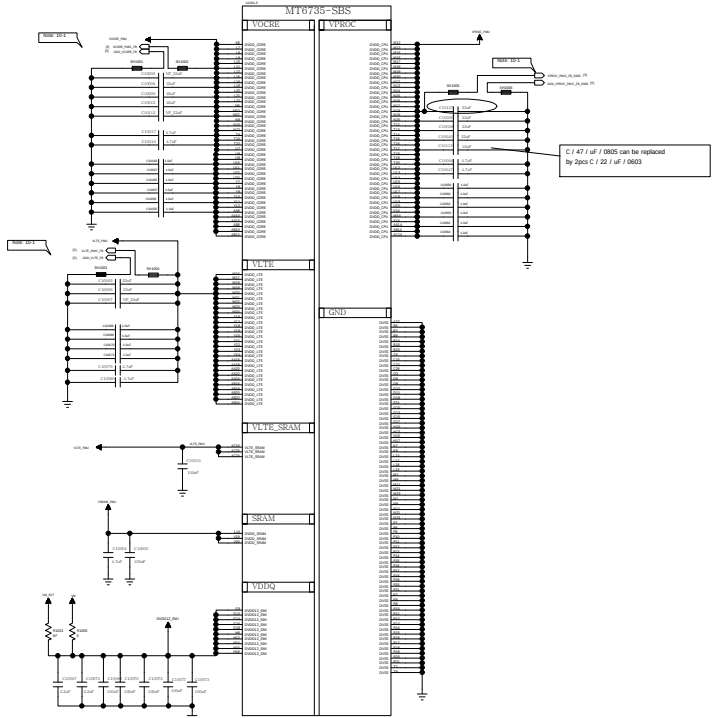
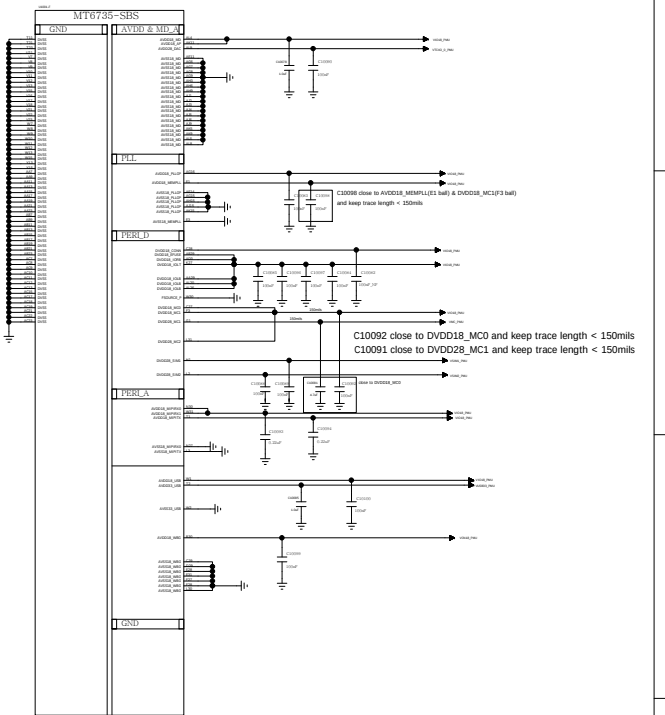


