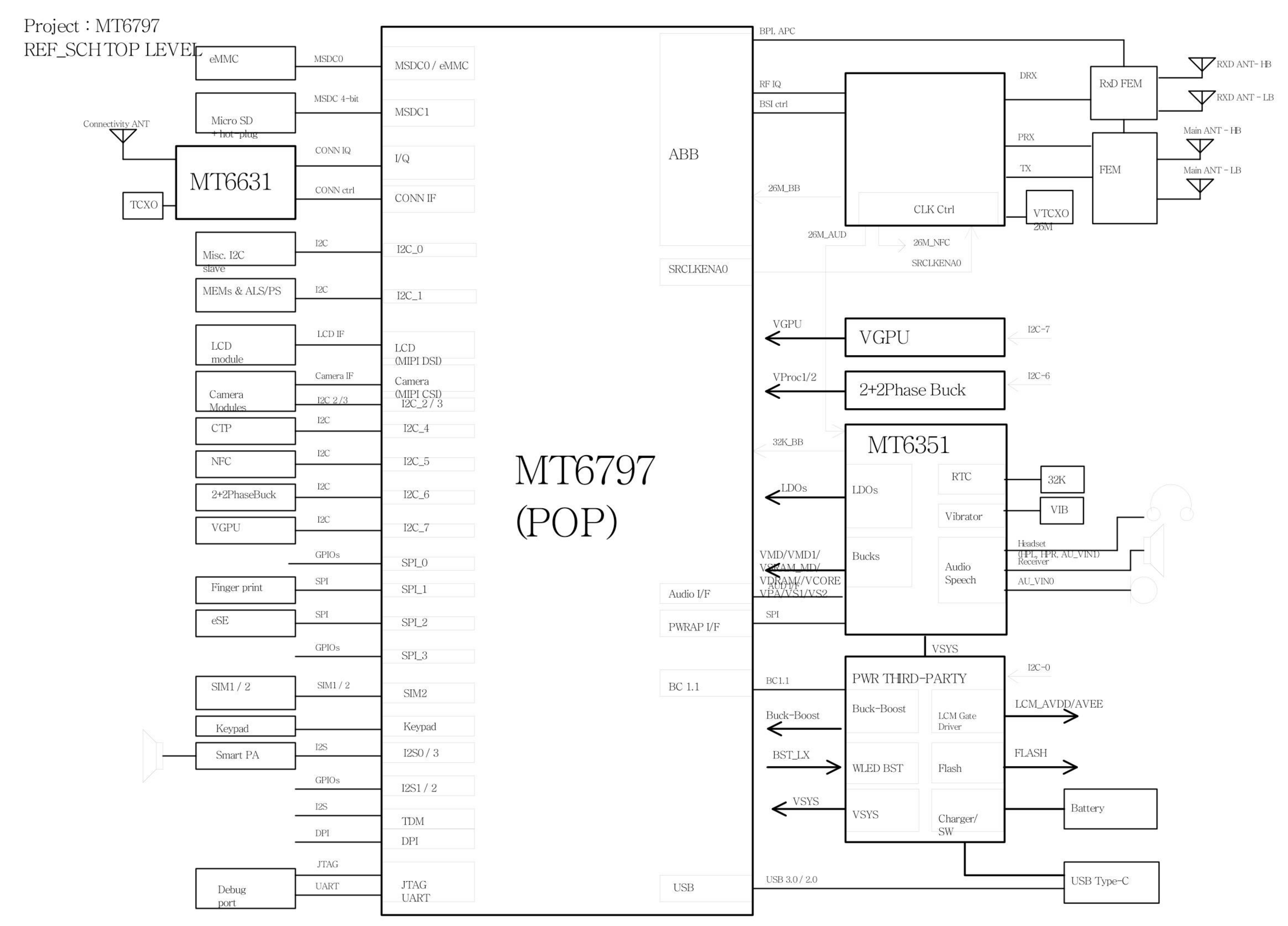


REVISION RECORD			
LT#	ECO NO.	APPROVED	DATE



DRAWING		TITLE	
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CHECKED: <Checked By>	DATE: <Checked Date>	CODE: <Code>	SIZE: A0
QUALITY CONTROL: <QC By>	DATE: <QC Date>	<Drawing Number> <Revision>	
RELEASED: <Released By>	DATE: <Release Date>	SCALE: <Scale>	SHEET: 20

REVISION RECORD			
LT#	ECO NO.	APPROVED:	DATE:

I2C	Function	I2C Spec.[1]	Budgeted Timing	I2C Slave Address (7-bit mode)
I2C-0 * [2]	SW charger	400 Kbps		bq25896 / SW charger I2C address: 0X6B (Write:0x36, Read:0x07)
	LCM Gate Driver	400 Kbps		NT5358 / LCM Gate Driver I2C address: 0X3E (Write:0x7C, Read:0x7D)
	Buck-boost	400 Kbps		FAN49101 / Buck-boost I2C address: 0X70 (Write:0x50, Read:0x51)
	Flash LED Driver	400 Kbps		LM3643 / Flash LED I2C address: 0X63 (Write:0x66, Read:0x67)
	Speaker Amp.	400 Kbps		MAX9809EWW+T / Speaker AMP I2C Address: 0x31 (Write:0x32, Read:0x33) when ADDR = GND. MAX9809EWW+T / Speaker AMP I2C Address: 0x34 (Write:0x38, Read:0x39) when ADDR = VIO18.
	USB Type-C CC	400 Kbps		FUSB302 / USB Type-C channel configure I2C Slave Address:0x22, write:0x44, read:0x45 or FUSB302 / USB Type-C channel configure I2C Slave Address:0x23, write:0x46, read:0x47
	MHL	400 Kbps		SS8348 / CI2CA LowMHL I2C Address =0x39/3D/4D/64/48/60,(Write:0x72/7A/9A/C8/92/C0, Read:0x73/7B/9B/C9/93/C1)
I2C-1 * [2]	M Sensor	400 Kbps		AK09912 / M-Sensor I2C Address 0x0C (Write: 0x18, Read: 0x19)
	A+Gyro Sensor	400 Kbps	Yes.	ICM-20945 / A+Gyro I2C Address: 0x68 (Write:0xD0, Read:0xD1)
	Baro Sensor	400 Kbps		BMP280 / Baro I2C address: 0X77 (Write:0xEE, Read:0xEF)
	RGB / PS Sensor	400 Kbps		CM36358 / ALPS + UV I2C address: 0X51 (Write:0xA2, Read:0xA3)
	Humidity Sensor	400 Kbps		HHS221 / Humidity I2C address: 0X5F (Write:0x5E, Read:0x5F)
I2C-2	Rear camera	400 Kbps	Yes.	OV22850 / Rear camera I2C address: 0X36 (Write:0x6C, Read:0x6D) if SID = low. OV22850 / Rear camera I2C address: 0X10 (Write:0x20, Read:0x21) if SID = high.
	Rear camera's AF	400 Kbps		LC898212XD-SH / AF driver I2C address: 0X72 (Write:0x54, Read:0x55)
I2C-3	2nd front camera	400 Kbps	Yes.	SS56E2 / Rear camera I2C address: 0X10 (Write:0x20, Read:0x21). It can be changed by register [7:1] of addr 0x107.
	Front camera	400 Kbps	Yes.	SS56E2XMB / Front camera I2C address:0X2D (Write:0x5A, Read:0x5B)
	Front camera's AF	400 Kbps	Yes.	DW9714A / AF driver I2C address: 0X0C (Write:0x18, Read:0x19)
I2C-4	CTP	400 Kbps	Yes.	GT1511 / CTP I2C address: 0X3D (Write:0xA, Read:0xB) or 0X14 (Write:0x28, Read:0x29)
I2C-5	NFC	1.3 Mbps	Yes.	MT6905 / NFC I2C address: 0X28 (Write:0x50, Read:0x51)
I2C-6	VPROC buck	3.4 Mbps	Yes.	MT6905 / 2x2Phase Buck I2C address: 0X6B (Write:0x36, Read:0x37)
I2C-7	VGPU Buck	3.4 Mbps	Yes.	FANS3555 / Buck I2C address: 0X60 (Write:0xC0, Read:0xC1)

Note 1: I2C Spec. : Standard mode (100 kbps) and Fast mode (400 kbps), Fast mode Plus (1 Mbps) and High-speed mode (3.4 Mbps)

Note 2: For MEMs sensor/sensor hub application, these I2C slave devices must be connected to I2C0 or I2C-1.

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RELEASED:	<Released By>	DATE:	<Release Date>	SCALE:	<Scale>	SHEET:	20

REVISION RECORD			
REV	REV NO.	APPROVED	DATE

Schematic design notice of "IO_BB_POWER_1" page.

- Note 10-1:
- Note 10-2:
- Note 10-3: Differential pairs of back's remote sense must be placed at PCB back side right beneath MT6797 chip.
- Note 10-4:

Note 10-5: For PCB layout, the star connection should be implemented in the MTR351's VIO18 output.

The purpose of this symbol is used for including POP LPDDR3 in BOM.



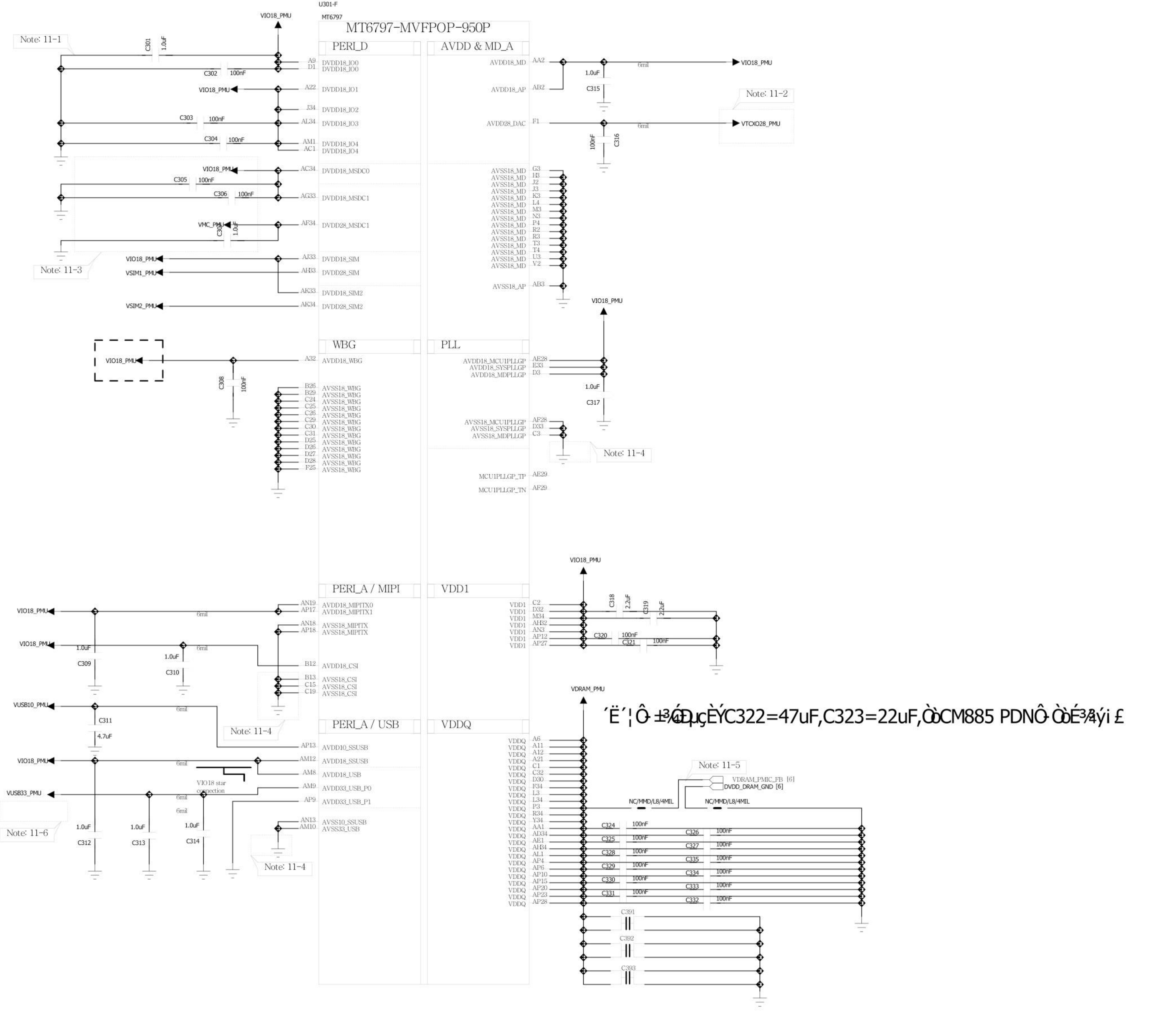
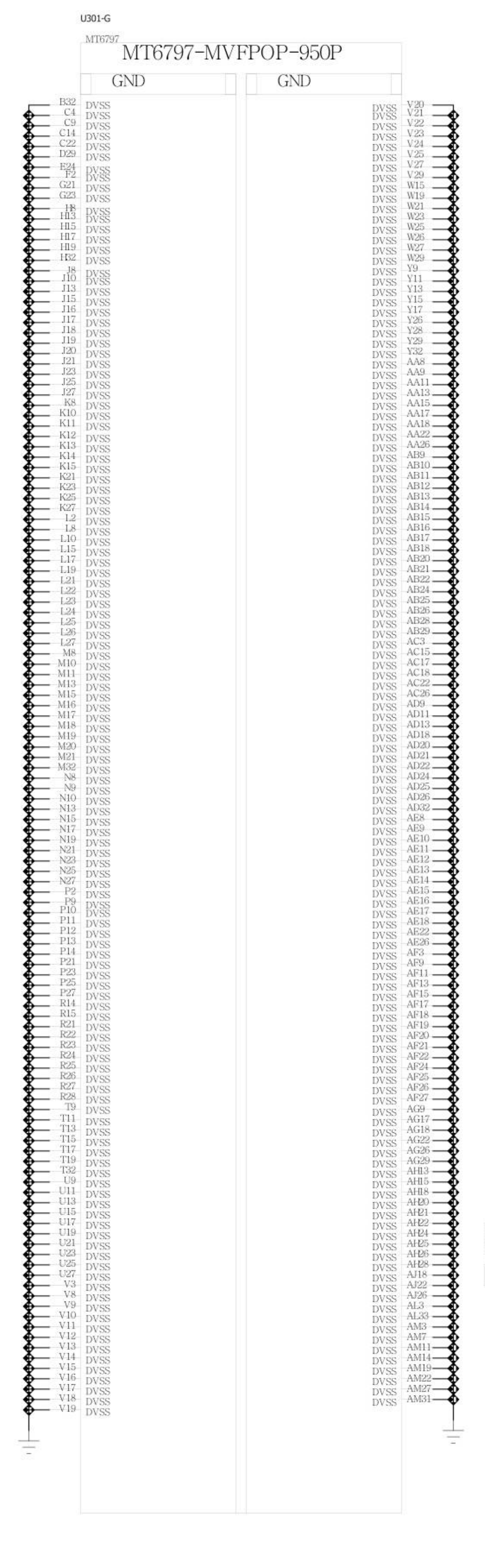
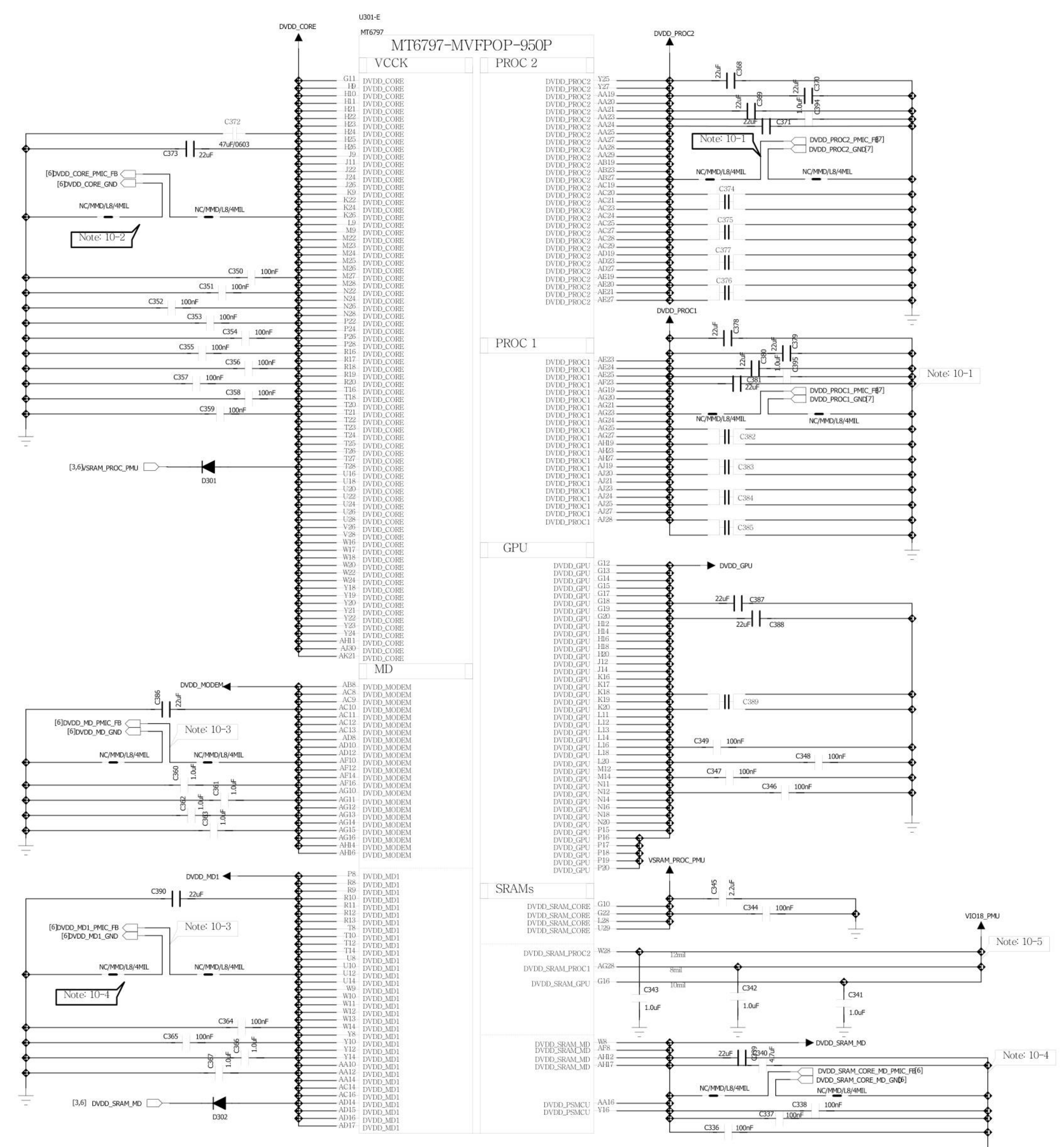
Schematic design notice of "11_BB_POWER" page.

- Note 11-1: Reserve 1uF capacitor in VCC1800 for MHL.
- Note 11-2: AVDD28_DAC (F1 ball) must be powered by VTCX028_PMU.
- Note 11-3:

Note 11-4: The placement of power/de-coupling capacitors of DVDD18_MSDCV1 & DVDD28_MSDC1 should be placed on the same power plane as the GND vias.

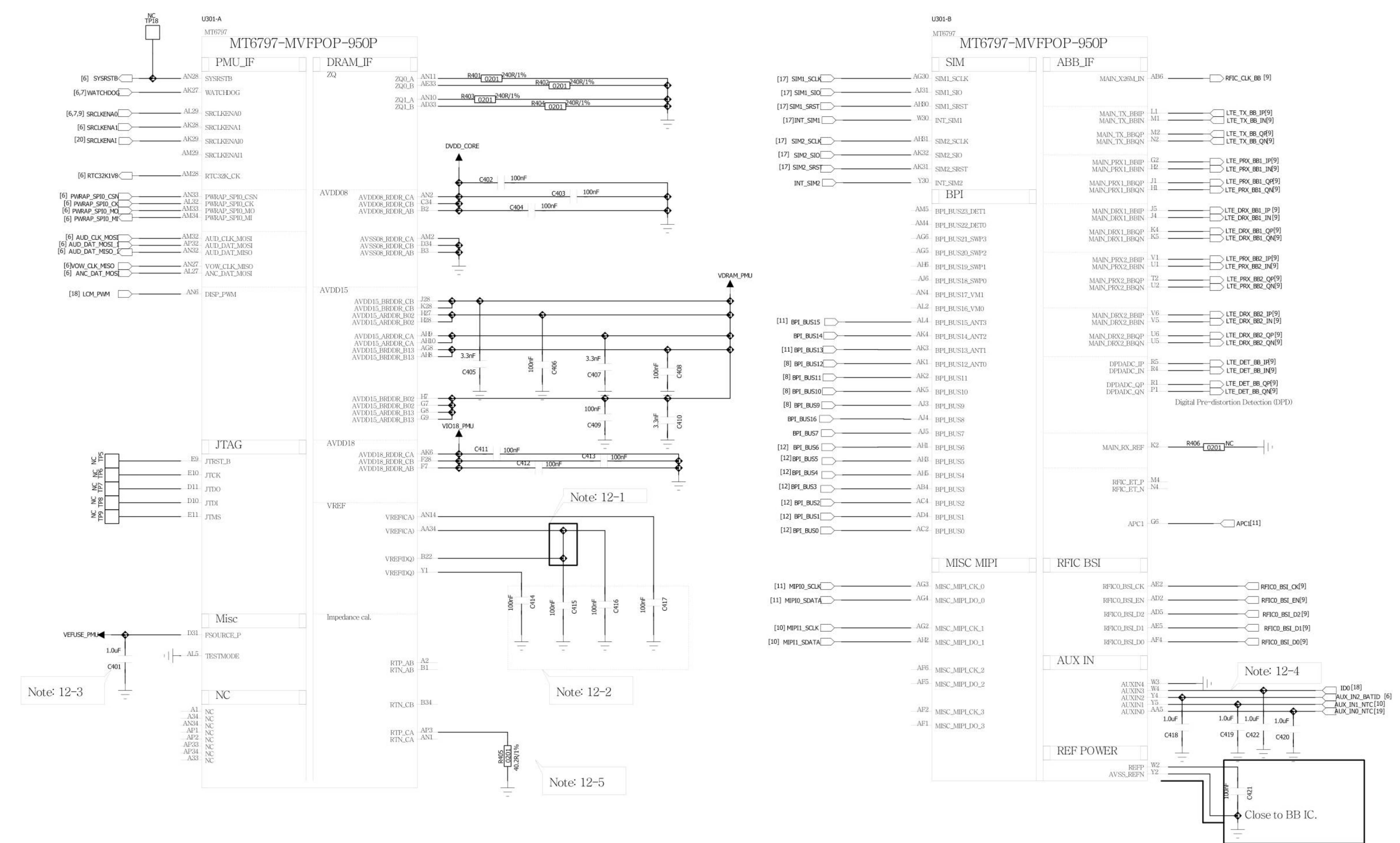
Note 11-5: Differential pair of VDRAM_PMU remote sense should be placed in the farthest power plane from MTR351 point of view.

Note 11-6: Connect AVDDX3_USB_P1 to "VUSB33_PMU" for USB application; Connect AVDDX3_USB_P1 to "VSIM1_PMU" for IC-USB / Smart card application.



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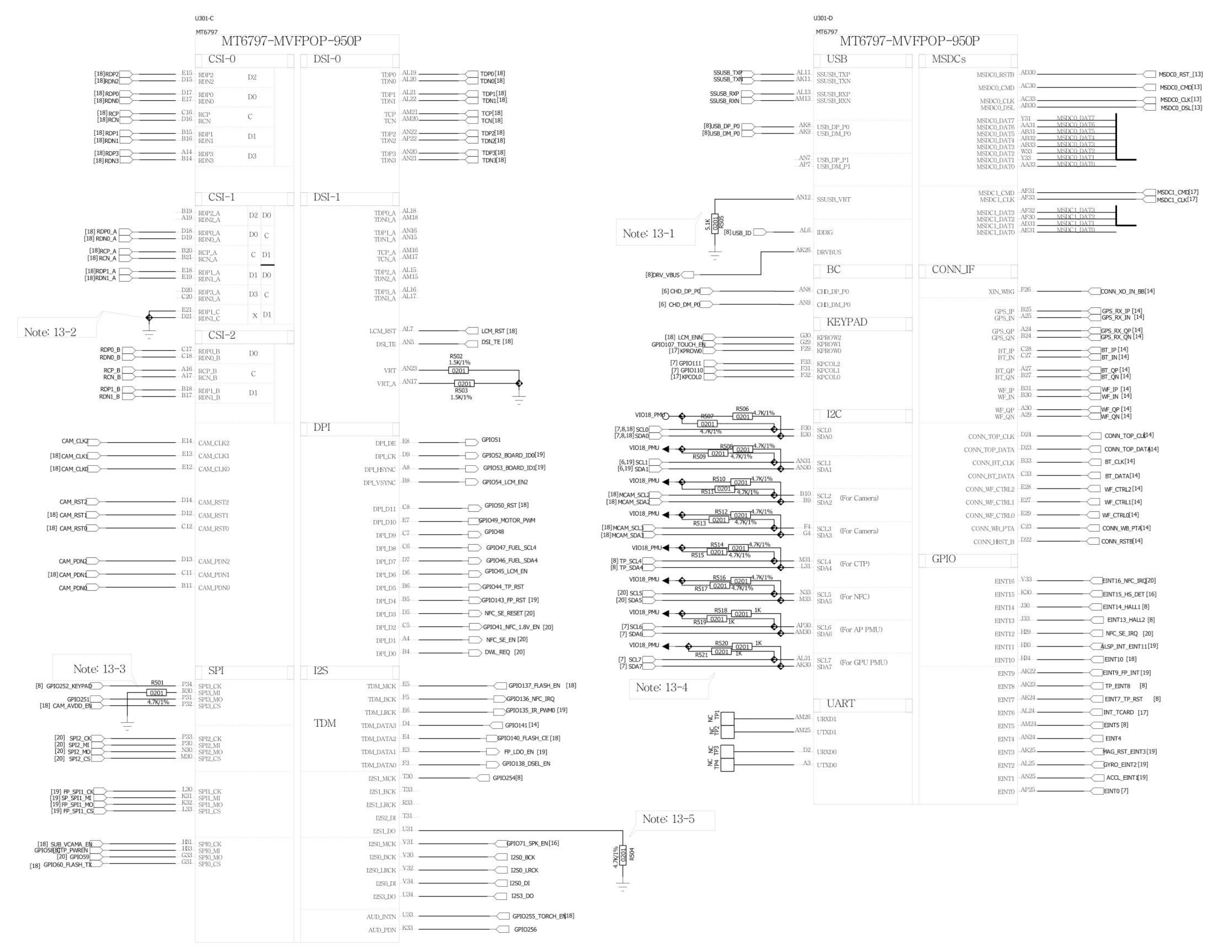
REVISION RECORD			
LT#	ECO-NO.	APPROVED	DATE



- Schematic design notice of "11_BB_11" page.
- Note 12-1: The DRAM's VREF(CAAA34 ball) must connect to VREFDQ(B22 ball).
 - Note 12-2: The de-coupling cap. of DRAM VREF have to be placed as close to BB as possible.
 - Note 12-3: Apply 1.8V to FSOURCE_P (D31) for eFUSE programming.
 - Note 12-4: To shunt a 1uF capacitor in the AUXIN ADC input to prevent noise coupling. It should be placed as close to BB as possible. Connect the unused AUX ADC input to GND.
 - Note 12-5: For impedance calibration of DDRPHY

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SCALE:	<Scale>	SHEET:	20

REVISION RECORD			
LTN	ECO NO.	APPROVED	DATE



Schematic design notice of "12_BB_2" page.

