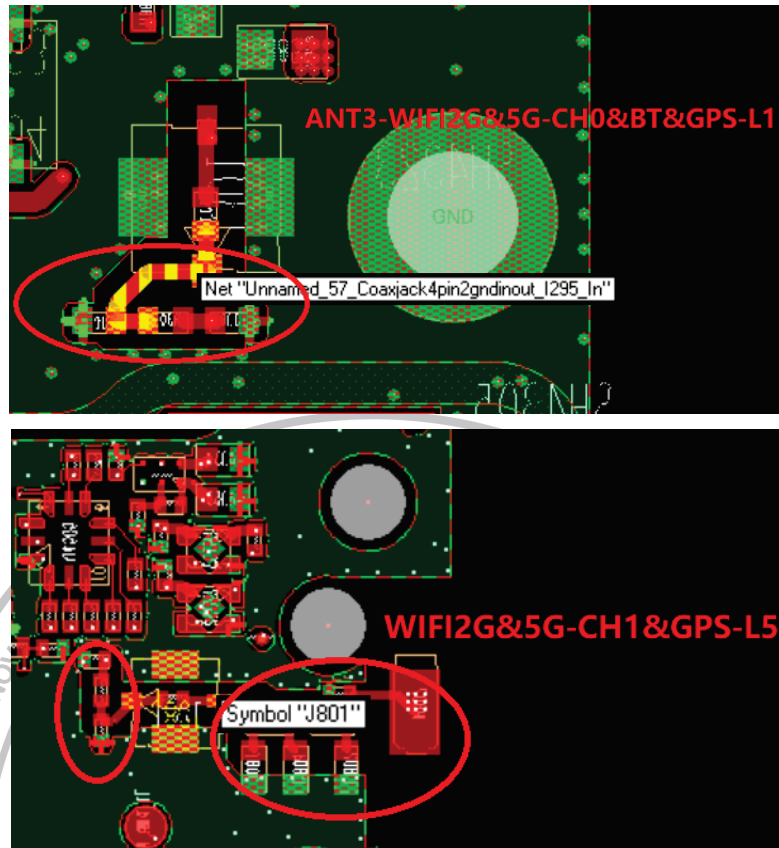
BT/Wi-Fi TX/RX RF failure symptoms:

- Wi-Fi radiated TX test value out of limits.
- Bluetooth radiated TX test value out of limits.
- Wi-Fi scan test fails.
- Bluetooth ping test fails.

### Step 1 for BT/Wi-Fi TX/RX RF failure

Look for visible damage of the BT/Wi-Fi Antenna, Antenna Contacts and BT/Wi-Fi circuits.





1. GPS-L1/WIFI2G&5G-CH0/BT---ANT3
2. GPS-L5/WIFI2G&5G-CH1---ANT8

## Step 2 for BT/Wi-Fi TX/RX RF failure

- If there is no visible sign of antenna damage and antenna contacts damage, it's most likely something wrong in the BT/Wi-Fi chips or circuits.
- Open up the shield and look for misplaced or damaged RF front-end components. Please refer to the previous slide describing the layout of the WLAN circuit.
- It is recommended to probe the amplitude of the TX signal along the RF path to look for the failure component.

## NFC power-on failure

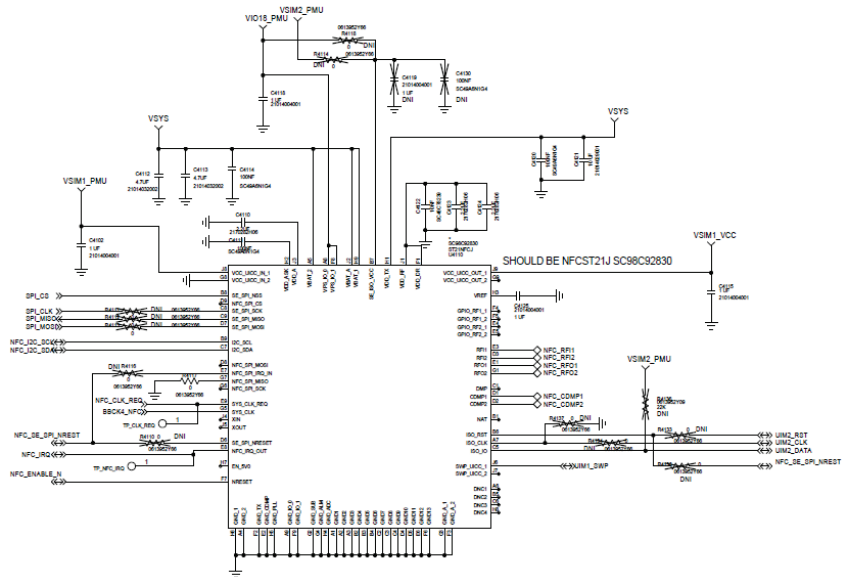
### NFC power-on failure Symptoms:

Need Check NFC chipset and related circuit SMT is OK or not.

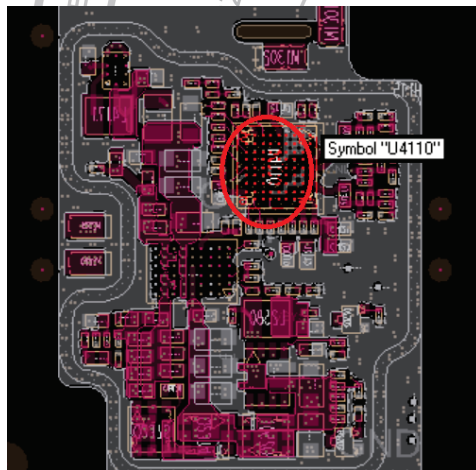
## NFC SCH (ST21NFCJ)

NFC  
REF 4100-4199

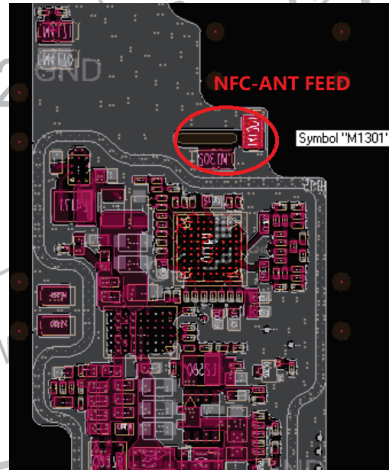
|       |              |            |
|-------|--------------|------------|
|       | <b>ST21J</b> | ST54K      |
| U4110 | SC98C92830   | SC98D74269 |
| R4110 | DNP          | 0R         |
| R4111 | DNP          | 0R         |
| R4112 | DNP          | 0R         |
| R4113 | DNP          | 0R         |
| R4114 | DNP          | 0R         |
| R4116 | DNP          | DNP        |
| R4117 | 0R           | DNP        |
| R4118 | DNP          | DNP        |
| R4133 | DNP          | 0R         |
| R4134 | DNP          | 0R         |
| R4136 | DNP          | 22K        |
| R4137 | DNP          | DNP        |
| R4138 | DNP          | DNP        |
| C4130 | DNP          | 100nf      |
| C4119 | DNP          | 1uF        |



## NFC PCB



NFC CHIPSET--U4110---ST21NFCJ



NFC ANT FEED PADS-M6250/M6260

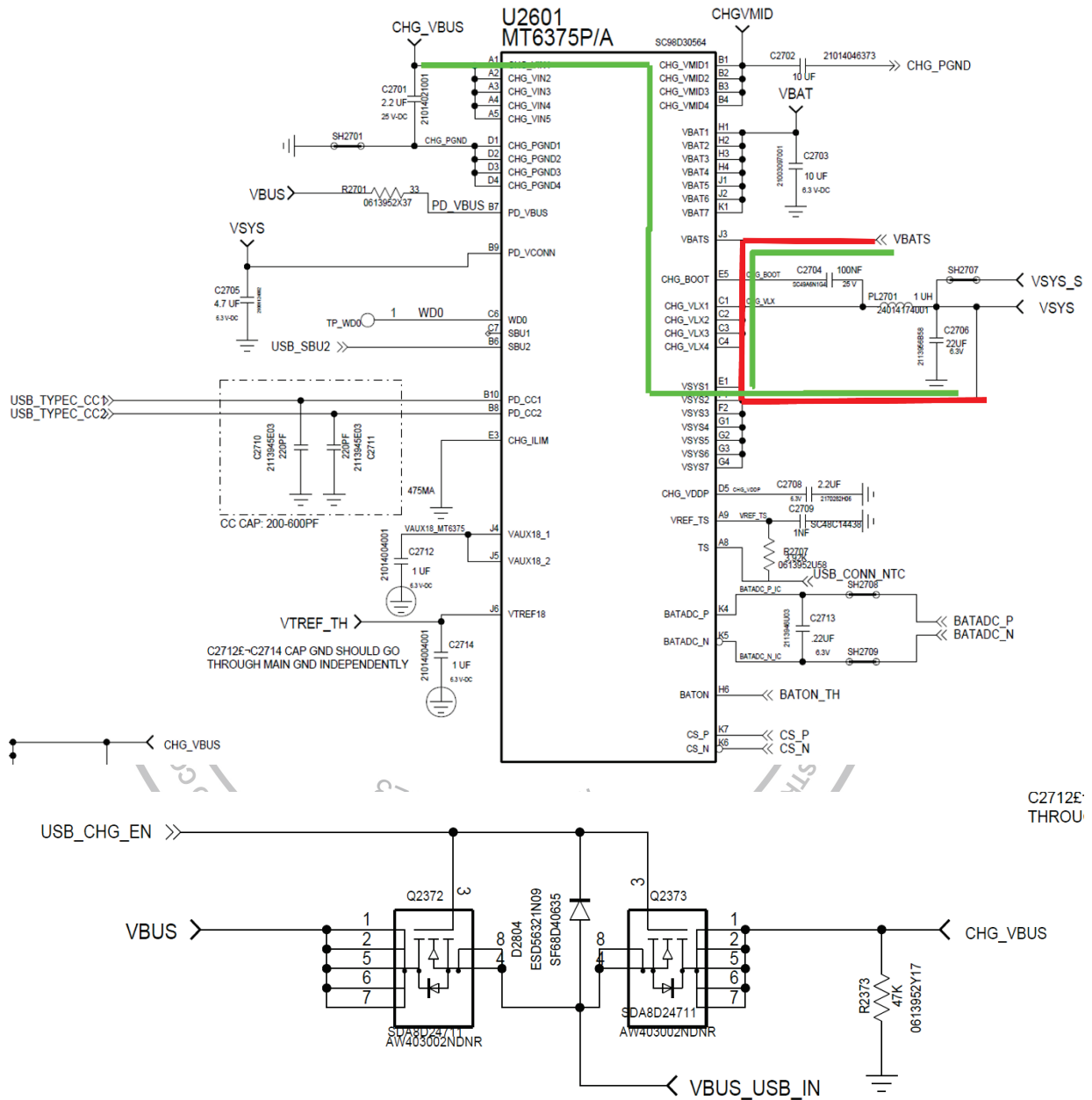




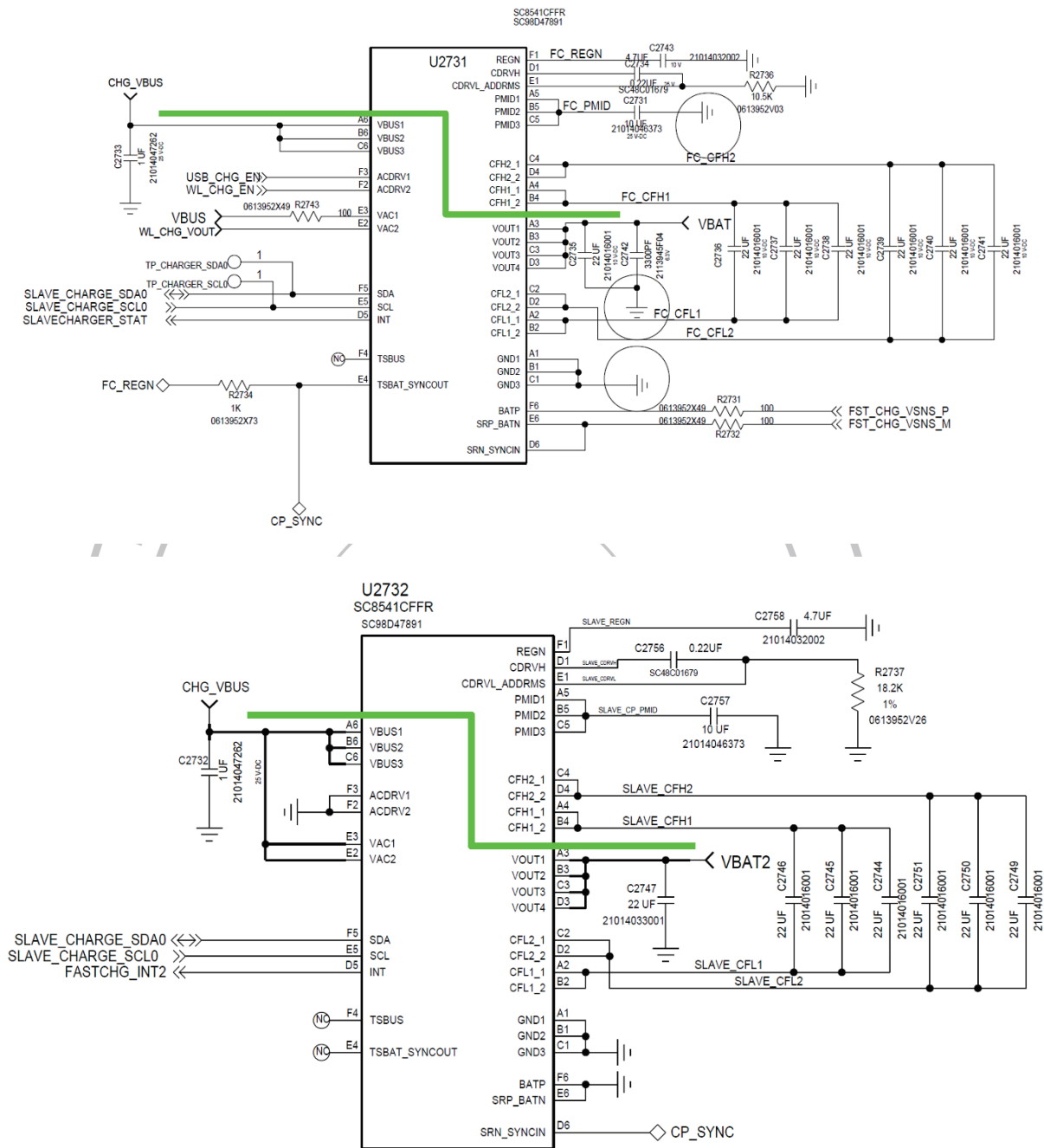


## CHARGING TROUBLESHOOTING

### Charging Path – Schematics-Main charge



## Charging Path – Schematics-68W



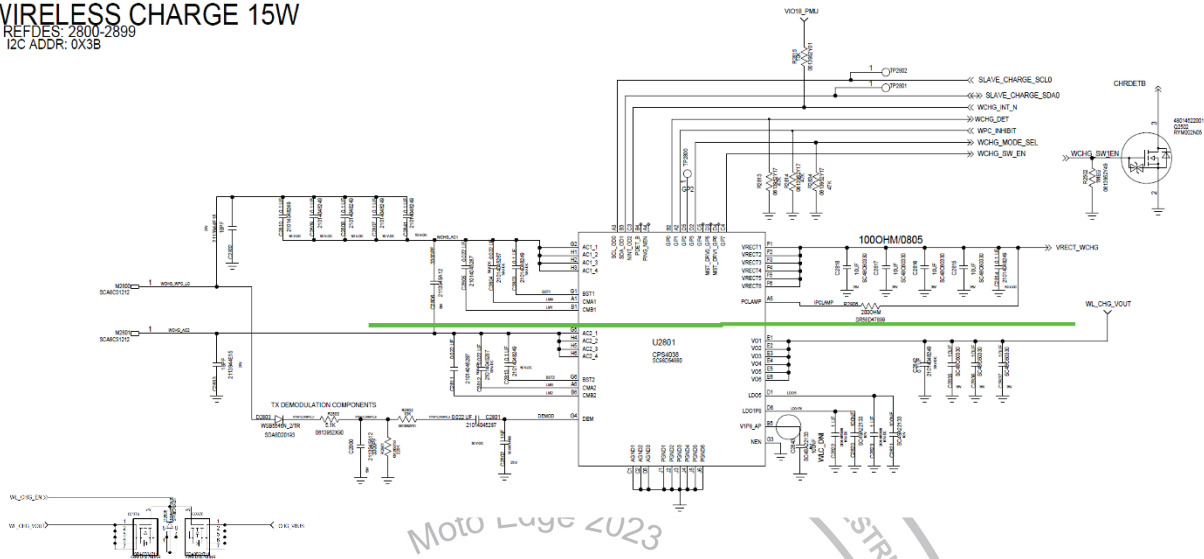
Path 1: charging path

**Path 2:** discharge path

## Charging Path – Schematics-Wireless charge

### WIRELESS CHARGE 15W

REFDES: 2800-2899  
I2C ADDR: 0X3B



**Path 1:** charging path

**Path 2:** discharge path

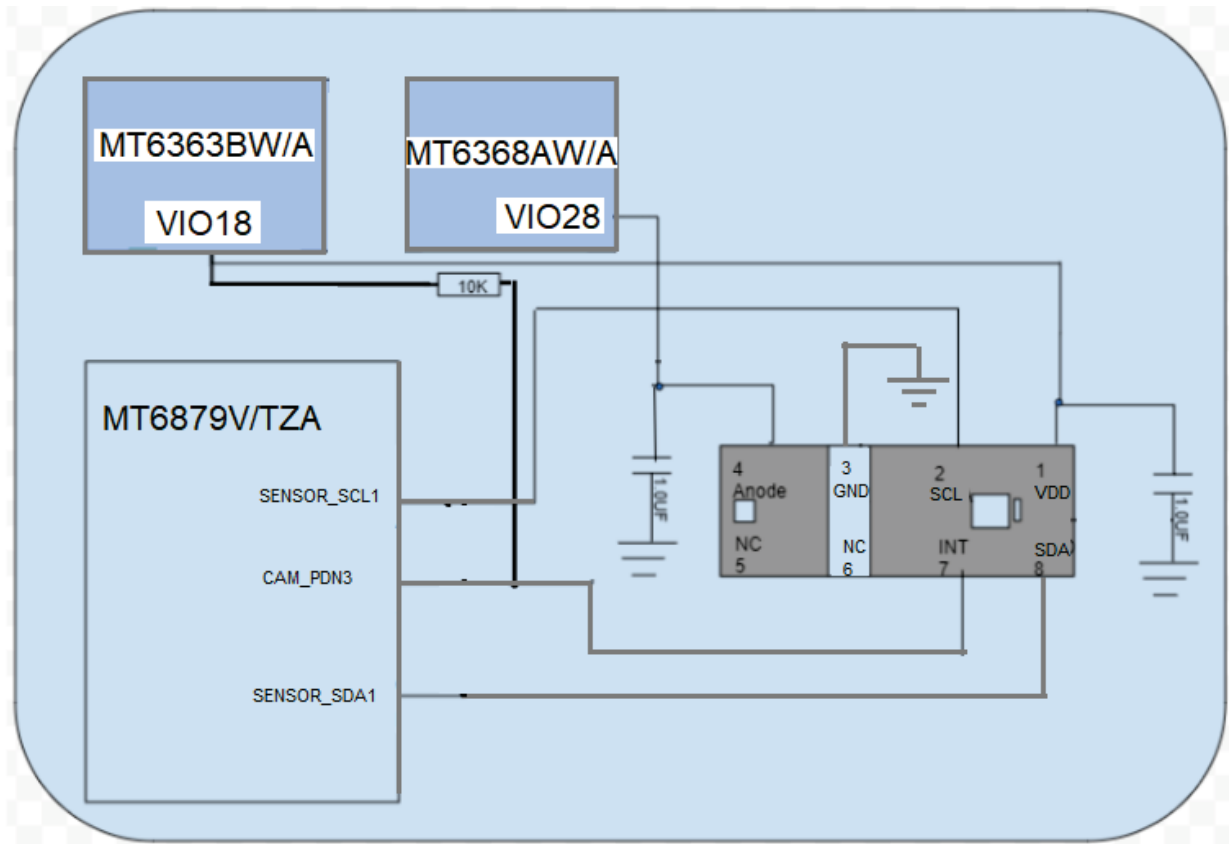
## Charging Path – Troubleshooting

- In the event of charging issues:
  - Do visual inspection on USB Type-C connector, Main FPC connector, battery connector and battery pack.
  - Check charging voltages along the charging path.
    - When insert adapter, measure USB\_VBUS/CHG\_VBUS/VBUS\_USB\_IN charger input voltage at **C2701**, the voltage should be around **5V** with regular chargers. If not it should be connector issue.
    - Check VPH\_PWR voltage at **C2706 OR C2705**. It should be **higher than 2.1V and lower than 4.50V**.
    - Check the battery voltage at test point TP\_BATT. it should be **higher than 2.1V and lower than 4.50V**, if battery is below 2.1V, there maybe a short in the circuit somewhere and battery protection circuit has been triggered.
- In the event of no 68W charging issues:
  - Check 68W voltages along the charging path: **C2733** should be over 8V.
  - If not, check **U2731&U2732**.
- In the event of no wireless charging issues:
 

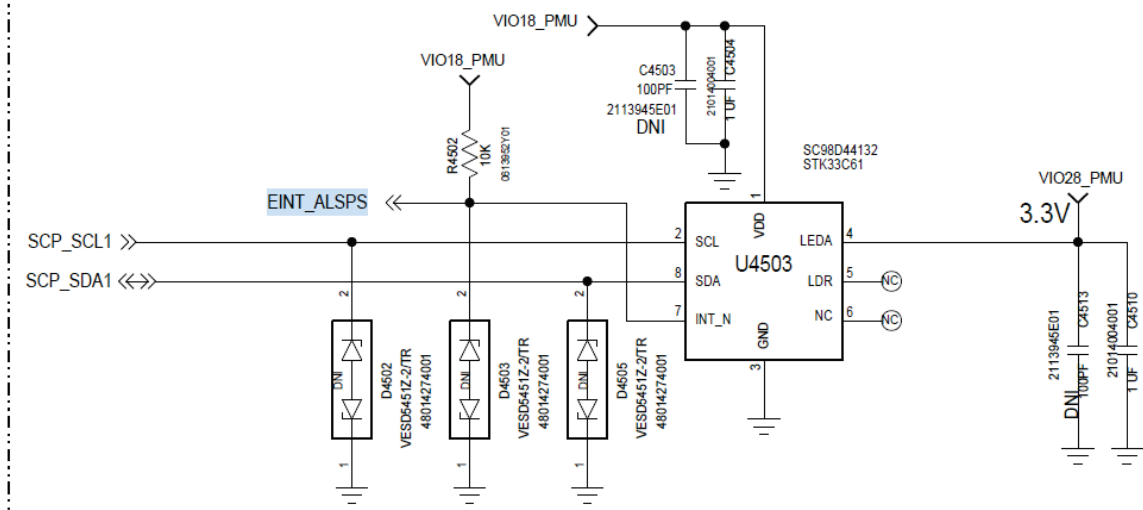
Check wireless charging voltages along the charging path: C2837 OR C2836 OR C2835 should be over **4.7V**.

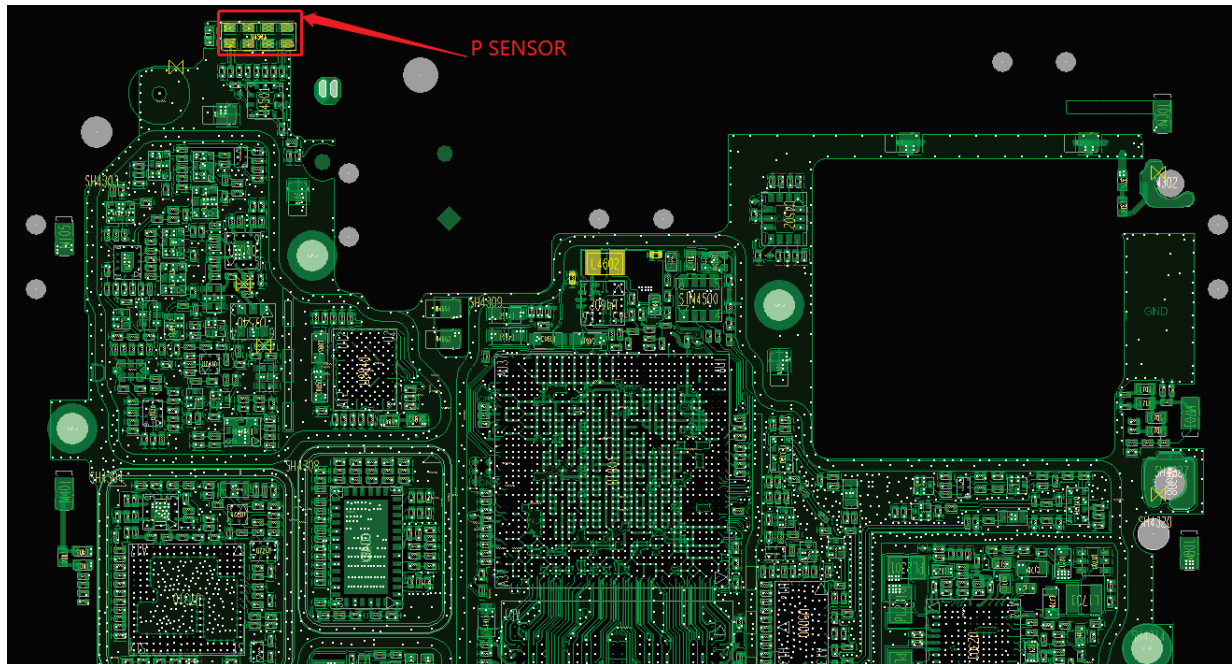
## ALL SENSORS TROUBLESHOOTING

## Light sensor and proximity sensor



# ALS\_P SENSOR

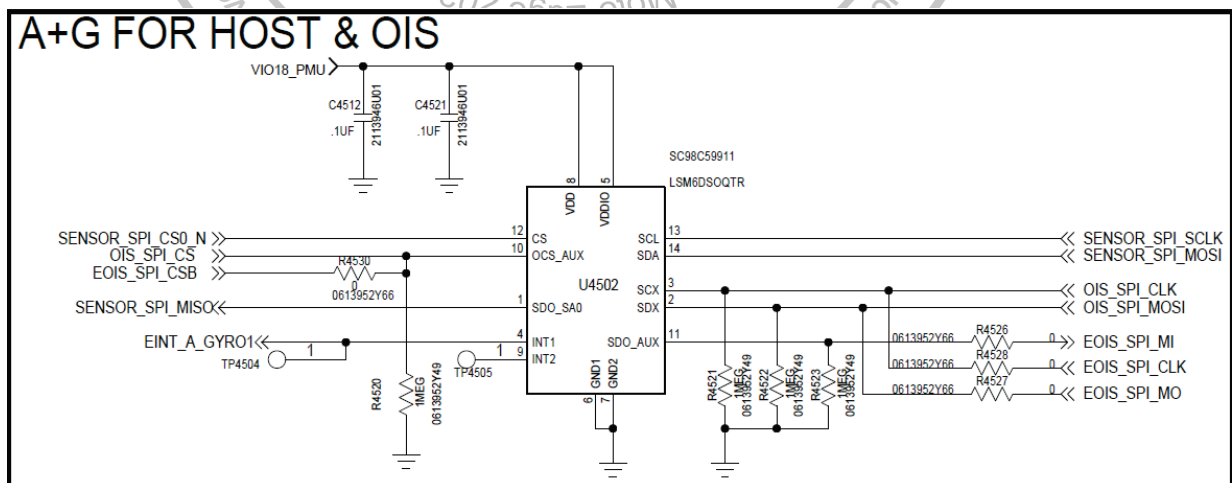


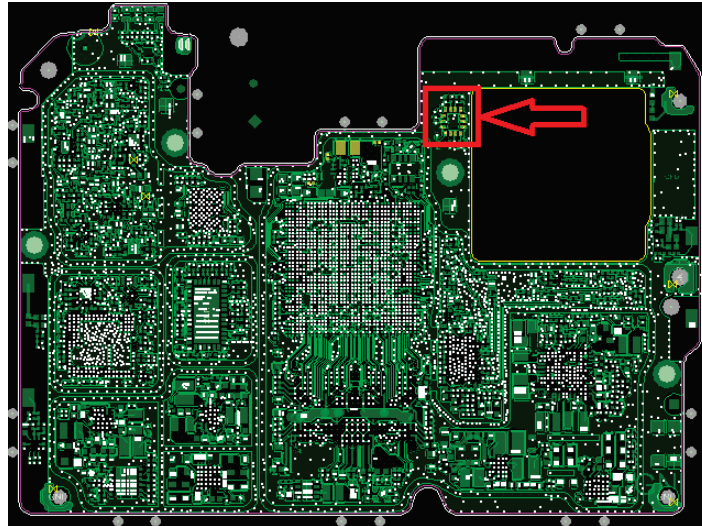


#### Mainboard on:

1. Check the inspection of the sensor whether it was damaged in physical.
2. Check voltage at R4502, it should be 1.8V at most time, and if Interrupt come, it should be driven to 0V.
3. Measure the power of the sensor at C4504. It should be around 1.8V.  
If the power is not correct, then check MT6363(U2001).
4. Measure the power of the sensor at C4510, it should be around **2.8V**.  
If the power is not correct, then check MT6368(U2301).
5. Reinstall a new sensor module to check the function if the I2C signal was right.  
If nothing captured, Check the MT6879(U1001).

#### Accelerometer & Gyro sensor

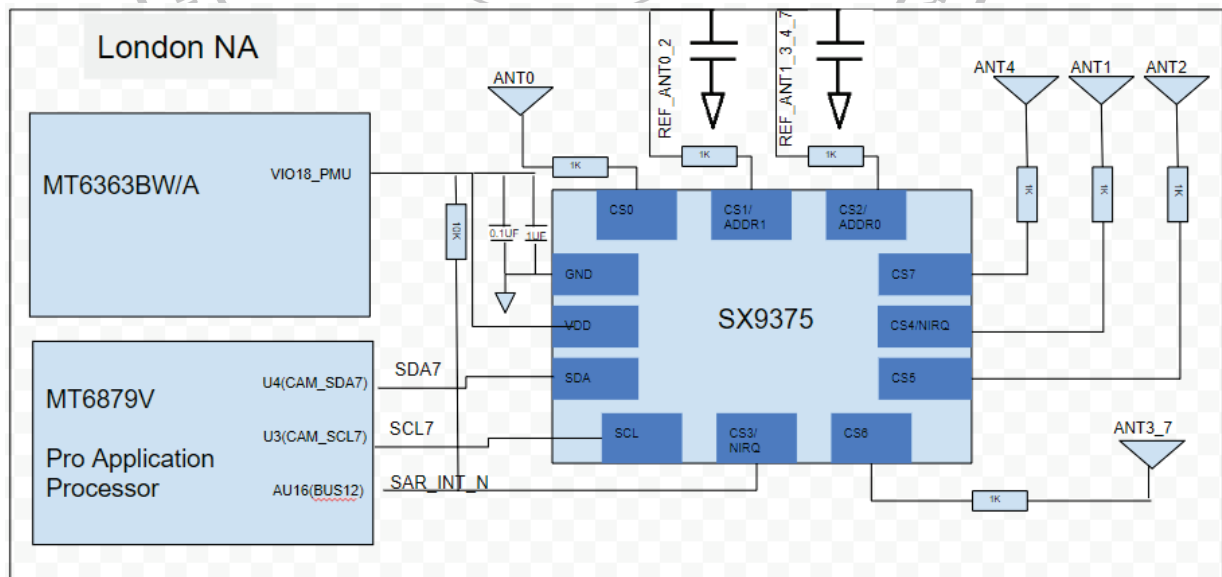




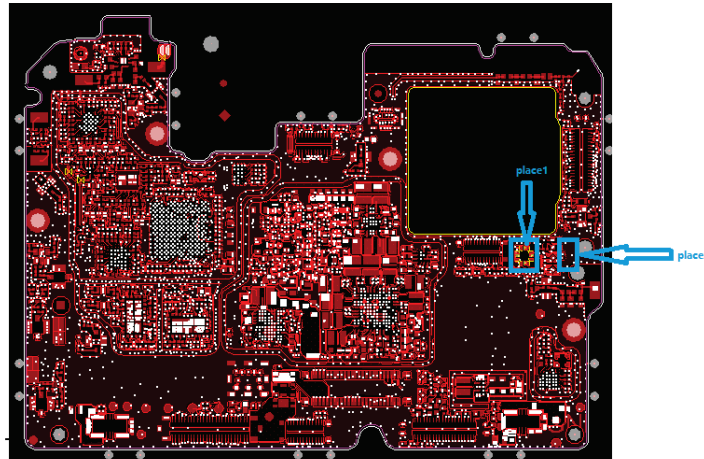
### Acceleration sensor

1. Check the inspection of the sensor U4502 whether it was damaged in physical.
2. Measure the power of the sensor at C4521 or C4512. It should be around 1.8V.  
 If the power is equal or close to 0 V, take off the sensor and measure the power again. In case a short circuit of the IC is presented.  
 Check MT6363 (U2001) if the power is still 0V.
3. Measure the INT signal of the sensor.  
 It should be 1.8V if INT occurs, otherwise it should be low.
4. Measure the SPI signal of the sensor.  
 Resolder a new sensor to check the function if the SPI signal was right.  
 If nothing captured, Check the MT6879(U1001).

