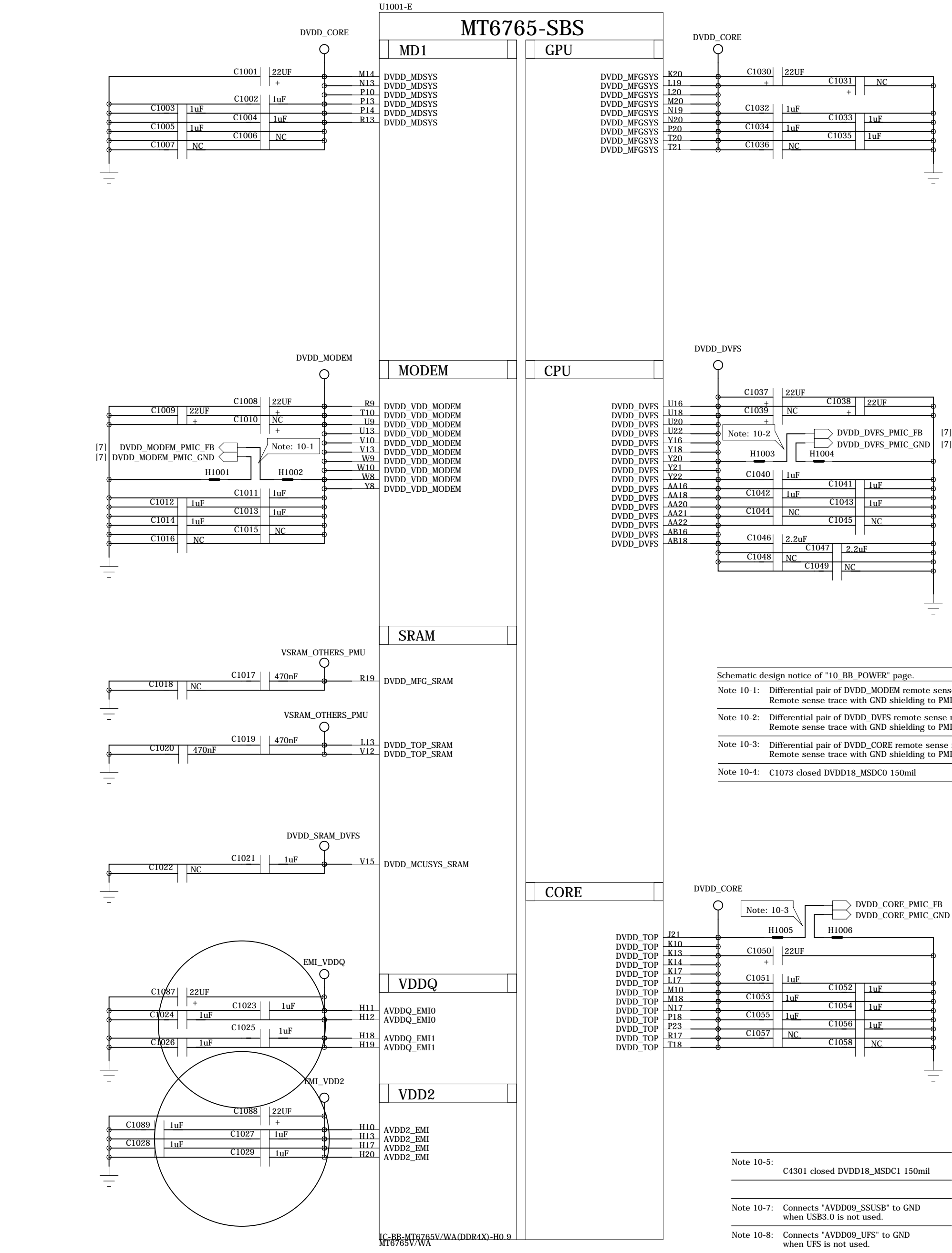


BB_POWER

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



Schematic design notice of "10_BB_POWER" page.

Note 10-1: Differential pair of DVDD_MODEM remote sense must be close to BB's ball. Remote sense trace with GND shielding to PMIC (Differential)

Note 10-2: Differential pair of DVDD_DVFS remote sense must be close to BB's ball. Remote sense trace with GND shielding to PMIC (Differential)

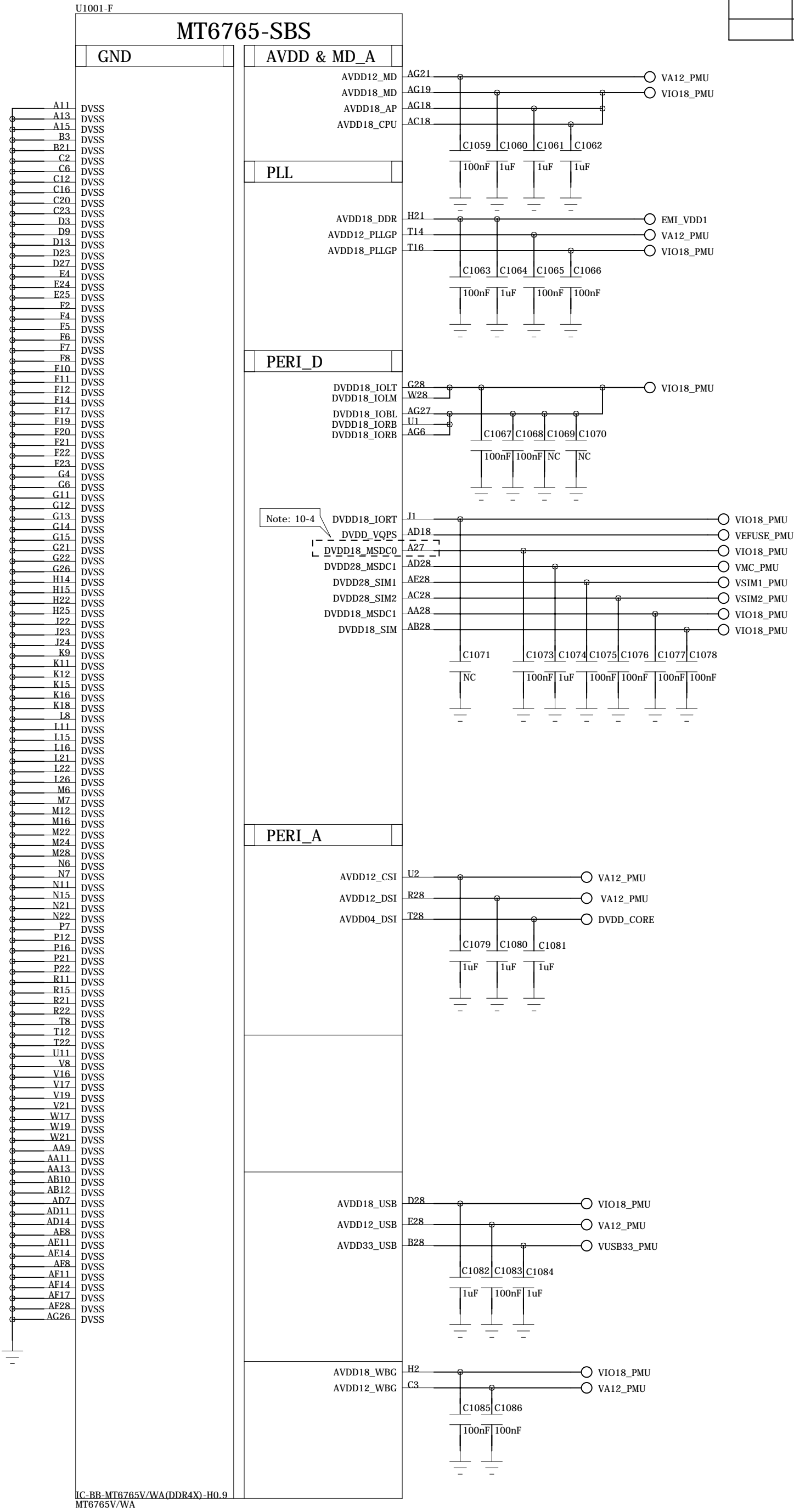
Note 10-3: Differential pair of DVDD_CORE remote sense must be close to BB's ball. Remote sense trace with GND shielding to PMIC (Differential)

Note 10-4: C1073 closed DVDD18_MSDC0 150mil

Note 10-5: C4301 closed DVDD18_MSDC1 150mil

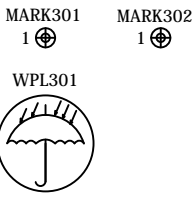
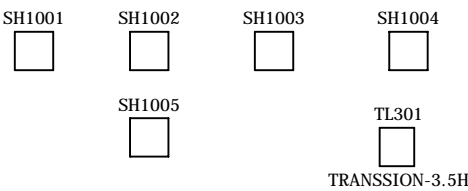
Note 10-7: Connects "AVDD09_SSUSB" to GND when USB3.0 is not used.

Note 10-8: Connects "AVDD09_UFS" to GND when UFS is not used.



IC-BB-MT6765V/WA(DDR4X)-H0.9
MT6765V/WA

SHIELDING&LOGO&SN&MARK



COMPANY: TRANSSION HOLDINGS

MODEL: H622

Modified Date: 2018/7/6

DRAWN

SYJ/LC

DATED

20180207

TITLE:

10_BB_POWER

CHECKED

<CHECKED>

DATED

< >

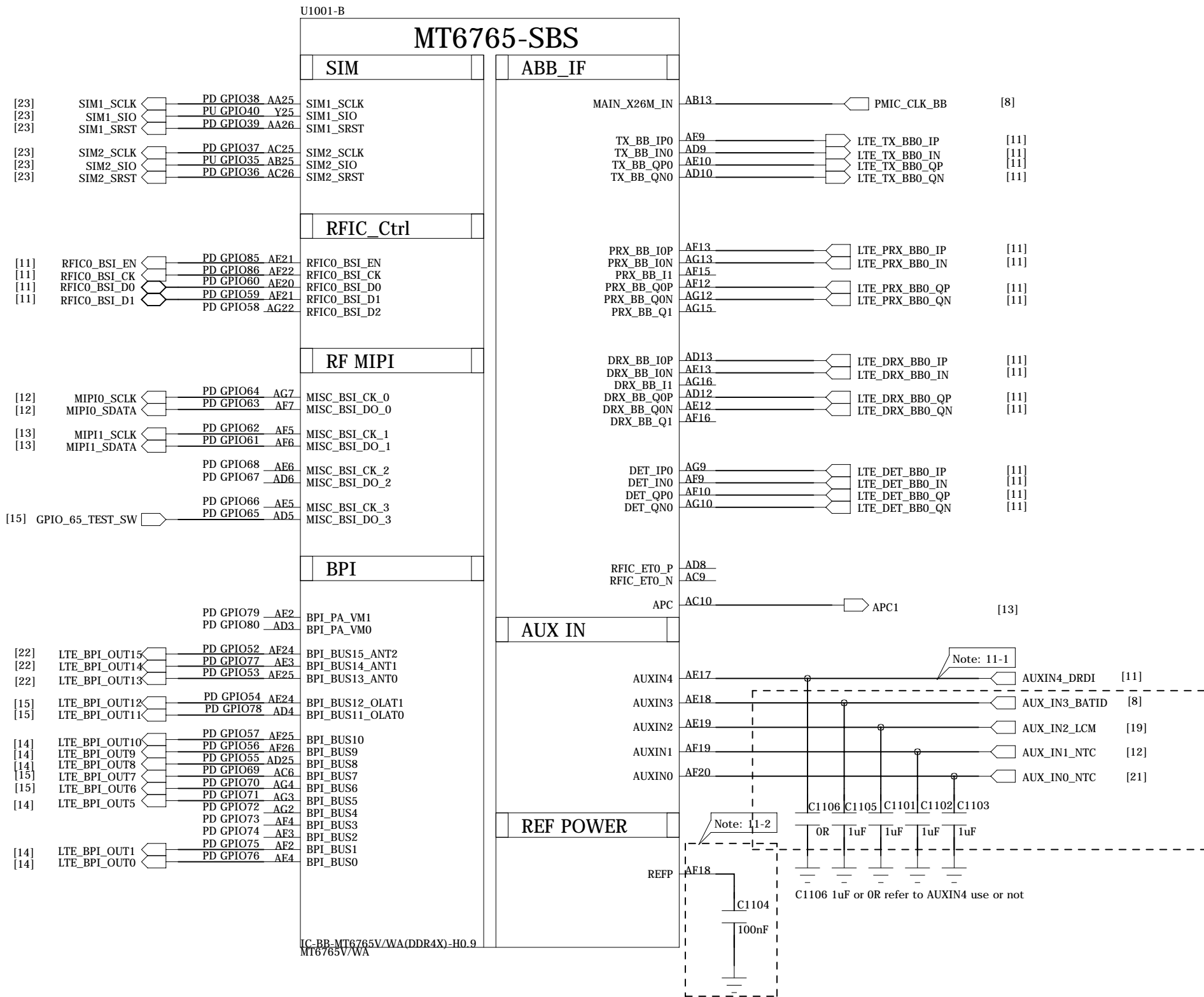
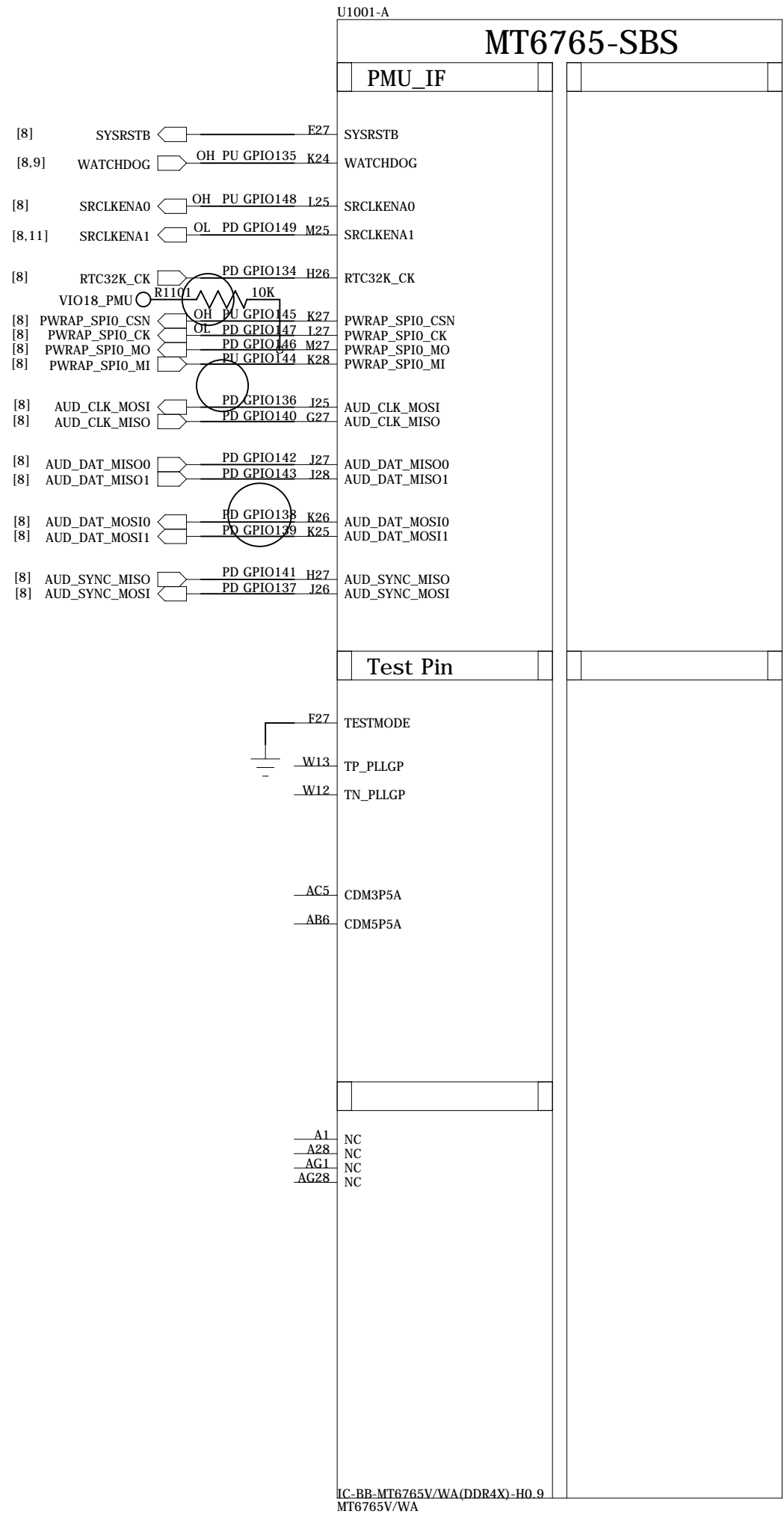
Confidentiality

CONFIDENTIAL

VERSION: V1.0

SHEET: 3 OF 23

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



"PWRAP_SPI0_CSN" and "AUD_DAT_MOSI0" are bootstrap pin to select which interface will be the JTAG pin out.

Default	PWRAP_SPI0_CSN		AUD_DAT_MOSI0		AP_JTAG	IO_JTAG
	(PU)	HI	(PD)	LO	N/A	N/A
		HI		HI (by ext. PS)	SPI_CSB/SPI_CLK/SPI_MO/SPI_MI/EINT8	N/A
		LO (by ext. PS)		LO	SPI_CSB/SPI_CLK/SPI_MO/SPI_MI/EINT8	SPI1+SPI3
		LO (by ext. PS)		HI (by ext. PS)	MSDC1_CLK/CMD/DAT0/DAT1/DAT2	N/A

Note 22-4: PWRAP_SPI0_MI are DDR type feature in bootstrap

Default	PWRAP_SPI0_MI		Bootting interface	
	Default=PU		DDR	MSDC0 pin mux
		LO (by ext. PS)	LPDDR3	follow LP3 Ref SCH.
		HI	LPDDR4X	follow LP4X Ref SCH.

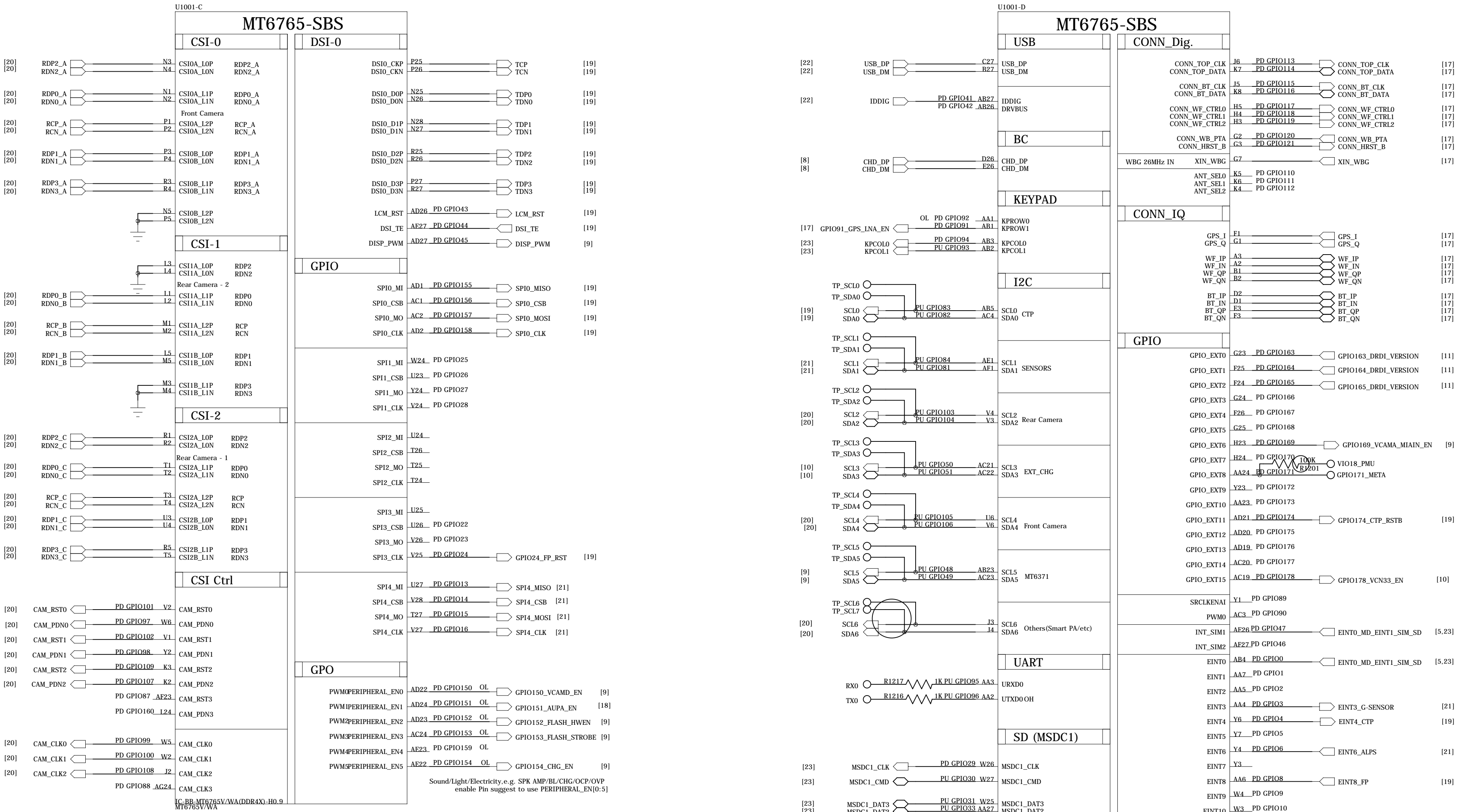
Schematic design notice of "11_BB_I" page.