Note 13-1: Default resistor of "SSUSB_VRT" can be NC if internal USB VRT is applied.

Note 13-2: Connect the NC pins of CSI to GND.

Note 13-3: The GPO250 can't have external pull-up. "C2KDROP_ZONE" output indicator is not allow to have external pull-up.

Note 13-4: The I/O type of I2C6/7 is push-pull. External pull-up is required if I2C6/7 slave devices can only support open-drain.

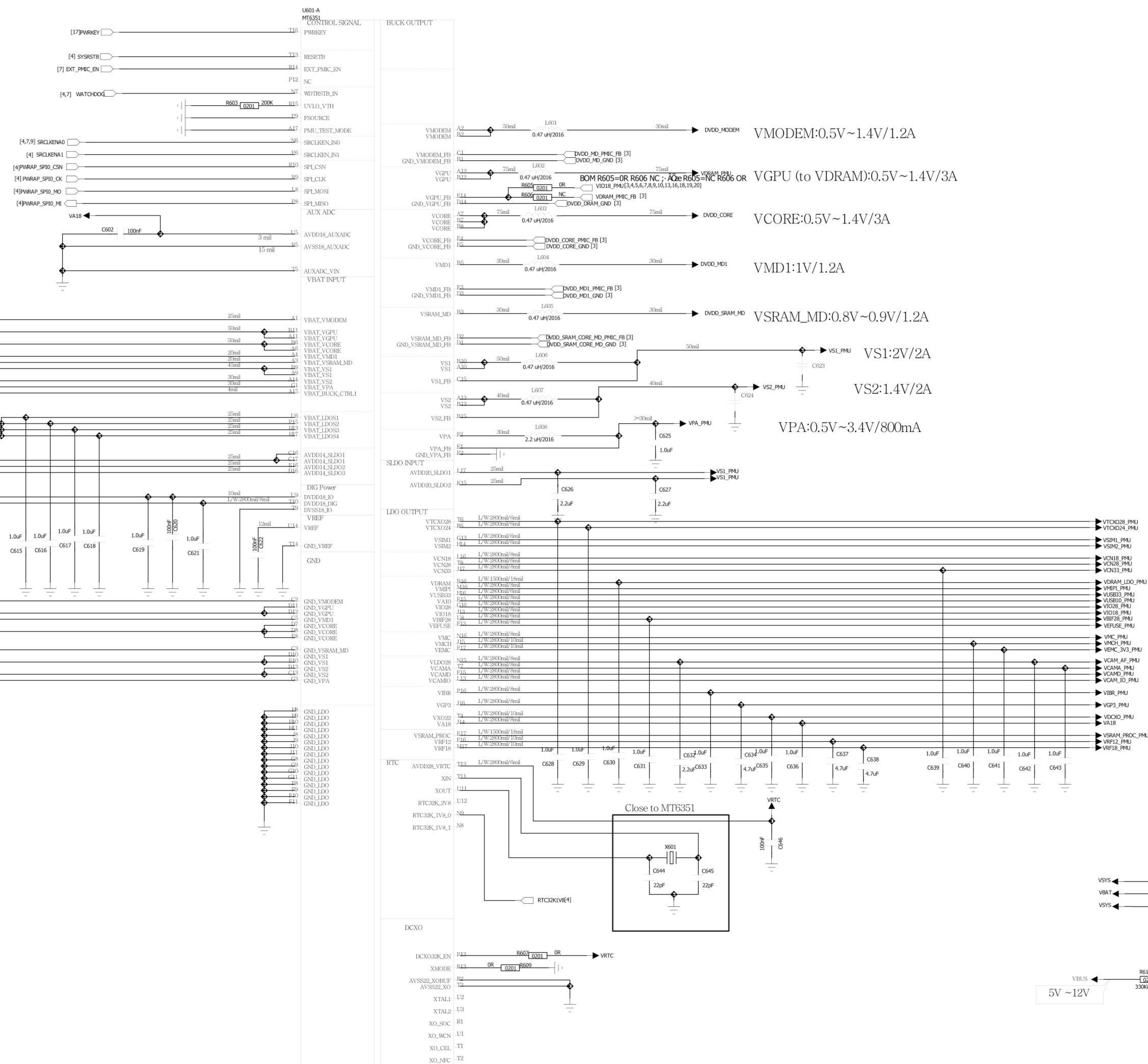
Note 13-5: The GPO249 features I/O trap in system bootstrap that must be pulled down.

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LTR	ECO NO.	APPROVED	DATE

D

D



C

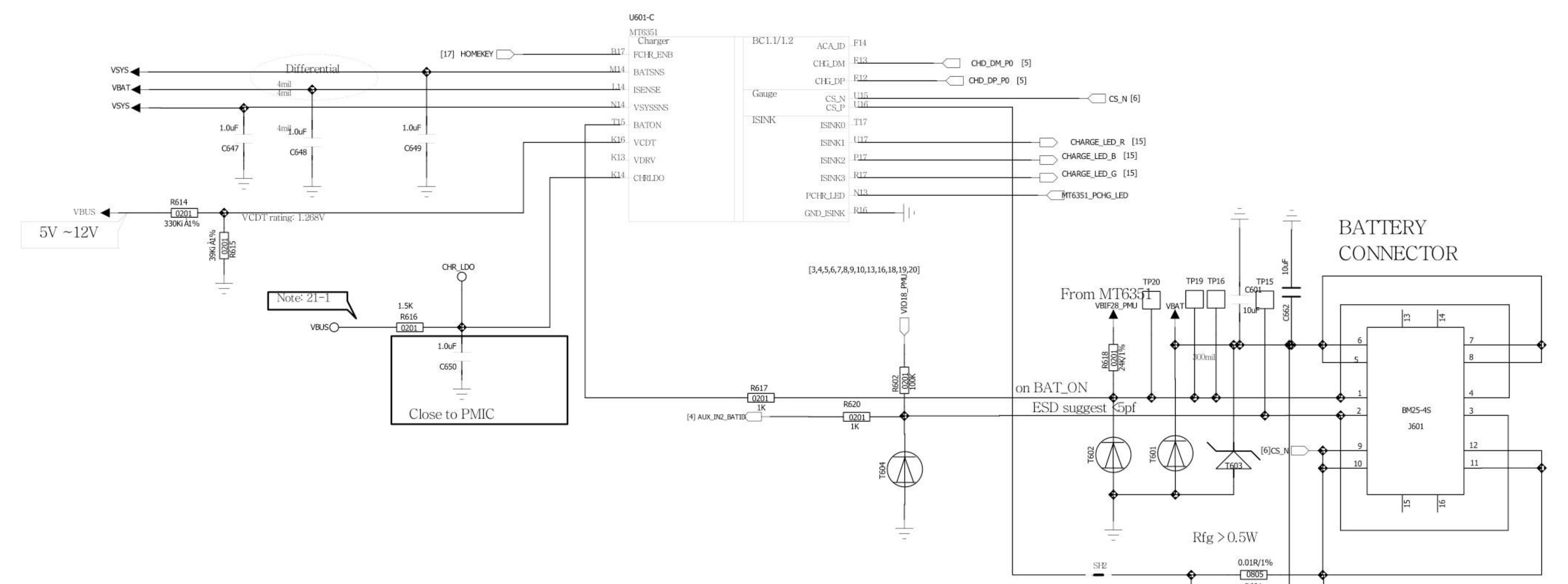
C

B

B

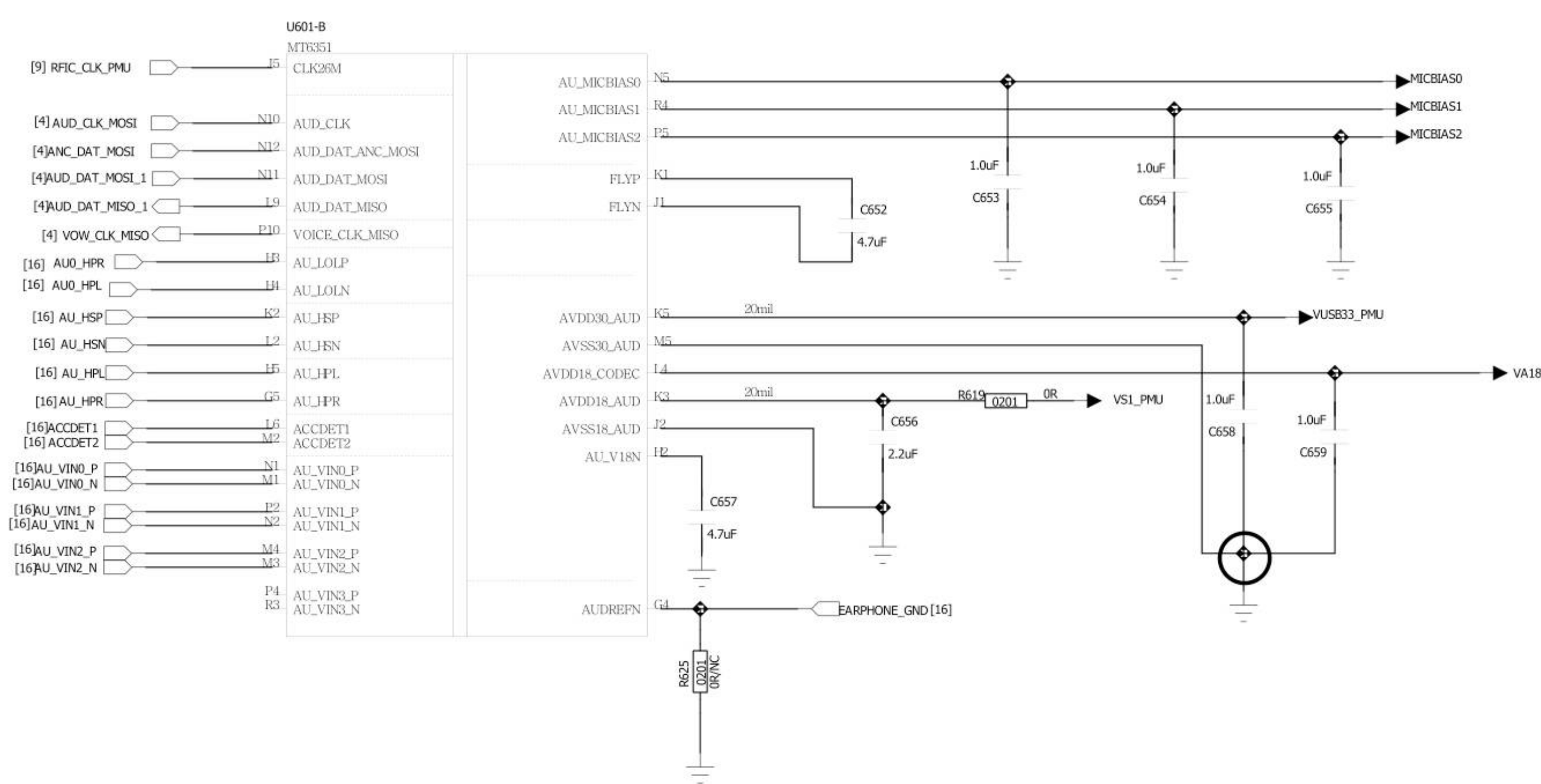
Schematic design notice of "21_POWER_MT6351_2" page.

Note 21-1:
Reserve 1.5K in order to give additional power to turn on charger LED driver while low battery.



A

A



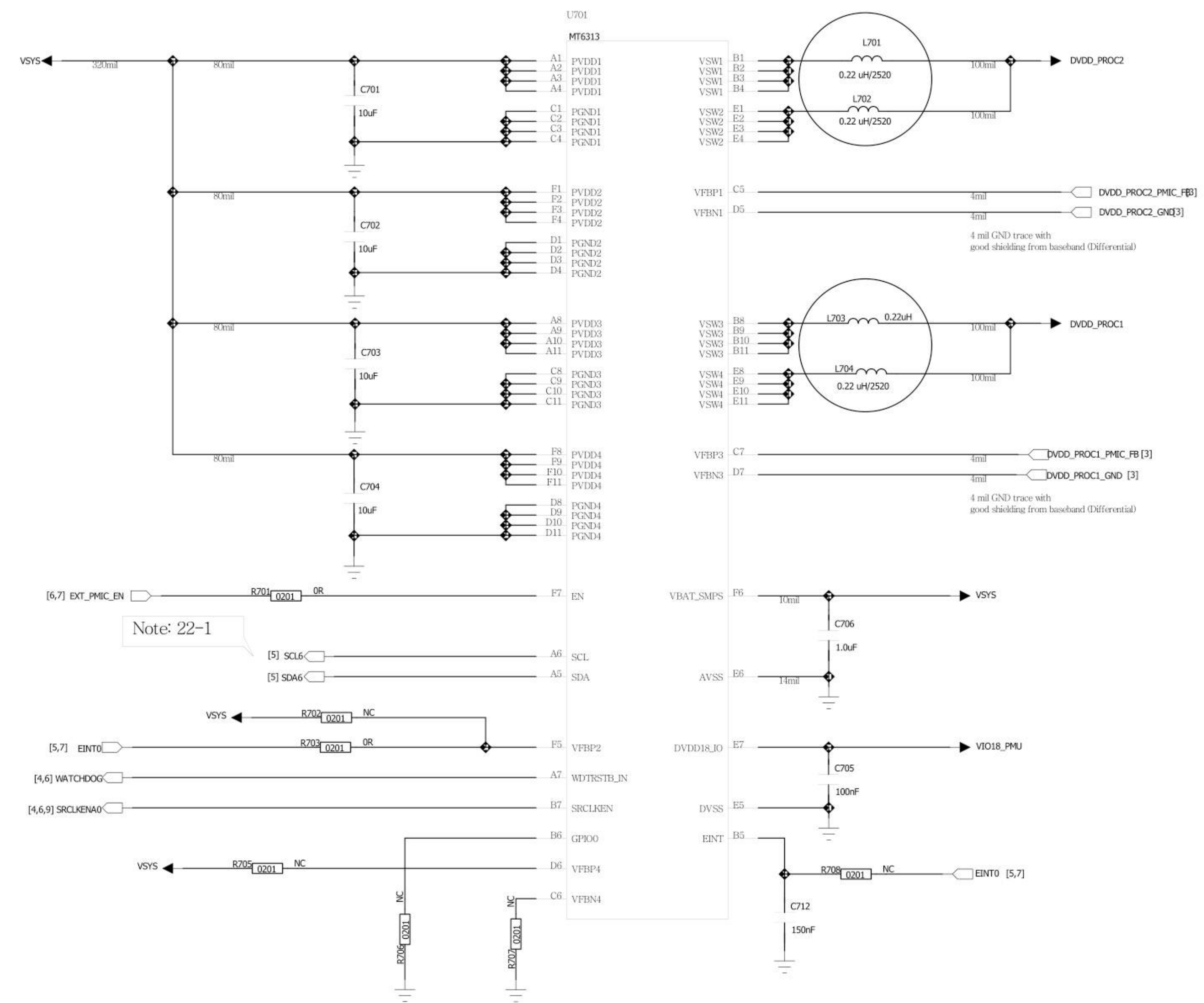
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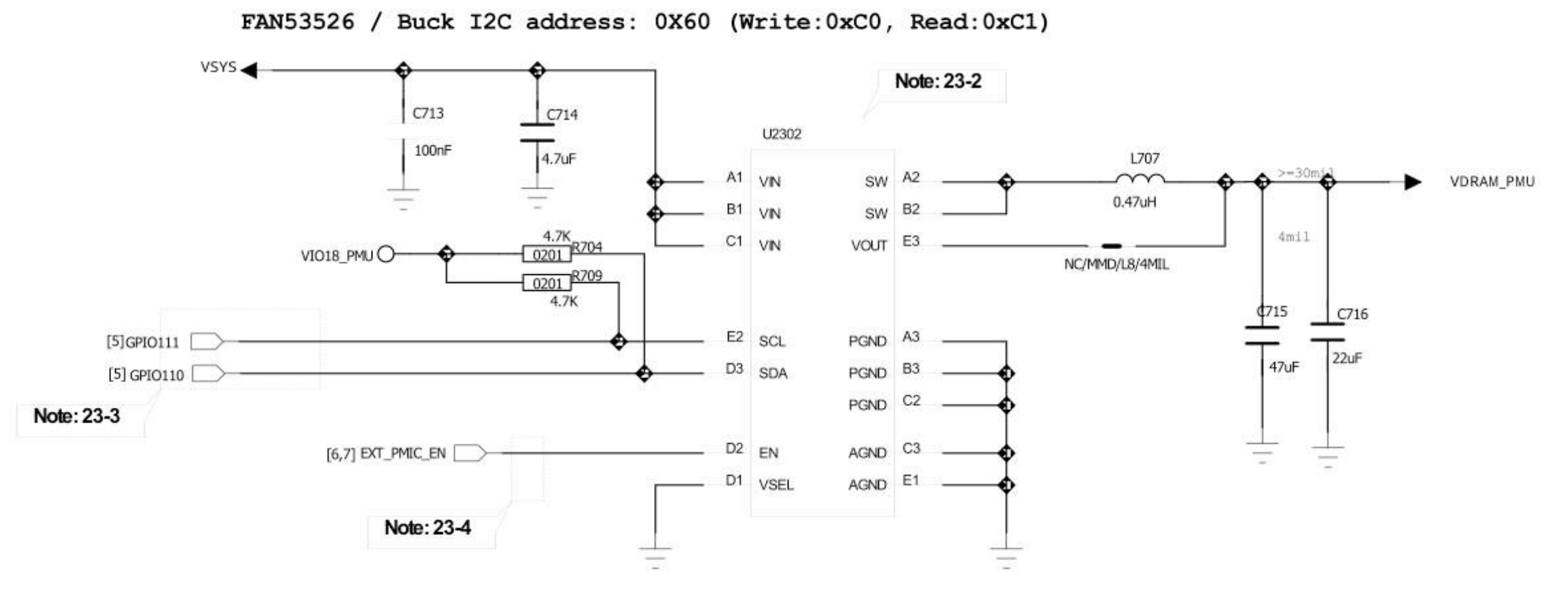
REVISION RECORD			
LT#	ECO NO.	APPROVED	DATE

VPROC Buck



Schematic design notice of "22_POWER_2+2PHASE_BUCK" page.
 Note 22-1: Buck EN is controlled by SRCLKEN0 or I2C

Buck for VDRAM



Schematic design notice of "23_POWER_VGPU_VIM" page.

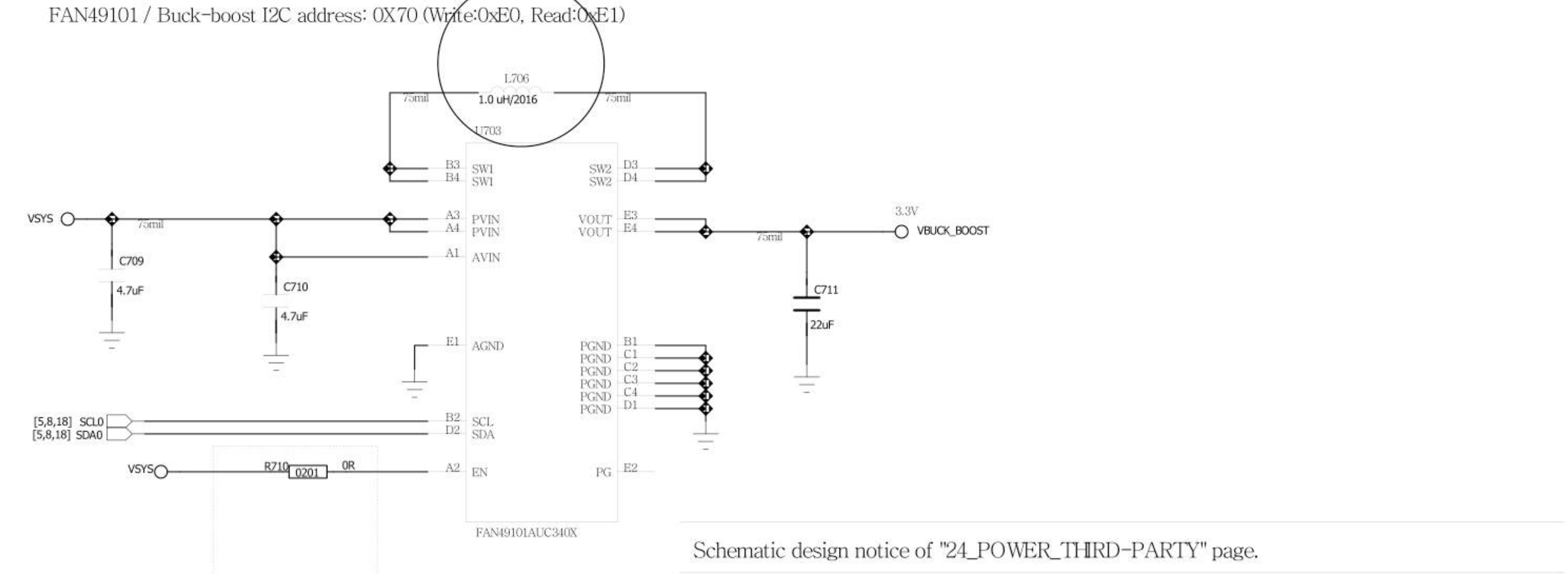
Note 23-2: BOM option to select MT6351's VGPU or 3rd party PMIC as VDRAM (1.2V) power

	U2302	PL2302	C2303	C2304	R2301	R2302
MT6351's VGPU as VDRAM	NC / DNI	NC / DNI	NC / DNI	NC / DNI	NC / DNI	NC / DNI
3rd party PMIC as VDRAM	FAN53526	0.47uF	0.1uF	4.7uF	4.7K	4.7K

Note: NC / DNI = No connect / Do not install.

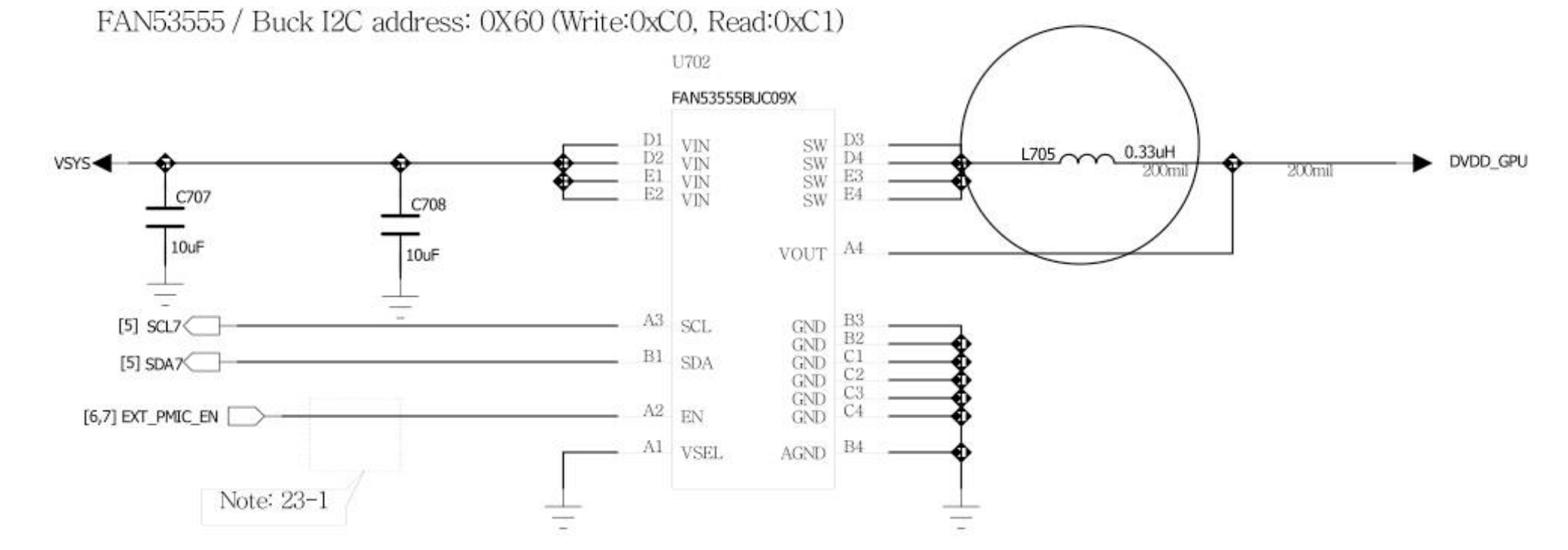
Note 23-3: Use pin mzed I2C-1 to control FAN53526 since its I2C base address is 0x60 same as VGPU and MHL.
 Note 23-4: FAN53526's EN pin is driven by MT6351.

