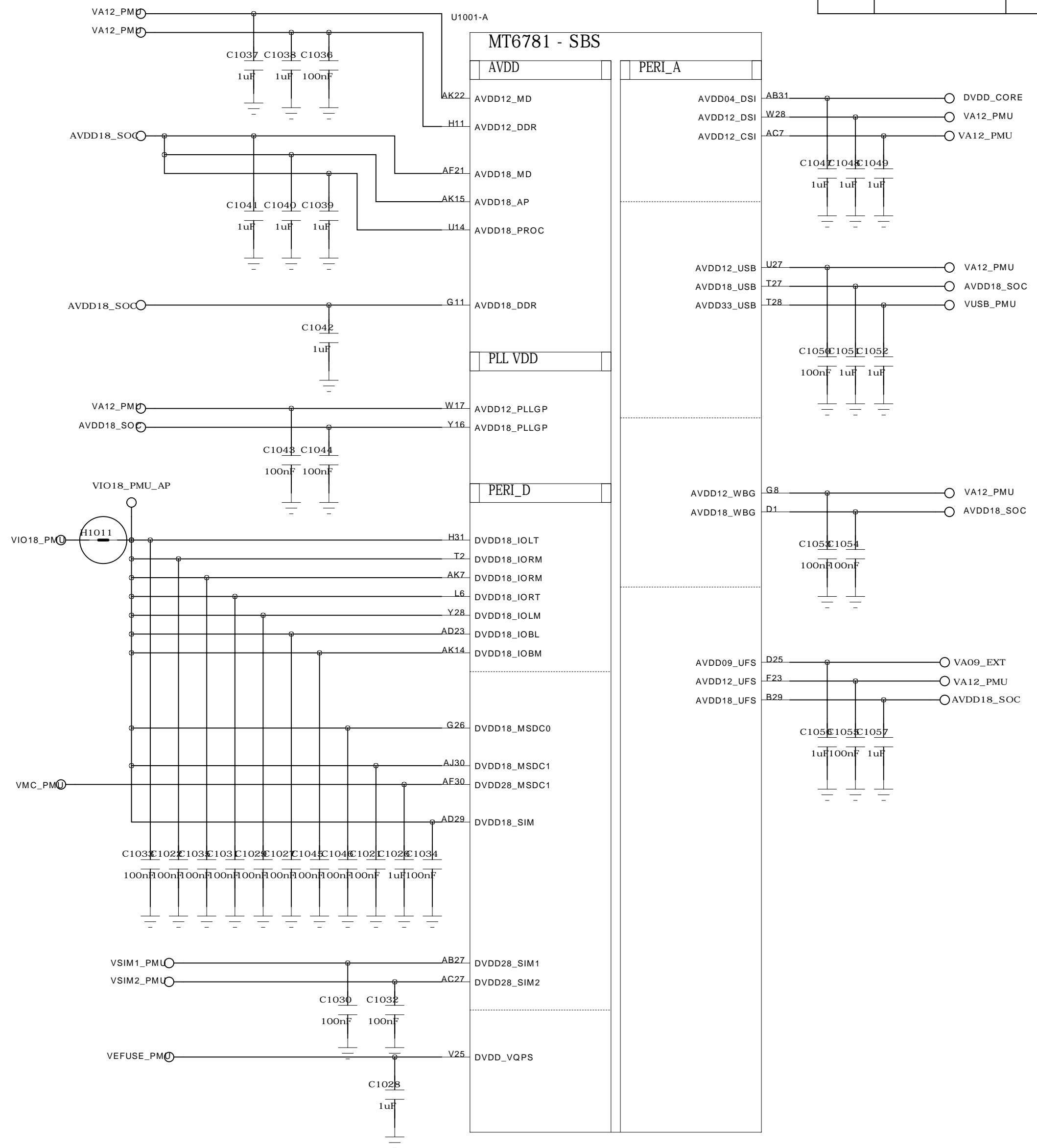
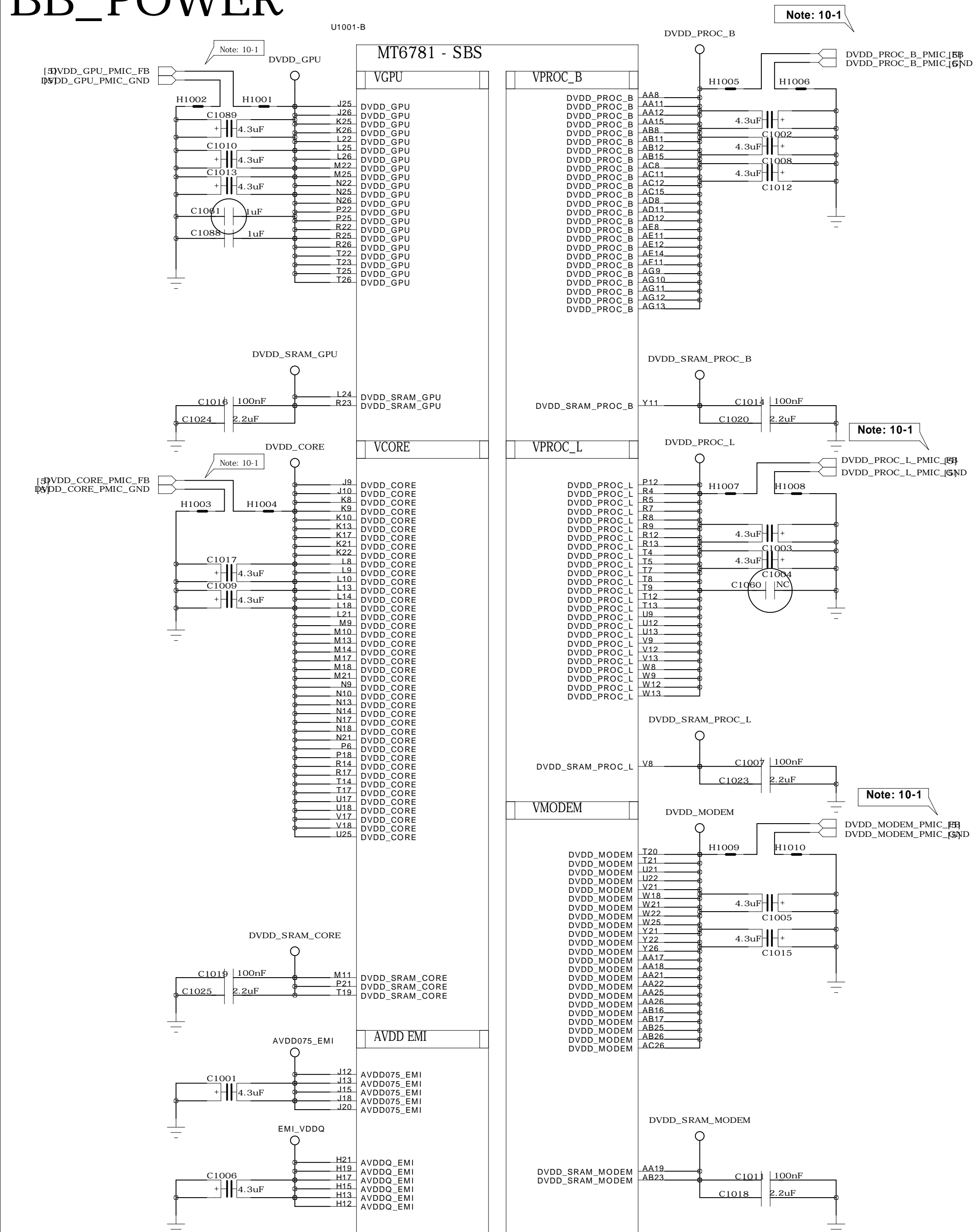


BB POWER

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



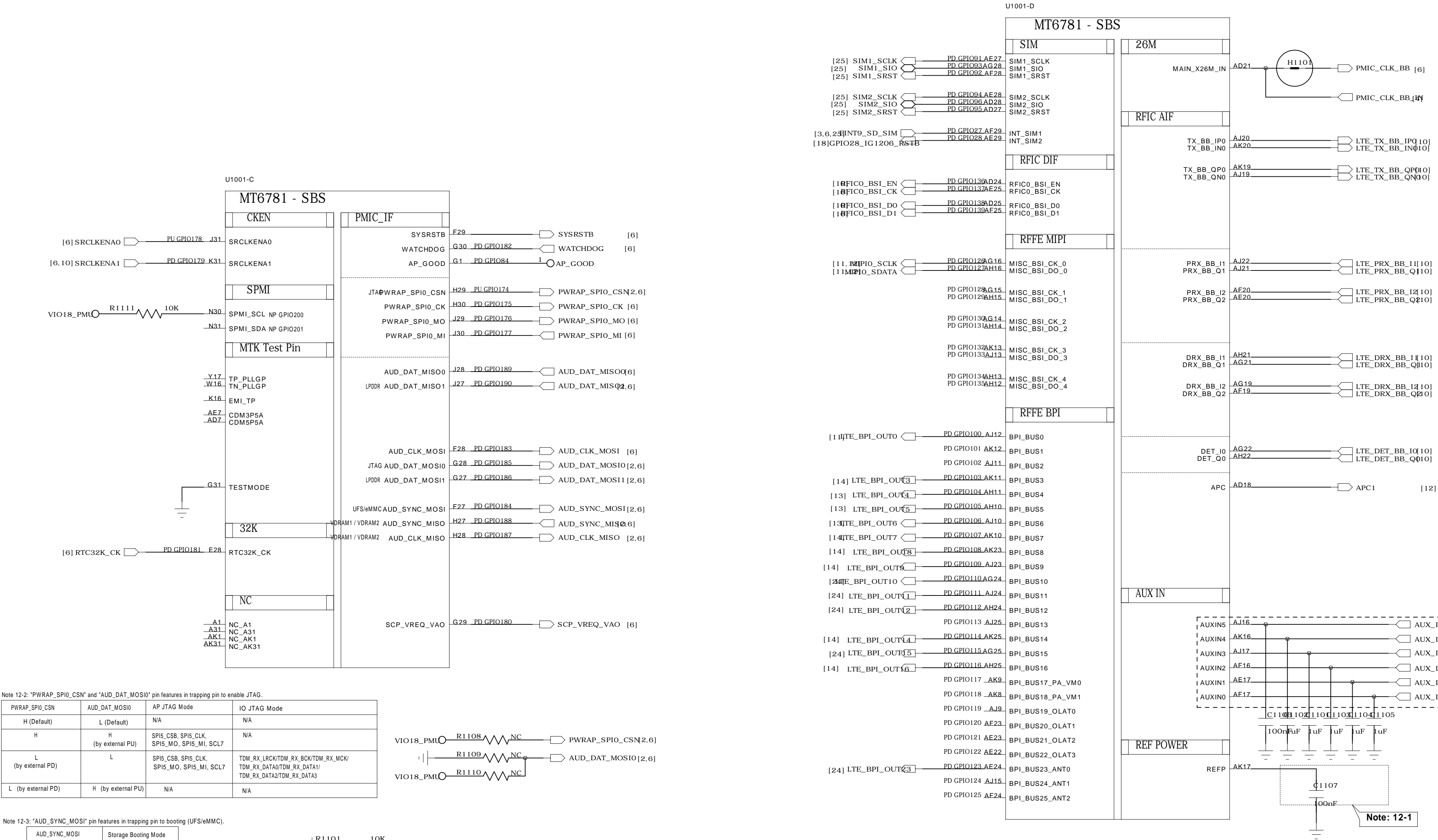
SHIELDING & LOGO & SN & MARK

The diagram shows a top-down view of a rectangular PCB with various components and markings. The components are represented by squares and circles, some with internal details. The markings are text labels placed around the components. The components and their markings are:

- SH-BB (Square)
- SH-AUDIOSH-WCN (Square)
- SH-LCM (Square)
- SH-SIM (Square with a circle around it)
- TL1001 (Square)
- WPL1001 (Square)
- MARK100 (Square)
- MARK1002 (Square)
- MARK1003 (Square)
- MARK1004 (Square)
- SN1 (Square)
- SH-COMSH-M-SEN (Square)
- SH-PMU (Square)
- SH-RF2 (Square)
- SH-RF1 (Square with a circle around it)
- TRANSSION-2.5H (Square)

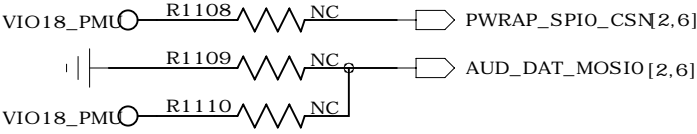
COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 10_BB_POWER		VERSION: V1.2	SHEET: 1 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

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LTR	ECO NO:	APPROVED:	DATE:



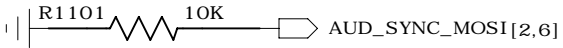
Note 12-2: "PWRAP_SPI0_CSN" and "AUD_DAT_MOSI0" pin features in trapping pin to enable JTAG.

PWRAP_SPI0_CSN	AUD_DAT_MOSI0	AP JTAG Mode	IO JTAG Mode
H (Default)	L (Default)	N/A	N/A
H	H (by external PU)	SPI5_CSB, SPI5_CLK, SPI5_MO, SPI5_MI, SCL7	N/A
L (by external PD)	L	SPI5_CSB, SPI5_CLK, SPI5_MO, SPI5_MI, SCL7	TDM_RX_LRCK/TDM_RX_BCK/TDM_RX_MCK/TDM_RX_DATA0/TDM_RX_DATA1/TDM_RX_DATA2/TDM_RX_DATA3
L (by external PD)	H (by external PU)	N/A	N/A



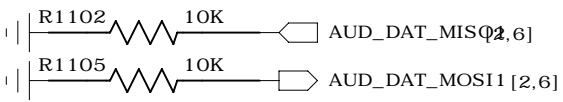
Note 12-3: "AUD_SYNC_MOSI" pin features in trapping pin to booting (UFS/eMMC).

AUD_SYNC_MOSI	Storage Booting Mode
L (Default)	Only UFS boot
H (by external PU)	Only eMMC boot



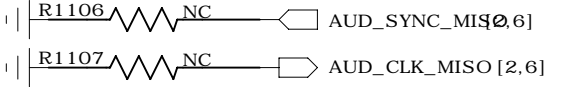
Note 12-4: "AUD_DAT_MOSI1" and "AUD_DAT_MISO1" pin features in trapping pin for SW co-load.

AUD_DAT_MOSI1	AUD_DAT_MISO1	Mode
L (Default)	L (Default)	LP4x-MCP-4266
L	H (by external PU)	LP4x-Discrete-3733
H (by external PU)	L	LP4x-Discrete-3200
H (by external PU)	H (by external PU)	Reserved / LP4x-MCP-3733



Note 12-5: "AUD_SYNC_MISO" and "AUD_CLK_MISO" pin features in trapping pin for PMIC voltage.

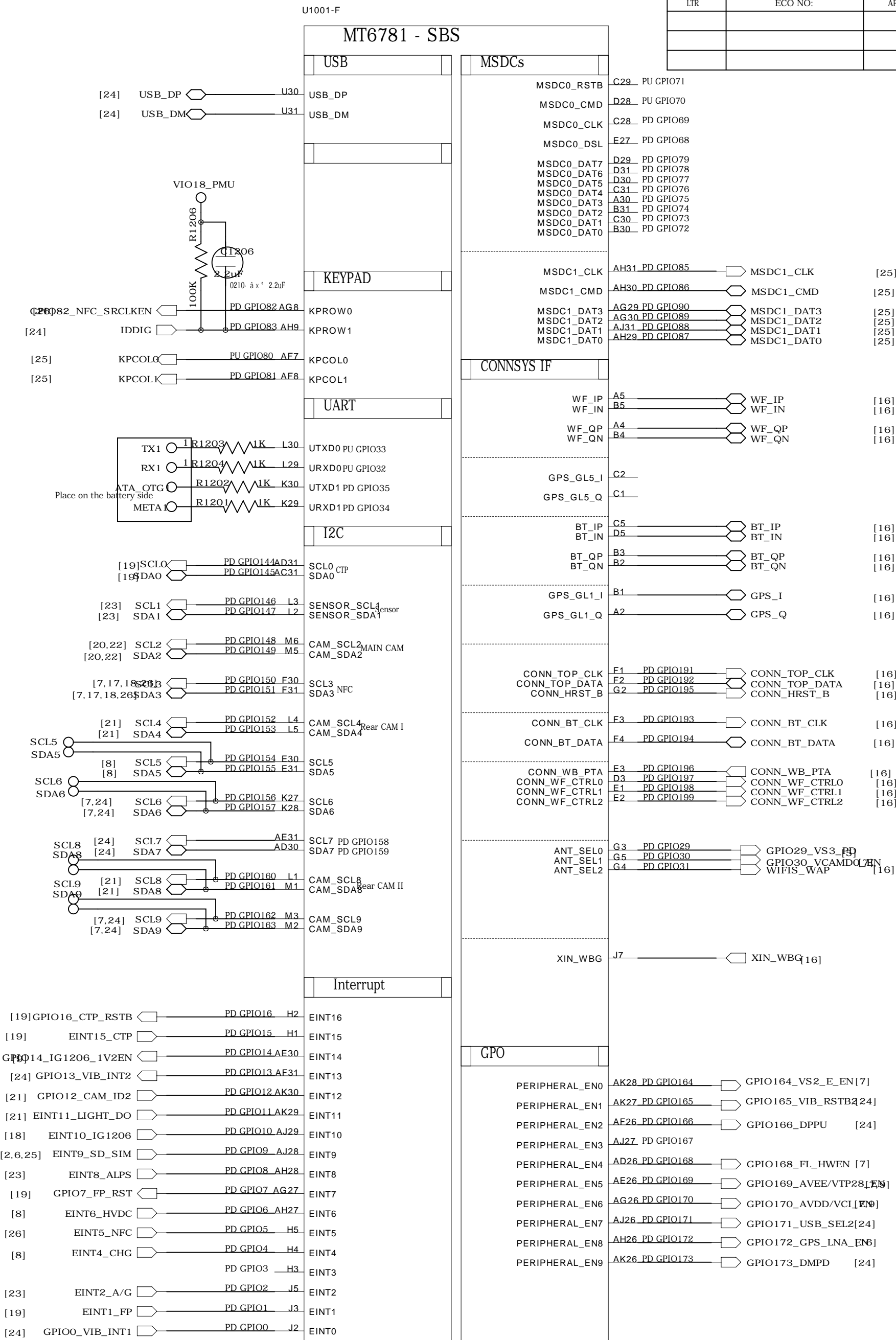
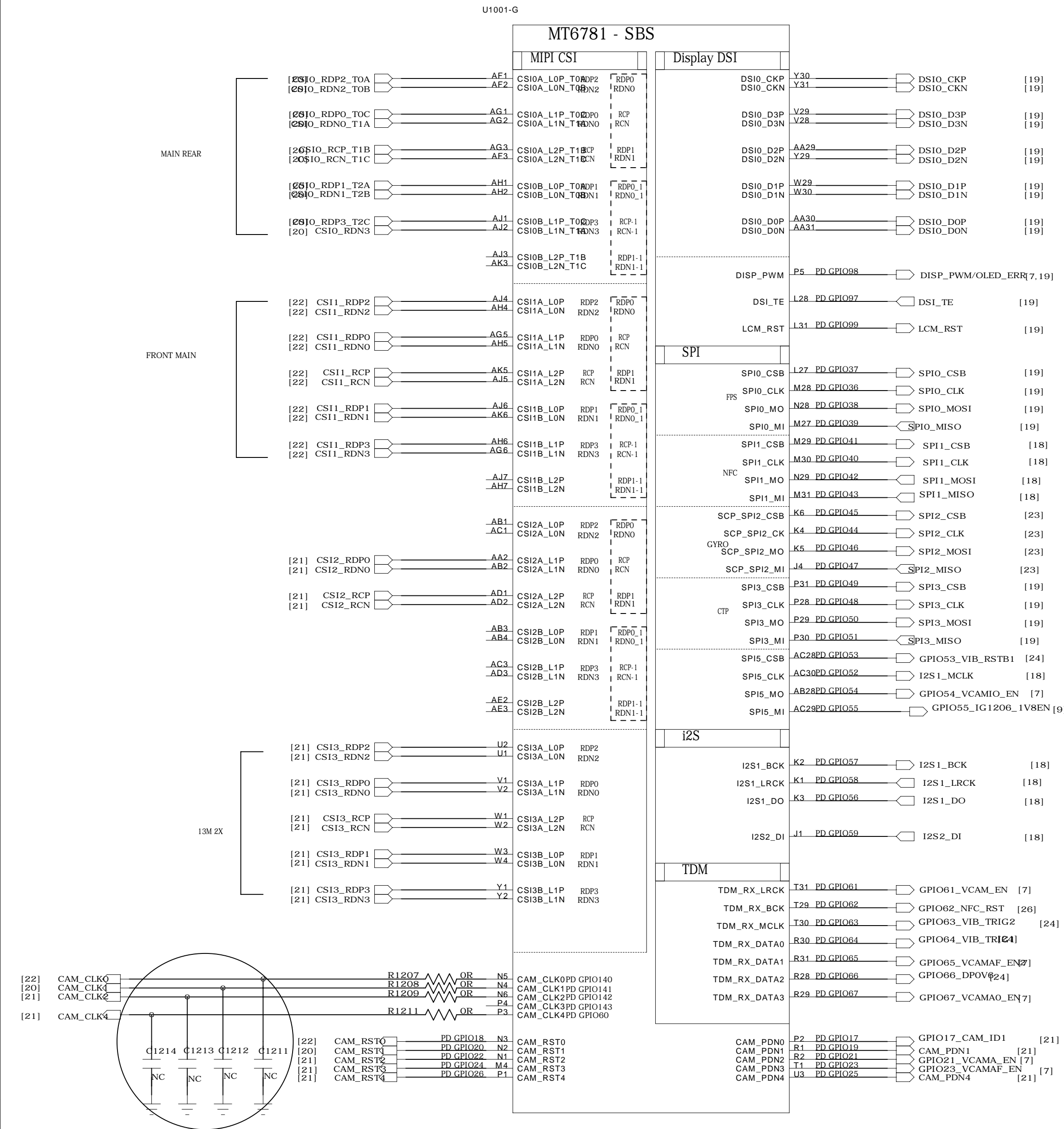
AUD_SYNC_MISO	AUD_CLK_MISO	VDRAM1 / VDRAM2
L (Default)	L (Default)	1.125v / 0.6v
L	H (by external PU)	OFF/ 1.8V
H (by external PU)	L	1.225v OFF
H (by external PU)	H (by external PU)	1.125v / 1.8v



COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 11_BB_I		VERSION: V1.2	SHEET: 2 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

BB_II

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



Schematic design notice of "13_BB_2" page.

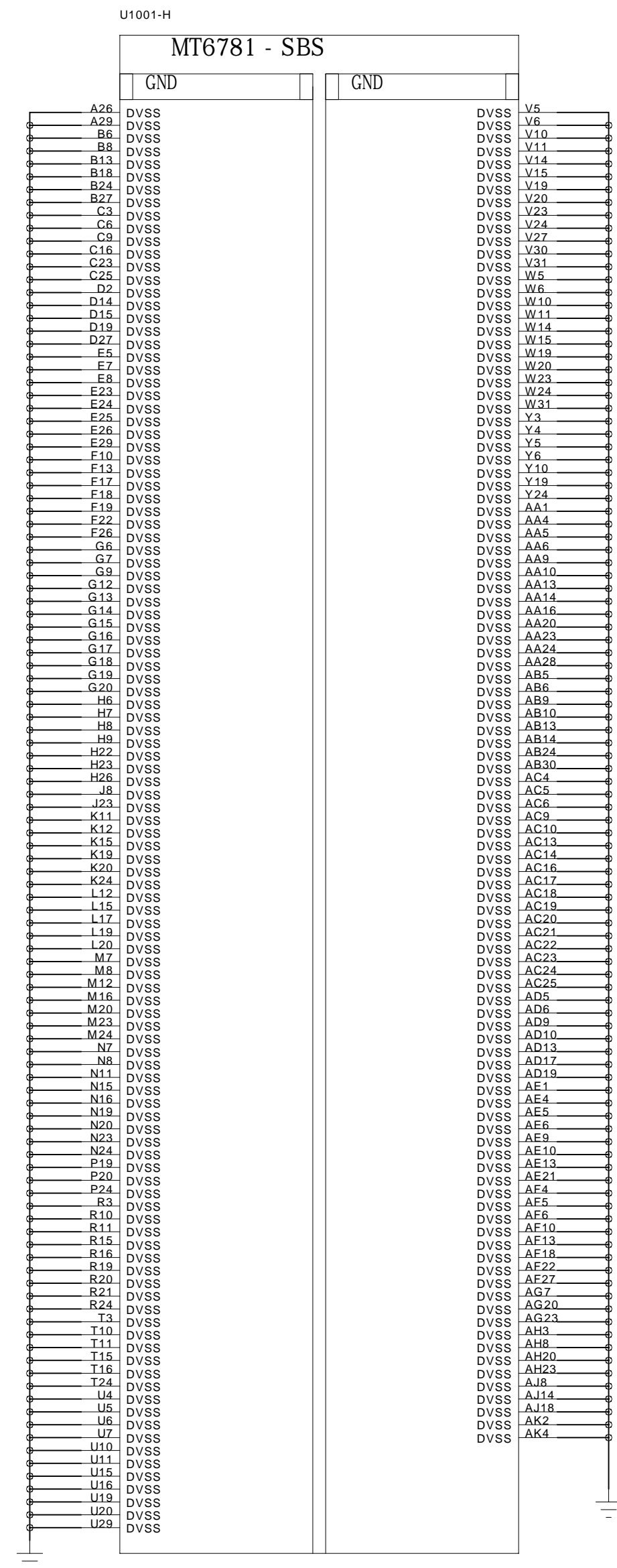
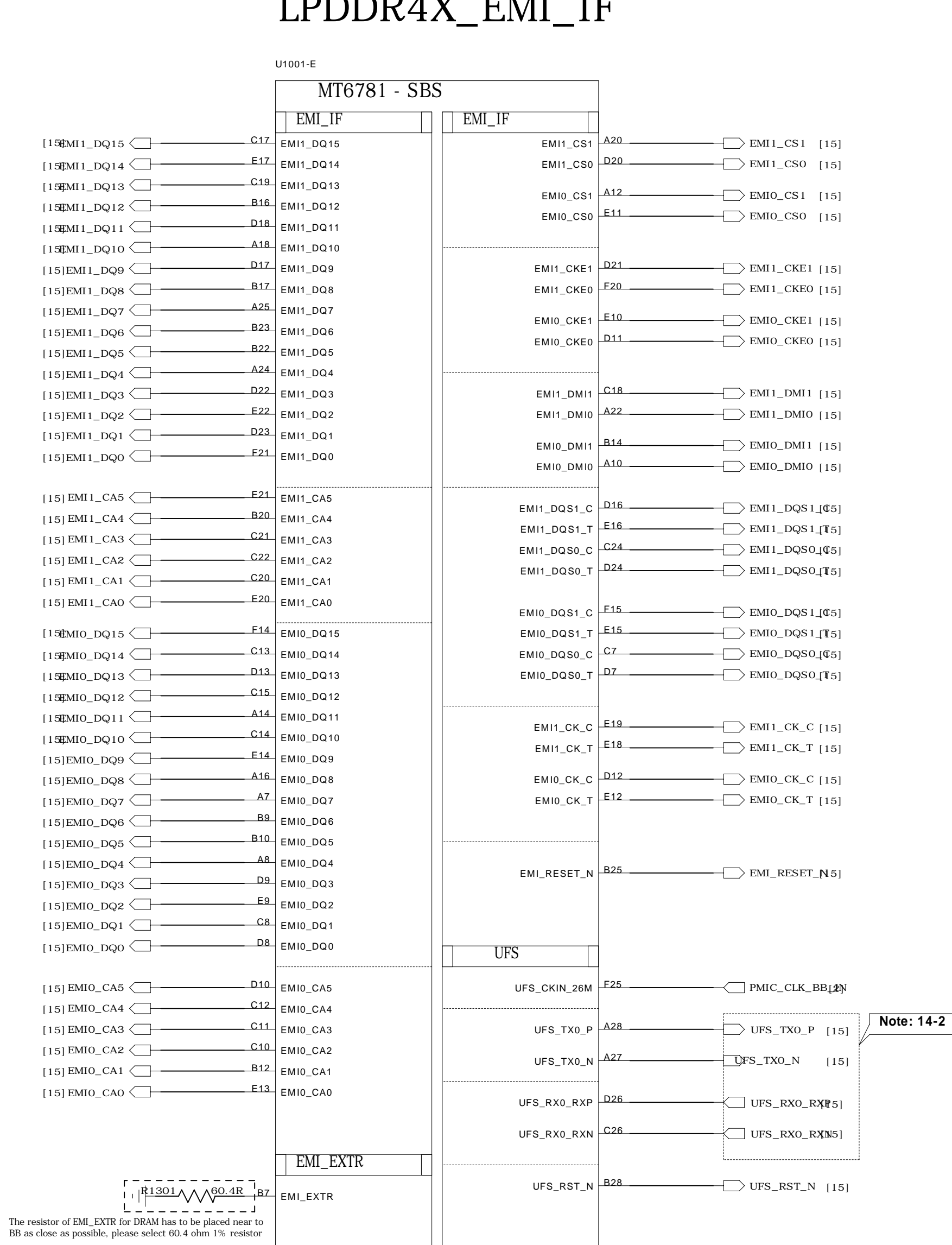
Note 13-1: CAM_PDN2(R2 ball) don't apply to camera function.

COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 12_BB_II		VERSION: V1.2	SHEET: 3 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

BB_III

UFS_IF
LPDDR4X_EMI_IF

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

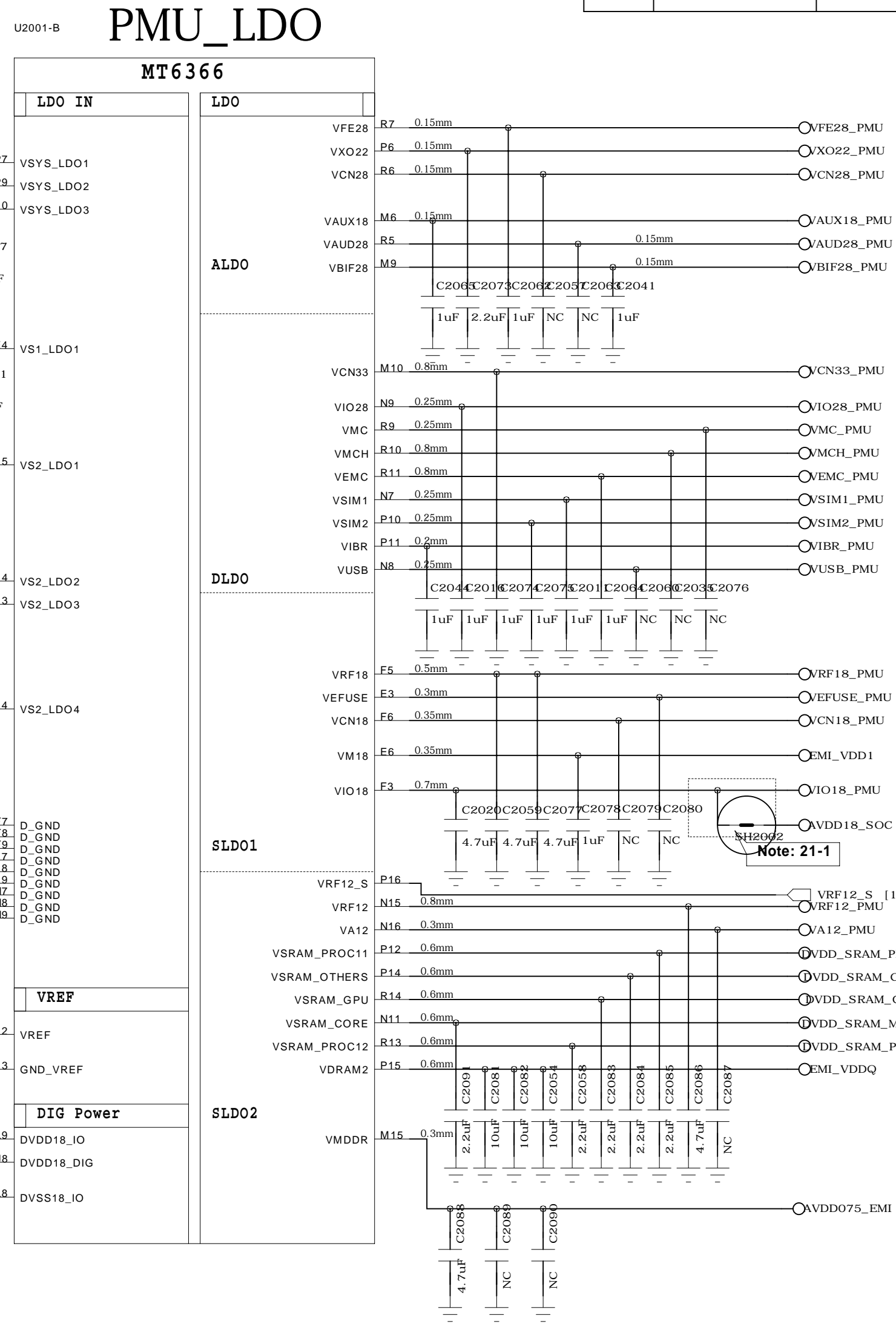
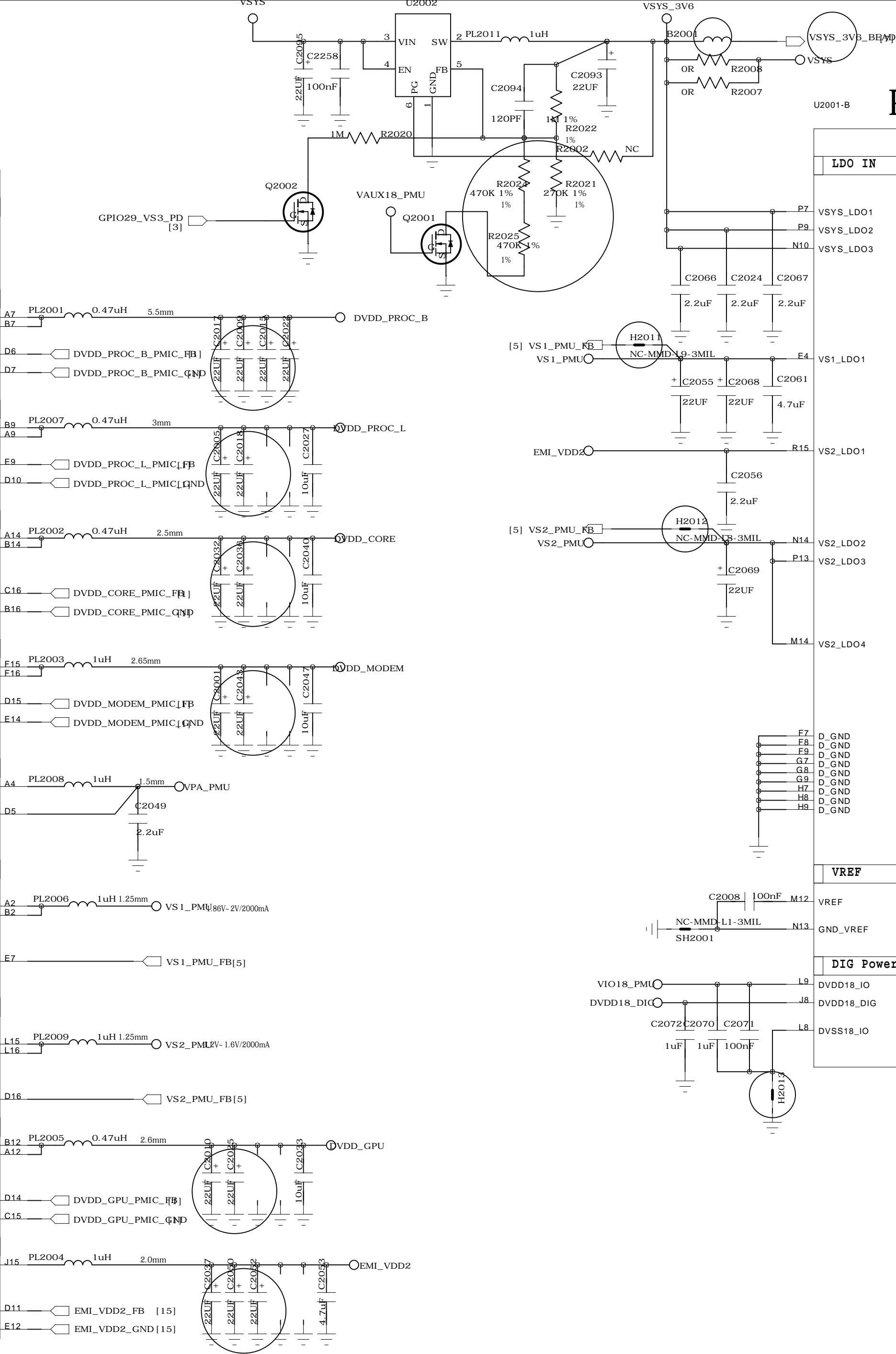
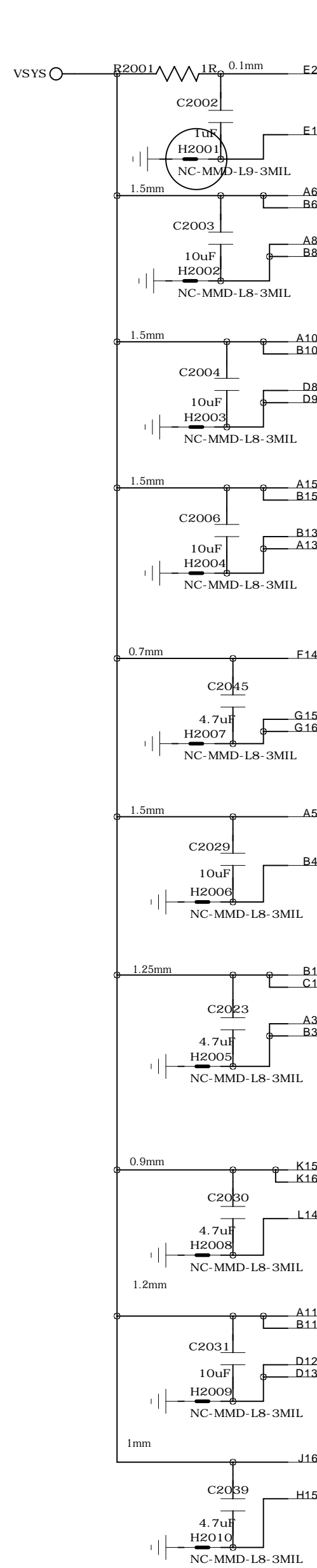


Schematic design notice of "14_BB_3_Interface" page:		COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
Note 14-1:	R4001 please select 60.4 ohm (1%) resistor	DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 13_BB_III		VERSION: V1.2	SHEET: 4 OF 26
Note 14-2:	Make sure TX/RX connection (T to in, R to out and P to t, N to c)	CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

PMU_BUCK

MT6366

	VBUCK_CTRL		
VSYS_SMPS			
GND_SMPS			
	VPROC11_IN	VPROC11	
VSYS_VPROC11		VPROC11	
VSYS_VPROC11		VPROC11	
GND_VPROC11		VPROC11_FB	
GND_VPROC11		GND_VPROC11_FB	
	VPROC12_IN	VPROC12	
VSYS_VPROC12		VPROC12	
VSYS_VPROC12		VPROC12	
GND_VPROC12		VPROC12_FB	
GND_VPROC12		GND_VPROC12_FB	
	VCORE_IN	VCORE	
VSYS_VCORE		VCORE	
VSYS_VCORE		VCORE	
GND_VCORE		VCORE_FB	
GND_VCORE		GND_VCORE_FB	
	VMODEM_IN	VMODEM	
VSYS_VMODEM		VMODEM	
VSYS_VMODEM		VMODEM	
GND_VMODEM		VMODEM_FB	
GND_VMODEM		GND_VMODEM_FB	
	VPA_IN	VPA	
VSYS_VPA		VPA	
GND_VPA		VPA_FB	
	VS1_IN	VS1	
VSYS_VS1		VS1	
VSYS_VS1		VS1	
GND_VS1		VS1_FB	
GND_VS1			
	VS2_IN	VS2	
VSYS_VS2		VS2	
VSYS_VS2		VS2	
GND_VS2		VS2_FB	
	VGPU_IN	VGPU	
VSYS_VGPU		VGPU	
VSYS_VGPU		VGPU	
GND_VGPU		VGPU_FB	
GND_VGPU		GND_VGPU_FB	
	VDRAM1	VDRAM1	
VSYS_VDRAM1		VDRAM1	
GND_VDRAM1		VDRAM1_FB	
		GND_VDRAM1_FB	

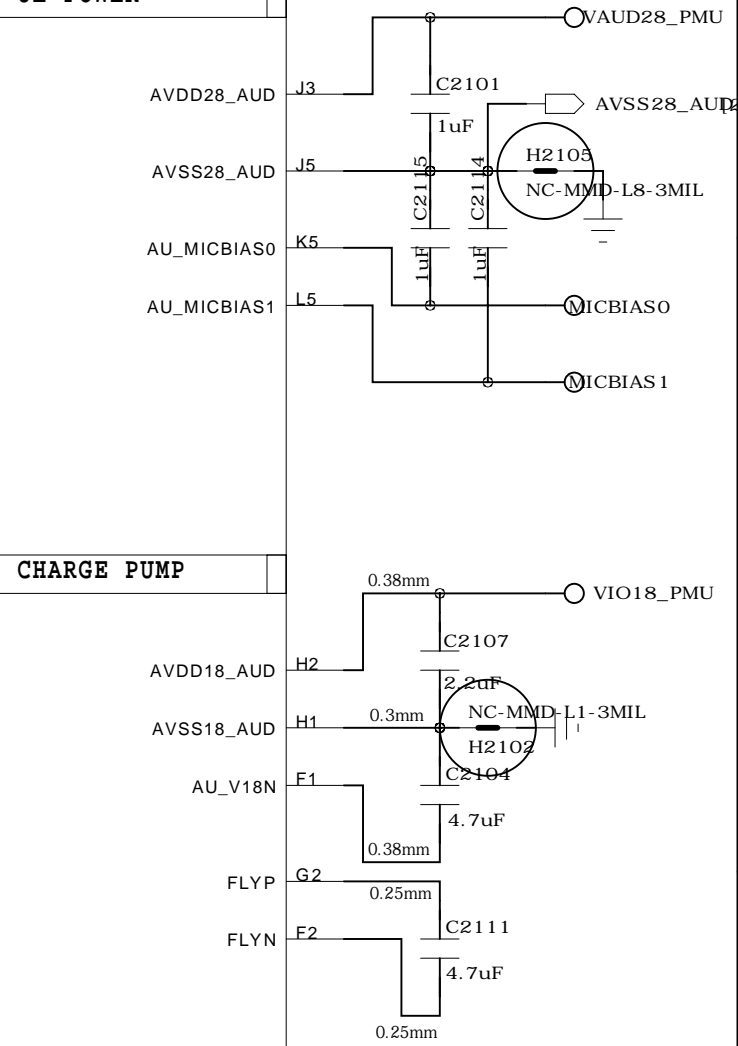
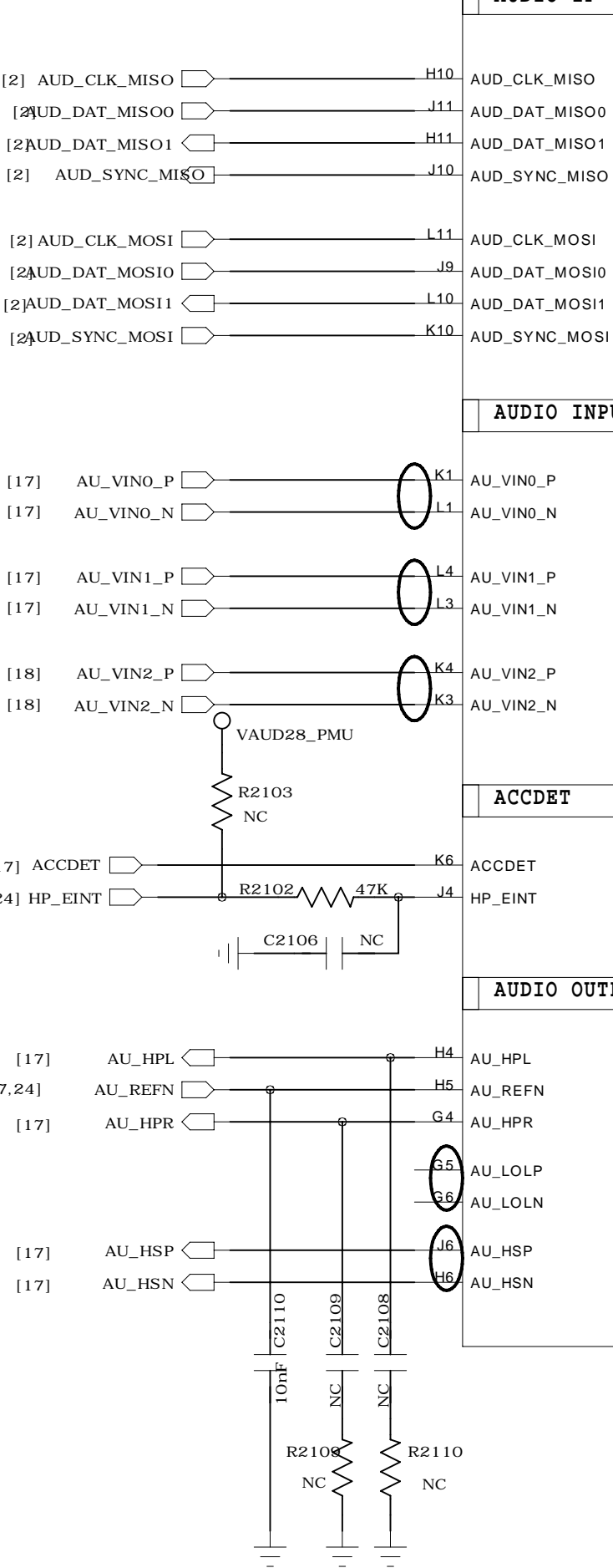
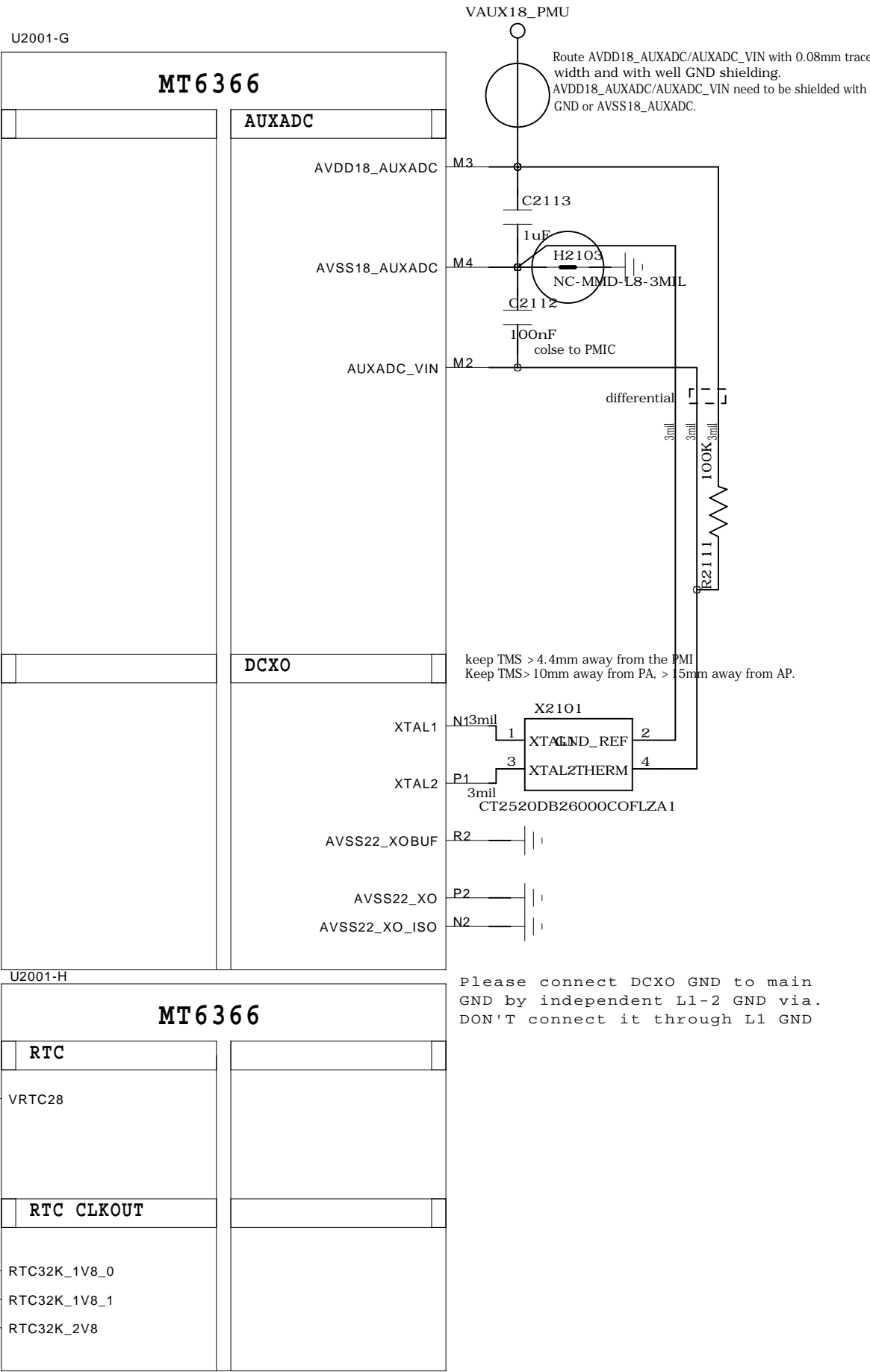
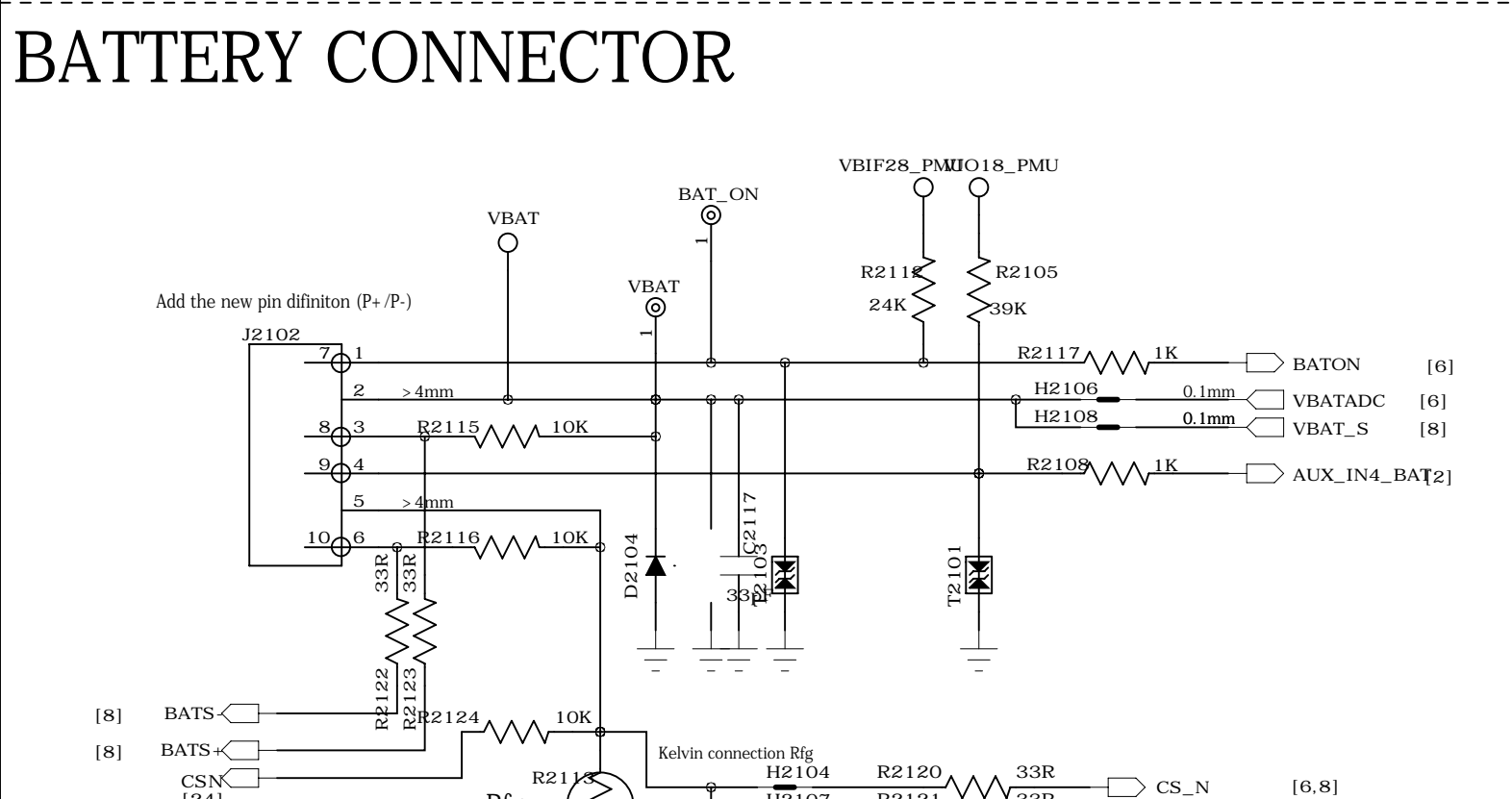


REVISION RECORD			
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COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 20_POWER_MT6366_I		VERSION: V1.2	SHEET: 5 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