Note 11-1: 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 11-2: The de-coupling cap. for REFF (AF18 ball) have to be placed as close to BB as possible.

COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 11_BB_I		VERSION: V1.0	SHEET: 4 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

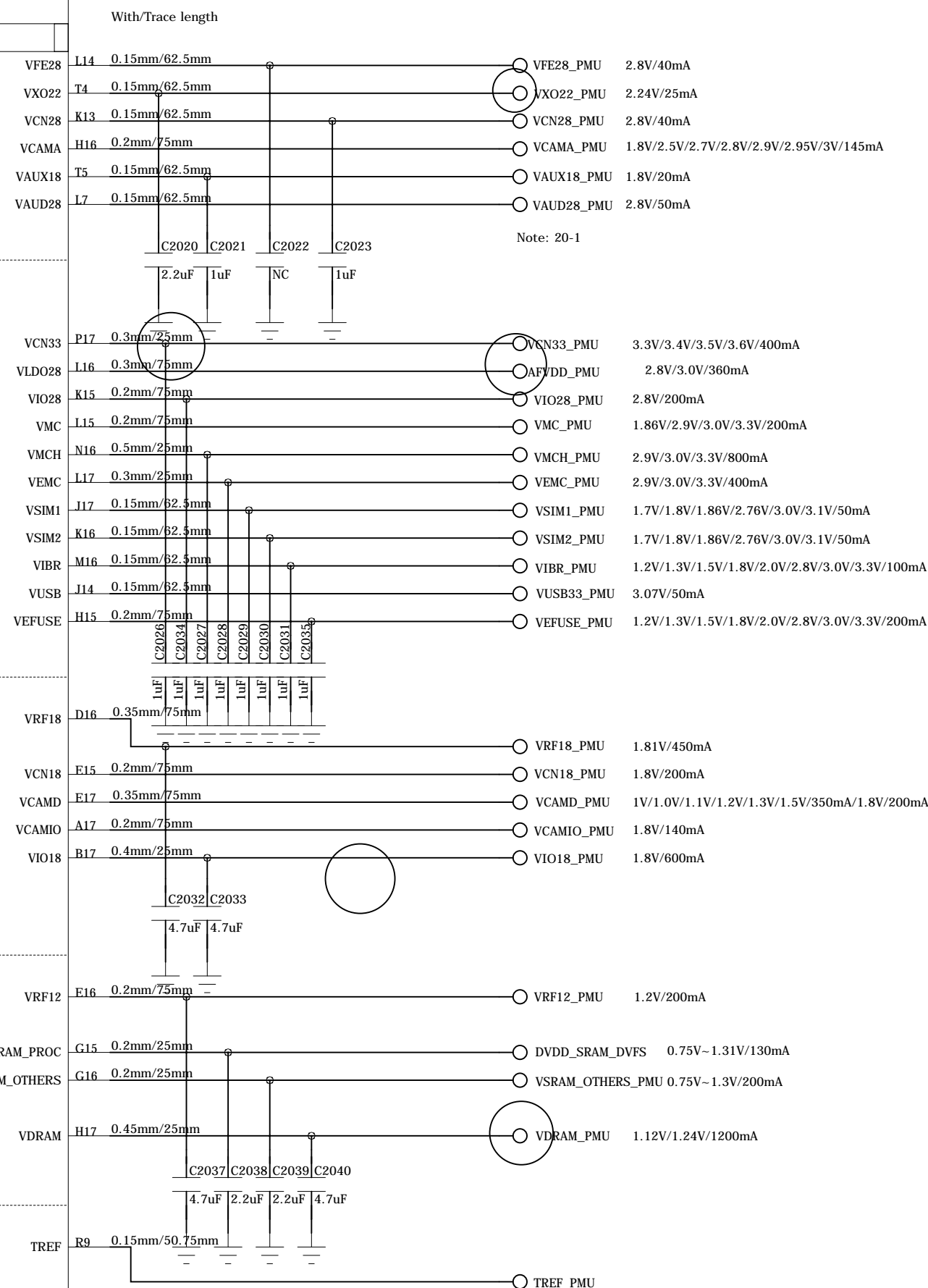
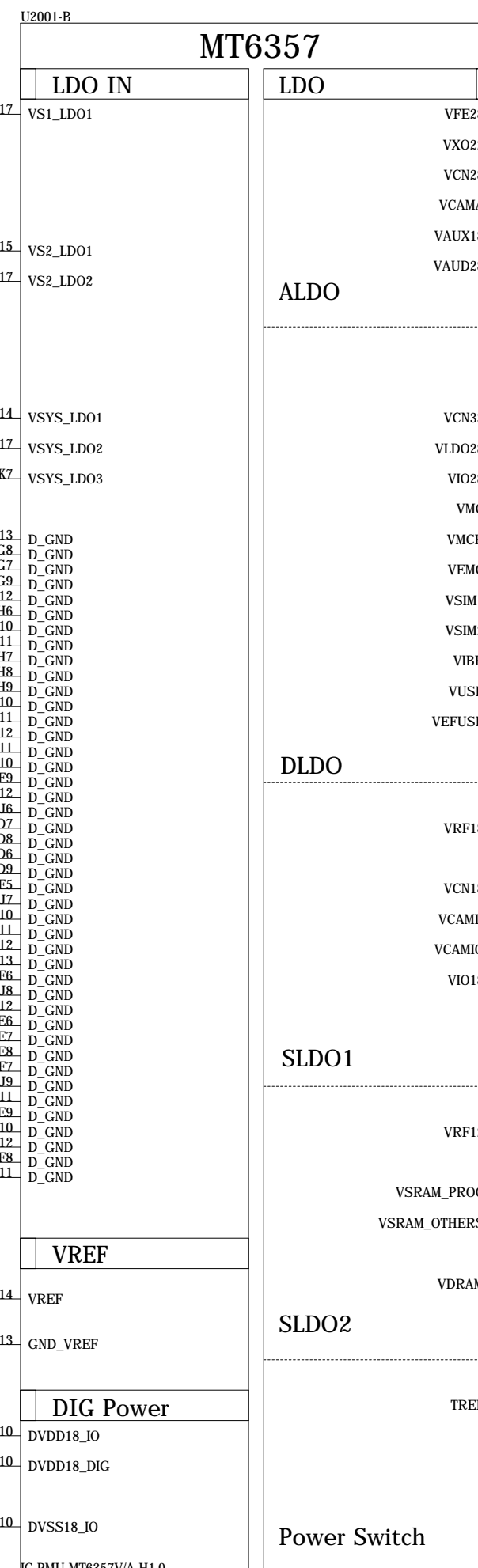
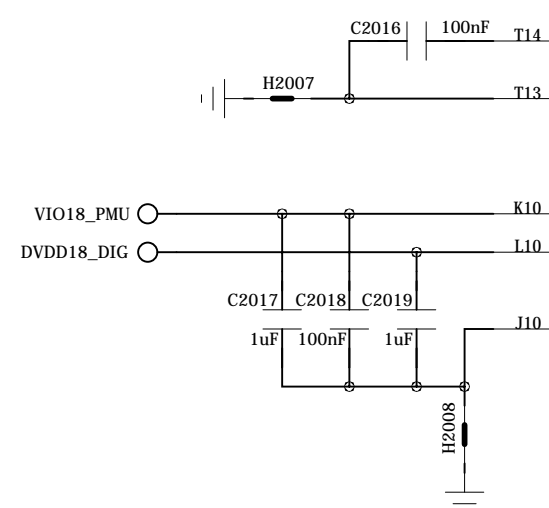
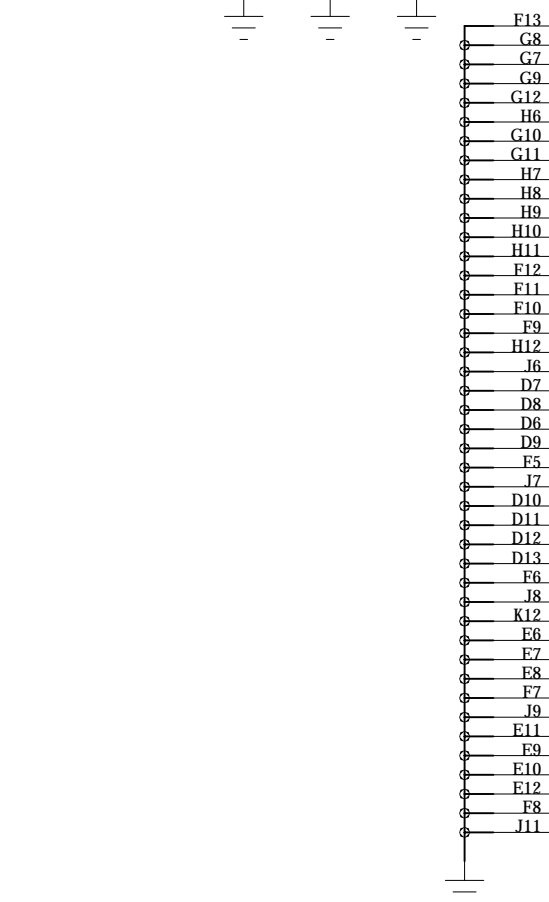
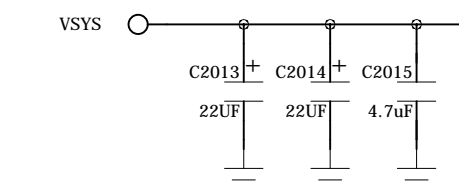
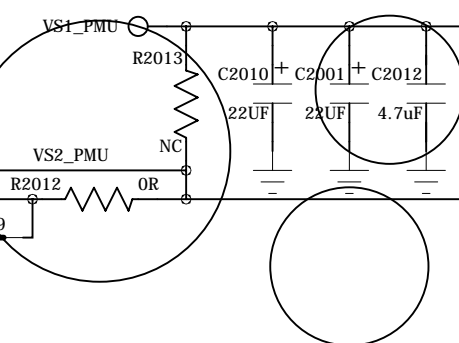


U1001-G

COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 13_BB_III		VERSION: V1.0	SHEET: 6 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

PMU_LDO



Schematic design notice of "POWER_MT6357_I" page.

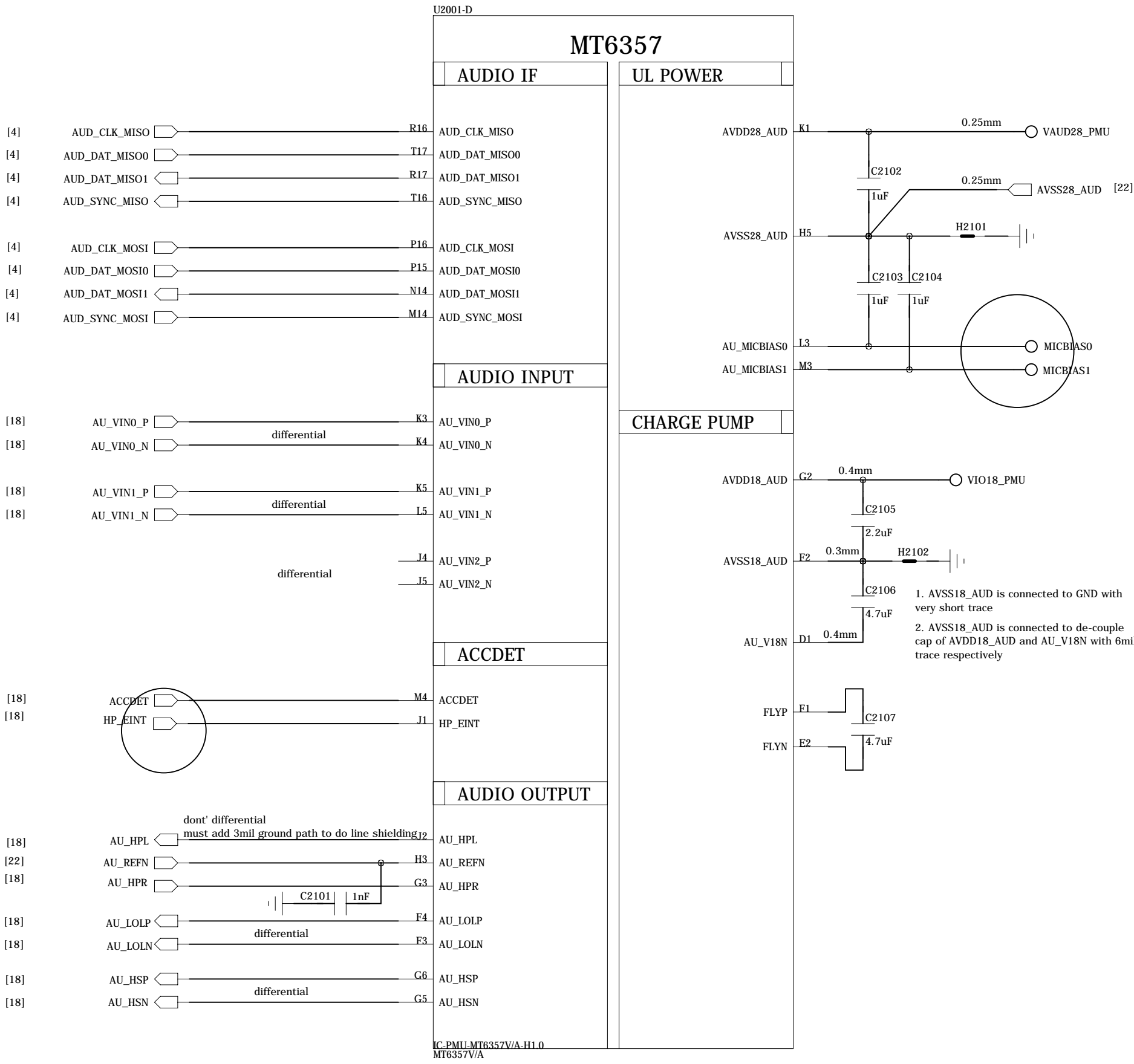
Note 20-1: If these power trace can meet LDO layout constraint, these CAP can be NC or removed.
Please refer to MT6357 design notice.

COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 20_POWER_MT6357_I		VERSION: V1.0	SHEET: 7 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