Companion Buck/Boost



Schematic design notice of "24_POWER_THIRD-PARTY" page.
 Note 24-1: If R709+0ohm,R710 NC,R5109+0ohm: MT6905 can't support card mode function when phone off (quick boot disable)
 If R709+NC,R710+0ohm,R5109+0ohm: MT6905 can support card mode function when phone off(quick boot disable)

2-Phase Buck

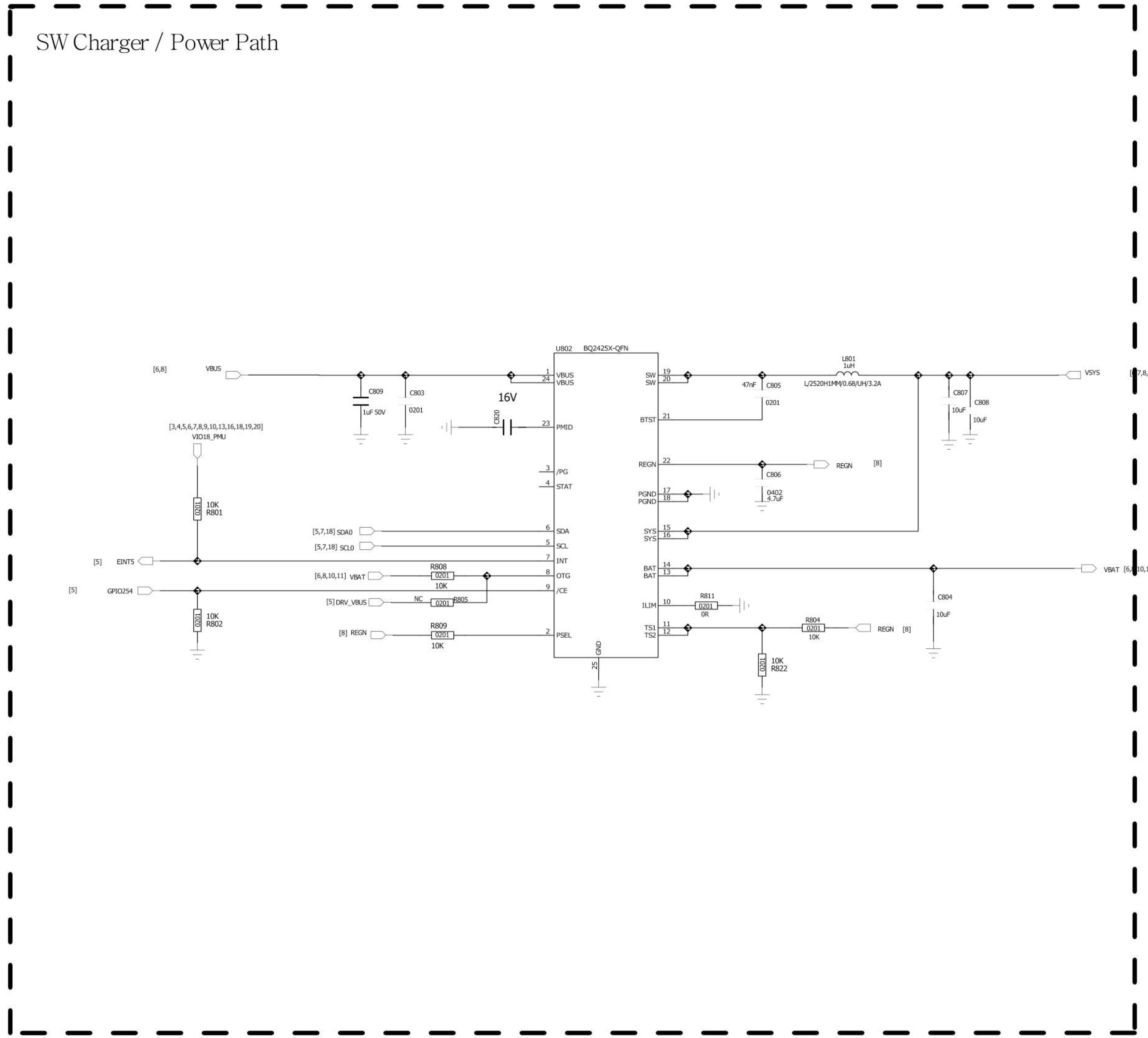
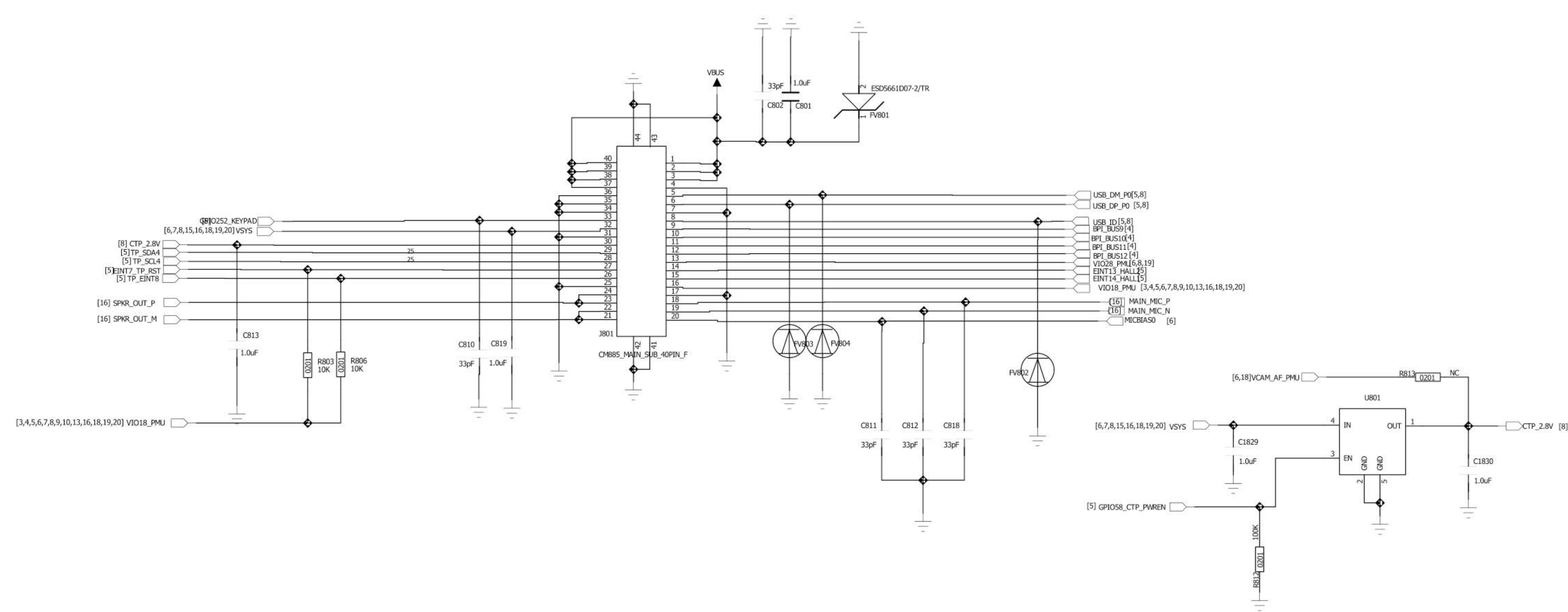
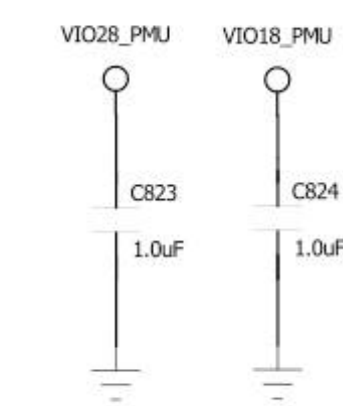
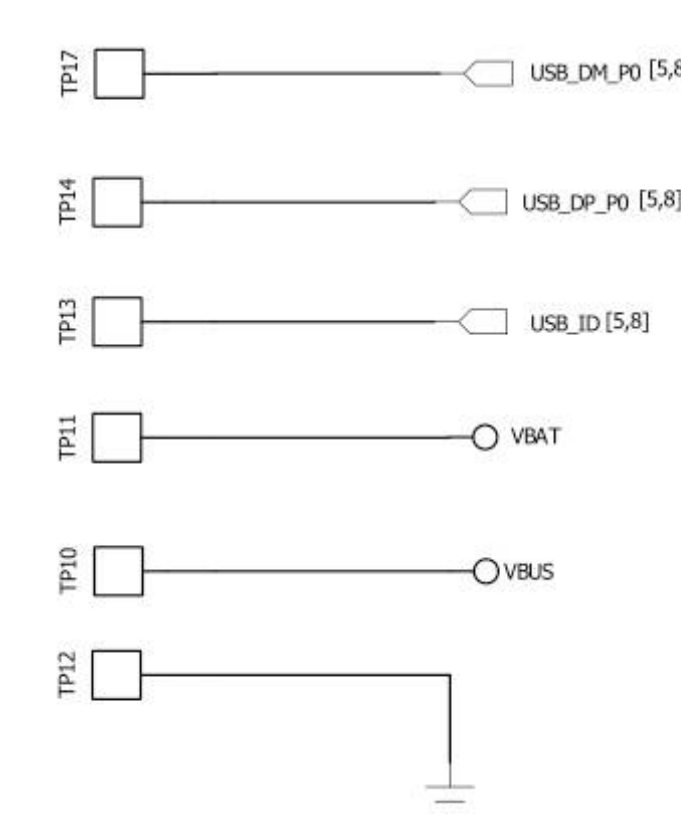


Schematic design notice of "23_POWER_VGPU" page.
 Note 23-1: FAN5355's EN pin is driven by MT6351.

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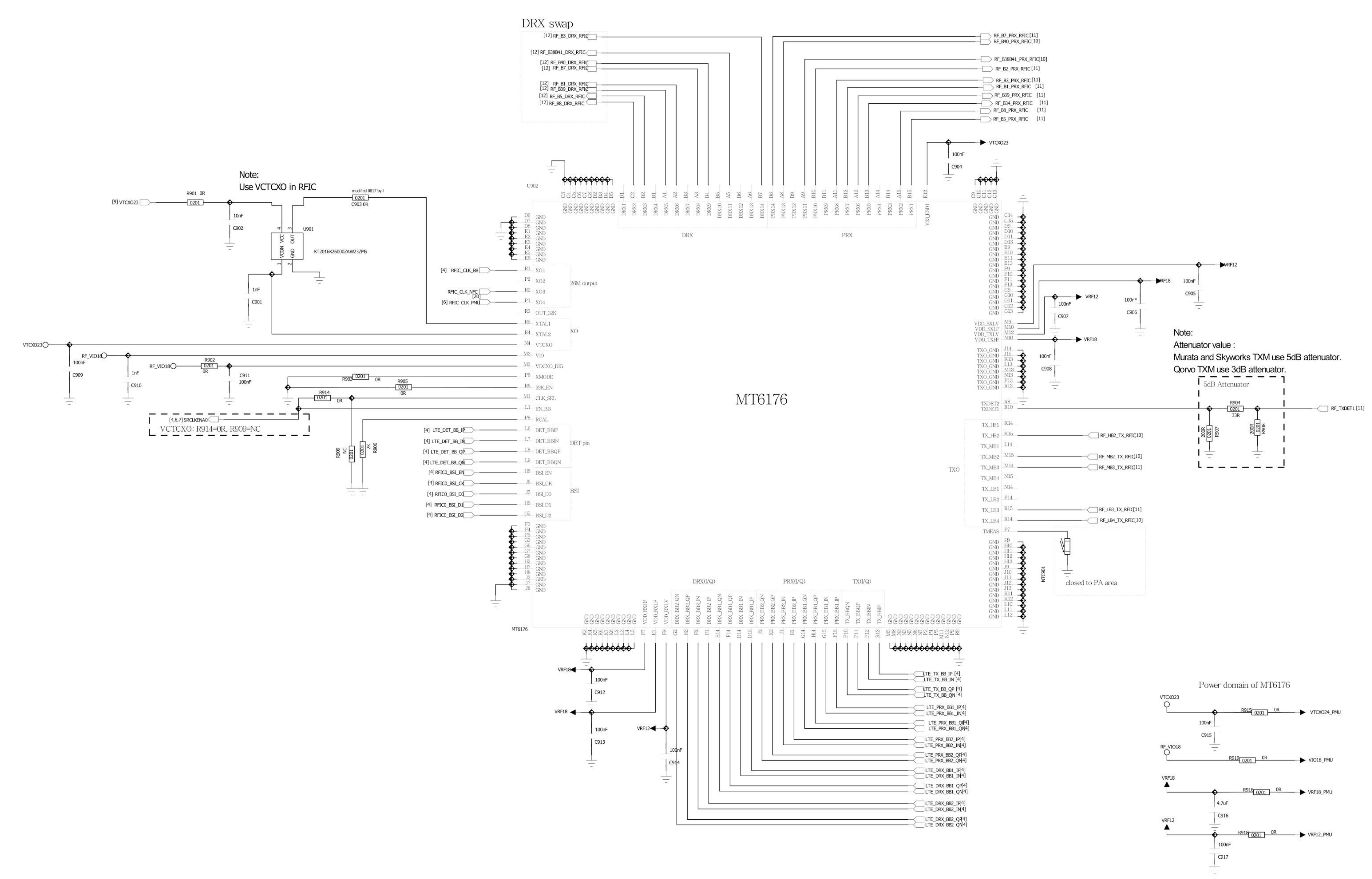
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REVISION RECORD			
LT#	ECO NO.	APPROVED:	DATE:



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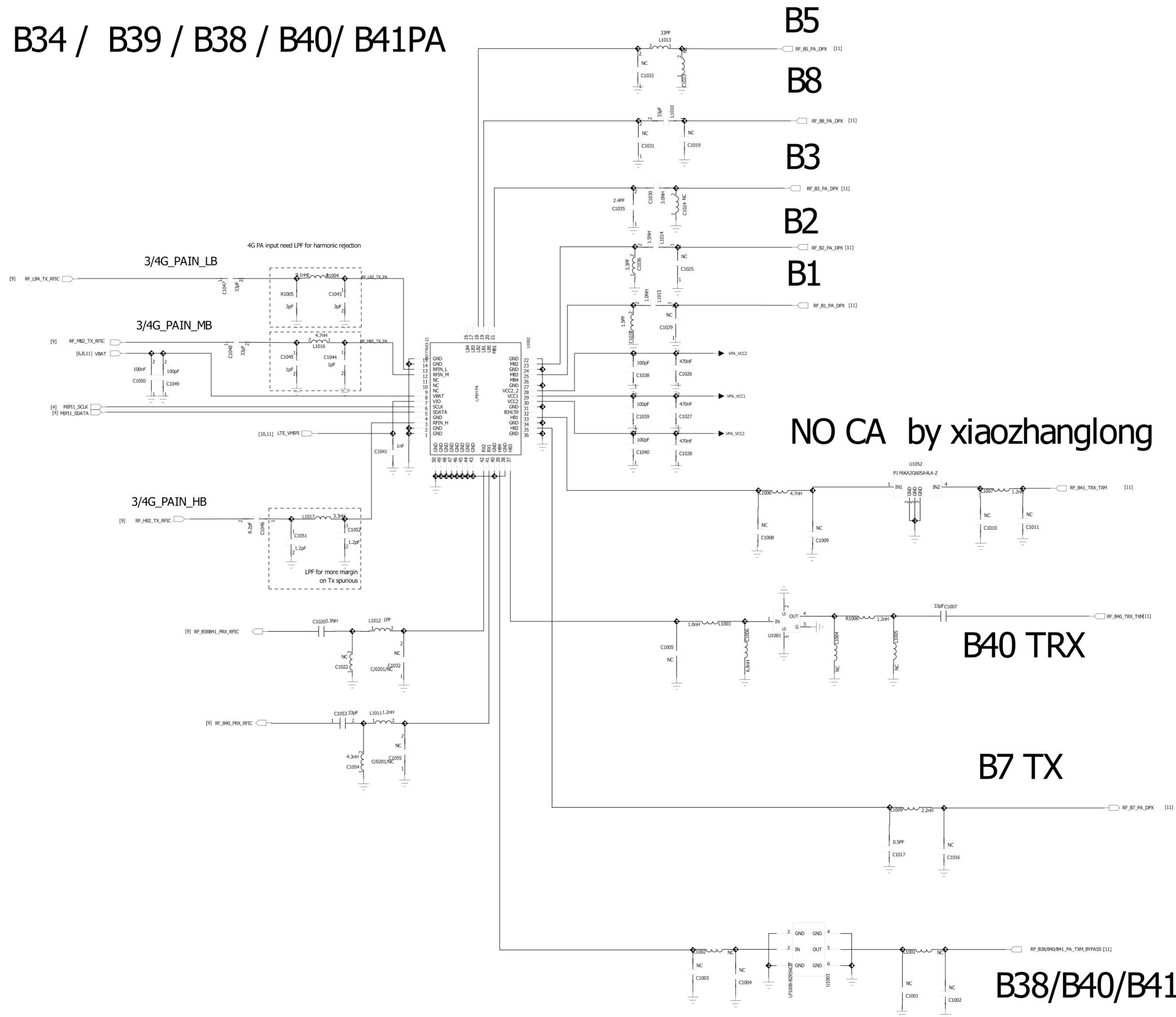
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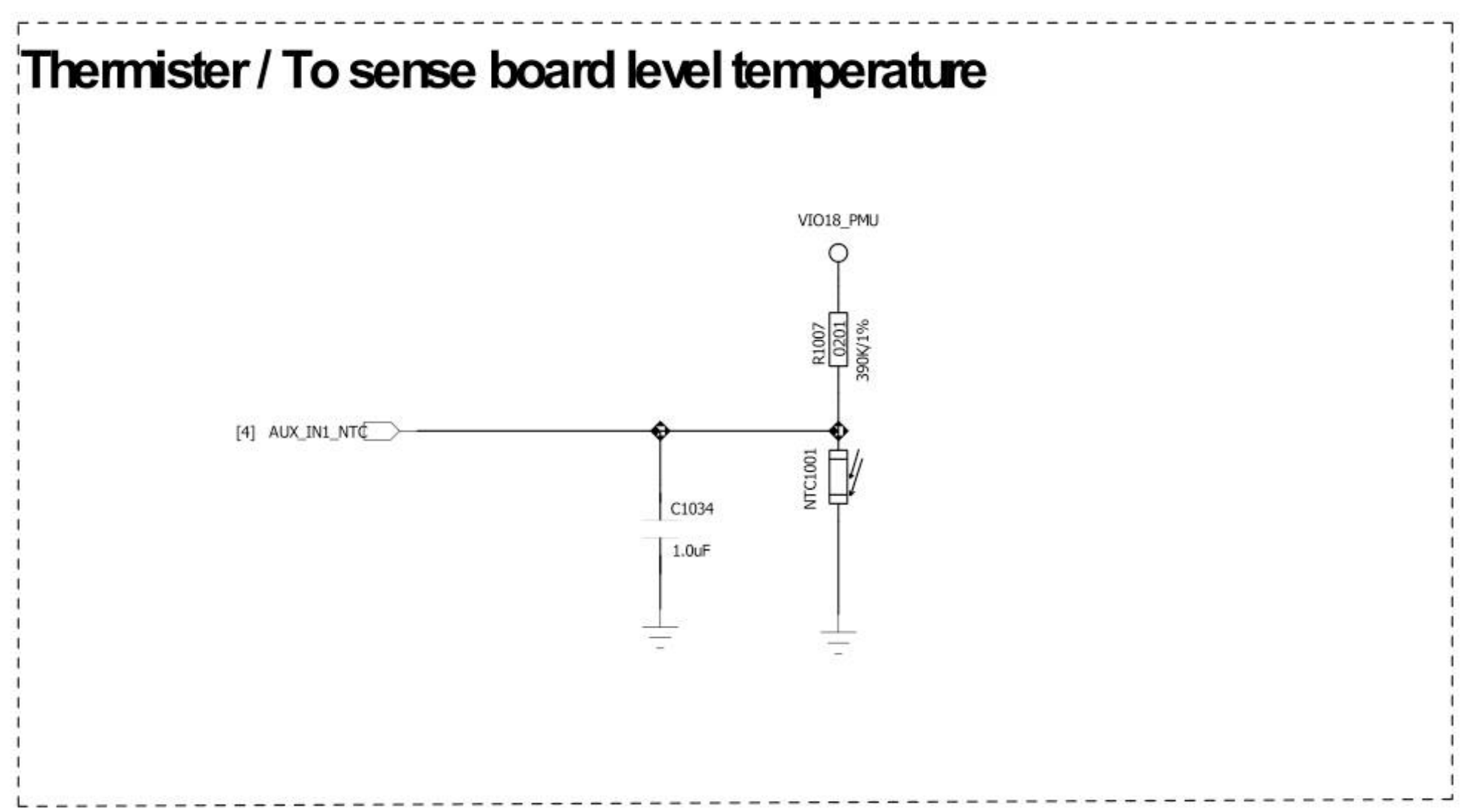
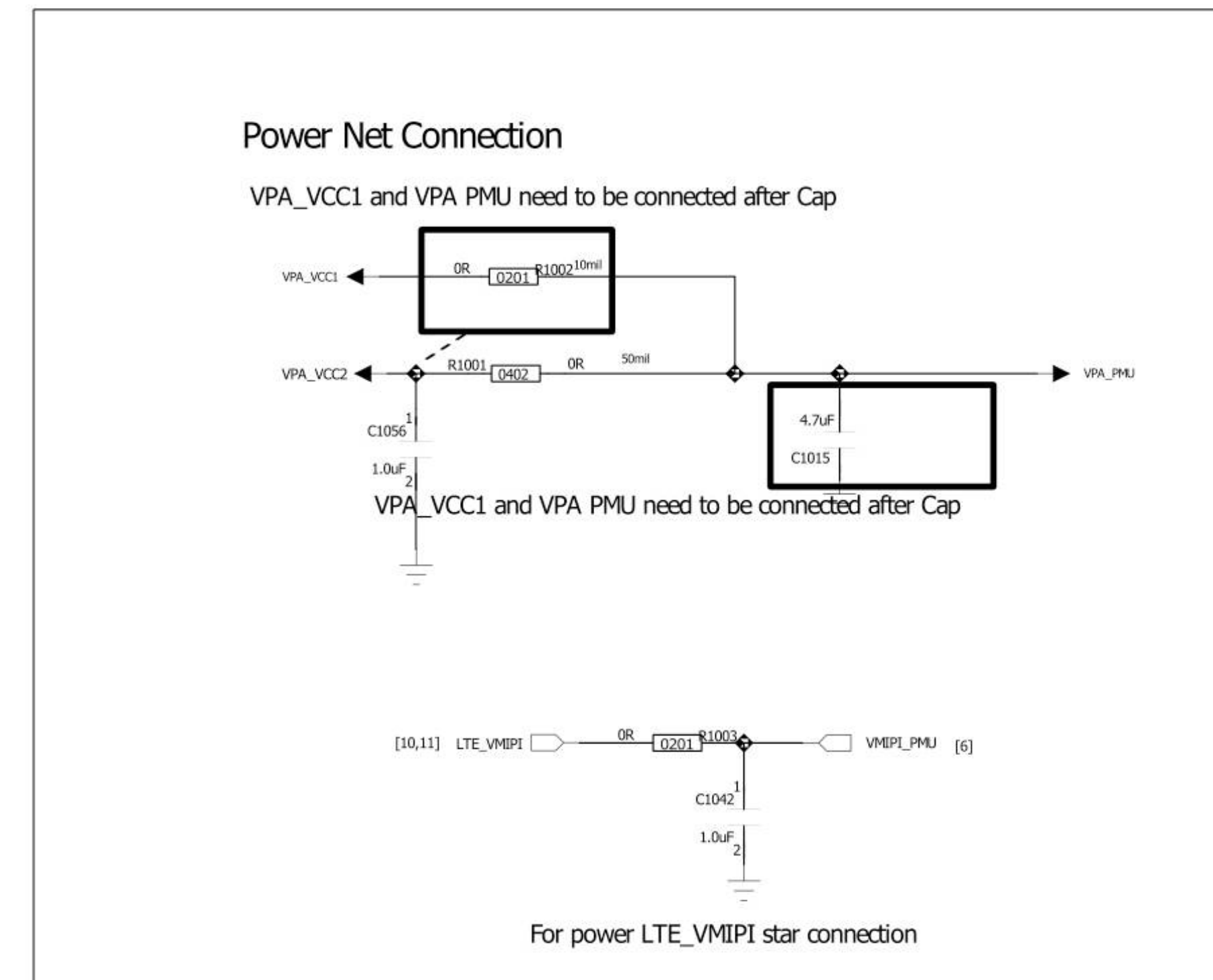
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B1/B2/B3/B5/B8/B28/ B7 / B34 / B39 / B38 / B40/ B41PA



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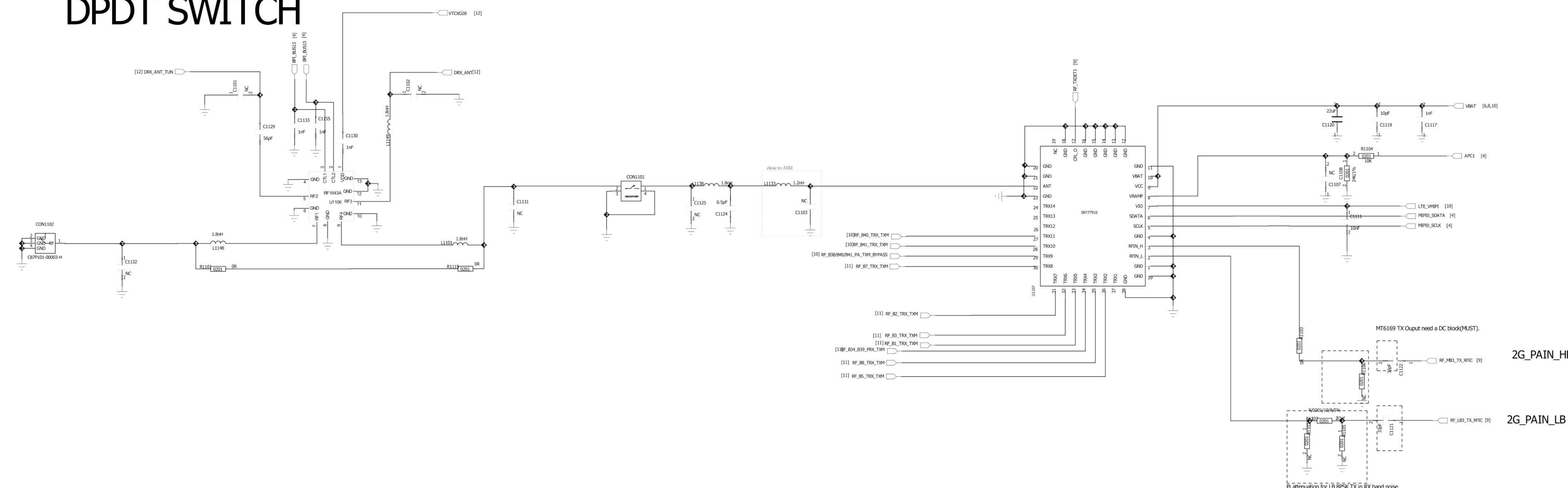
B41 TRX