### SAR sensor



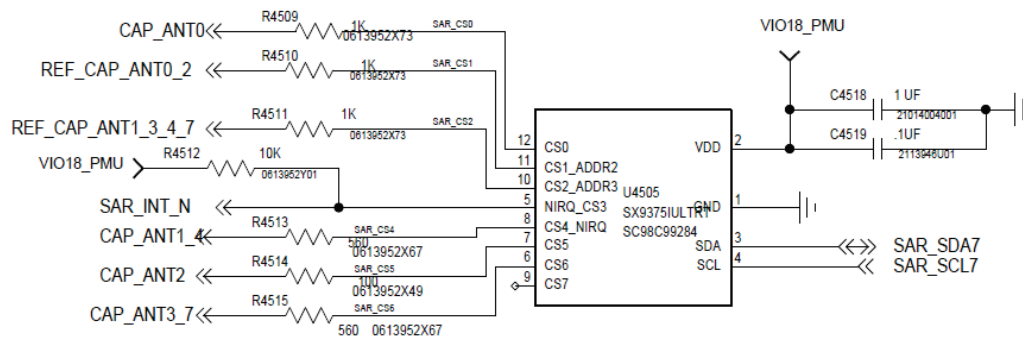




PCB version <=A, for Place1

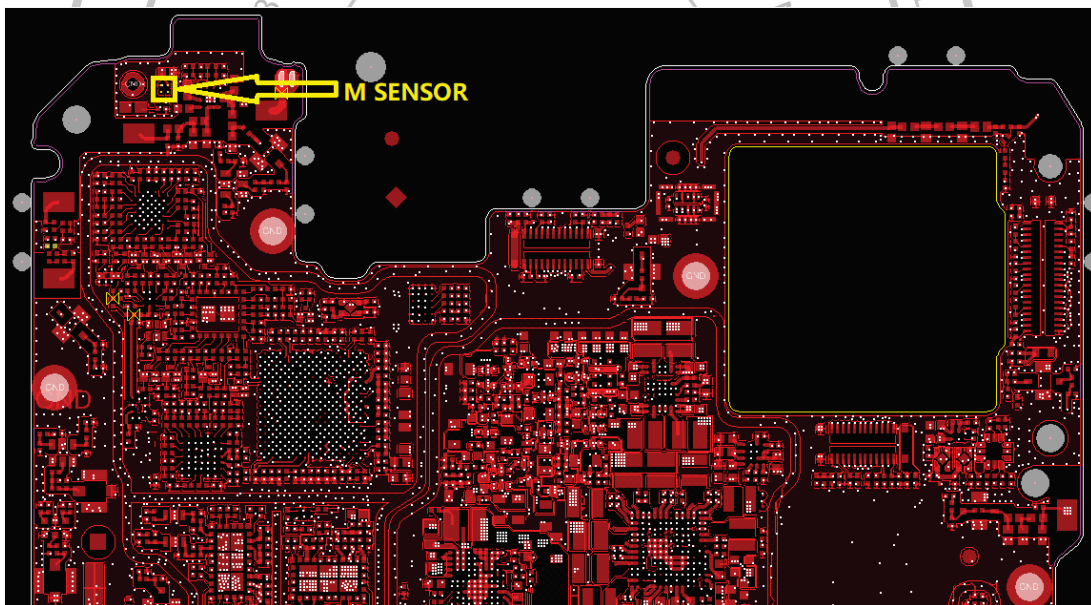
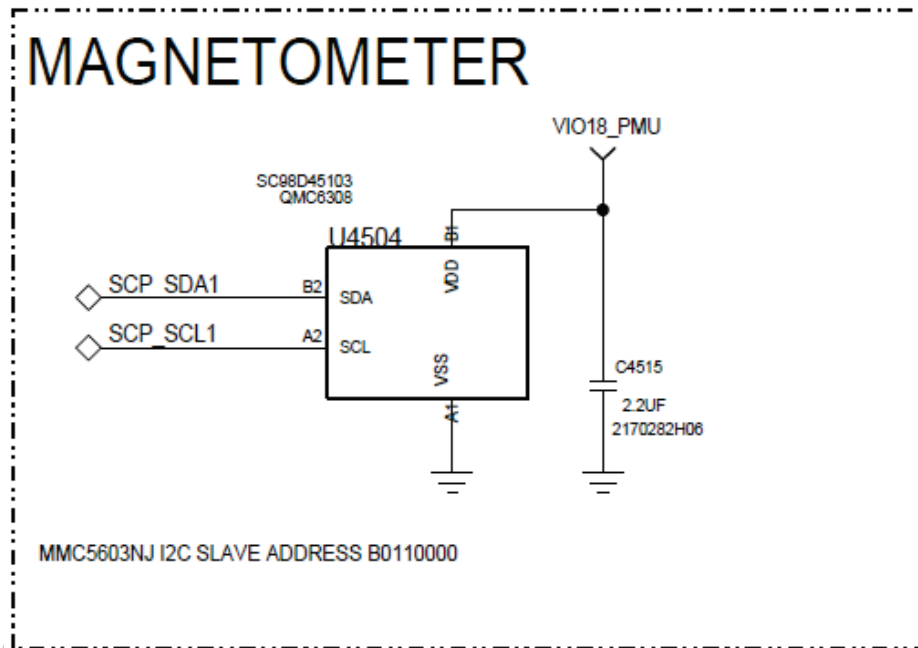
PCB version B, for Place2

## CAP SENSOR



1. Check the inspection of the sensor U4505 whether it was damaged in physical.
2. Measure the power of the sensor at C4518 or C4519. It should be around 1.8V. If the power is not correct, then check MT6363 (U2001).
3. Check the I2C signal of the sensor, and also check the voltage of INT pin. And their voltage should be around 1.8V.
4. Reinstall a new sensor module to check the function if the I2C signal was right. If nothing captured, Check the MT6879(U1001).
5. Check R4509/R4510/R4511/R4512/R4513/R4514/R4515, their resistor value should be mounted well.

## M sensor



1. Check the inspection of the sensor whether it was damaged in physical.
2. Measure the power of the sensor at C4515. It should be around 1.8V.  
If the power is not correct, then check MT6363 (U2001).
3. Check the I2C signal of the sensor. And their voltage should be around 1.8V.
4. Reinstall a new sensor module to check the function if the I2C signal was right.  
If nothing captured, Check the MT6879(U1001).

## uSIM TROUBLESHOOTING

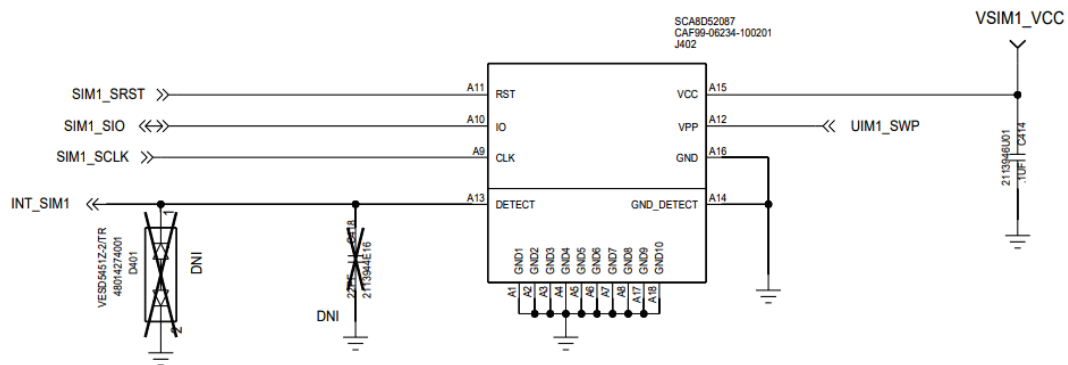
### SIM Path



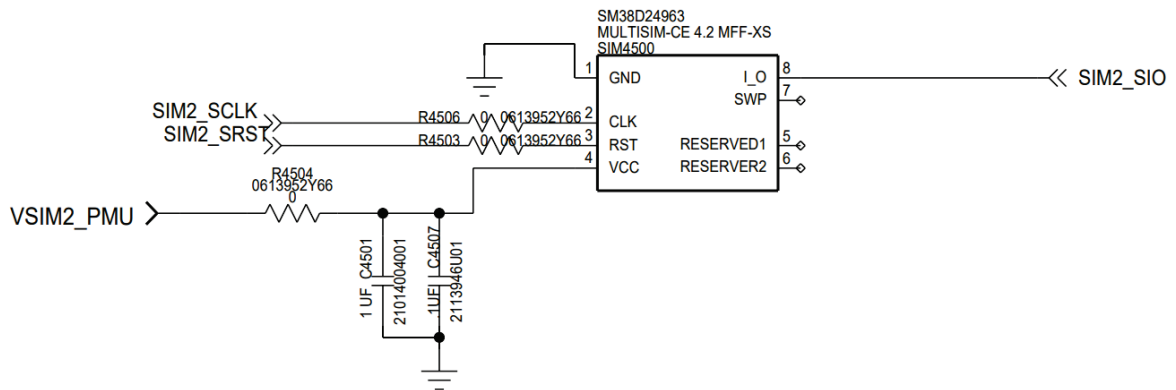
**SIM Tray**

### SIM Schematic

SIM1 & SIM2



## ESIM



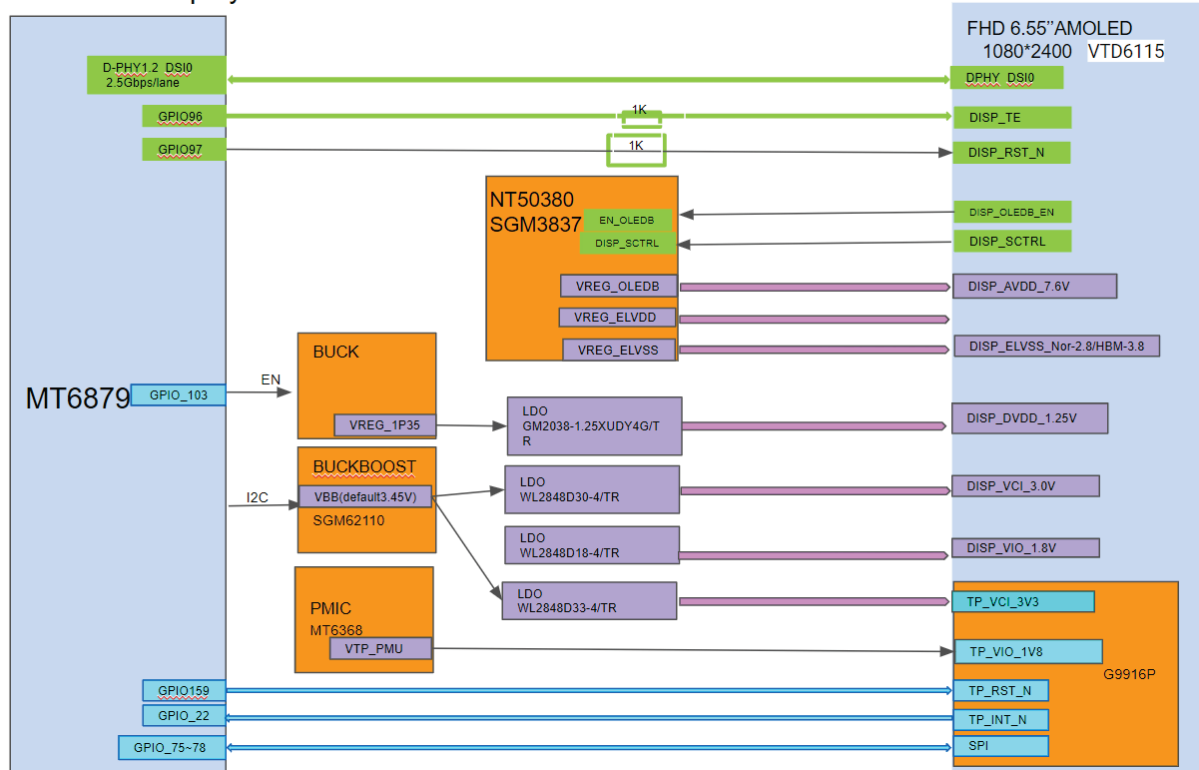
### SIM Path – Troubleshooting

- In the event of SIM1 issues:
  - Do a through visual check on SIM connector J203/J401 for any sign of mechanical contact issues.
  - Inspect all SIM circuit components on PCB&FPC.
  - Do visual inspection on SIM FPC.
  - Check SIM power at C414.
  - Check SIM bus interface signal activities during SIM access (UIMx\_RST, UIMx\_CLK, UIMx\_DATA).
- In the event of SIM2 issues:
  - Do a through visual check on eSIM IC SIM4500 issues.
  - Inspect all SIM circuit components on PCB.
  - Check SIM power at C4501.
  - Check SIM bus interface signal activities during SIM access (UIMx\_RST, UIMx\_CLK, UIMx\_DATA).

## DISPLAY & TOUCH TROUBLESHOOTING

### Structure

London na display & TP Block V0.1



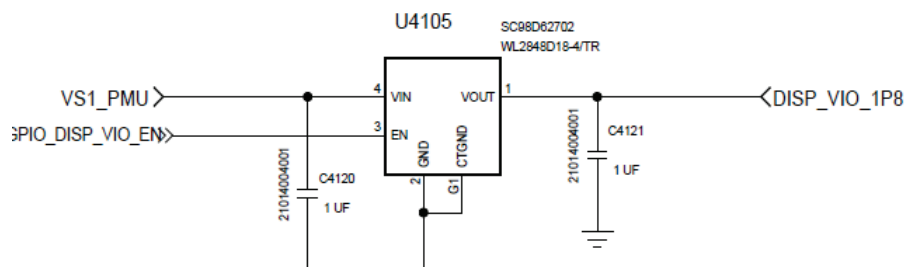
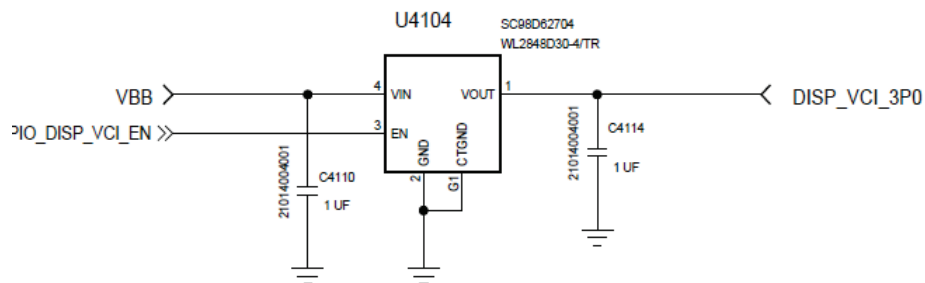
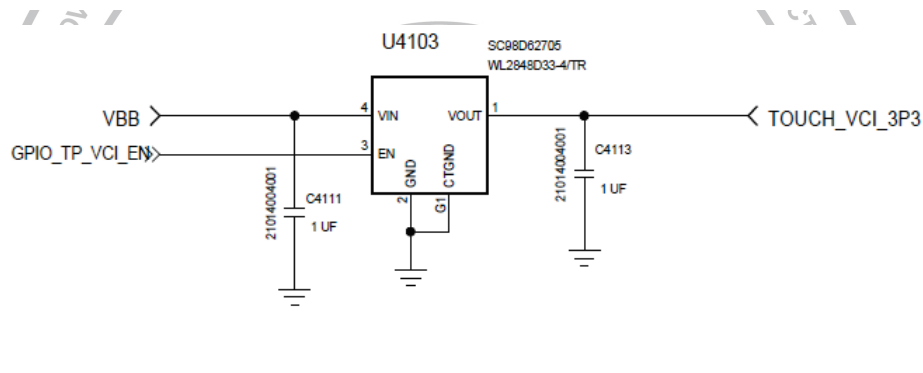
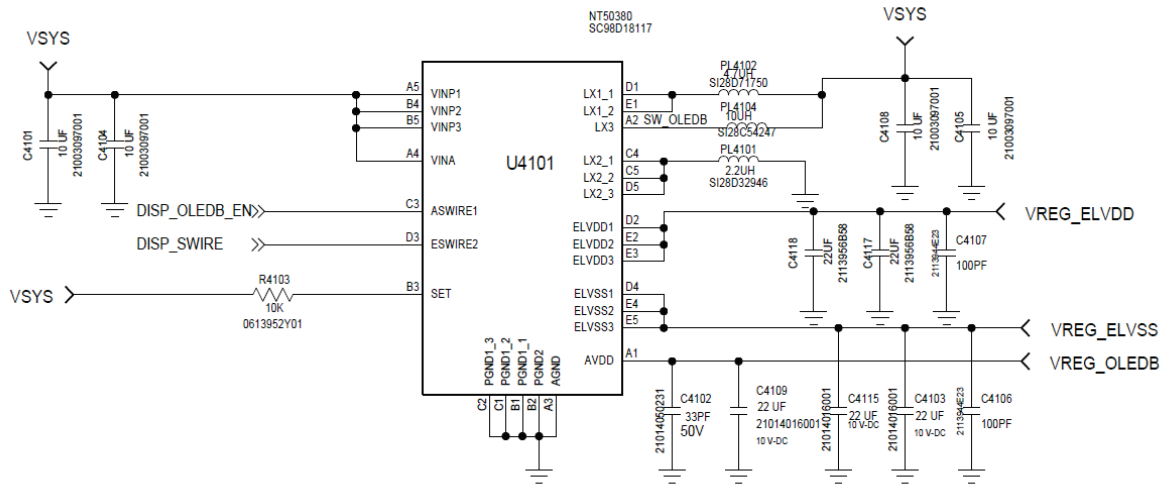
### Display connection



### Display & touch connector

## Schematic

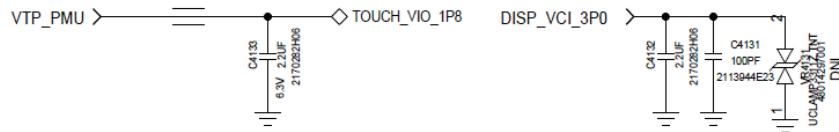
### POWER SUPPLY



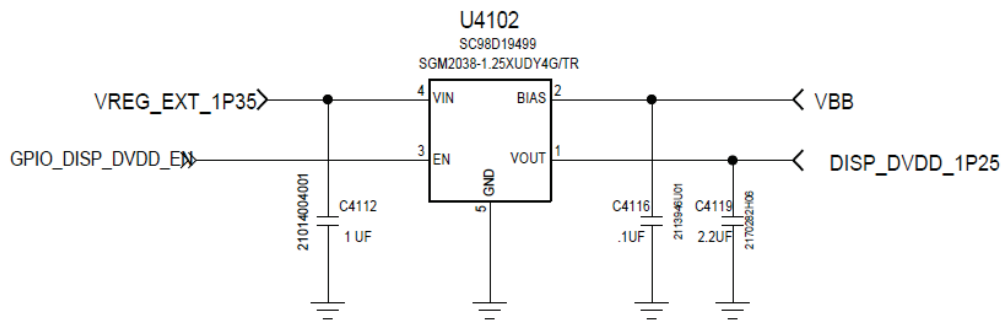
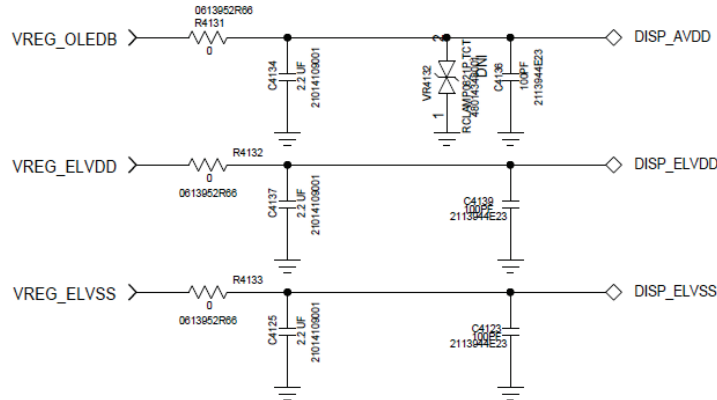


# Moto Edge 2023

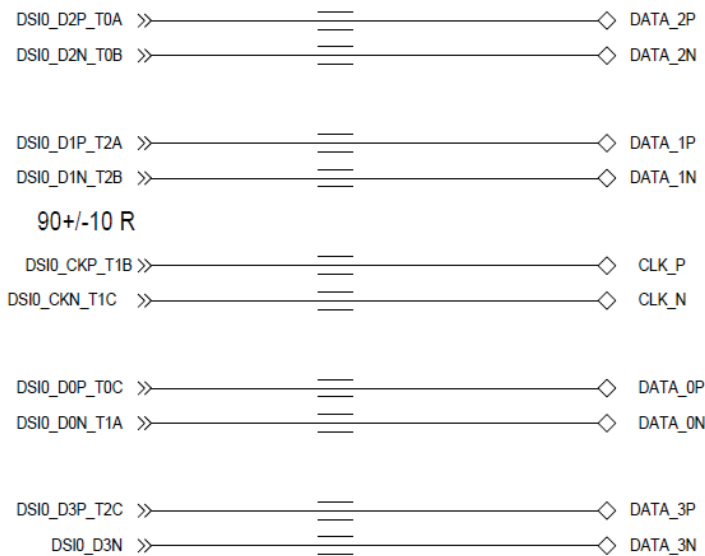
## Level 3 – Service Manual



CLOSE TO CONN



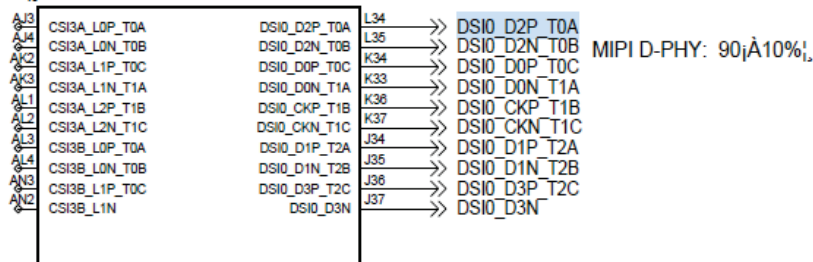
MIPI



## REAR DEPTH

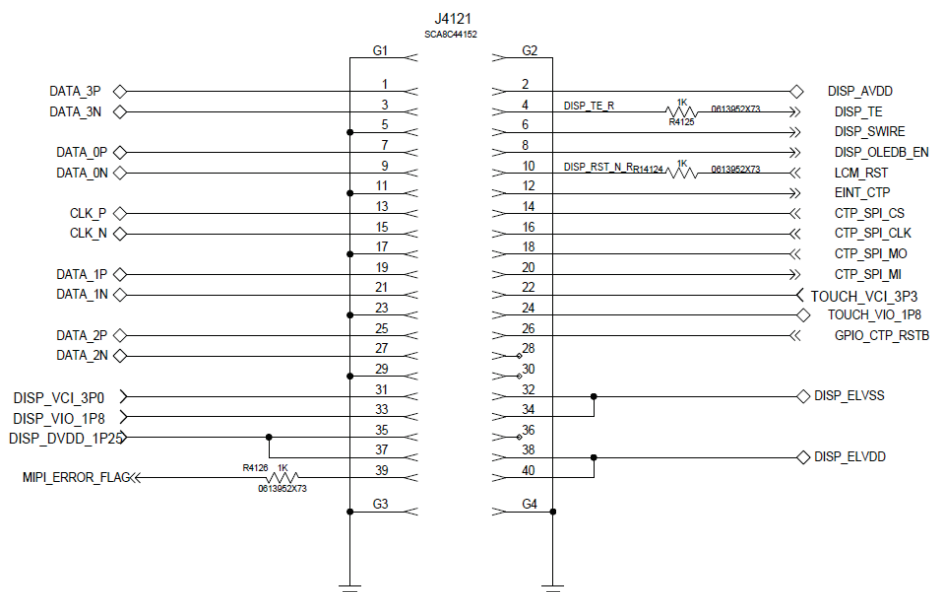
MIPI D-PHY: 90µA10%

MT6879V  
 SC88D30561  
 U1001



## REAR MAIN

### Display and Touch panel connector



## Display & Touch panel Path – Troubleshooting

In the event of Display & Touch panel issues:

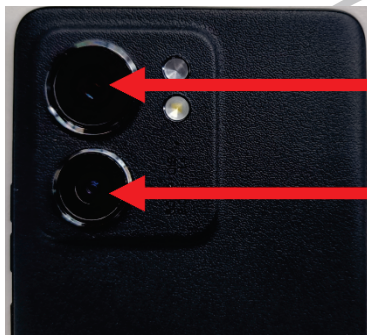
- Do visual inspection on Display & Touch panel, Display connector.
- Check display voltages along the Display panel path.
  - Measure DISP\_VIO\_1P8 voltage at C4121. It should be 1.8V.
  - Measure DISP\_VCI voltage at C4132. It should be around 3.0V.
  - Measure DISP\_DVDD voltage at C4126. It should be around 1.25V.
  - Measure DISP\_AVDD voltage at C4134. It should be around 7.6V (2rd 7.3V).
  - Measure DISP\_ELVD voltage at C4137. It should be around 4.6V.
  - Measure DISP\_ELVS voltage at C4125. It should be around -2.8V (2rd -2.5V).
- Check Touch Panel voltages along the Touch panel path. Touch.
  - Measure Touch\_VIO\_1P8 voltage at C4133. It should be 1.8V.
  - Measure Touch\_VCI\_3P3 voltage at C4113. It should be 3.3V.
  - Measure TP\_RST\_N voltage It should be around 1.8V.
  - Measure TP\_INT\_N voltage It should be around 1.8V.

## CAMERA, DUAL CCT FLASH TROUBLESHOOTING

### Camera

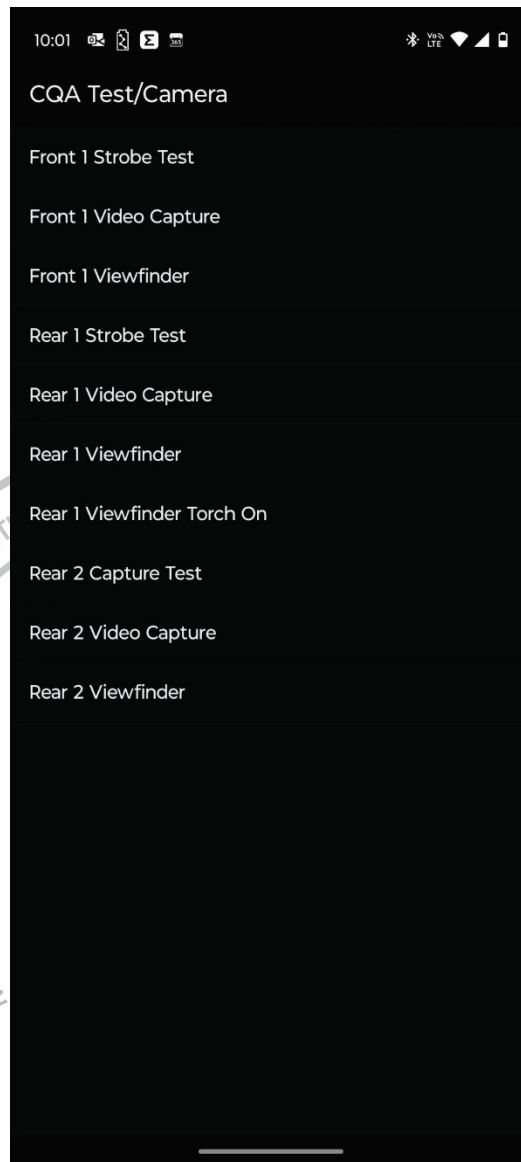


Front 1, 32M Camera



Rear 1, 50M Camera

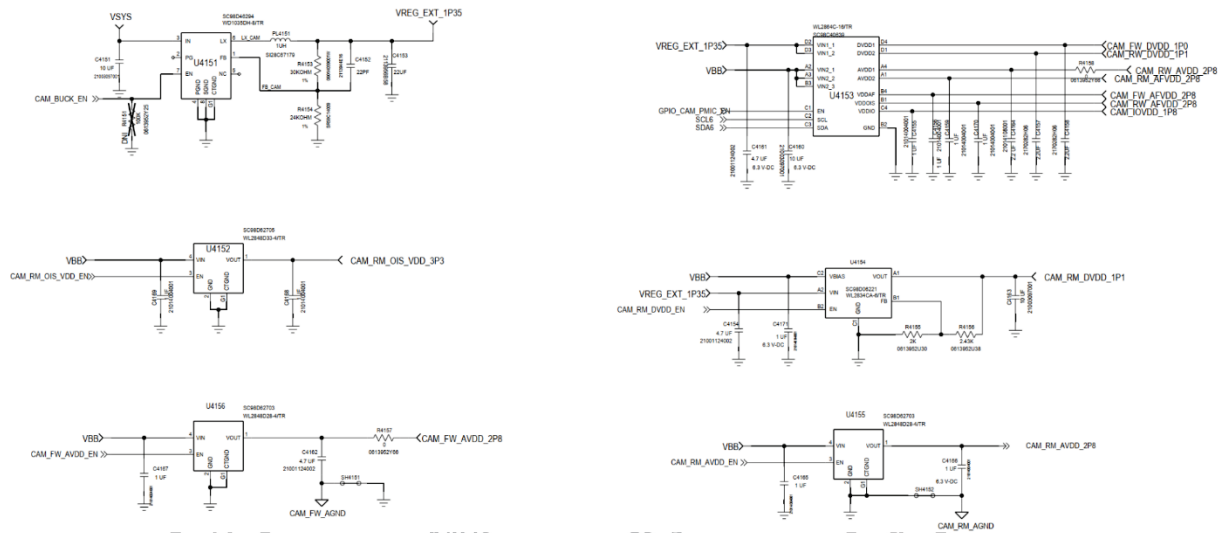
Rear 2, 13M Camera



please dial **##\*#2486#\*#\*** to enter CQAtest, then enter Camera.

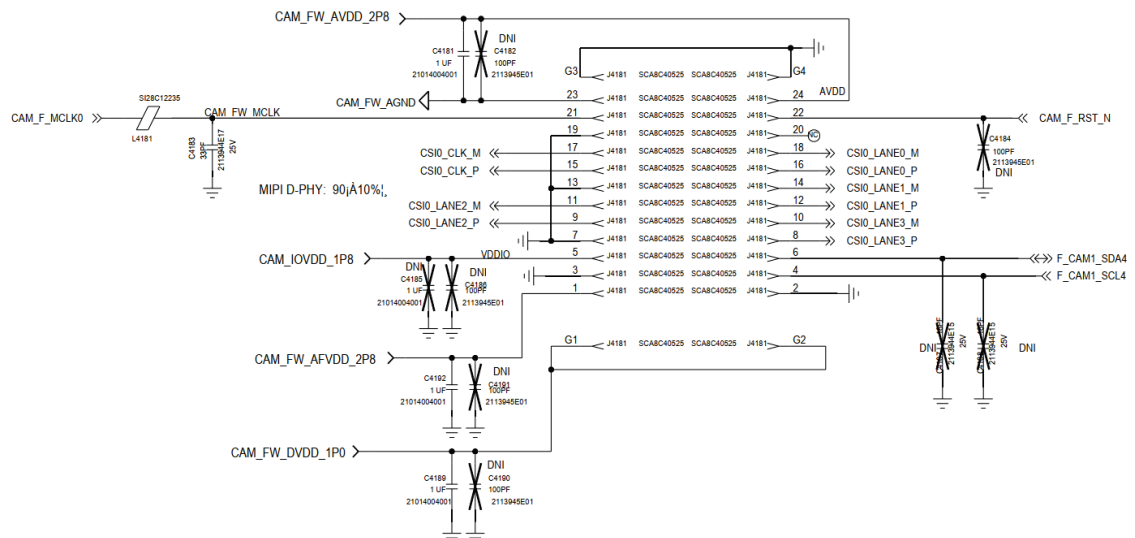
one by one, open each camera and cover camera with finger to check which one got failure.

## Camera Power Schematic



### Front Camera Schematic

# FRONT\_CAMERA



## Front Camera Troubleshooting

please dial **##2486##** to enter CQAtest / Camera test list.

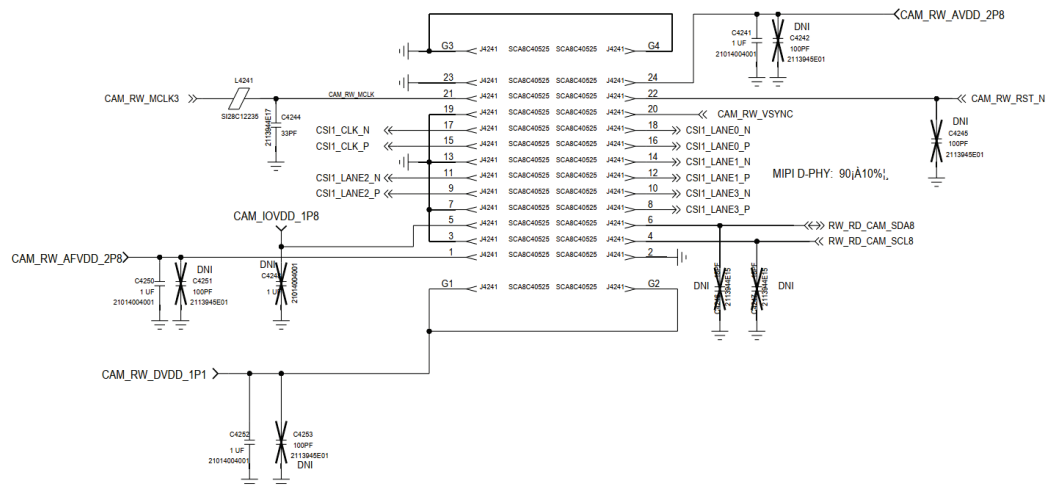
Click “Front 1 viewfinder”, check the fail alert, fail to open, or black preview image?

In the event of camera issues:

1. Check any dirty or deformation on both mainboard and module connectors of Front camera.
2. Reassemble camera module and check again.
3. Replace with a new module.
4. Disconnect battery, then check diode voltage on each pin of connector on mainboard by using multimeter diode function.  
If the diode voltage of signal and power pin is OL (over limit), the connection on this path from chipset to connector is open. maybe solder crack or circuit break.
5. Measure the voltage of AVDD, DVDD, IOVDD during camera preview:
  - Measure AVDD. The voltage should be around 2.8V.
  - Measure DVDD. The voltage is around 1.0V.
  - Measure VDDIO. The voltage is around 1.8V.If any voltage was abnormal, check the surface of U4153 (Camera PMIC), whether it was cracked.
6. If camera cannot auto-focus, please measure AFVDD voltage when preview, the voltage should be 2.8V.

## Rear 13M Camera Schematic

# REAR\_WIDE





## Rear 13M AF Troubleshooting

please dial **##2486##** to enter CQAtest / Camera test list.