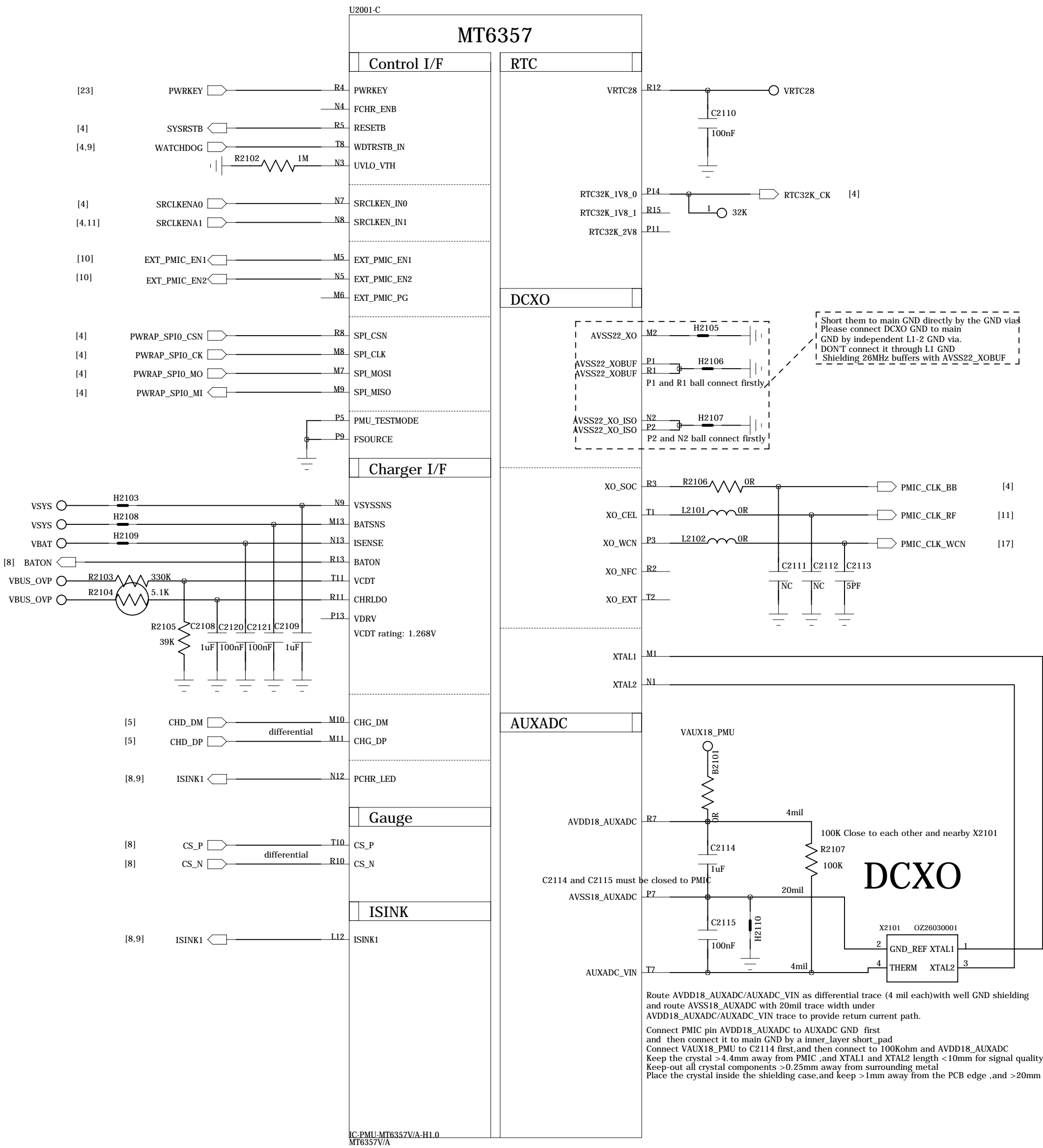
POWER_MT6357_II

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

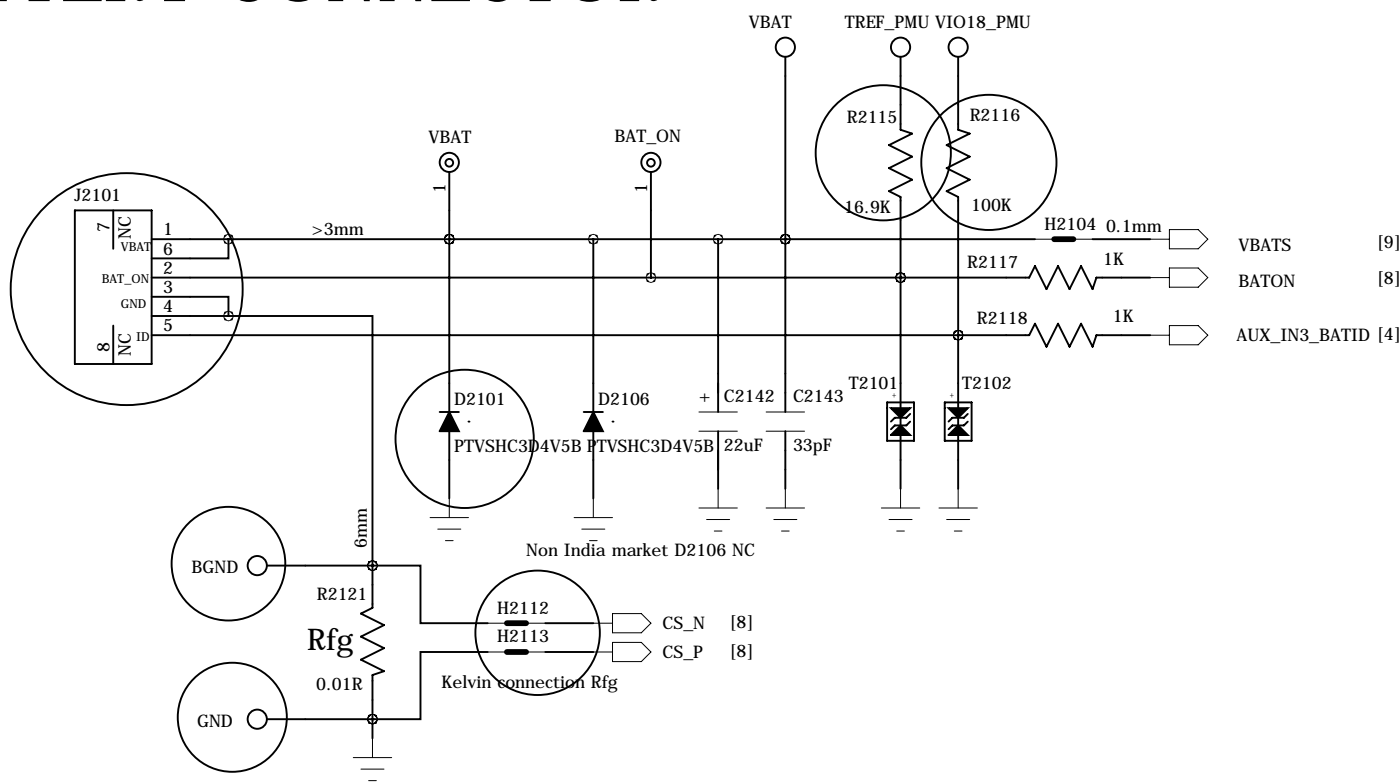
PMU_AUDIO



PMU_CLK



BATTERY CONNECTOR

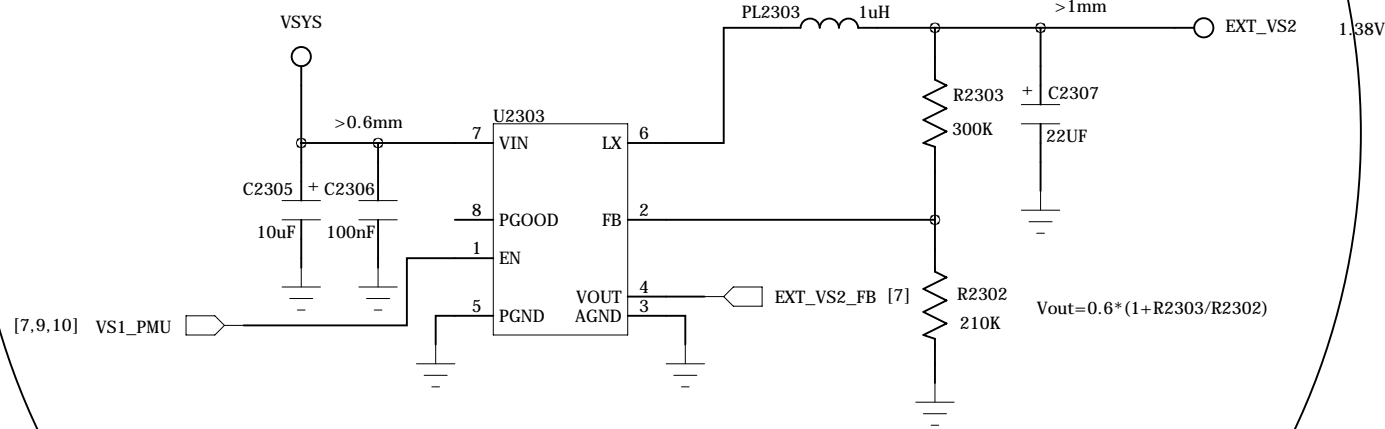


COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 21_POWER_MT6357_II		VERSION: V1.0	SHEET: 8 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

POWER_THIRD-PARTY_II

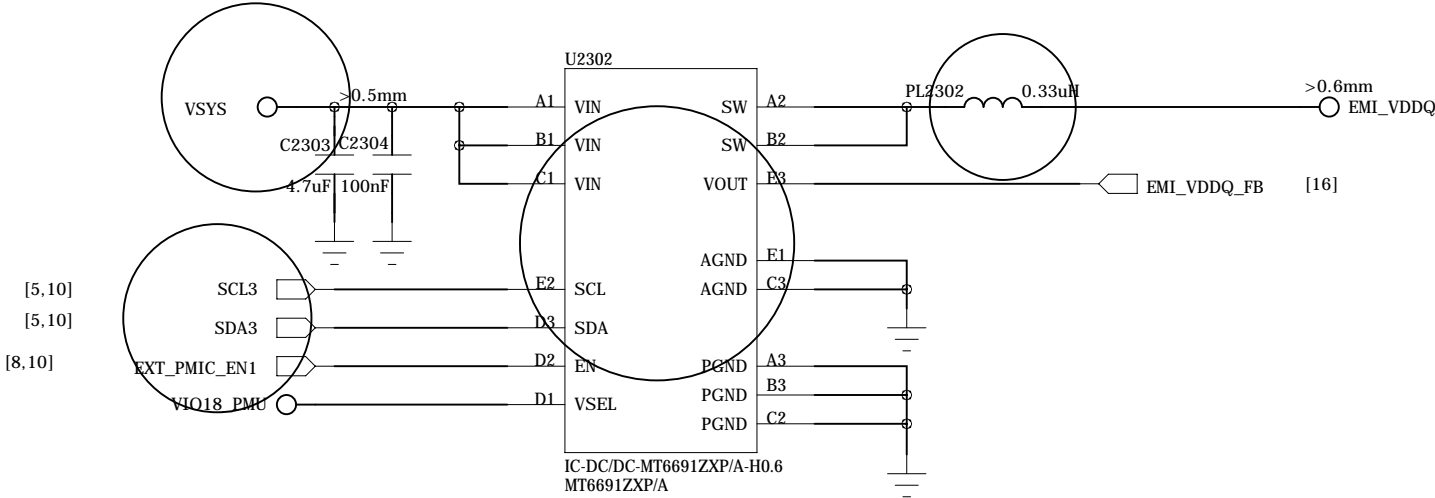
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

Ext. Bulk for VS2
For MT6762

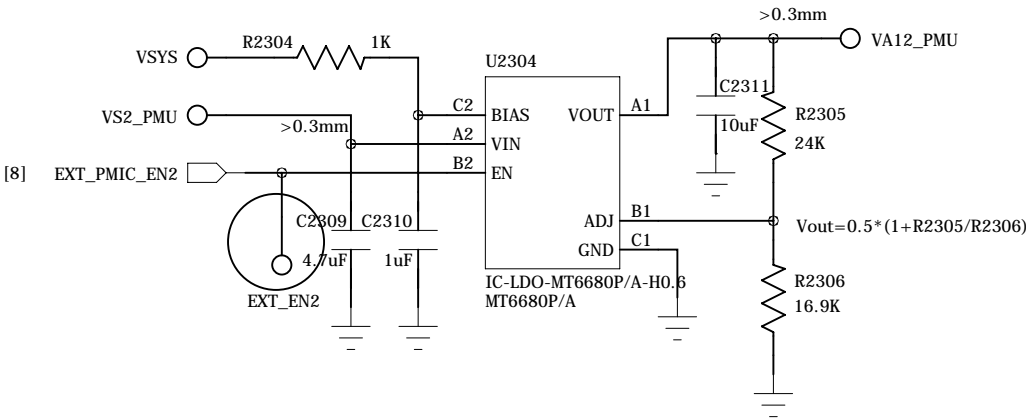


Ext. buck LP4X VDDQ

MT6691ZXP/A / Ext. buck LP4X VDRAM(VDDQ)
I2C address: 0x50 (Write:0xA0, Read:0xA1)

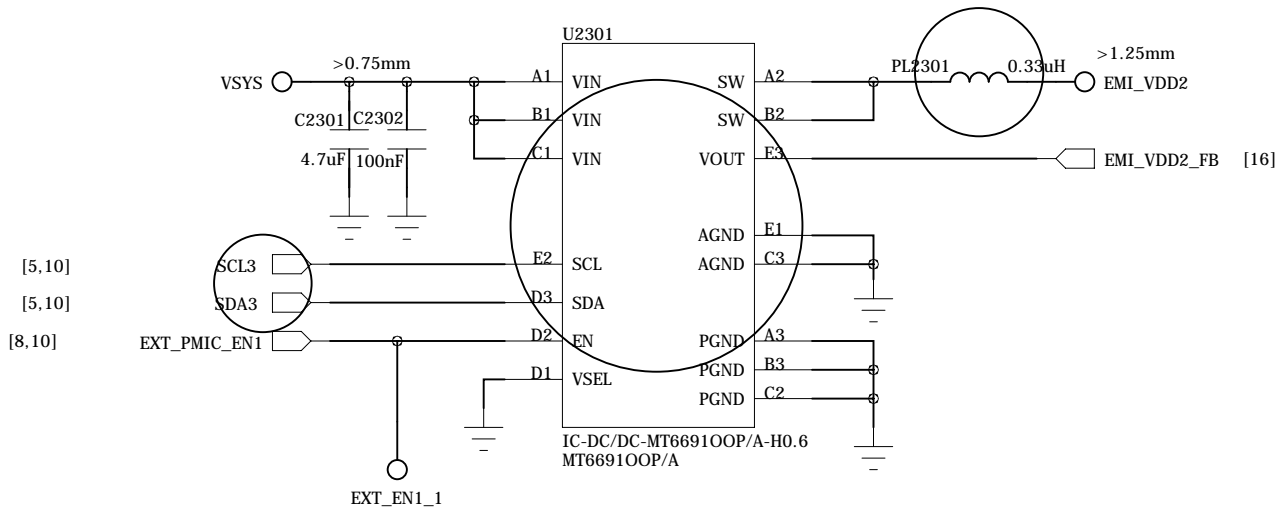


LDO 1.2V for VA12

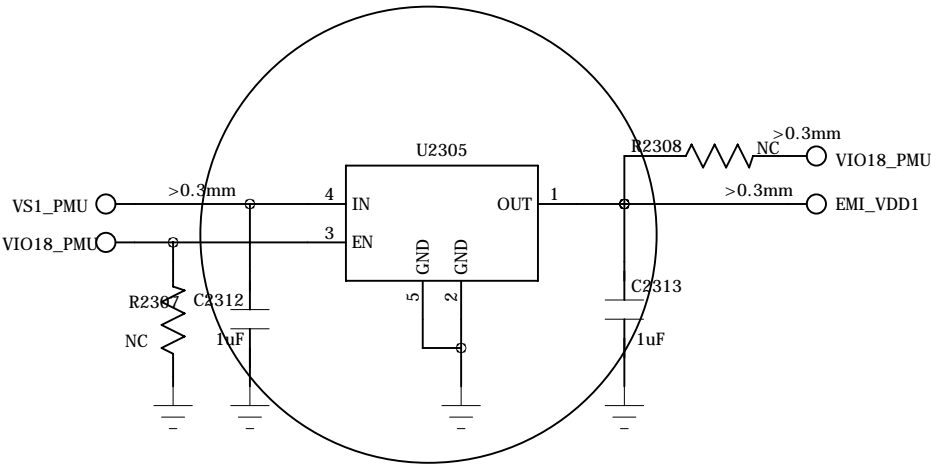


Ext. buck LP4X VDRAM

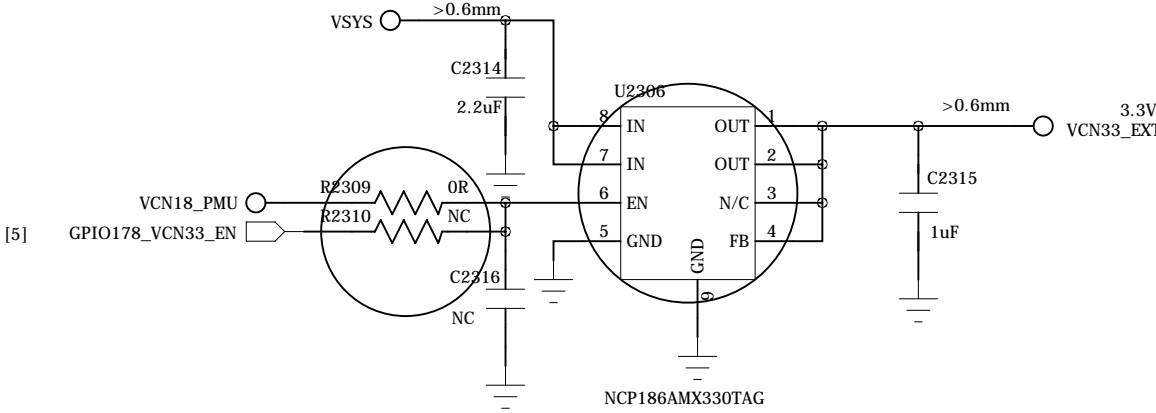
MT6691OOP/A / Ext. buck LP4X VDRAM (VDD2)
I2C address: 0X57 (Write:0xAE, Read:0xAF)



LPDDR4X VDD1 1.8V LDO

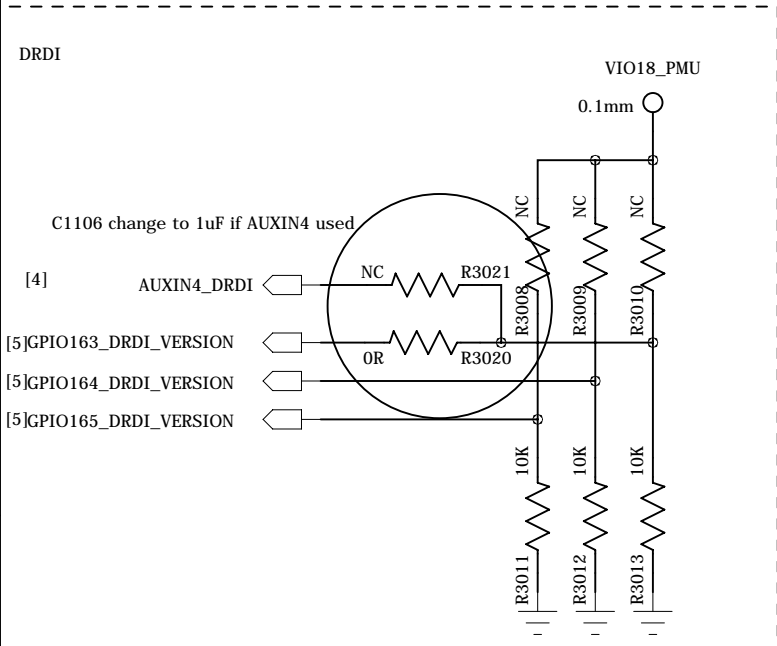


LDO for VCN33



COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 23_POWER_THIRD-PARTY_II		VERSION: V1.0	SHEET: 10 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



VIO18_PMU

R3005

OR

0.2mm

VIO18_RFIC

VRF18_PMU

R3006

OR

0.5mm

VRF18_RFIC

VRF12_PMU

R3007

OR

0.45mm

VRF12_RFIC

C3007

4.7uF

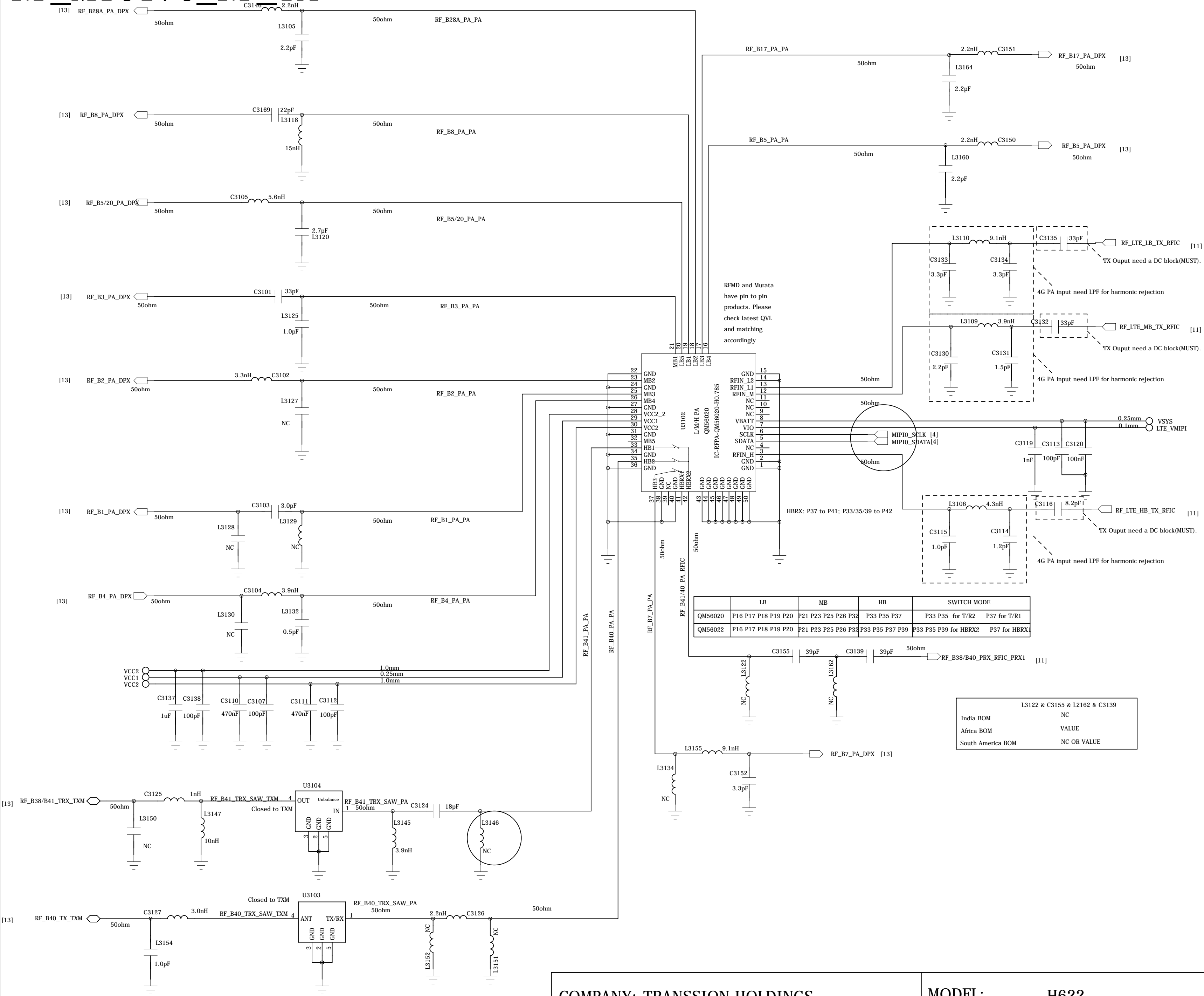
C3008

4.7uF

COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 30_RF_MT6177M_PIN_OUT		VERSION: V1.0	SHEET: 11 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