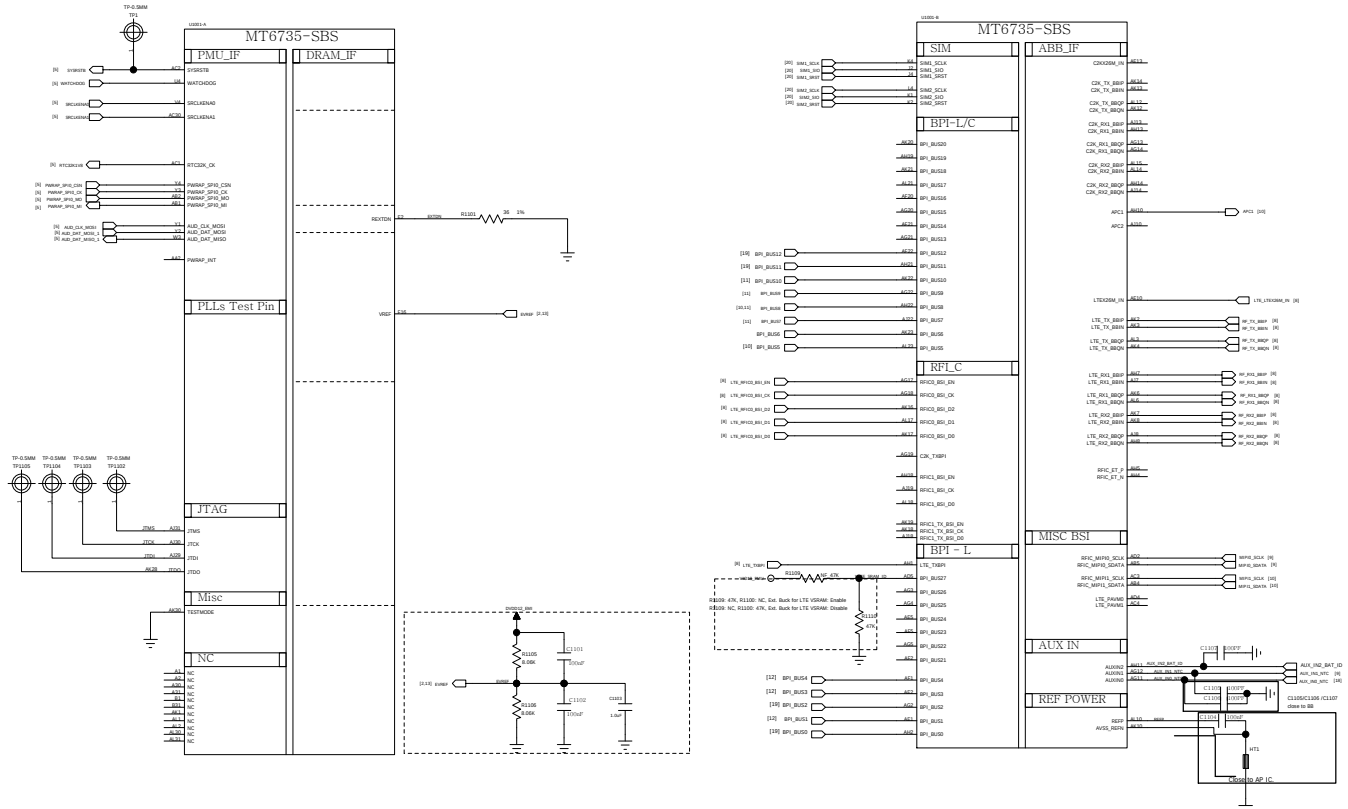


Schematic design notice of "10_BB_POWER" page.

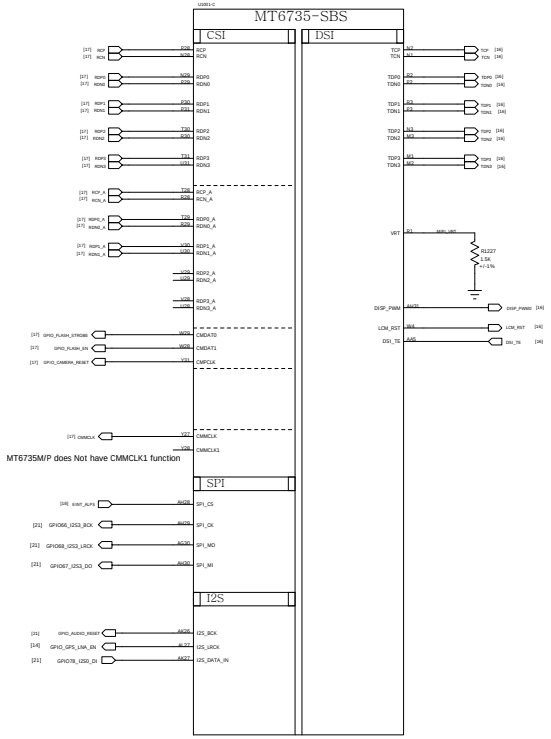
Note 10-1: 4 mil GND trace with good shielding to PMIC (Differential)