POWER_MT6366_II

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



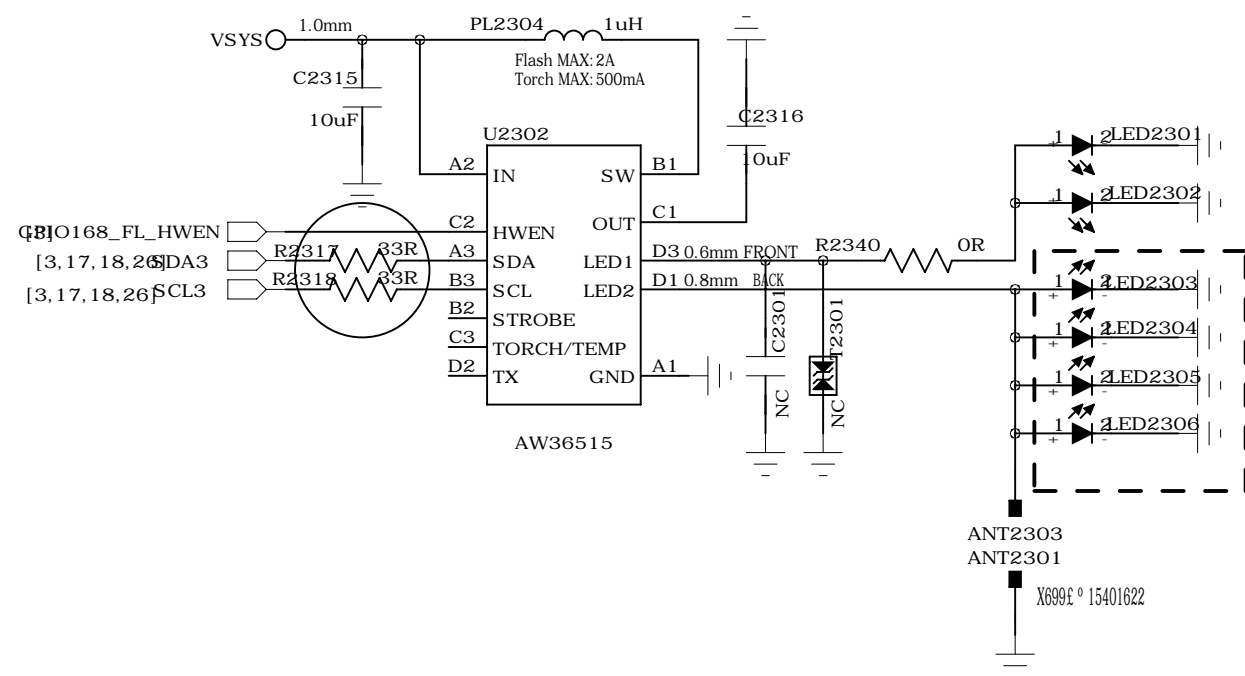
COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 21_POWER_MT6366_II		VERSION: V1.2	SHEET: 6 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

POWER_THIRD-PARTY_I

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

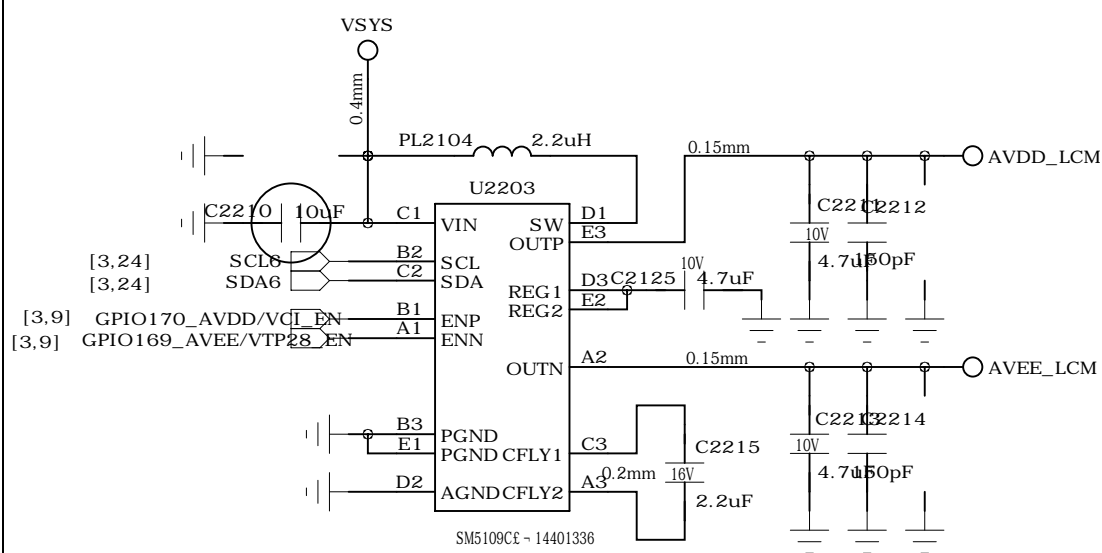
FLASH LED

AW36515:I2C ADDRESS:0xC6(Write)/0xC7(Read)

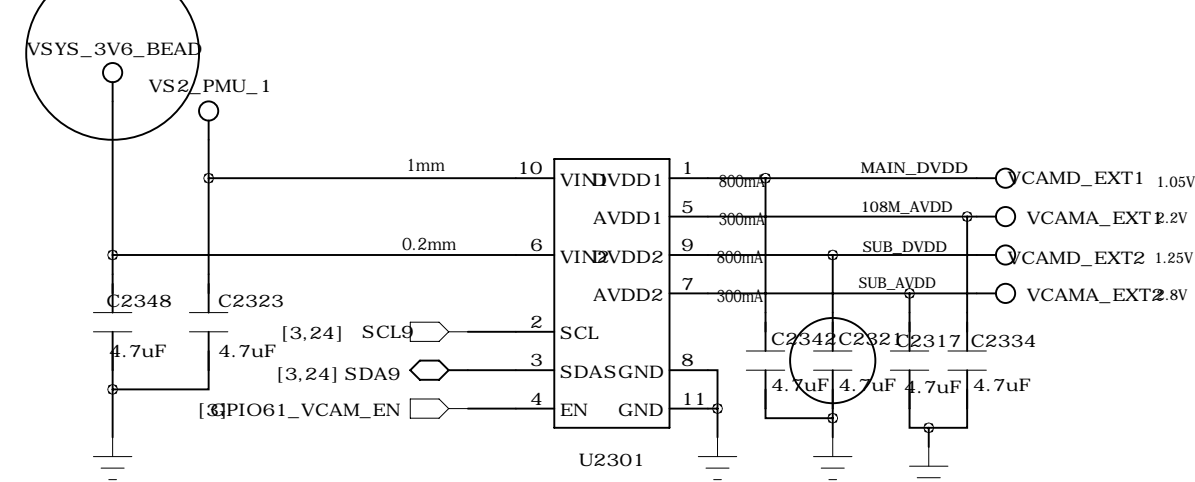
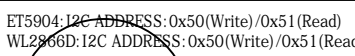
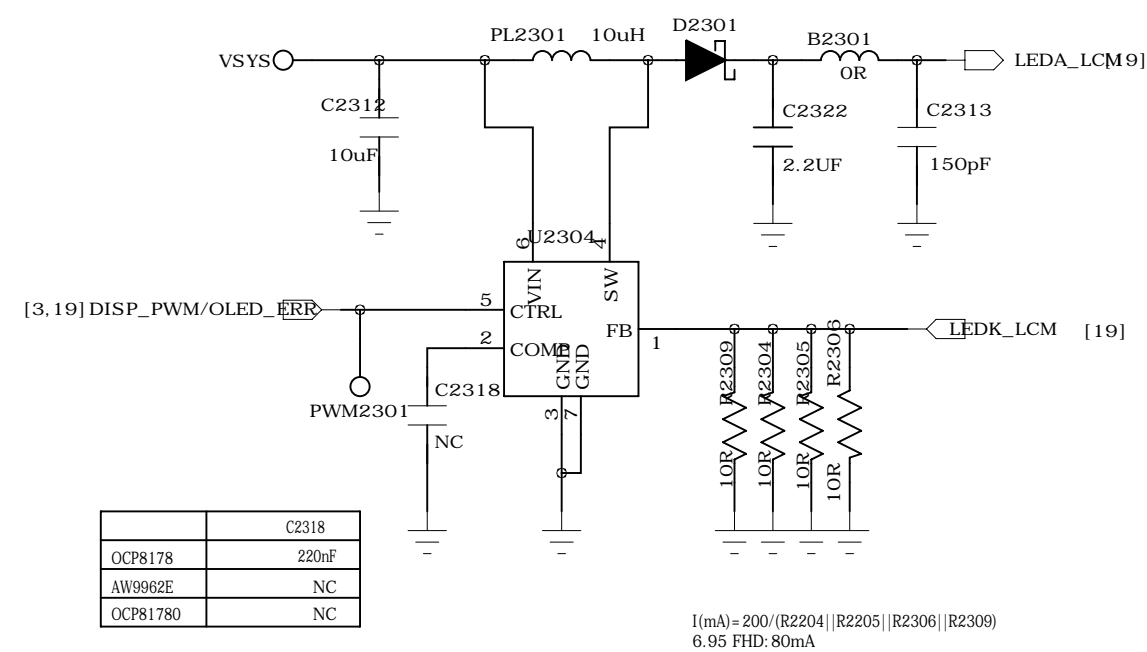


LCM BIAS

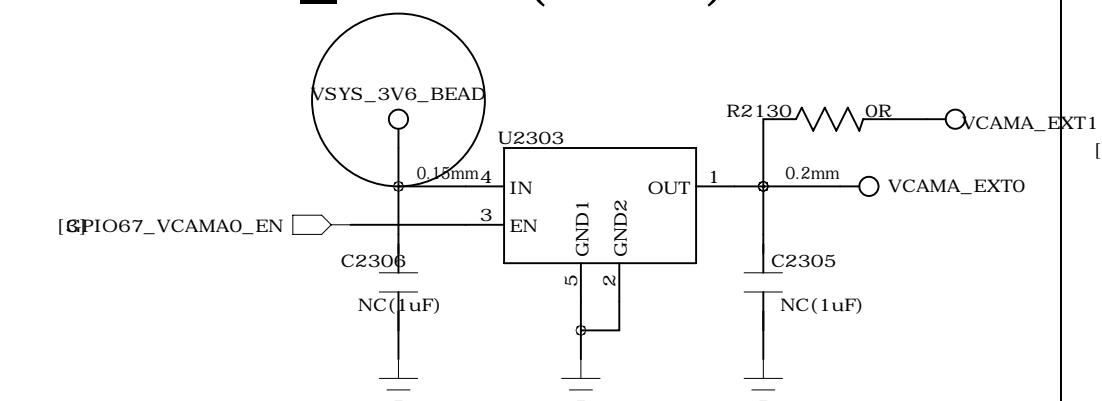
NT50358ACG/J: I2C ADDRESS: 0x7C(Write)/0x7D(Read)



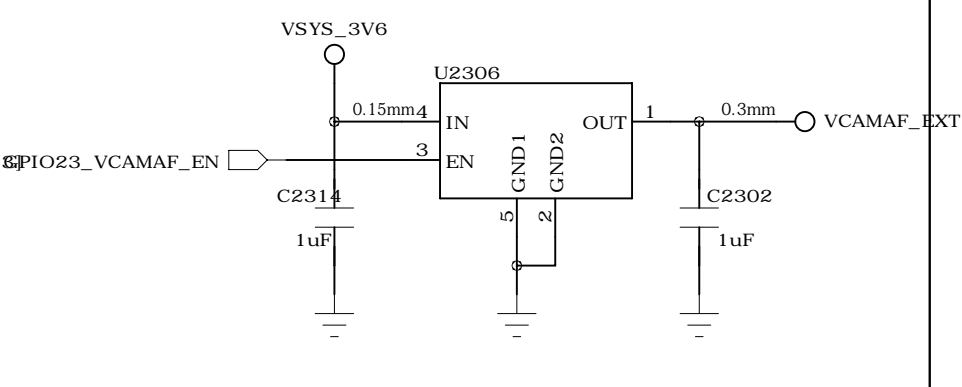
LCM LED



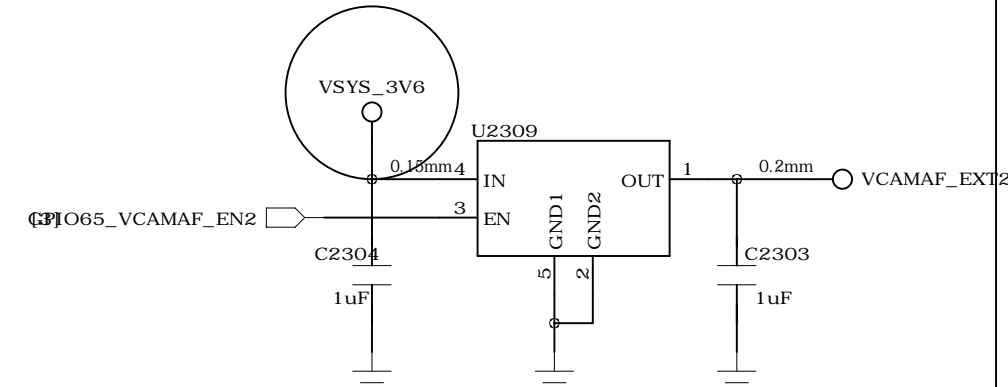
VCAMA EXT0(2.8V



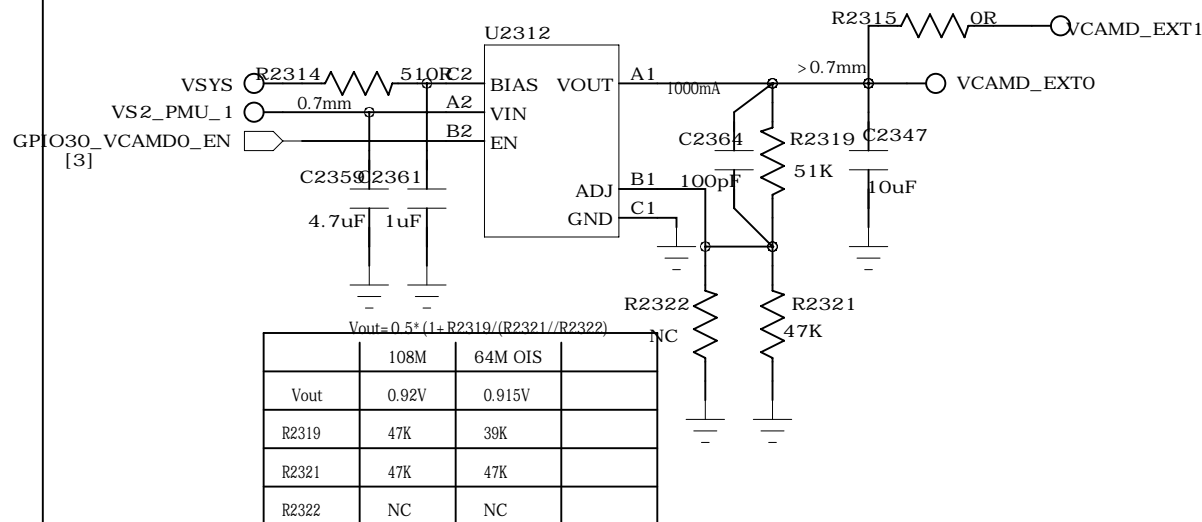
VCAMAF_EXT(2.8V)



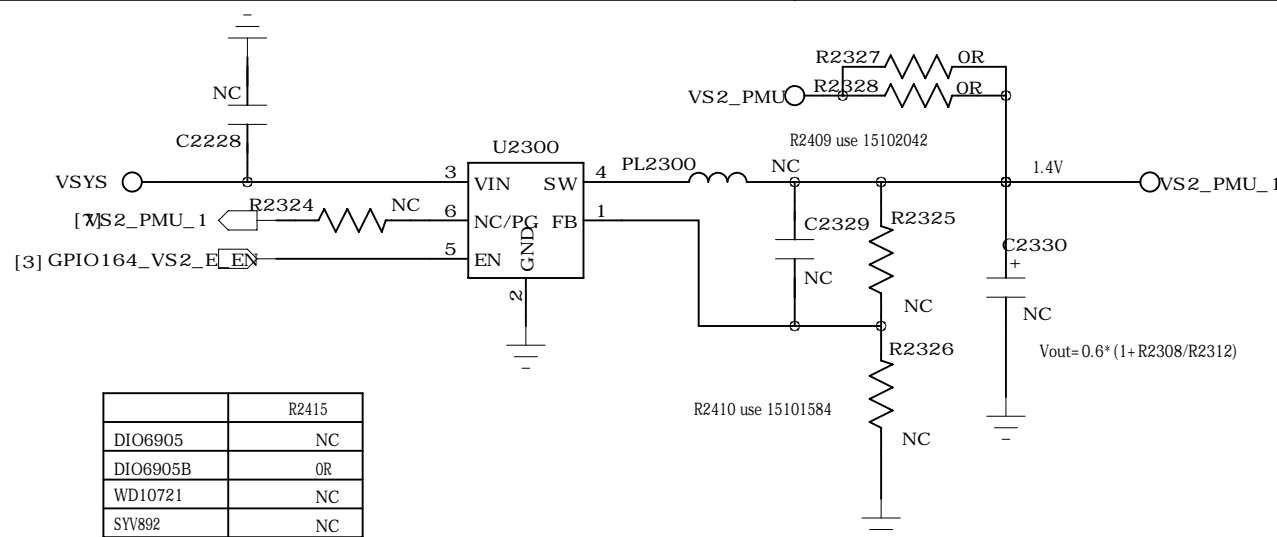
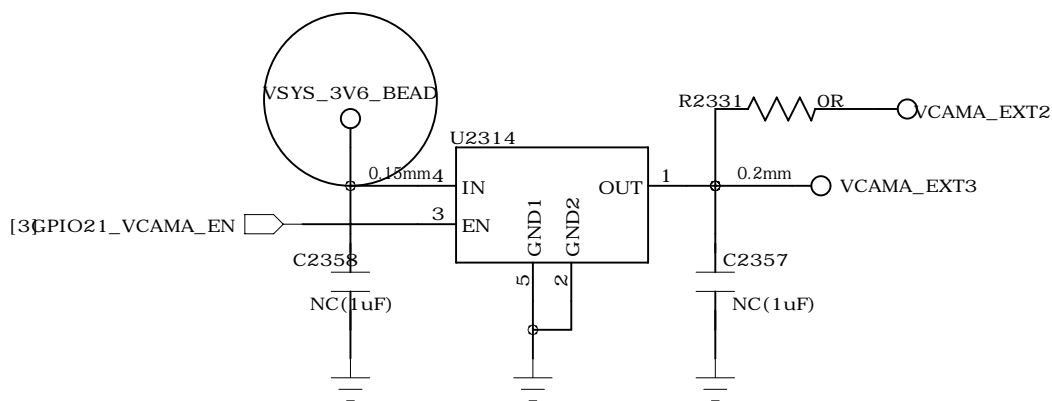
VCAMAF EXT(2.8V)



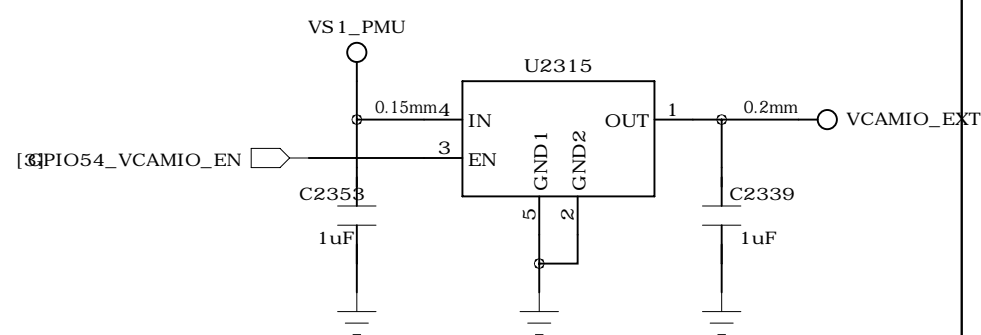
VCAMD EXT0(0.92V)



VCAMA EXT3(2.8V)



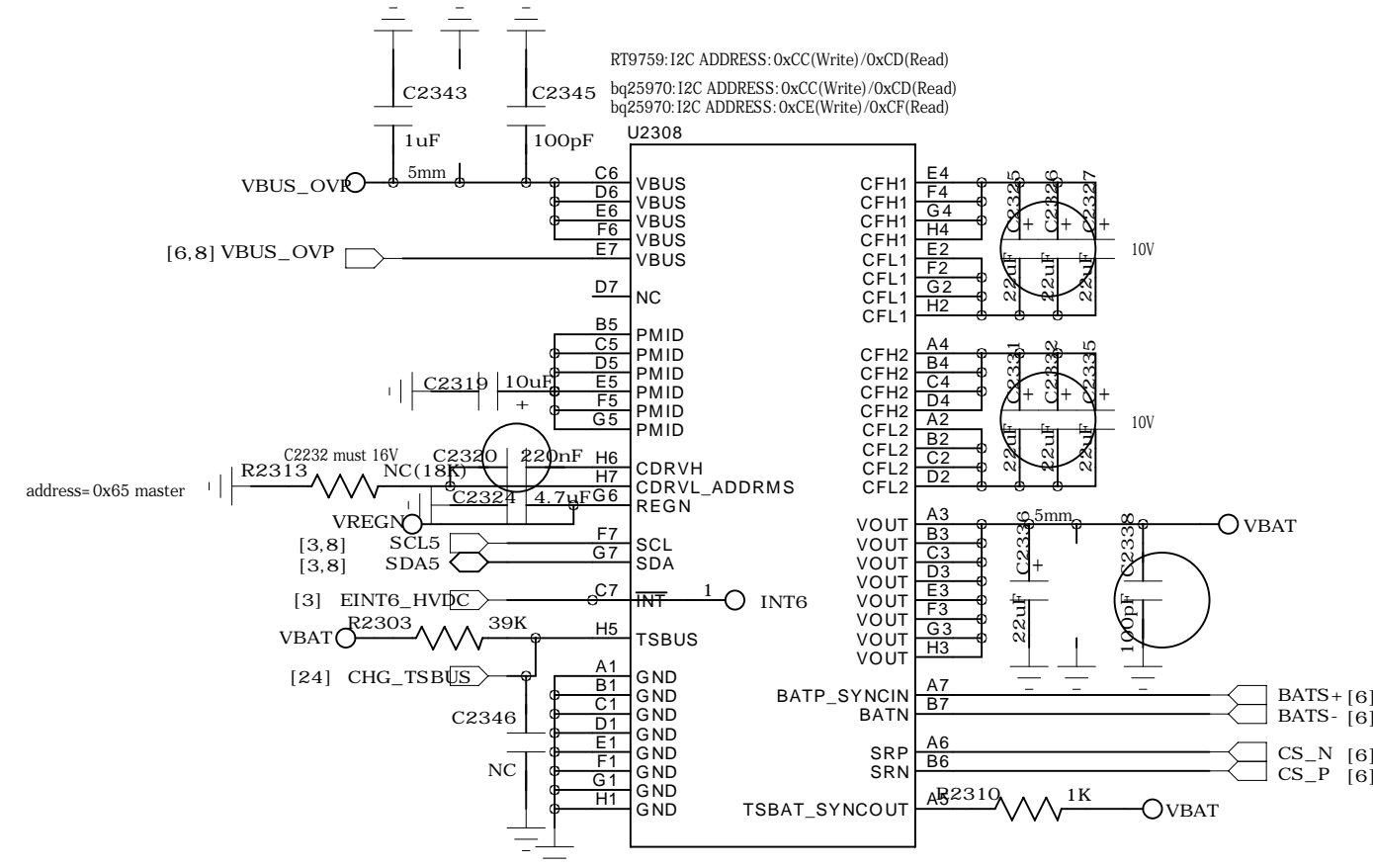
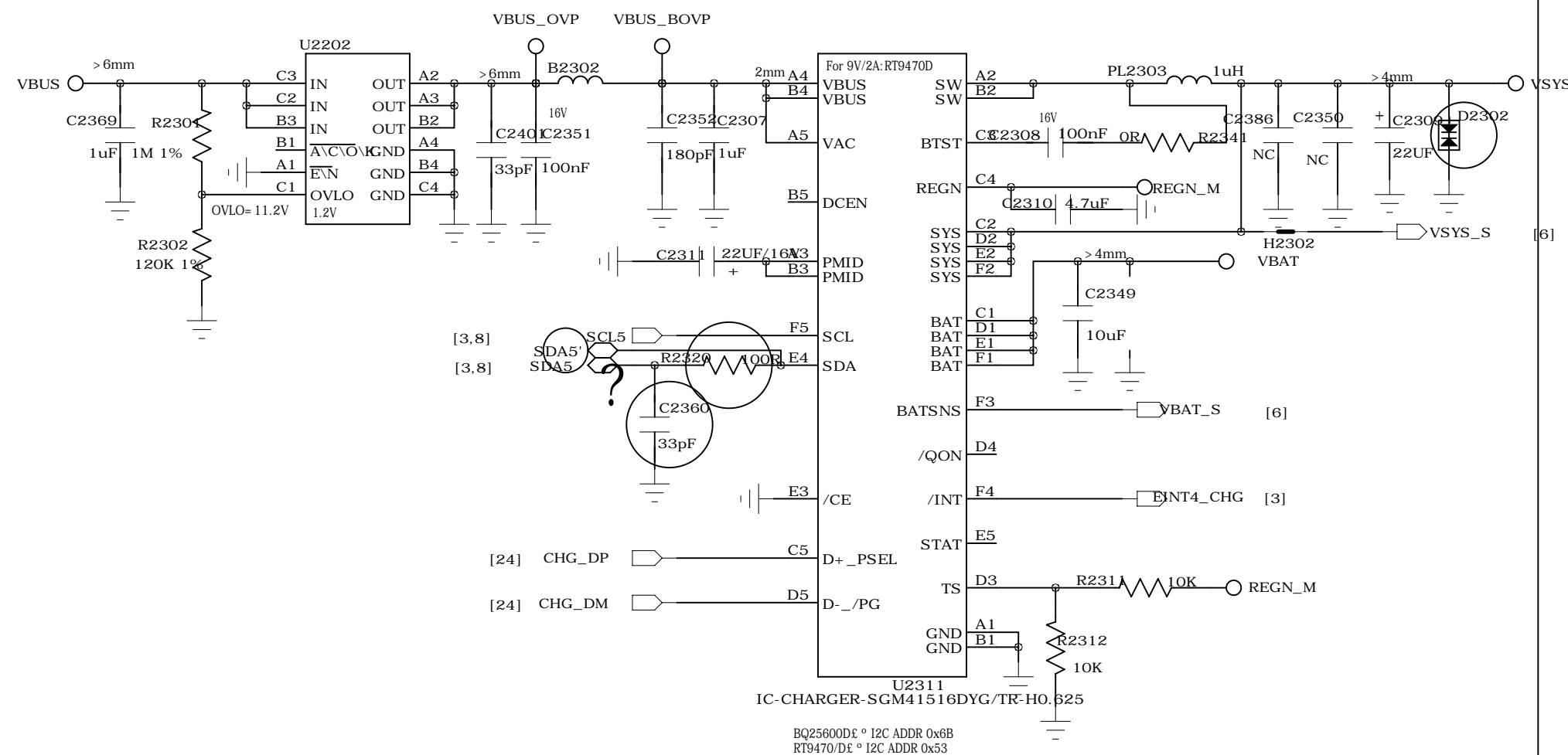
VCAMIO_EXT(1.8V)



COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 23_POWER_THIRD-PARTY-I		VERSION: V1.2	SHEET: 7 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

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LTR	ECO NO:	APPROVED:	DATE:

CHG_II MASTER CHG



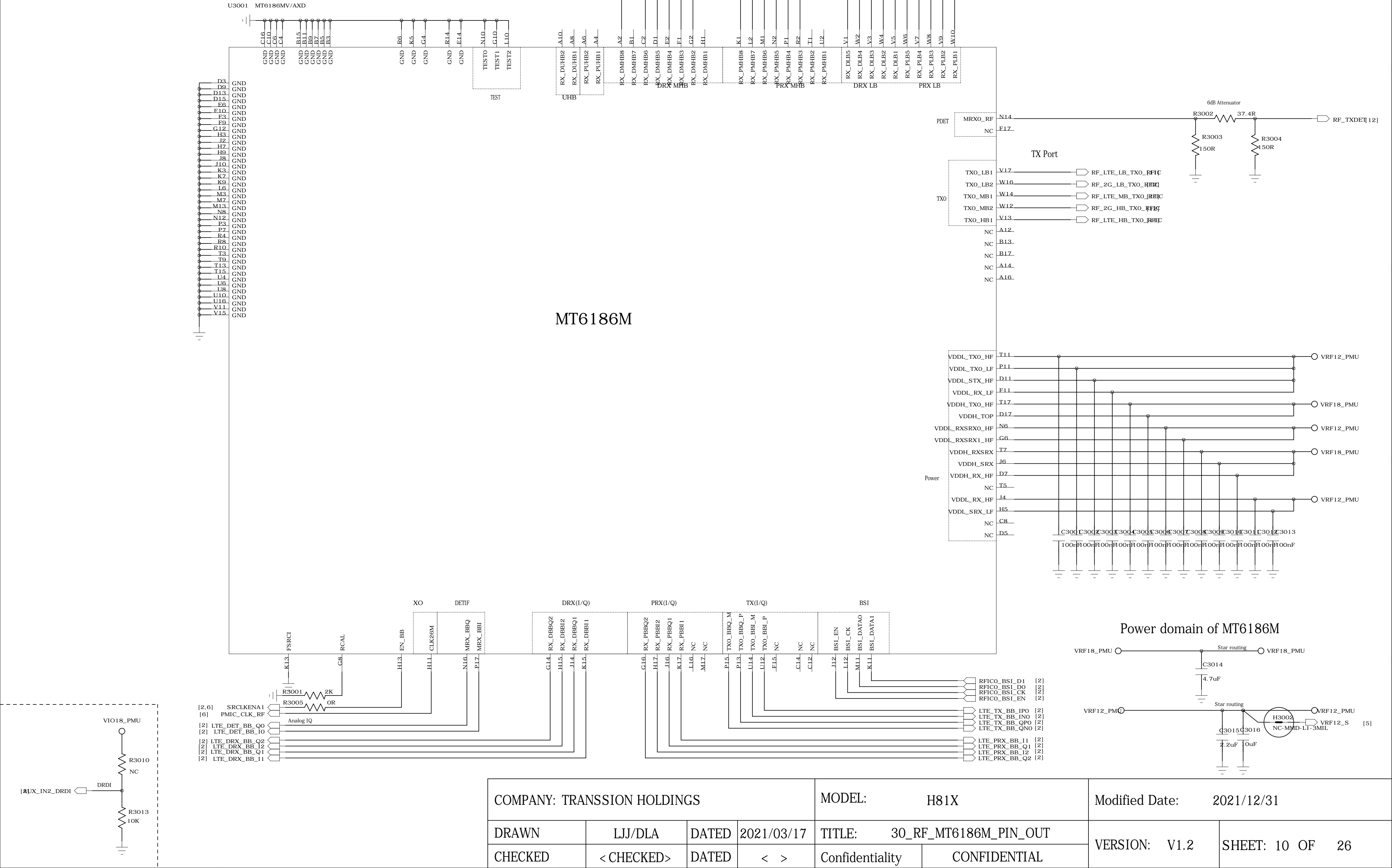
1/4 U Type-c	R2323	NTC2302
Type-c	390K	100K NTC

1. NTC2301 must keep a distance about 2 mm away from U2311 and far from other heat sources 10 mm at least.
2. The distance is the shortest distance from package edge to edge.

COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 23_POWER_THIRD-PARTY-II		VERSION: V1.2	SHEET: 8 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

RF_MT6186M_PIN_OUT

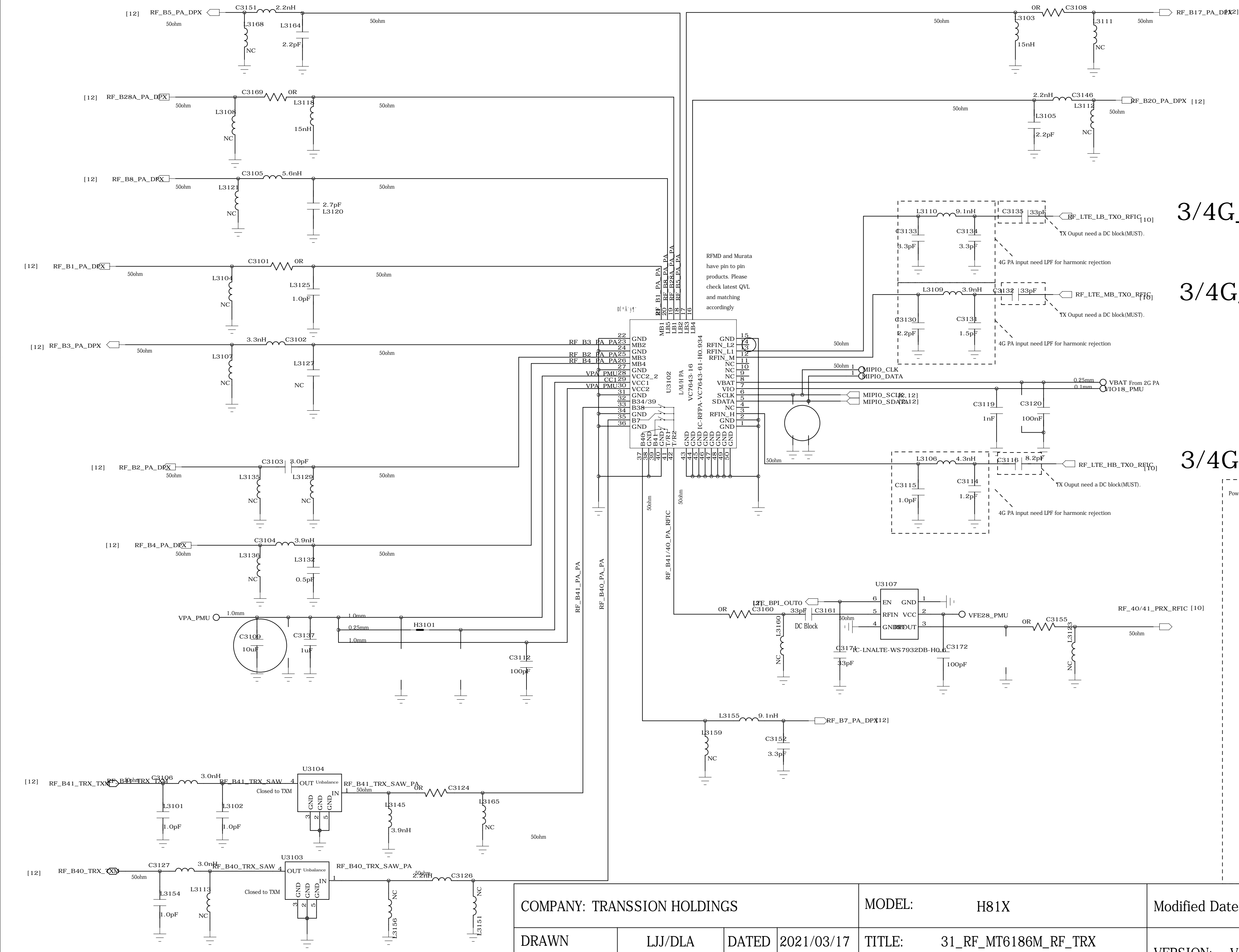
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



COMPANY: TRANSSION HOLDINGS				MODEL: H81X	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 30_RF_MT6186M_PIN_OUT	
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL

RF_MT6186M_RF_TX

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

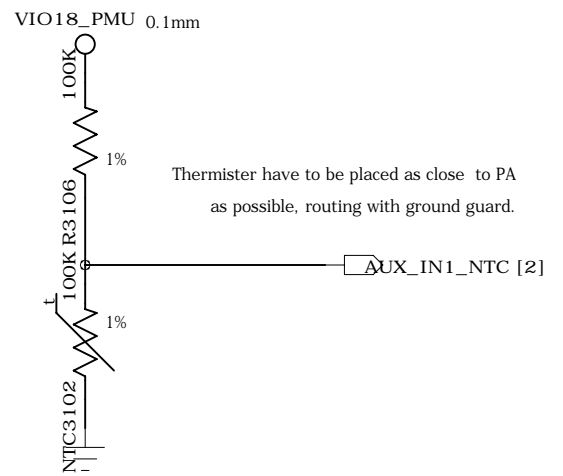


3/4G_PAIN_LB

3/4G_PAIN_MB

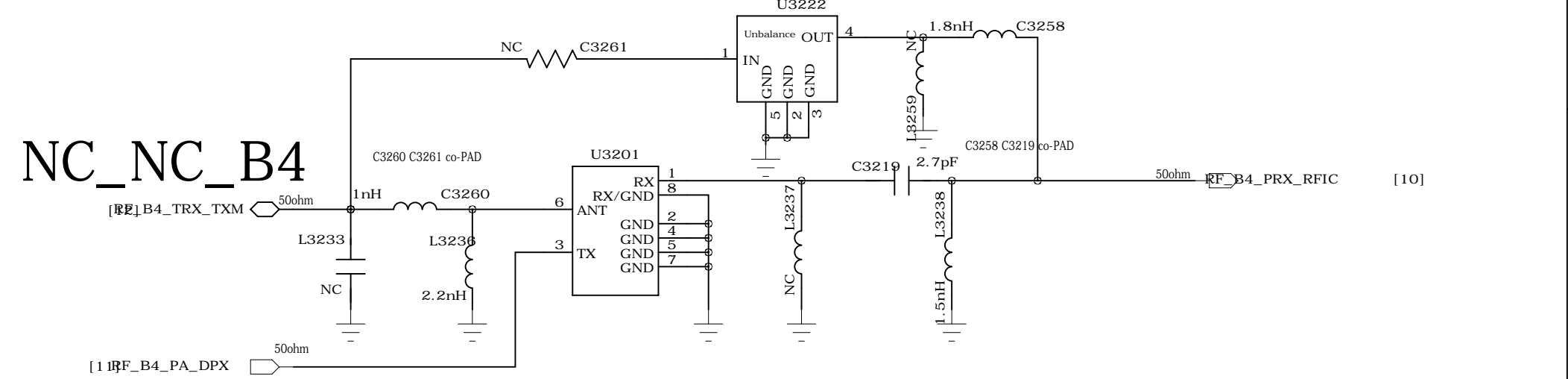
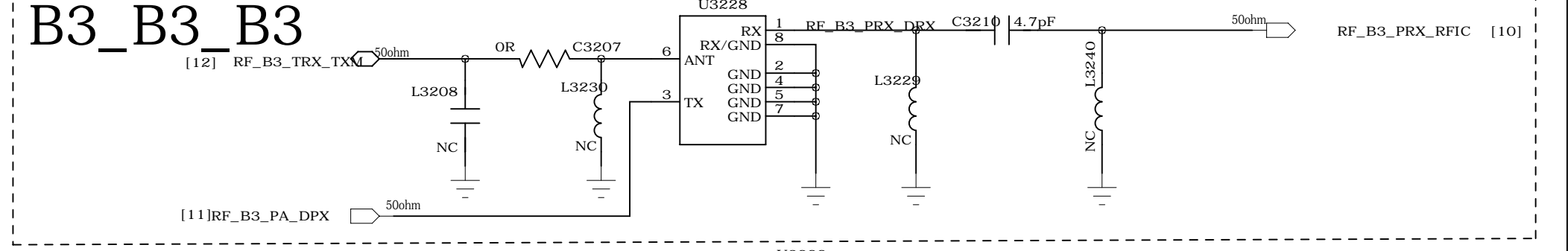
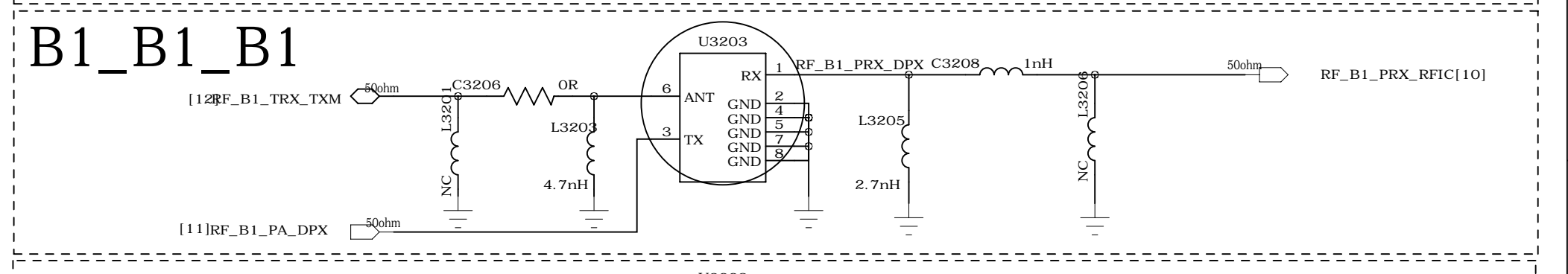
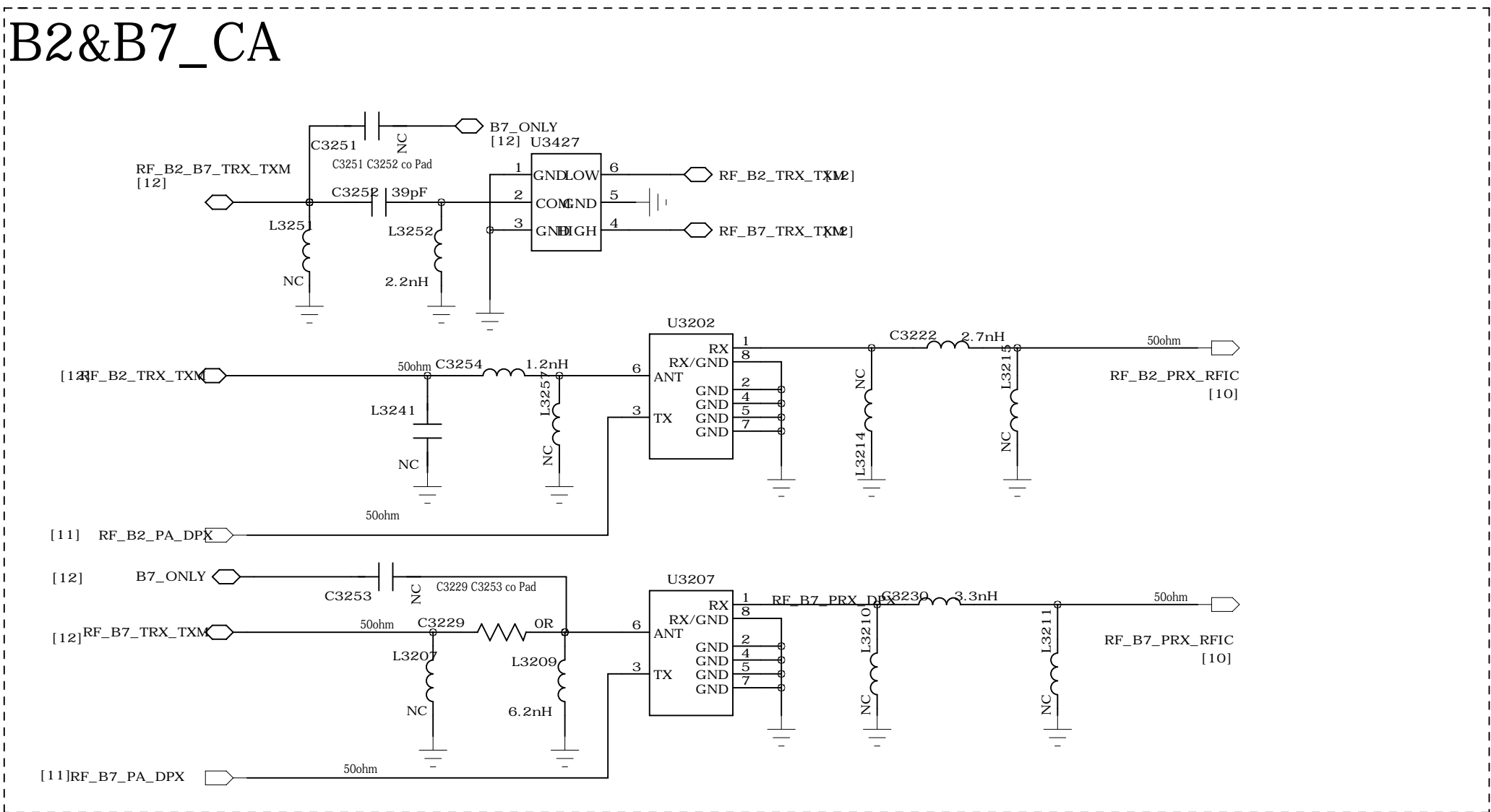
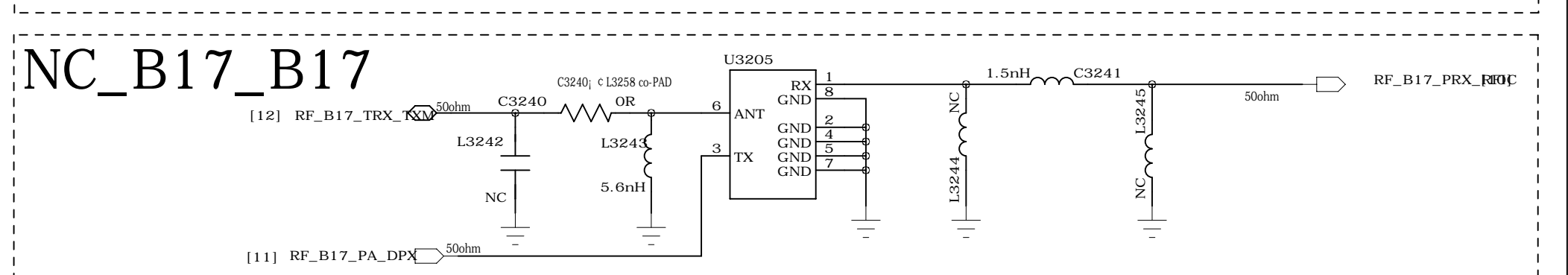
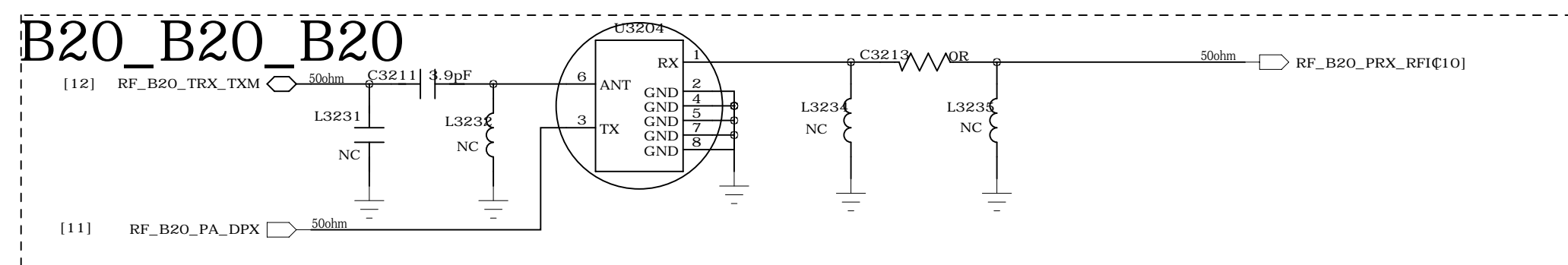
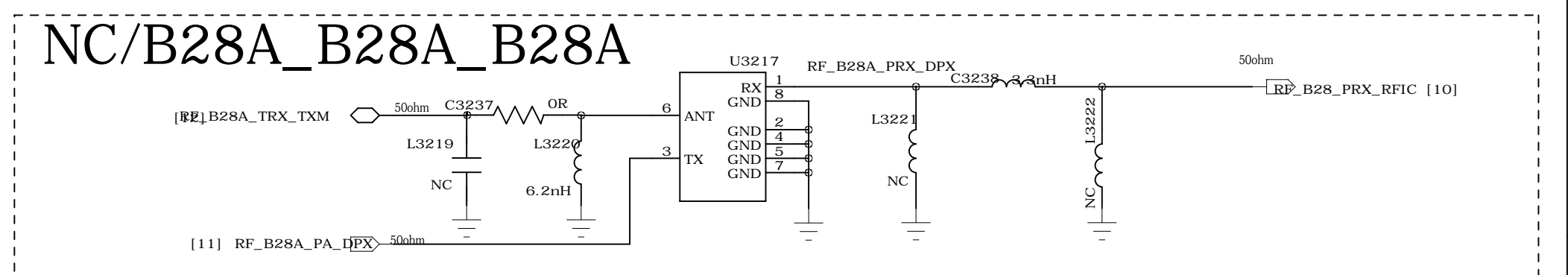
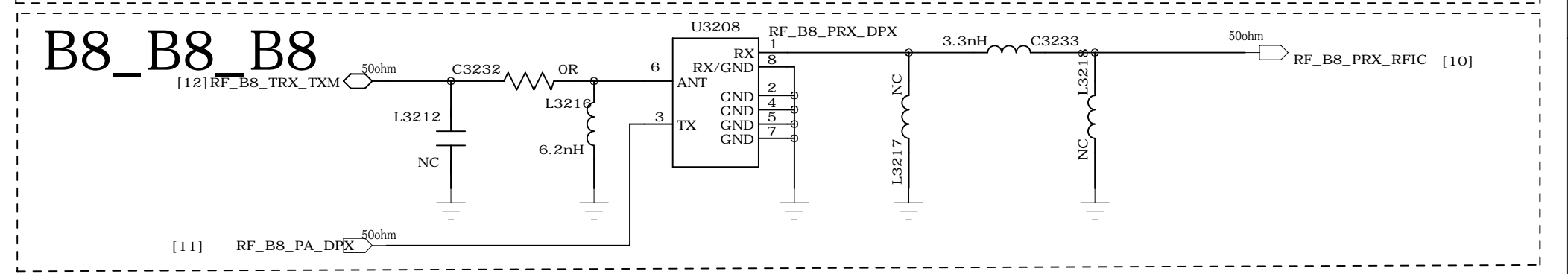
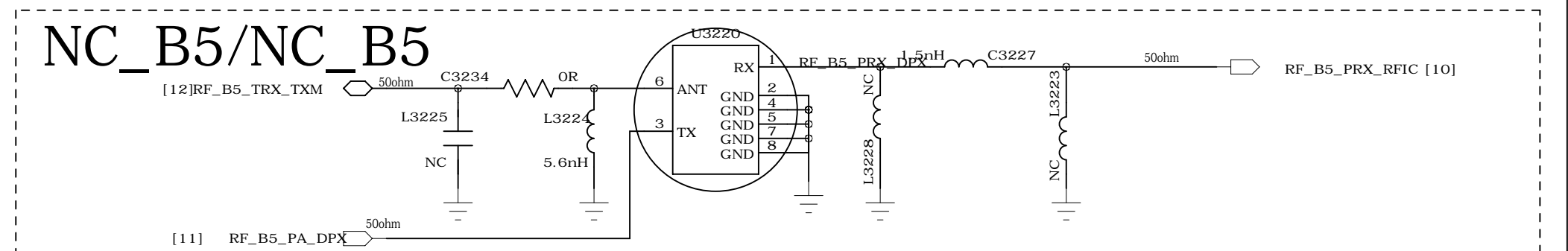
3/4G_PAIN_HB

Power



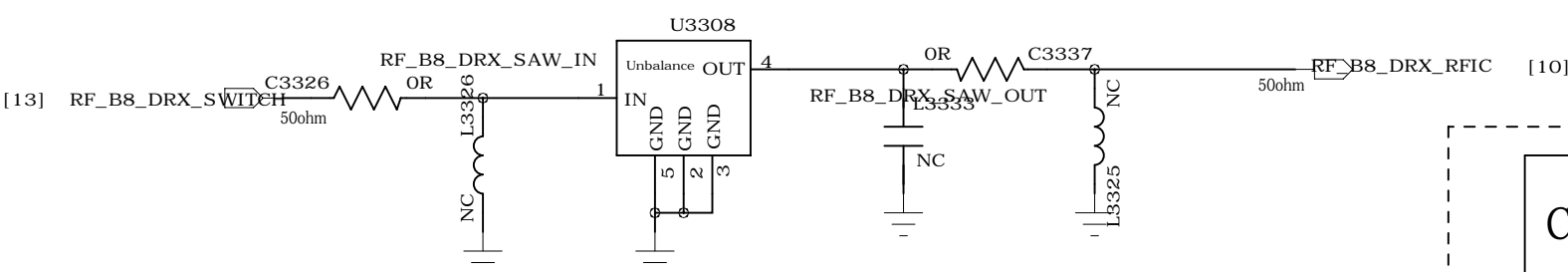
COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 31_RF_MT6186M_RF_TRX		VERSION: V1.2	SHEET: 11 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

LTR	ECO NO:	APPROVED:	DATE:



COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 32_RF_MT6186M_RF_PRX		VERSION: V1.2	SHEET: 12 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