RF_MT6176_RF_TX

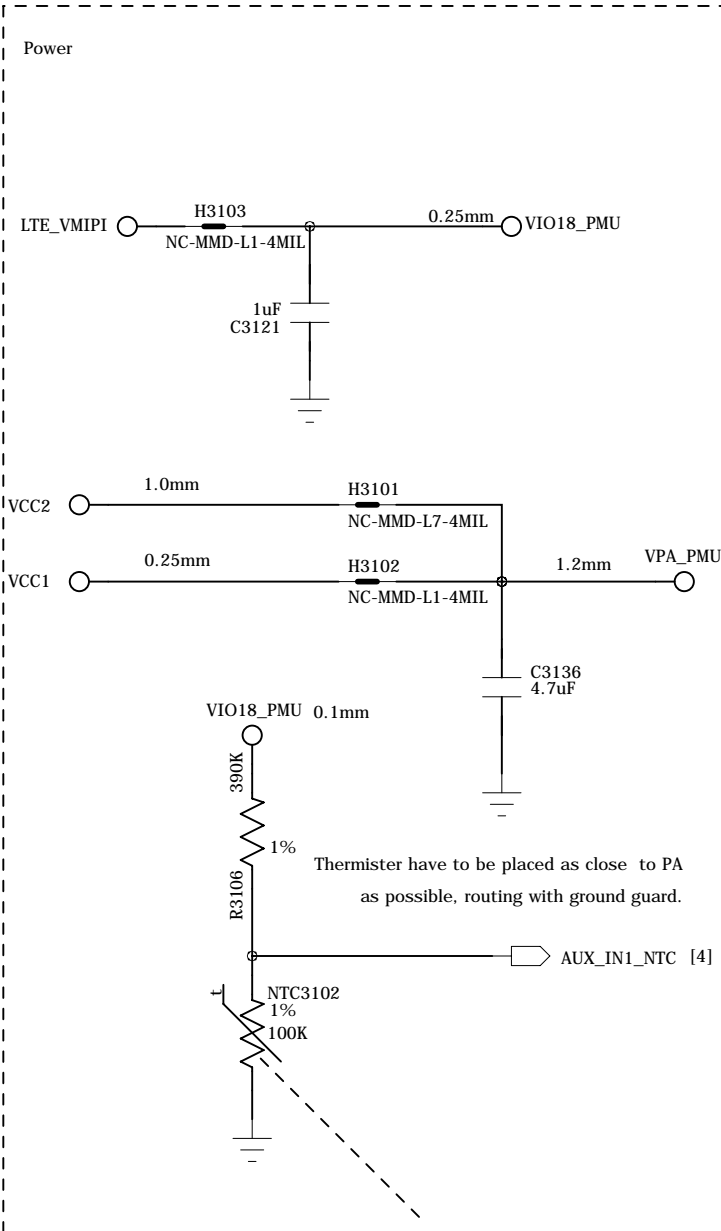
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



3/4G_PAIN_LB

3/4G_PAIN_MB

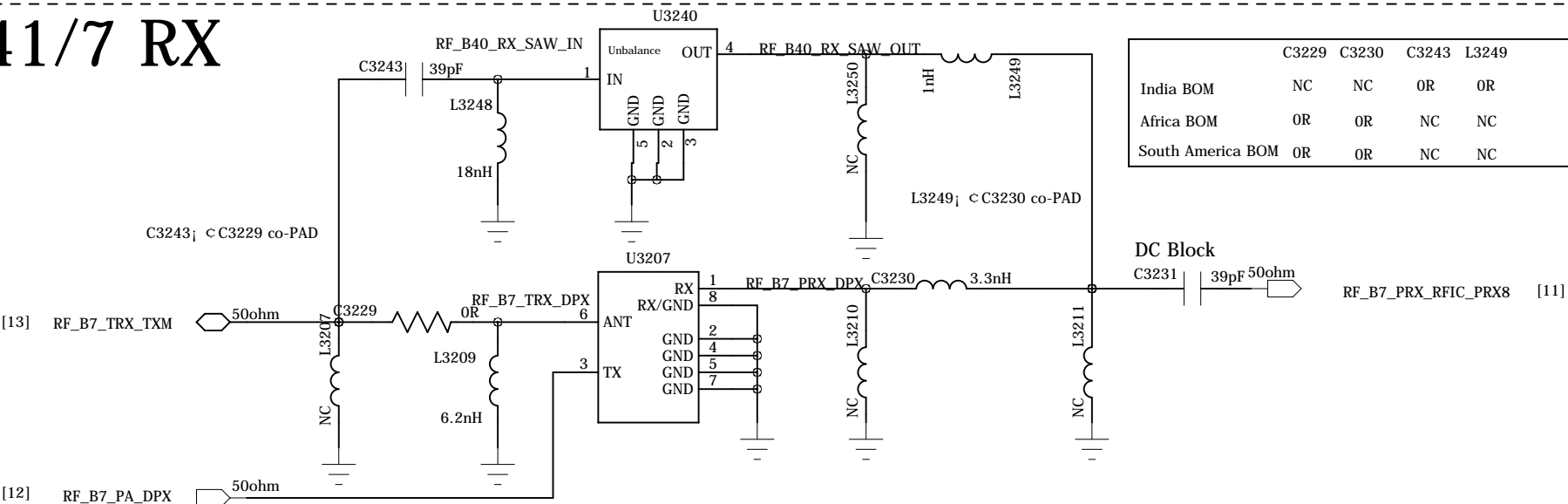
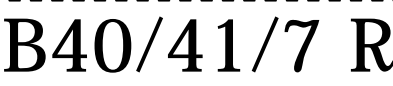
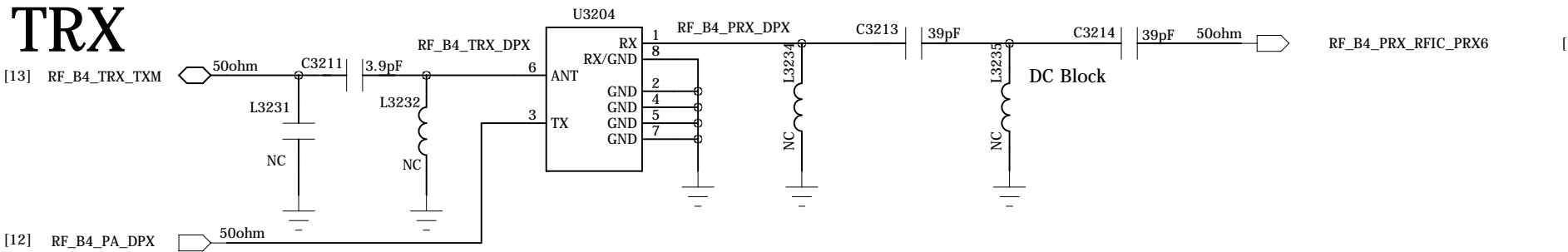
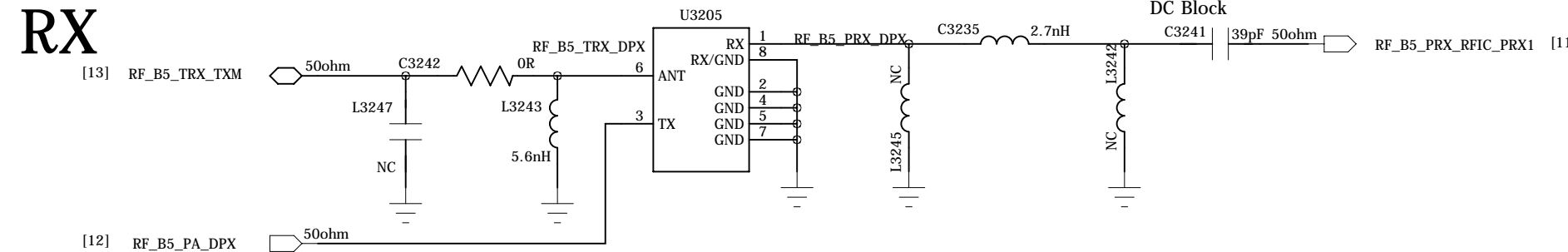
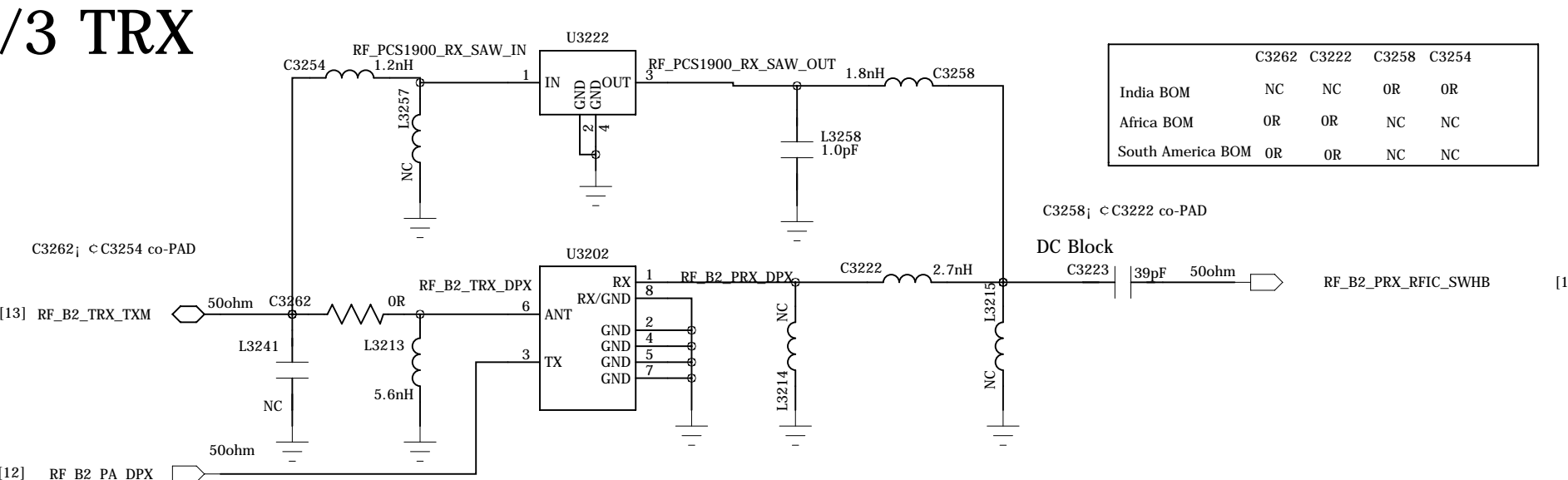
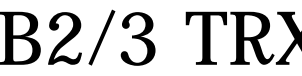
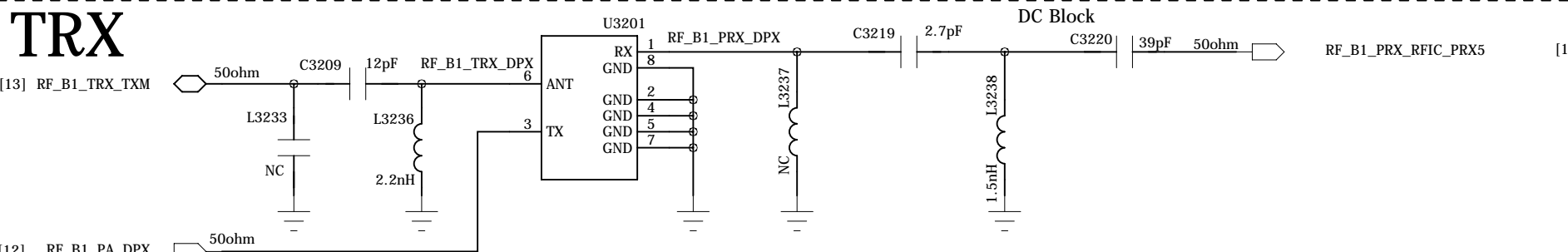
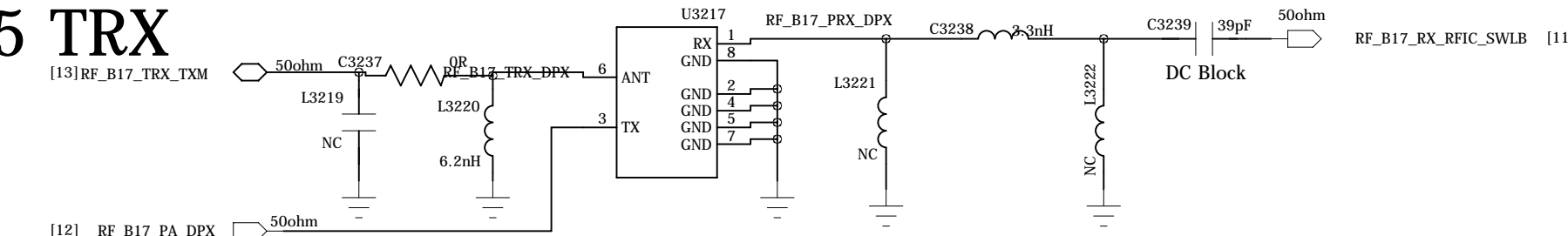
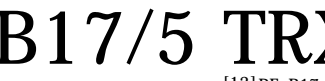
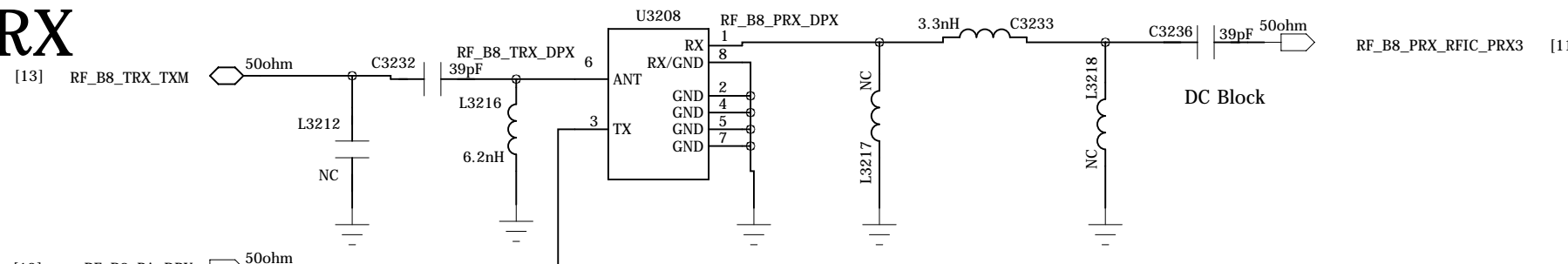
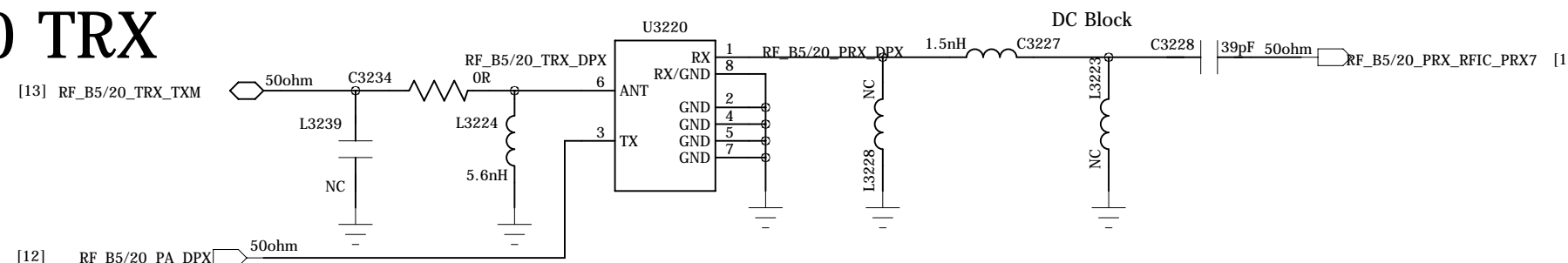
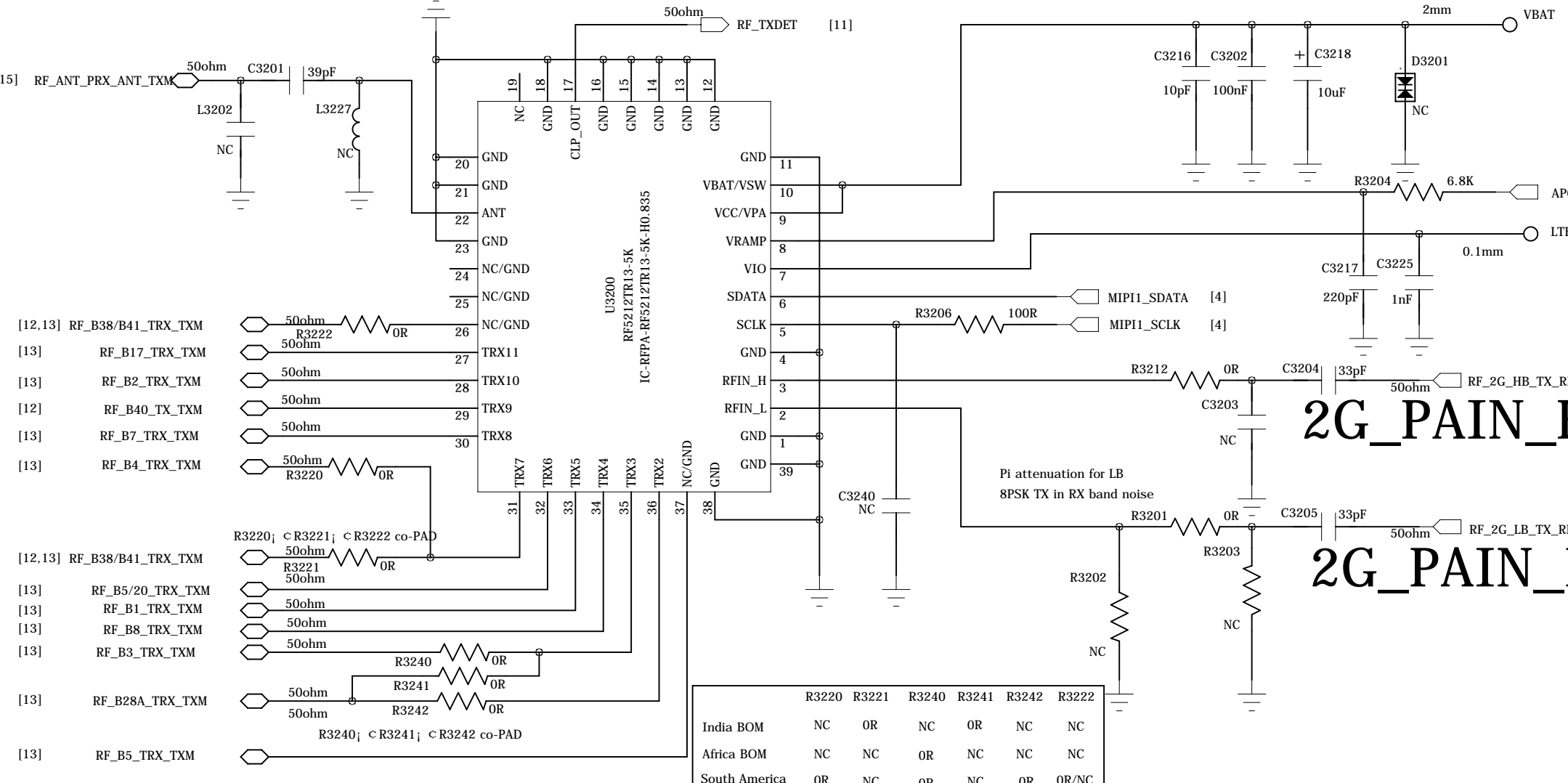
3/4G_PAIN_HB



COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
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CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