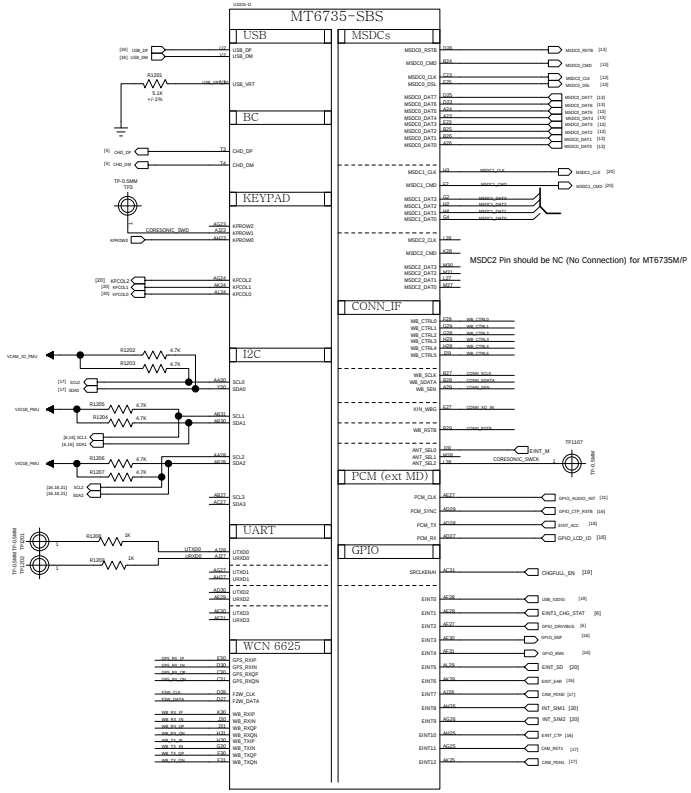
Note 10-3: FSOURCE_P(EFUSE)
(1)FSOURCE_P EFUSE power(VEFUSE) should be only for EFUSE usage(not share with other application)
(2)W/I EFUSE program, VEFUSE need 1uF bypass cap (pls refer to "LDO output voltage/current table ÷)
(3)W/O EFUSE program, VEFUSE bypass cap should be NC.

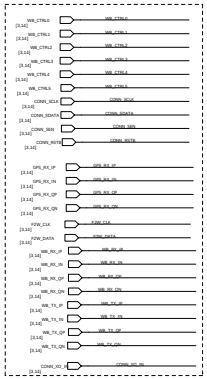
TITLE:		REV:	
DOCUMENT NO.:	10_BB_POWER	SIZE:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:			
DATE/DATE:	Last Saved Date: 2015/9/9	SHEET: 1 OF 21	



TITLE:		REV:	
DOCUMENT NO.:	11_BB_1	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/8/9	SHEET:	2 OF 21







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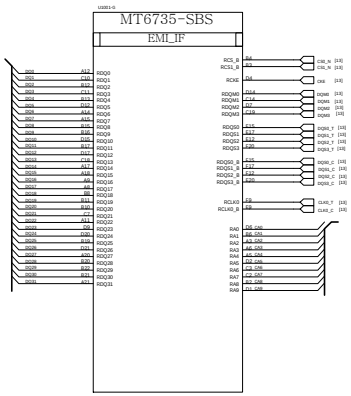
DOCUMENT NO.: 12_BB_2	SIZED: A1
DEPARTMENT: Hardware DEPT.	
COMPANY: WINGTECH	
DESIGNER:	Last Saved Date: 2015/6/9 SHEET: 3 OF 21