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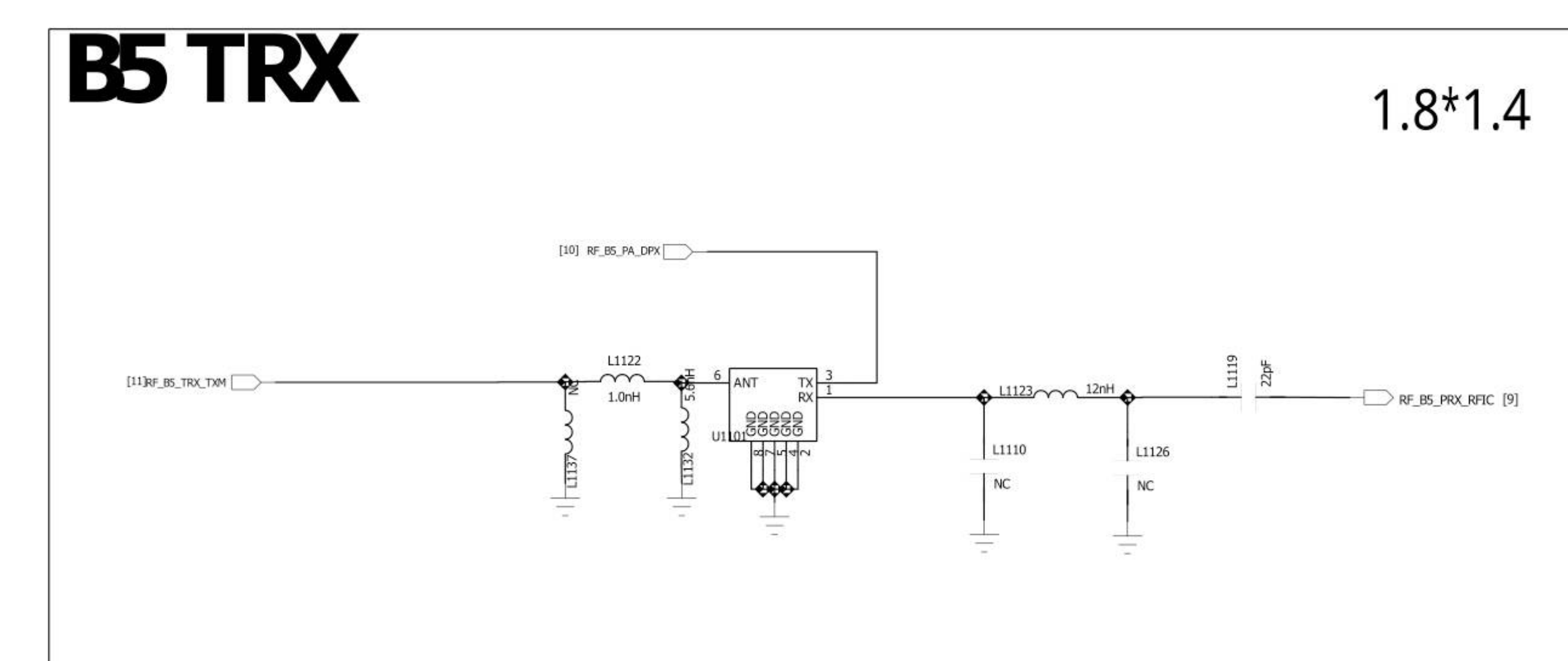
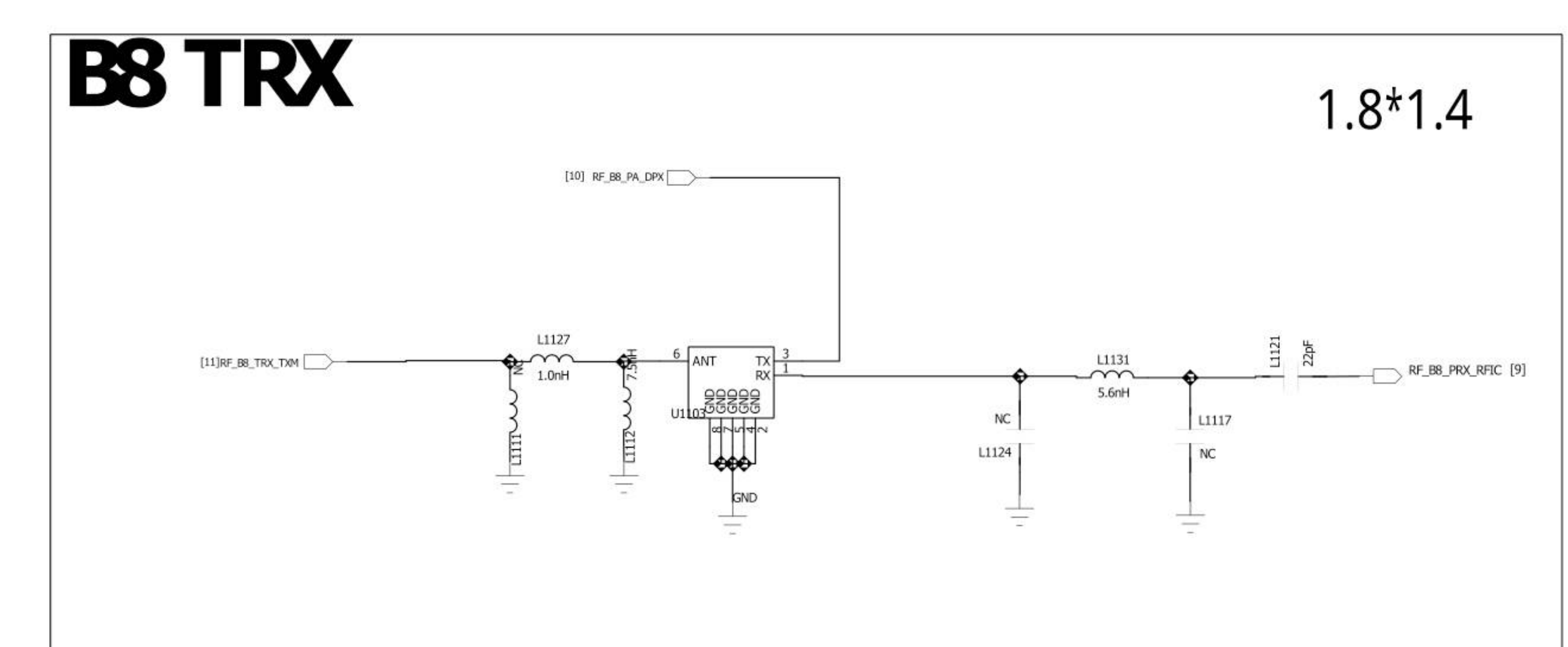
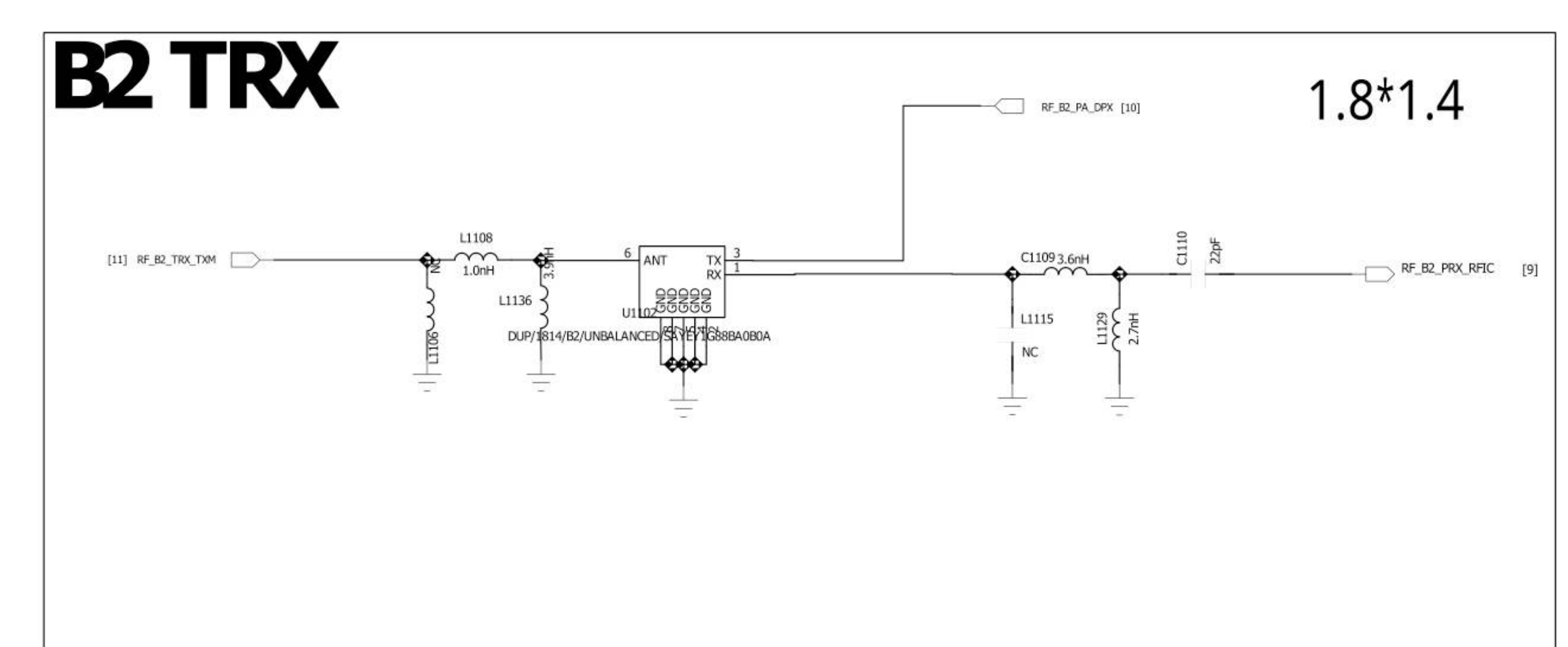
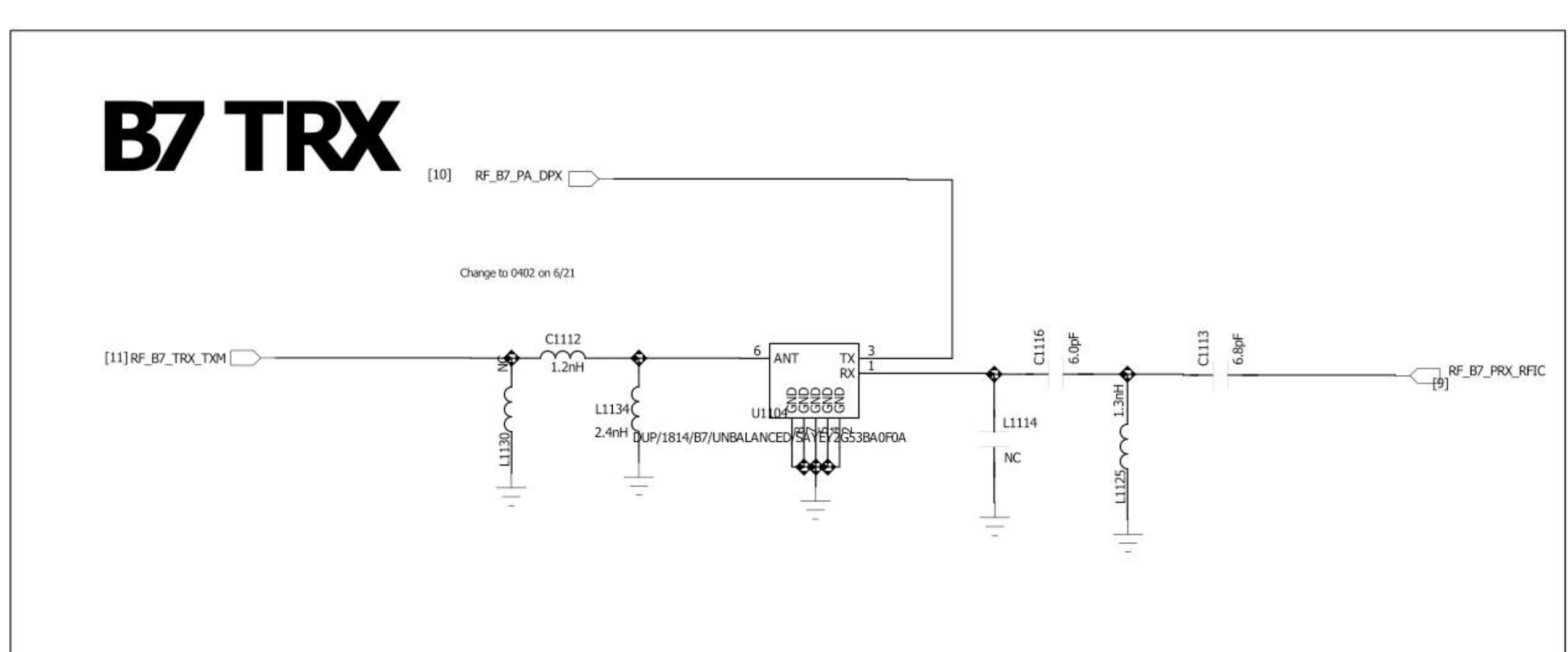
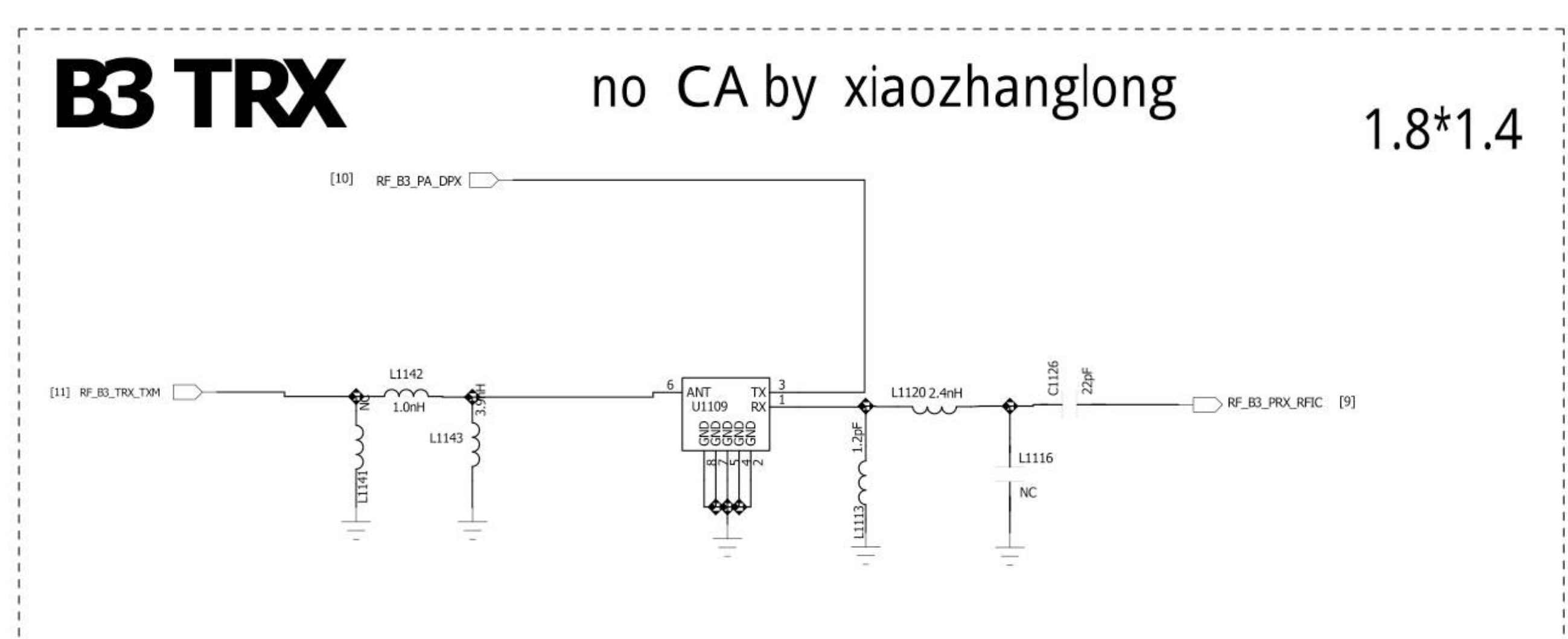
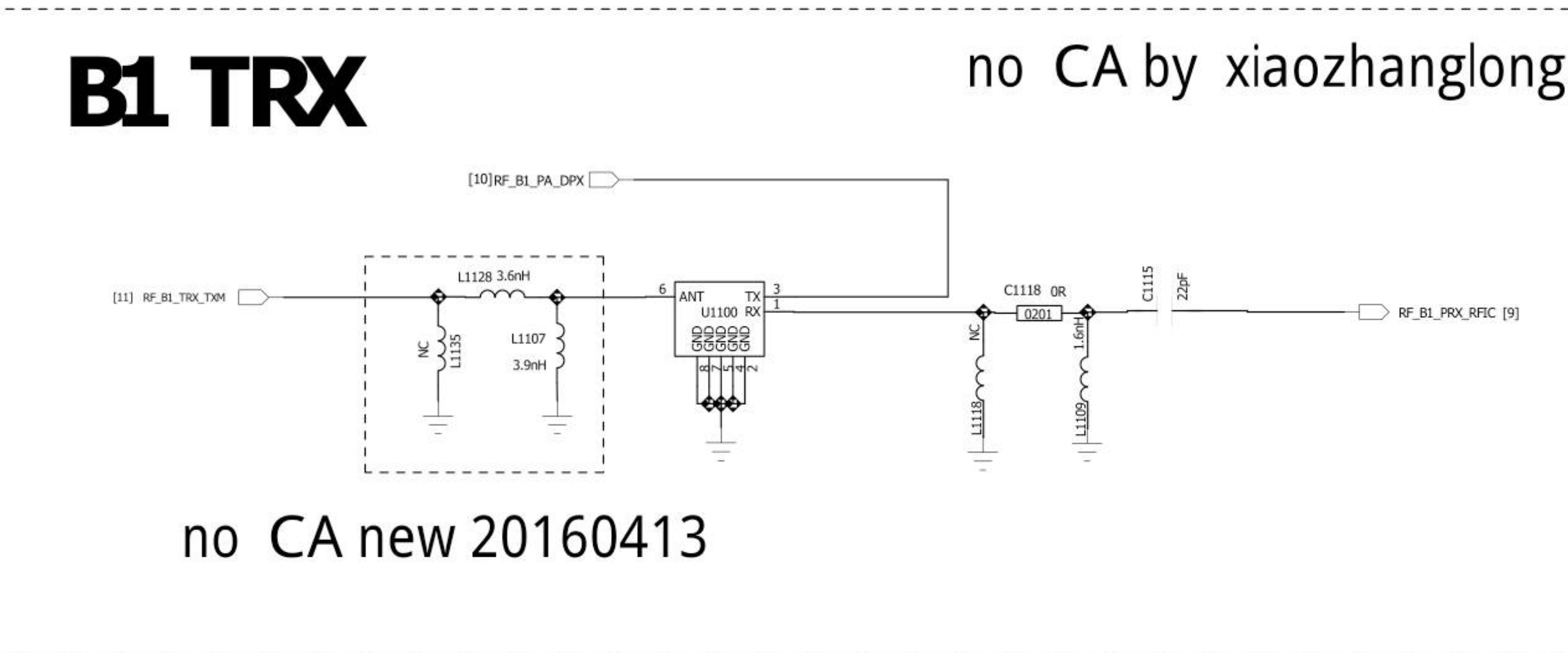
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DPDT SWITCH

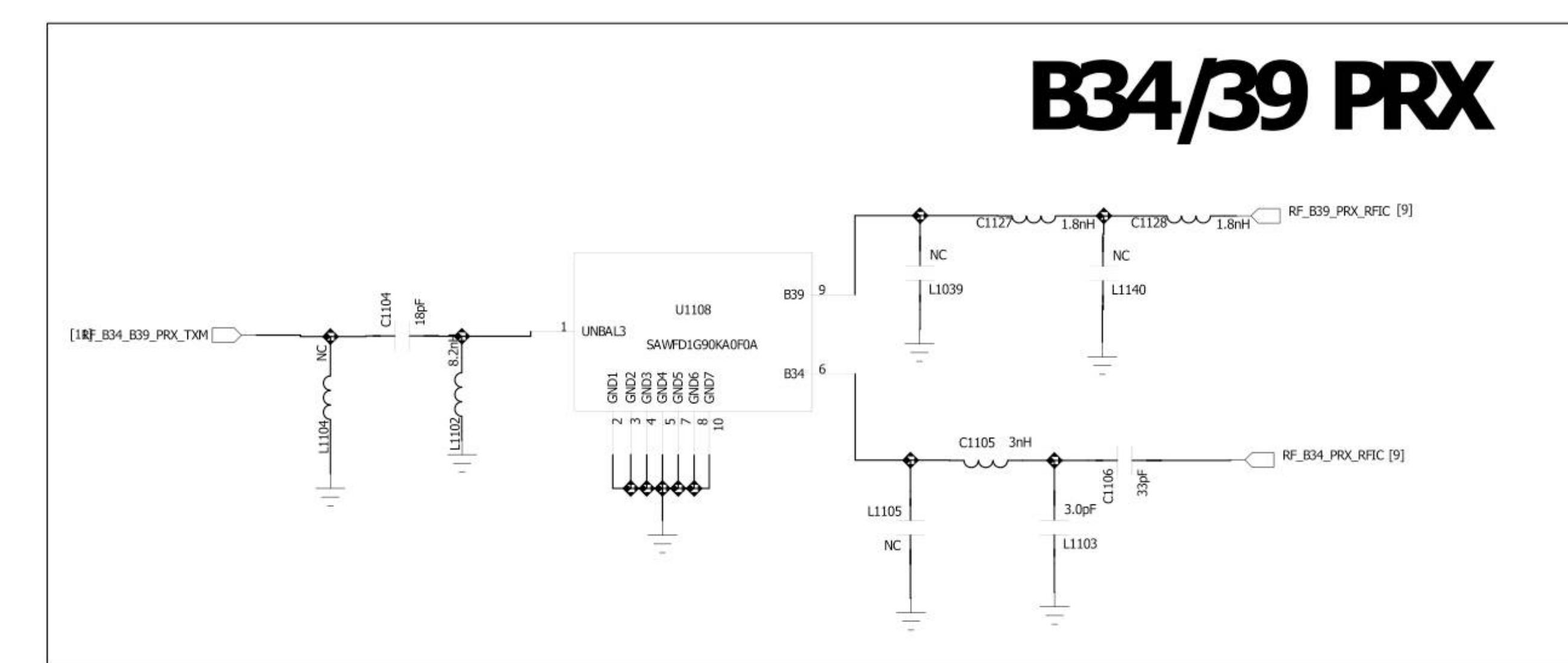


2G_PAIN_HB

2G_PAIN_LB



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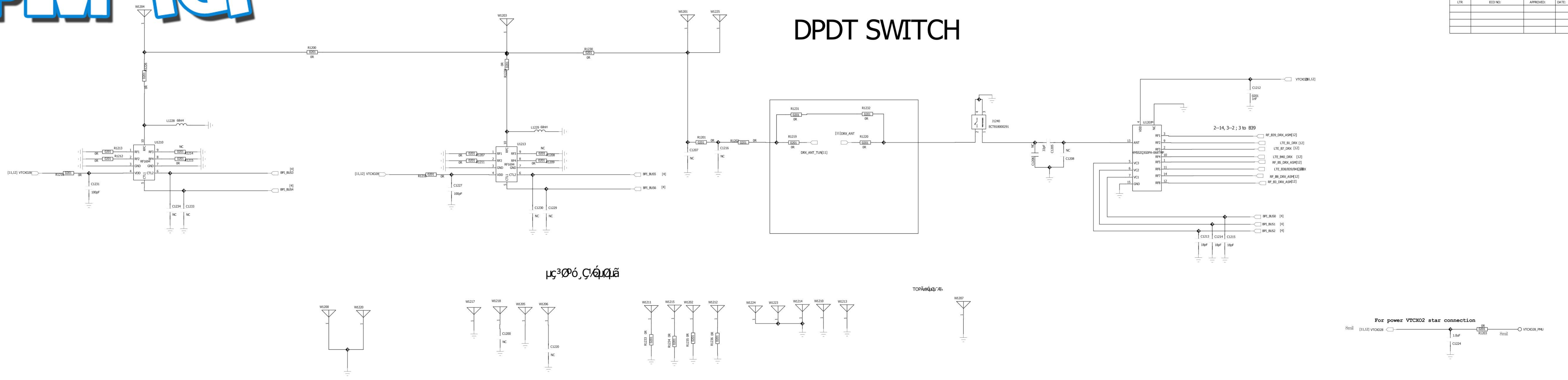


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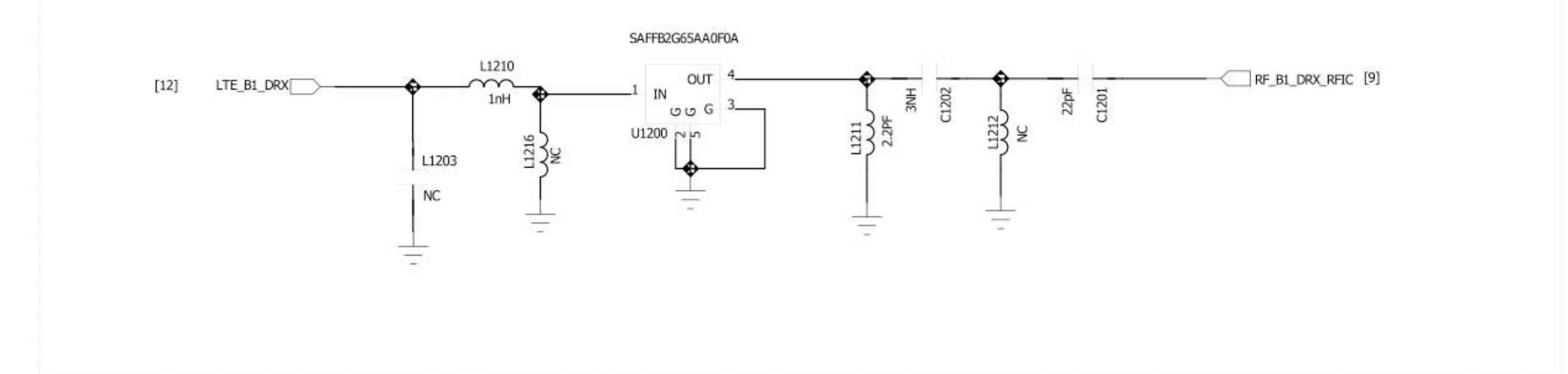
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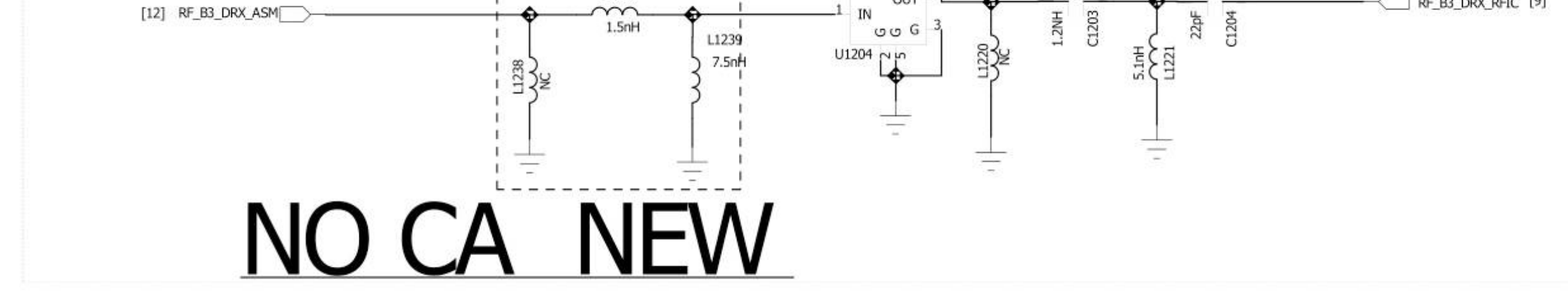