RF_MT6177M_RF_PRX

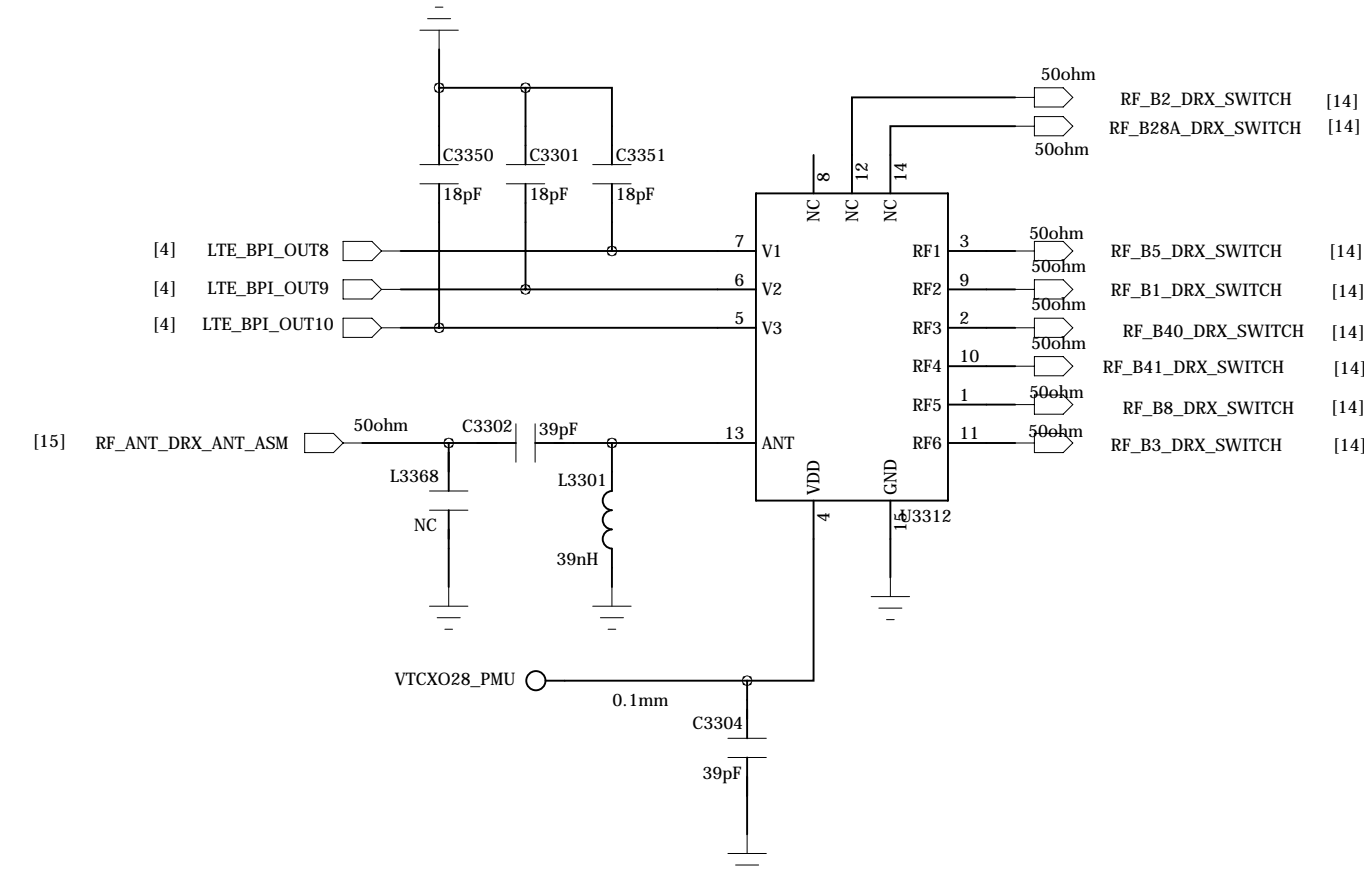
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



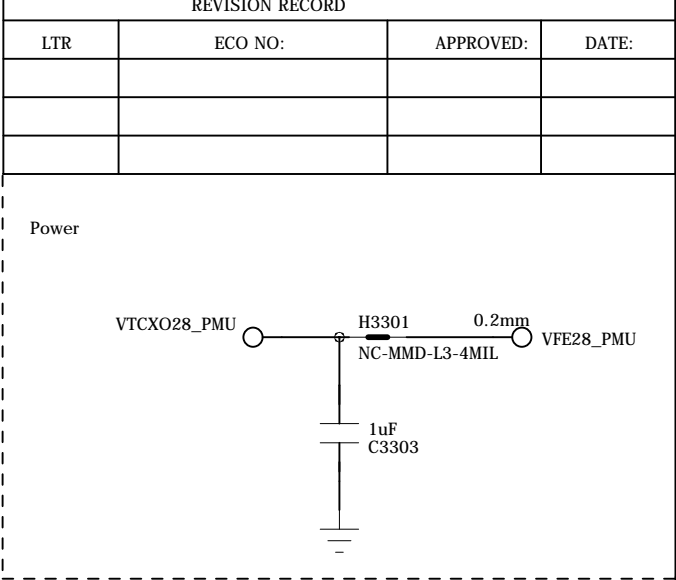
COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 32_RF_MT6177M_RF_PRX		VERSION: V1.0	SHEET: 13 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

RF_MT6177M_RF_DRX

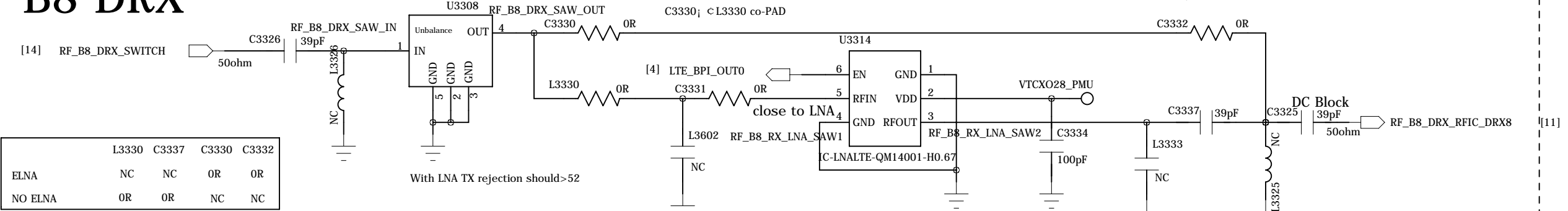
SP8T



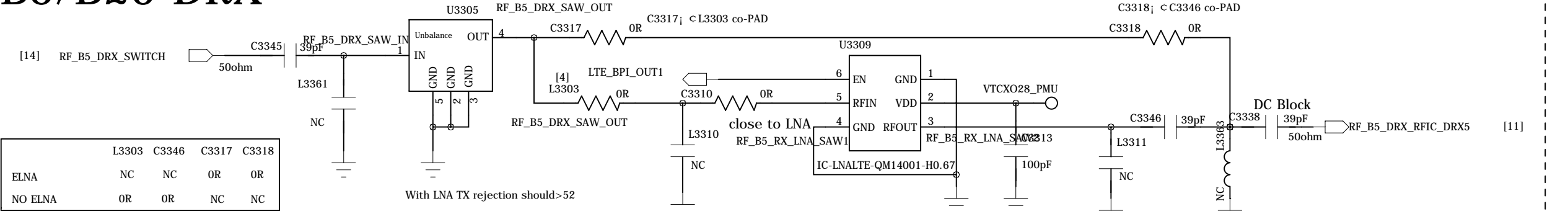
SP8T control logic								VC1613 control logic				
SP6T control logic								VC1	VC2	RF1	RF2	RF3
V1	V2	V3	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8		
L	L	L	Y	N	N	N	N	N	N	N		
L	L	H	N	Y	N	N	N	N	N	N		
L	H	L	N	N	Y	N	N	N	N	N		
L	H	H	N	N	N	Y	N	N	N	N		
H	L	L	N	N	N	N	Y	N	N	N		
H	L	H	N	N	N	N	N	Y	N	N		
H	H	L	N	N	N	N	N	N	Y	N		
H	H	H	N	N	N	N	N	N	N	Y		



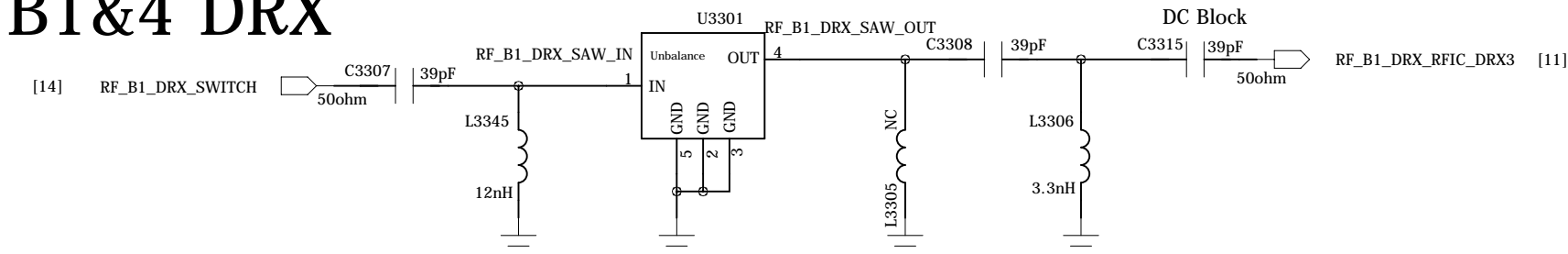
B8 DRX



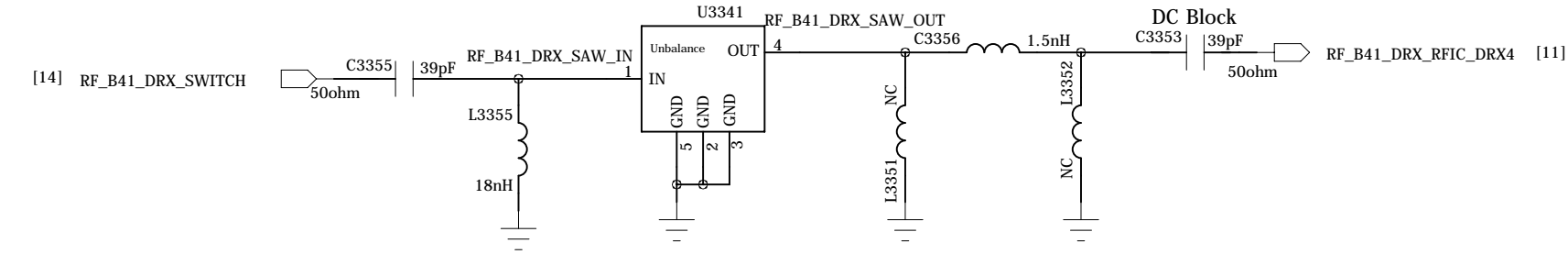
B5/B20 DRX



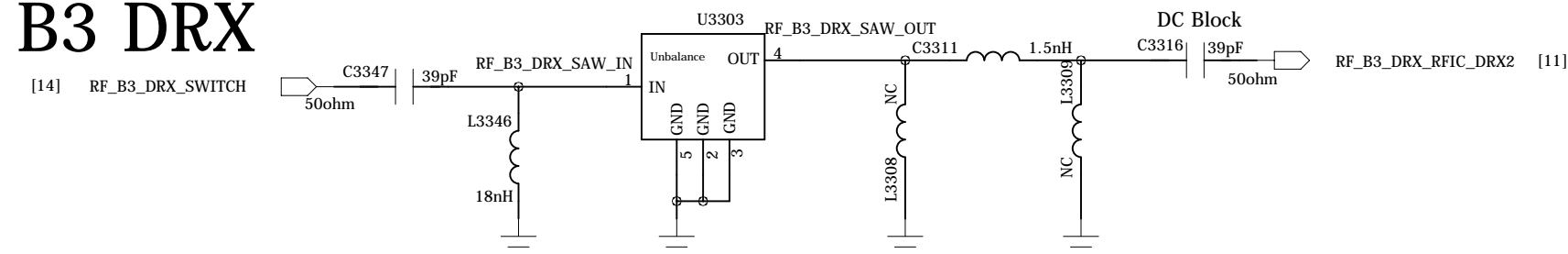
B1&4 DRX



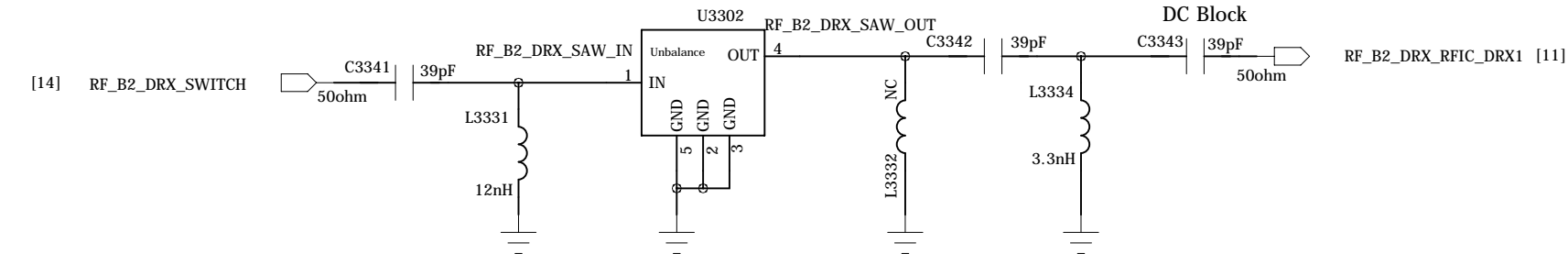
B41 DRX



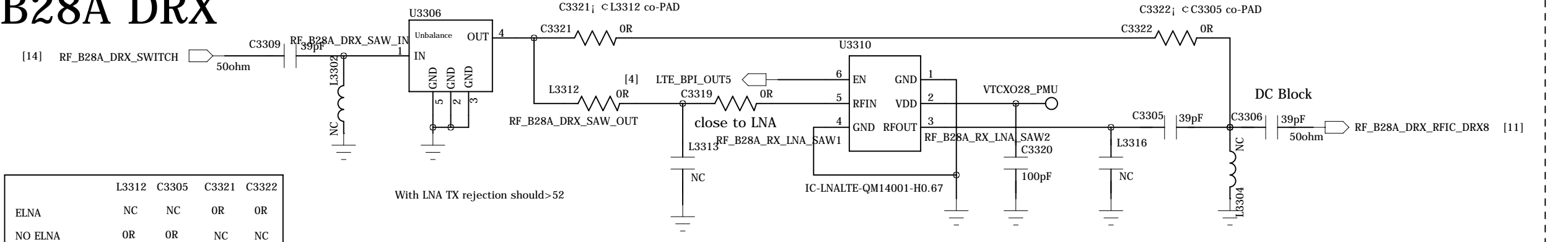
B3 DRX



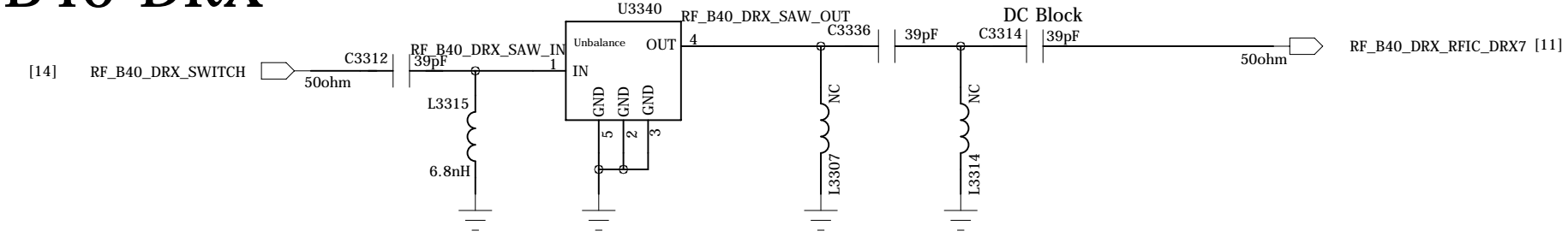
B2 DRX



B28A DRX



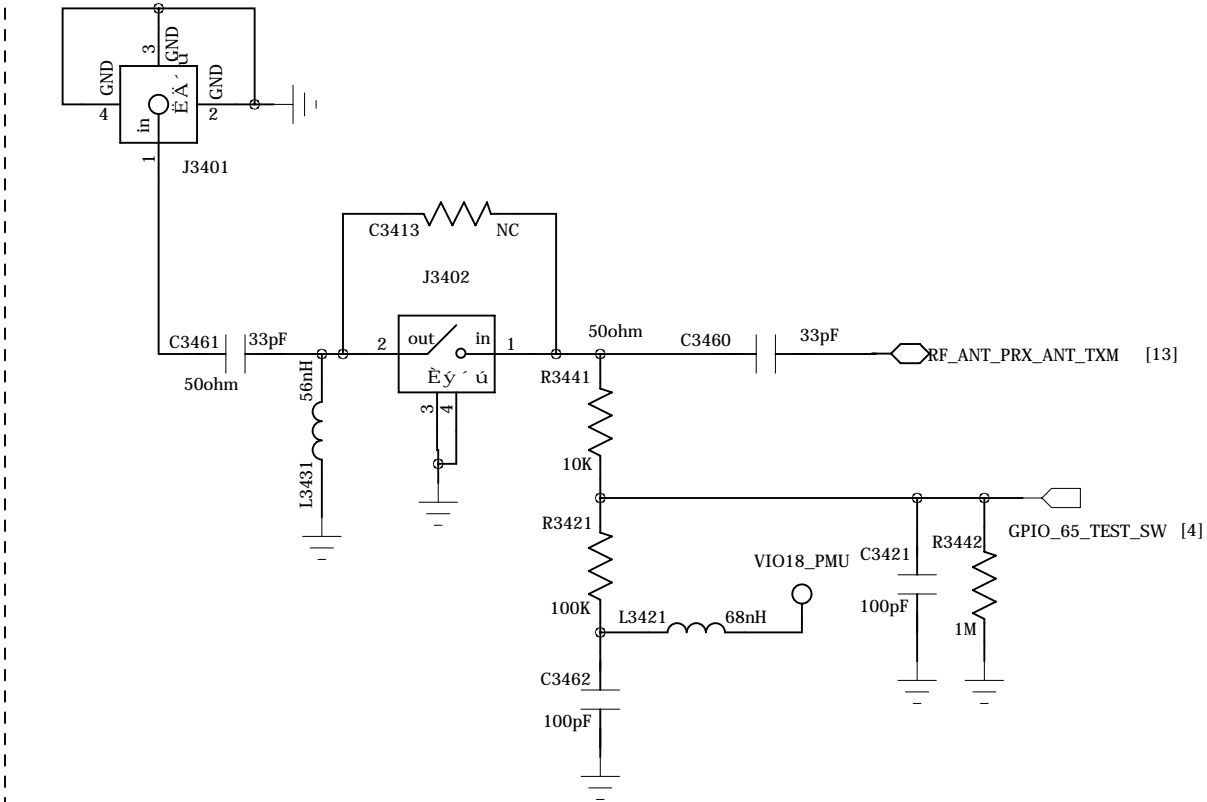
B40 DRX



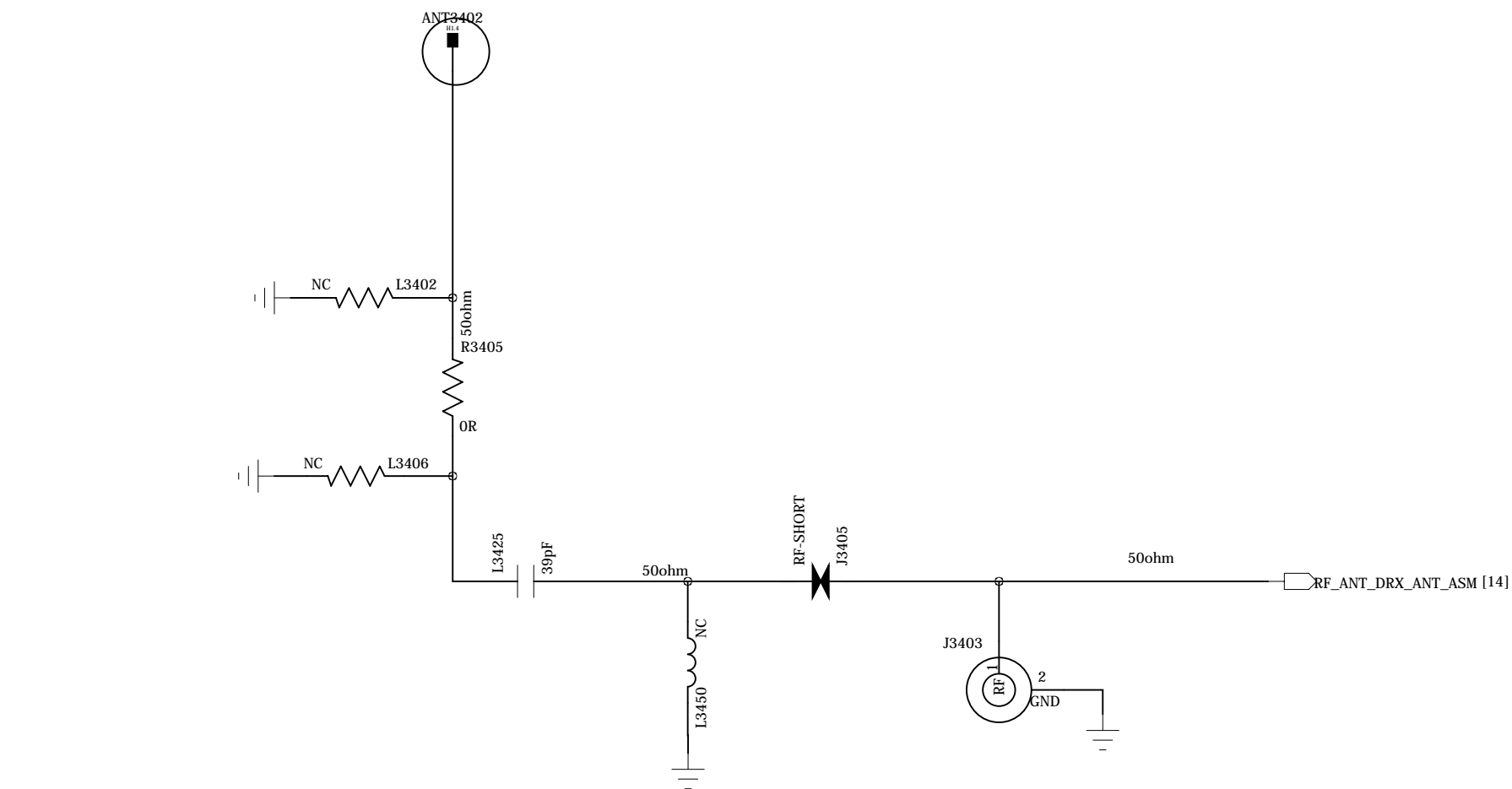
COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 33_RF_MT6177M_RF_DRX		VERSION: V1.0	SHEET: 14 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