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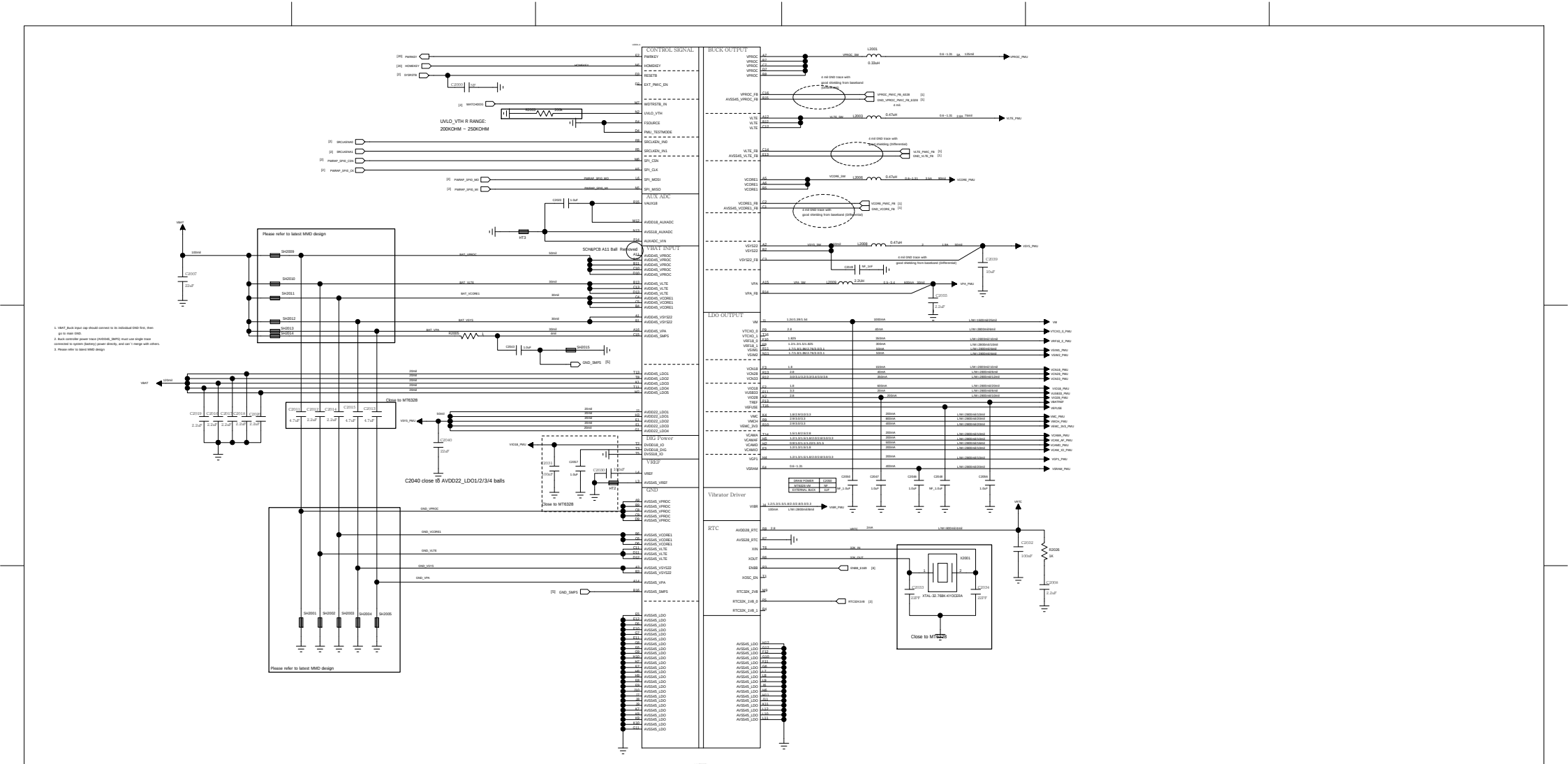
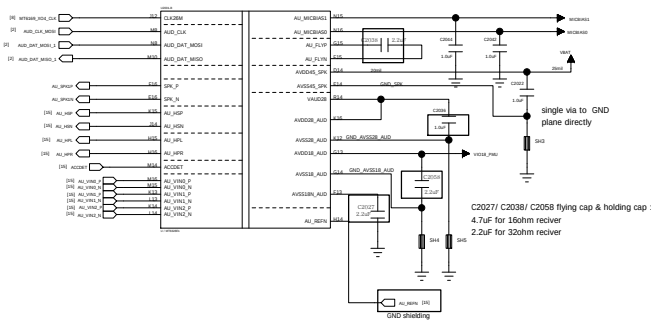
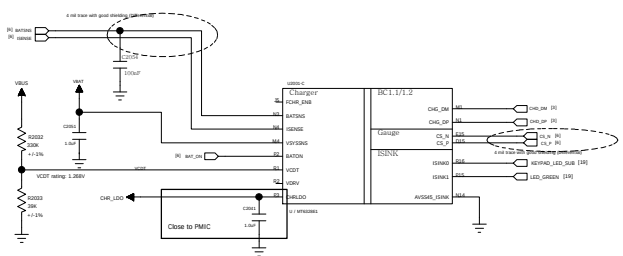
DOCUMENT NO.:	13_BB_3	SIZED: A1
DEPARTMENT:	Hardware DEPT.	
COMPANY:	WINGTECH	
DESIGNER:	Last Saved Date: 2015/6/9	SHEET: 4 OF 21