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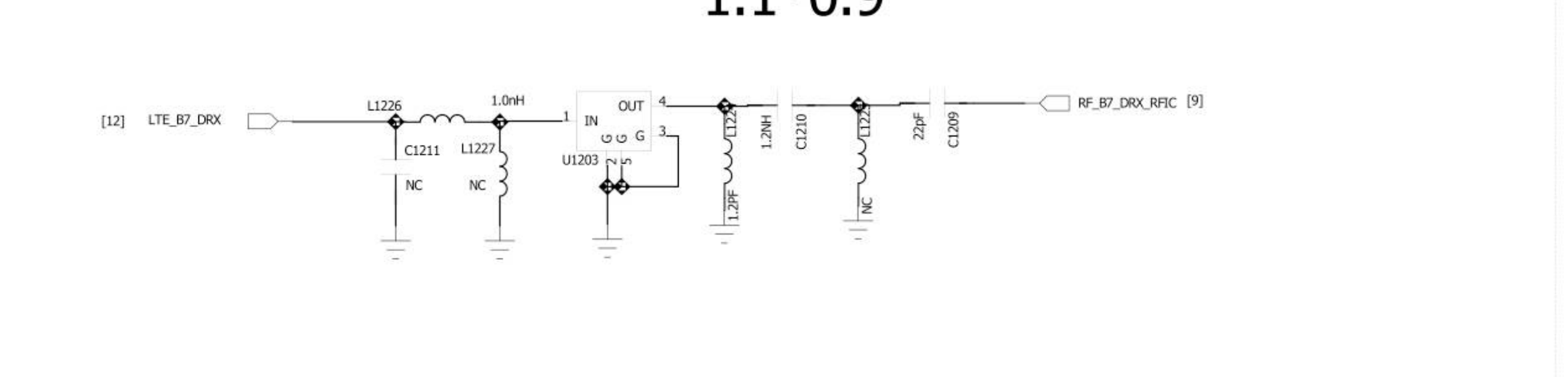
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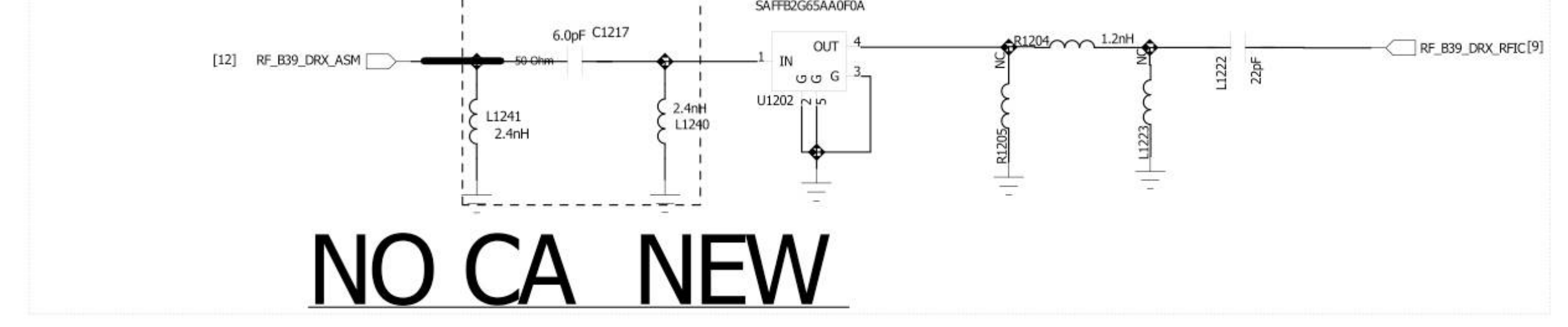
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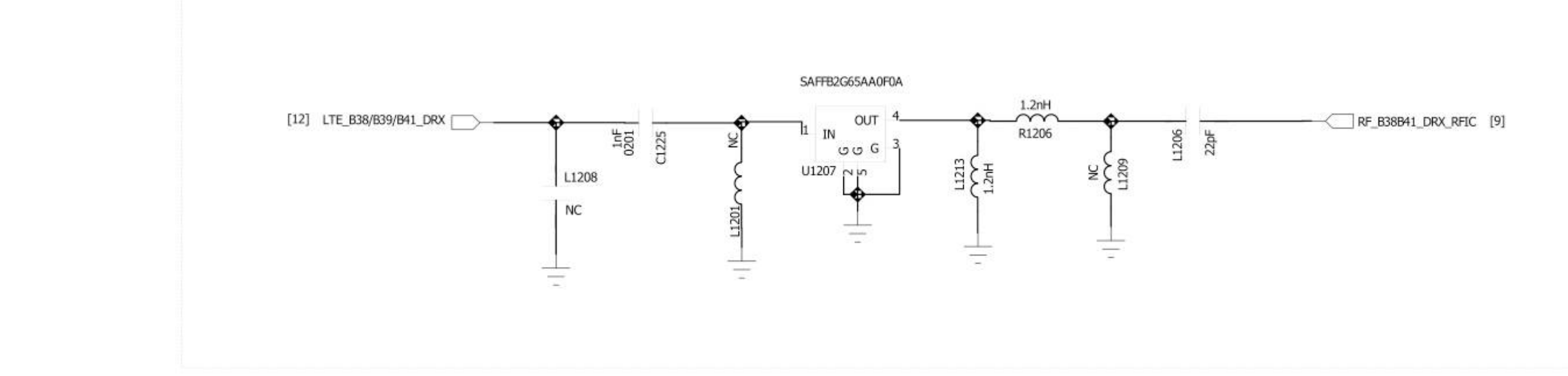
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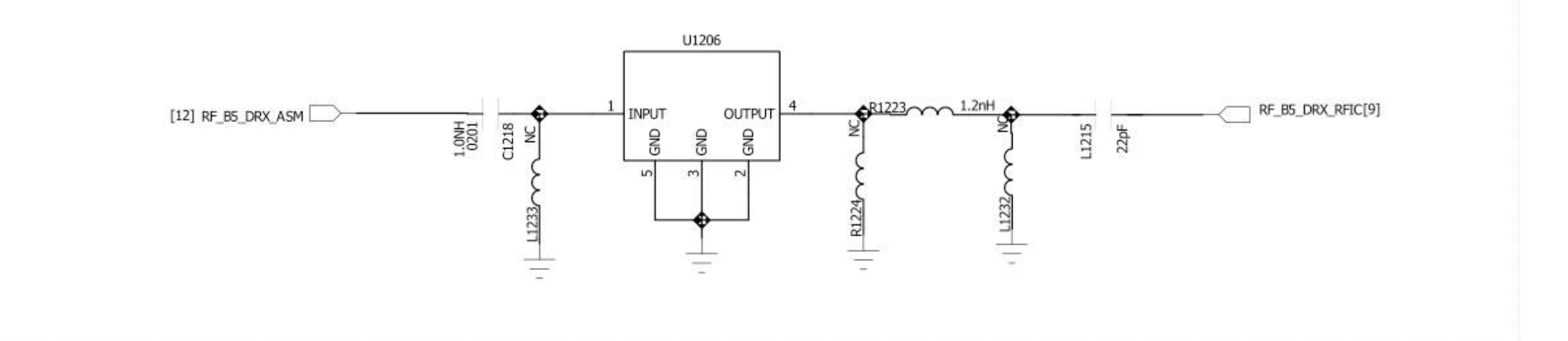
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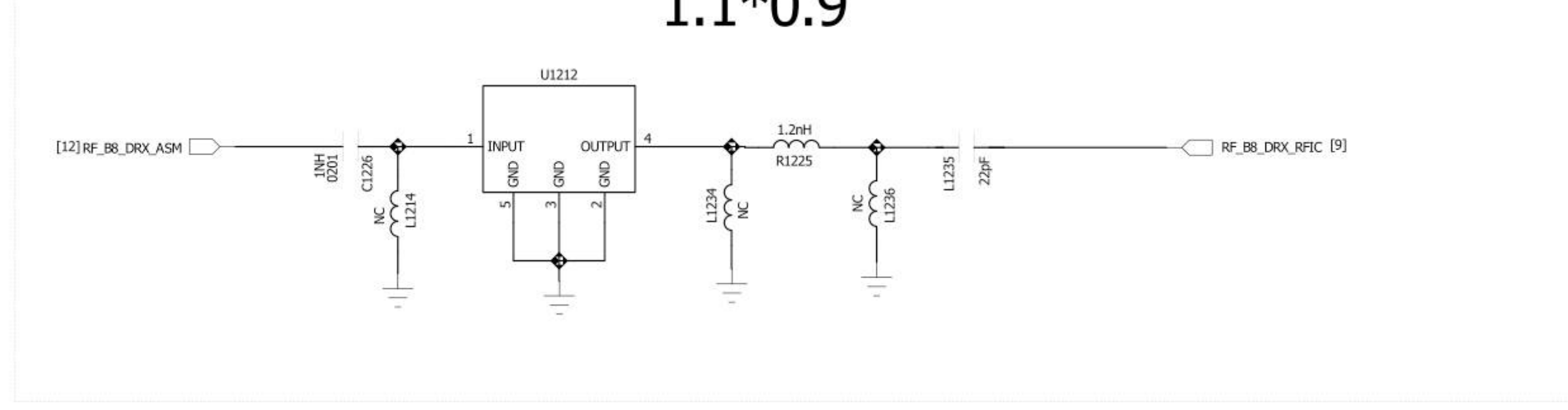
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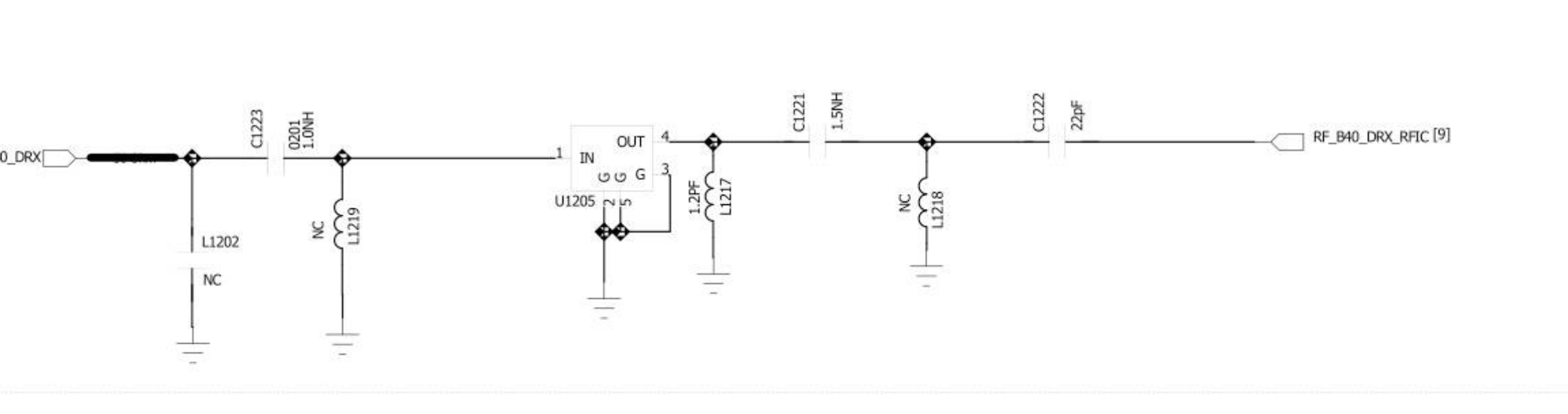
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B8 DRX



B40 DRX

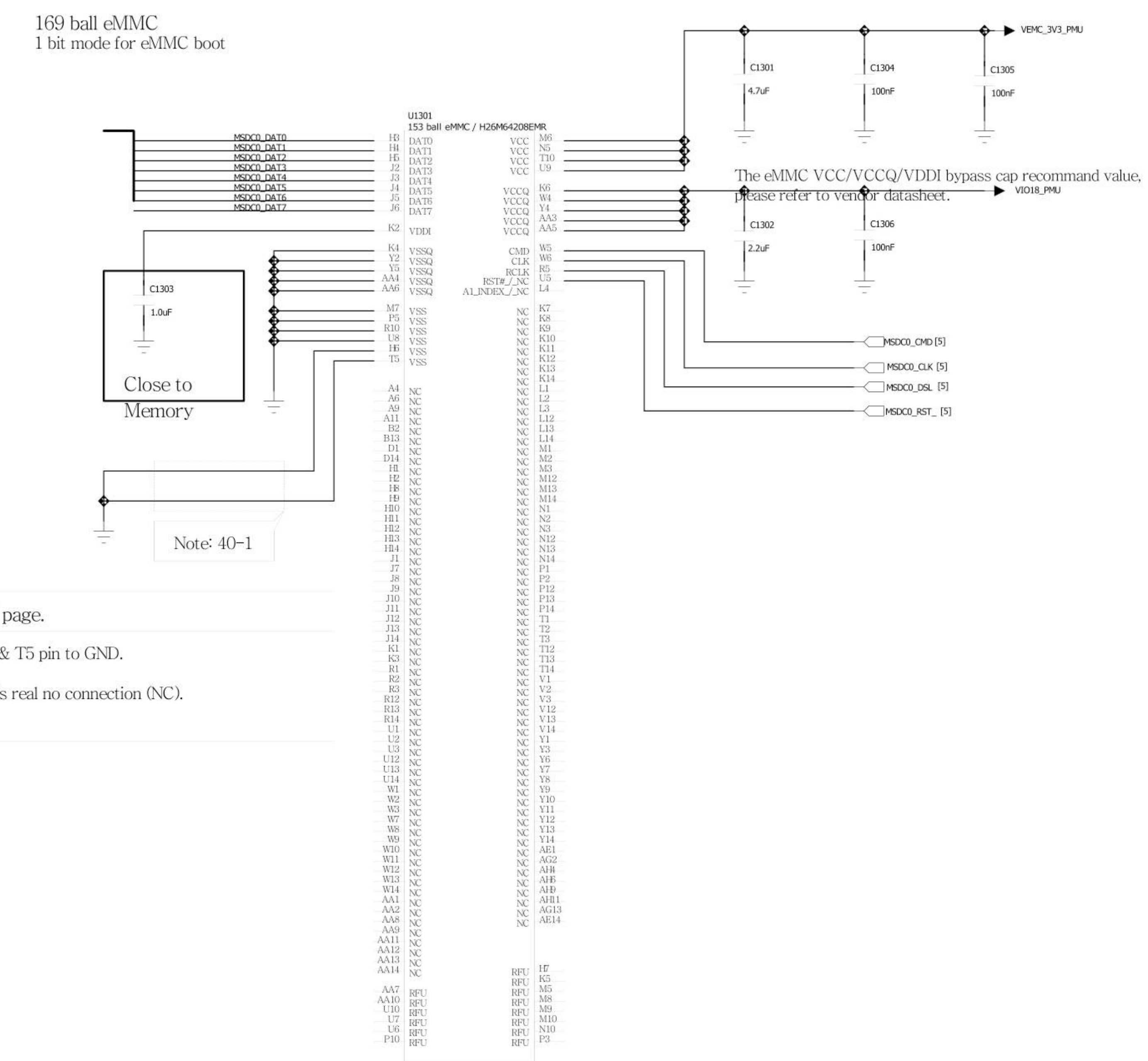


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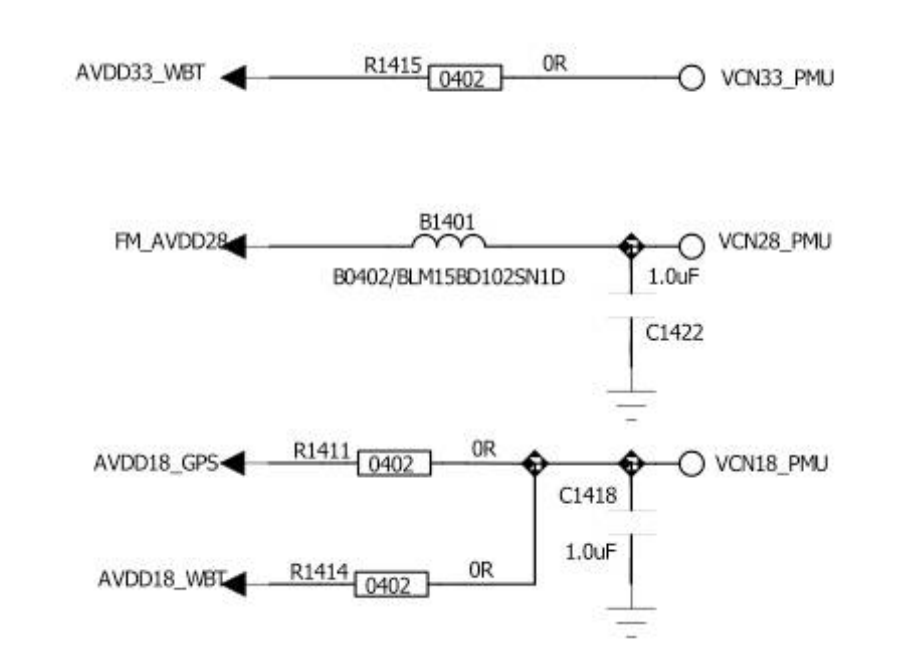
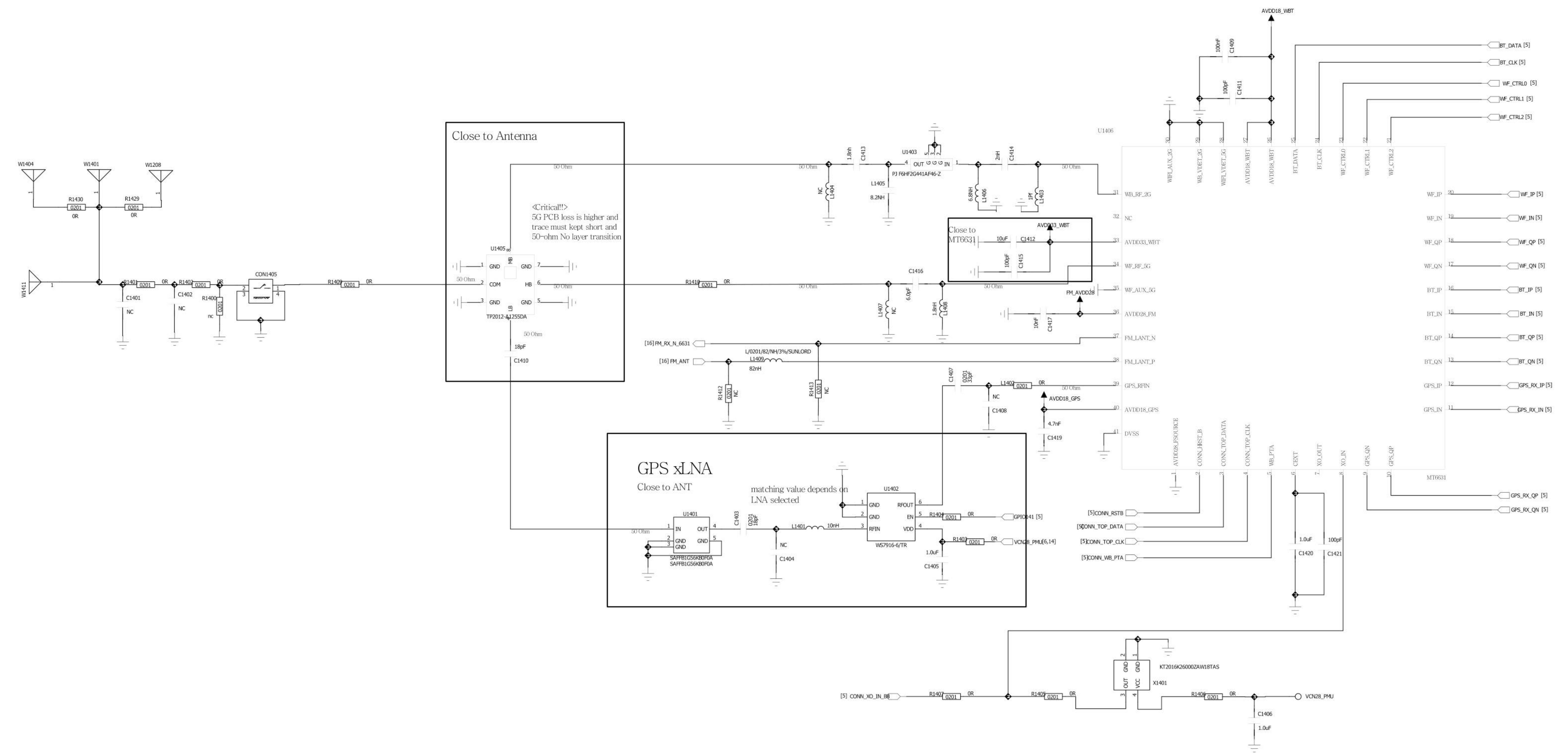
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Schematic design notice of "40_MEMORY_eMMC" page.
 Note 40-1: For eMMC 5.0/5.1, connect eMMC's I# & T5 pin to GND.
 For eMMC 4.5, check eMMC's I# & T5 is real no connection (NC).