RF_MT6177M_RF_ANT

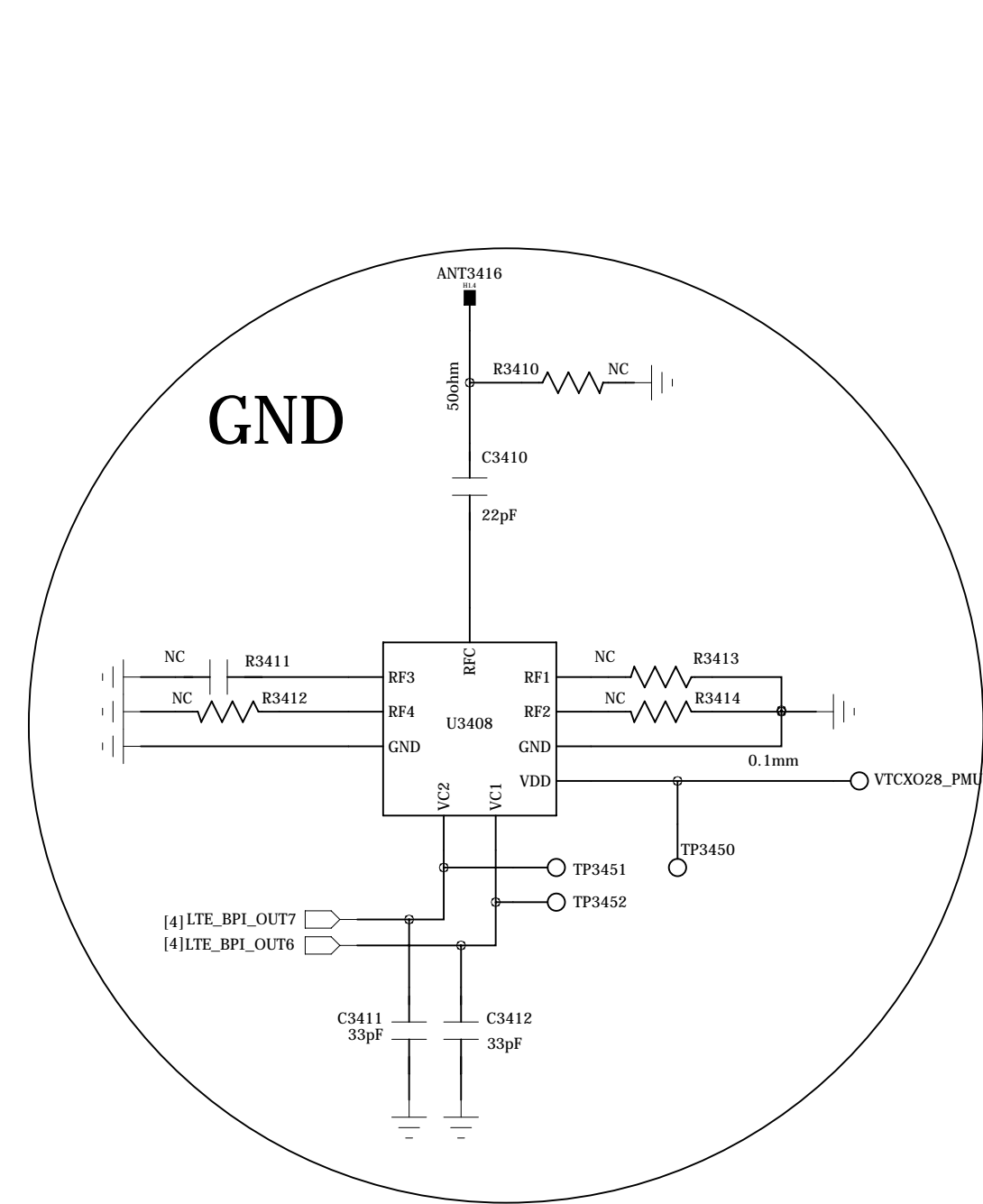
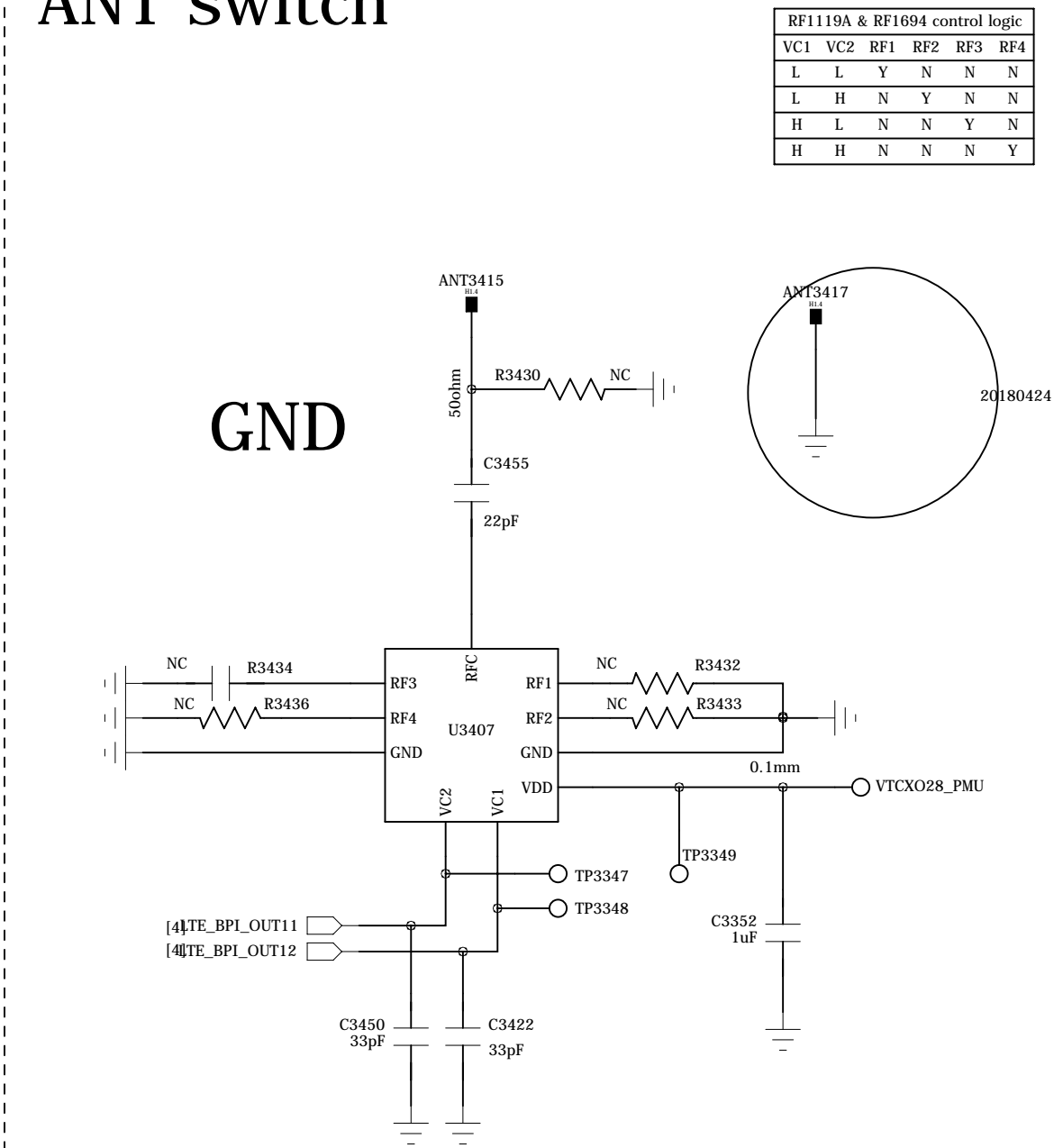
ASM_Main
791~960MHz + 1710~2690MHz



DRX ANT
791~821MHz + 1805~2690MHz



ANT switch



COMPANY: TRANSSION HOLDINGS

MODEL: H622

Modified Date: 2018/7/6

DRAWN SYJ/LC DATED 20180207

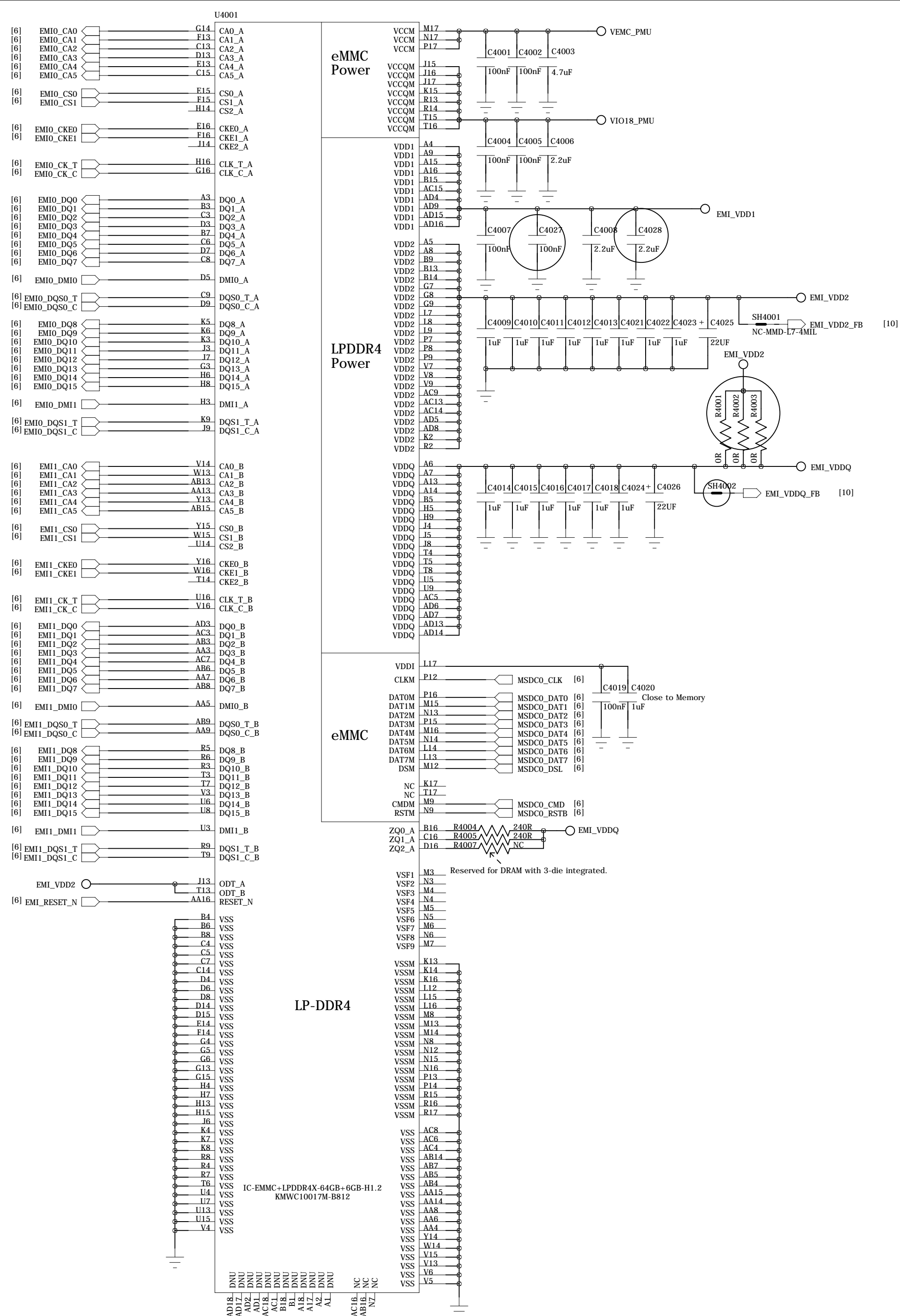
TITLE: 34_RF_ANT_CONTROLLER

VERSION: V1.0 SHEET: 15 OF 23

CHECKED <CHECKED> DATED < > Confidentiality CONFIDENTIAL

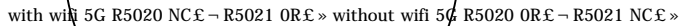
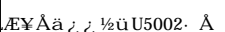
MEMORY eMMC LPDDR4x

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



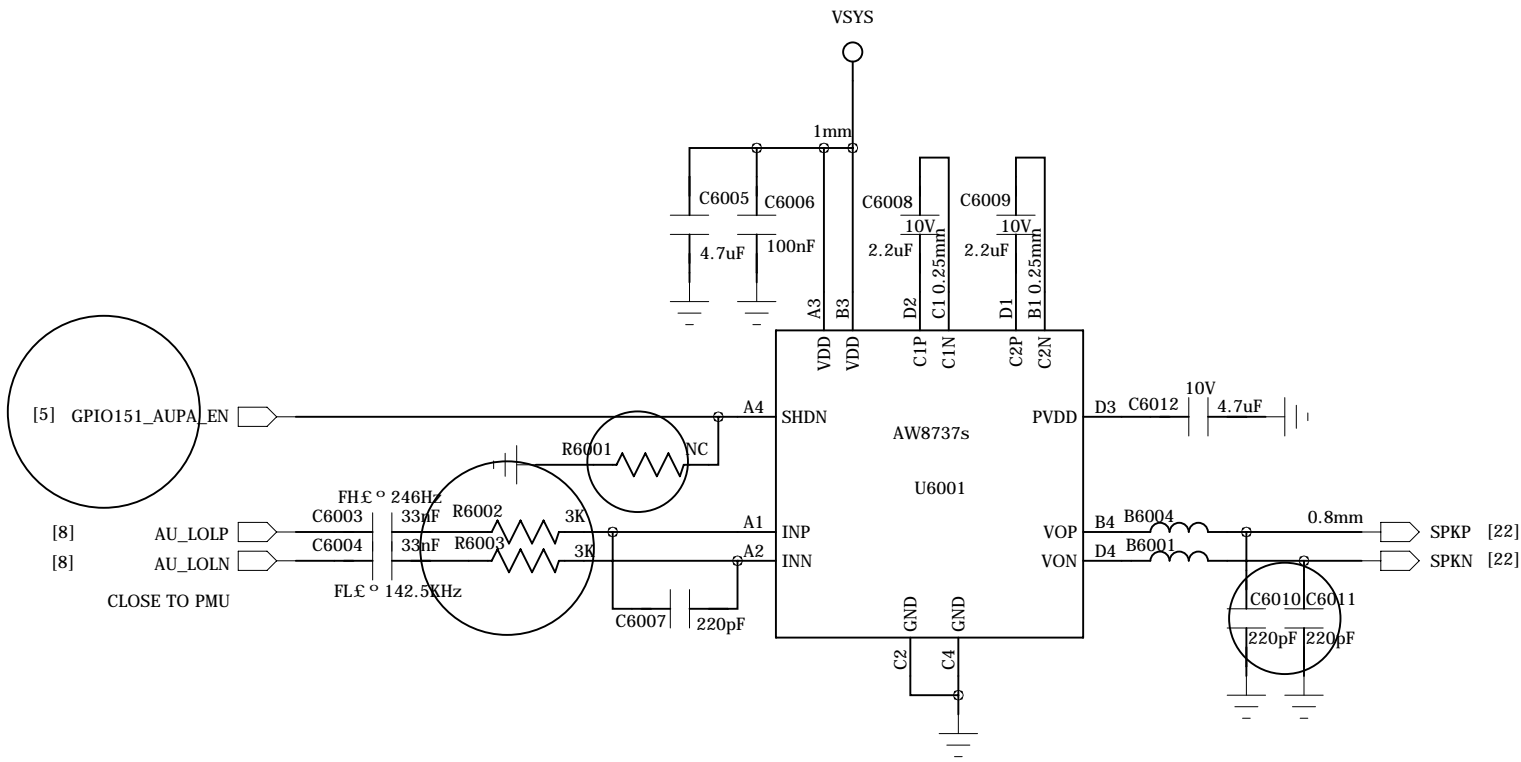
COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 40_MEMORY_EMMC_LPDDR4X		VERSION: V1.0	SHEET: 16 OF 23
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REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



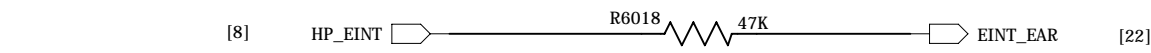
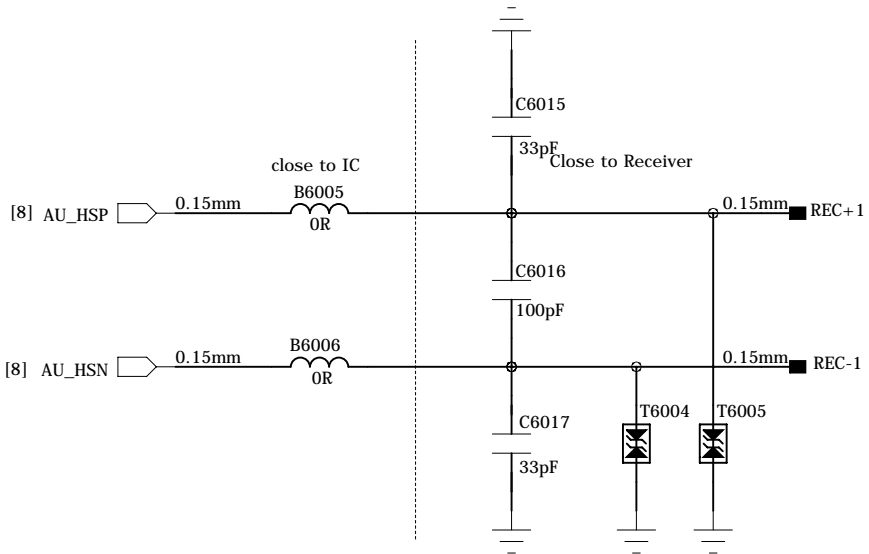
PERI_AUDIO_IO