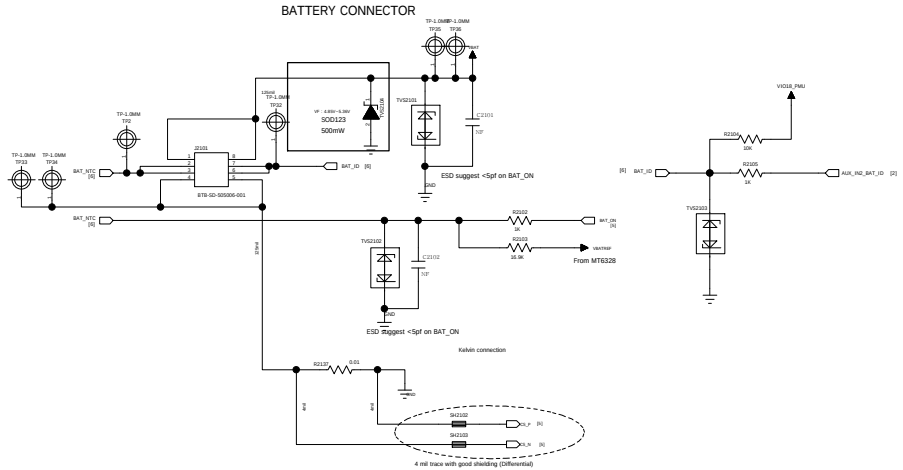


Audio



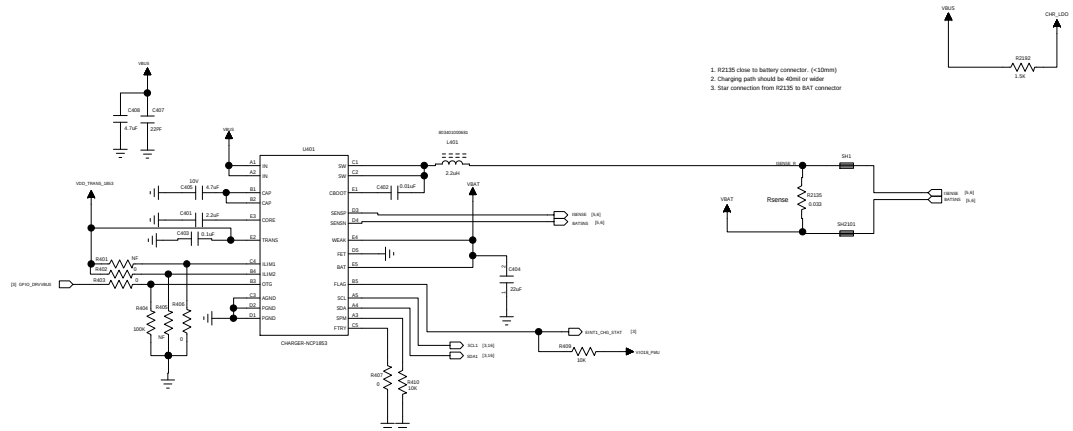


TITLE:		REV:	
DOCUMENT NO.:	, 20_POWER_MT6328	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/6/9	SHEET:	5 OF 21



Pulse Charger

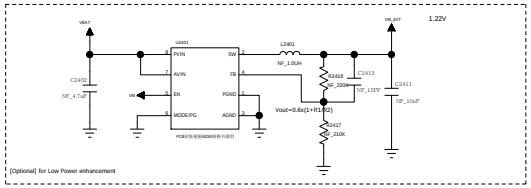
当使用Switching charger :Rsense R2135 use 33m ohm