SP6T



REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:
8			
N			
N			
N			
N			

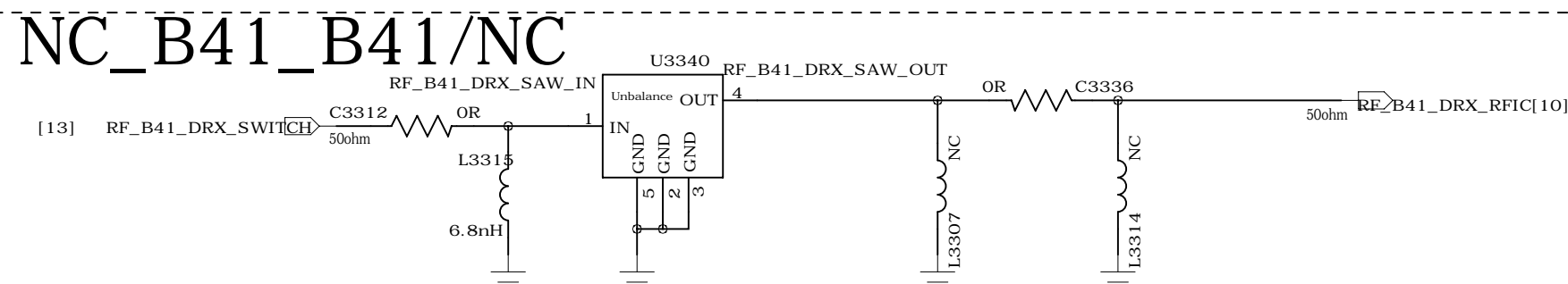
Power

VFE28_PMU

0.2mm

VFE28_PMU

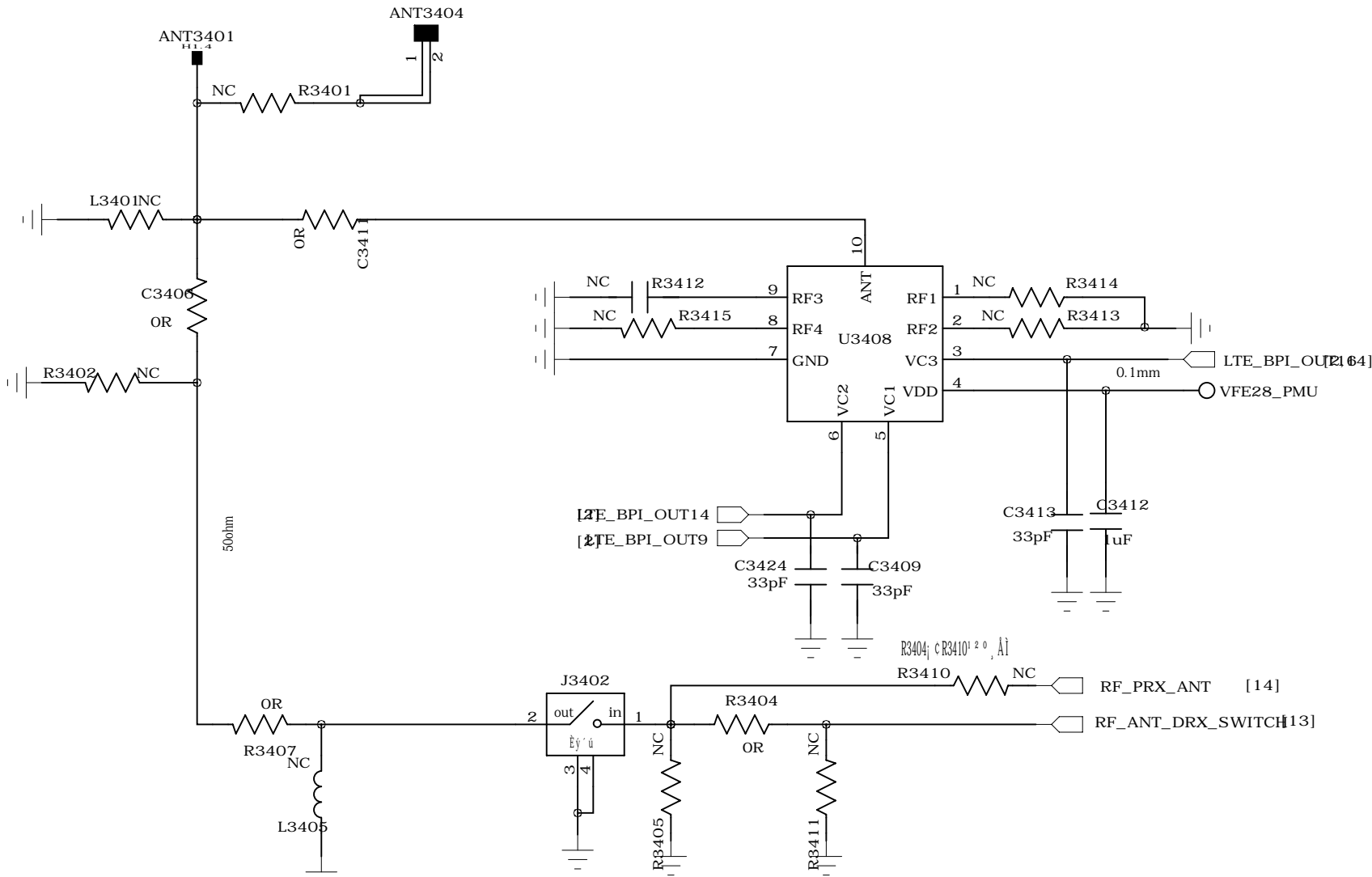
1uF
C3303



COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 33_RF_MT6186M_RF_DRX		VERSION: V1.2	SHEET: 13 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

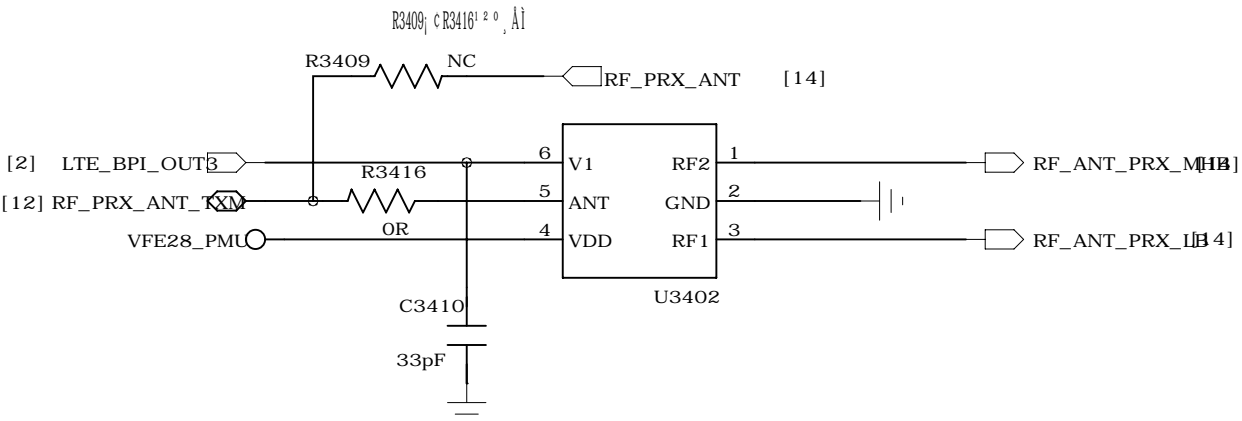
RF_MT6186M_RF_ANT

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

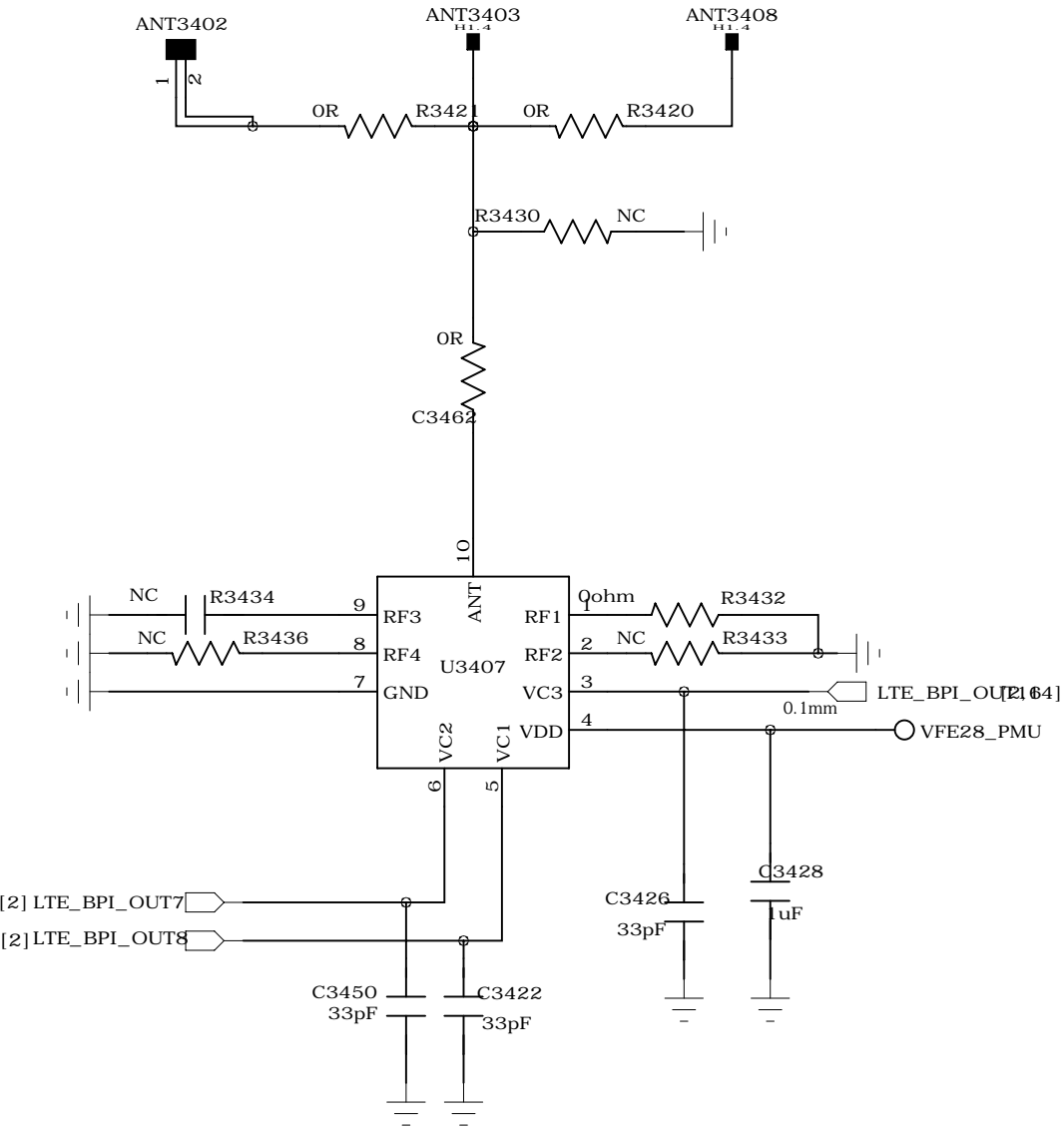


BOM

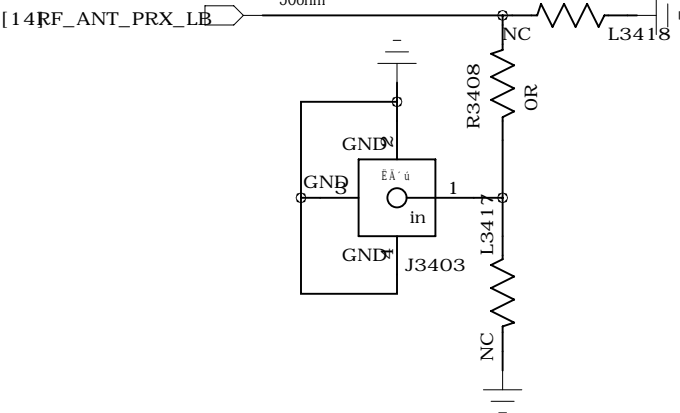
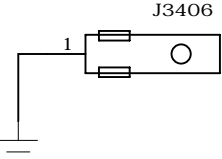
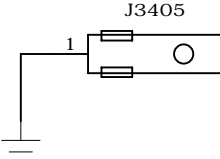
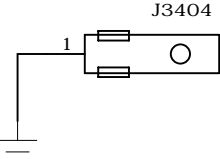
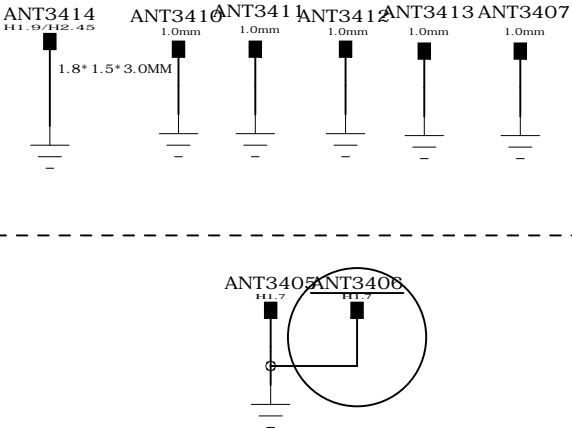
	R3409/R3410/L3320	J3401/J3403	J3301	U3402	R3404/R3416/R3408/R3406/C3302
MDA	NC	1uF	NC	1uF	OR
PRC	OR	NC	1uF	NC	NC



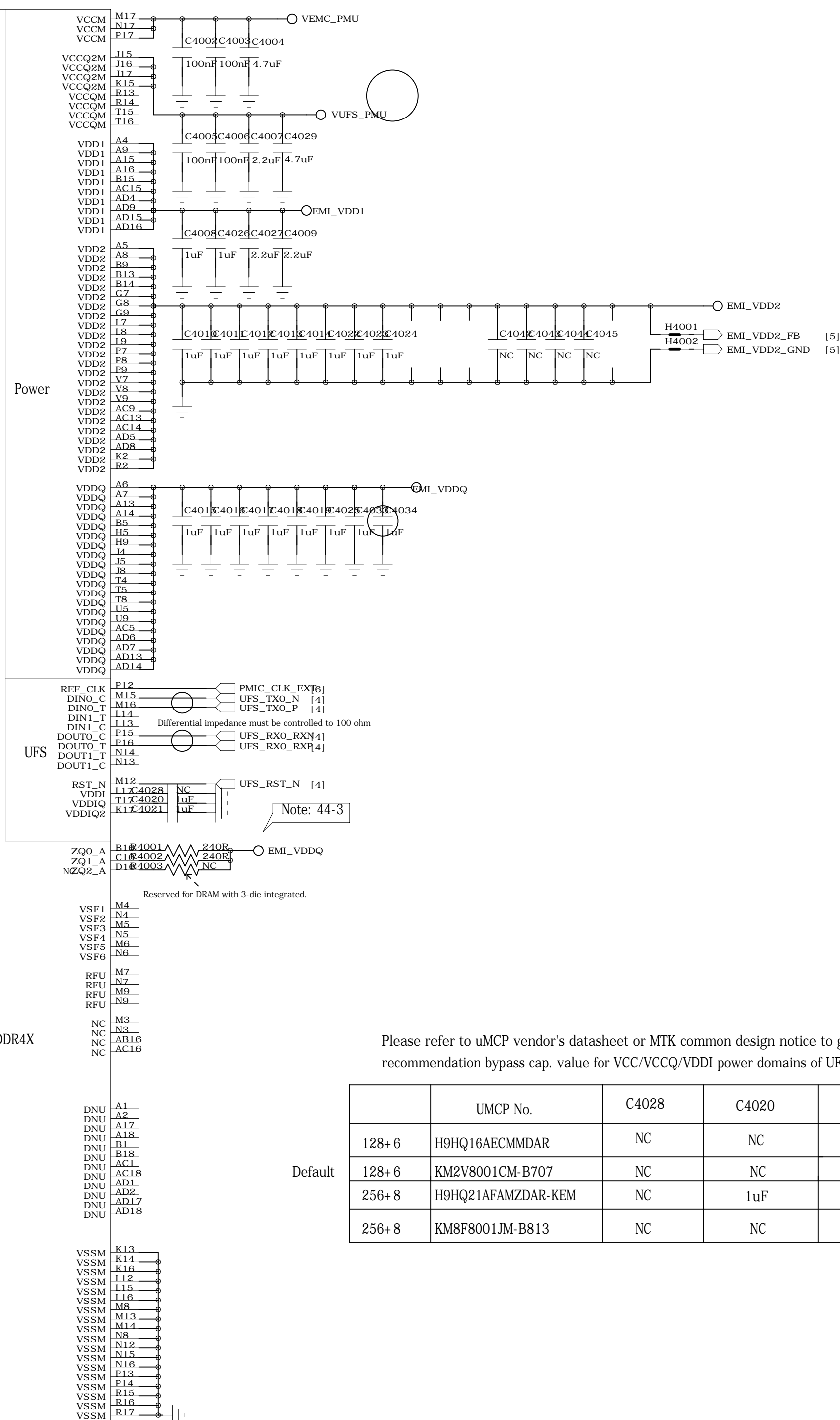
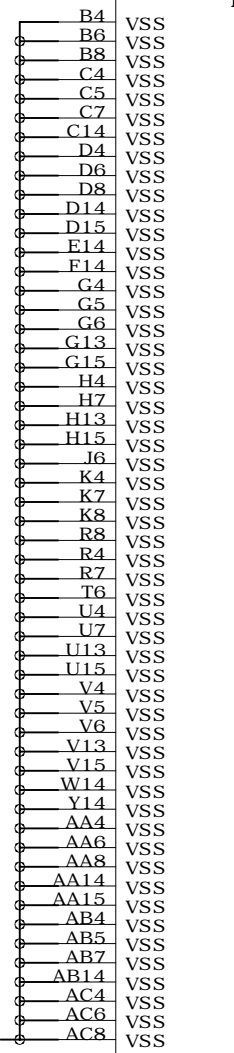
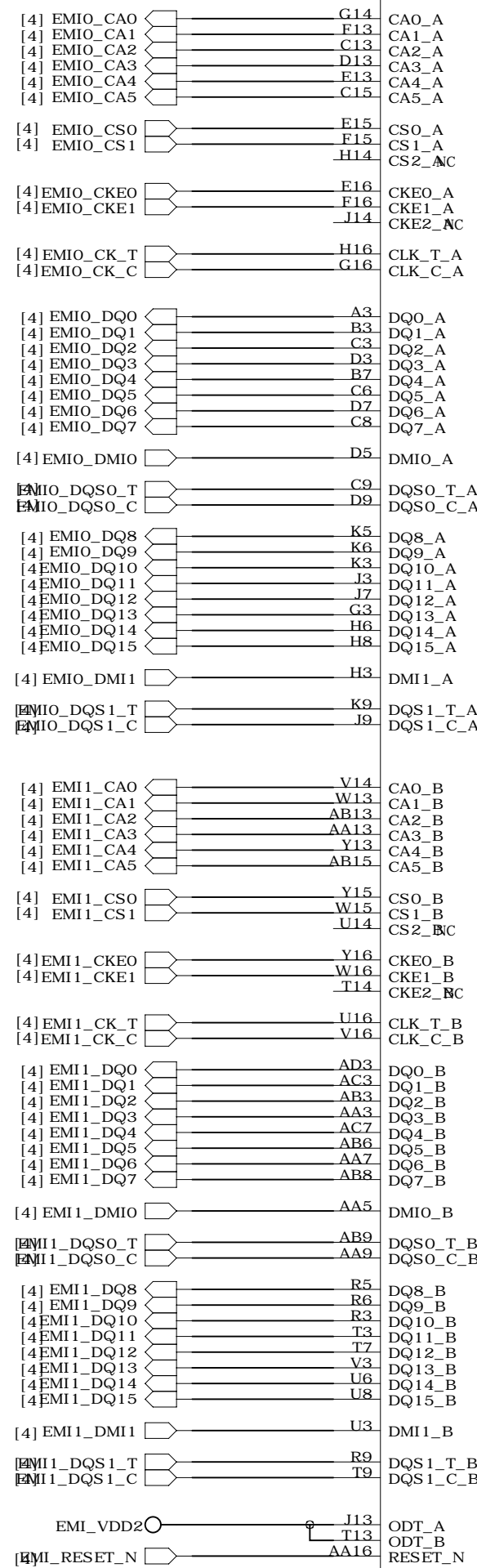
ANT switch



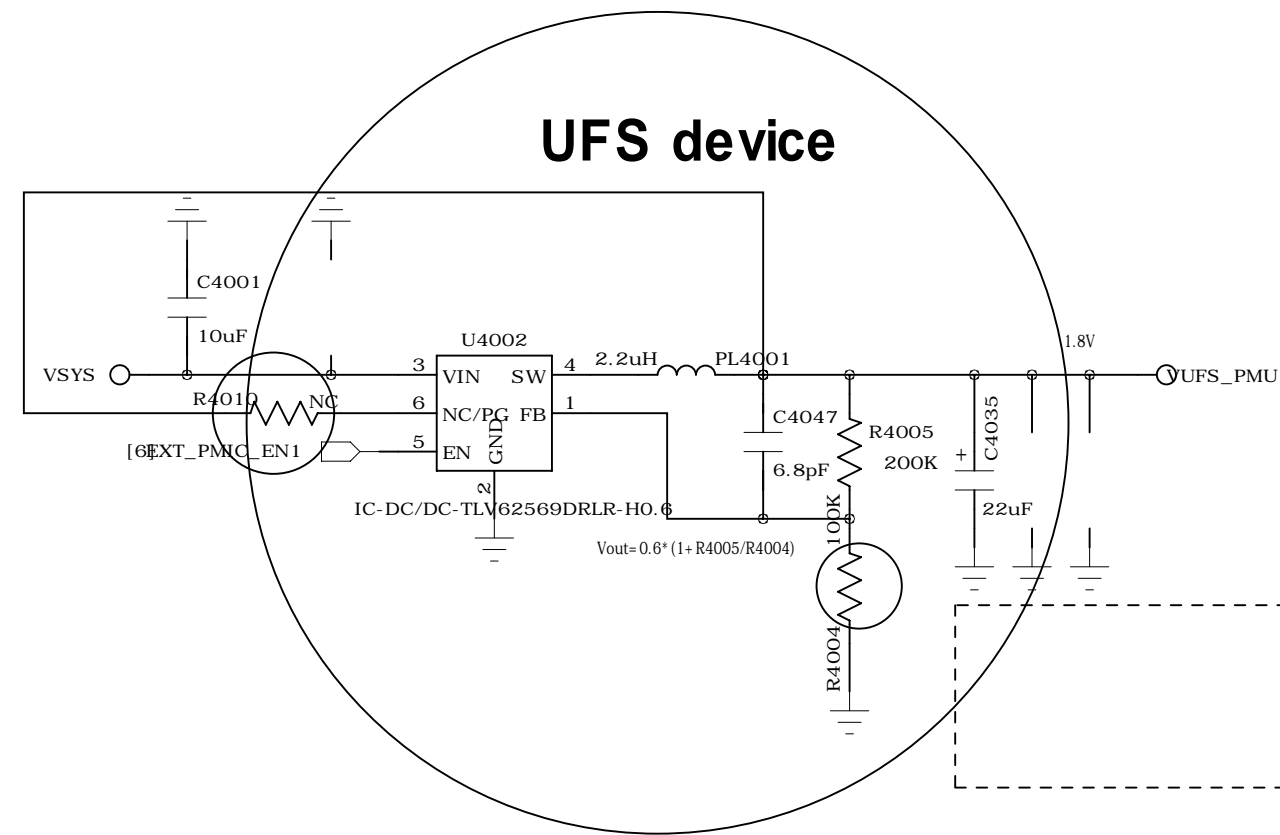
Ground Spring



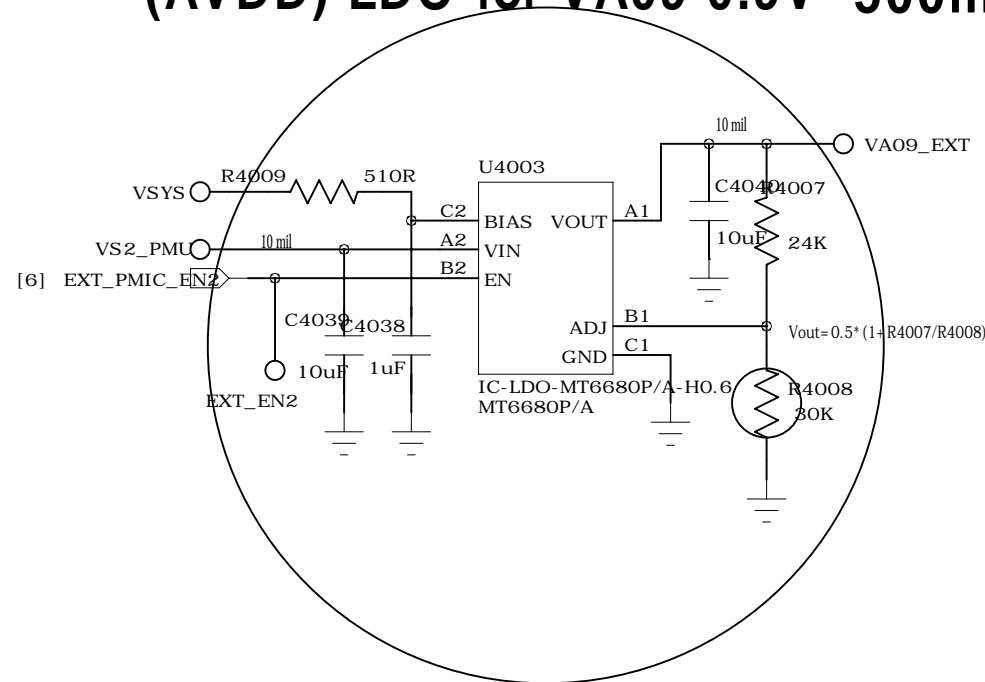
MEM_uMCP_LPDDR4x



	UMCP No.	C4028	C4020	C4021
128+6	H9HQ16AECCMDAR	NC	NC	1uF
128+6	KM2V8001CM-B707	NC	NC	1uF
256+8	H9HQ21AFAMZDAR-KEM	NC	1uF	1uF
256+8	KM8F8001JM-B813	NC	NC	1uF

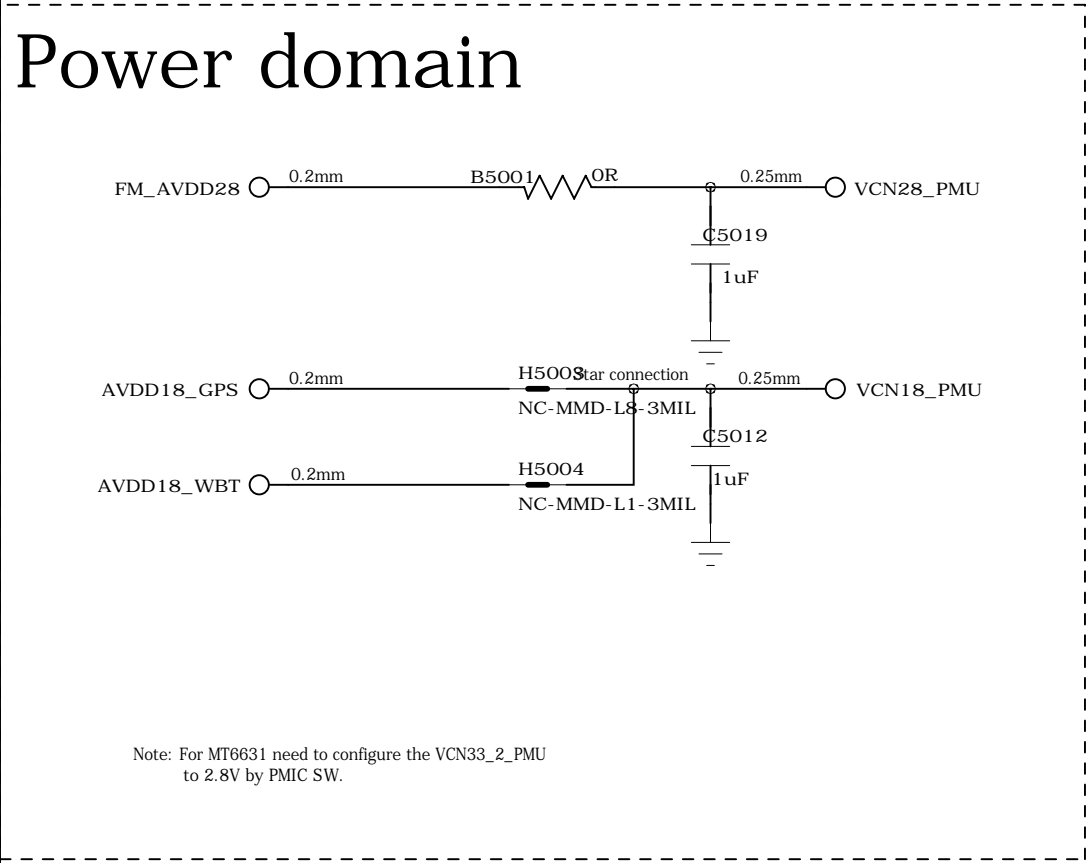


(AVDD) LDO for VA09 0.9V 500mA



COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 40_MEMORY_UMCP_LPDDR4X		VERSION: V1.2	SHEET: 15 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