Audio PA

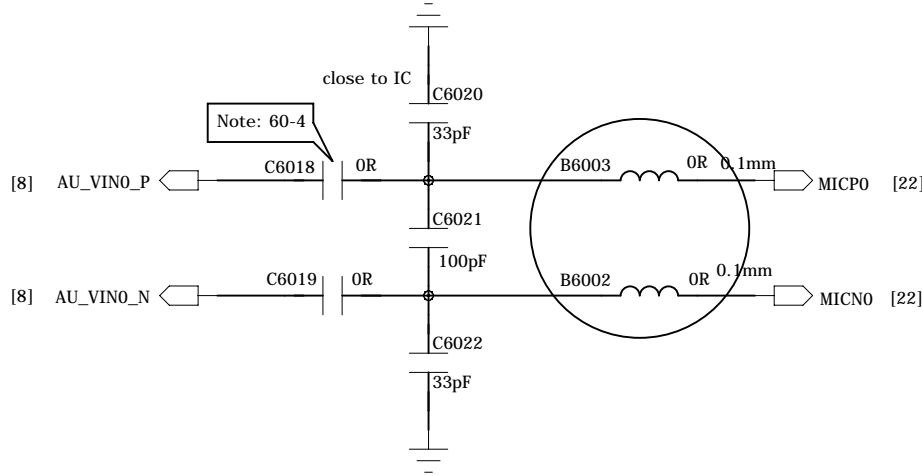


SPK

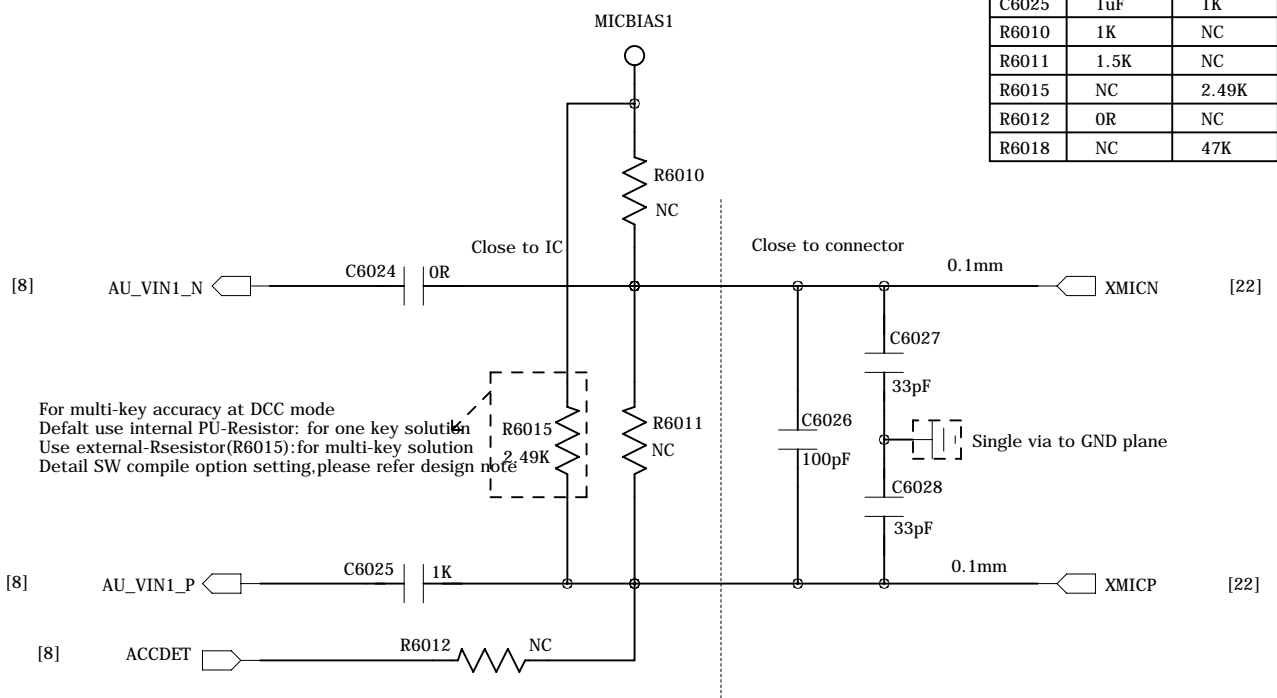
Receiver



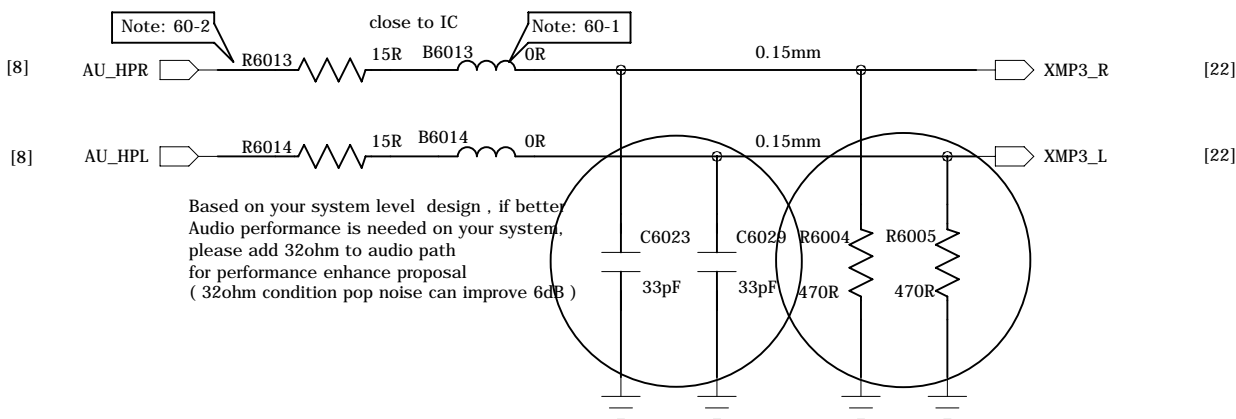
Main MICPHONE



Earphone MICPHONE



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 33R.

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

Note 60-4: 0.1/1uF for ACC mode(1uF for WB_AMR Speech/0.1uF for NB_AMR Speech).OR for DCC mode.

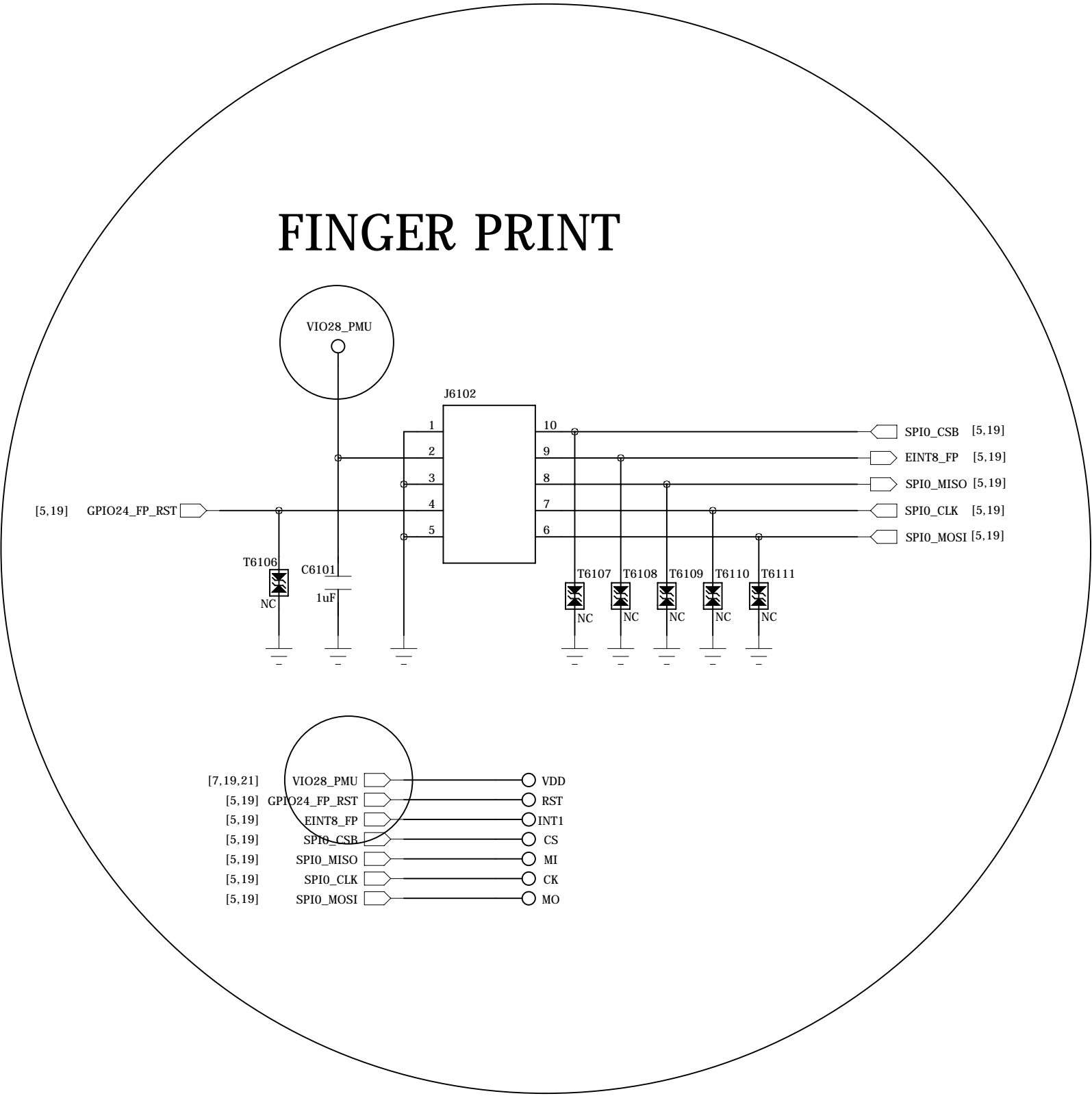
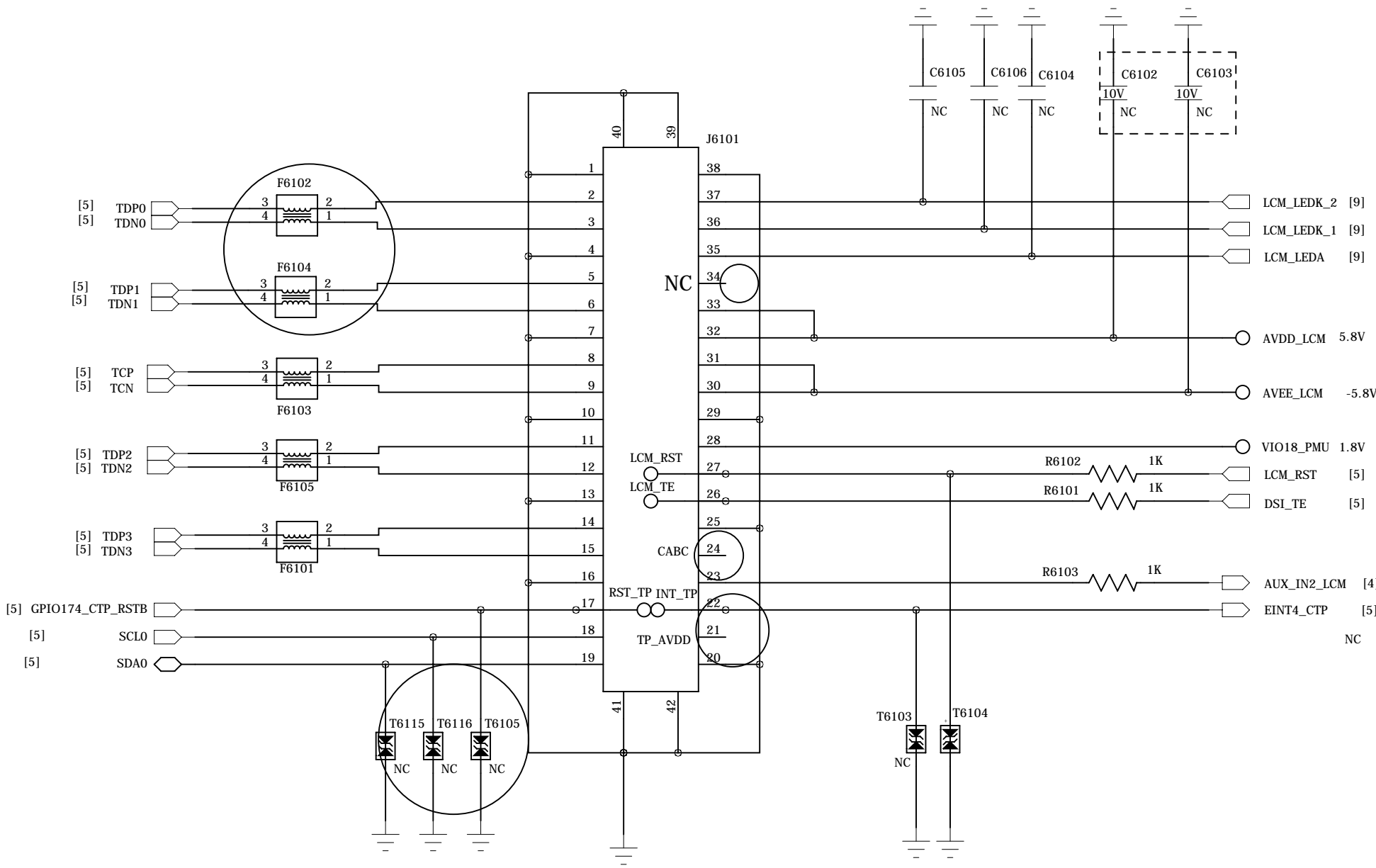
COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 60_PERI_AUDIO		VERSION: V1.0	SHEET: 18 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

PERI_LCM_CTP_FP

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

LCD_CTP_INTERFACE 5.99 HD+

TP£ ¨ NT36572A£ © I2C address:write:0xC4,read:0xC5



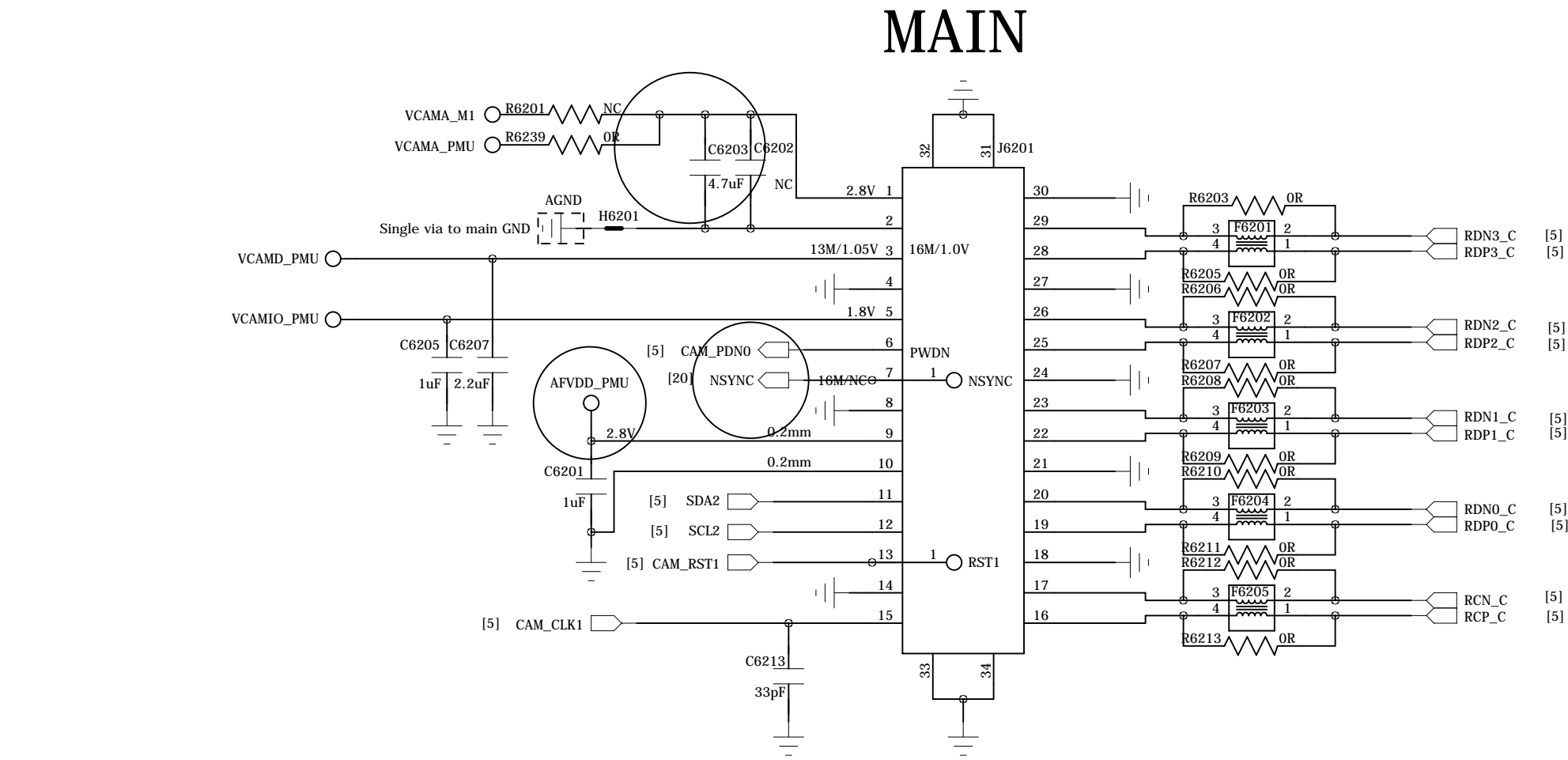
COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 61_PERI_LCM_CTP_FP		VERSION: V1.0	SHEET: 19 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

PERI_CAMERA

REAR CAMERA Wide

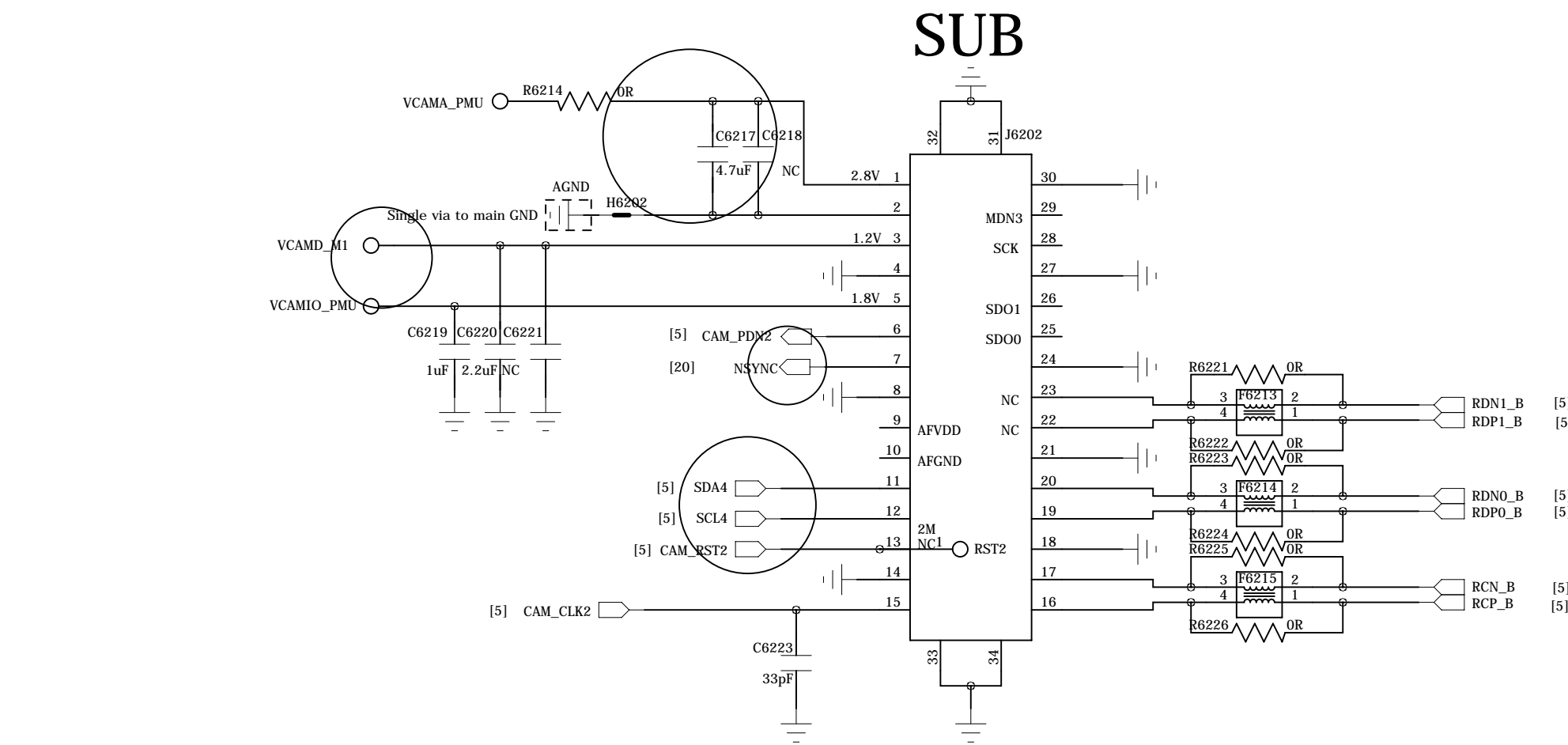
Back camera I (S5K3L6XX03-FGX9) I2C address: (Write:0x20, Read:0x21)
13M Drv IC(DW9718S) I2C address: (Write:0x18, Read:0x19)
EEPROM (P24C64E) I2C address: (Write:0xA0, Read:0xA1)