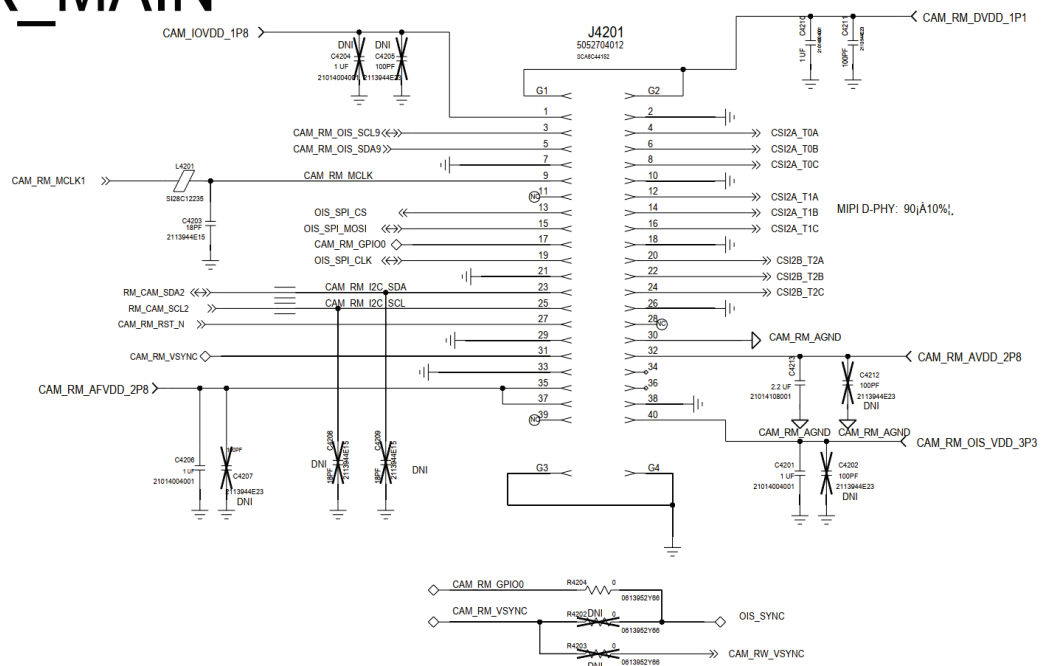
Click "Front 1 viewfinder", check the fail alert, fail to open, or black preview image?

In the event of camera issues:

1. Check any dirty or deformation on both mainboard and module connectors of Front camera.
2. Reassemble camera module and check again.
3. Replace with a new module.
4. Disconnect battery, then check diode voltage on each pin of connector on mainboard by using multimeter diode function.  
 If the diode voltage of signal and power pin is OL (over limit), the connection on this path from chipset to connector is open. maybe solder crack or circuit break.
5. Measure the voltage of AVDD, DVDD, IOVDD during camera preview:
  - Measure AVDD. The voltage should be around 2.8V.
  - Measure DVDD. The voltage is around 1.0V.
  - Measure VDDIO. The voltage is around 1.8V.
 If any voltage was abnormal, check the surface of U4153 (Camera PMIC), whether it was cracked.
6. If camera cannot auto-focus, please measure AFVDD voltage when preview, the voltage should be 2.8V.

## Rear Main Camera Schematic

### REAR\_MAIN



## Rear Main Camera Troubleshooting

please dial **##2486##** to enter CQAtest / Camera test list.

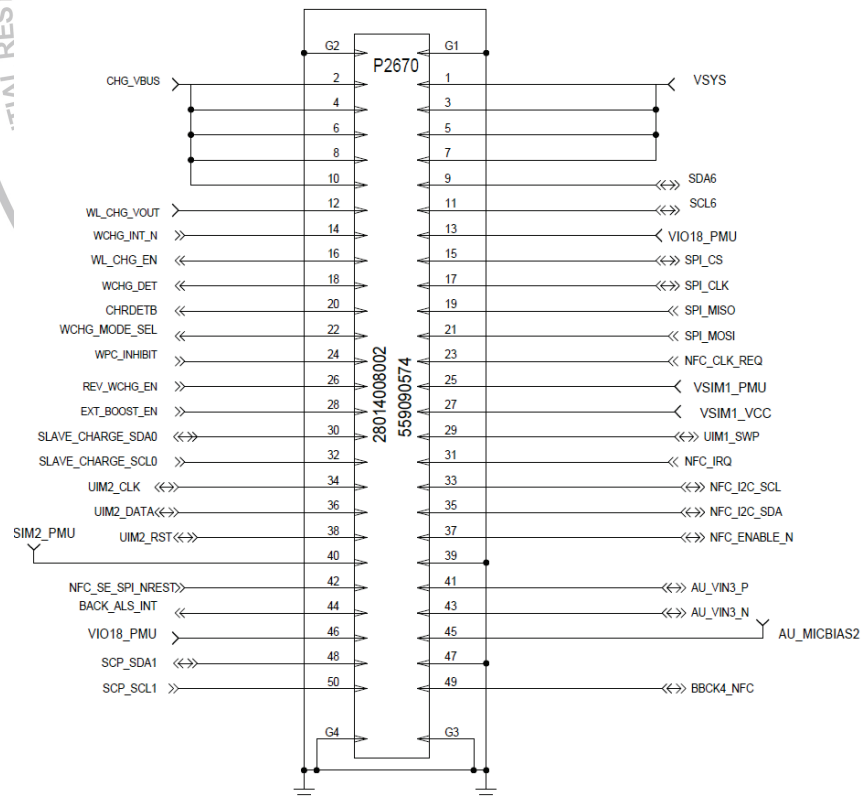
Click "Front 1 viewfinder", check the fail alert, fail to open, or black preview image?

In the event of camera issues:

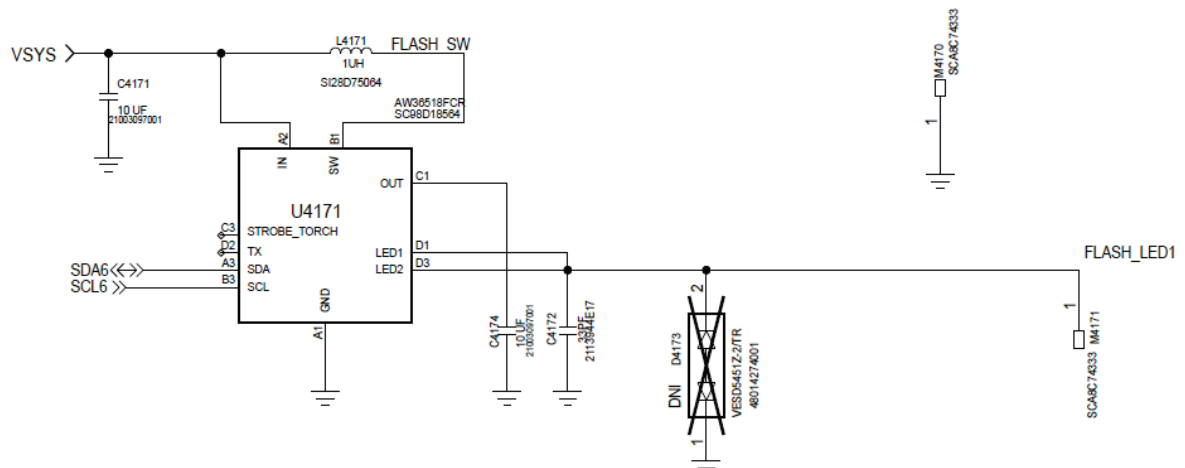
1. Check any dirty or deformation on both mainboard and module connectors of Front camera.
2. Reassemble camera module and check again.
3. Replace with a new module.
4. Disconnect battery, then check diode voltage on each pin of connector on mainboard by using multimeter diode function.  
 If the diode voltage of signal and power pin is OL (over limit), the connection on this path from chipset to connector is open. maybe solder crack or circuit break.
5. Measure the voltage of AVDD, DVDD, IOVDD during camera preview:
  - Measure AVDD. The voltage should be around 2.8V.
  - Measure DVDD. The voltage is around 1.0V.
  - Measure VDDIO. The voltage is around 1.8V.
 If any voltage was abnormal, check the surface of U4153 (Camera PMIC), whether it was cracked.
6. If camera cannot auto-focus, please measure AFVDD voltage when preview, the voltage should be 2.8V.

## Flash Schematic

Connector on stack which connects the mainboard



### Flash LED Springs on stack board



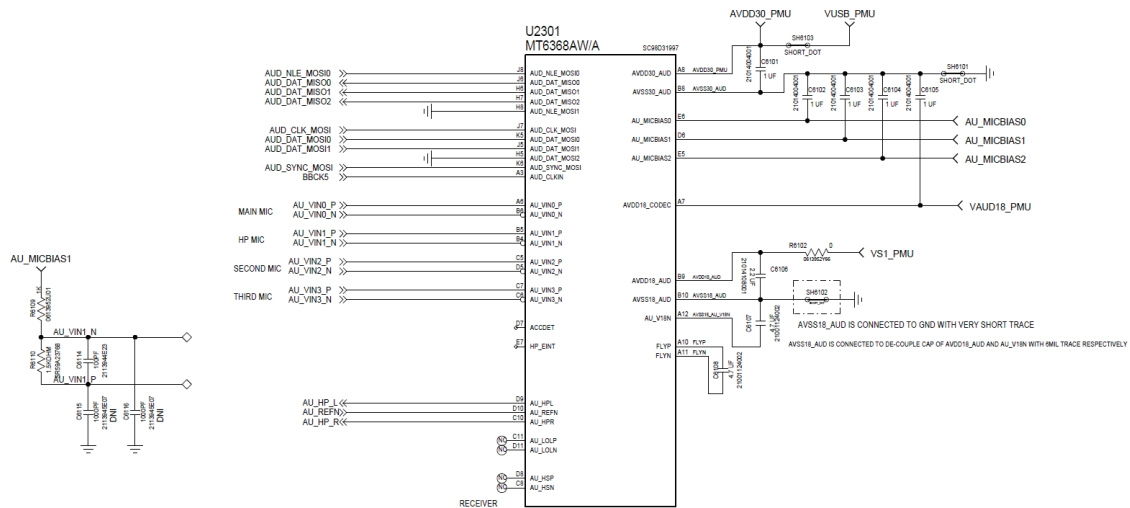
### Flash Troubleshooting

In the event of Flash led issues:

1. Do visual inspection on flash FPC to make sure the Flash LED SMT is OK.
2. Do visual inspection on stack PCB to make sure the Flash LED spring M4170, M4171 SMT is OK.
3. Check stack PCB to make sure connection to Mainboard is OK.
4. Check the voltage of FLASH\_LED1 at C4172, the voltage should be in the range of 2.5V~3.6V.
5. Replace Flash LED FPC

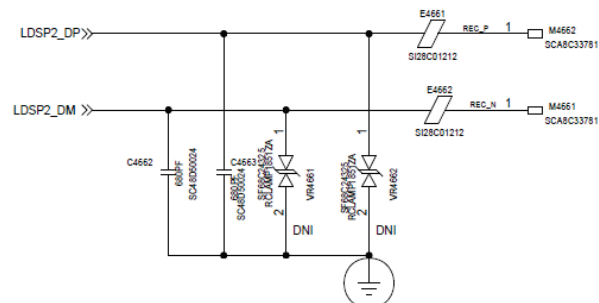
## Audio & Vibrator TROUBLESHOOTING

## Audio IC (MT6368) Schematics



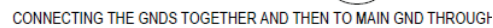
## MIC & Receiver Schematics

## RECEIVER

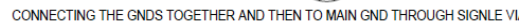


CONNECTING THE GNDS TOGETHER AND THEN TO MAIN GND THROUGH SINGLE VIA

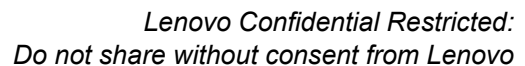
**PAGE 41**



*Do not share without consent from Lenovo*

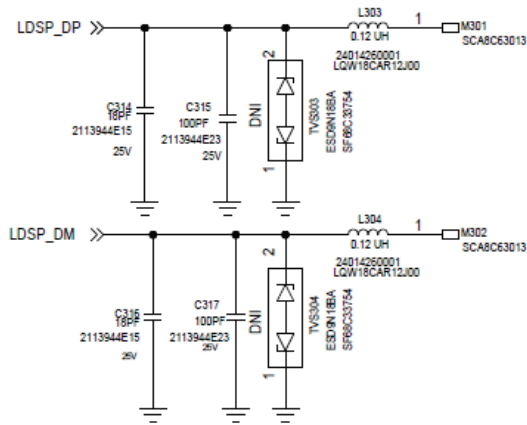


## SMART PA

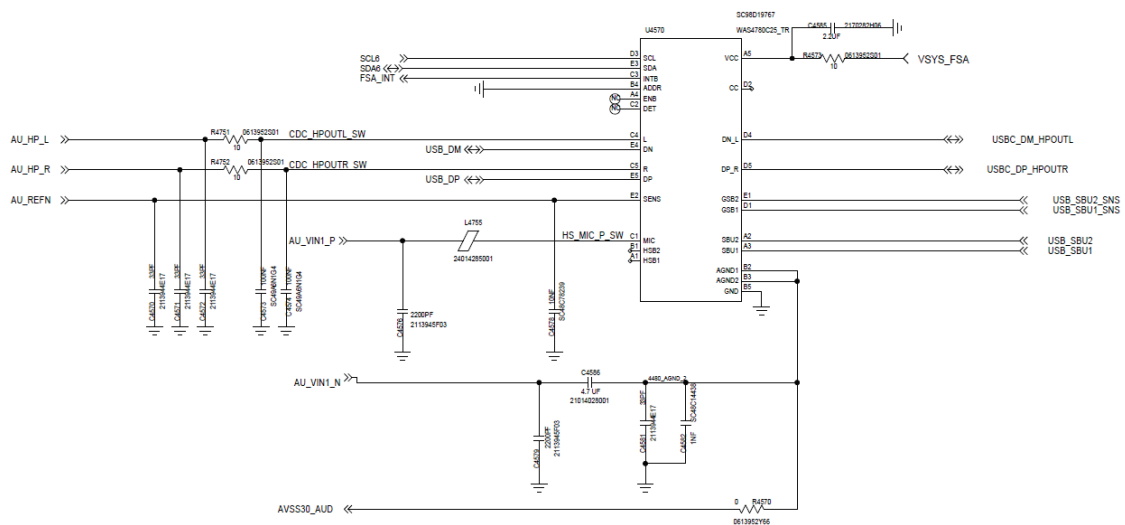


# SPEAKER

ROUTE AS DIFF PAIR  
LINE WIDTH >=1MM

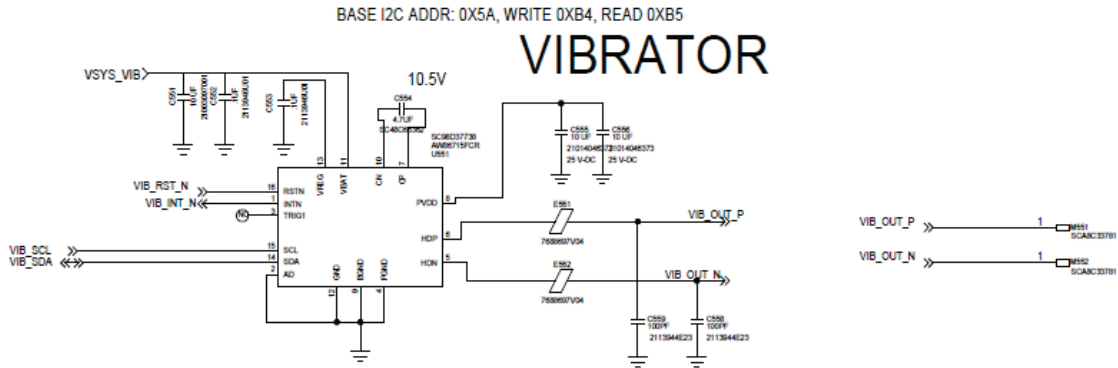


## Earphone Schematic





## Vibrator



## Debugging Audio Failure

**1. Speaker**

- Check and make sure that the Speaker is not damaged.
- Check if the connection between the phone and the Speaker are correctly done.
- Check for any visible damage around the Speaker matching components.

## 2. MIC

- Check and make sure that the MIC is not damaged.
- Check for any visible damage around the MIC.
- Check MIC bias voltage is between 1.60 V and 2.85 V.

### 3. Earphone

- Check and make sure that TYPE-C Connector is not damaged.
- Check for any visible damage around earphone matching components.

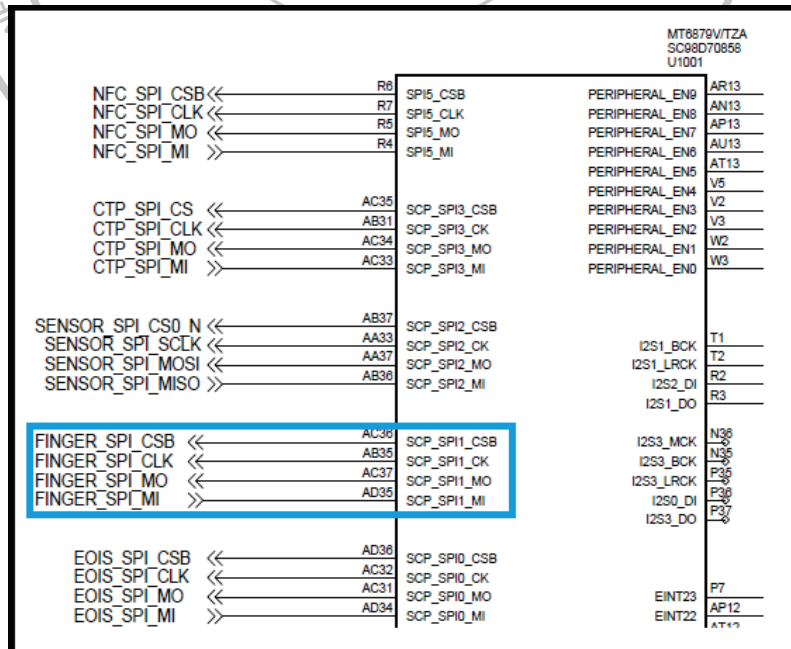
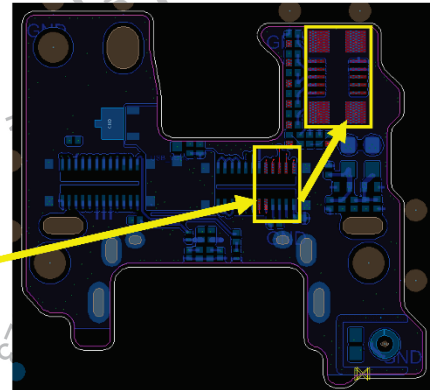
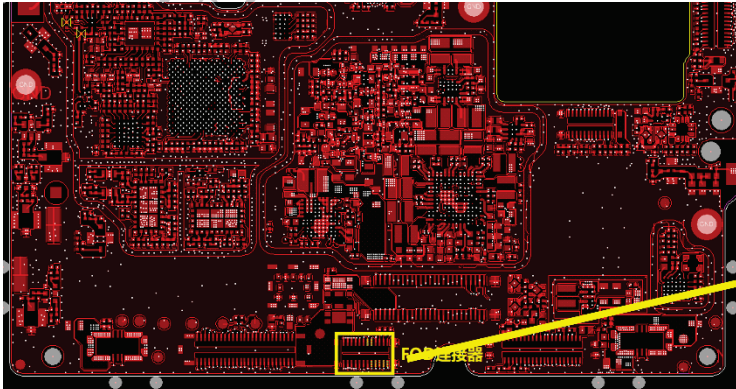
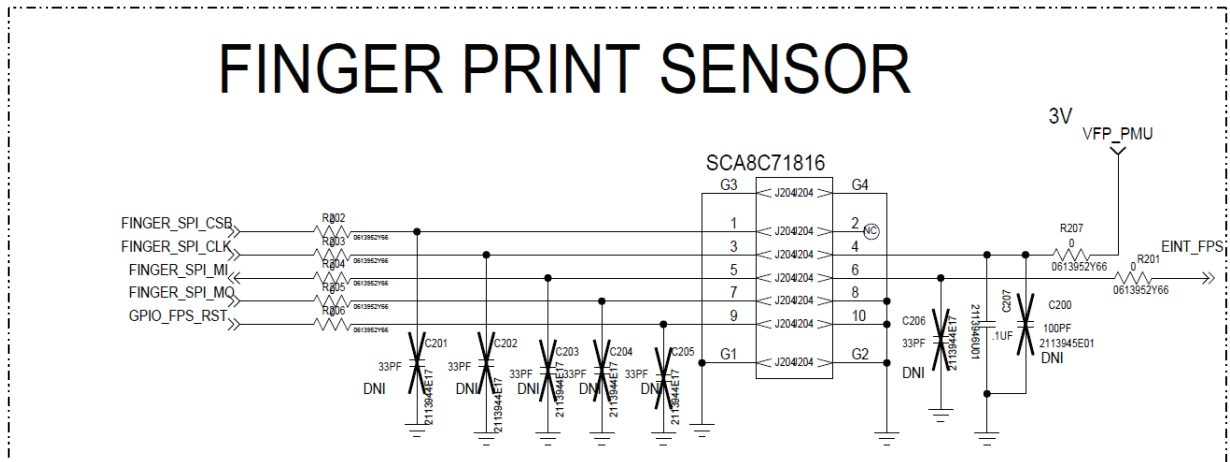
## Debugging Vibrator Failure

**1. Speaker**

- Check and make sure that the Vibrator is not damaged.
- Check if the connection between the phone and the Vibrator are correctly done.
- Check for any visible damage around the Vibrator matching components.

## FPS TROUBLESHOOTING

### FPS Schematic



## **FPS Lighting Troubleshooting**

1. Reinstall a new FOD sensor module to check the function.
2. Check FPC connection reliability on both mainboard and sub-board.
3. Check the 7 resistors series(R201~R207) on the line, they are all 0R. And the voltage at pin4 should be 3.3V.
4. Check the connector SMT status.
5. If 3.3V is not available, please check the status of U2301(MT6368).
6. If SPI signal not work properly, check U1001(MT6879).



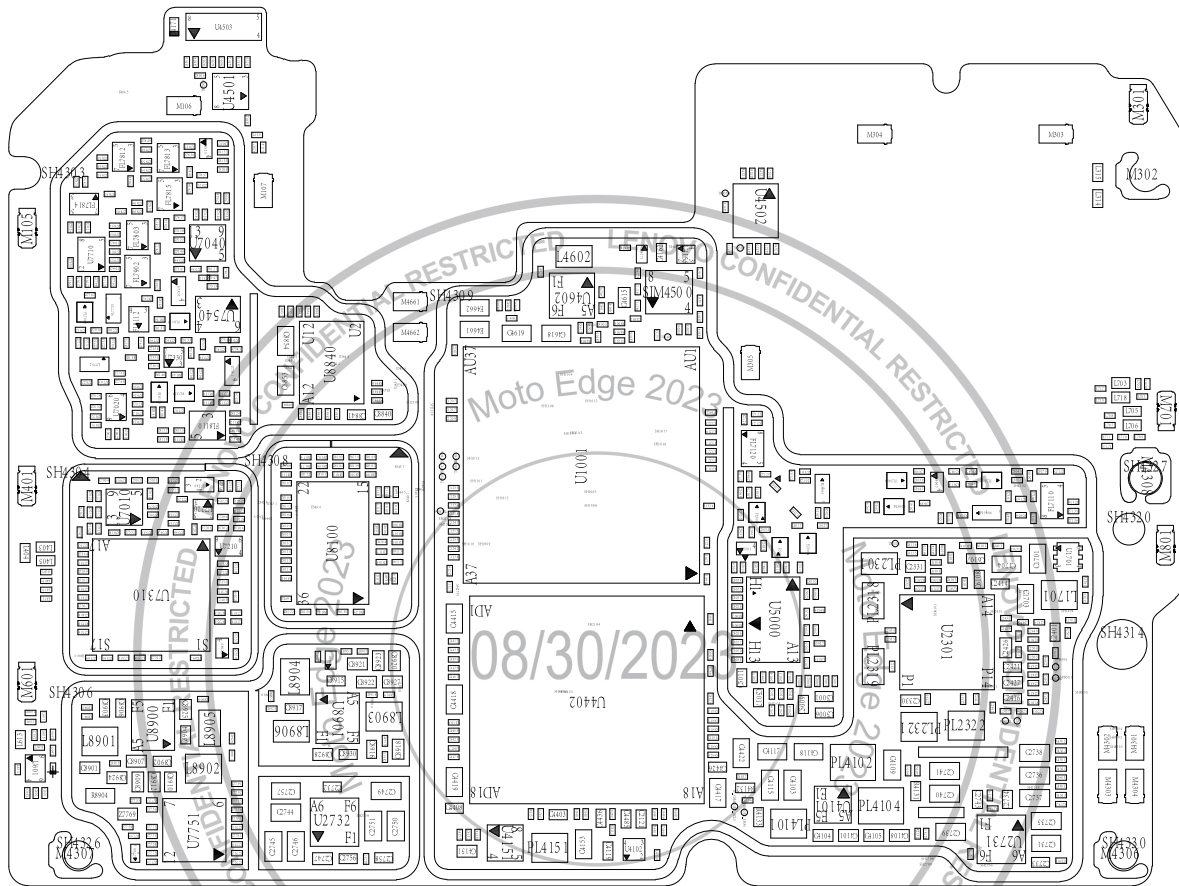
## SERVICE CODE

Commonly used Service codes, for your reference.

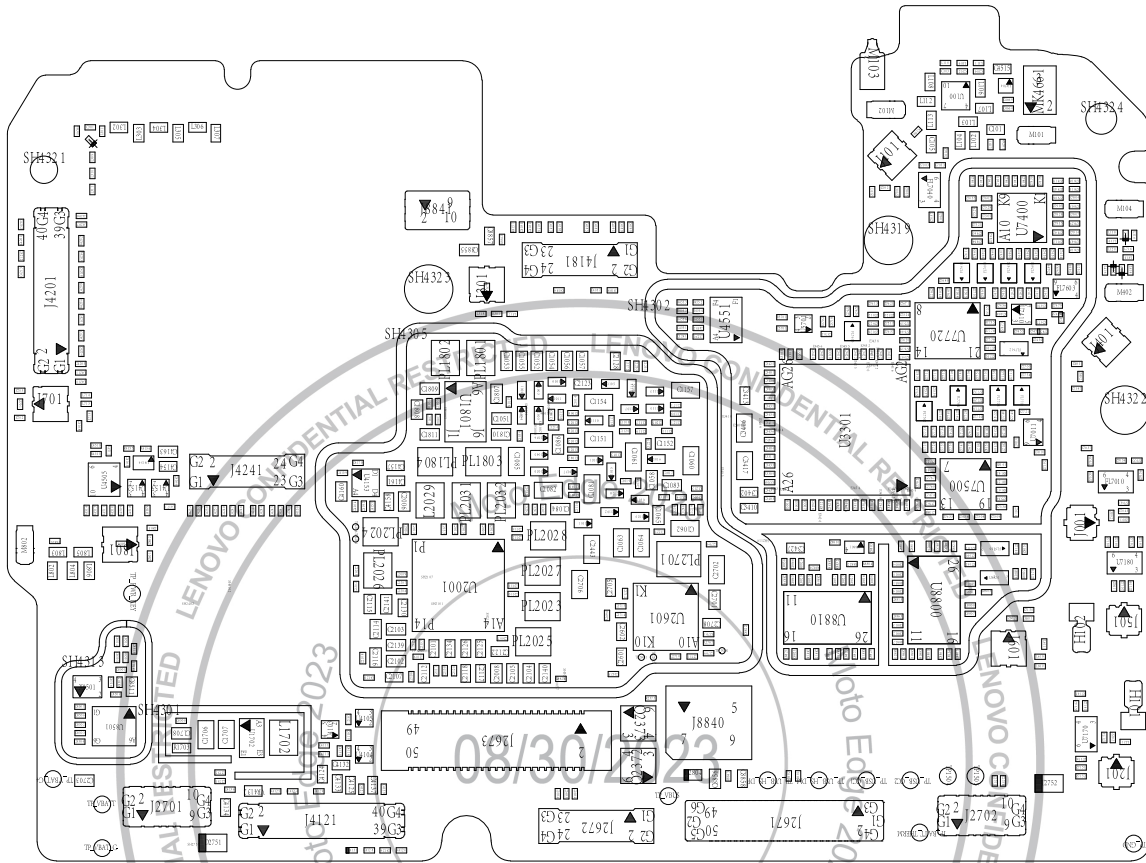
| <i>Service Code</i> | <i>Function</i>                                             |
|---------------------|-------------------------------------------------------------|
| *#06#               | View your phone's IMEI number.                              |
| ***#4636#**         | Display battery information, WLAN status, and usage statis. |
| ***#225#**          | Display Calendar data stored on your phone.                 |
| ##426##             | Run Google Play Services diagnostics.                       |
| *#67#               | Display call forwarding information on your phone.          |
| *#61#               | See how long it takes to forward calls.                     |
| *31#                | Turn on caller ID.                                          |
| #31#                | Turn off caller ID.                                         |
| *43#                | Turn on call waiting.                                       |
| #43#                | Turn off call waiting.                                      |

# BOARD LAYOUT

## Front Diagram



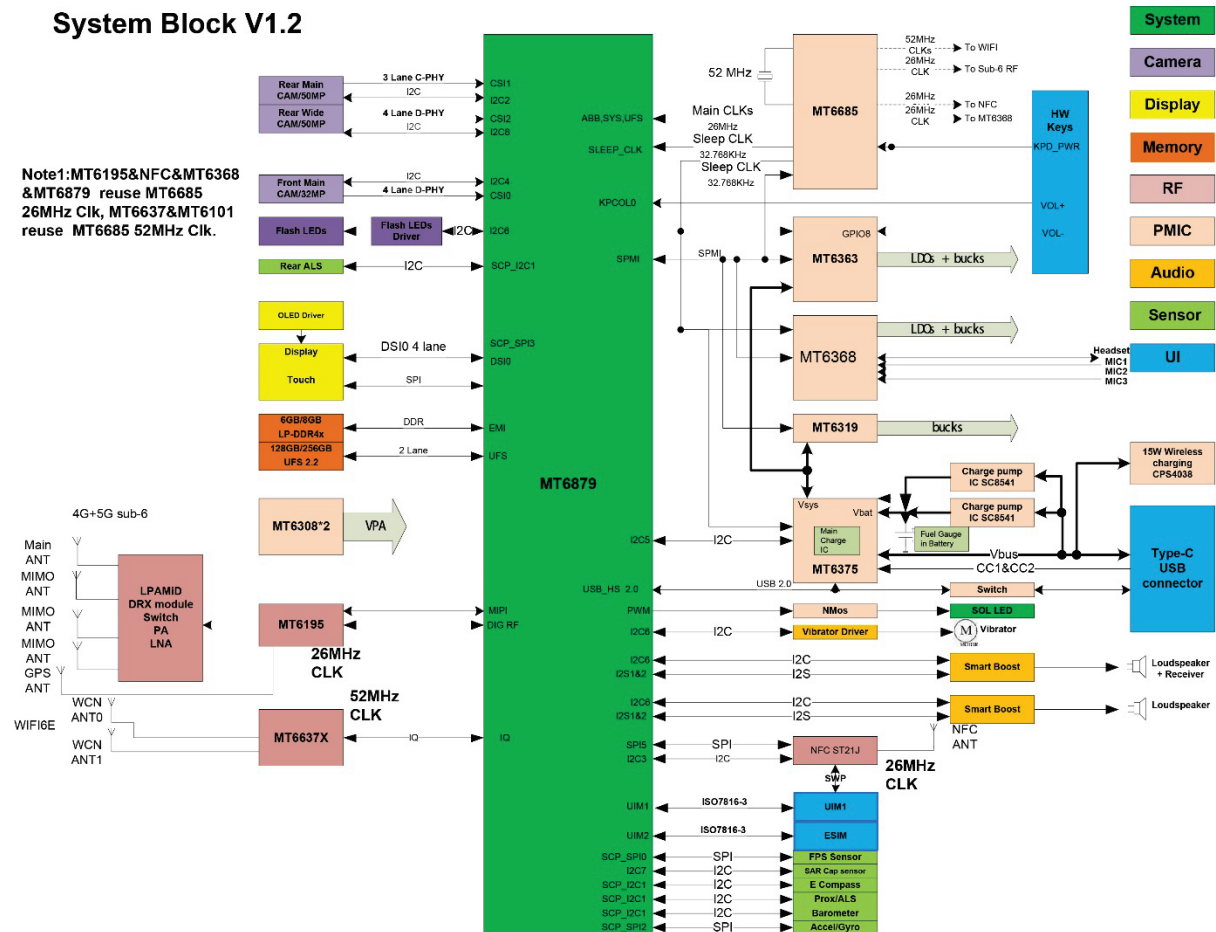
## Back Diagram





# BLOCK DIAGRAM

## System Block V1.2



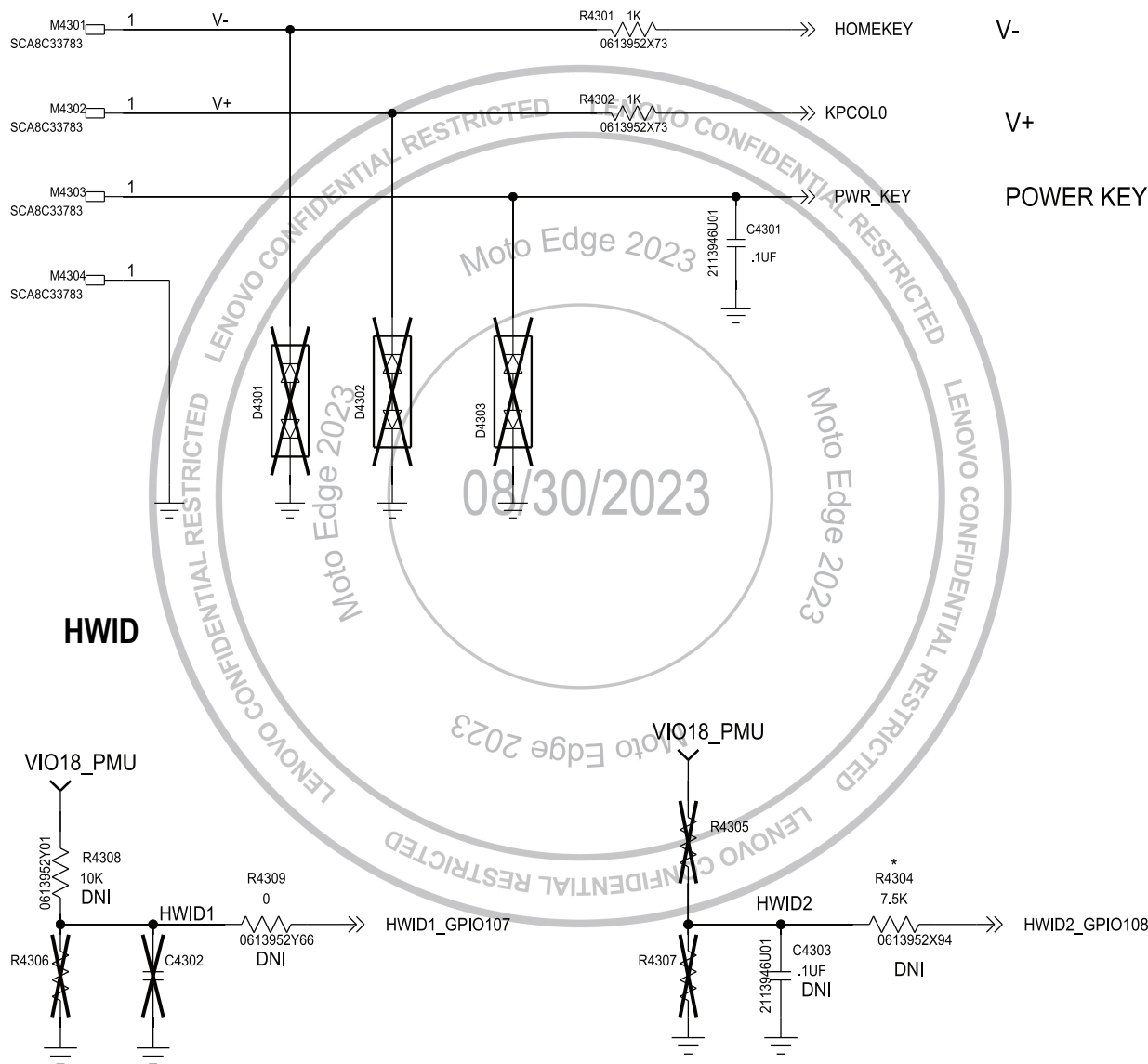


# SCHEMATIC

If you need or involve the key component schematics (e.g. PMIC/CPU), please contact SVCPE@lenovo.com directly.