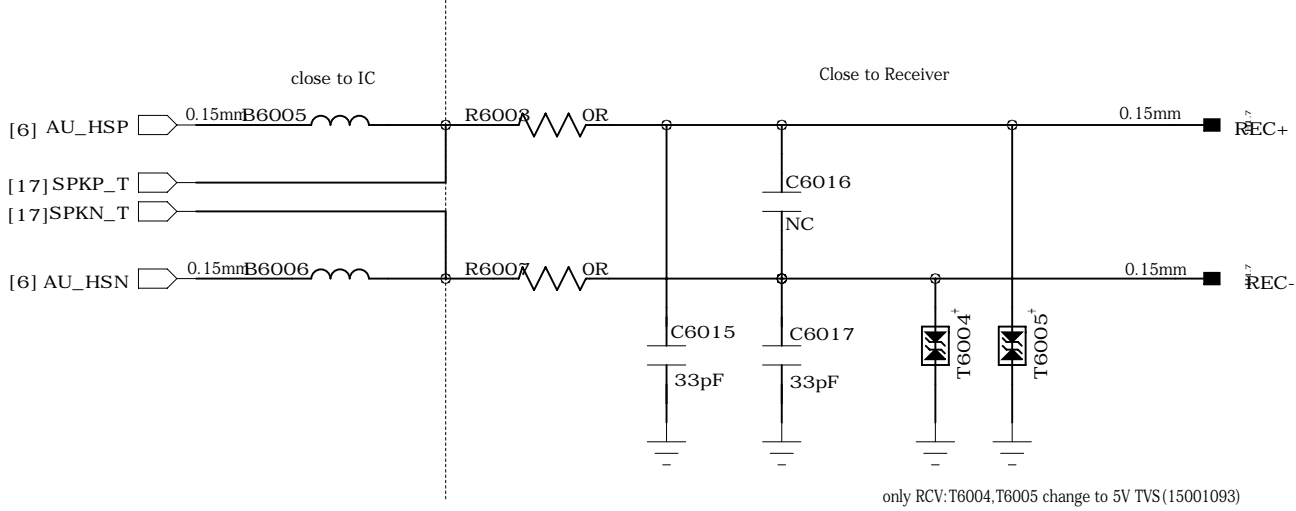
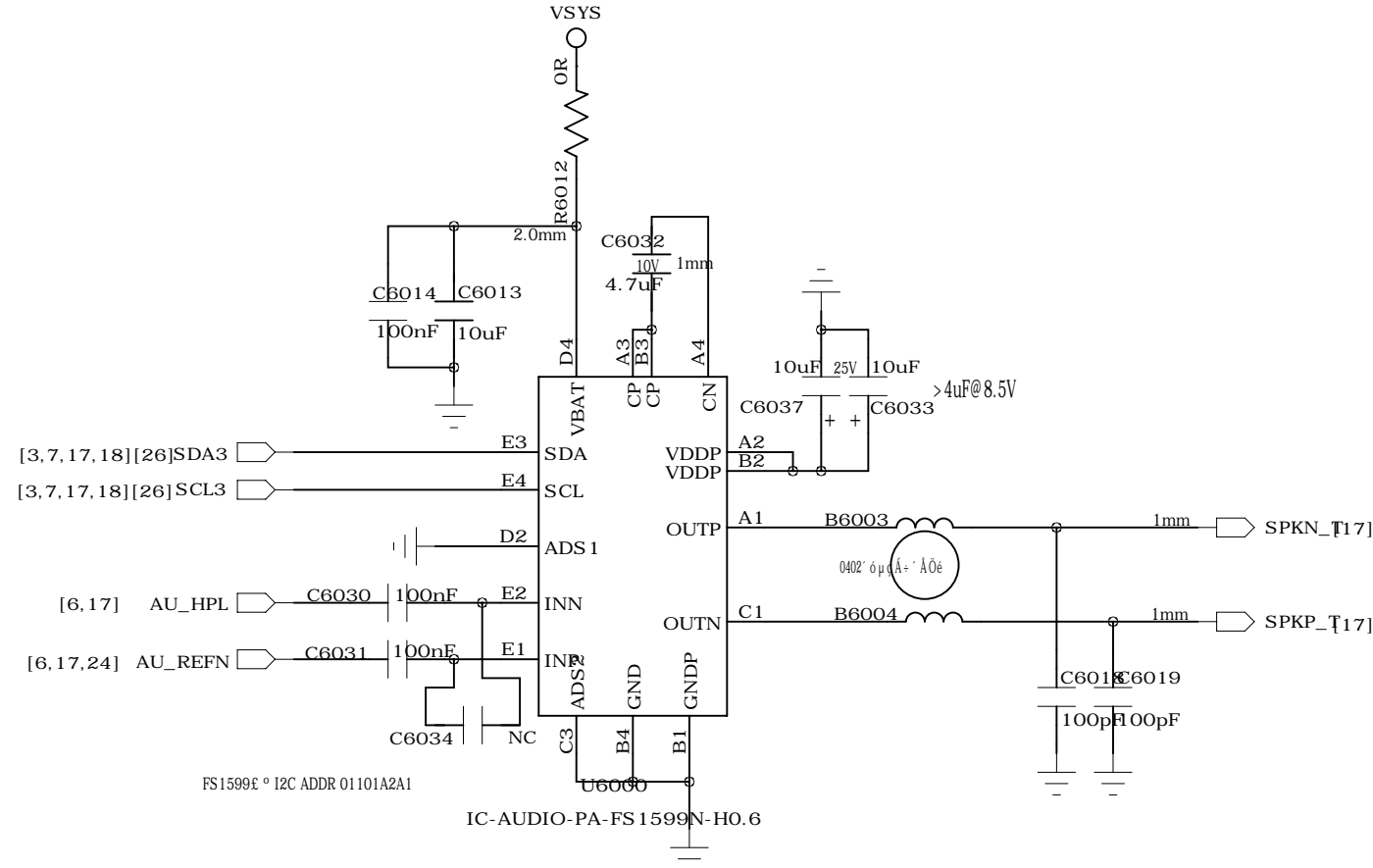
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



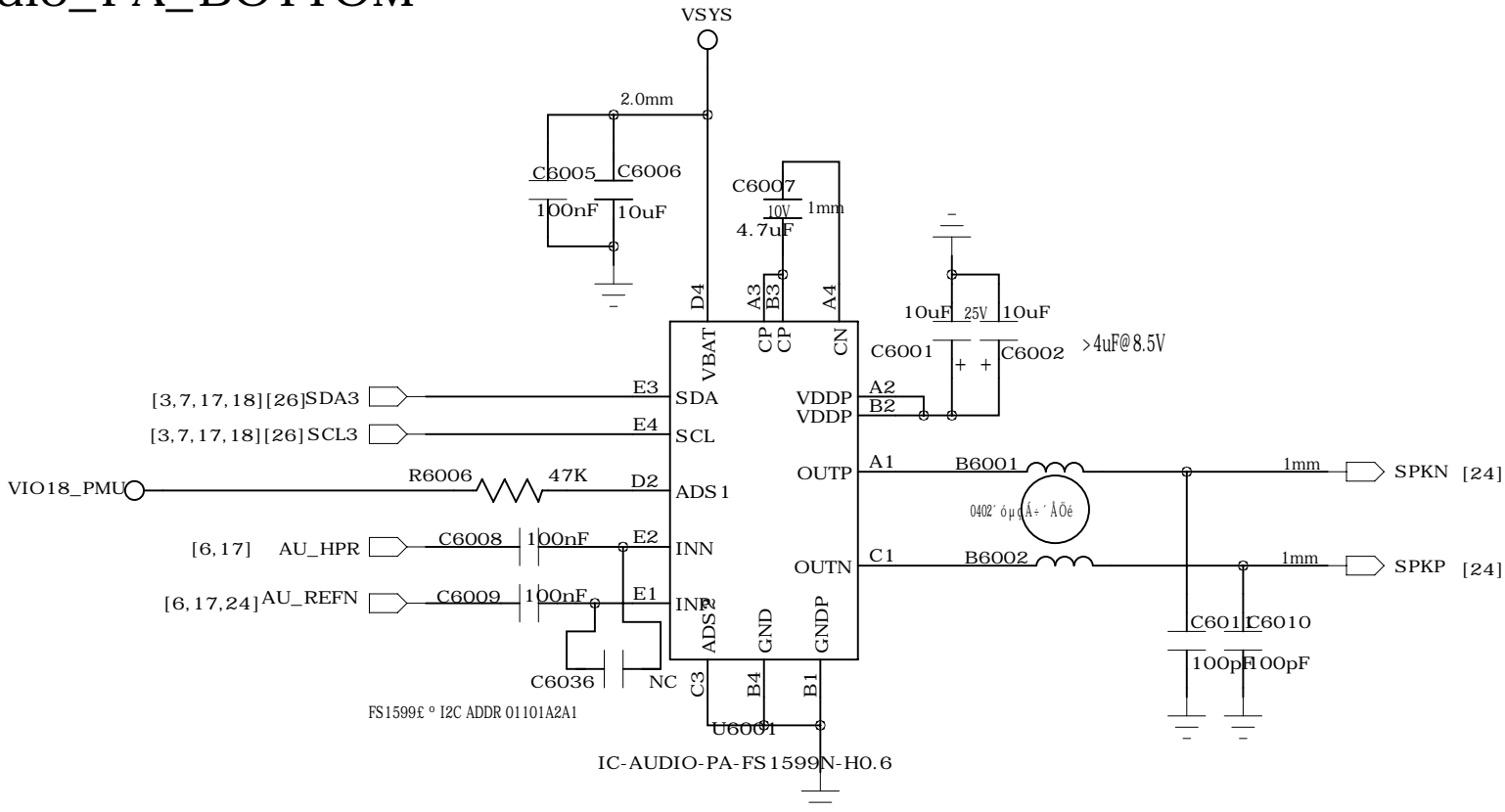
COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 50_CONNECTIVITY_MT6631		VERSION: V1.2	SHEET: 16 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

PERI_AUDIO_IO

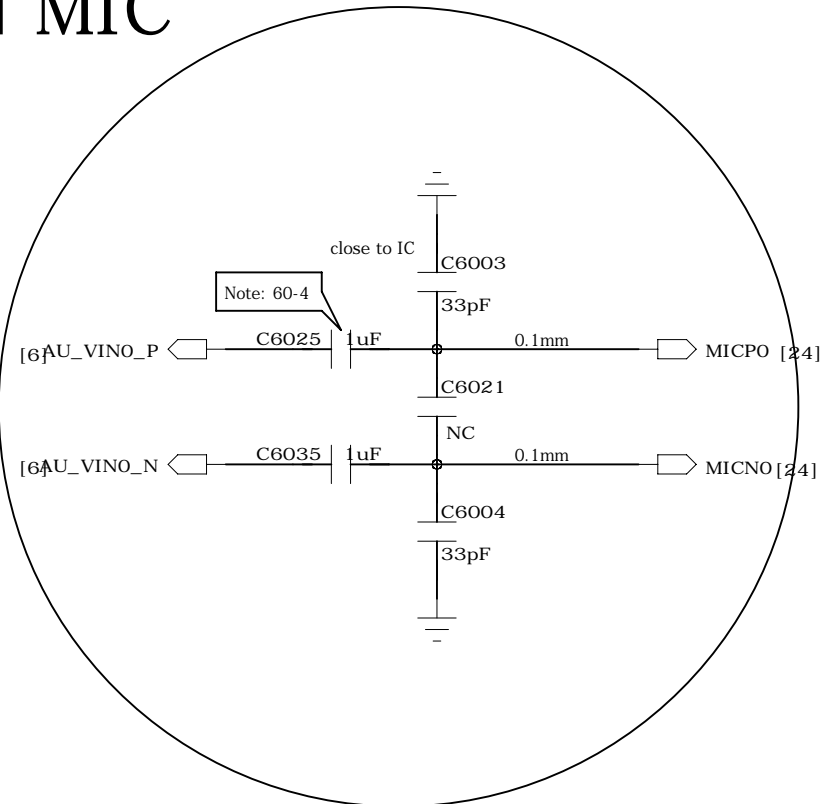
Audio_PA_TOP



Audio_PA_BOTTOM

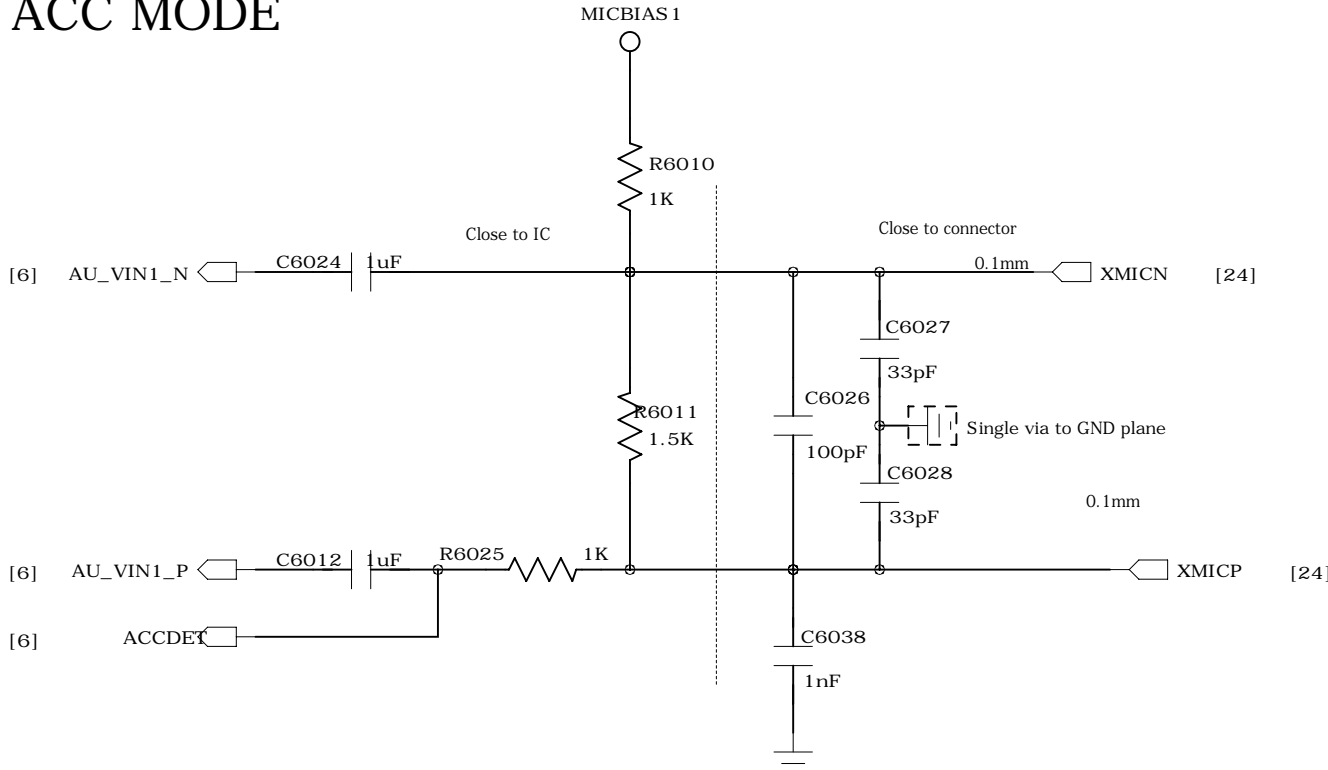


MAIN MIC

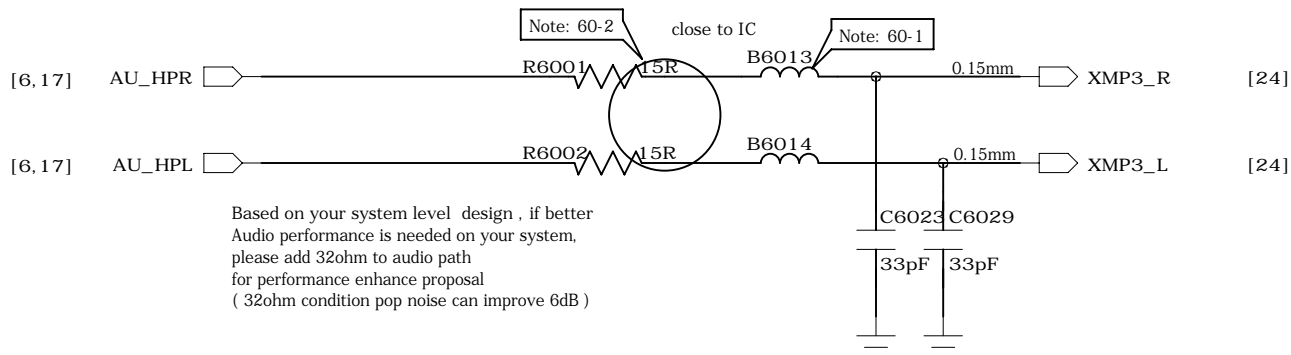


Earphone MICPHONE

ACC MODE MICBIAS 1



Earphone Receiver



Schematic design notice of "60_PERI_AUDIO_IO" page

Note 60-1: B6009 B6010 B6013 B6014 needs change to "BLM18BD102SN1" for high THD performance(-90dB), but this BOM change will result in FM RSSI 10dB degraded.

Note 60-2: To reserve a resistor in HPL and HPR in series connection both in order to optimize headphone pop noise. The recommended value of this resistor is 33

Note 60-3: Layout trace from MT6353 ball J3 AUDREFN to Audio jack GND must surround shield with GND.

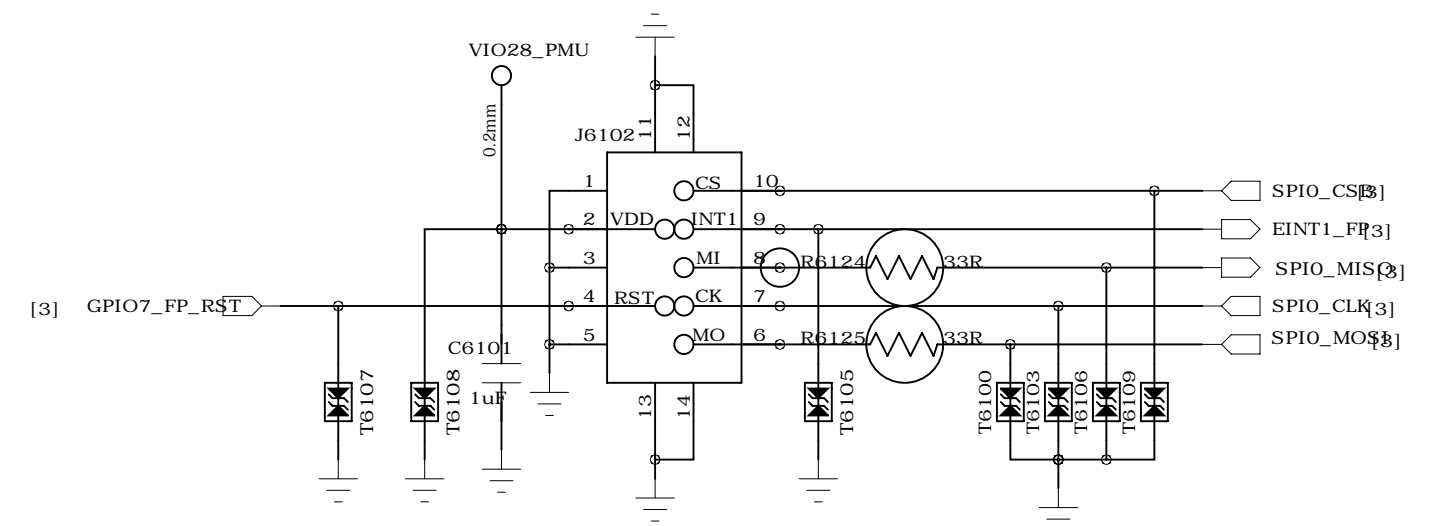
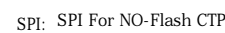
Note 60-4: Only support DCC mode.

COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 60_PERI_AUDIO_I		VERSION: V1.2	SHEET: 17 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

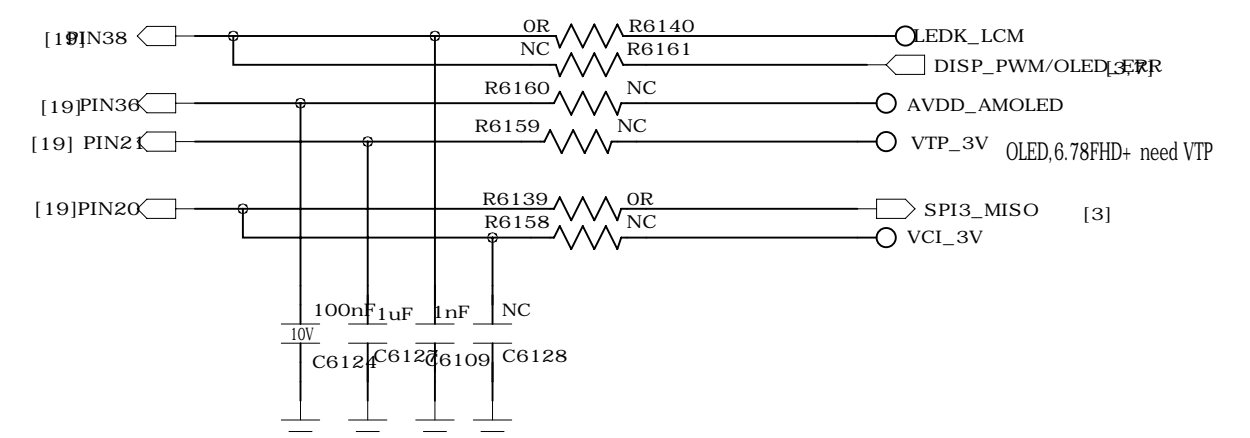
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

CTP (NT36525) I2C address: 0X01 (Write: 0x02, Read: 0x03)

6.95:LED:4*5; 6.78:LED6*3



6 OLED SMT	6.95 TFT SMT
R6150	R6130
R6151	R6131
R6152	R6132
R6153	R6133
R6154	R6134
R6155	R6135
R6156	R6136
R6157	
	R6138
R6158	R6139
R6159	
R6160	
R6161	R6140

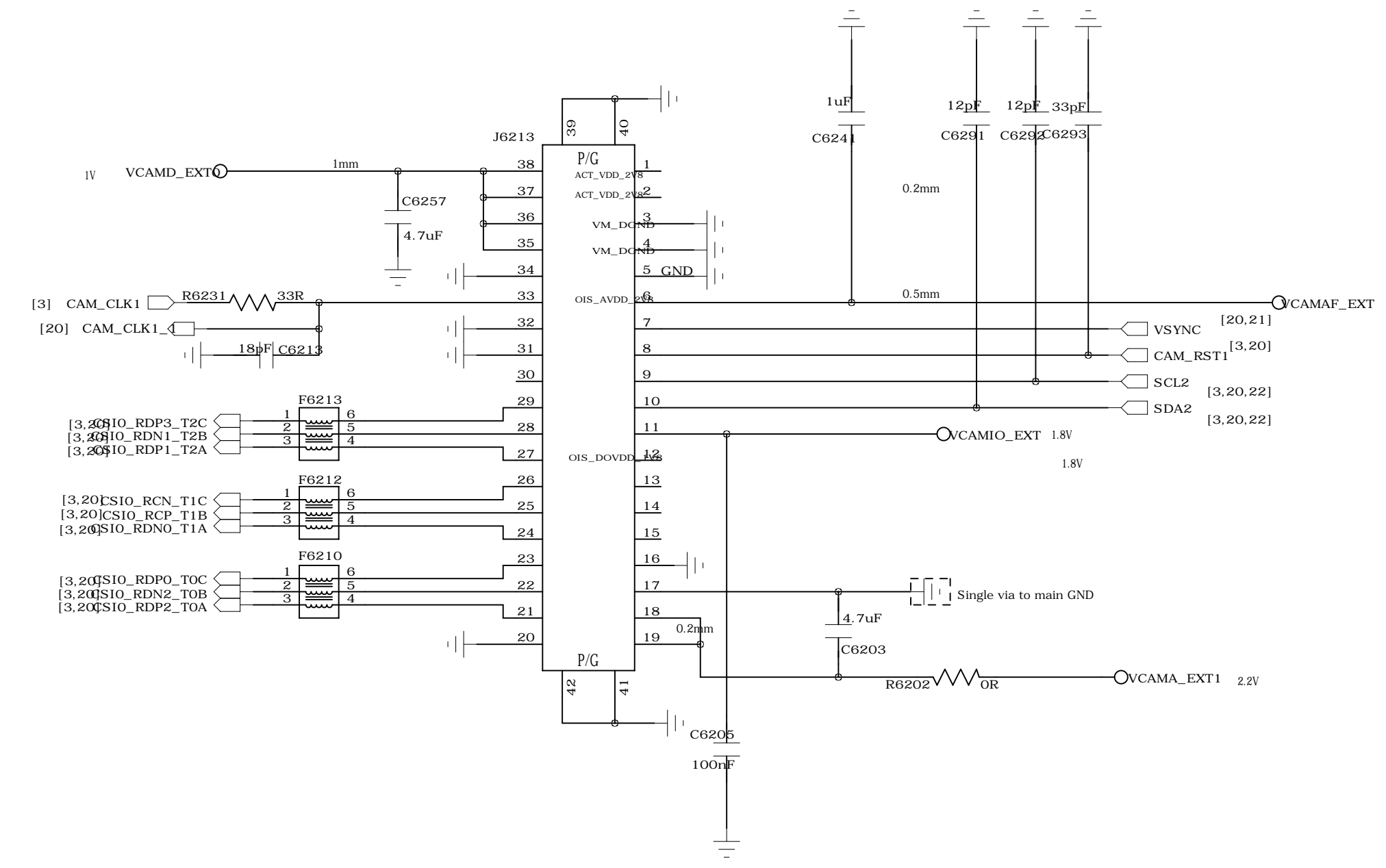


COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 61_PERI_LCM_CTP_FP		VERSION: V1.2	SHEET: 19 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