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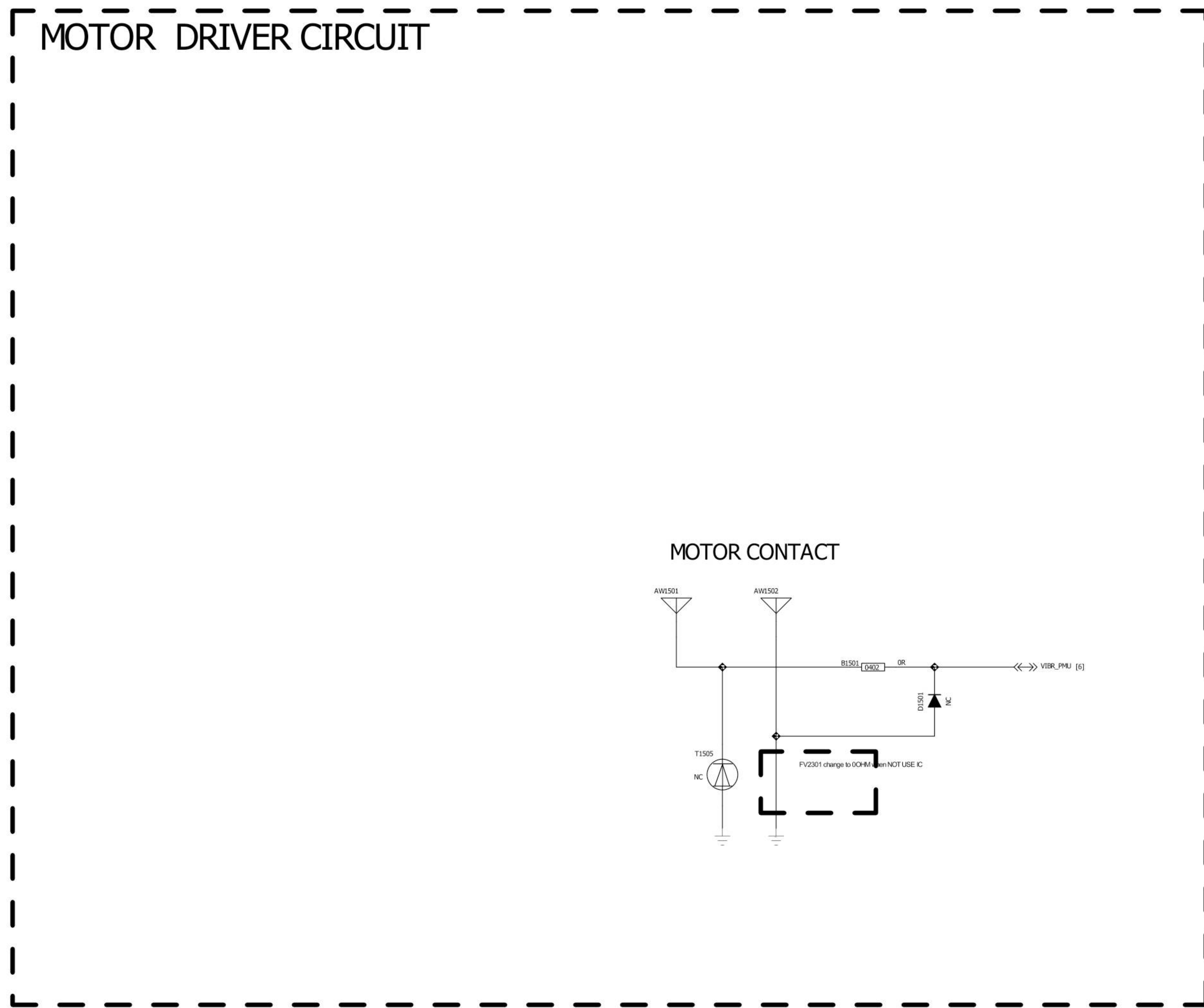
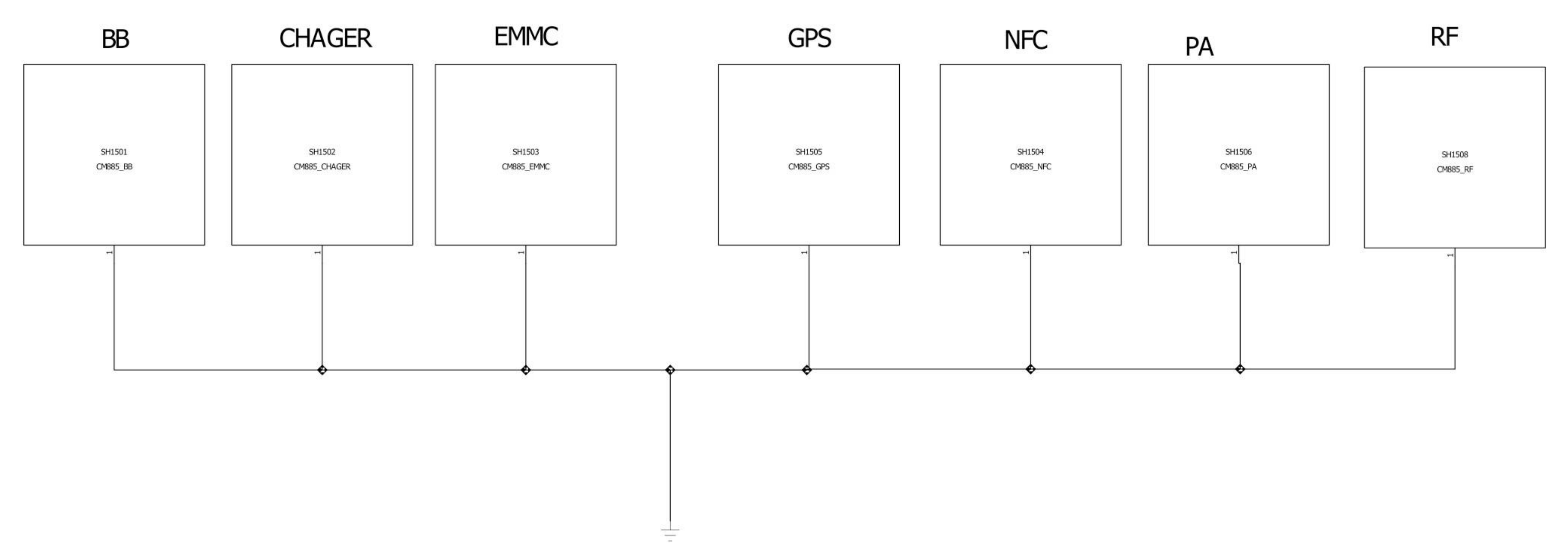
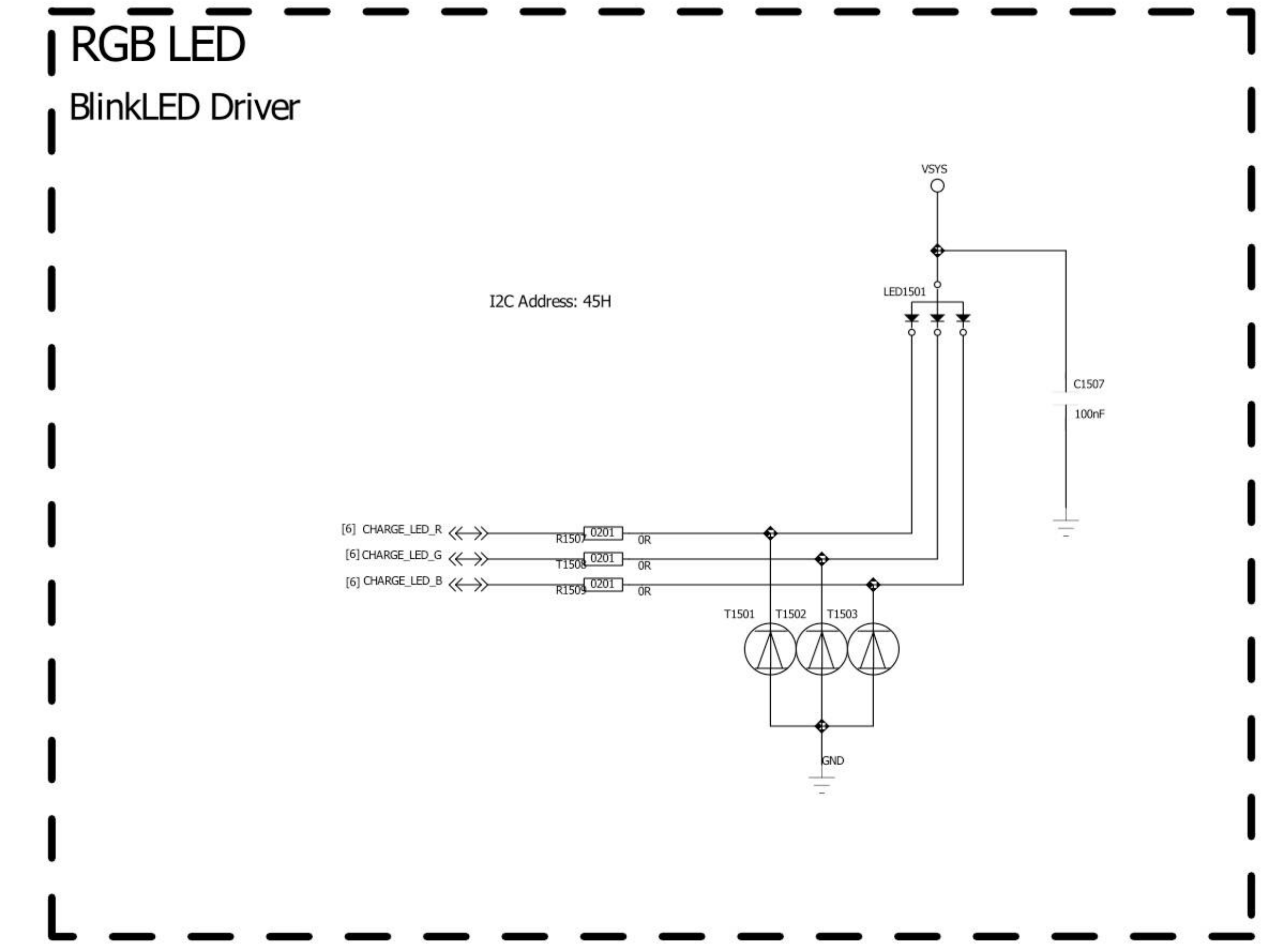
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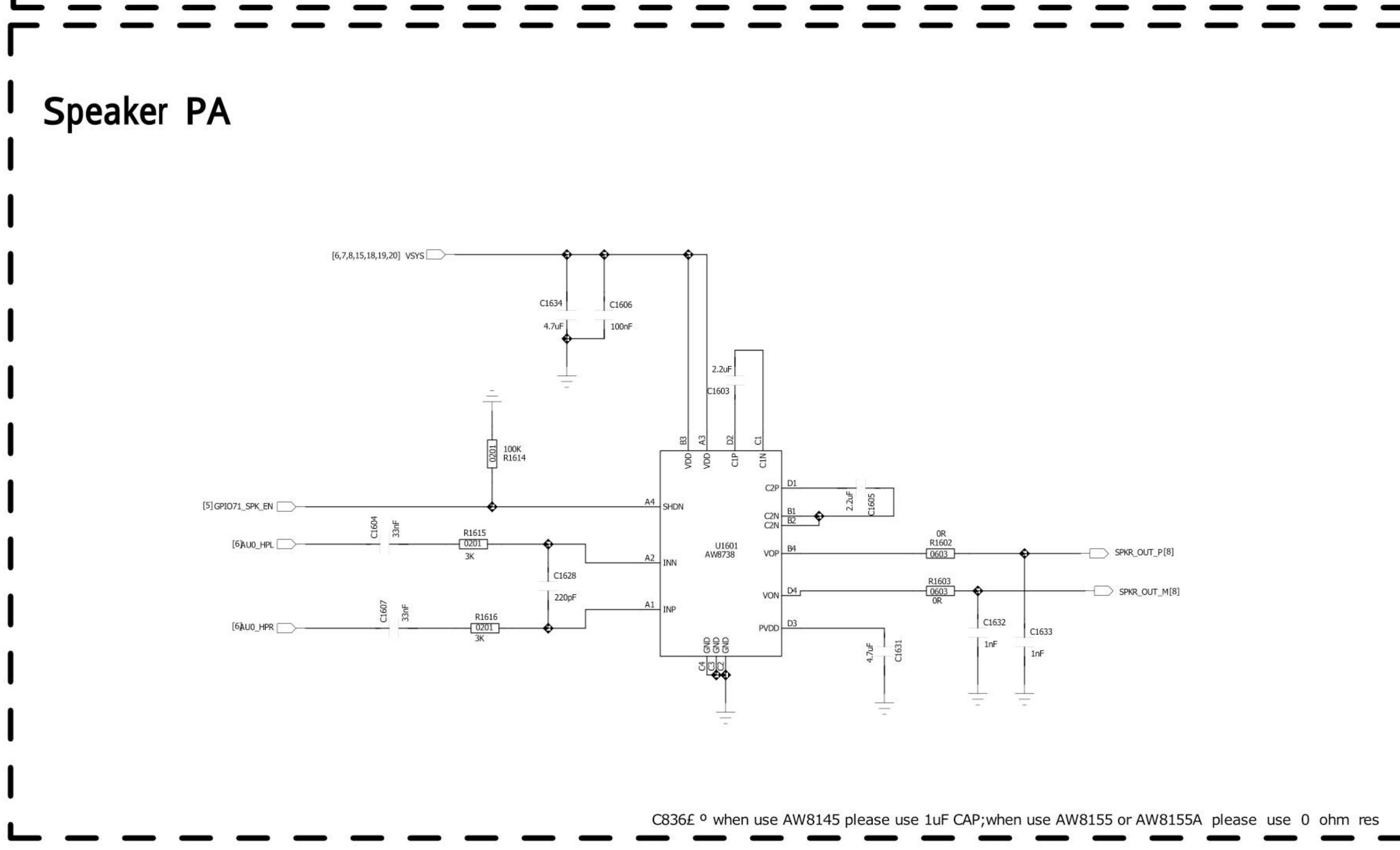
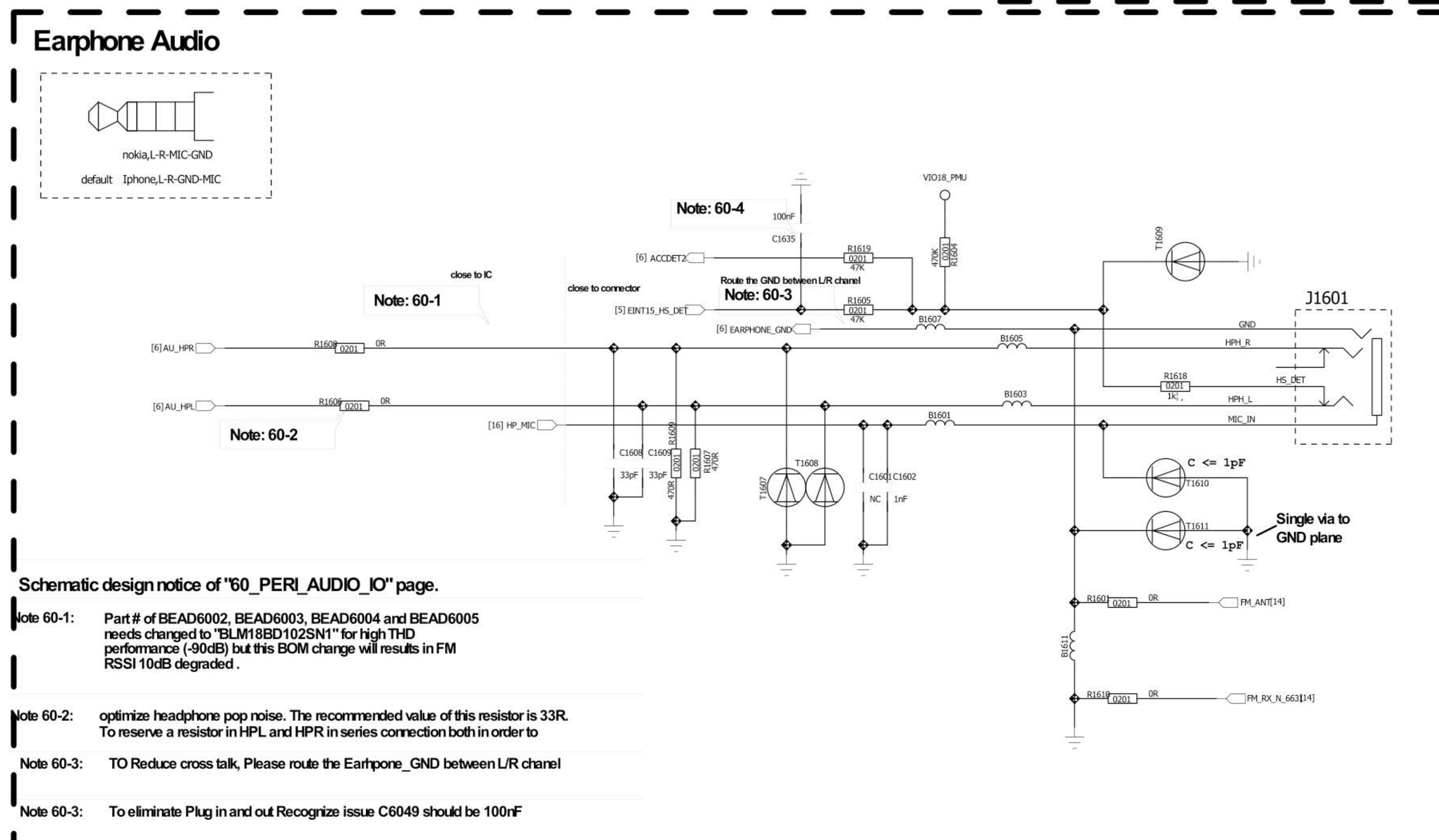
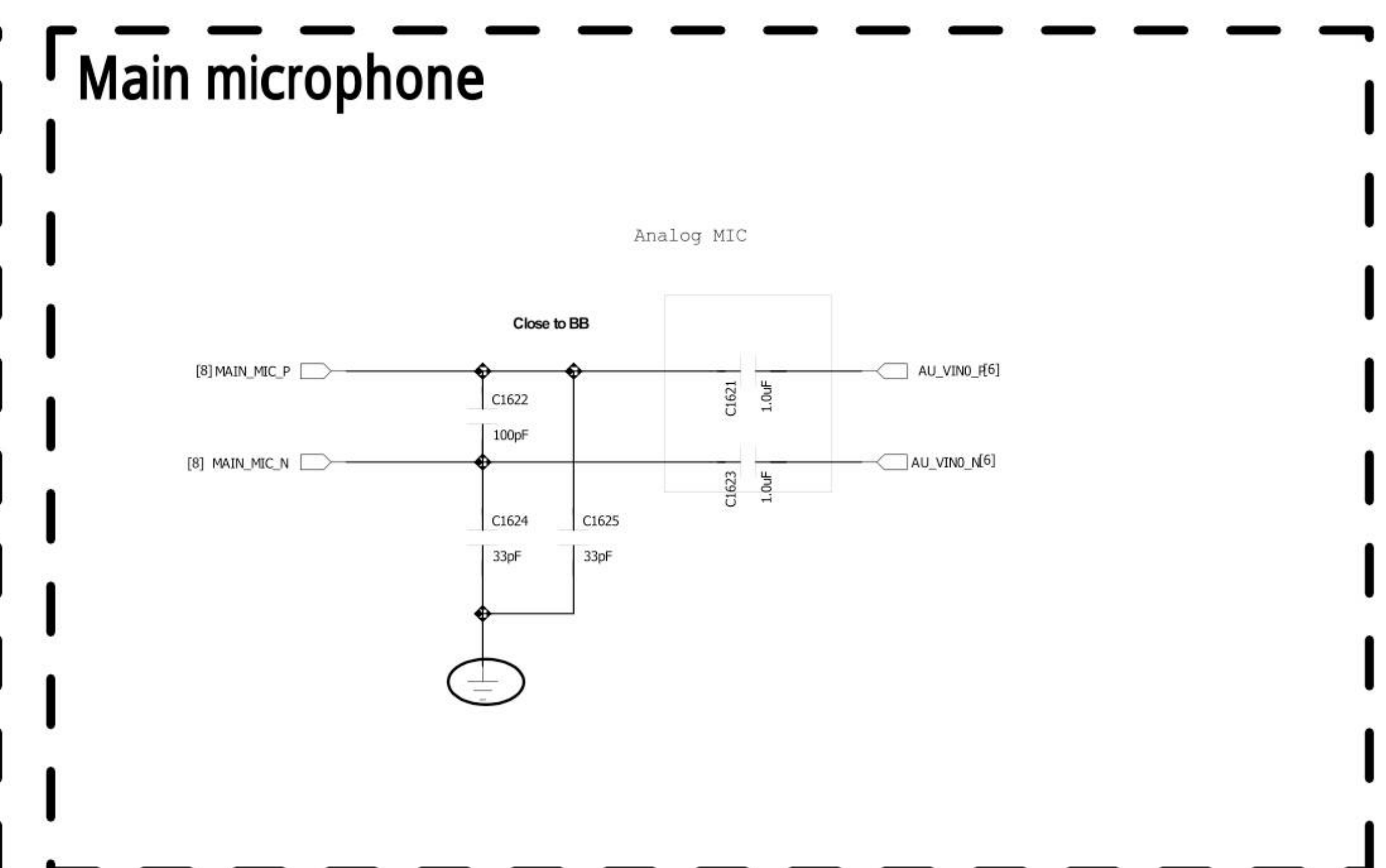
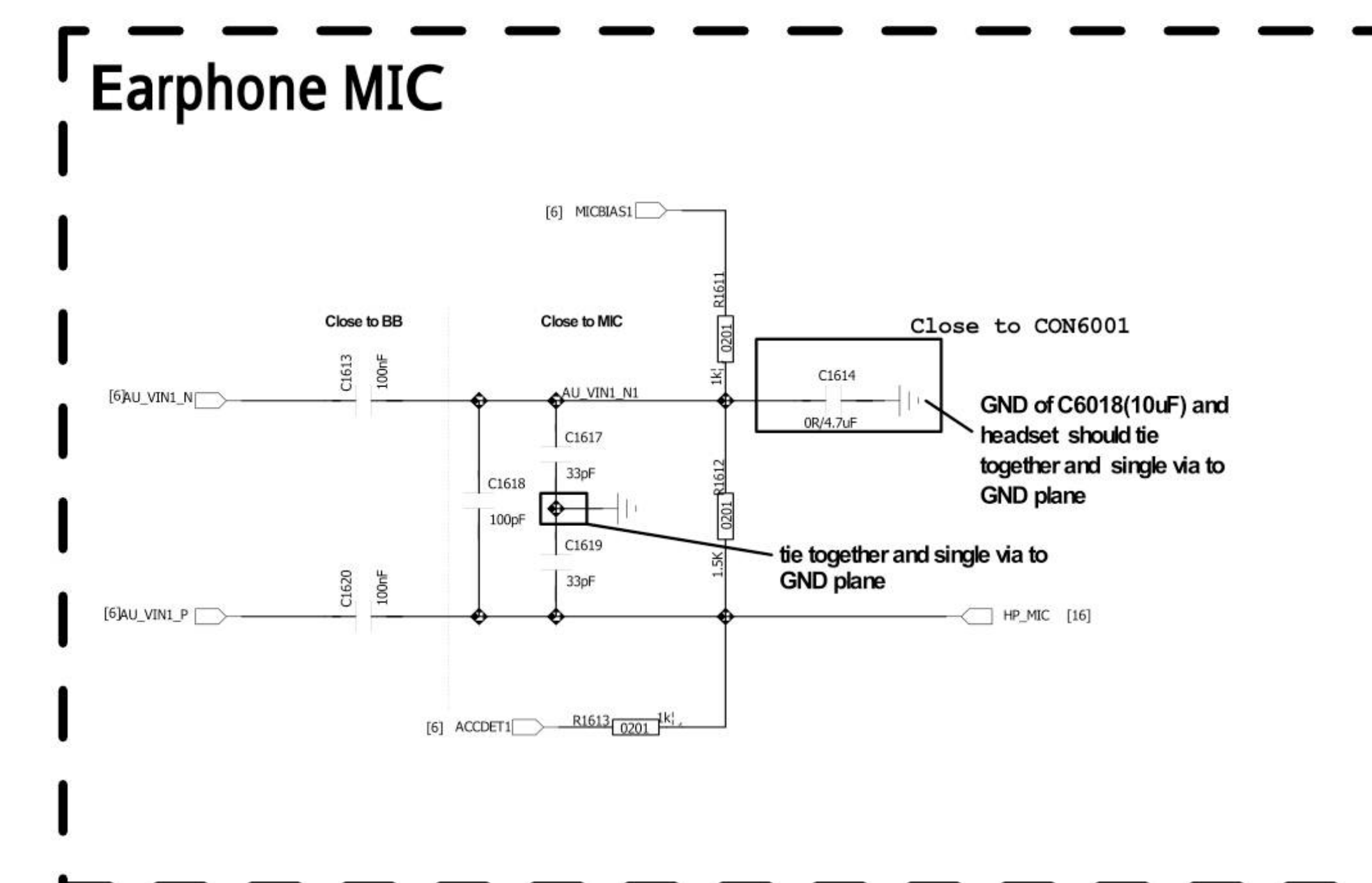
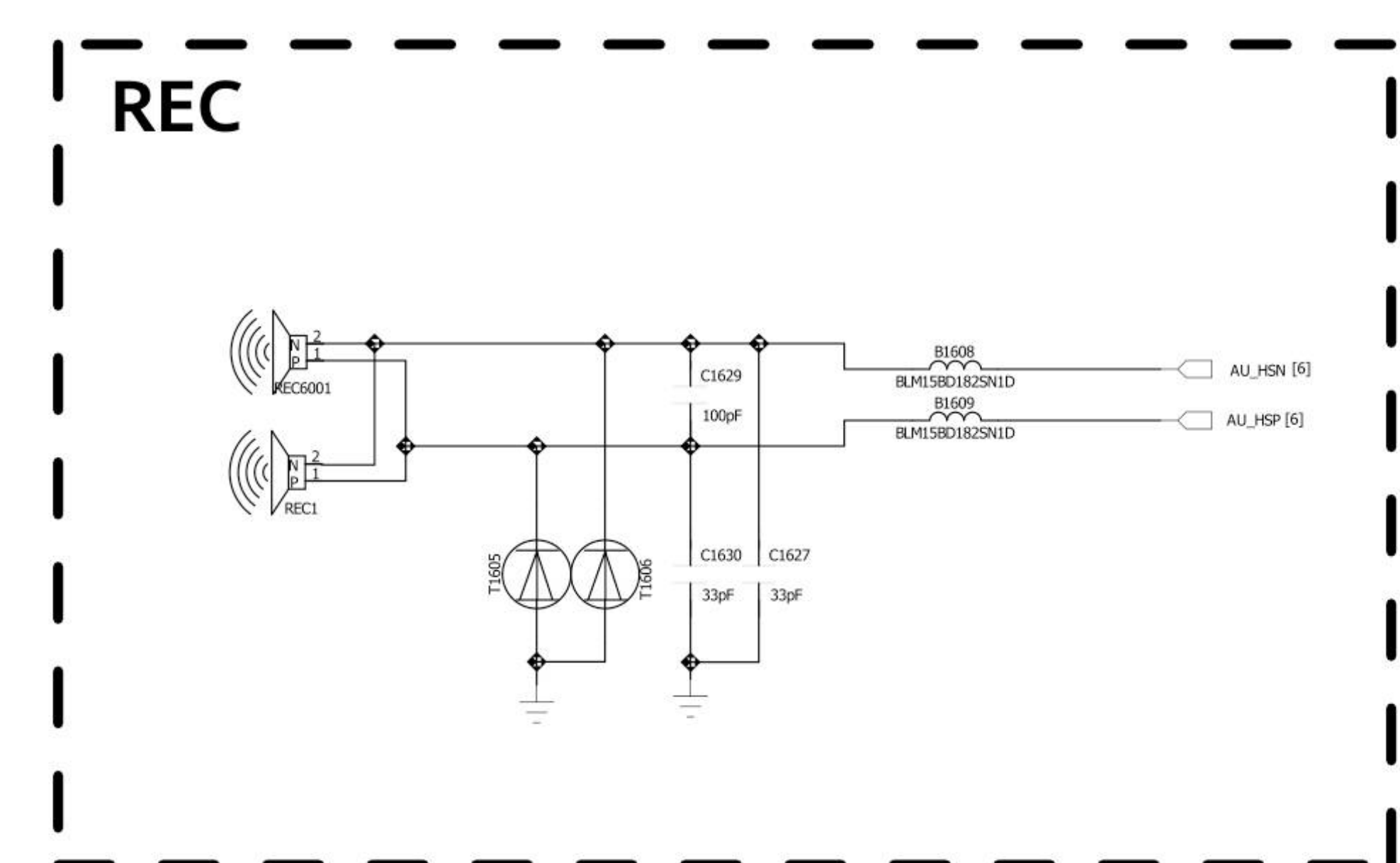
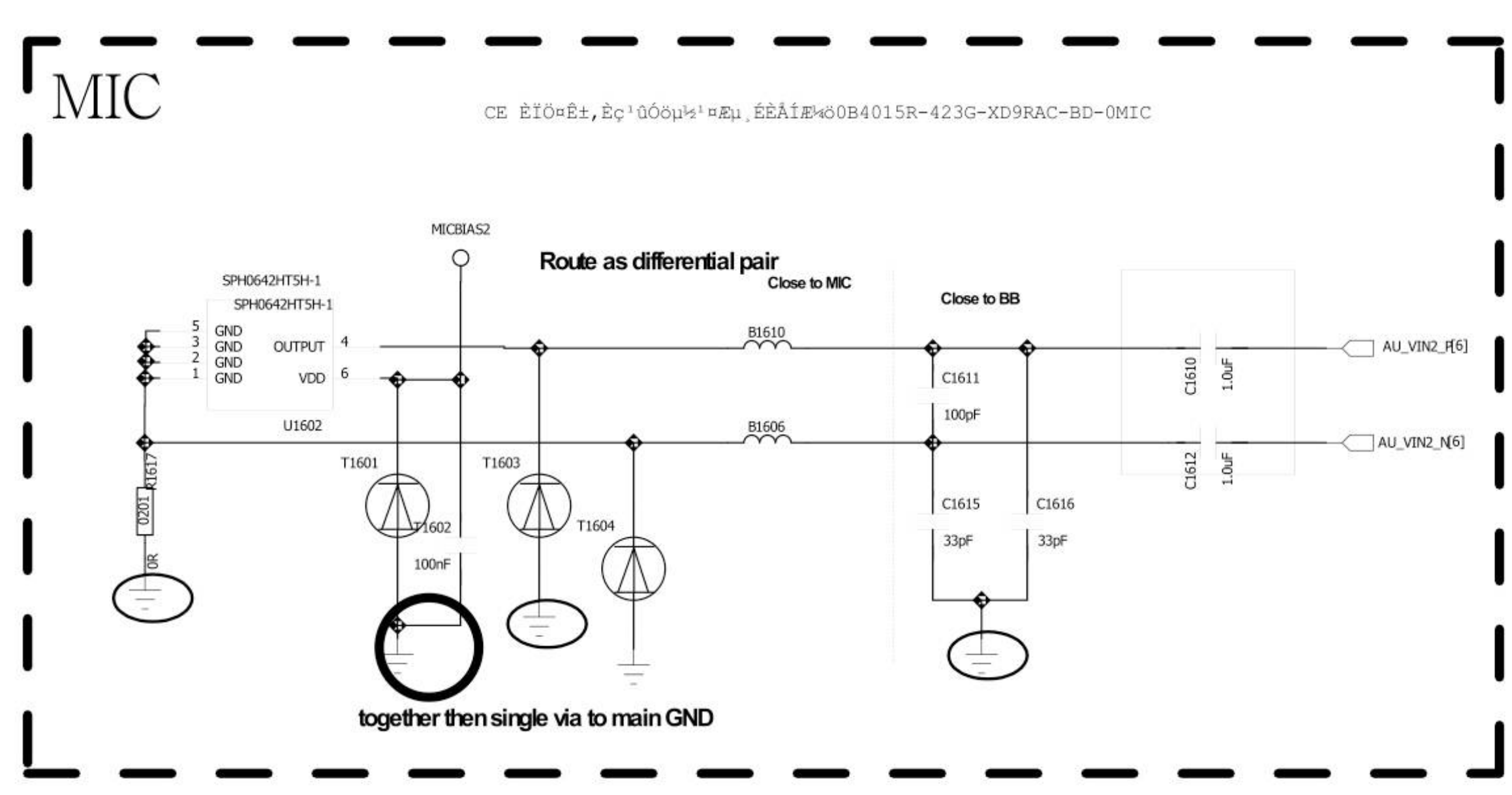
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REVISION RECORD			
LT#	ECO NO.	APPROVED:	DATE:



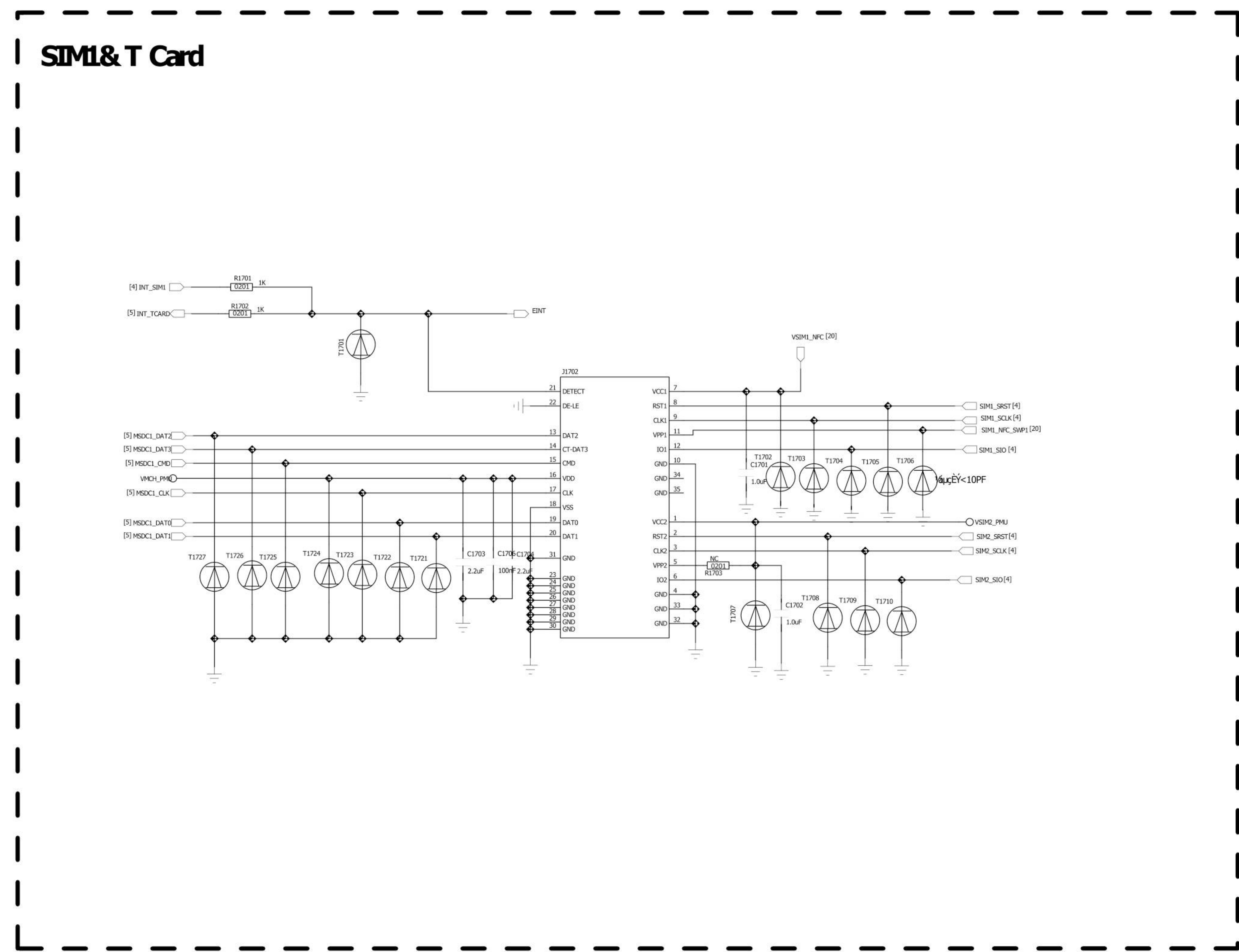
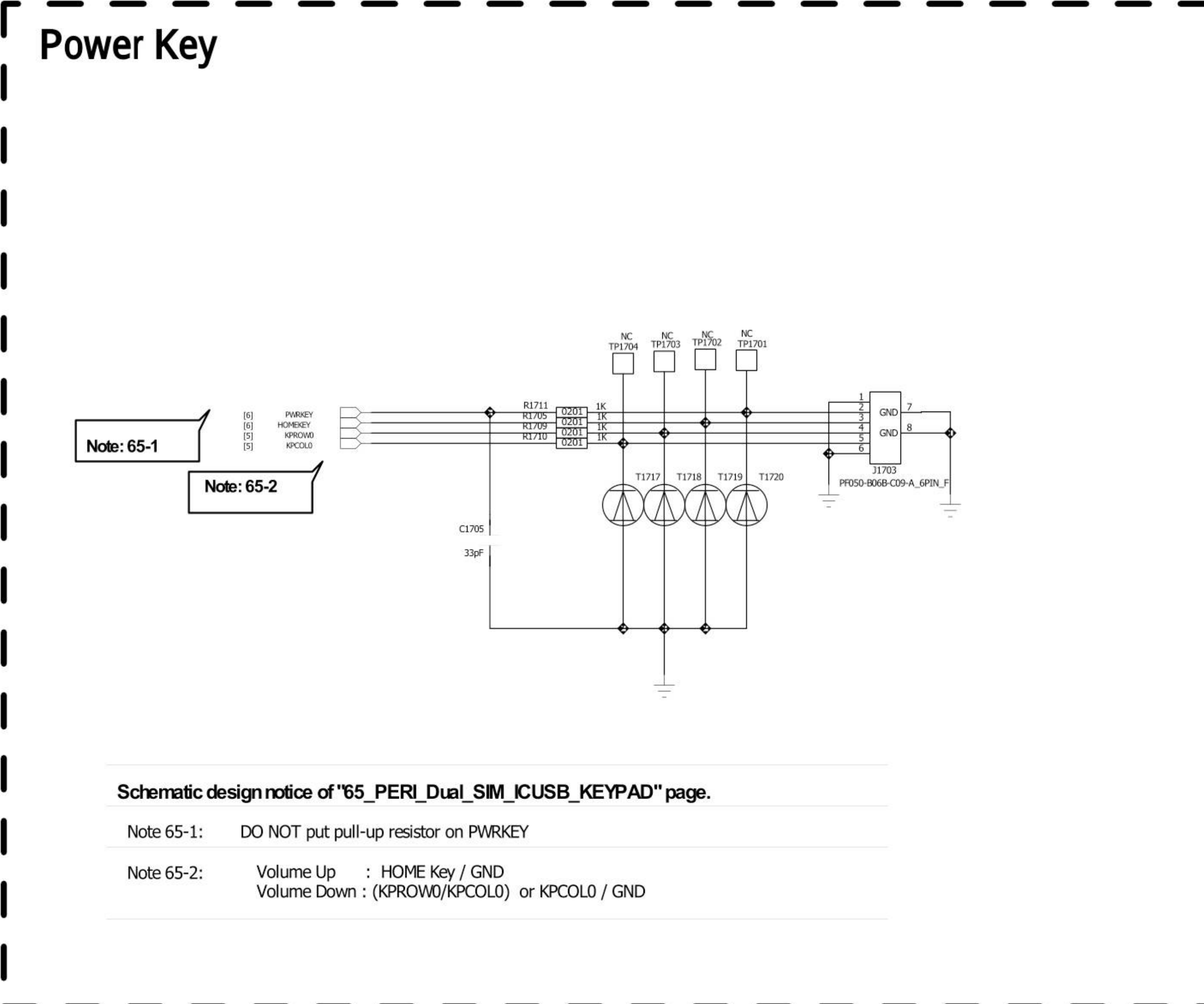
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REVISION RECORD			
LTN	ECO NO.	APPROVED	DATE