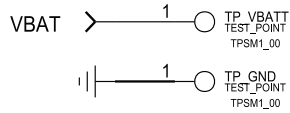
## REF: 4301-4329

### KEYS

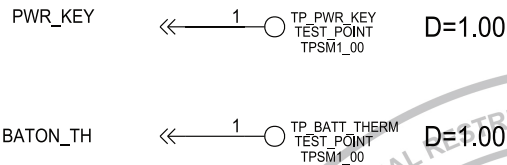


## TEST POINT

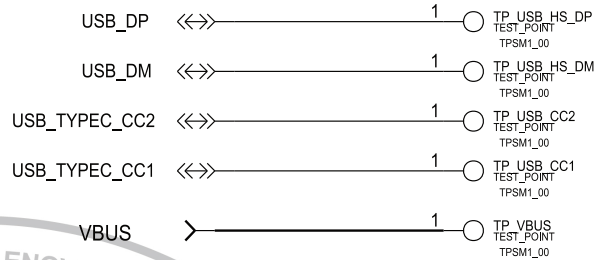
### FACTORY TEST POINT FOR BATTERY



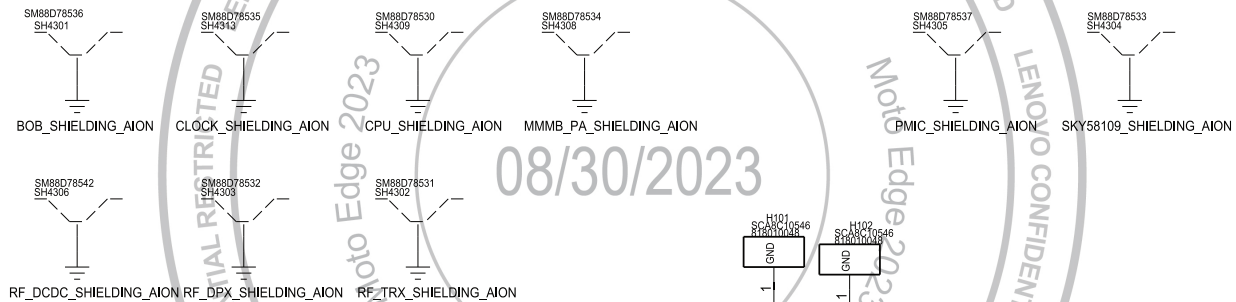
### FACTORY TEST POINT FOR POWER ON



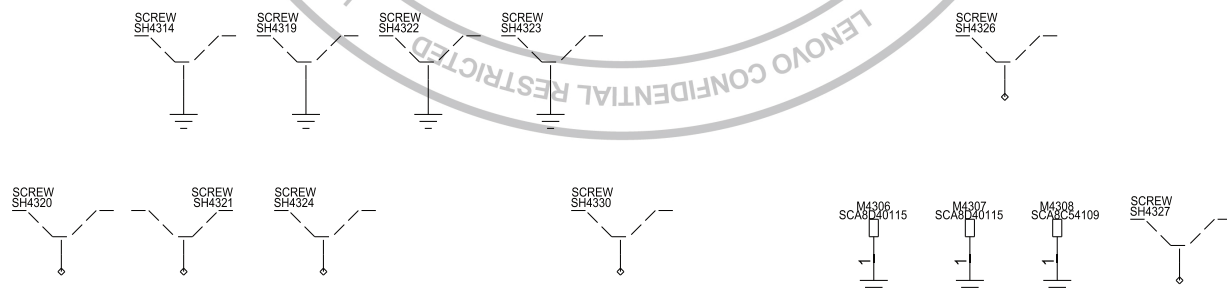
### FACTORY TEST POINT FOR USB



## SHIELDING

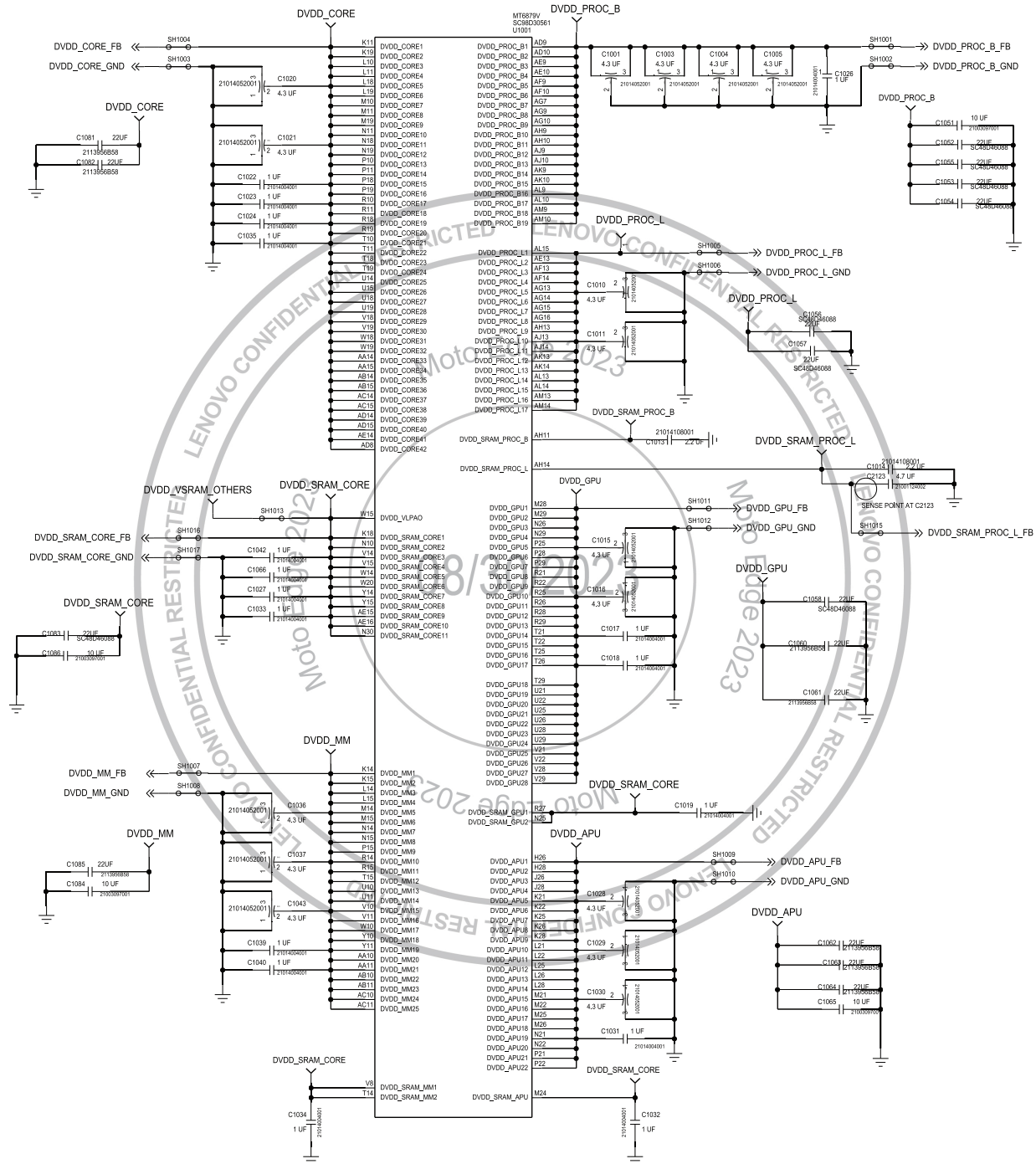


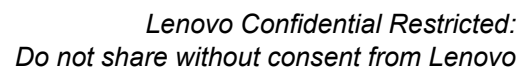
## SCREW



REF: 1001-1099

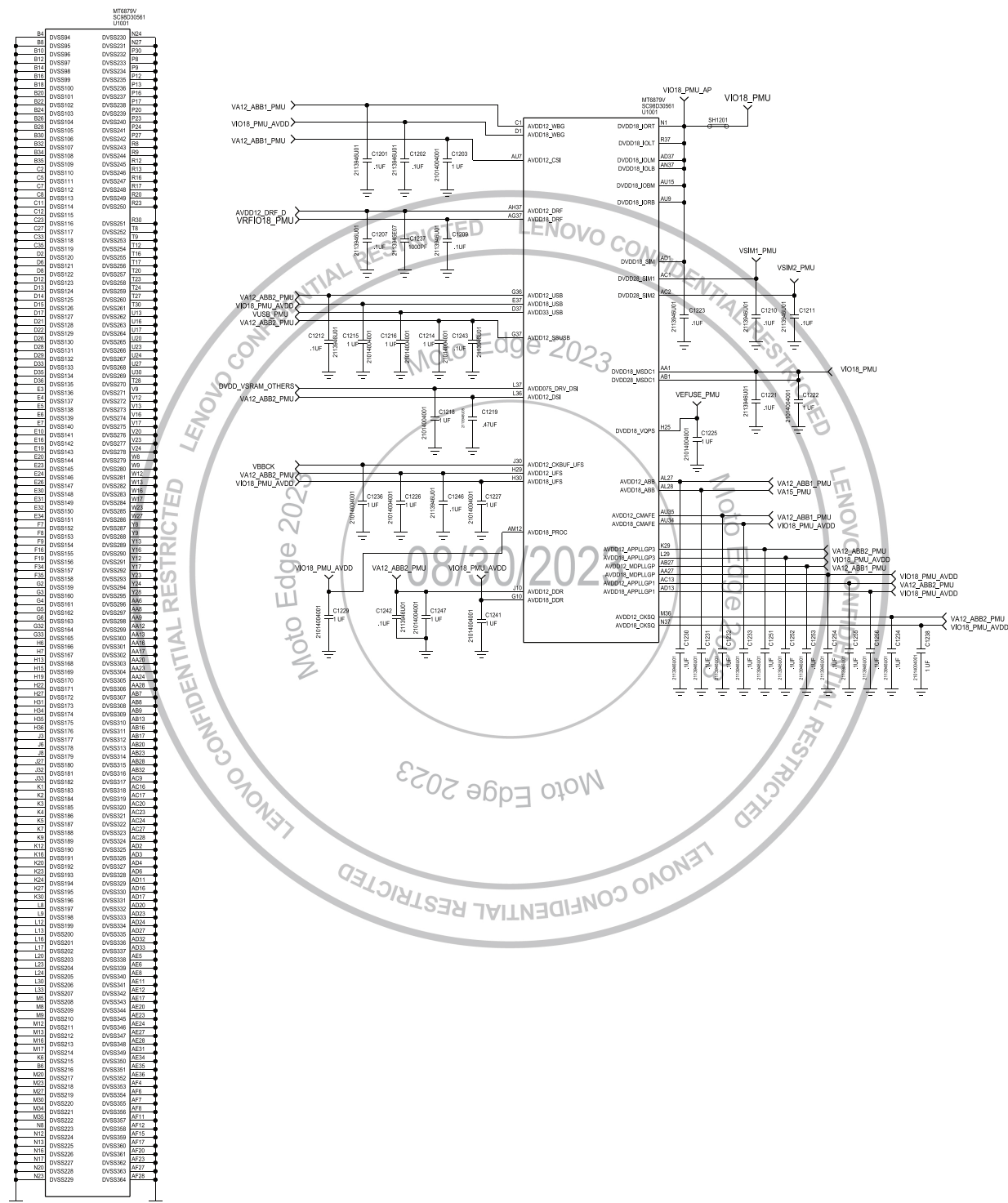
MT6879\_PDN1





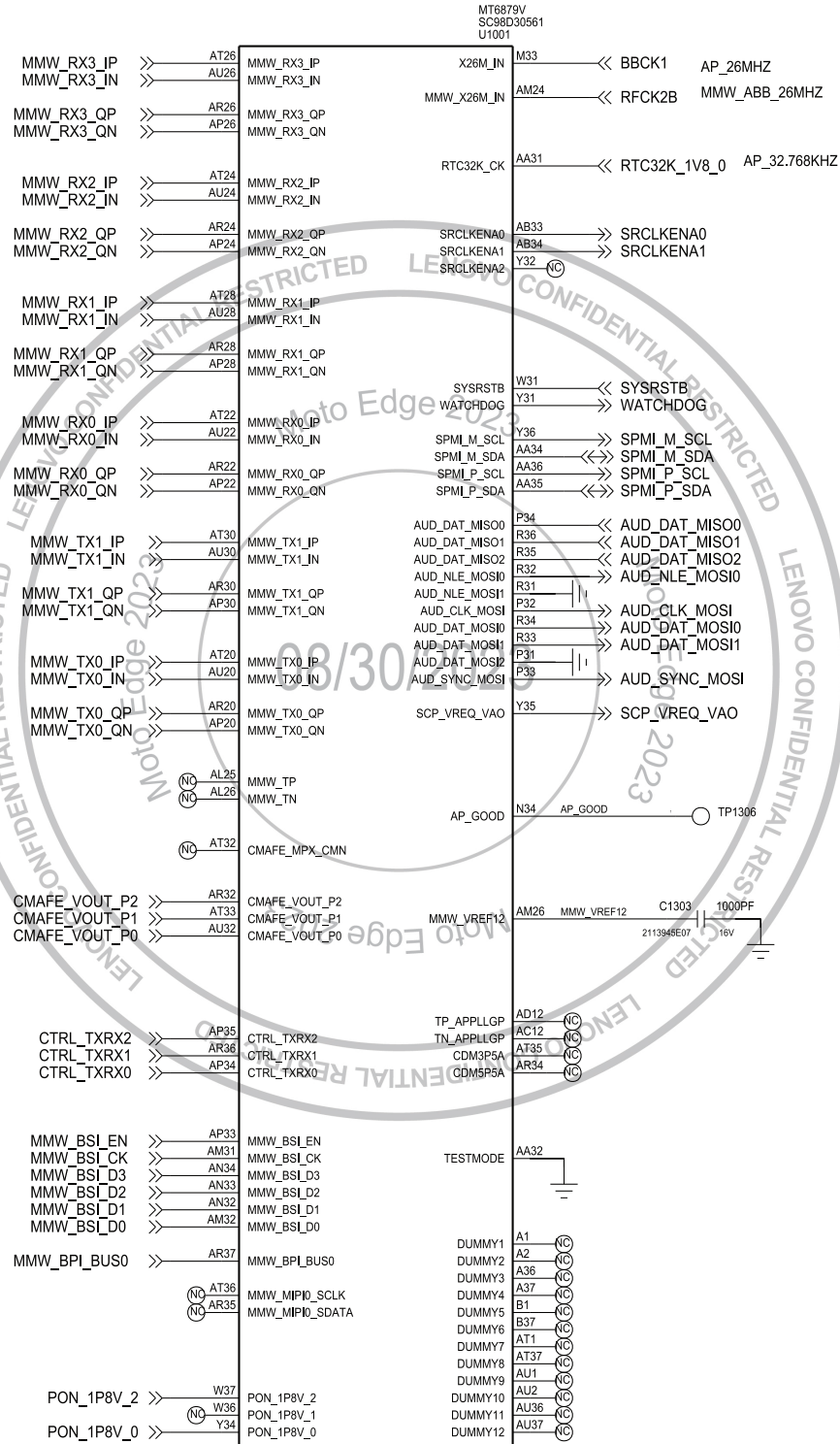
**REF: 1201-1279**

## MT6879 POWER GND



REF: 1301-1329

MT6879\_MMW

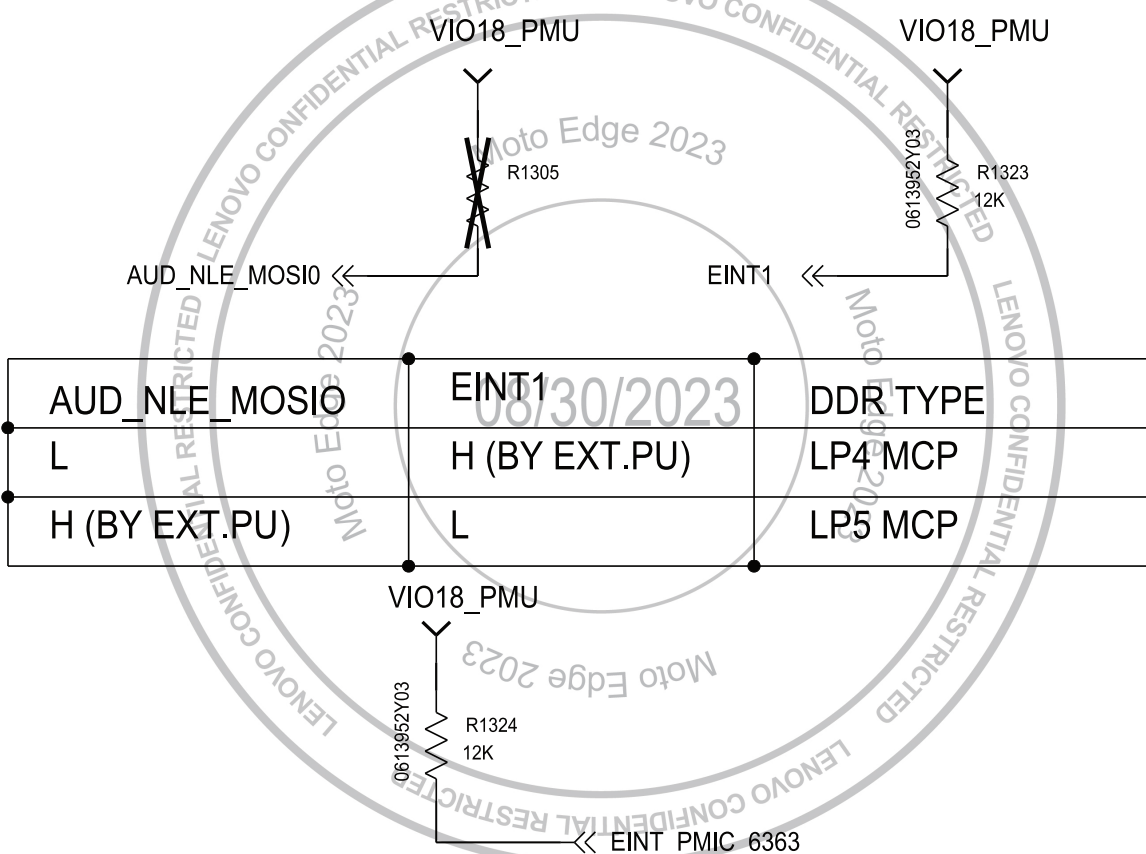




## MT6879\_BOOT

EINT2 << 1 TP1321  
TPSM0\_381

| EINT2         | JTAG ENABLE | NOTE                   |
|---------------|-------------|------------------------|
| L             | N/A         |                        |
| H (BY EXT.PU) | AP JTAG     | REFER TO DESIGN NOTICE |



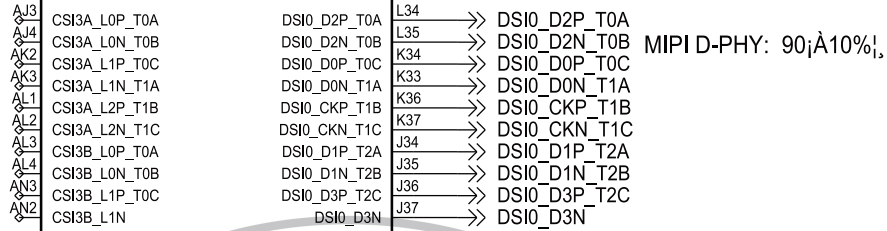
| PMIC6363'S EINT | VEMC   | APPLICATION |
|-----------------|--------|-------------|
| L               | 2.5X V | UFS 3.1     |
| H(BY EXT.PU)    | 3.0 V  | UFS 2.X     |