PERI_CAMERA_I

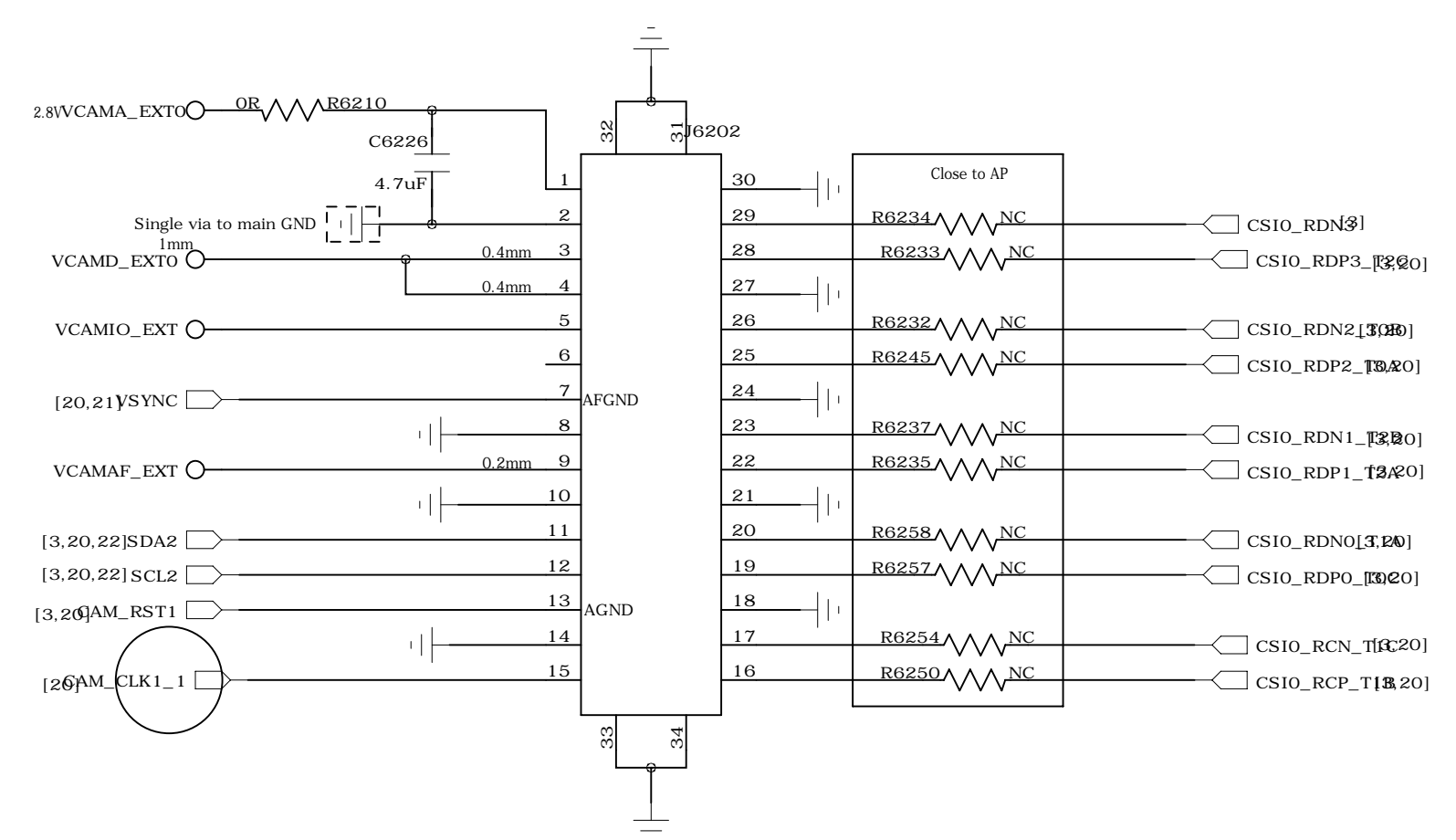
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

CAM I (108M)



	AVDD	DVDD	IOVDD	AFVDD	OIS DOVDD	OIS AVDD	I2C addr
108M S5KHMSX03-FGX9	2.2V TBD	1.0V 726.32mA	1.8V TBD	2.8V 105mA	/	/	Sensor: 0x20(W)/0x21(R) VCM: 0x18(W)/0x19(R) EEPROM: 0xA0(W)/0xA1(R)

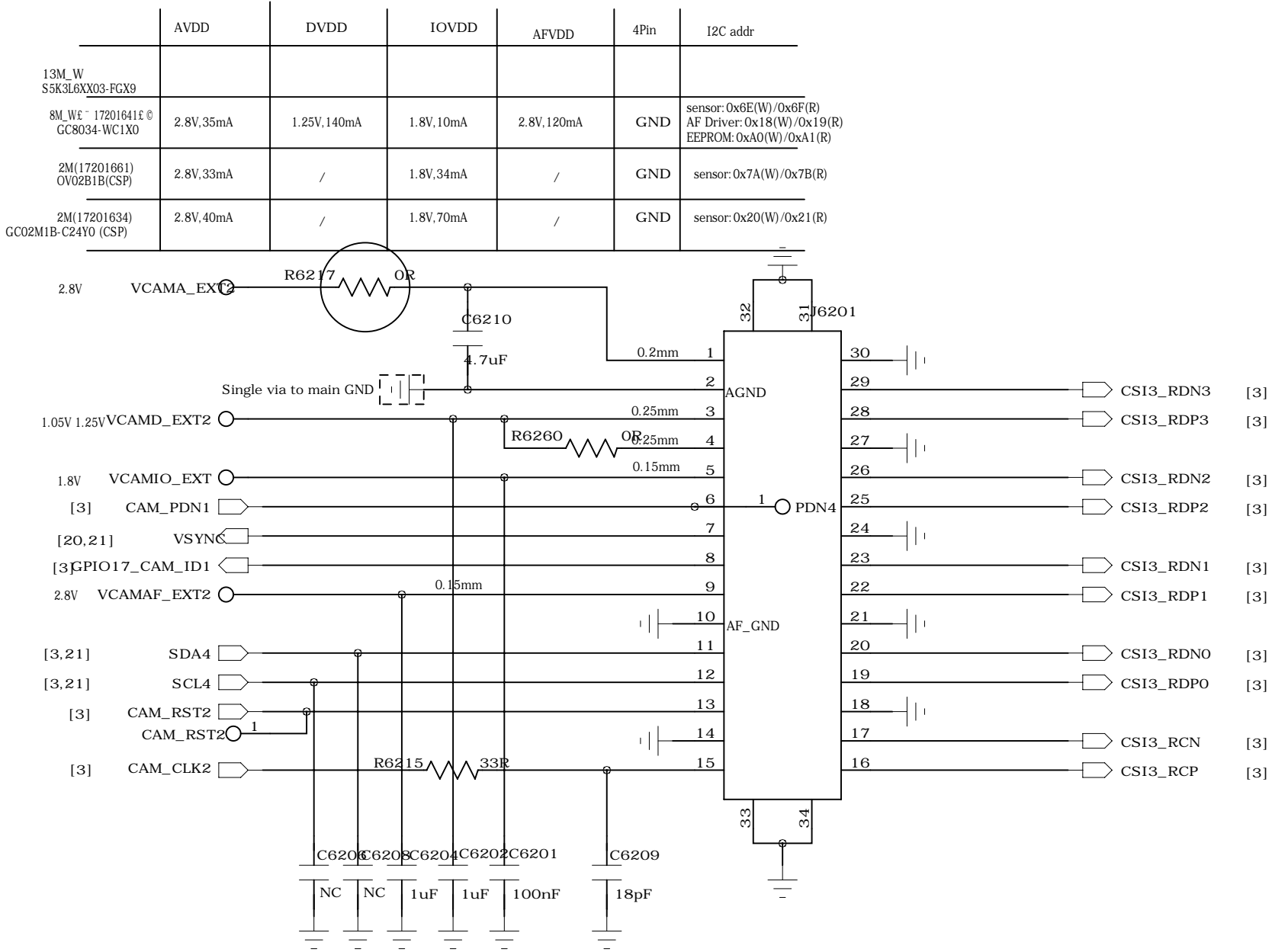
CAM II /50M)



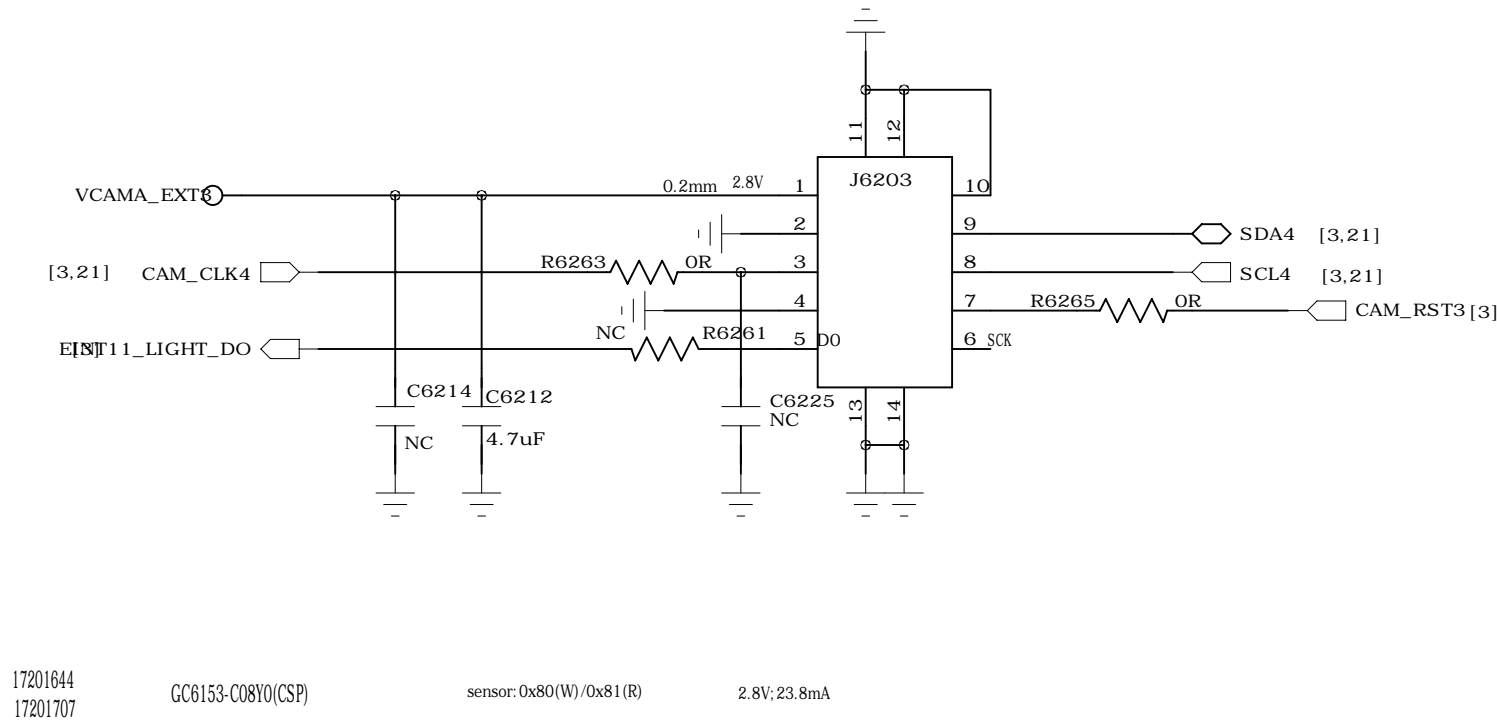
	AVDD	DVDD	IOVDD	AFVDD	I2C addr
50M AF-17201711 50M AF-17201715 S5KJN1SQ03-FGX9	2.8V 67.7mA	1.05V 260.7mA	1.8V 4mA	2.8V 103mA	Sensor: 0x20(W)/0x21(R) VCM: 0x18(W)/0x19(R) EEPROM: 0xA0(W)/0xA1(R)
50M AF-17201712 OV50C40-GA5A-002A	2.8V 100mA	1.2V 327mA	1.8V 2.25mA	2.8V 100mA	Sensor: 0x20(W)/0x21(R) VCM: 0x18(W)/0x19(R) EEPROM: 0xA0(W)/0xA1(R)

COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 62_PERI_CAMERA_I		VERSION: V1.2	SHEET: 20 OF 26
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

CAM II (13M_W/8M_W/2M)



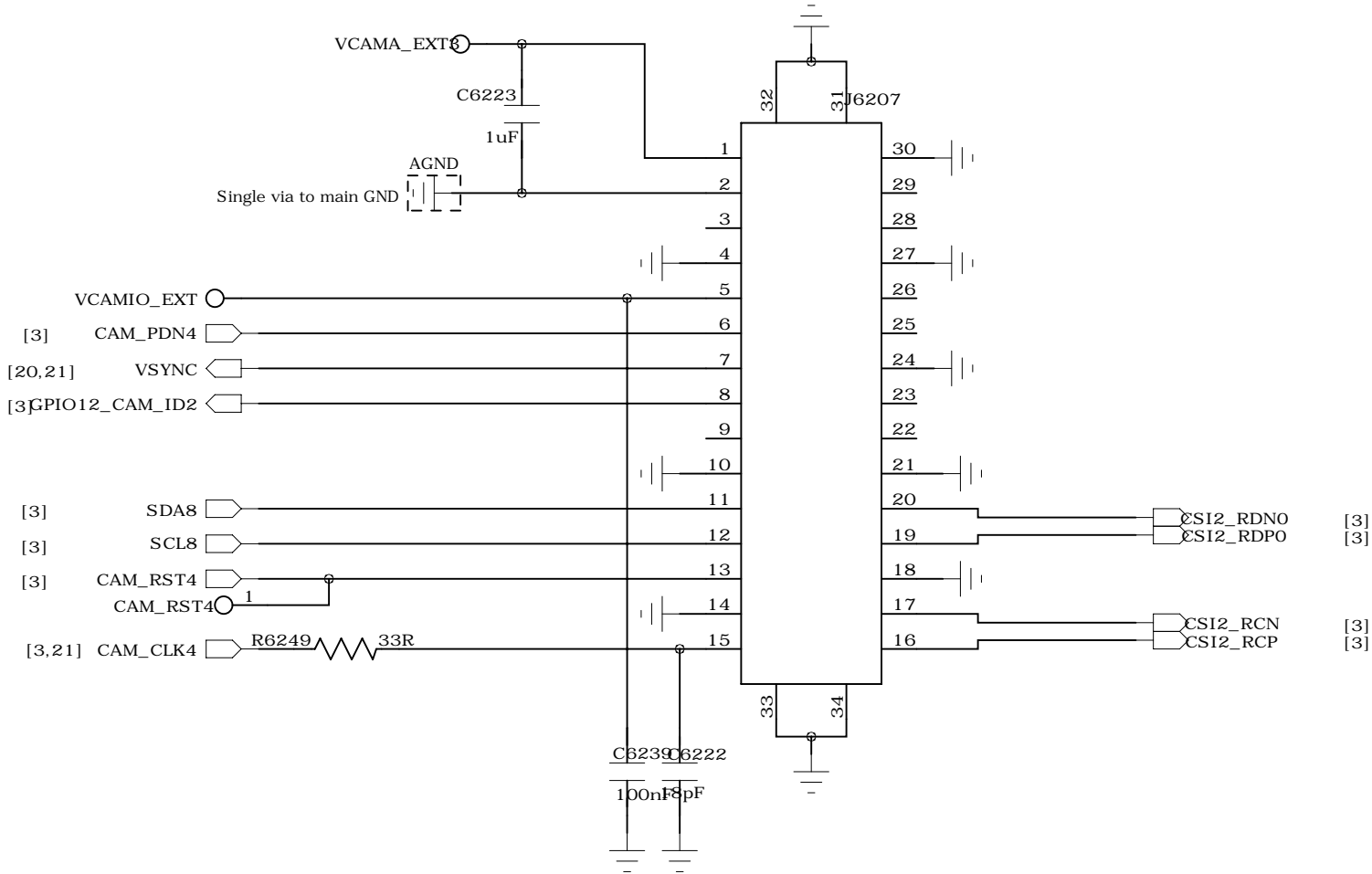
QVGA



CAM V (2M)

17201679 GC02M1B-C24Y0; I2C addr: 0x20(W)/0x21(R)

	AVDD	DVDD	IOVDD	I2C addr
2M(17201680) OV02B1B(CSP)	2.8V, 33mA	/	1.8V, 34mA	sensor: 0x7A(W)/0x7B(R)
2M(17201679) GC02M1B-C24Y0 (CSP)	2.8V, 40mA	/	1.8V, 70mA	sensor: 0x20(W)/0x21(R)



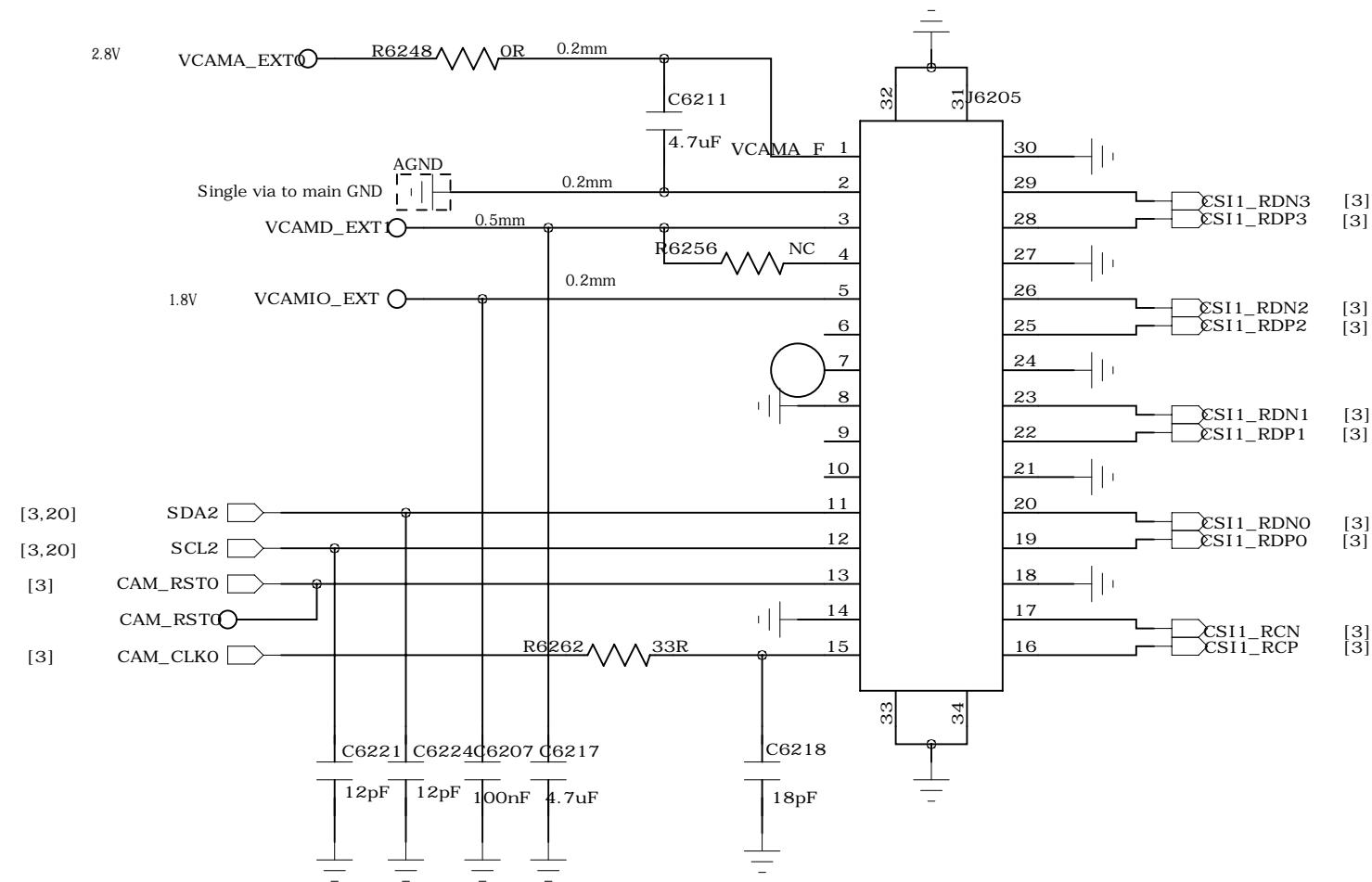
COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 62_PERI_CAMERA_II		VERSION: V1.2	SHEET: 21 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

PERI_CAMERA_III

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

FRONT MAIN CAMERA （16M/32M）

FRONT MAIN CAMERA （60M）



	AVDD		DVDD		IOVDD		4Pin	I2C addr
17201701 HI-1631Q	2.8V	52mA	1.1V	125mA	1.8V	4mA	GND	Sensor: 0x40(W)/0x41(R) EEPROM: 0xA2(W)/0xA3(R)
17201705 OV16B10-GAS	2.8V	52mA	1.05V	200mA	1.8V	5mA	DVDD	Sensor: 0x6C(W)/0x6D(R) EEPROM: 0xA2(W)/0xA3(R)

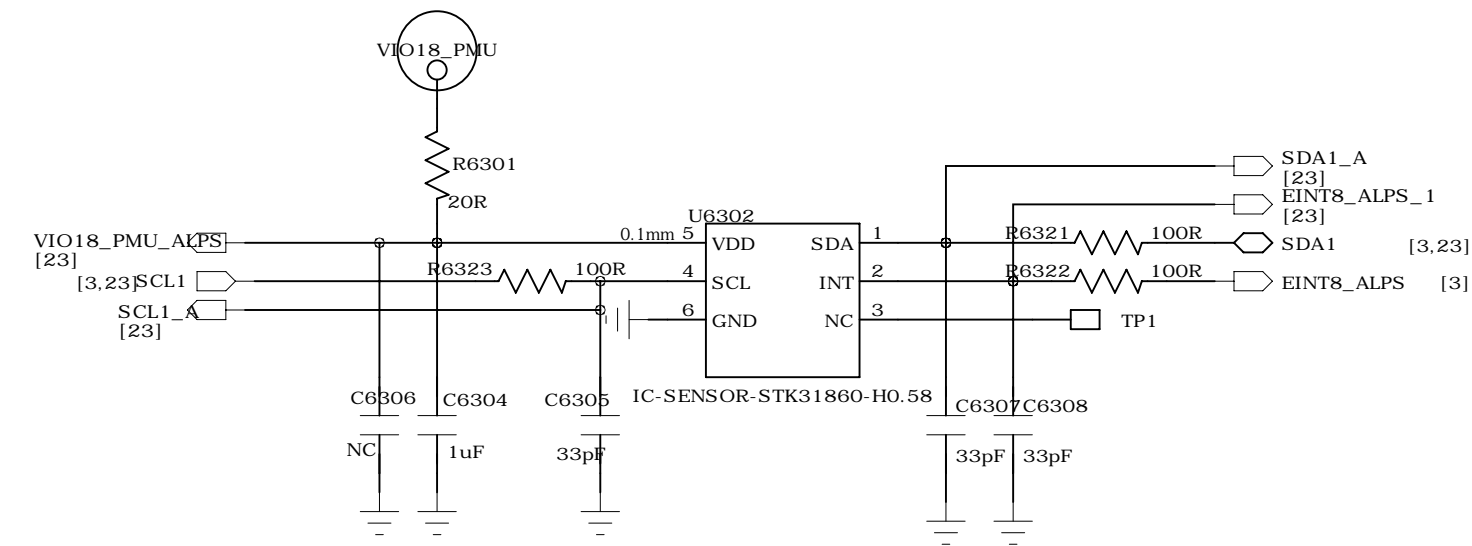
COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 62_PERI_CAMERA_III		VERSION: V1.2	SHEET: 22 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

PERI_SENSORS

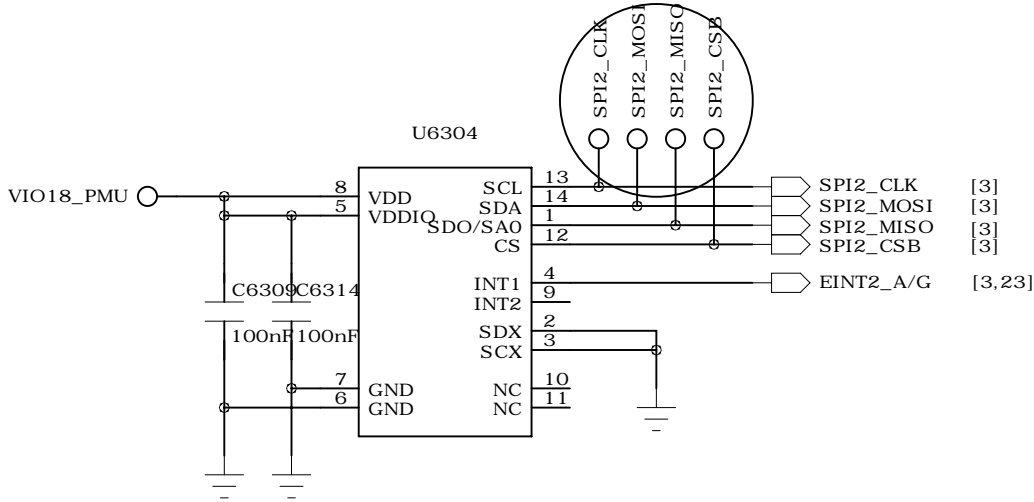
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

AL Sensor

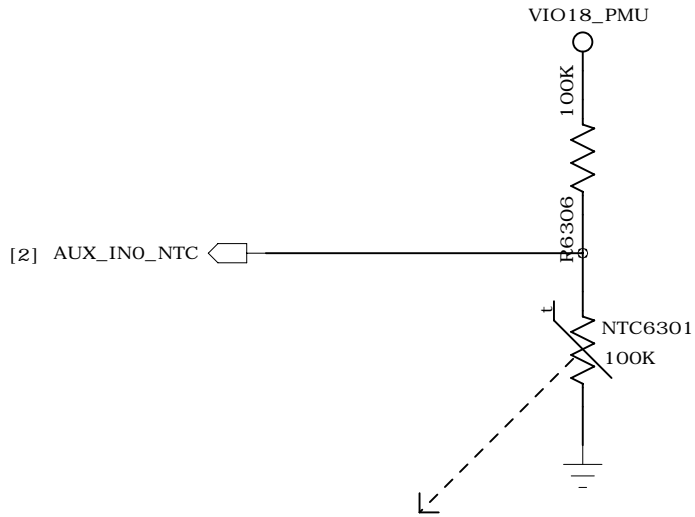
STK31860: I2C address: Write: 0x8A, Read: 0x8B



G-Sensor + Gyro Sensor



Thermistor to sense AP temperature



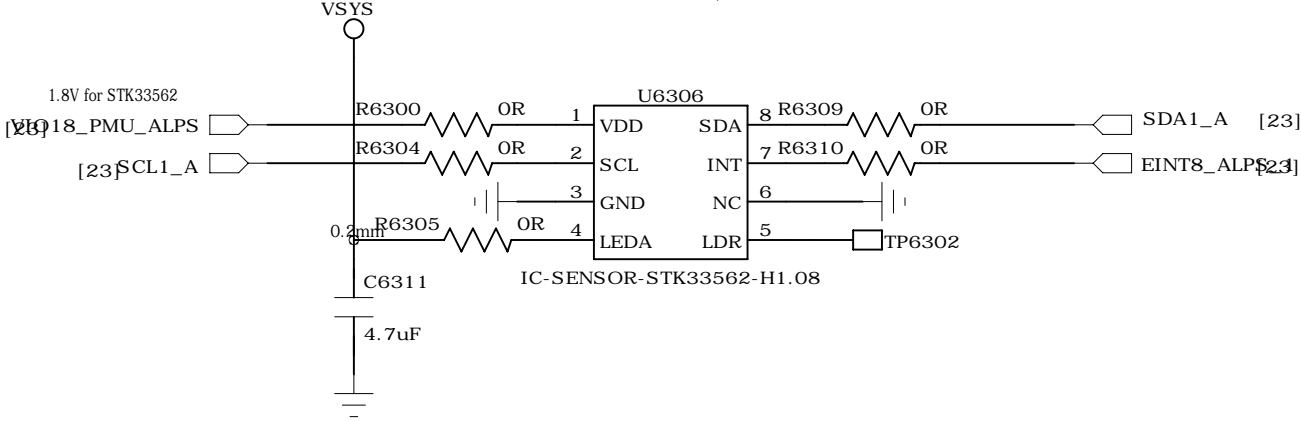
- 1. NTC6301 must keep a distance about 6- 8 mm away from BB and far from other heat sources 10 mm at least.
- 2. The distance is the shortest distance from package edge to edge.