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LT#	ECO-NO.	APPROVED	DATE

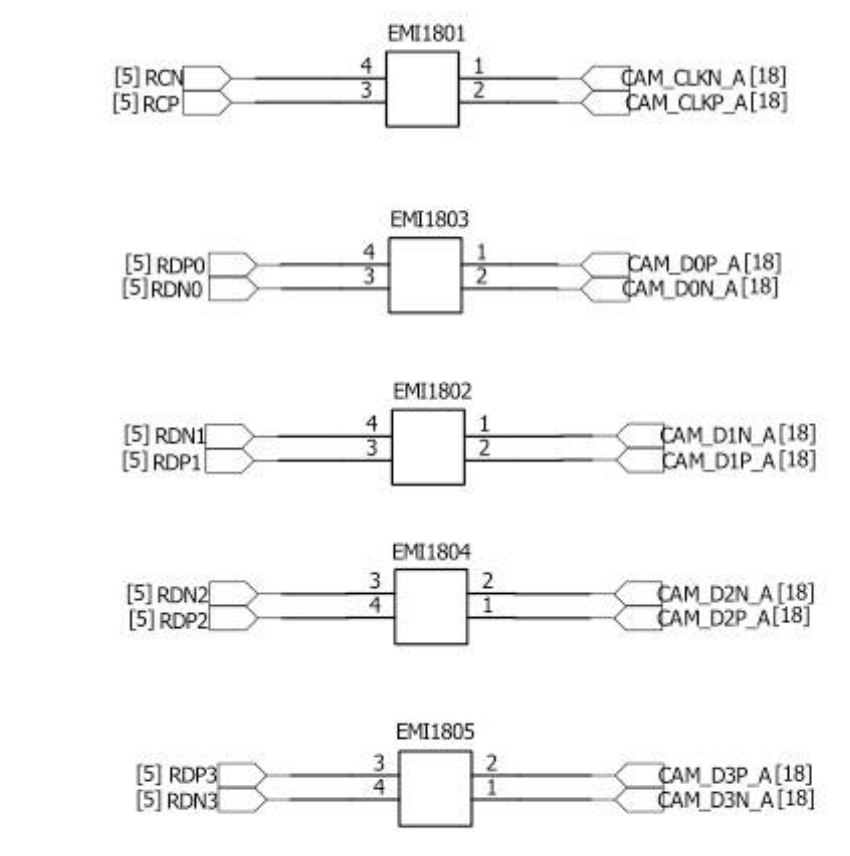
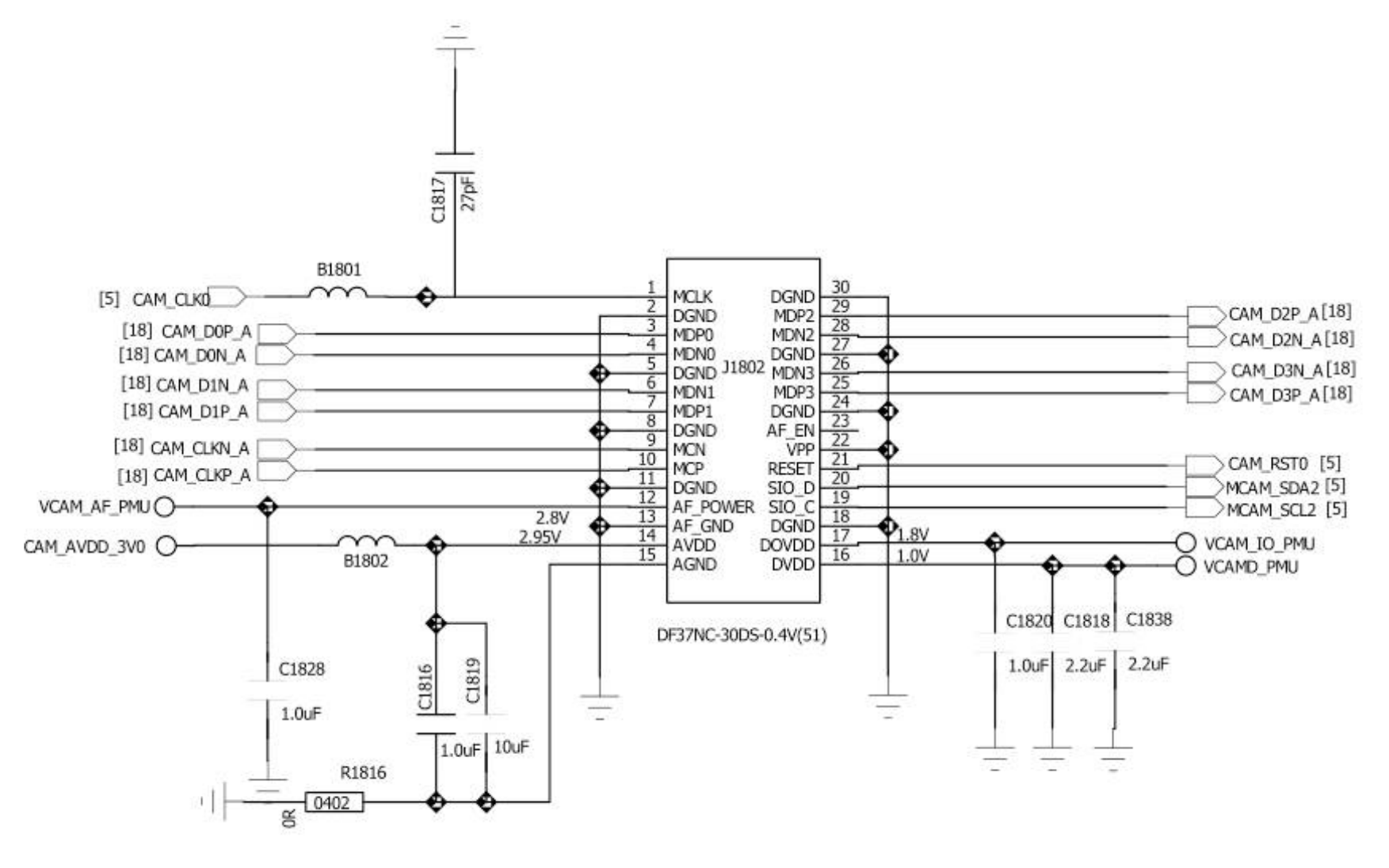


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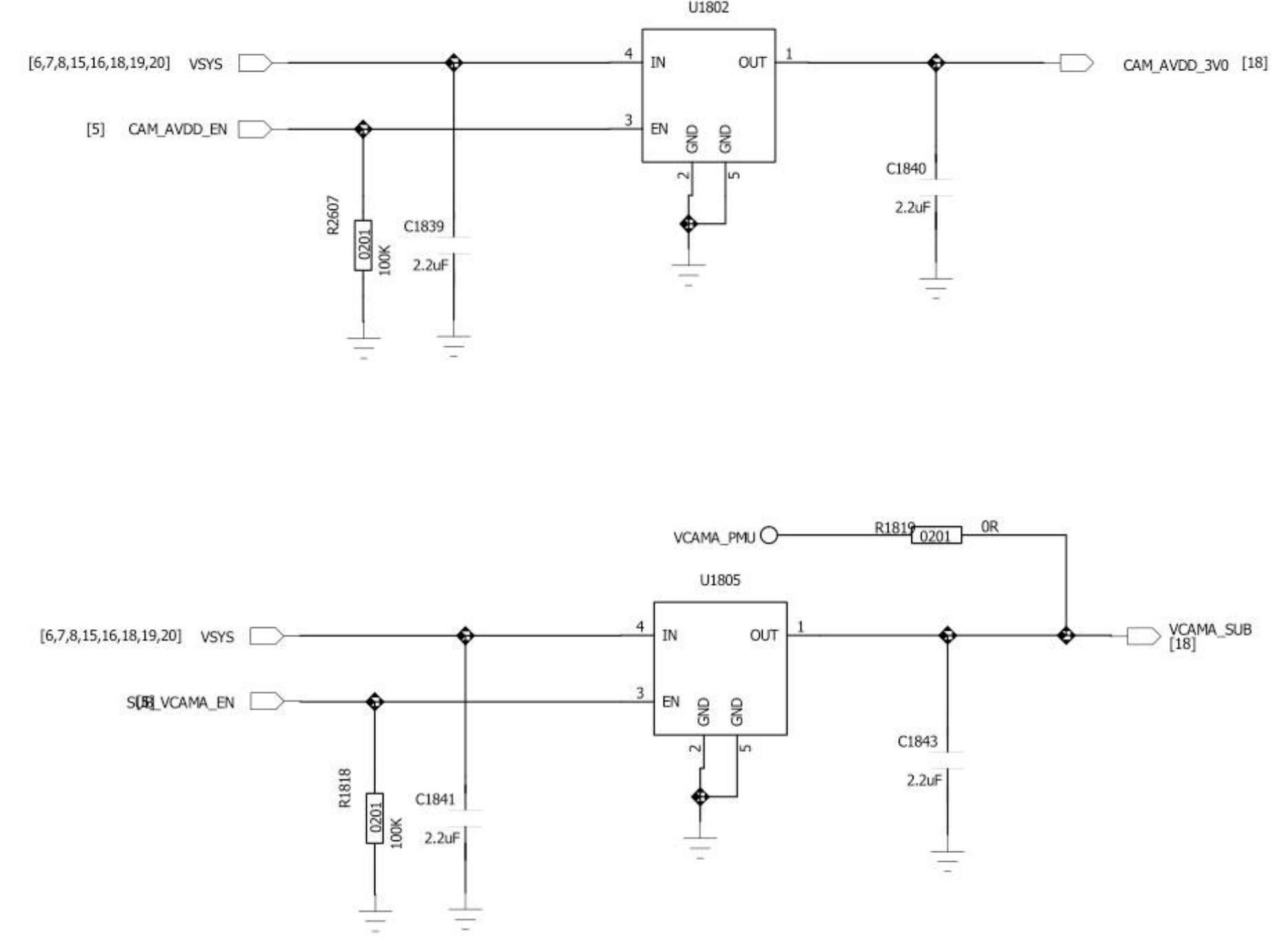
REVISION RECORD			
LTN	ECO NO.	APPROVED	DATE

Main Camera A

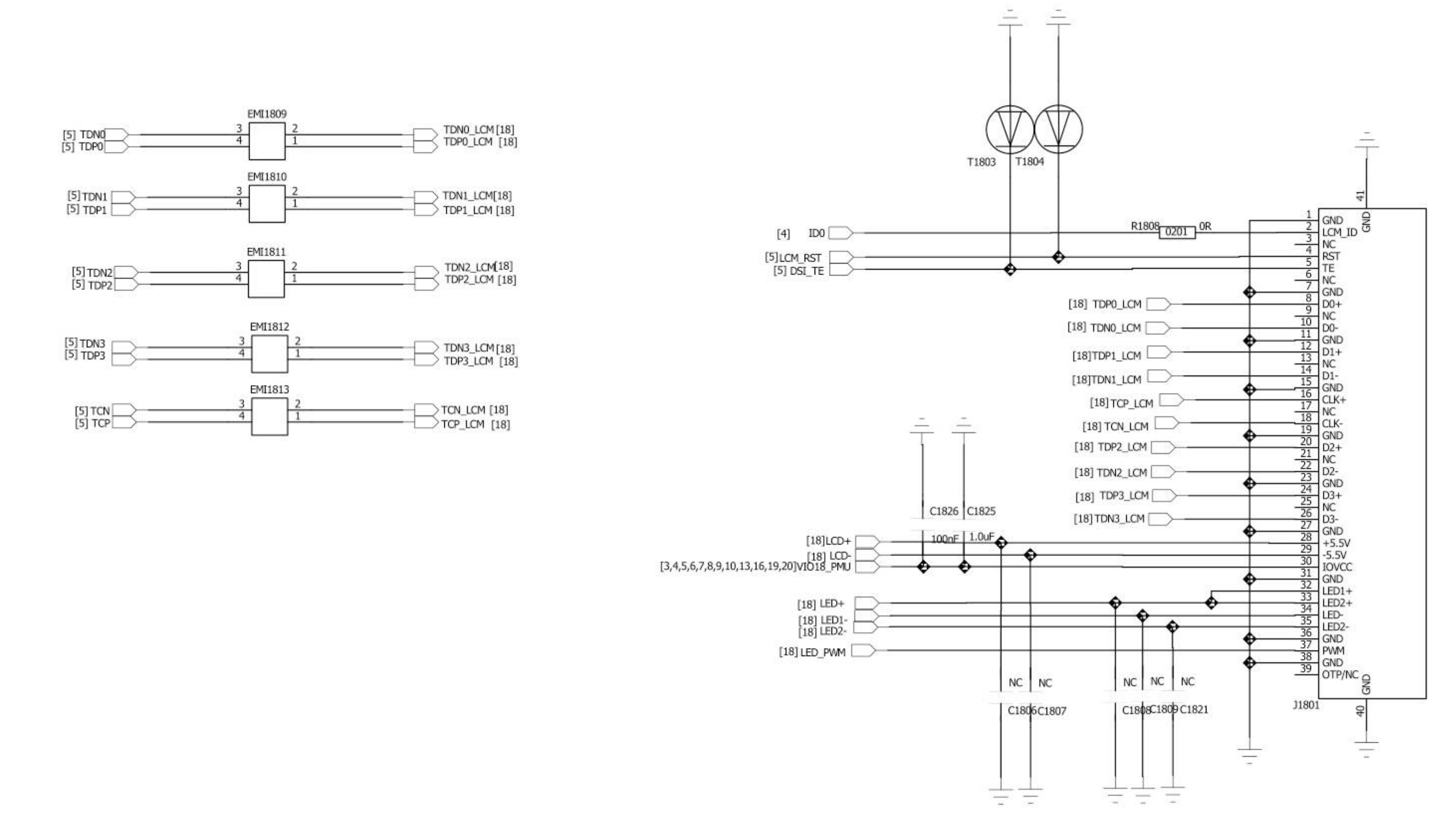
Main Camera



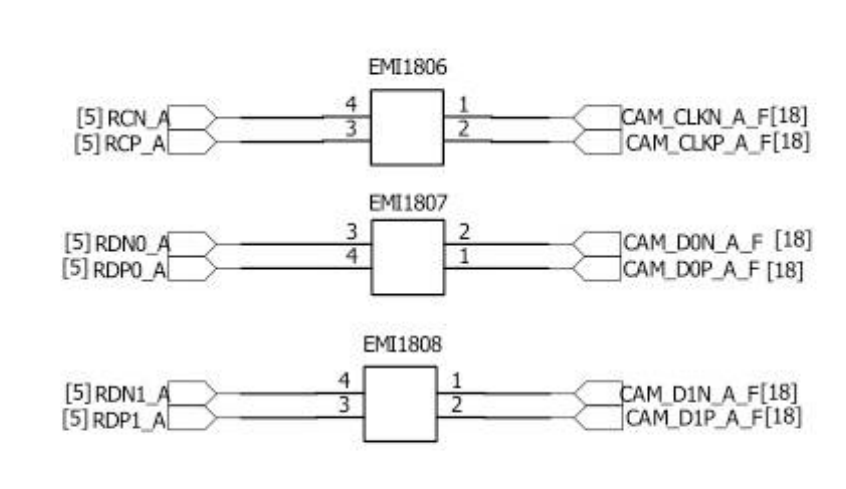
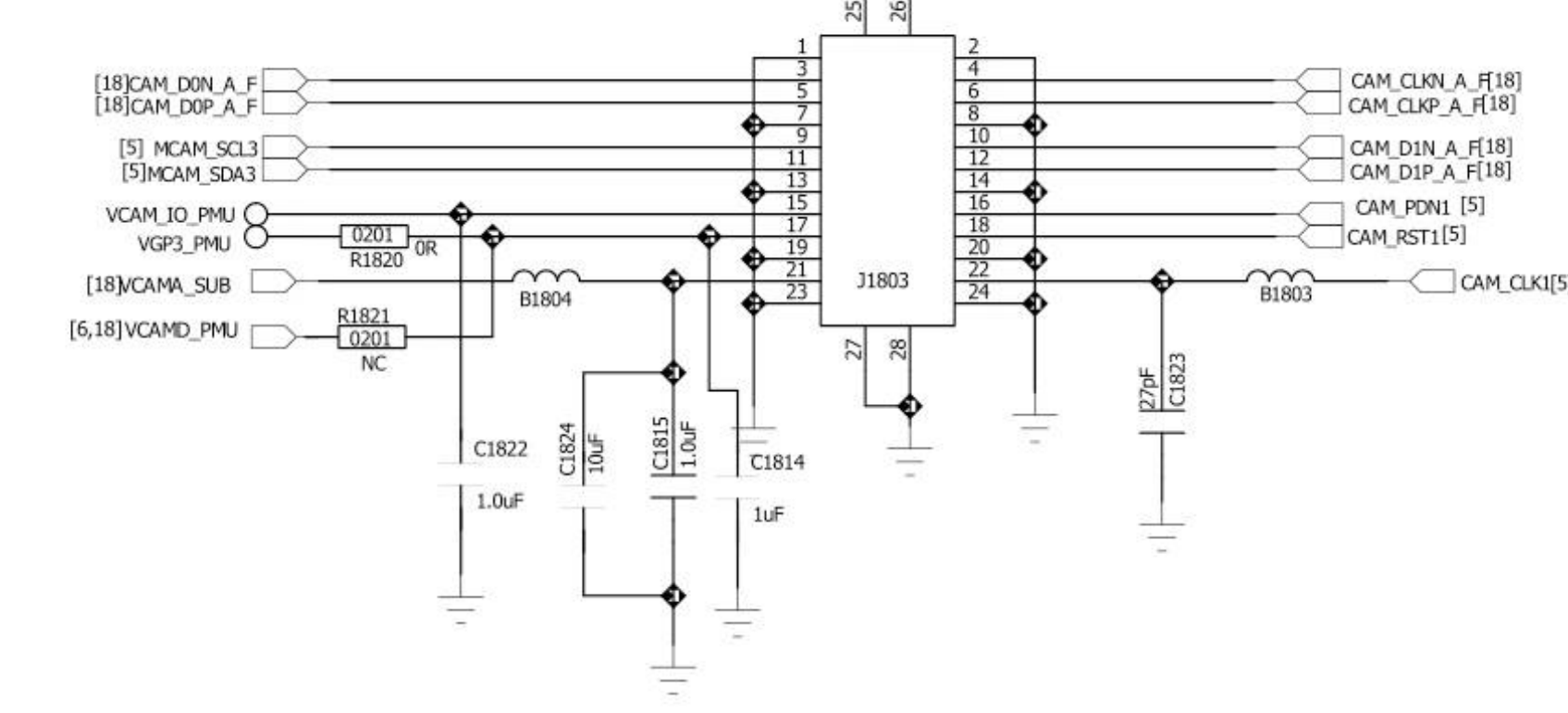
Main Camera AVDD



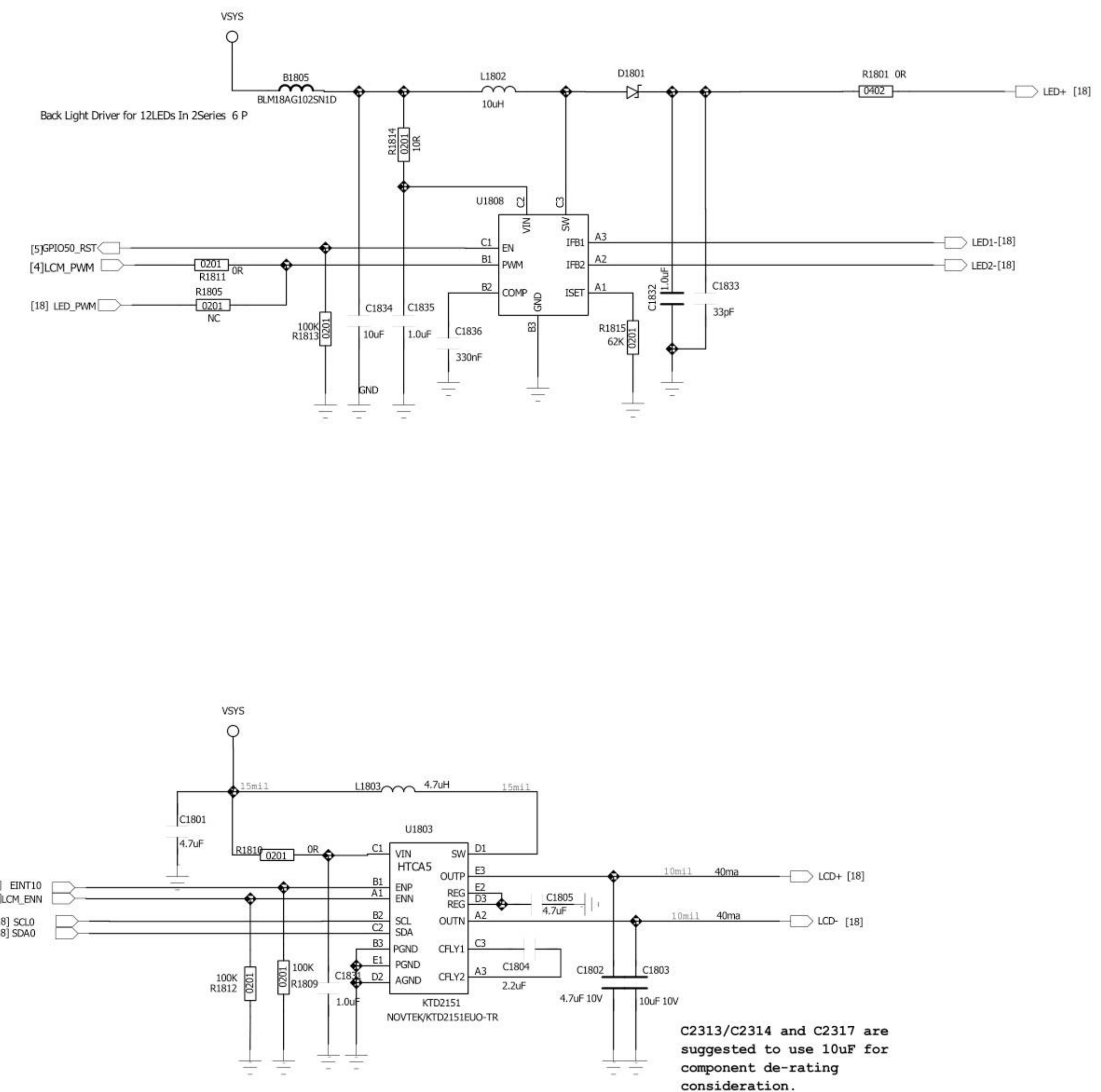
LCM



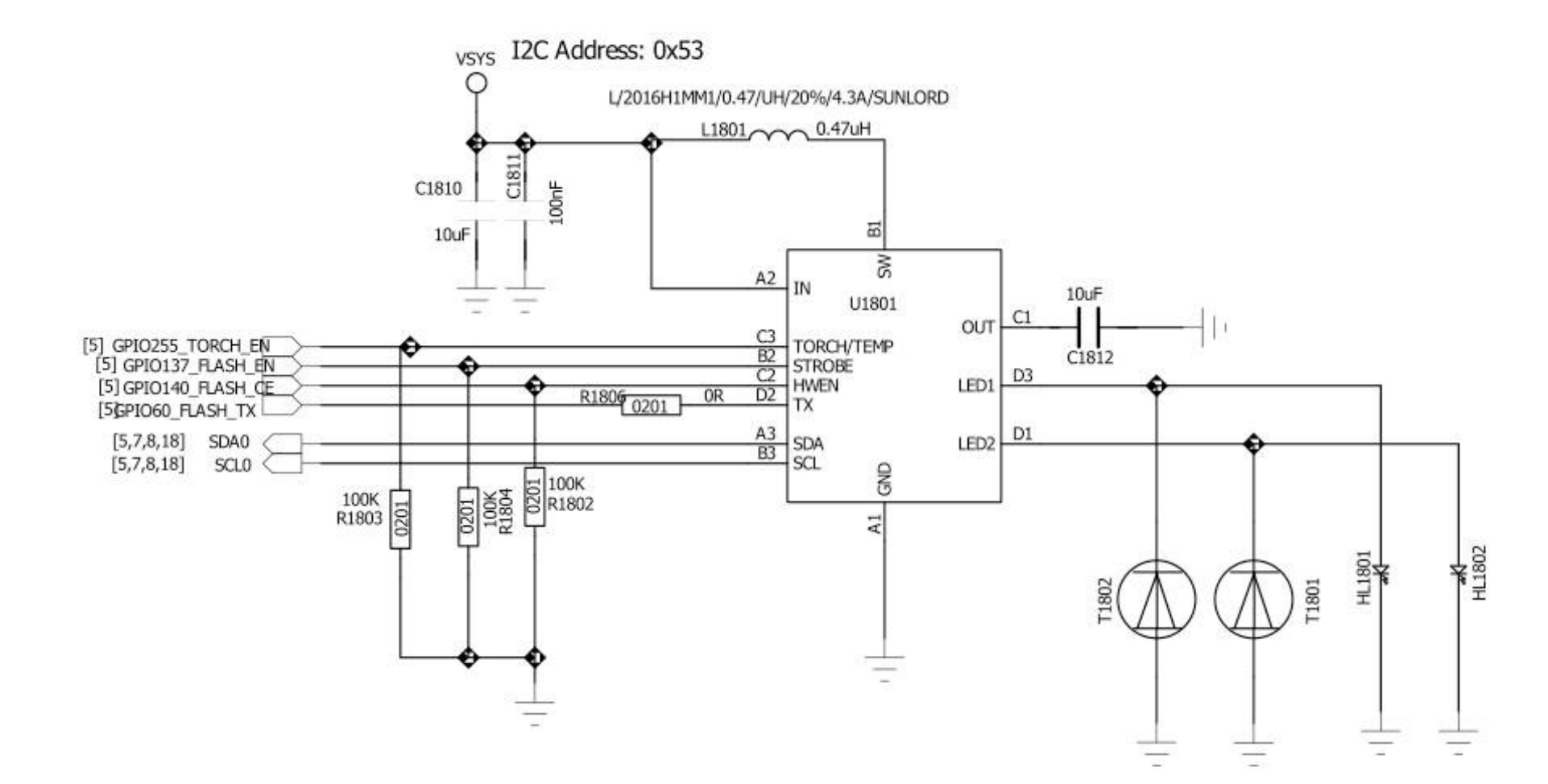
Front Camera



Black Light



Flash



Schematic design notice of "63_PERI_CAMERA_KEYPAD" page.