## MT6879\_CAM\_LCD\_INTERFACE

### REAR DEPTH

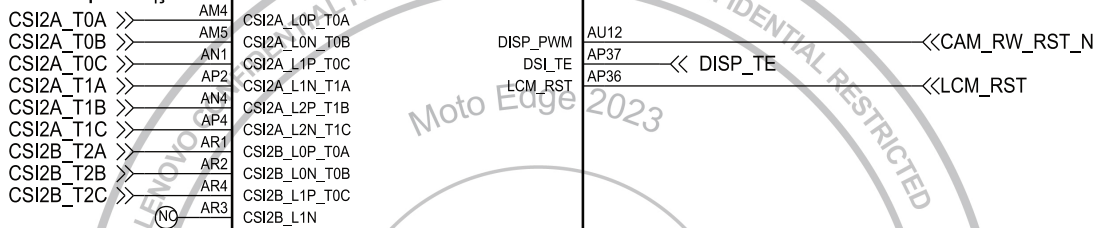
MIPI D-PHY: 90 $\mu$ A10%I<sub>s</sub>

MT6879V  
SC98D30561  
U1001



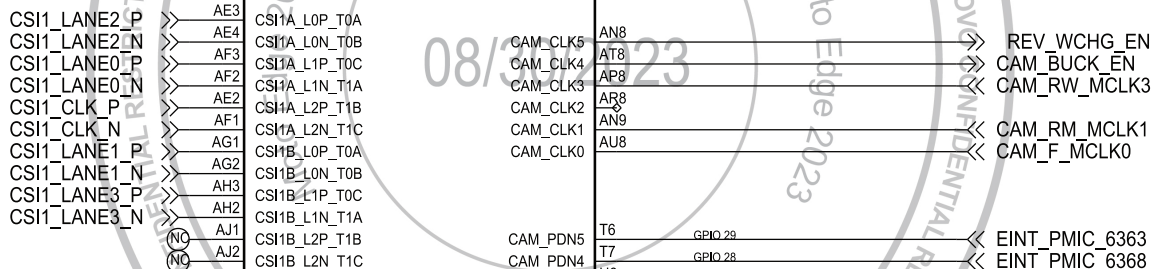
### REAR MAIN

MIPI C-PHY: 45 $\mu$ A10%I<sub>s</sub>



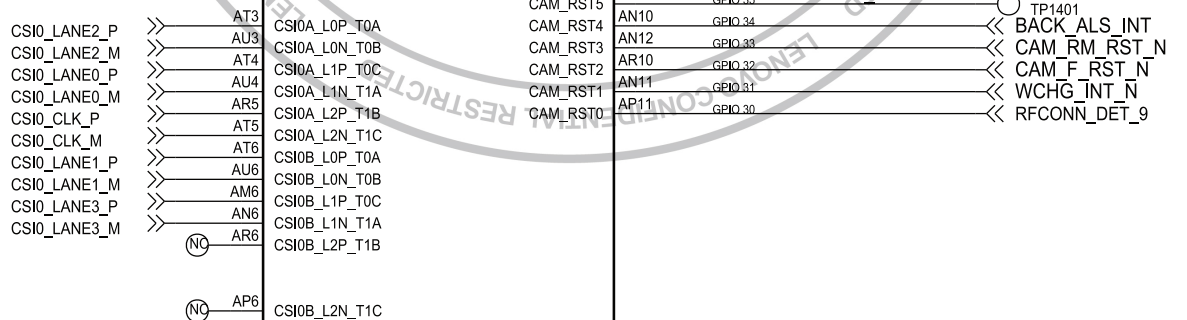
### REAR WIDE

MIPI D-PHY: 90 $\mu$ A10%I<sub>s</sub>



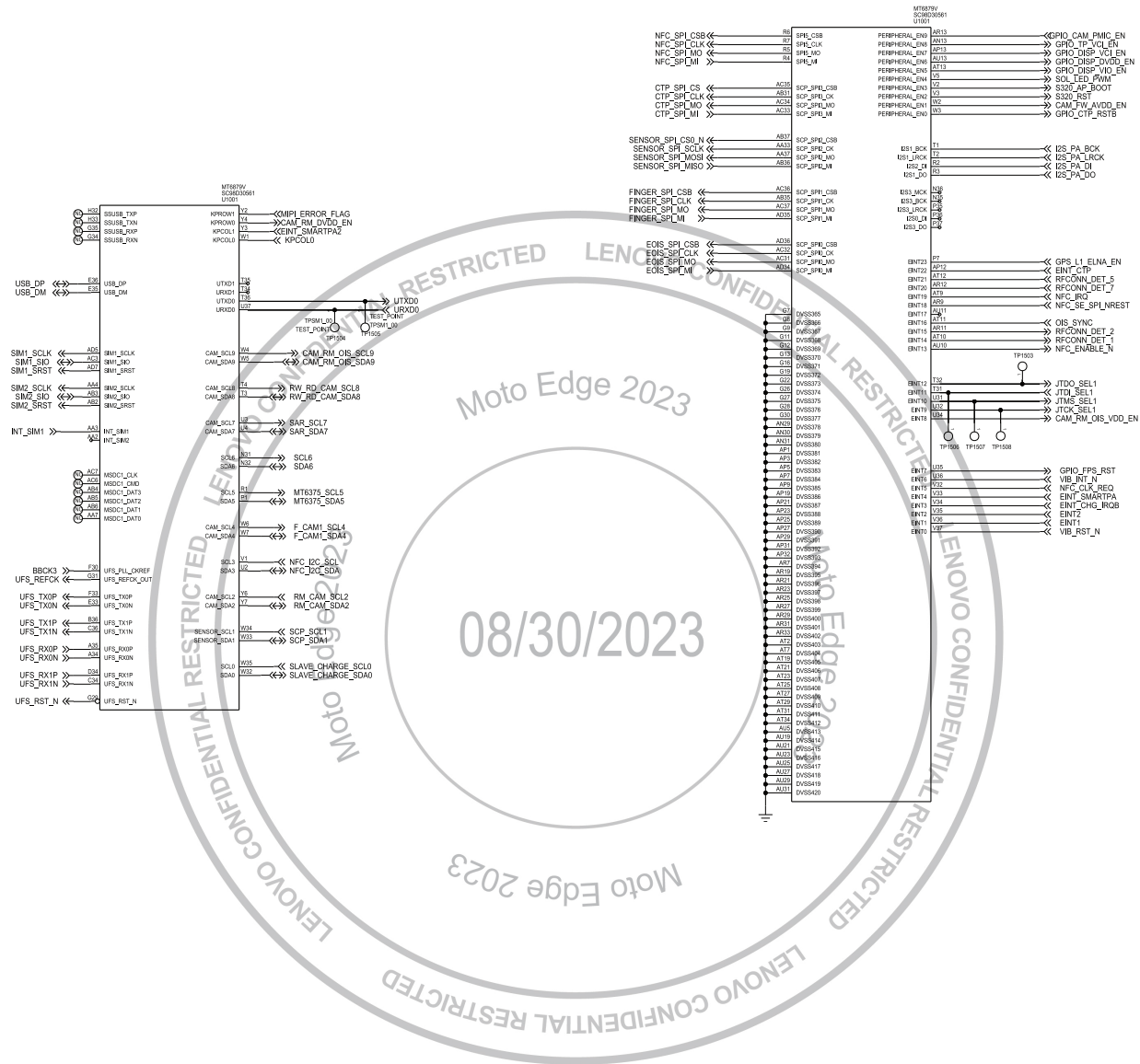
### FRONT CAMERA

MIPI D-PHY: 90 $\mu$ A10%I<sub>s</sub>



**REF: 1501-1529**

## MT6879\_USB\_I2C\_SPI\_INT

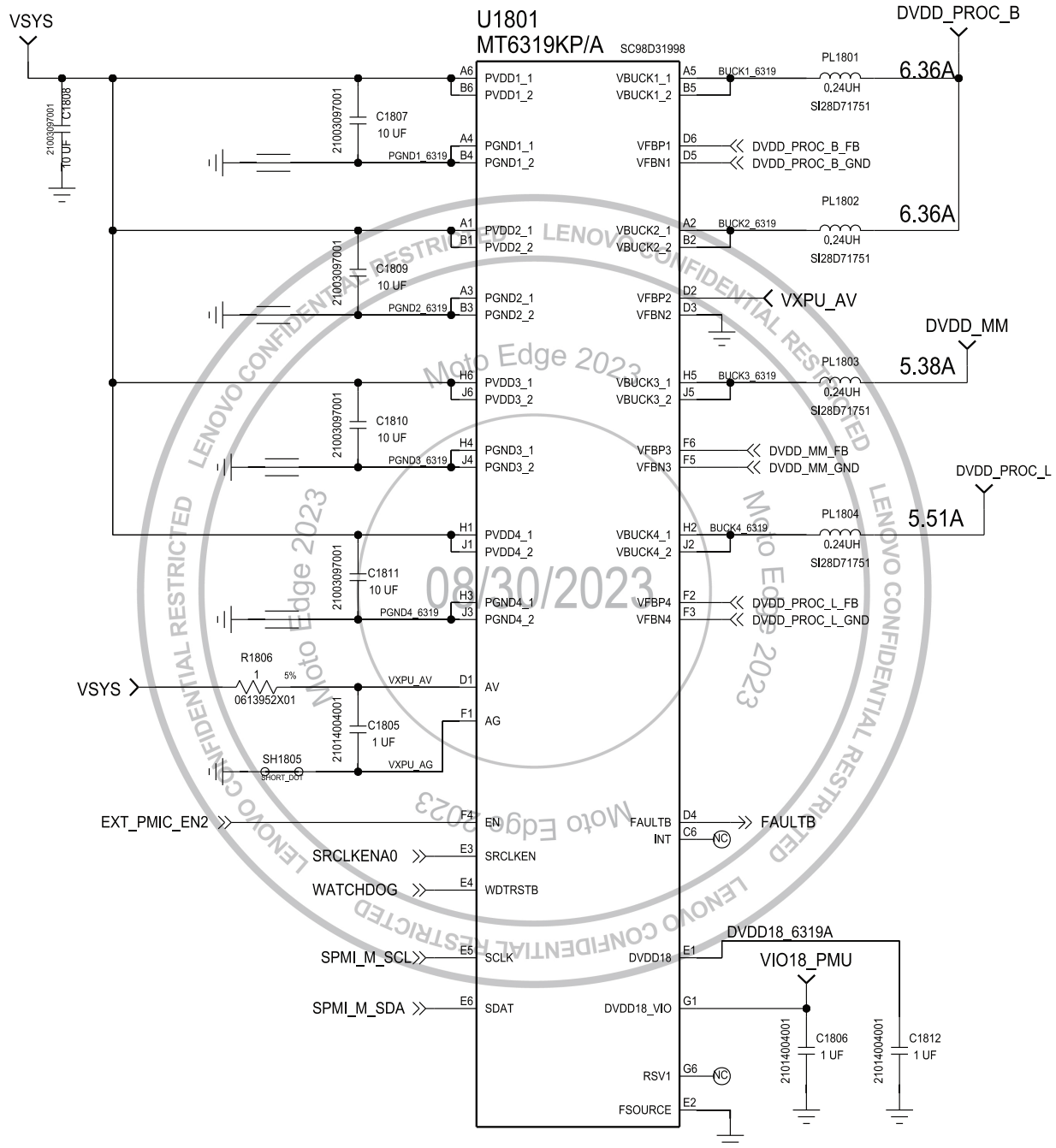






# REF: 1801-1819

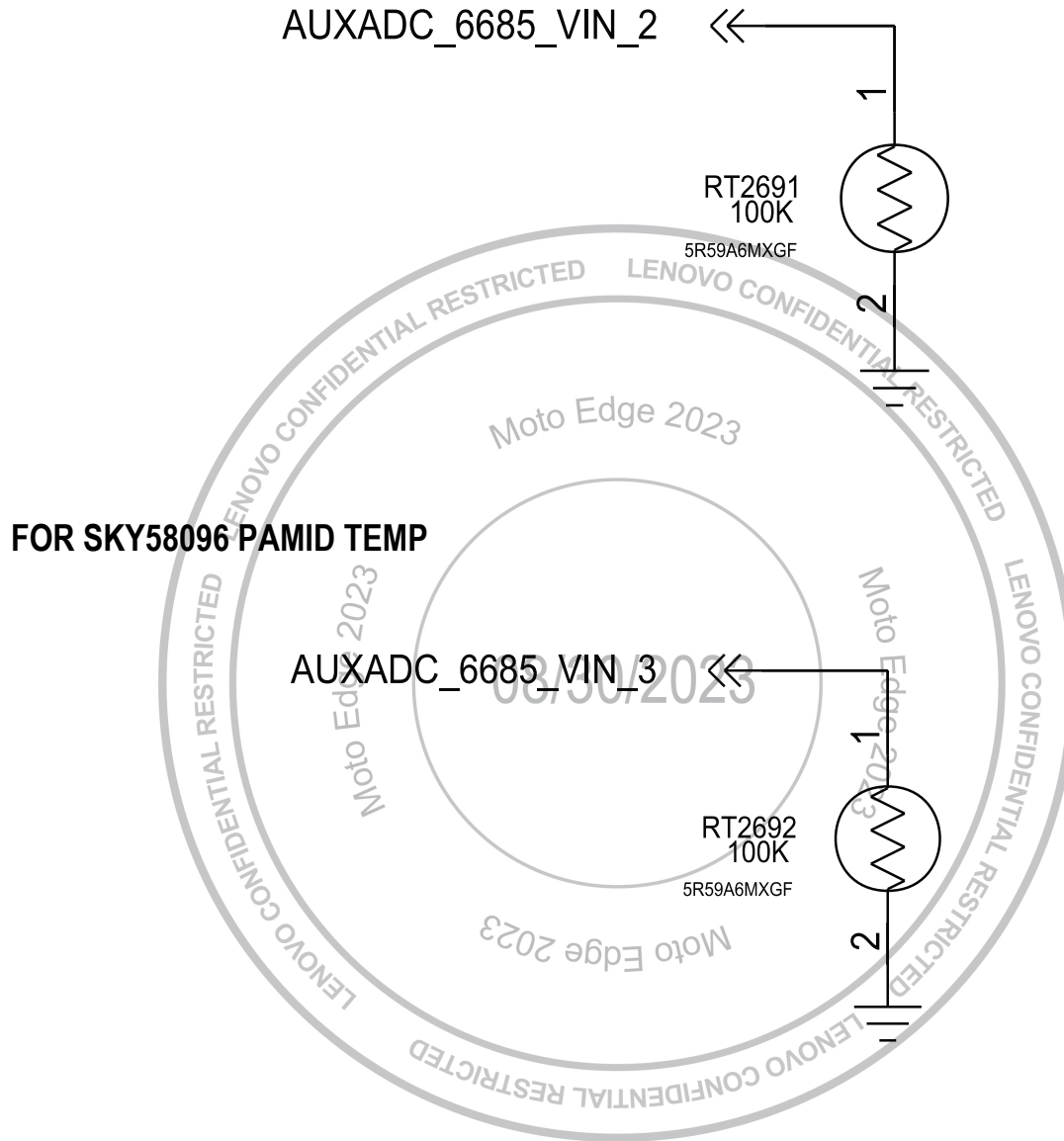
## MT6319\_BUCK



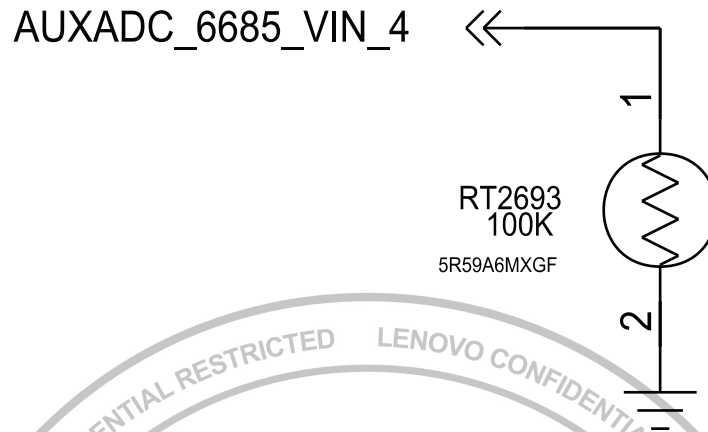


**REF: 2691-2699**

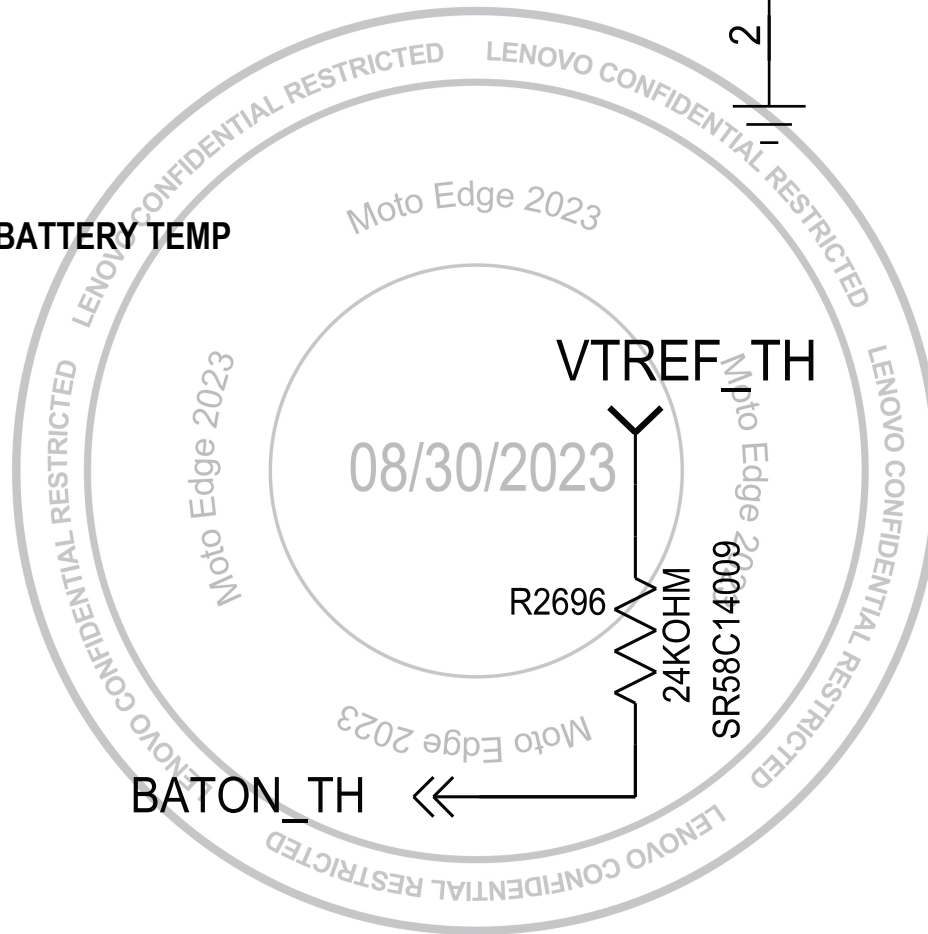
**FOR AP**



FOR PHASE2N PAMID TEMP

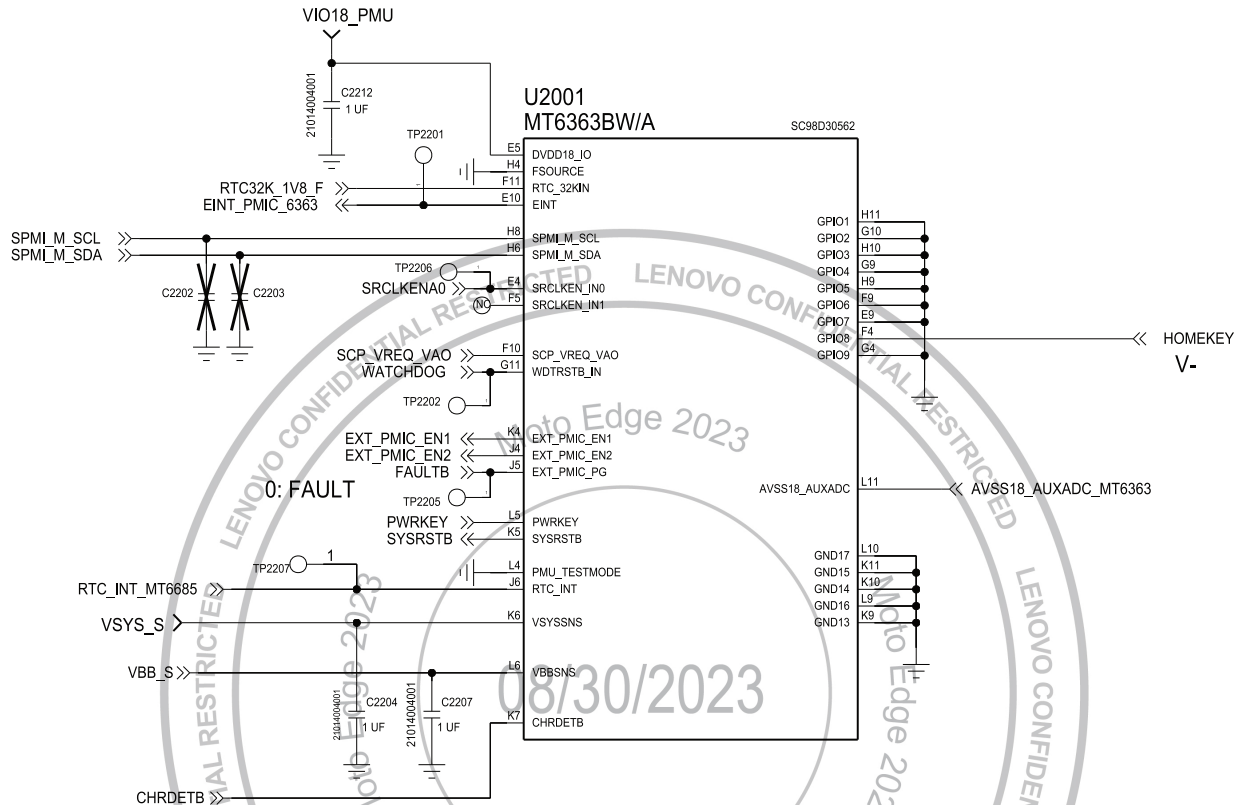


FOR BATTERY TEMP

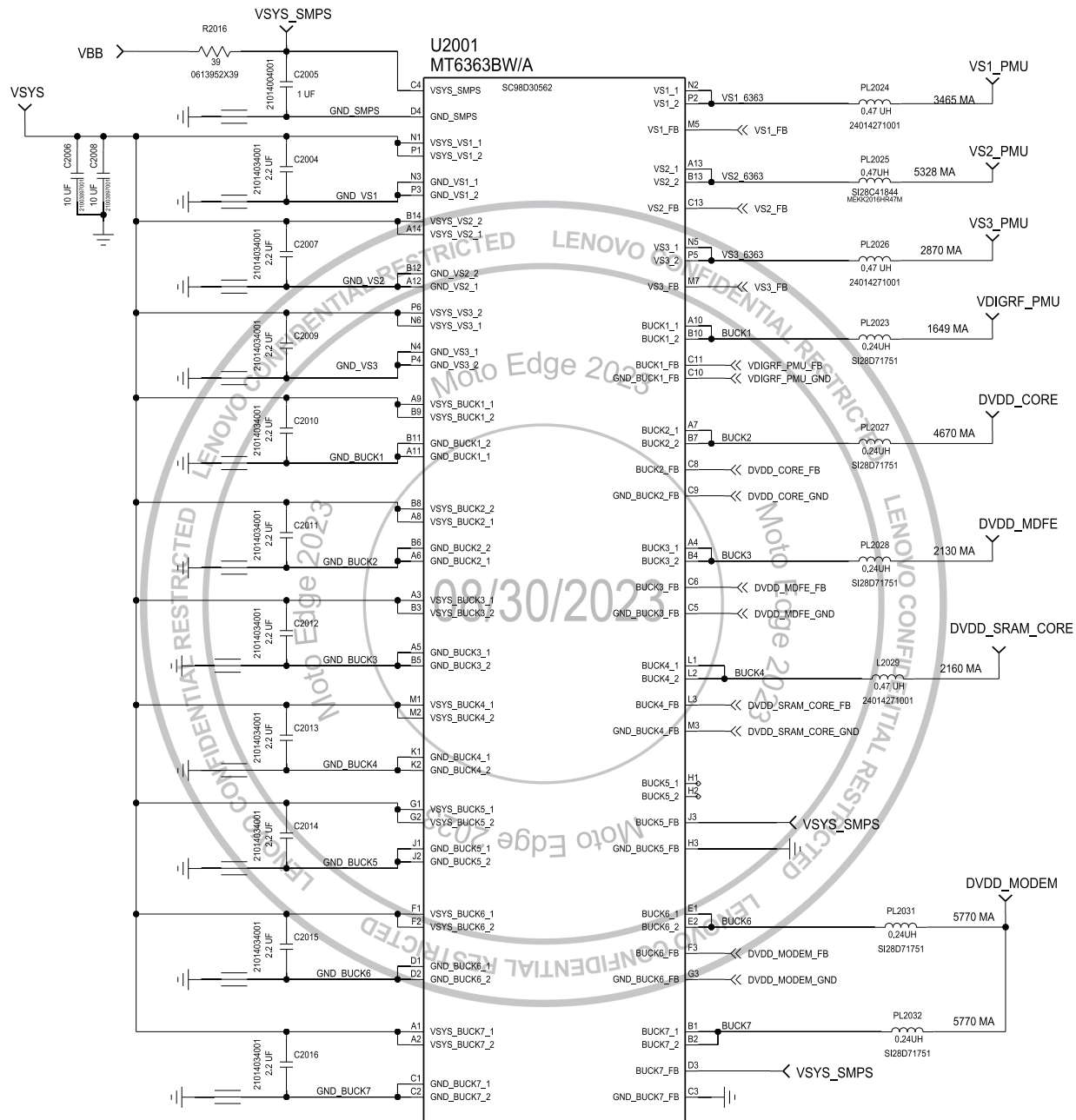


REF: 2201-2229

MT6363\_GENERAL

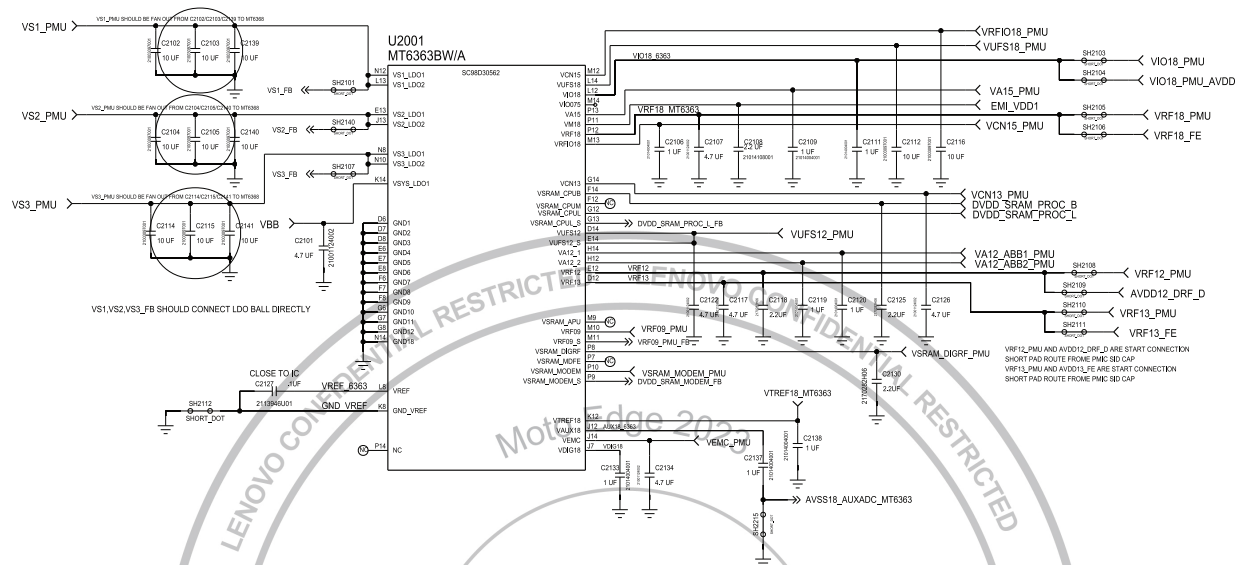


**REF: 2001-2039**

**MT6363\_BUCK**

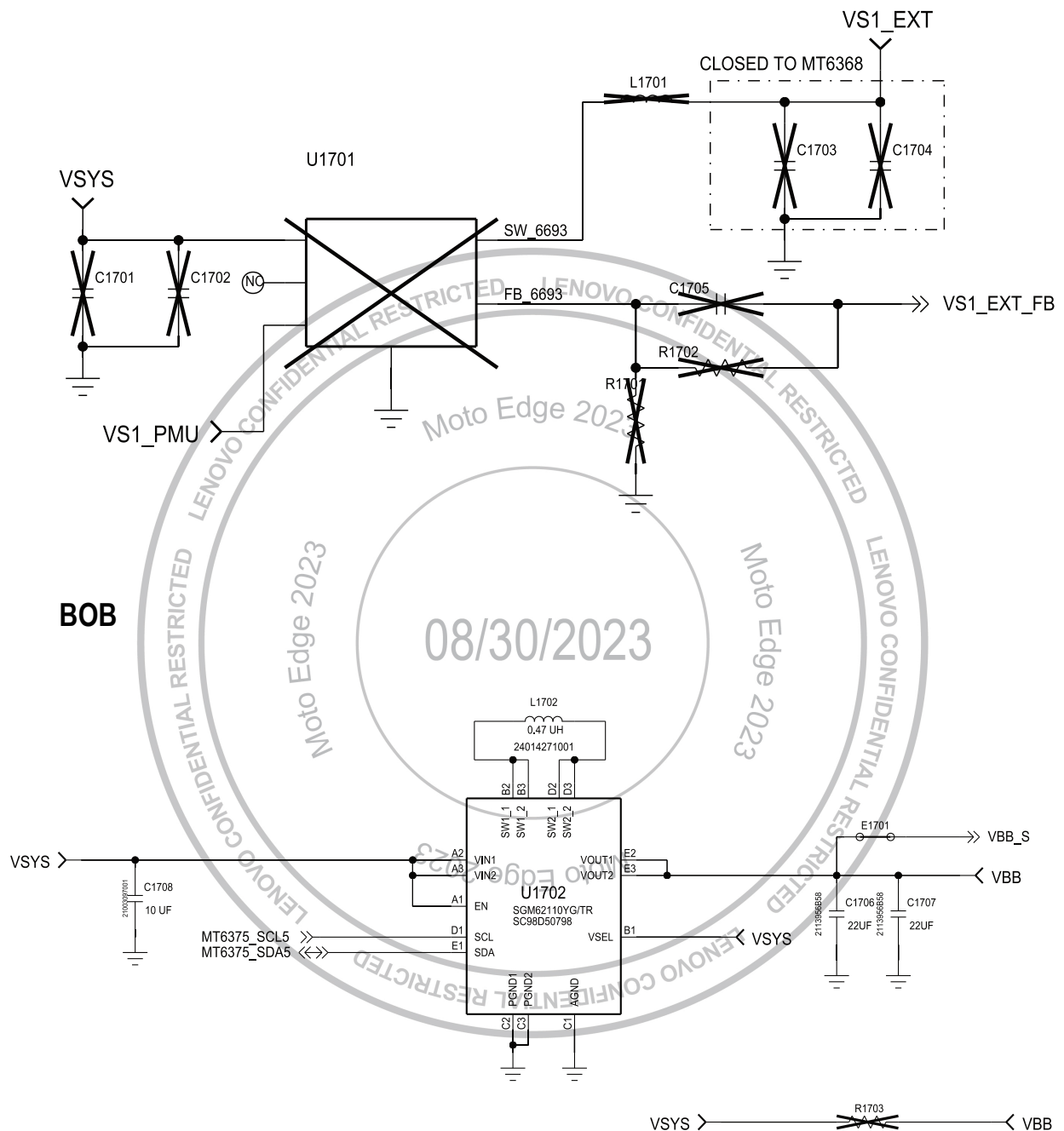
**REF: 2101-2149**

## MT6363\_LDO



REF: 1701-1749

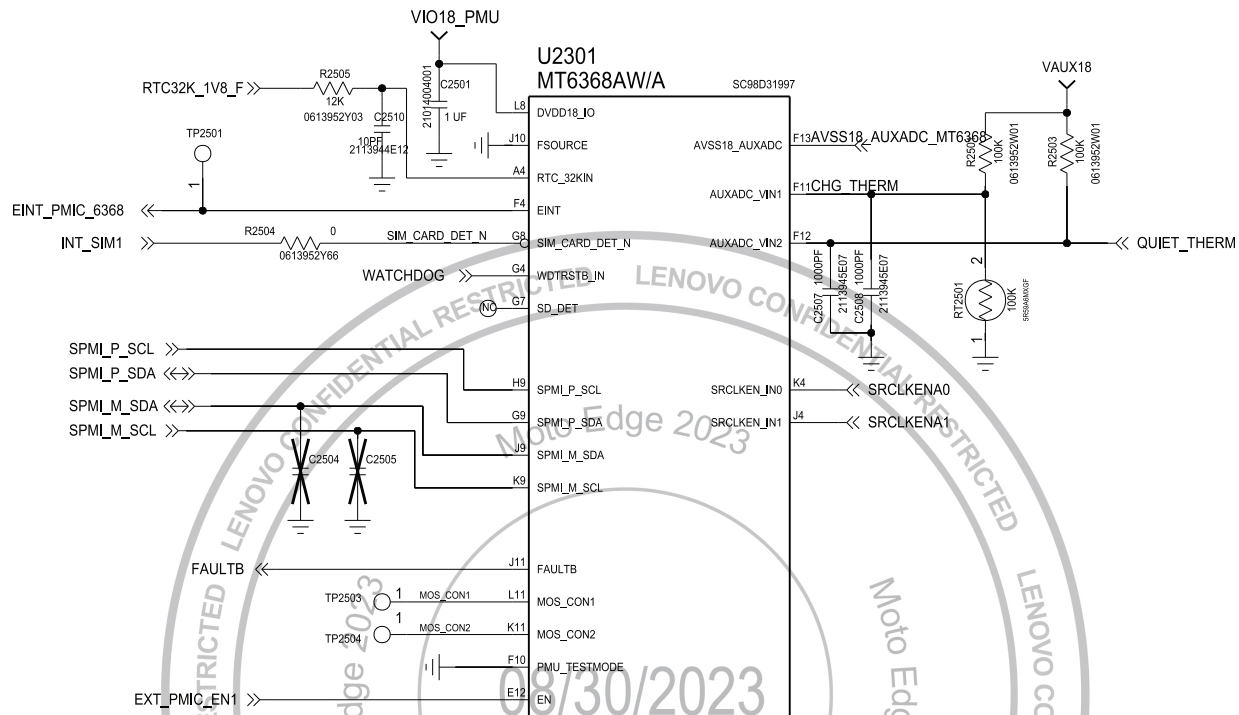
MT6693\_BUCK





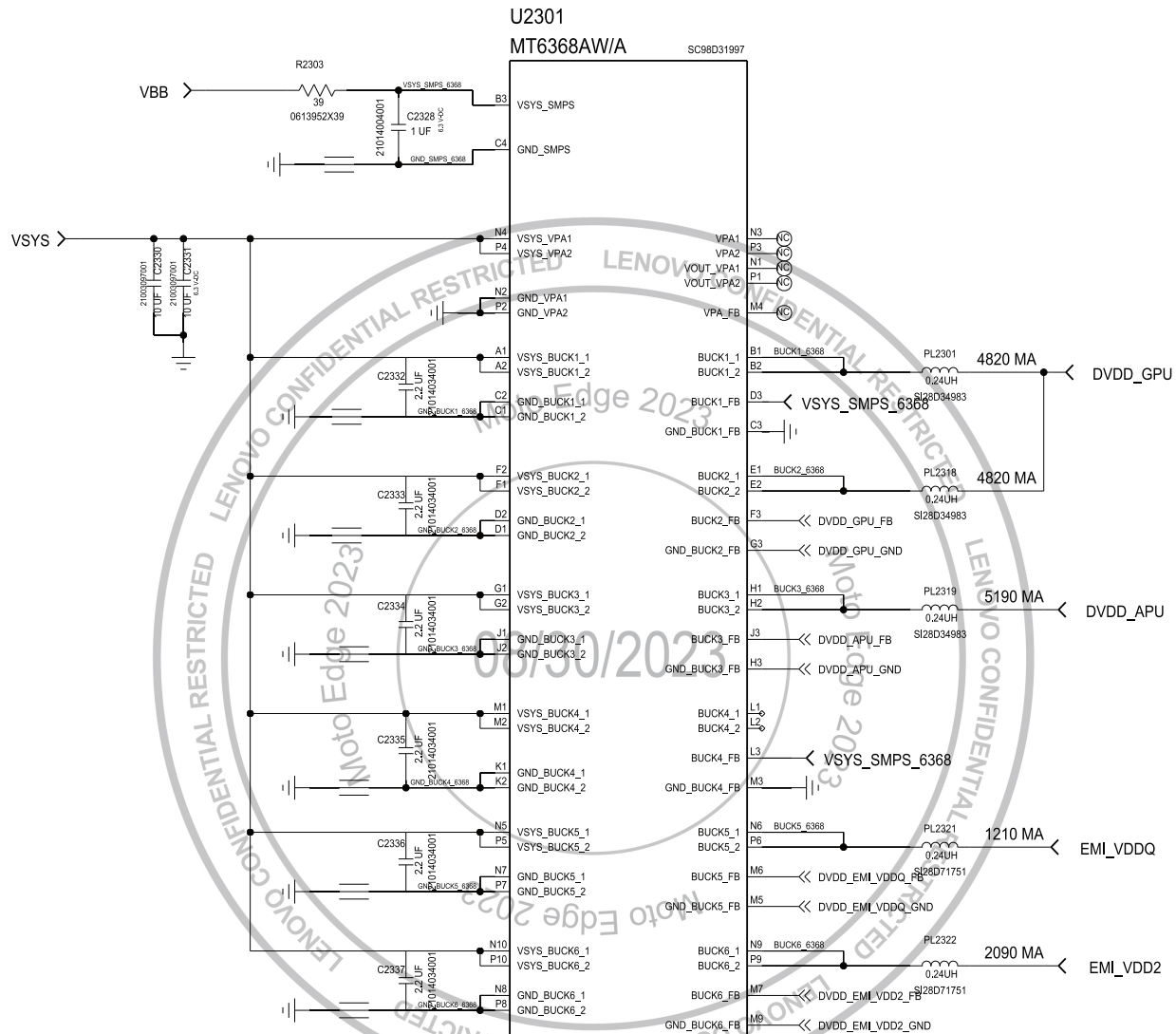
**REF: 2501-2519**

**MT6368\_GENERAL**



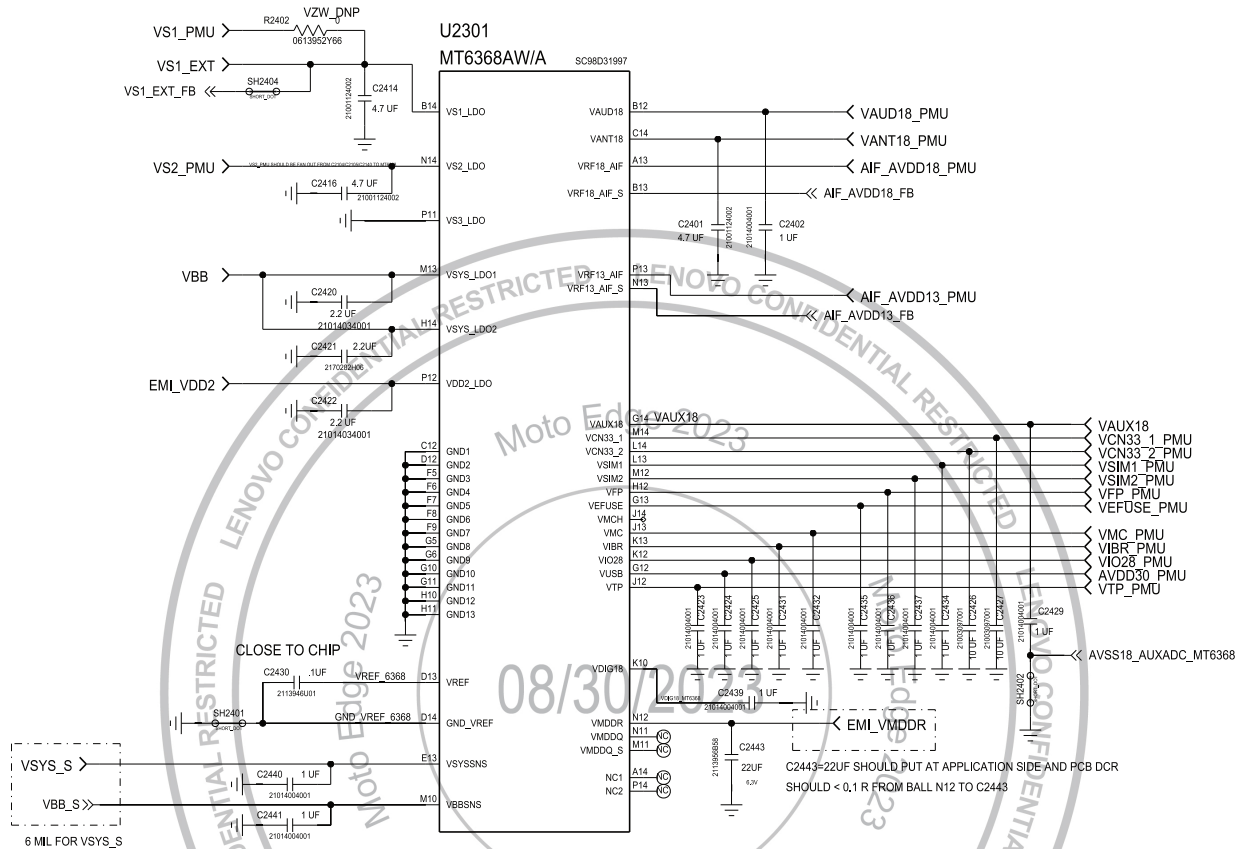