Back camera I (S5K2P7SQ03-FGX9) I2C address: (Write:0x20, Read:0x21)
16M Drv IC(DW9800W) I2C address: (Write:0x18, Read:0x19)
EEPROM (FM24C64D) I2C address: (Write:0xA0, Read:0xA1)

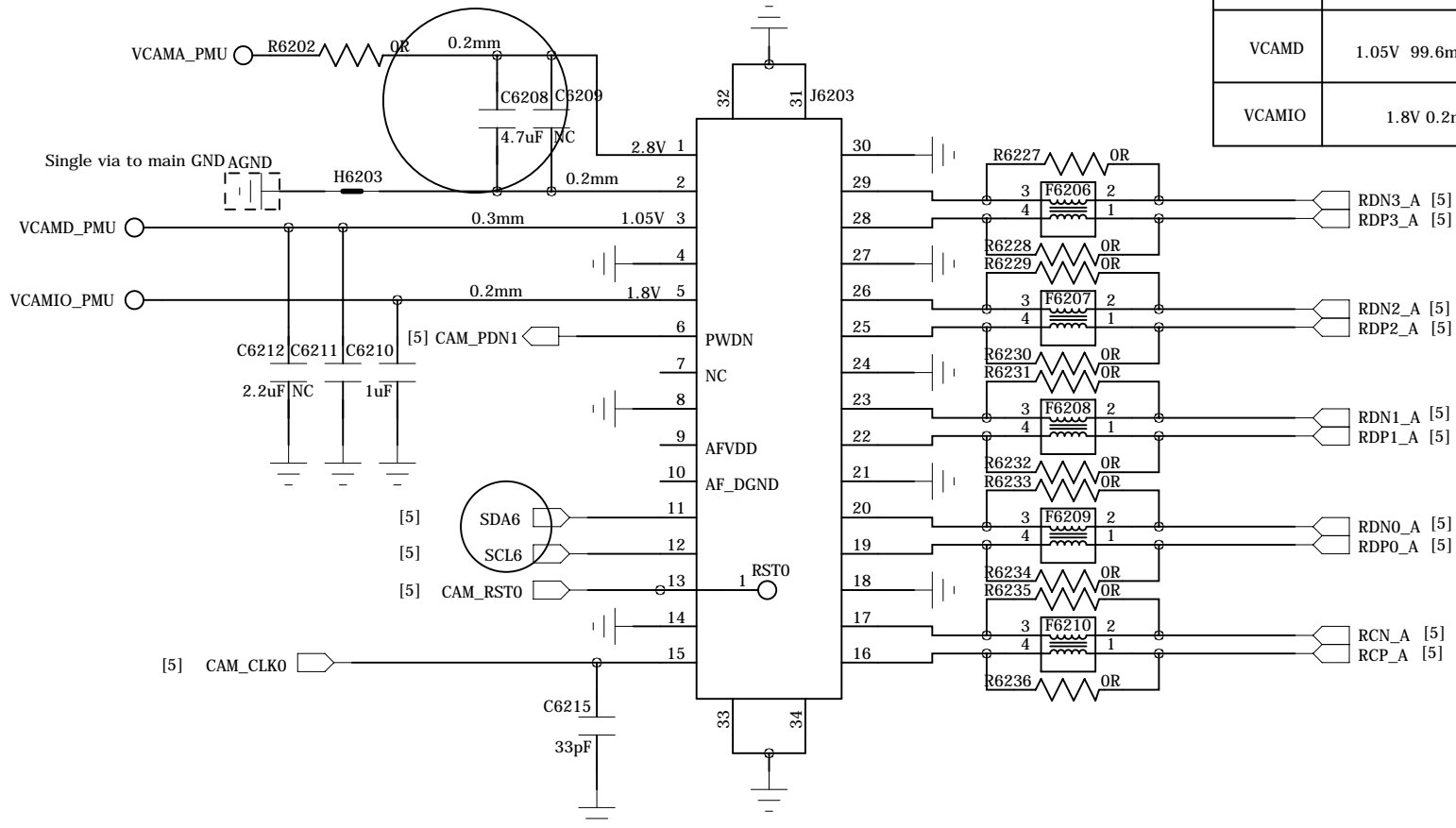


REAR CAMERA Tele

5M Back camera(GC5025W) I2C address: (Write:0x6E, Read:0x6F)
2M Back camera(GC2905) I2C address: (Write:0x6E, Read:0x6F)



FRONT CAMERA(13M/16M)



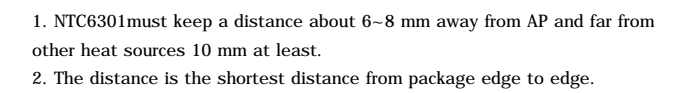
13M: Front camera sensor(S5K3L6XX03-FGX9) I2C address: (Write:0x5A Read:0x5B) Front camera EEPROM(GT24P64AL-2CSLI-TR) I2C address: (Write:0xA2 Read:0xA3)
16M: Front camera(S5K3P9SP04-FGX9) I2C address: (Write:0x5A Read:0x5B) Front camera EEPROM(FM24C64D) I2C address: (Write:0xA2 Read:0xA3)
24M: Front camera(S5K2X7SP03-FGX9) I2C address: (Write:0x5A Read:0x5B) Front camera EEPROM(FM24C64D) I2C address: (Write:0xA2 Read:0xA3)

front camera		
MODULE	13M(S5K3L6XX03-FGX9)	16M(S5K3P9SP04-FGX9)
VCAMA	2.8V 37.4mA	2.8V 36.24mA
VCAMD	1.05V 99.6mA	1.05V 112.3mA
VCAMIO	1.8V 0.2mA	1.8V 0.97mA

COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 62_PERI_CAMERA		VERSION: V1.0	SHEET: 20 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

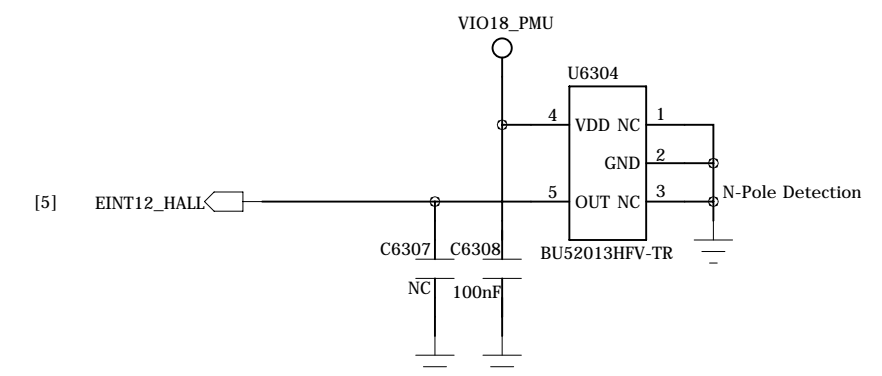
STK3321-28A:I2C address: Write:0x90, Read:0x91



MXC4005XC:I2C ADDRESS:0x2A(Write)/0x2B(Read) £ " default £ ©
KXTJ3-1057:I2C ADDRESS:0x1C(Write)/0x1D(Read) £ " reserve £ ©



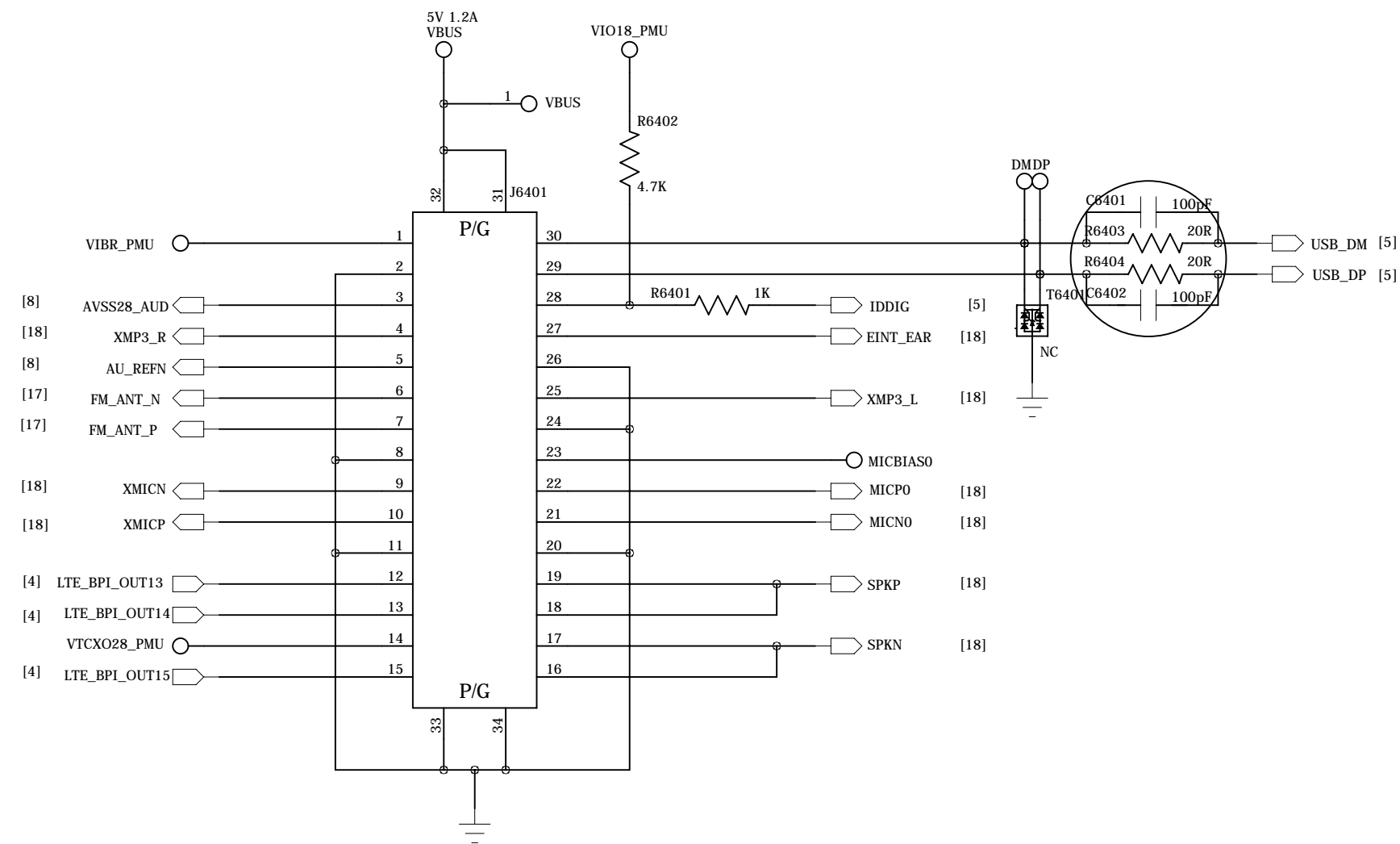
AK09918C-L:I2C ADDRESS:0x18(Write)/0x19(Read)



COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 63_PERI_SENSORS		VERSION: V1.0	SHEET: 21 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

PERI_IO_VIB

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

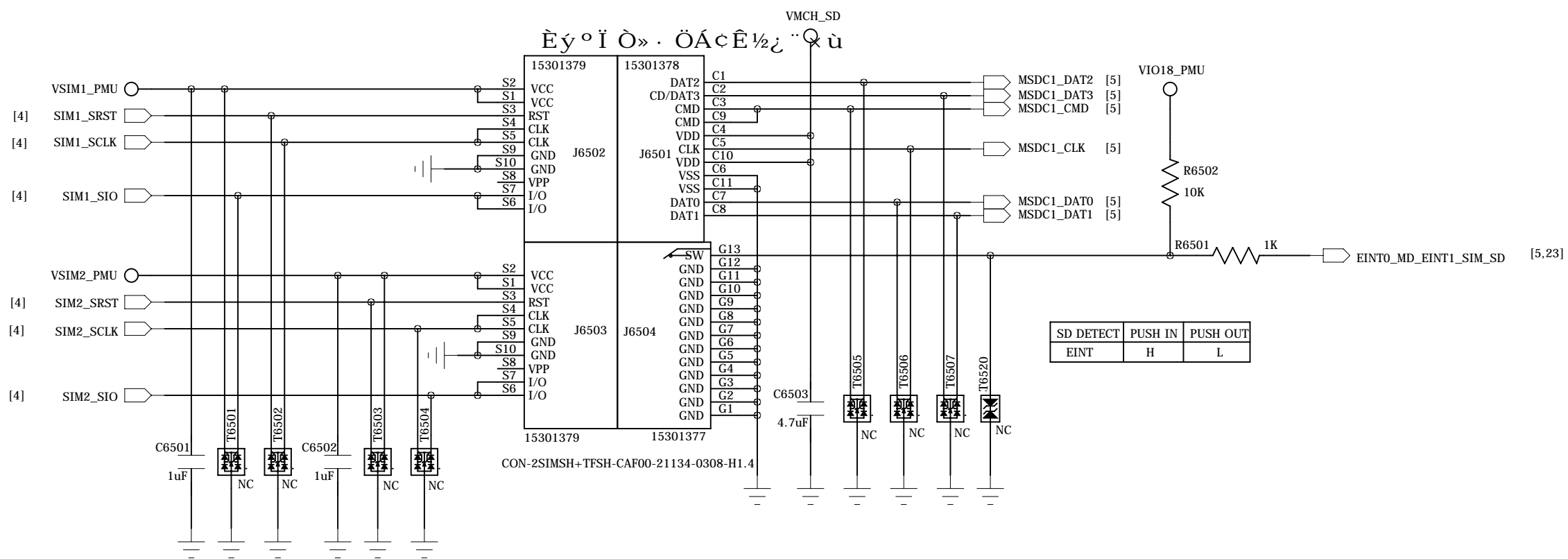


COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 64_PERI_IO_VIB		VERSION: V1.0	SHEET: 22 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		

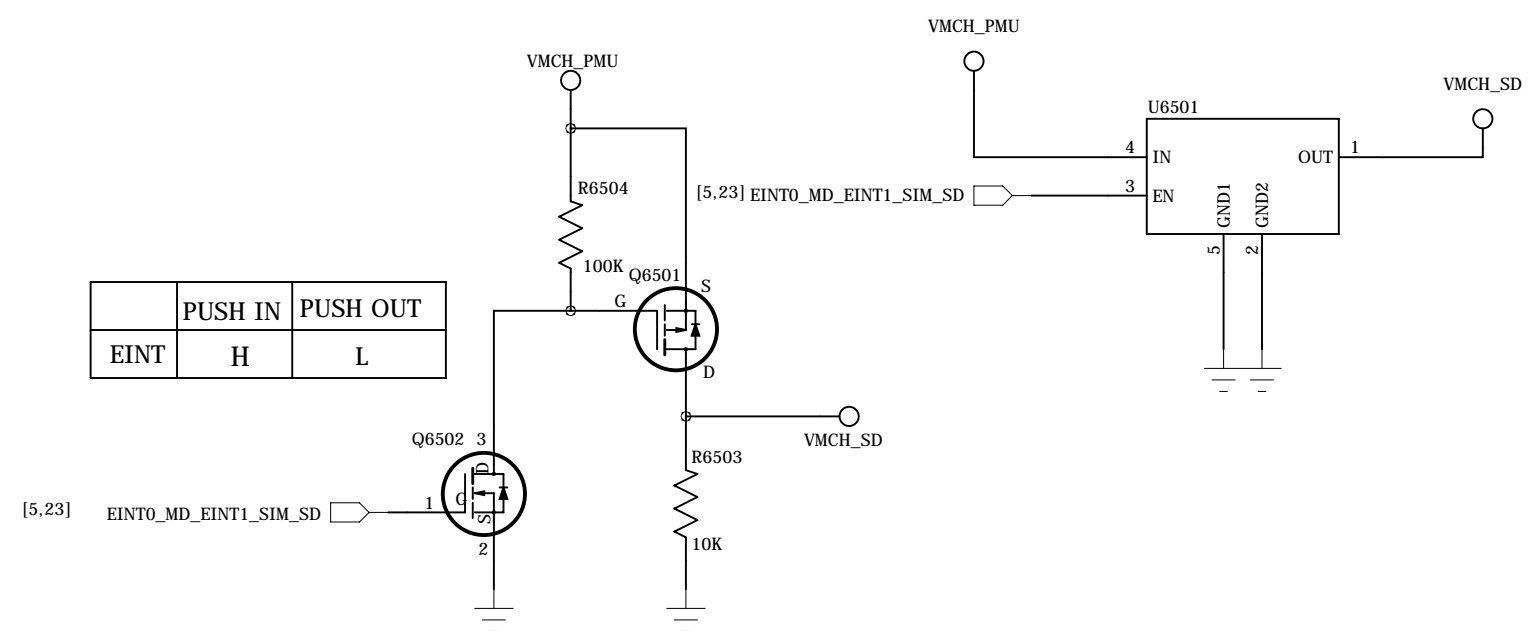
PERI_SIM_SD_LED

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

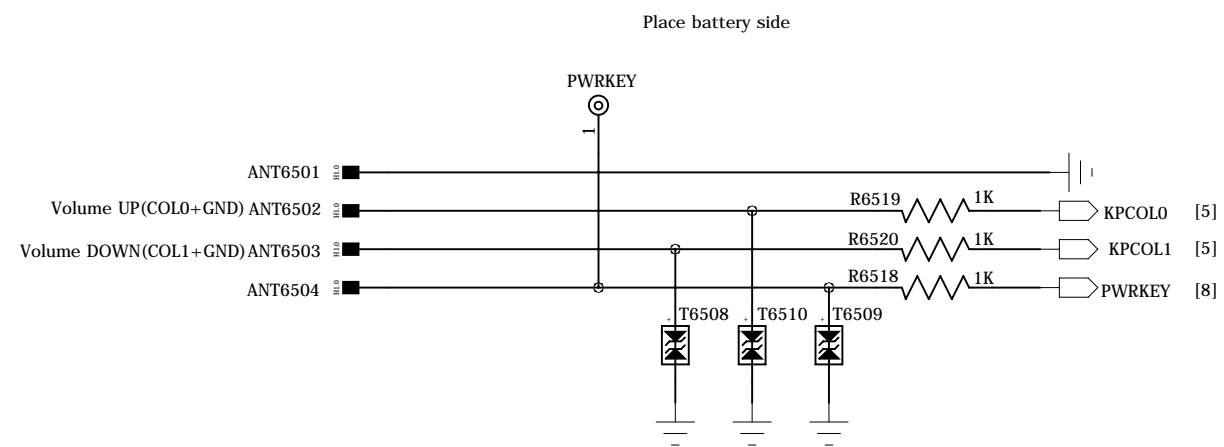
SIM/SD CARD



SD POWER CONTROL



SIDEKEY



GND ANT



COMPANY: TRANSSION HOLDINGS				MODEL: H622		Modified Date: 2018/7/6	
DRAWN	SYJ/LC	DATED	20180207	TITLE: 65_PERI_SIM_SD_LED		VERSION: V1.0	SHEET: 23 OF 23
CHECKED	<CHECKED>	DATED	< >	Confidentiality	CONFIDENTIAL		