Note 62-1: The VCC of I2C_0 is pulled to "VCAM_IO_PMU".

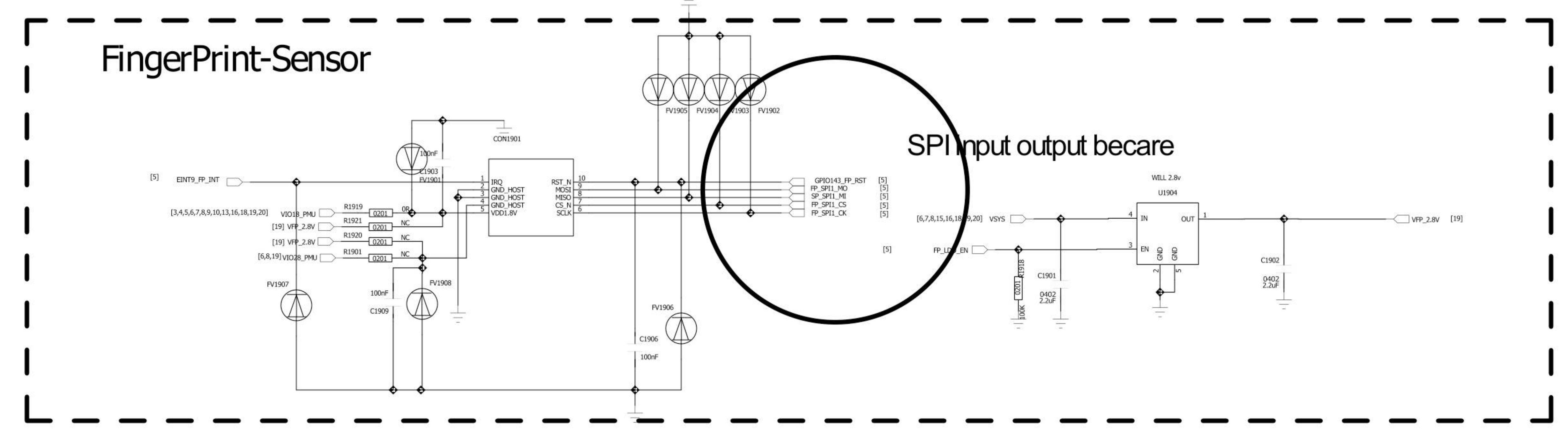
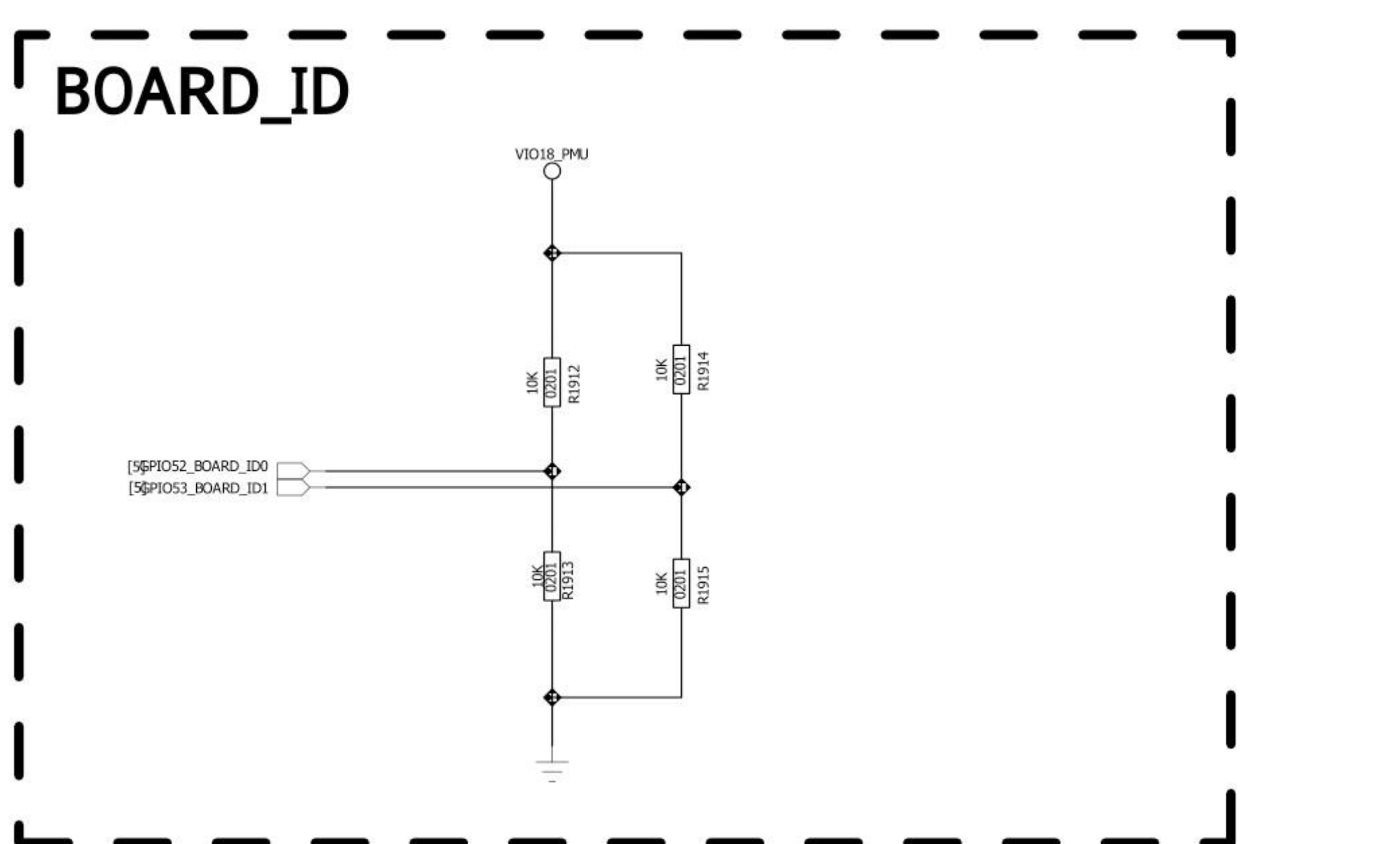
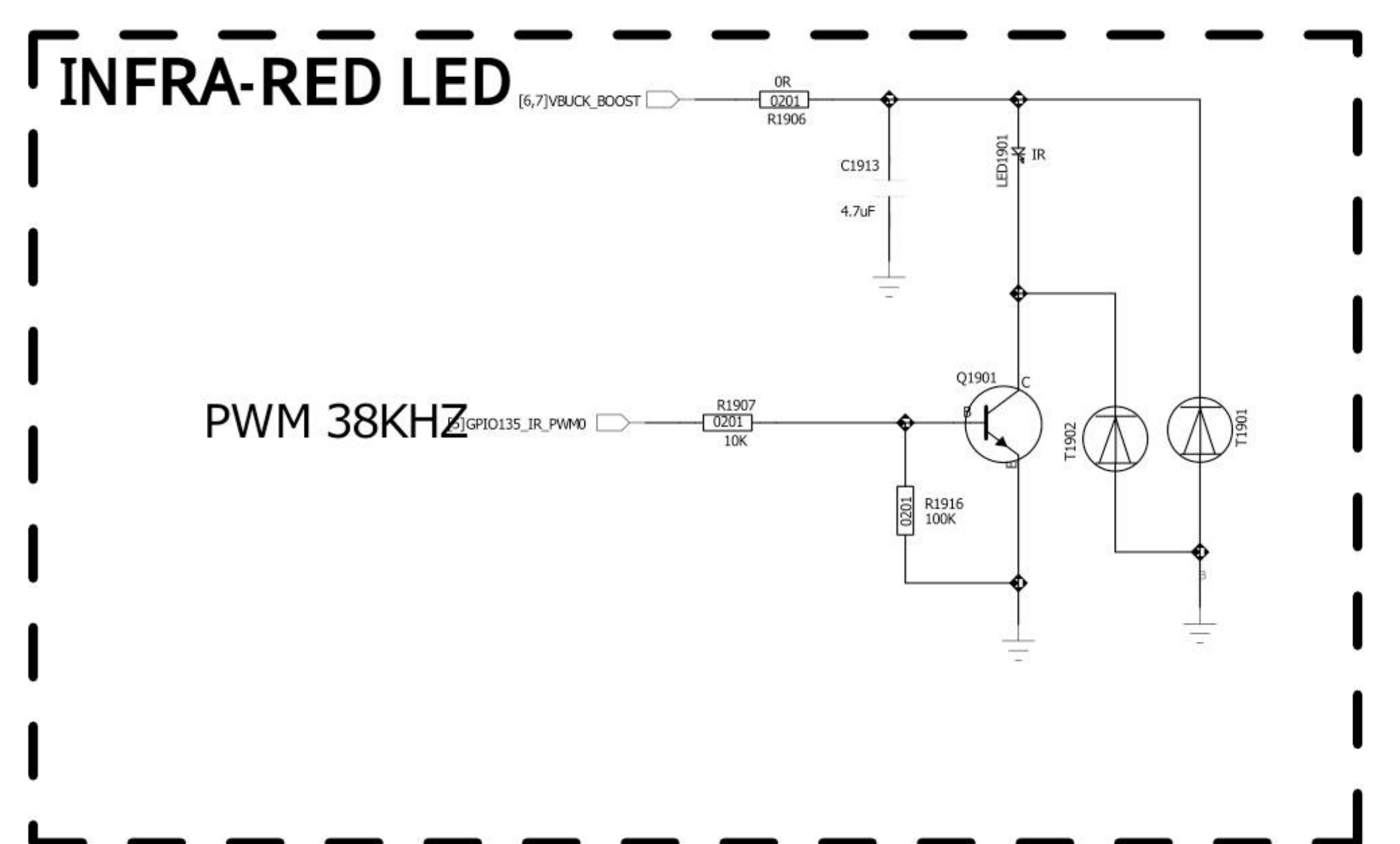
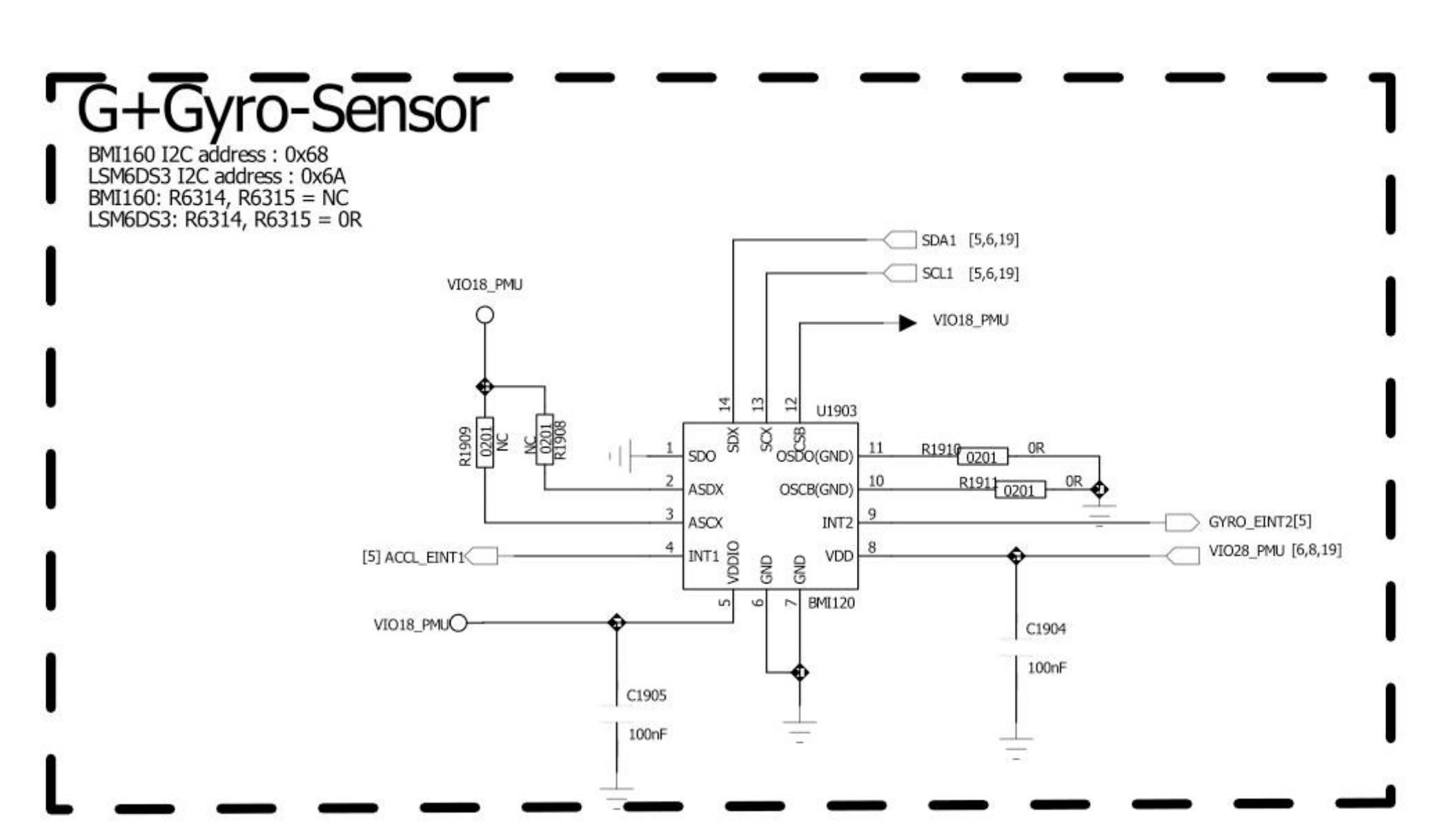
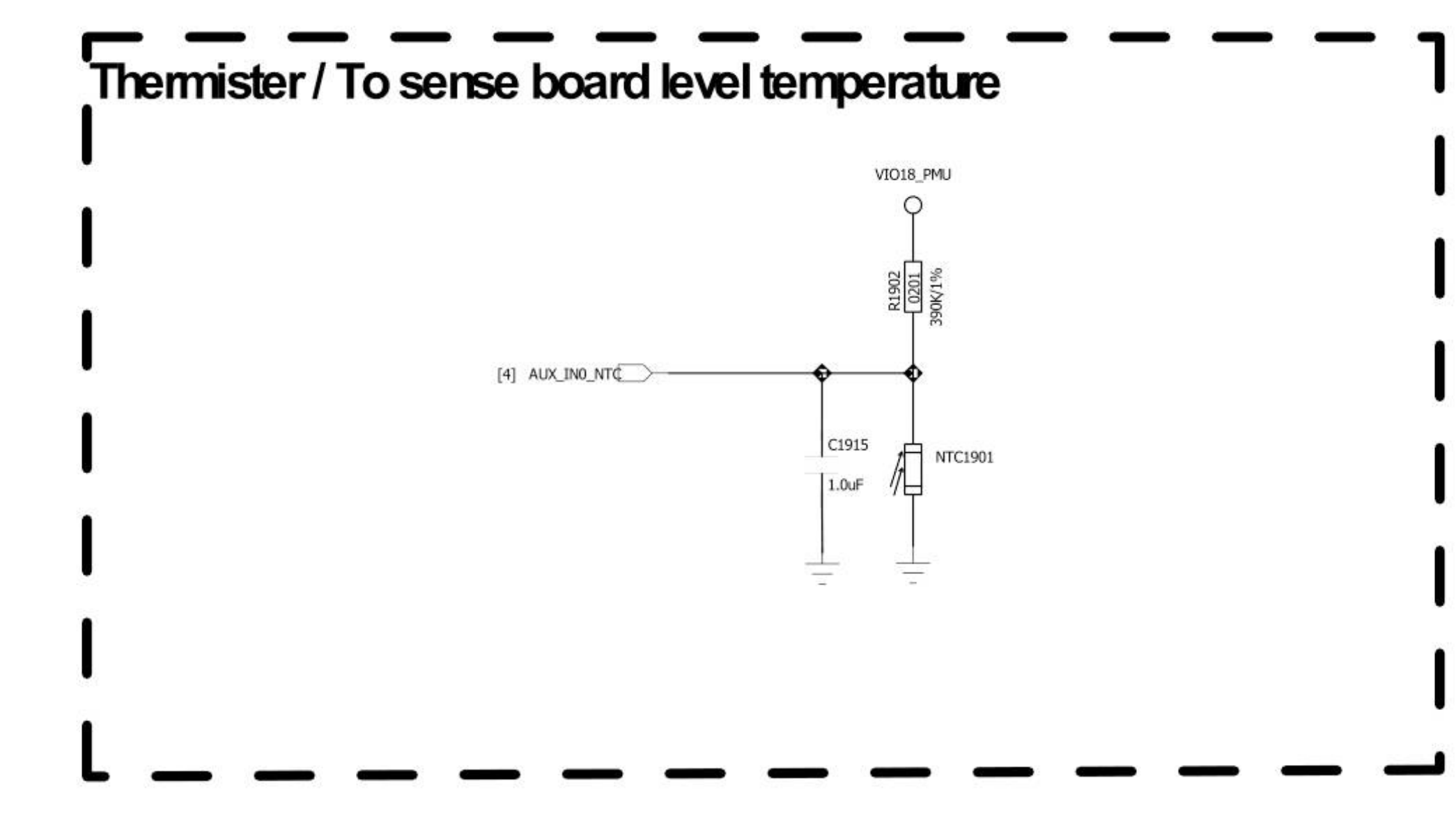
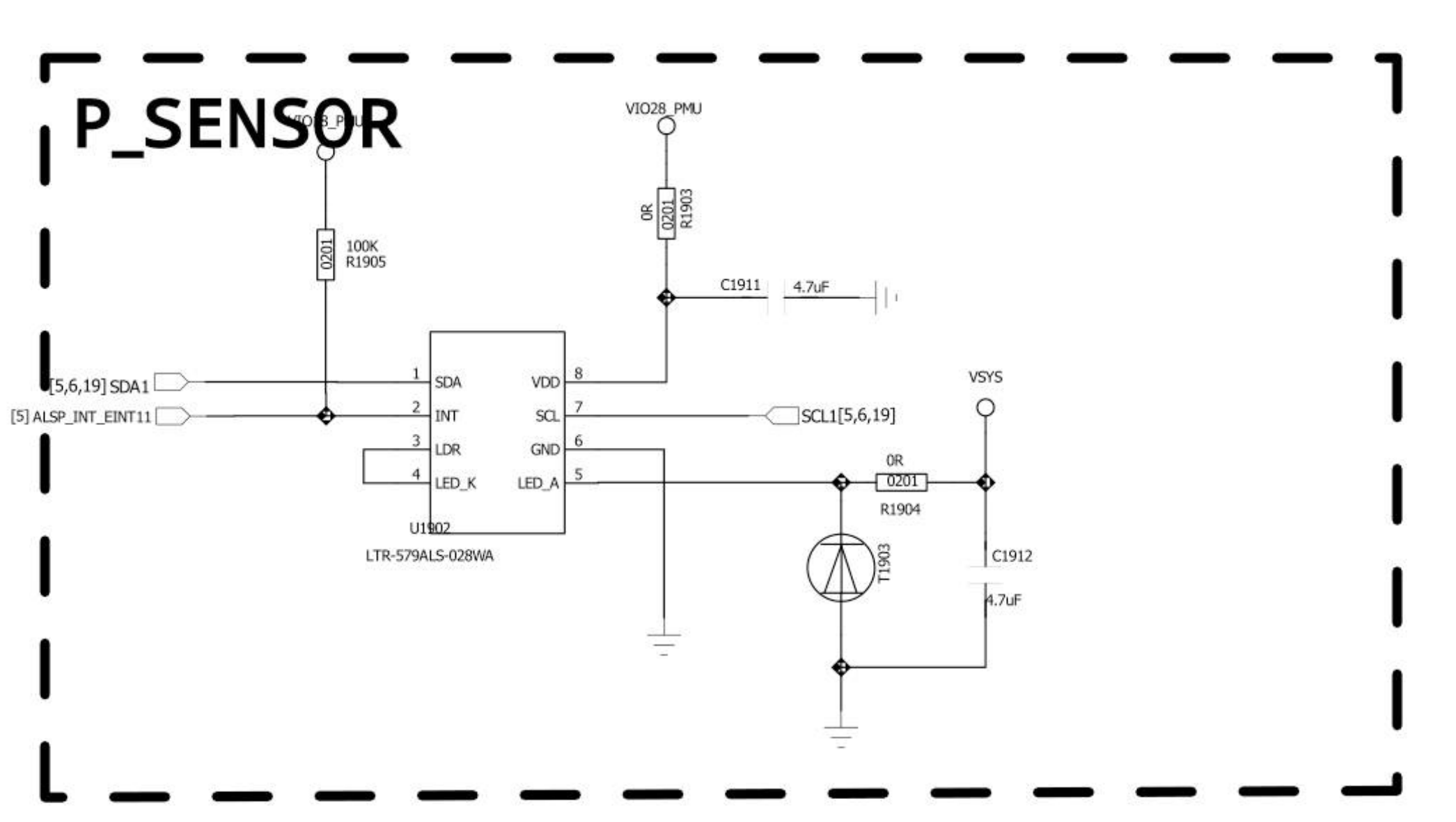
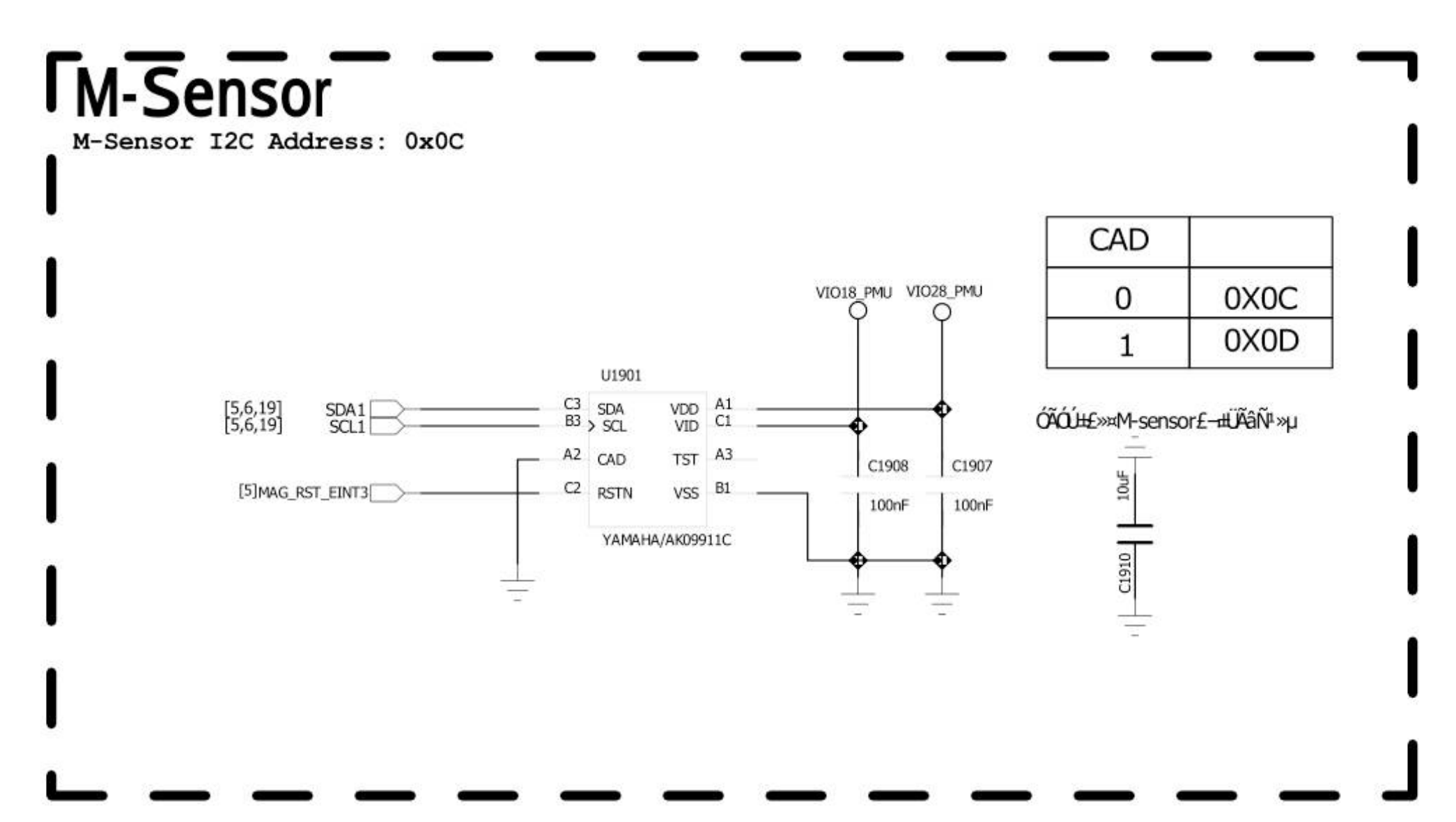
Note 62-2: I2C control interface of front camera (with AF) must be assigned to I2C-2 bus when PIP/IVV feature be supported.

Note 62-3: Reserve a capacitor (27pF) on camera's MCLK and shunt it to GND to prevent GPS de-sense.

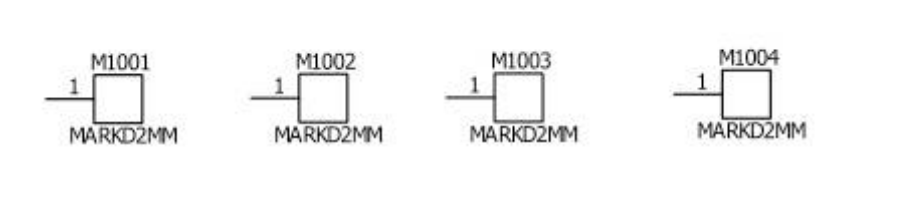
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SCALE: <Scale>		REV: <Revision>	

COMPONENT: LC
 MODEL: CX880

REVISION RECORD			
LT#	ECO NO.	APPROVED	DATE



MARK POINT



DRAWN: <Drawn By>		DATED: <Drawn Date>		COMPANY: LC	
CHECKED: <Checked By>		DATED: <Checked Date>		TITLE: CX880	
QUALITY CONTROL:	<QC By>	CODE:	SIZE:	DRAWING NO:	REV:
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