**REF: 2301-2349**

**MT6368\_BUCK**



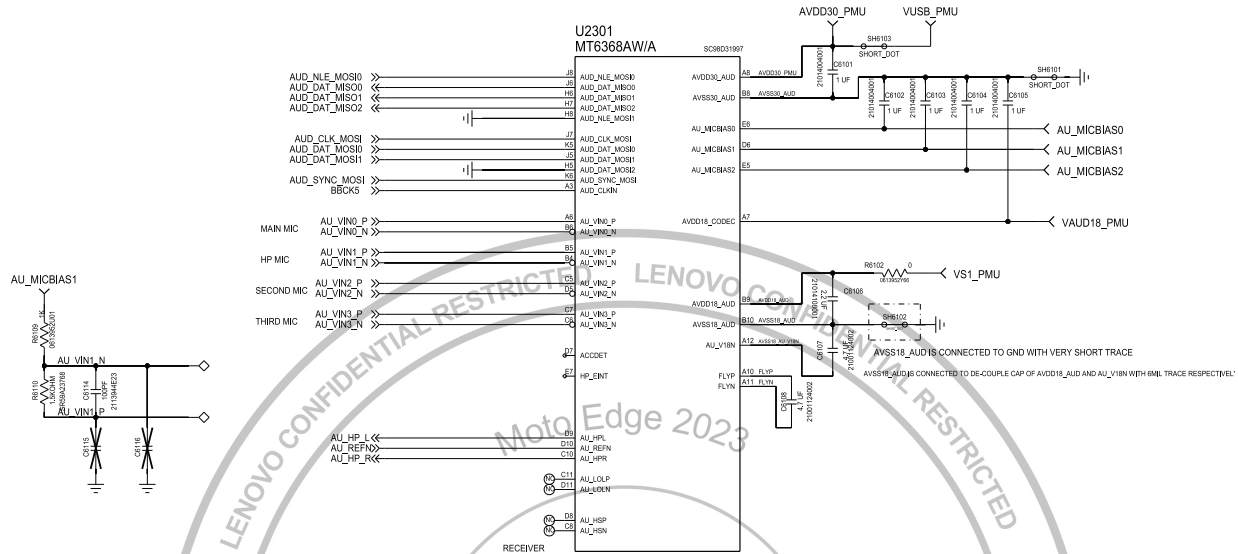
REF: 2401-2449

MT6368\_LDO



REF: 6101-6119

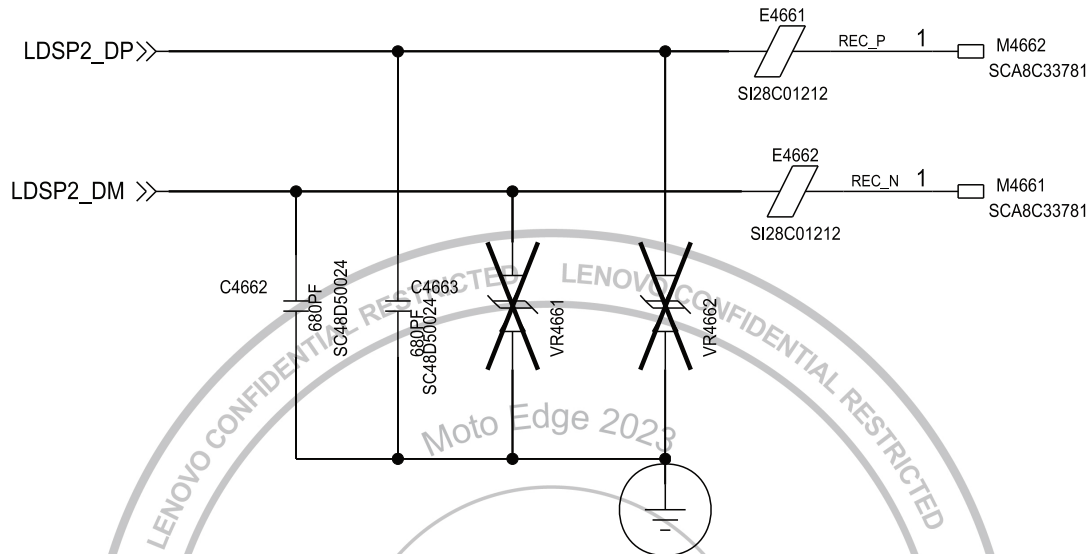
MT6368\_AUDIO



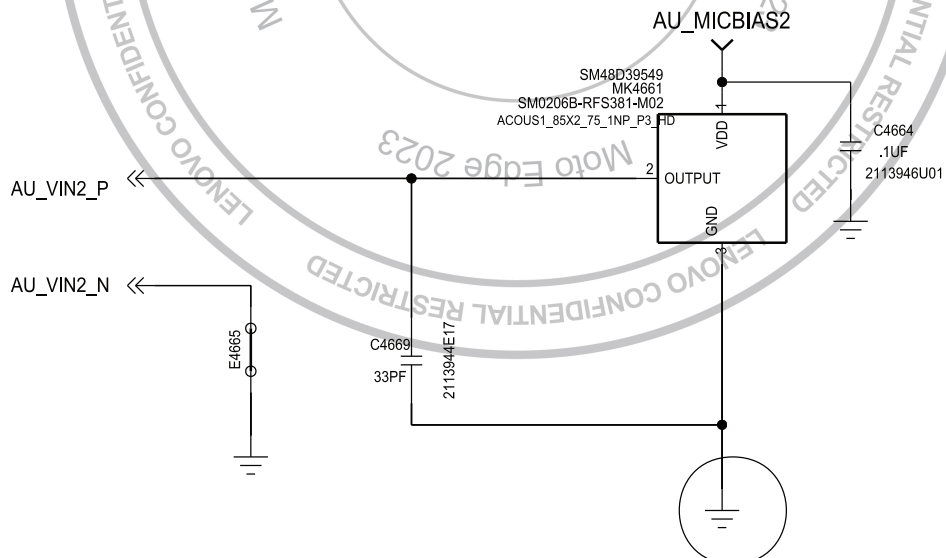


# REF: 4661-4679

## RECEIVER

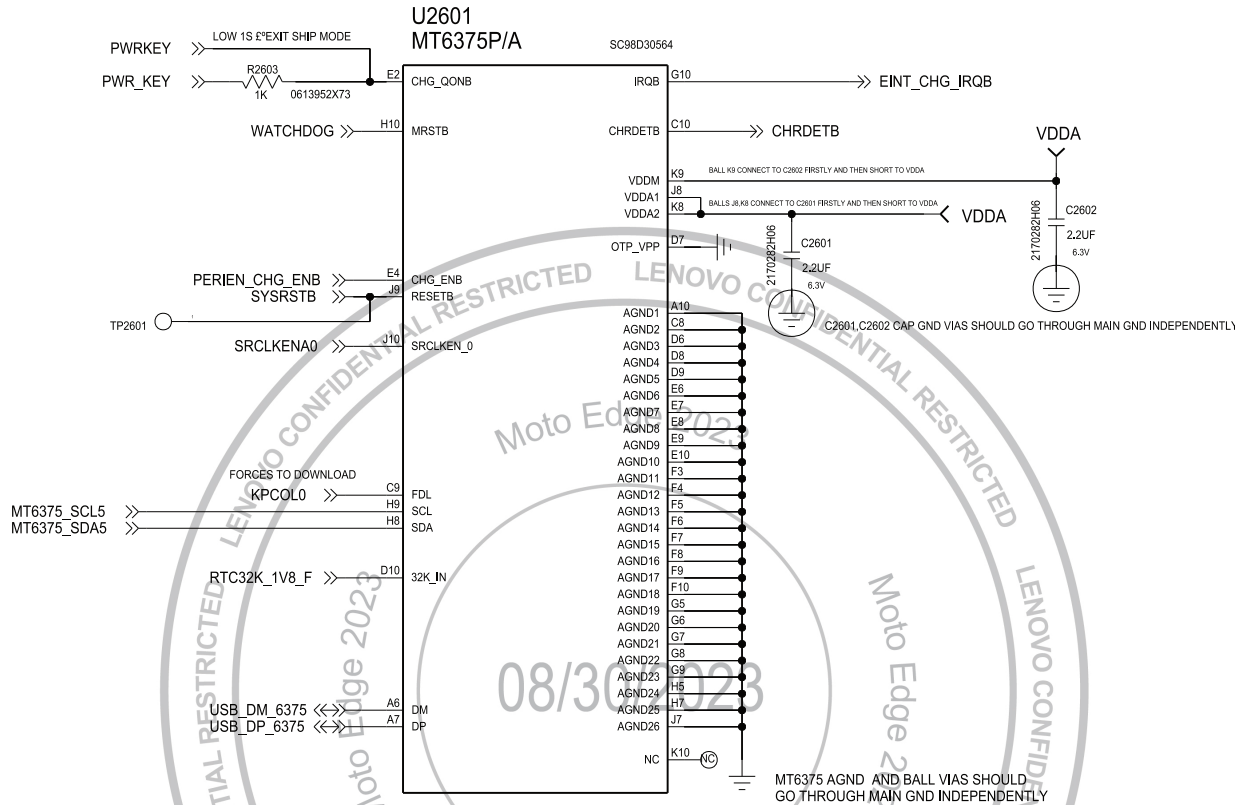


## SECOND MIC



REF: 2601-2609

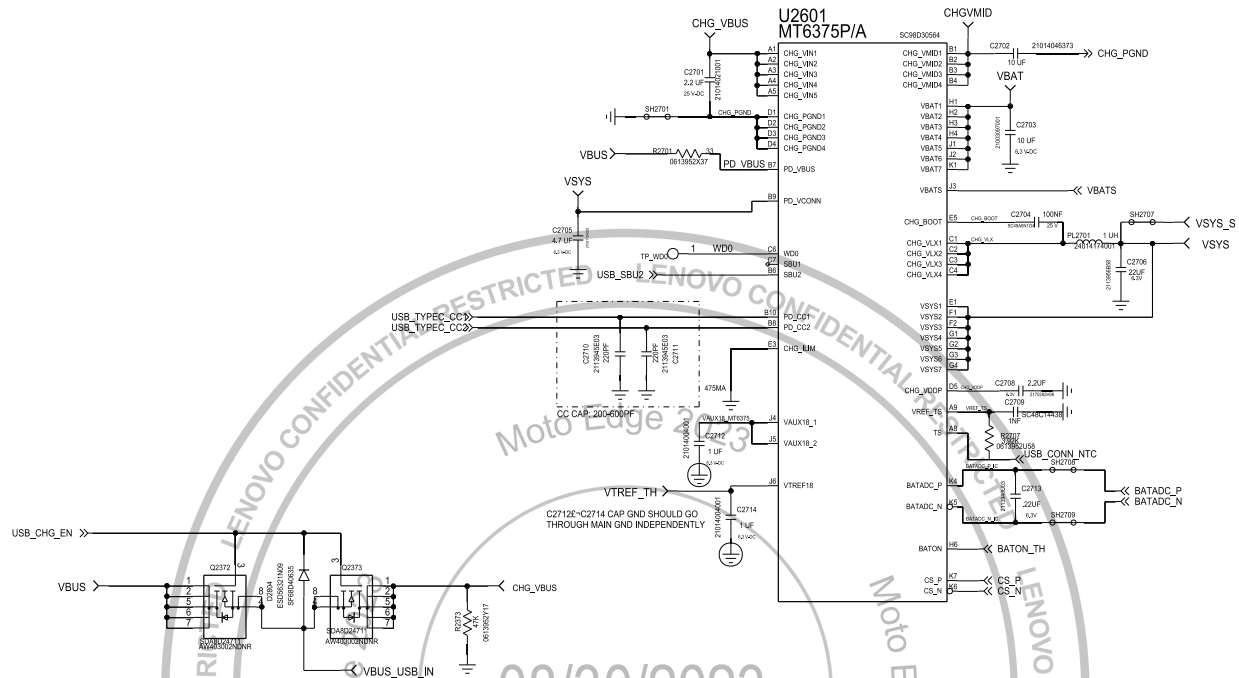
MT6375 GENERAL





**REF: 2701-2729**

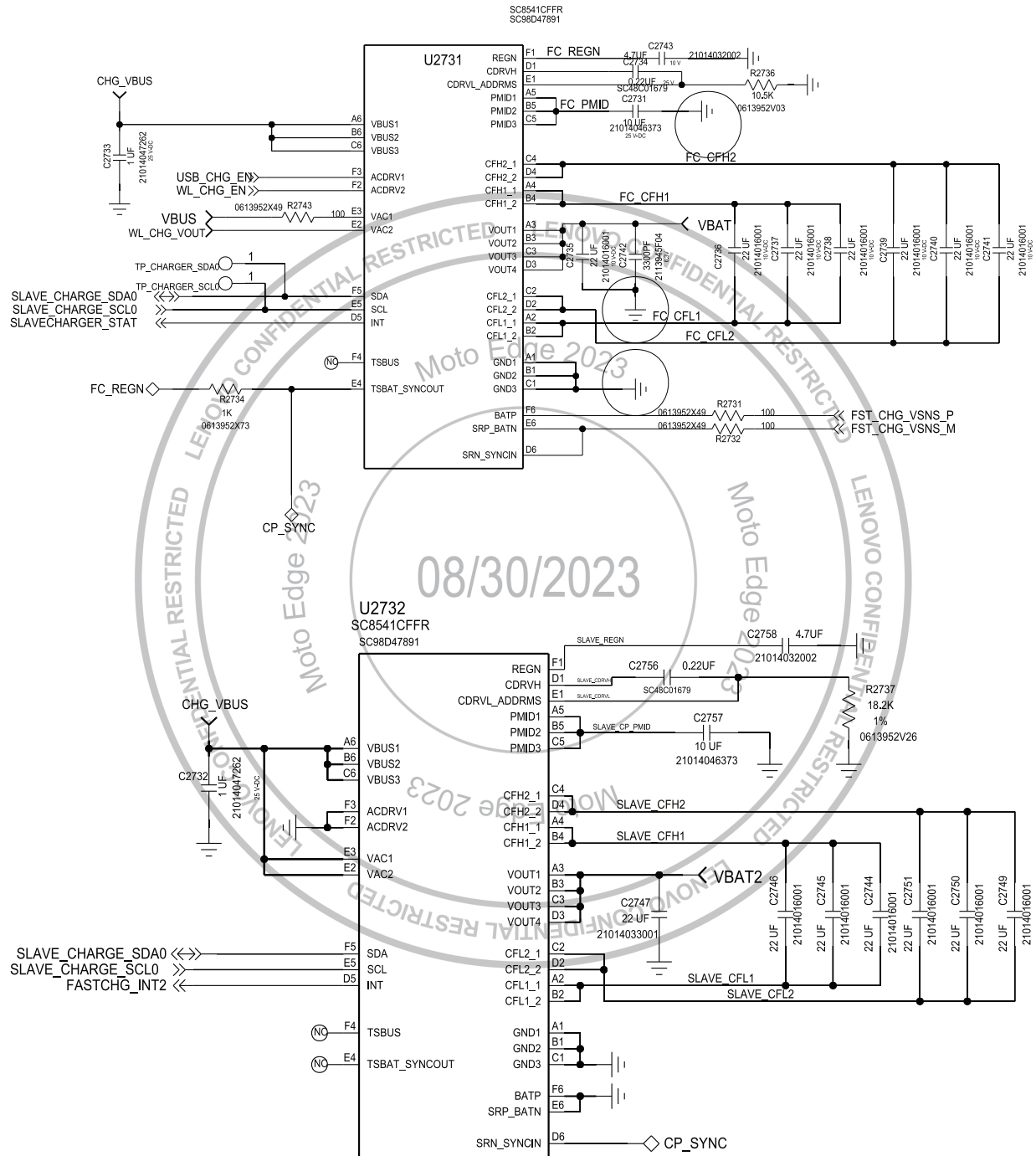
# MT6375 CHARER



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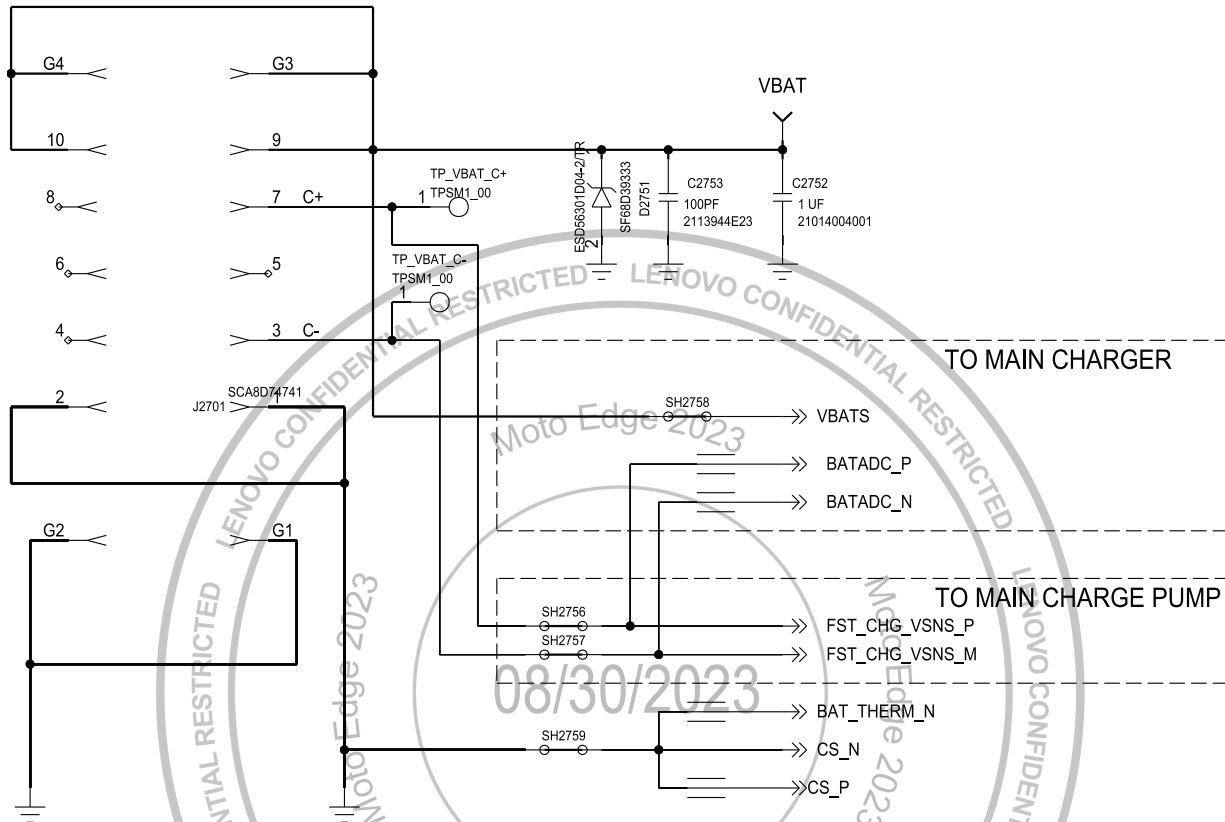
**REF: 2731-2759**

## SLAVE CHARGER\_SC8549

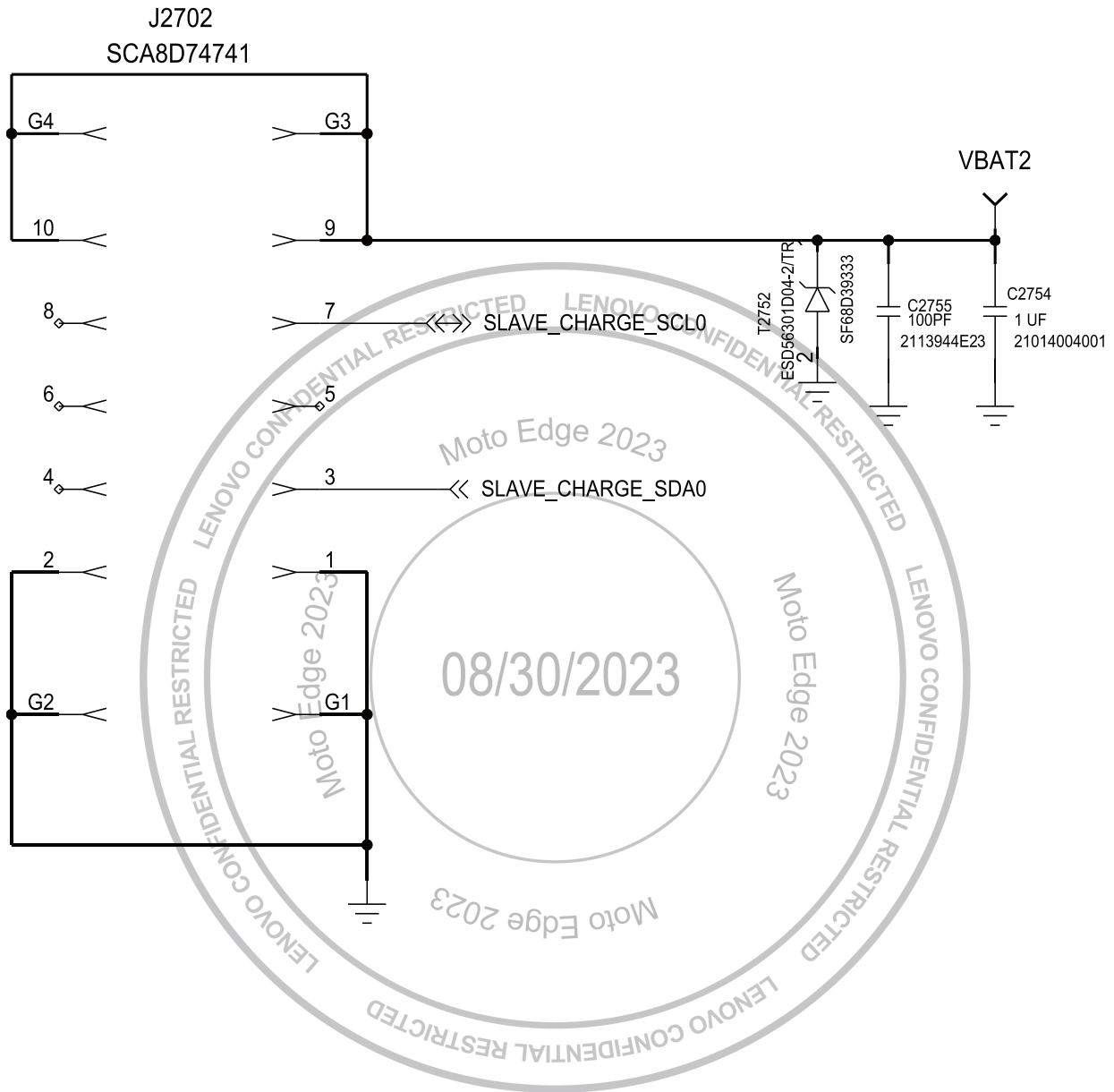


## REF: 2751-2759

### BATTERY CONNECTOR

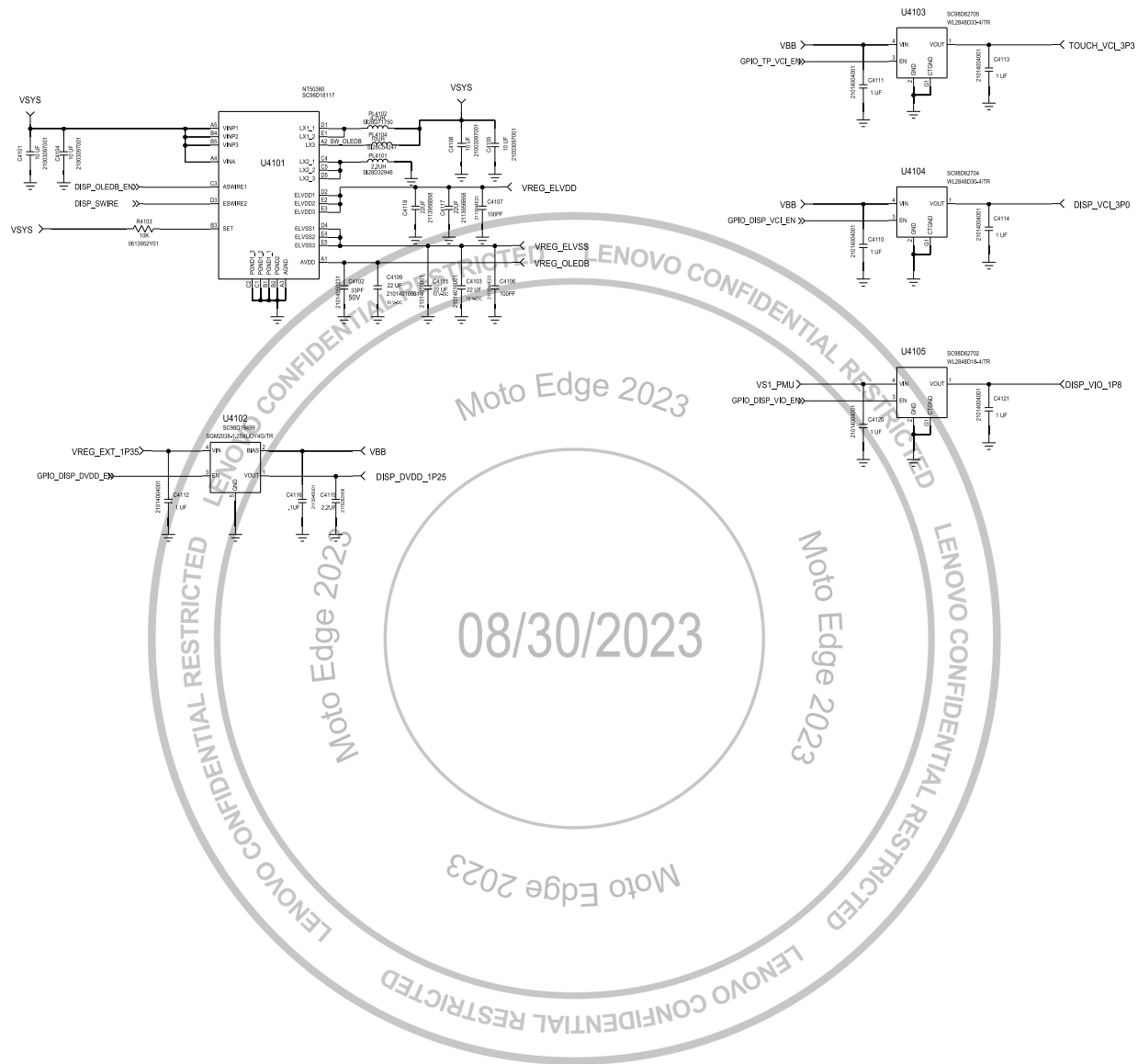


## SECOND BATTERY CONN.



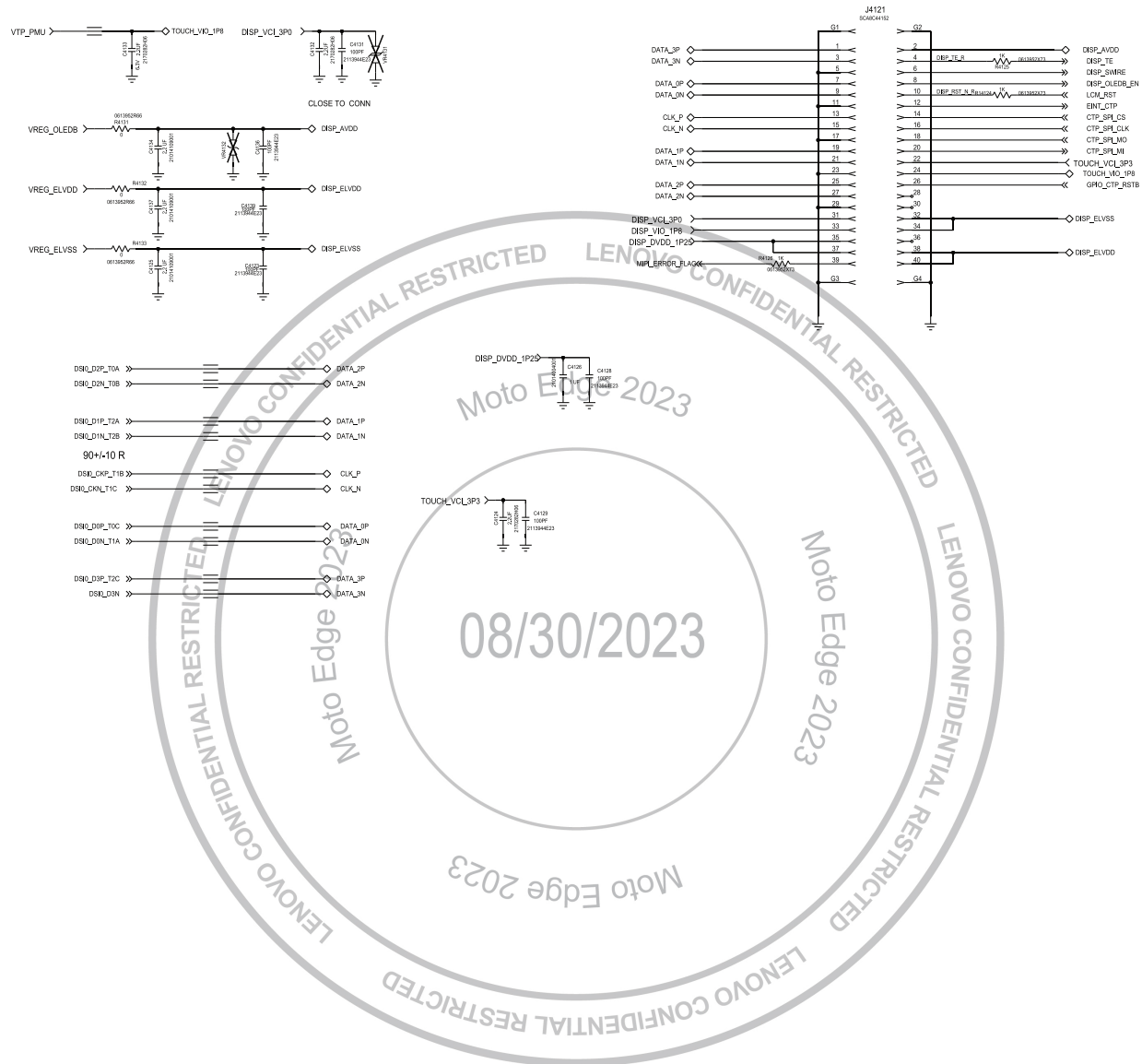
**REF: 4100-4120**

## DISPLAY\_POWER

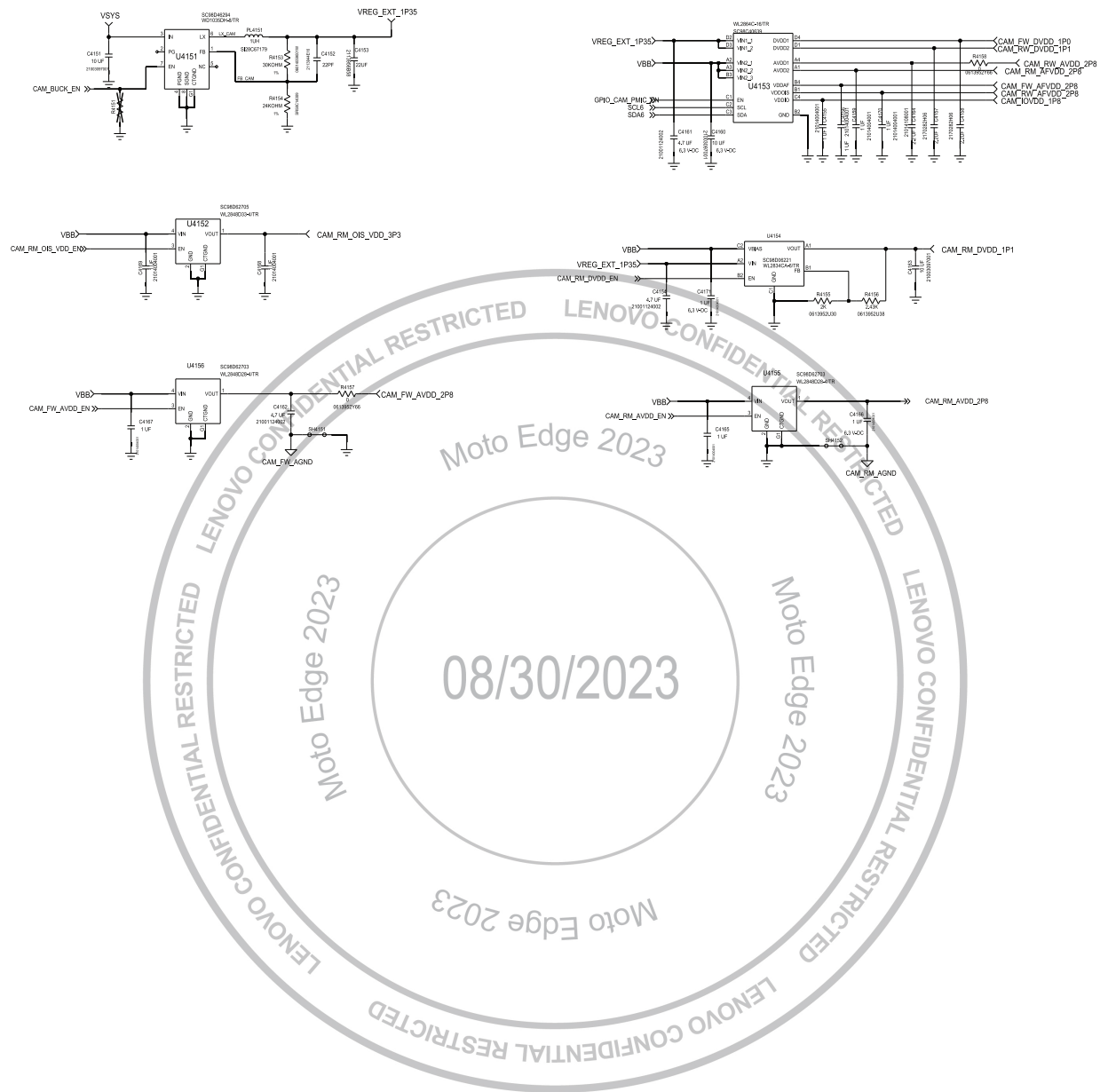


**REF: 4121-4150**

## DISPLAY\_TP



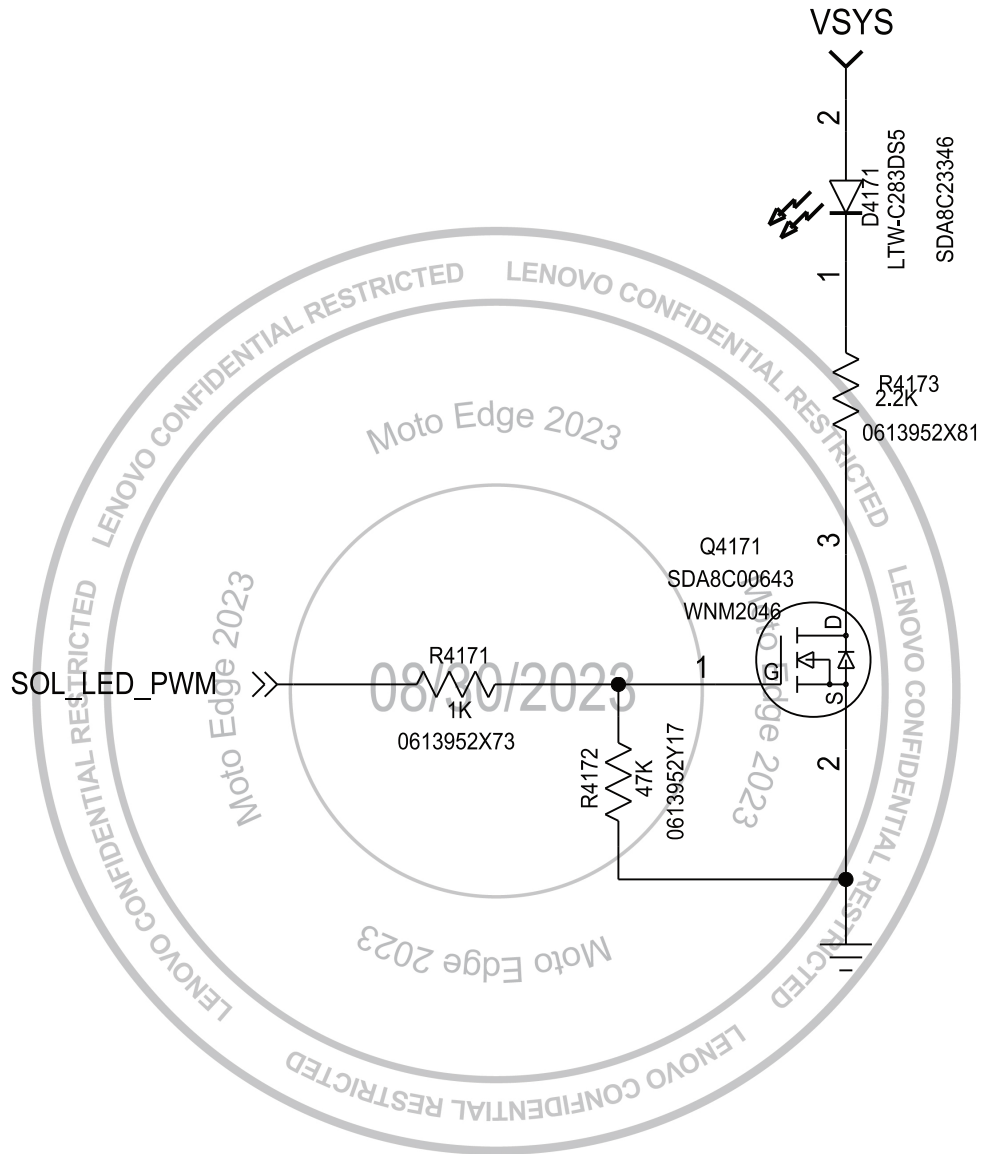
**REF: 4151-4170**



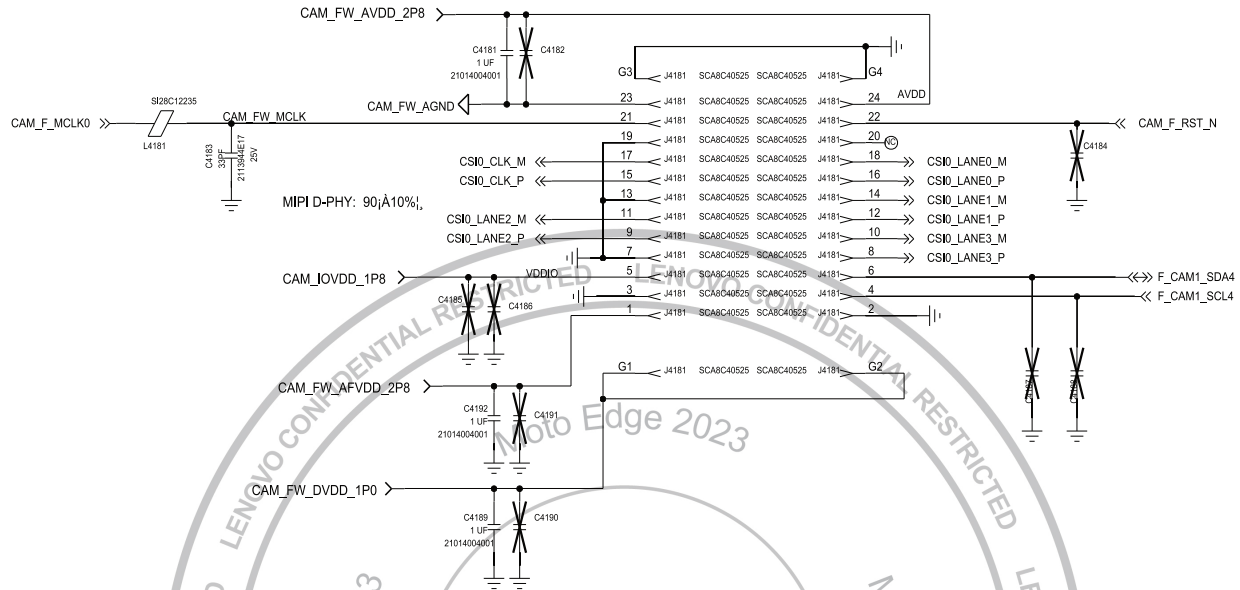


REF: 4171-4180

SOL LED



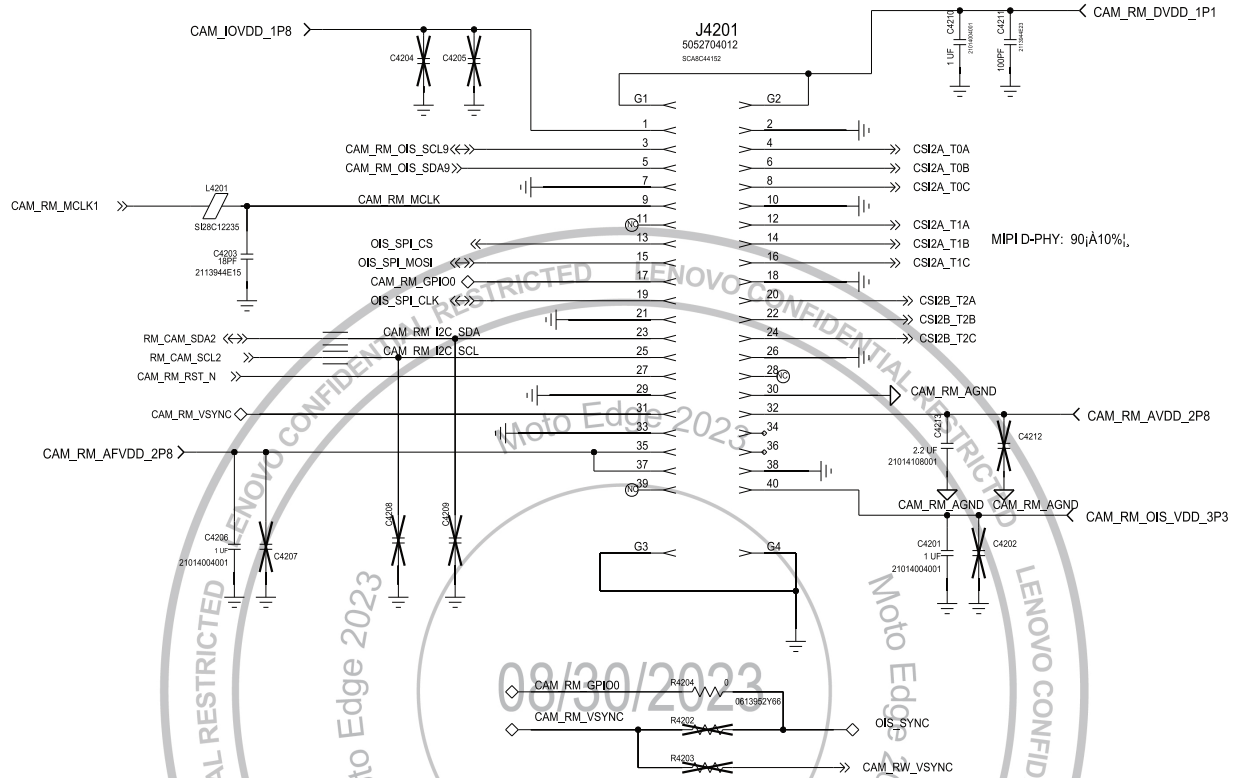
REF: 4181-4999  
FRONT\_CAMERA



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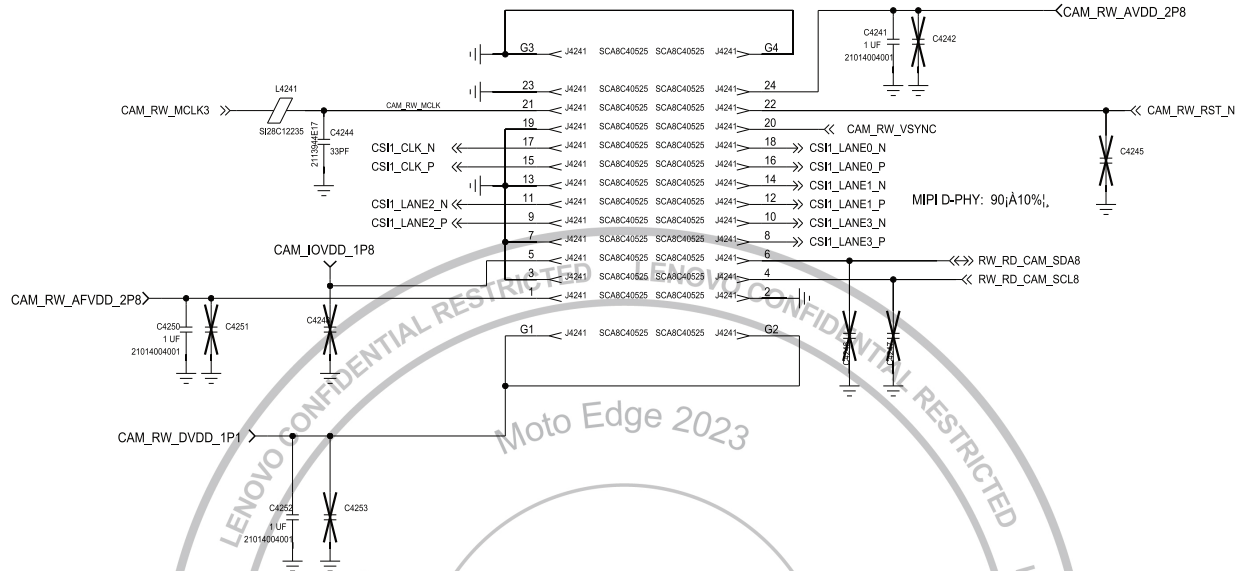
## REF: 4201-4219