AL& PS Sensor

STK33562: I2C address: Write: 0x8C, Read: 0x8D

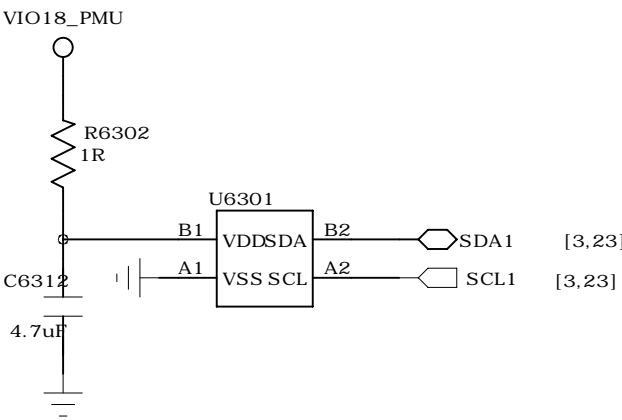
LTR-569ALS-WA: I2C address: Write: 0x46, Read: 0x47

MN78911D: I2C address: Write: 0x82, Read: 0x83



M-Sensor (COMPASS)

MMC5603: I2C ADDRESS: 0x60 (Write) / 0x61 (Read)



TOF

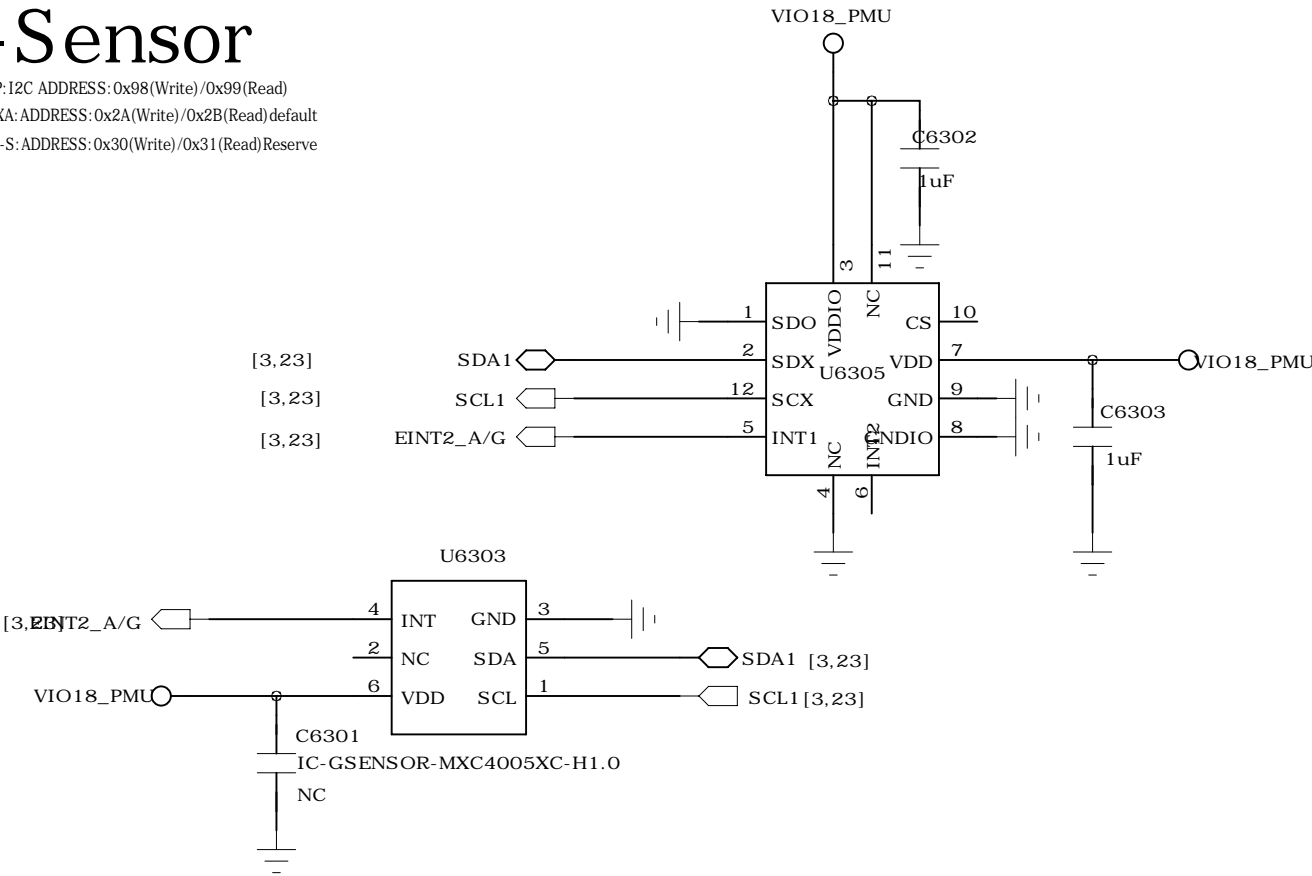
	VOL	I2C addr
VL53L3	2.6-3.5V, Typ2.8V	W: 0x52 / R: 0x53
VL5300	3.0-3.6V, Typ3.3V	
FS2001M	2.7-3.3V, Typ3V	

G-Sensor

MC3416-P: I2C ADDRESS: 0x98 (Write) / 0x99 (Read)

MXC665XA: ADDRESS: 0x2A (Write) / 0x2B (Read) default

STK8BA50-S: ADDRESS: 0x30 (Write) / 0x31 (Read) Reserve

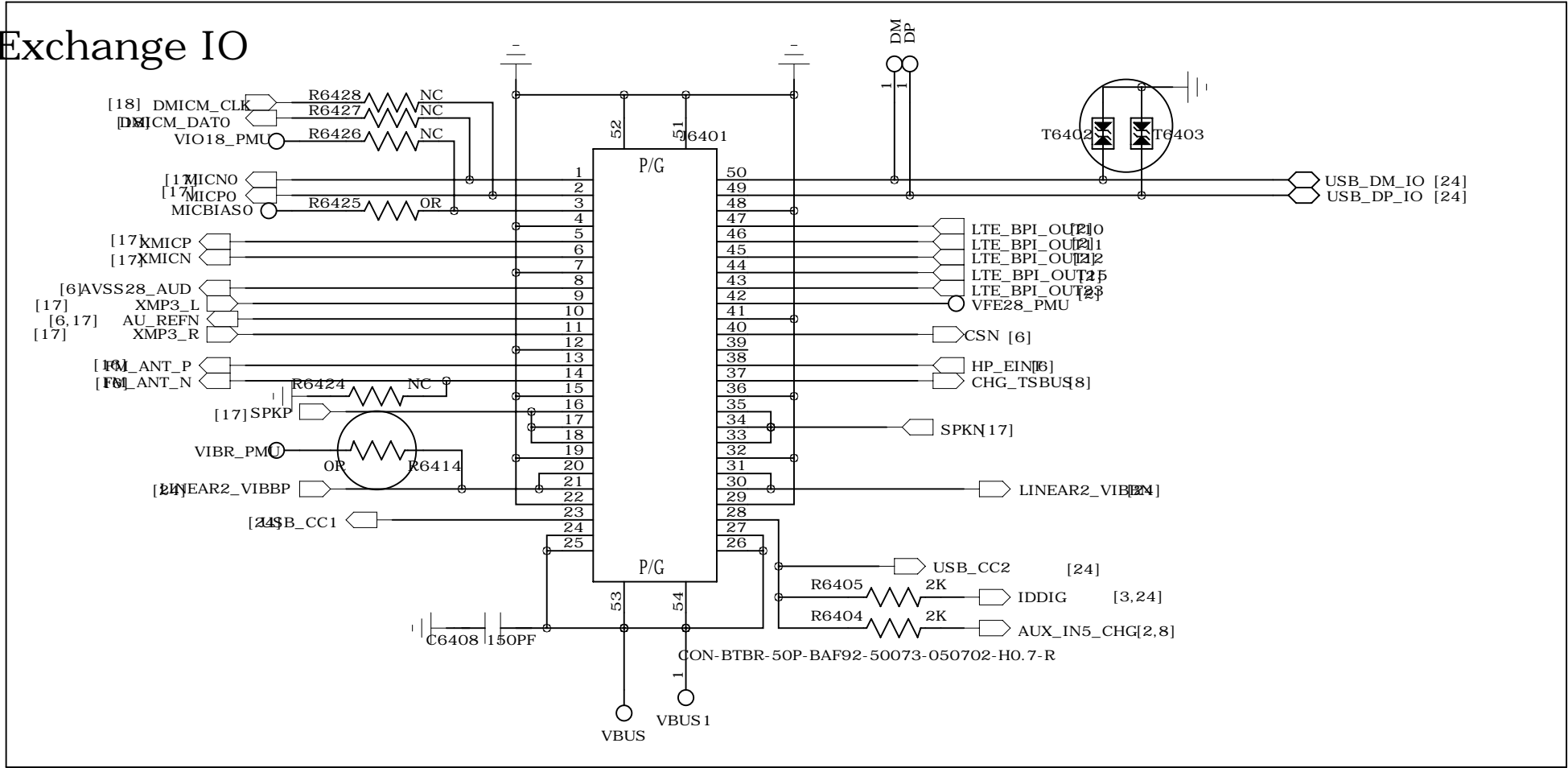


COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 63_PERI_SENSORS		VERSION: V1.2	SHEET: 23 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

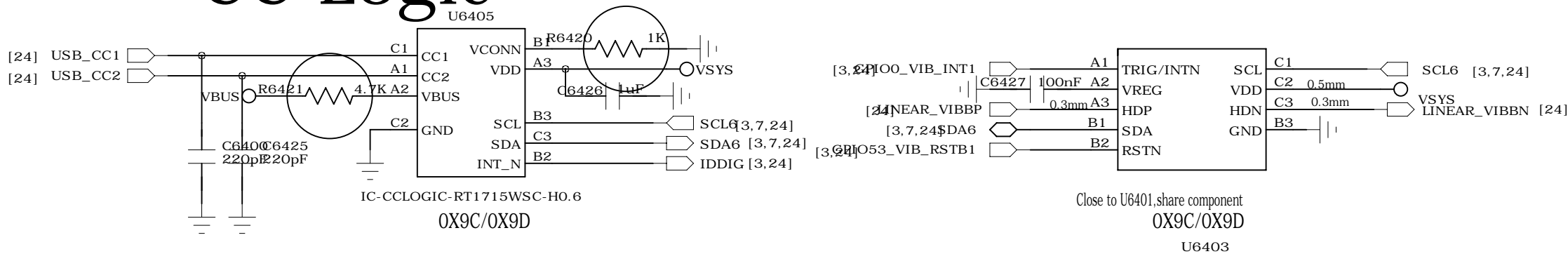
PERI_EXCH_IO

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

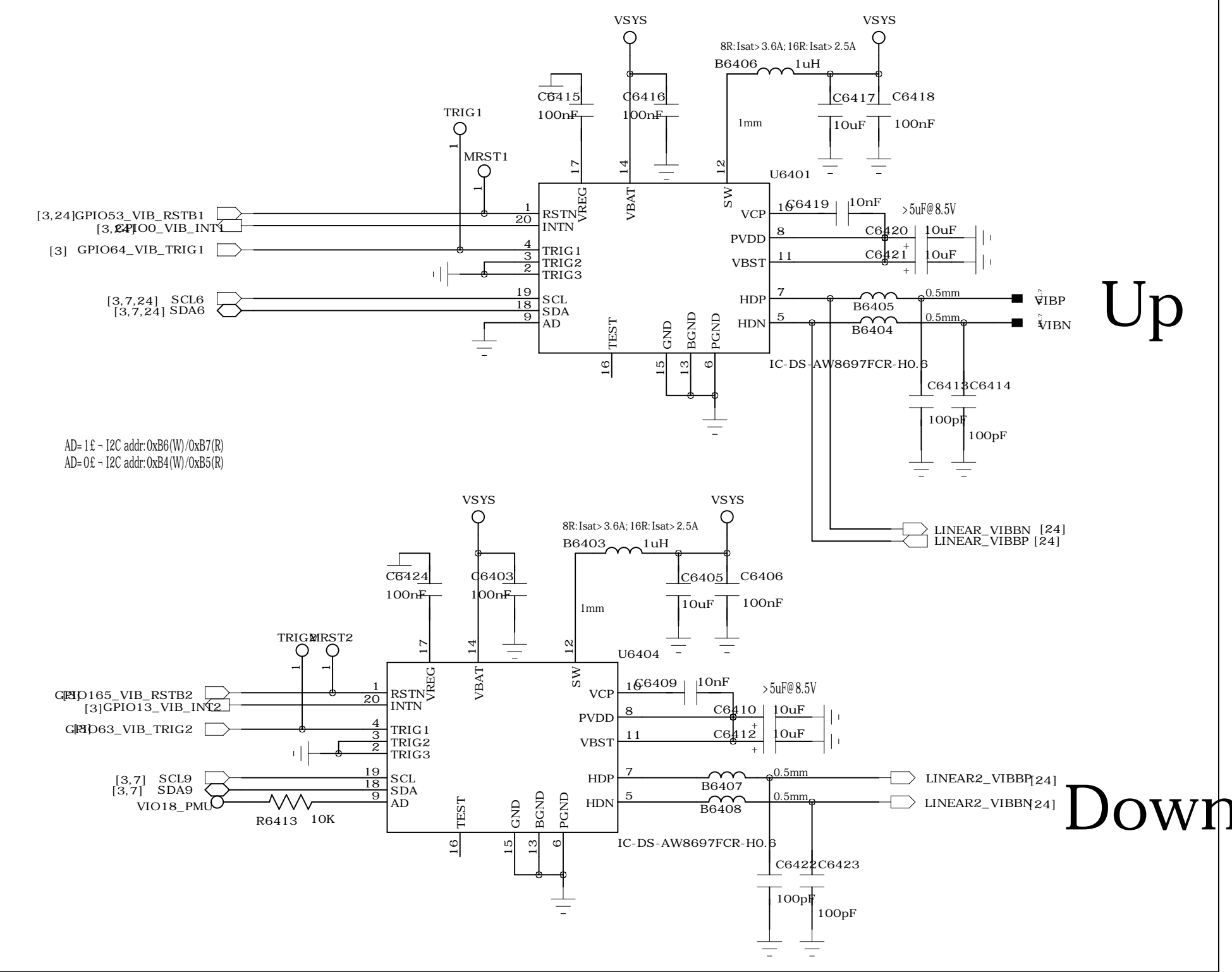
Exchange IO



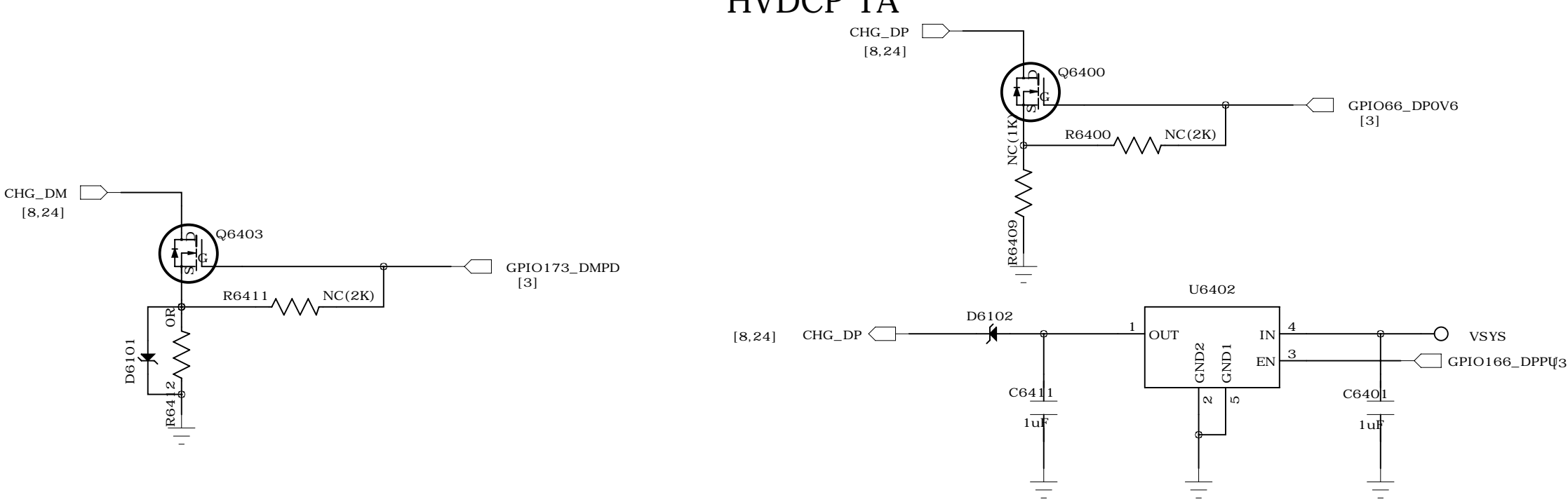
CC Logic



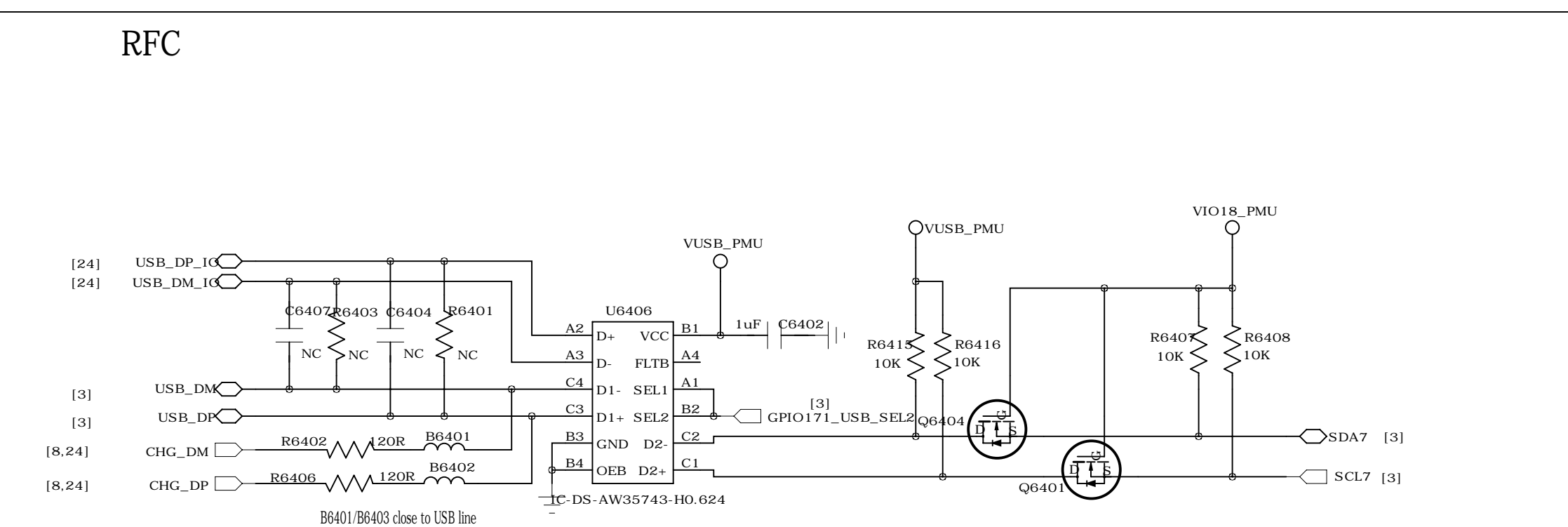
Linear Motor Driver



HVDCP TA



RFC



COMPANY: TRANSSION HOLDINGS

MODEL: H81X

Modified Date: 2021/12/31

DRAWN

LJJ/DLA

DATED

2021/03/17

TITLE: 64_PERI_EXCH_IO

CHECKED

< CHECKED >

DATED

< >

Confidentiality

CONFIDENTIAL

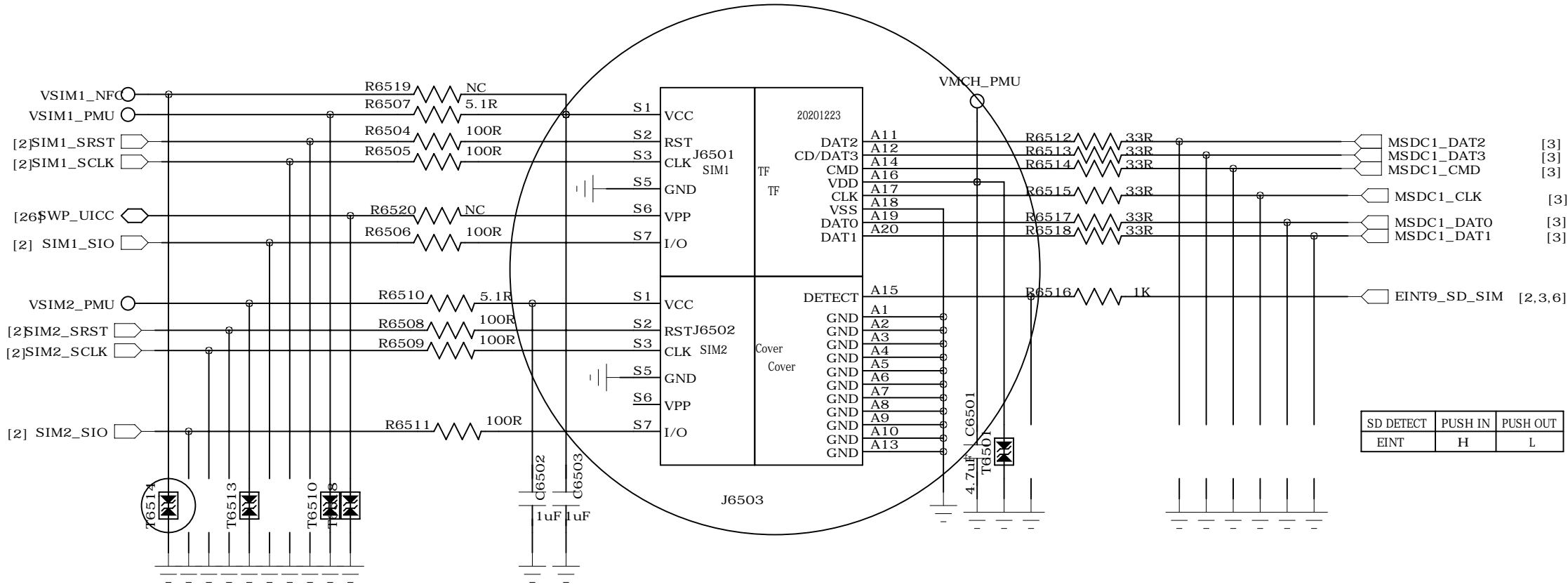
VERSION: V1.2

SHEET: 24 OF 26

PERI_SIM_SD_KEYPAD

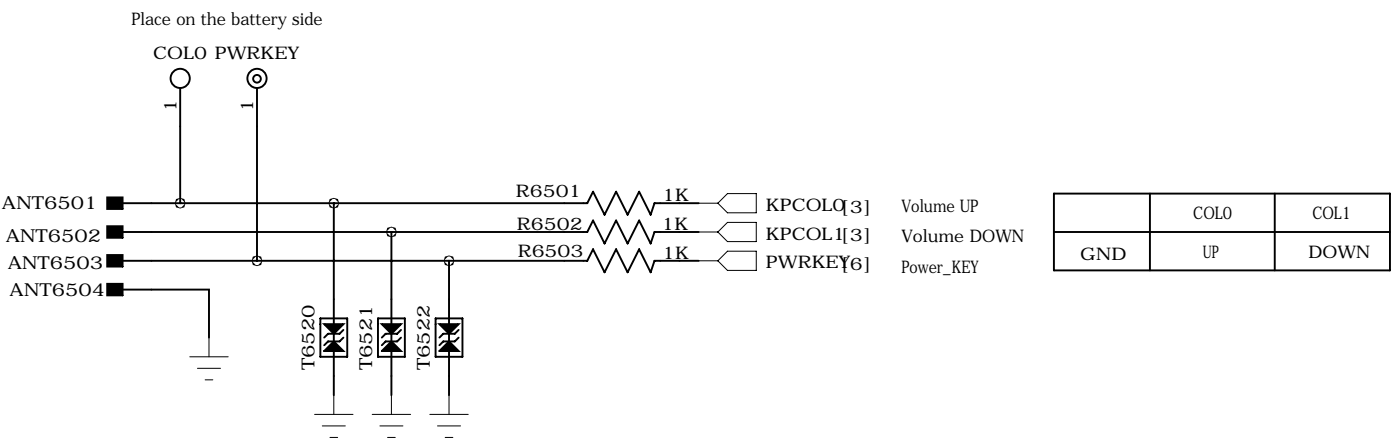
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

SIM1/2-SD-CARD



Indicator LED

SIDEKEY



COMPANY: TRANSSION HOLDINGS				MODEL: H81X		Modified Date: 2021/12/31	
DRAWN	LJJ/DLA	DATED	2021/03/17	TITLE: 65_PERI_SIM_SD_KEYPAD_LED		VERSION: V1.2	SHEET: 25 OF 26
CHECKED	< CHECKED >	DATED	< >	Confidentiality	CONFIDENTIAL		