### REAR\_MAIN



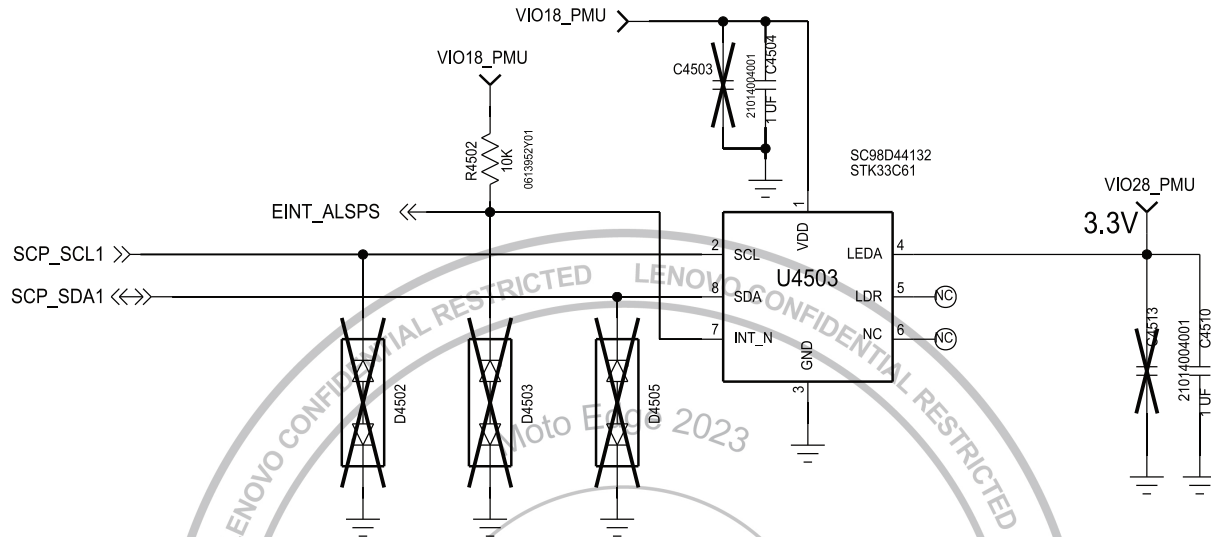
REF: 4241-4259

REAR\_WIDE

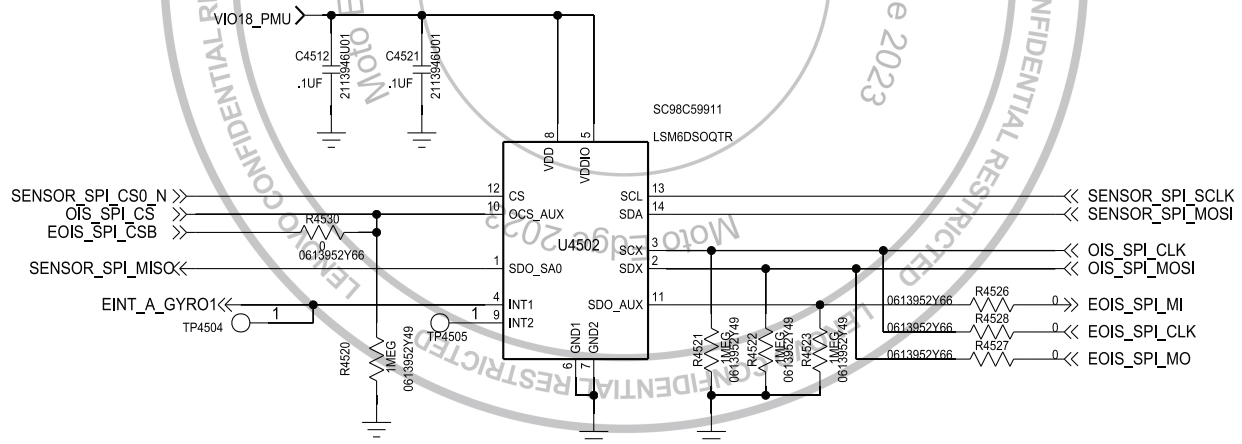


REF: 4501-4549

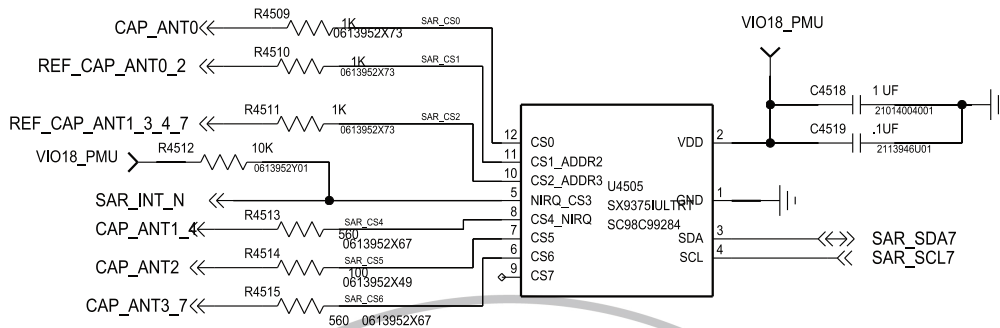
# ALS\_P SENSOR



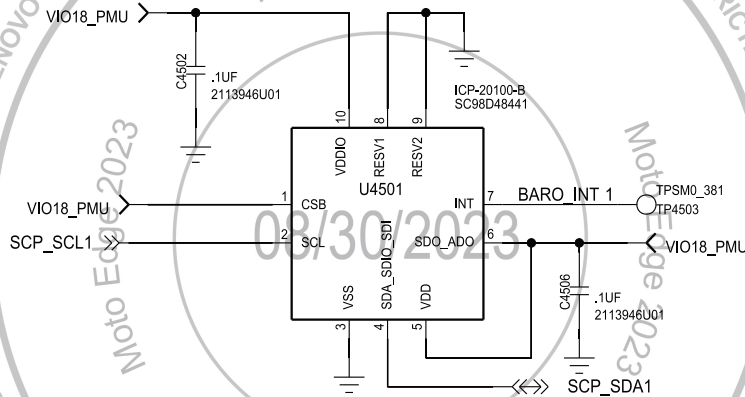
## A+G FOR HOST & OIS



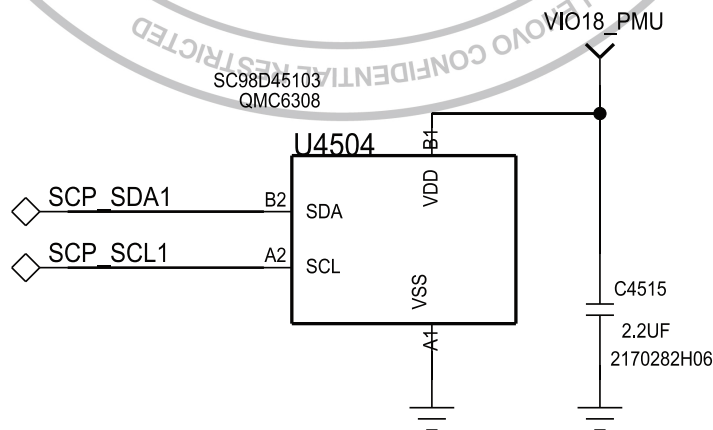
## CAP SENSOR



## BAROMETER



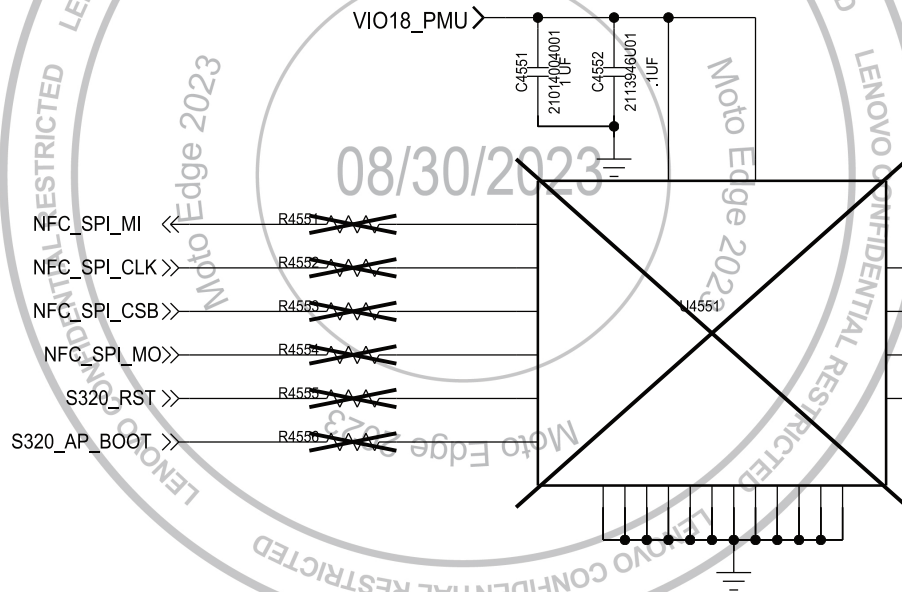
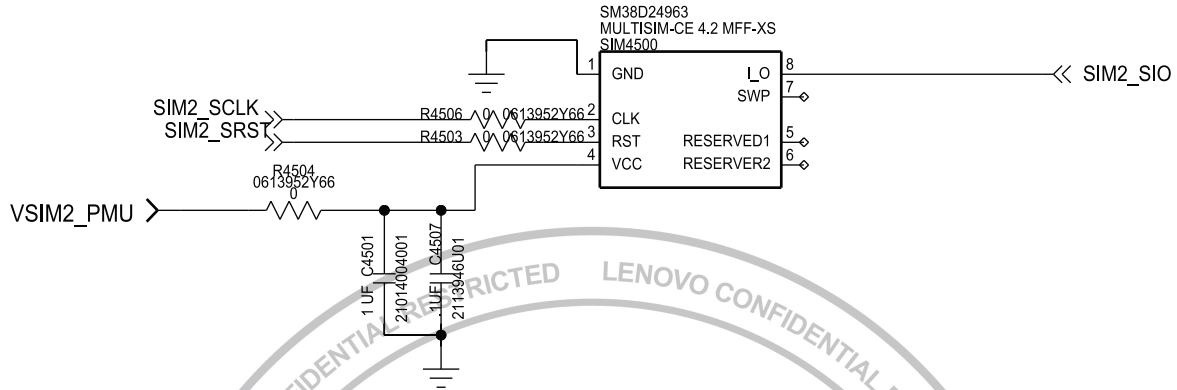
## MAGNETOMETER



MMC5603NJ I2C SLAVE ADDRESS B0110000

## REF: 4551-4569

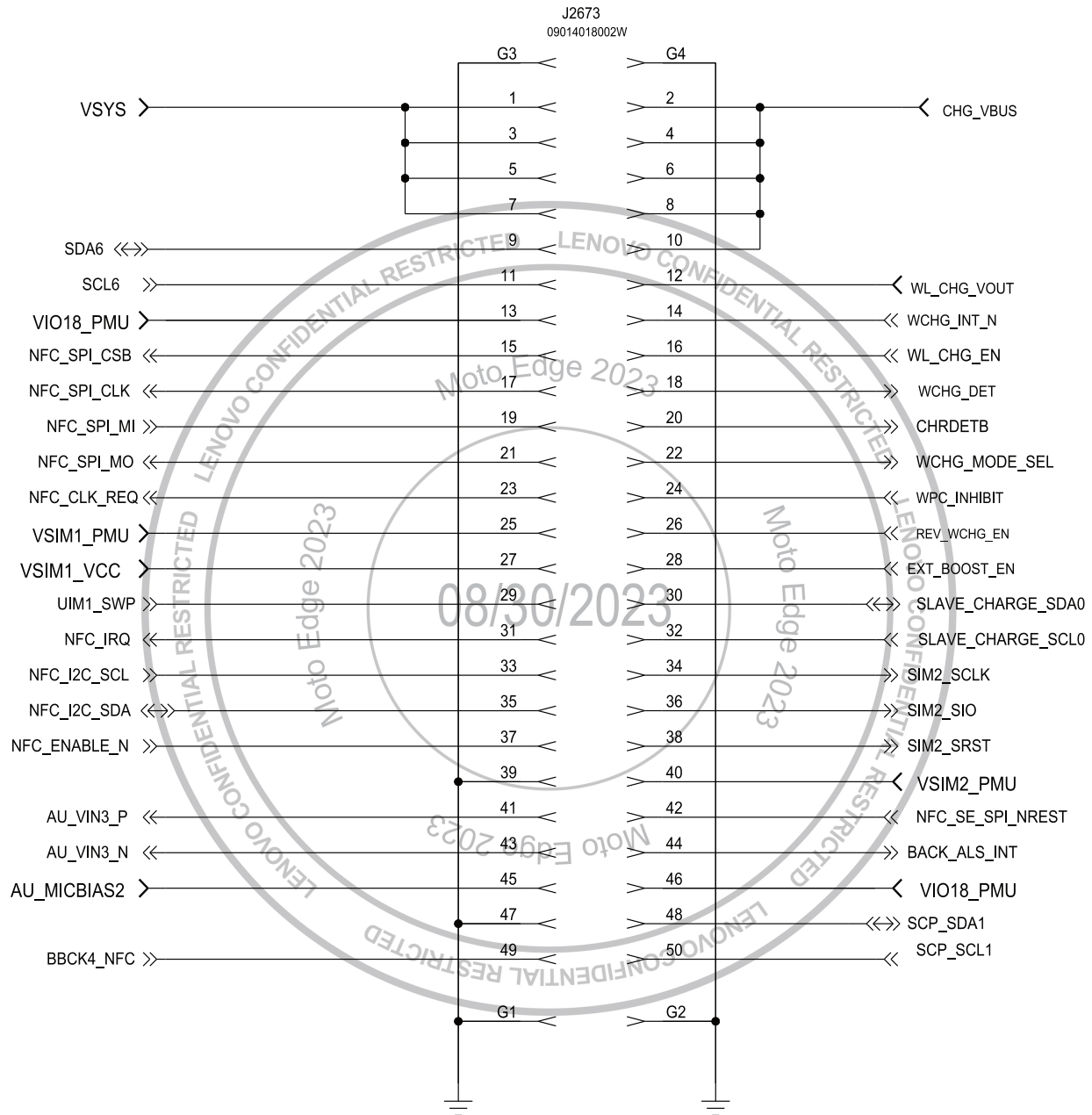
### ESIM





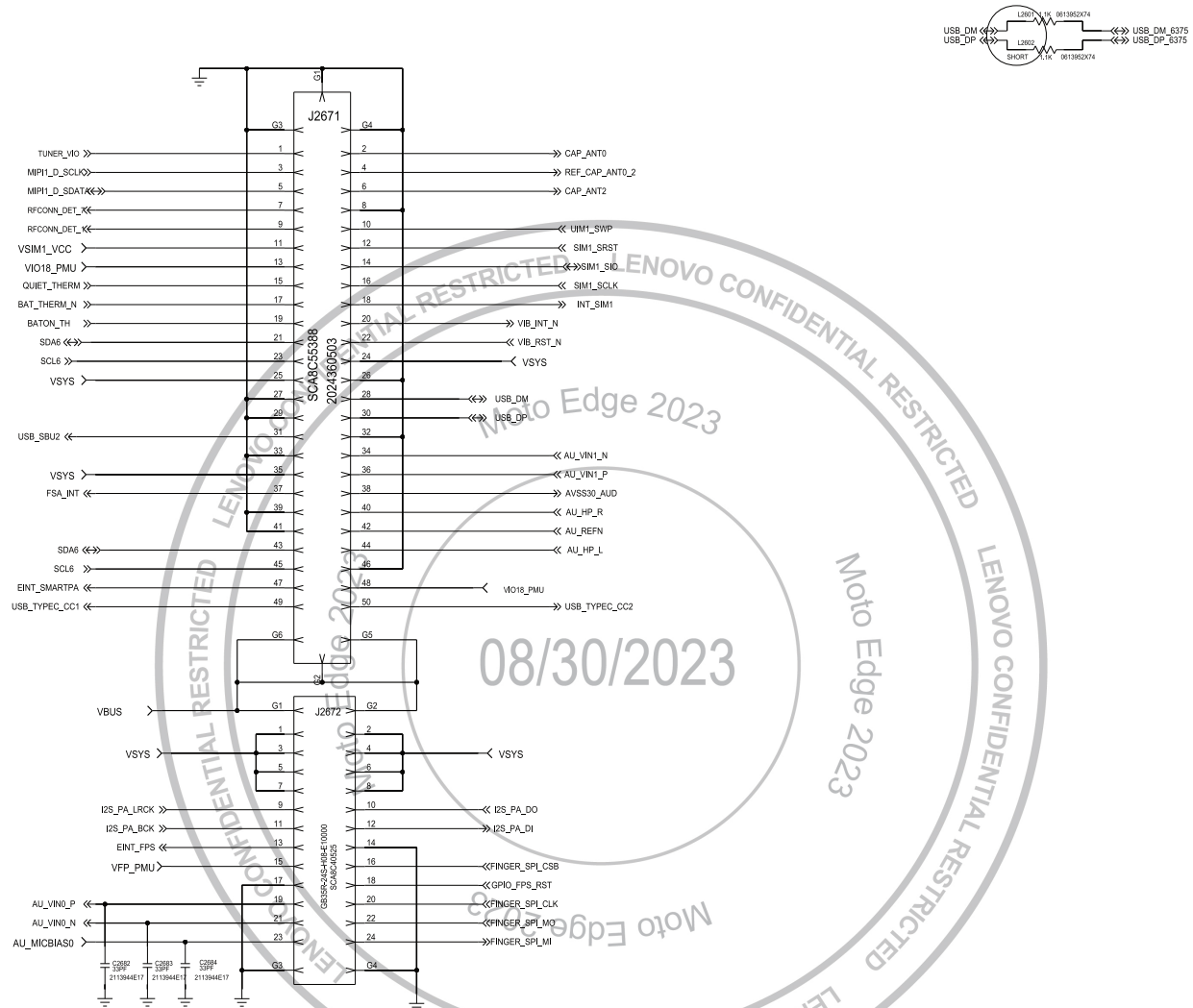
# REF: 2671-2689

## STACKBOARD CONNECTOR



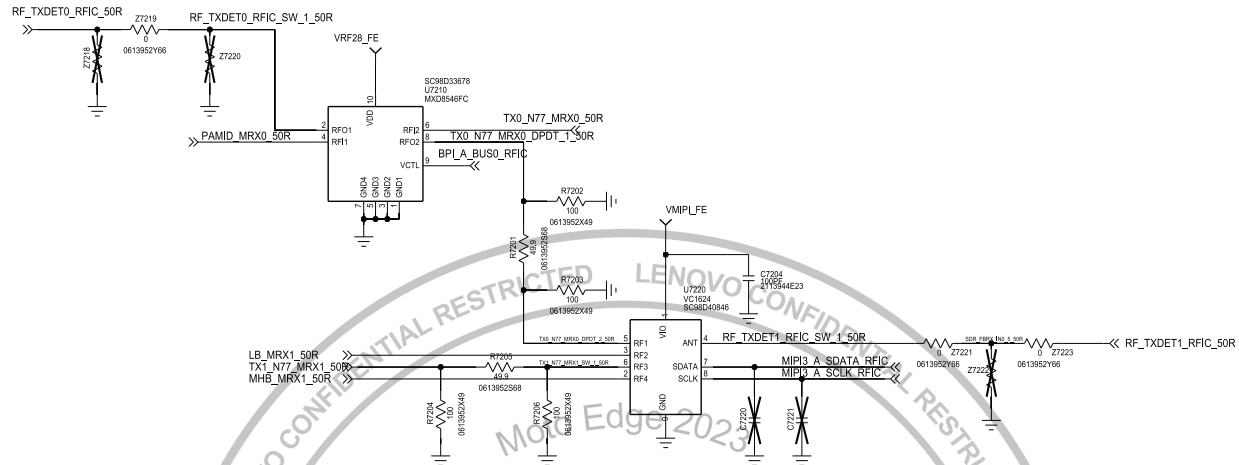
REF: 2671-2689

# MAIN CONNECTOR



## RFFE: FBRX

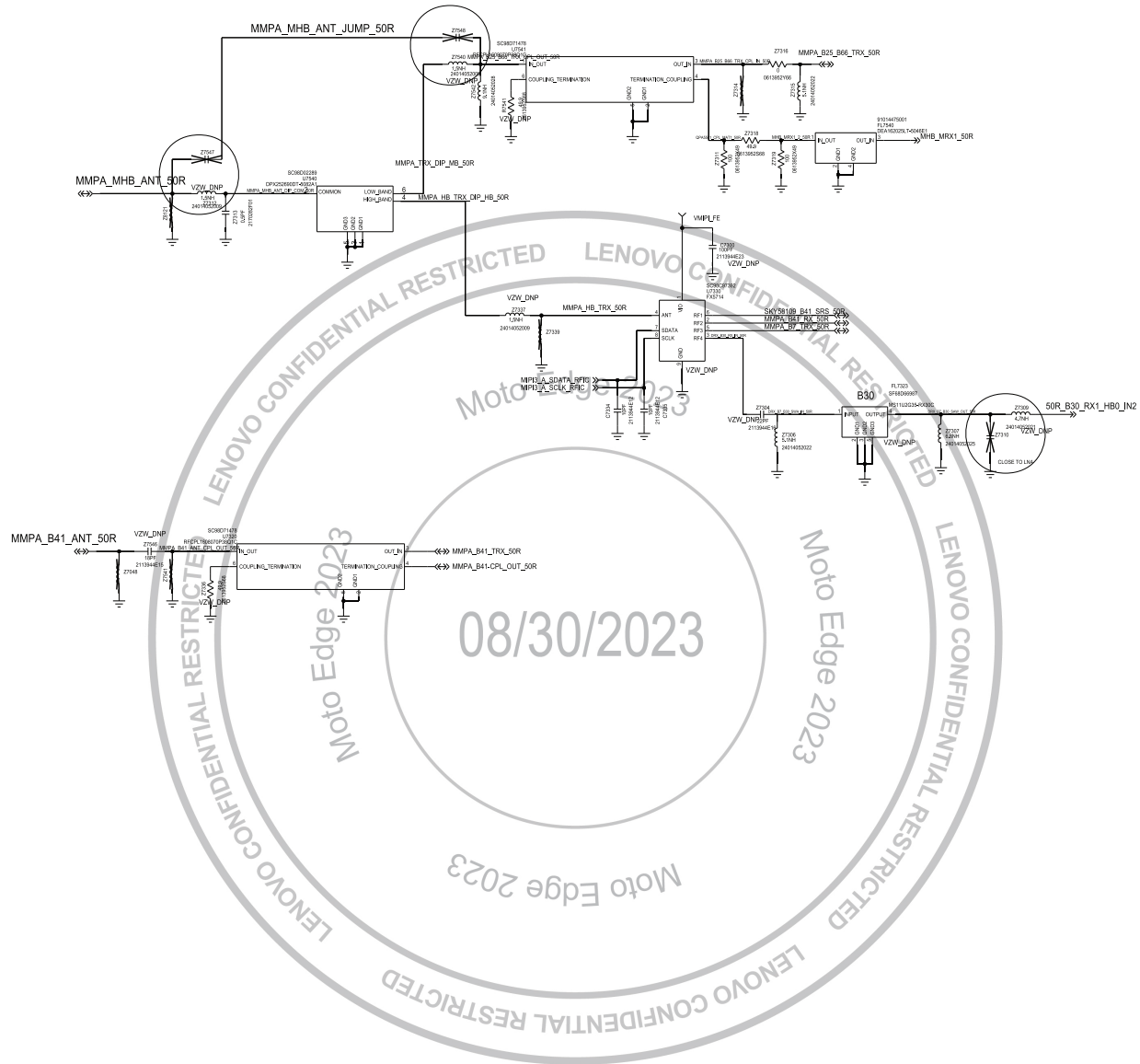
REFDES: 7200-7249



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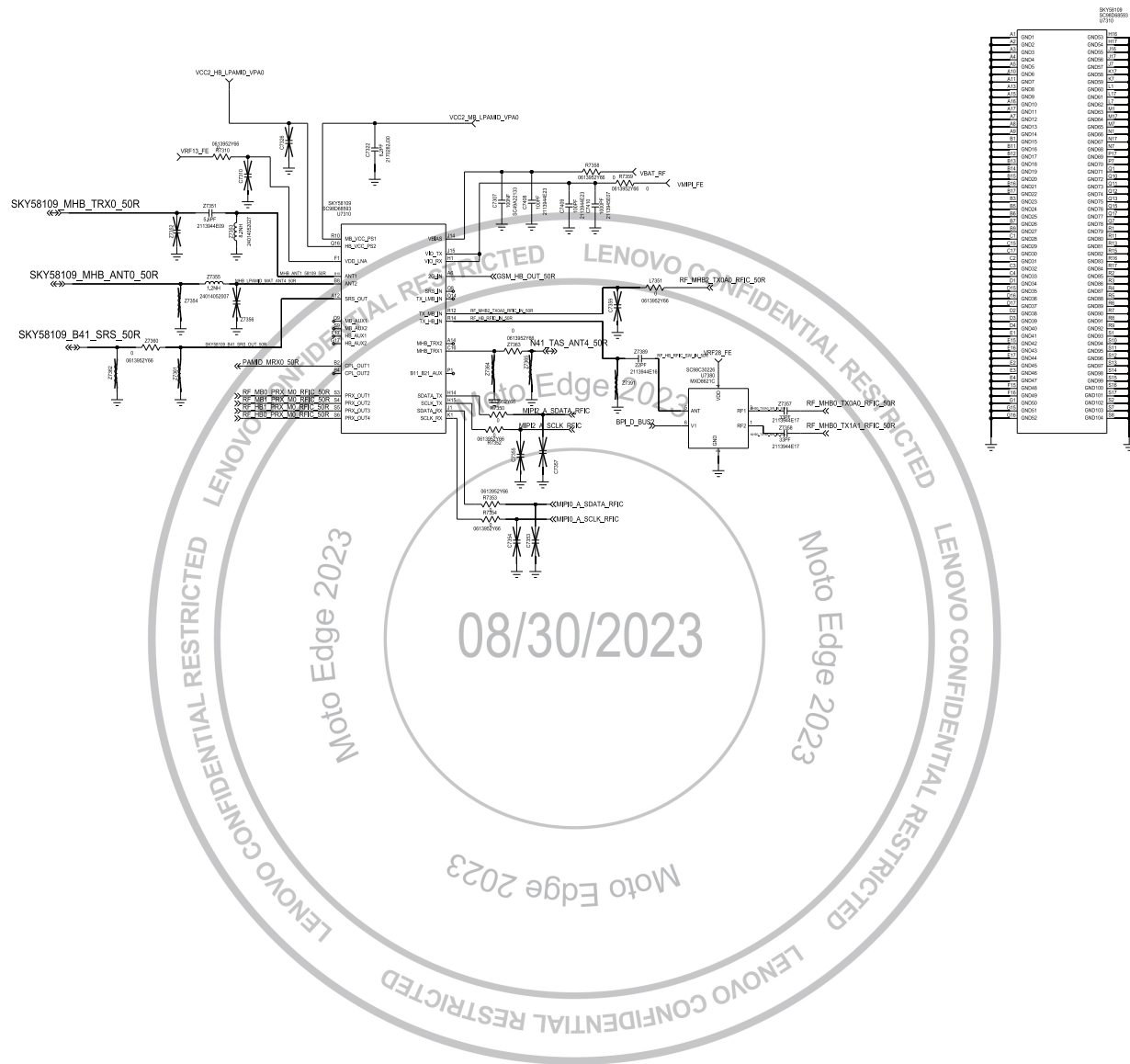
## RFFE: MMPA\_SP4T\_MHB

REF:7300-7349



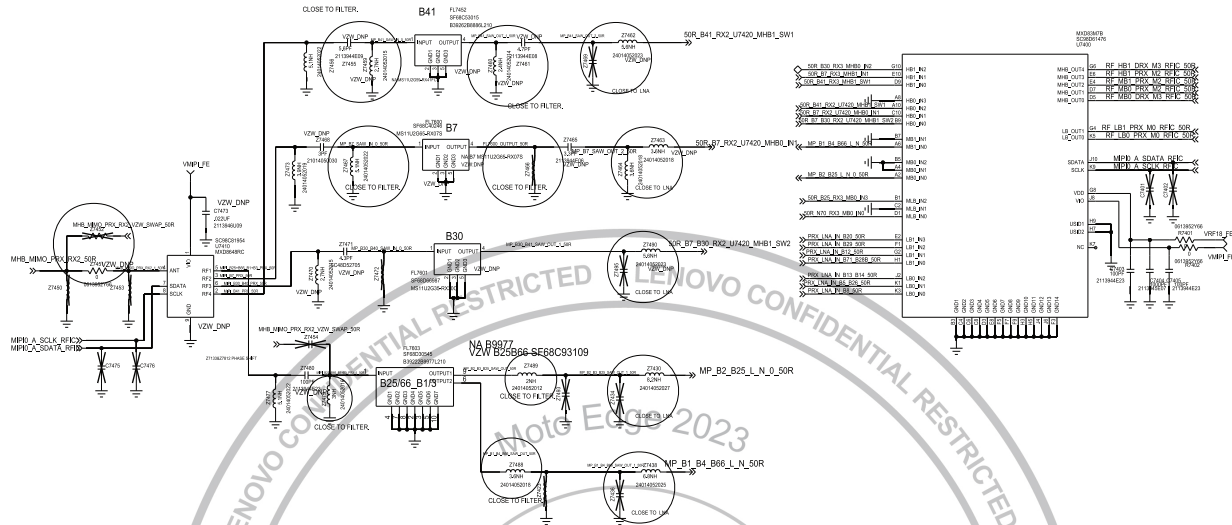
**RFFE: MHB\_LPAMID\_SKY58109**

**REF:7300-7349**



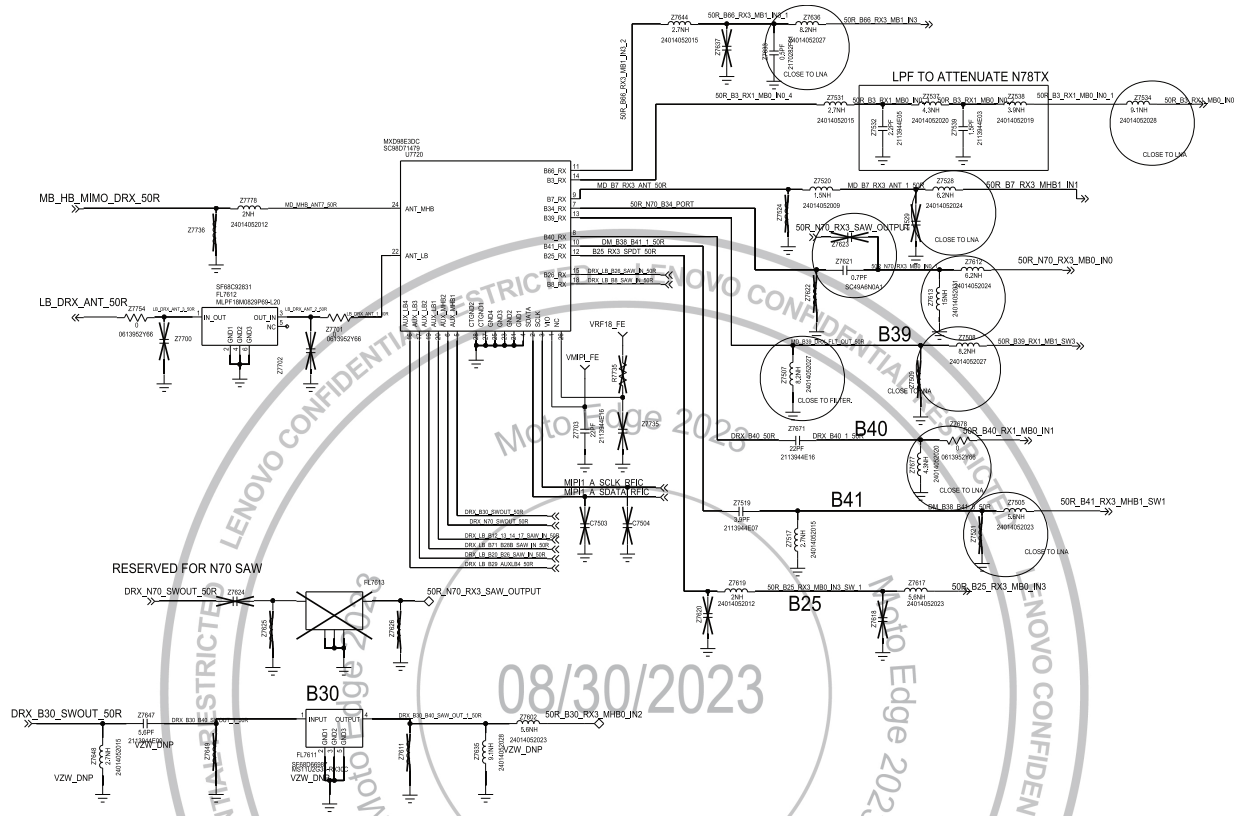
## RFFE: MHB\_PRX\_MXD83M7B

REF 7400-7499



# RFFE: MHB\_MIMO\_DRX\_DiFEM

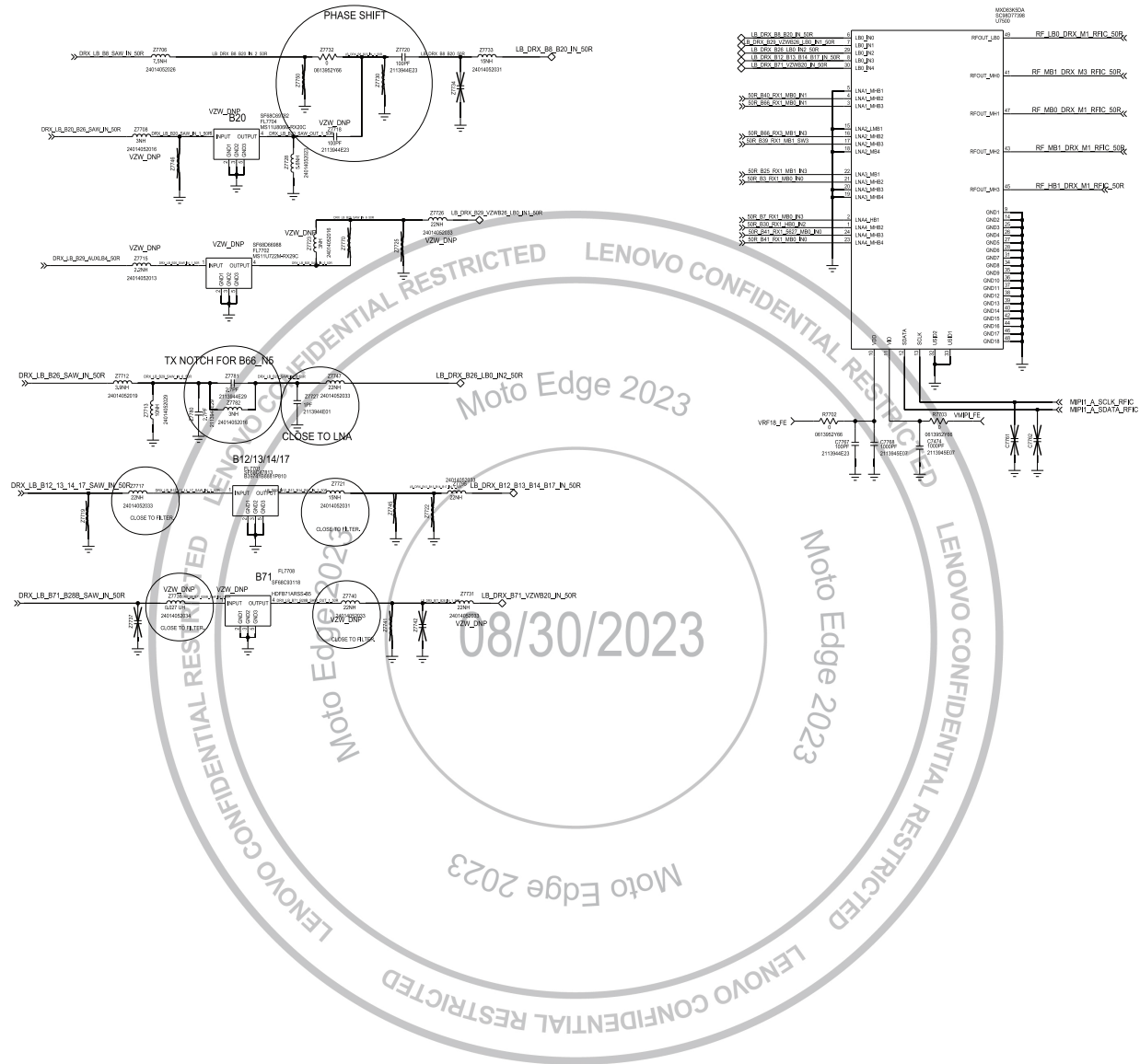
## MHB\_DRX\_MIMO





**RFFE: DRX\_LMH\_MXD83K5A**

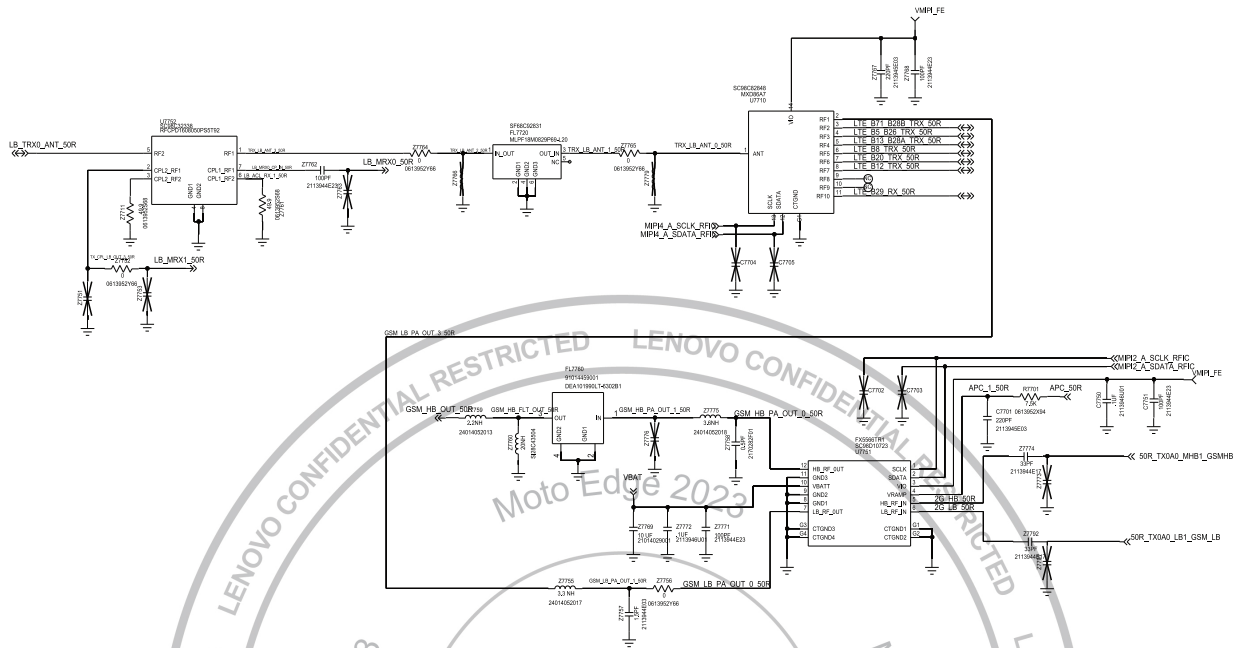
**REF 7700 – 7749**



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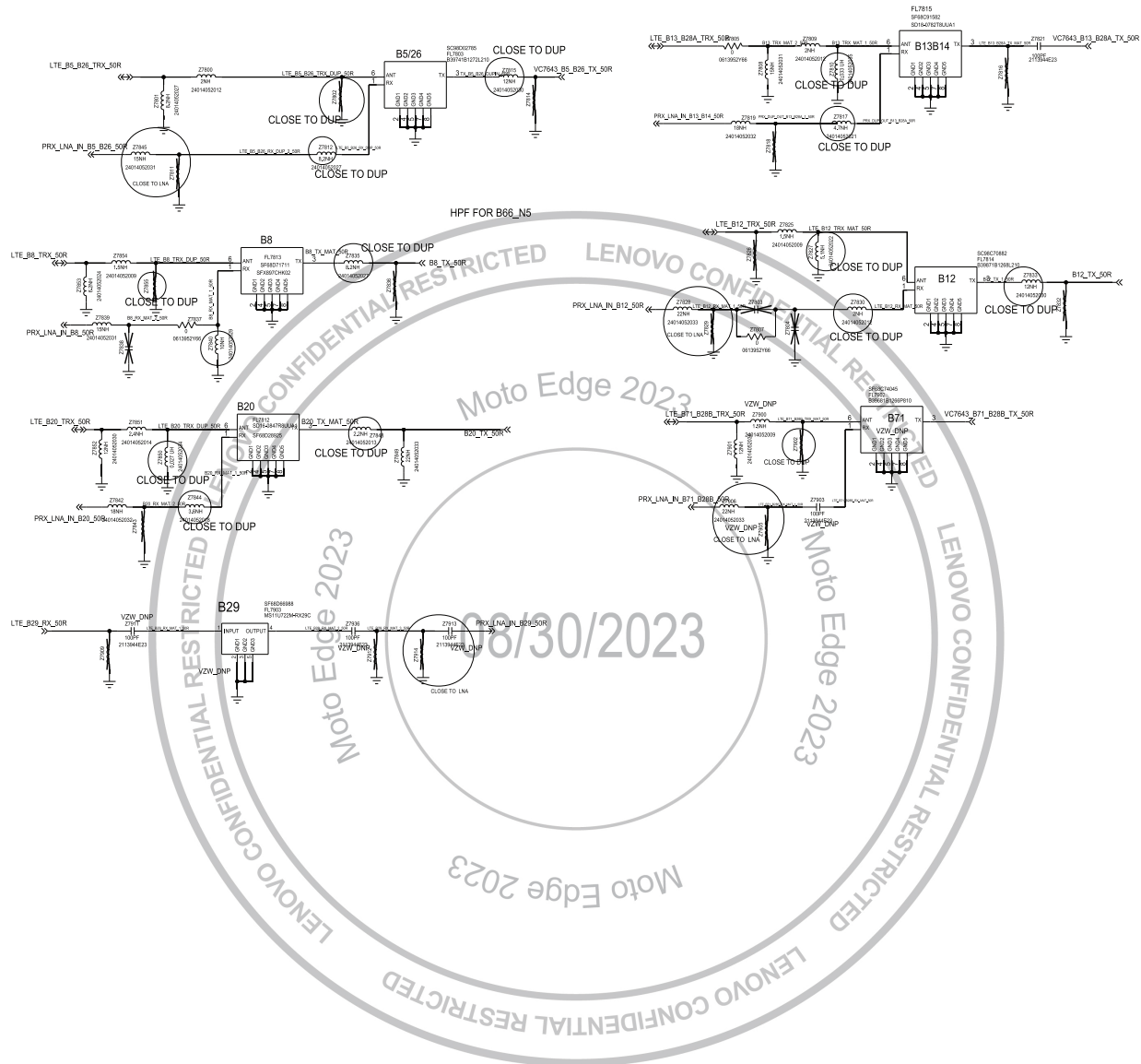
**REF 7750-7799**



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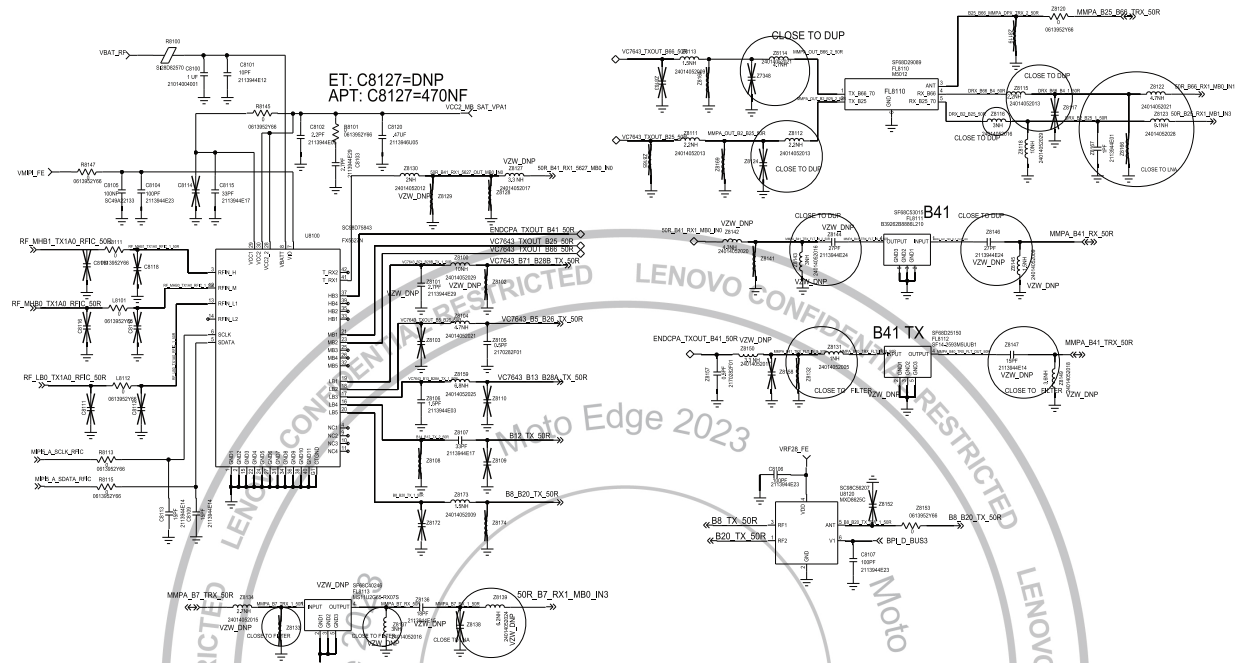
## RFFE: LB\_DPXS

REFDES: 7800-7899



**RFFE: MMPA\_NZ5627H**

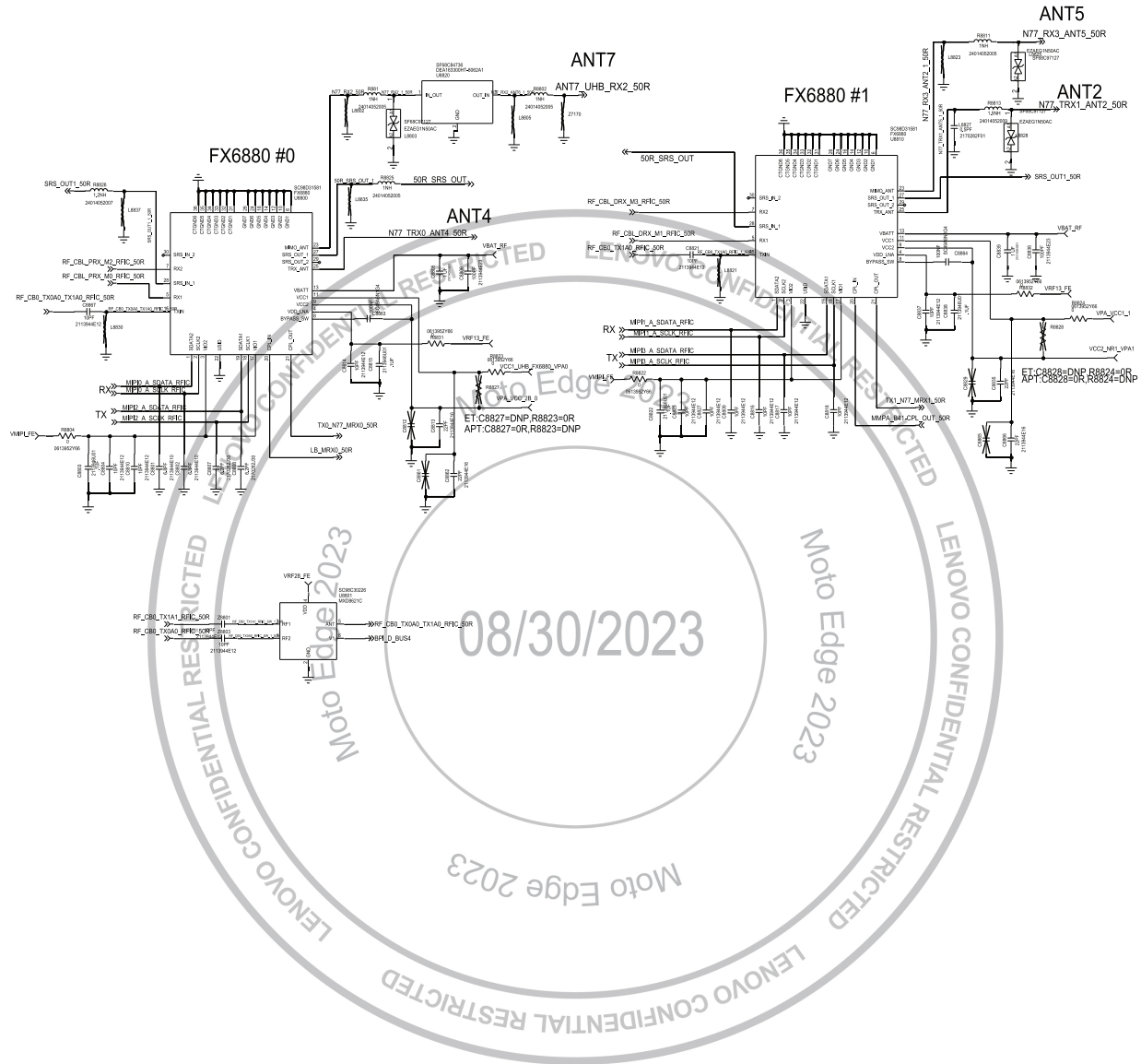
**REF 7900-7999**



08/30/2023

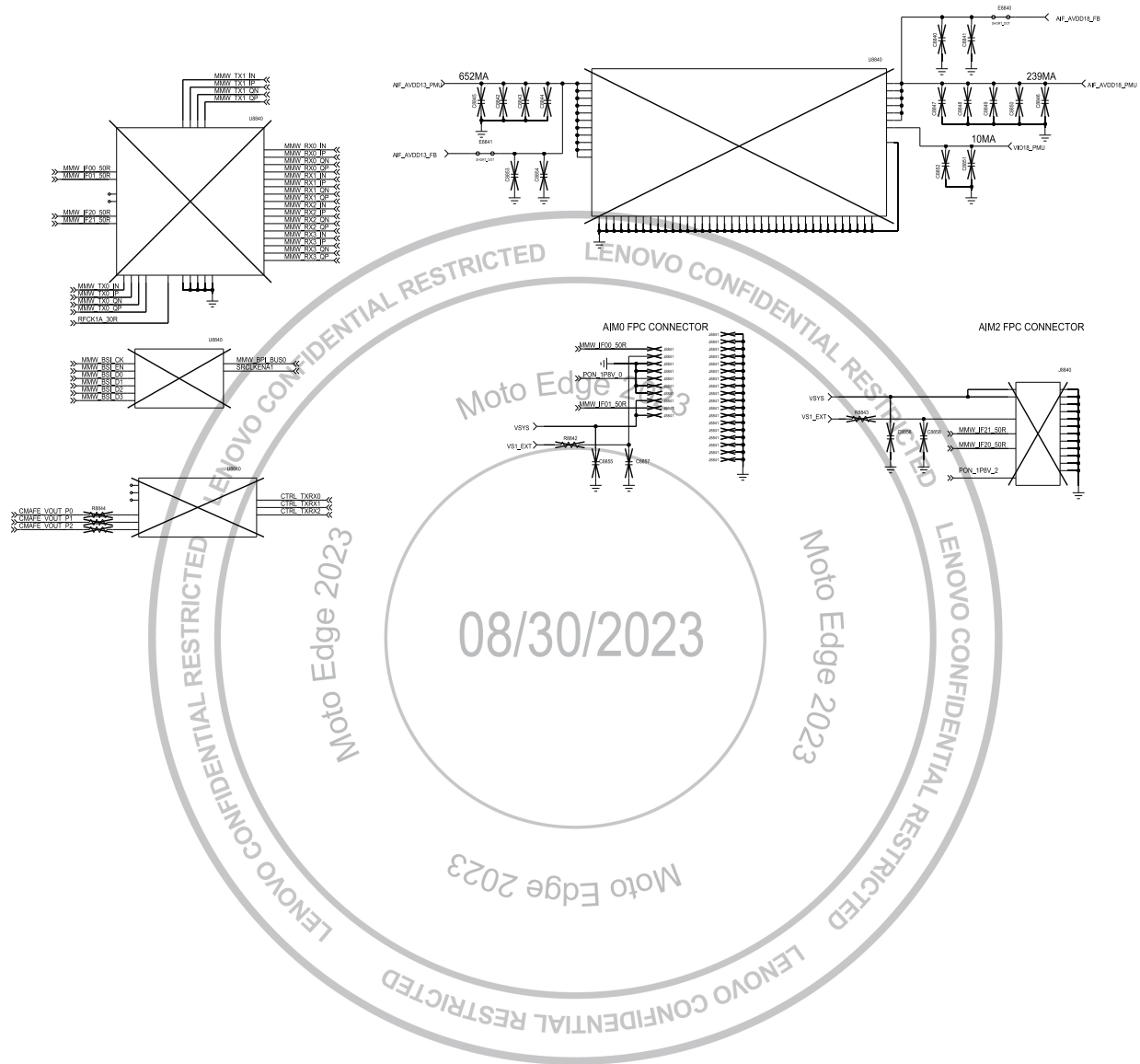
## RFFE: SUB6\_FX6880

REFDES: 8800-8839



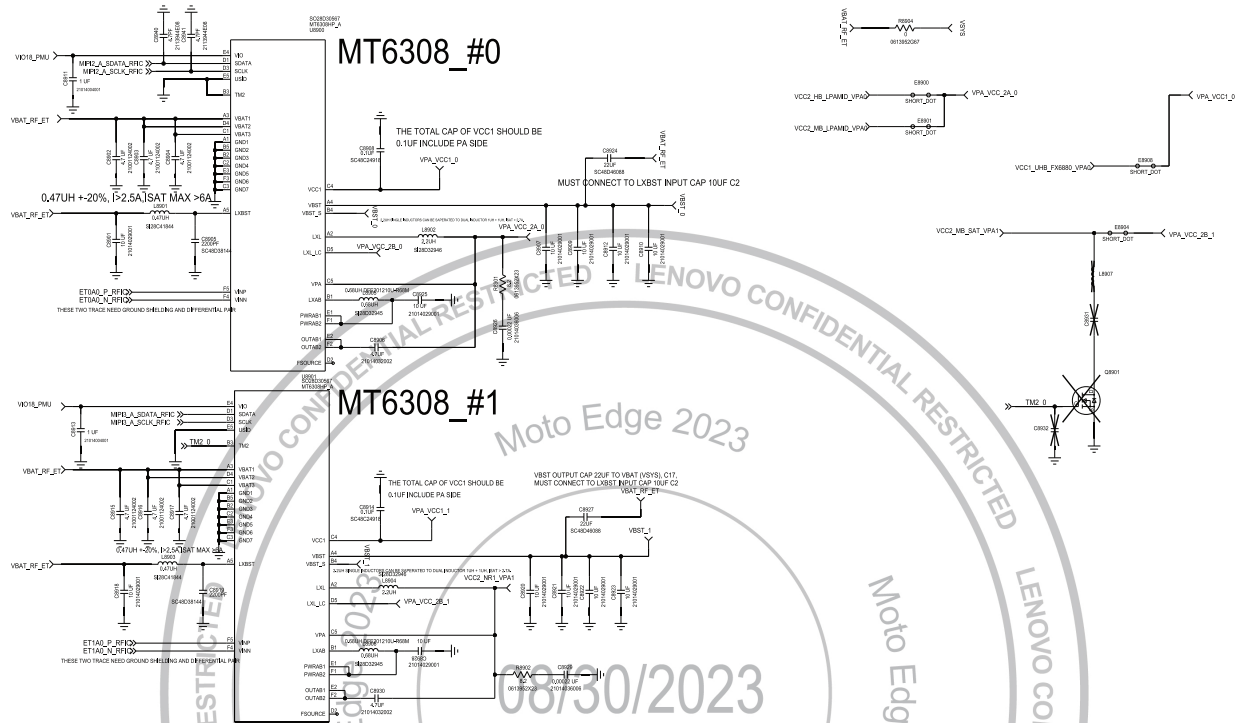
## RFFE: mmWAVE

**REFDES: 8840-8899**



## RFFE: MT6308H-ET

REFDES: 8900-8950

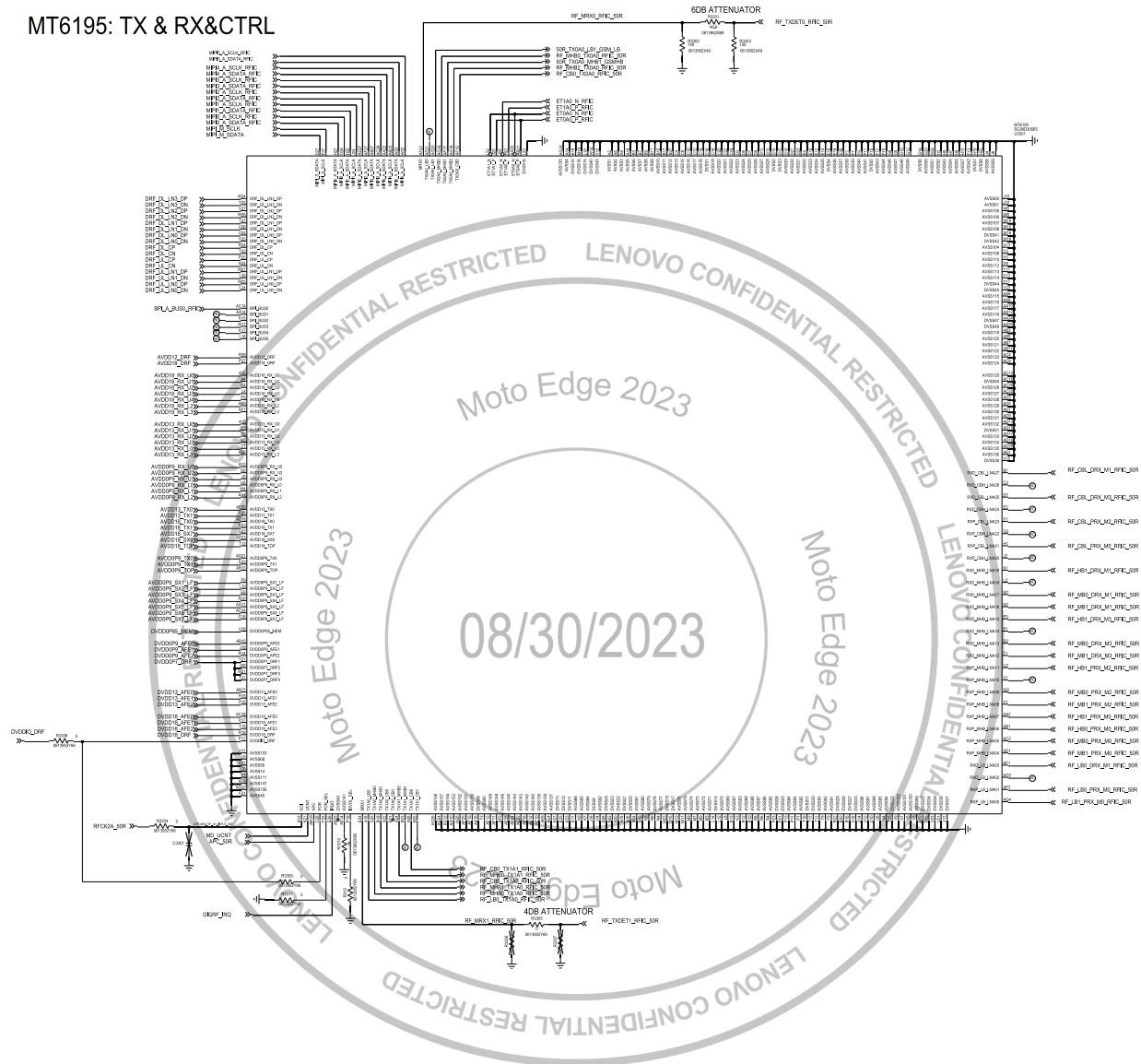




## MT6195: TX & RX&CTRL

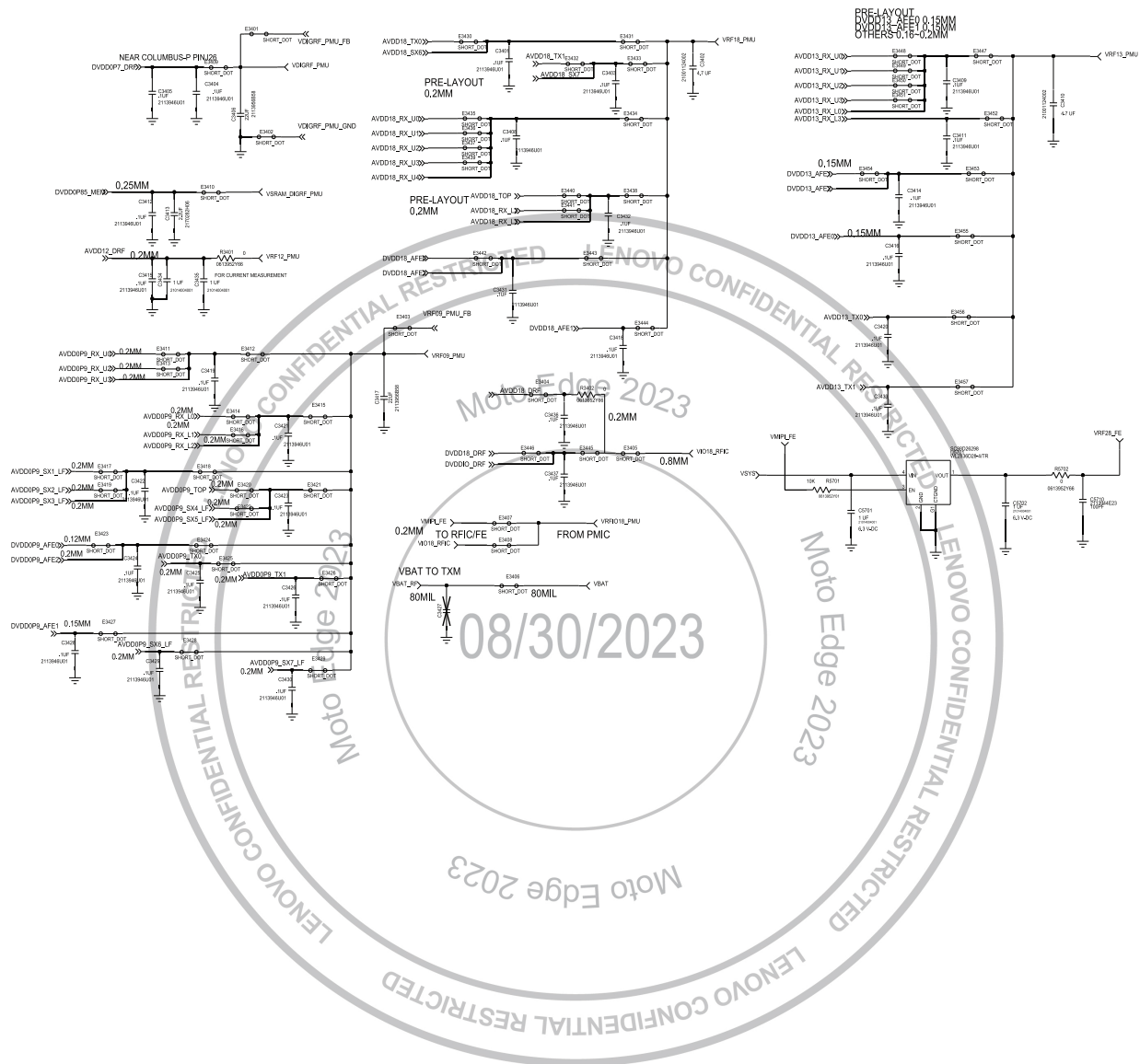
**REFDES: 3300-3399**

## MT6195: TX & RX&CTRL



**MT6195: PWR**

REFDES: 3400-3499



## REF 5000-5099