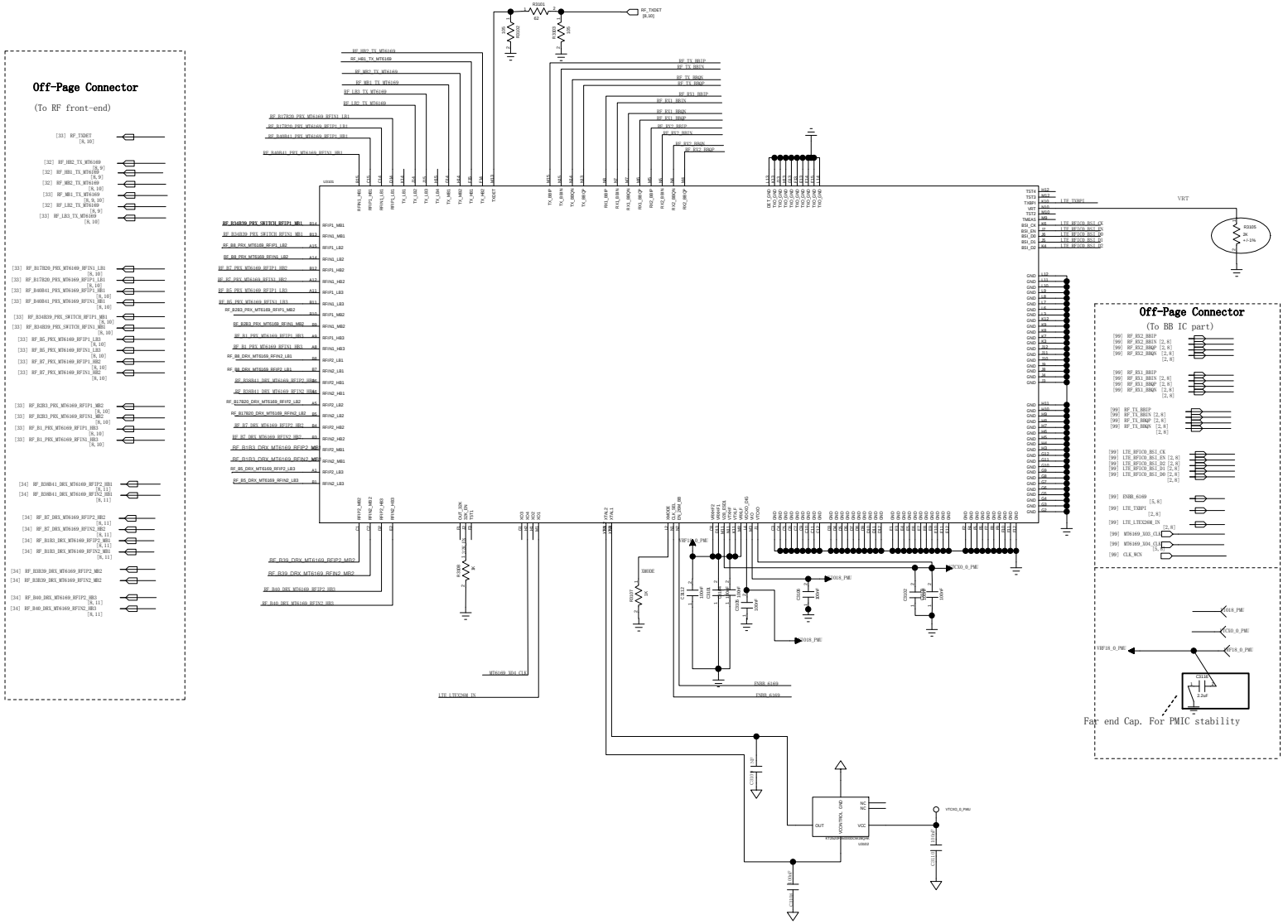
Switching Charger

TITLE:		REV:	
DOCUMENT NO.:	21_POWER_BATCON_CHARGER	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/8/9	SHEET:	6 OF 21

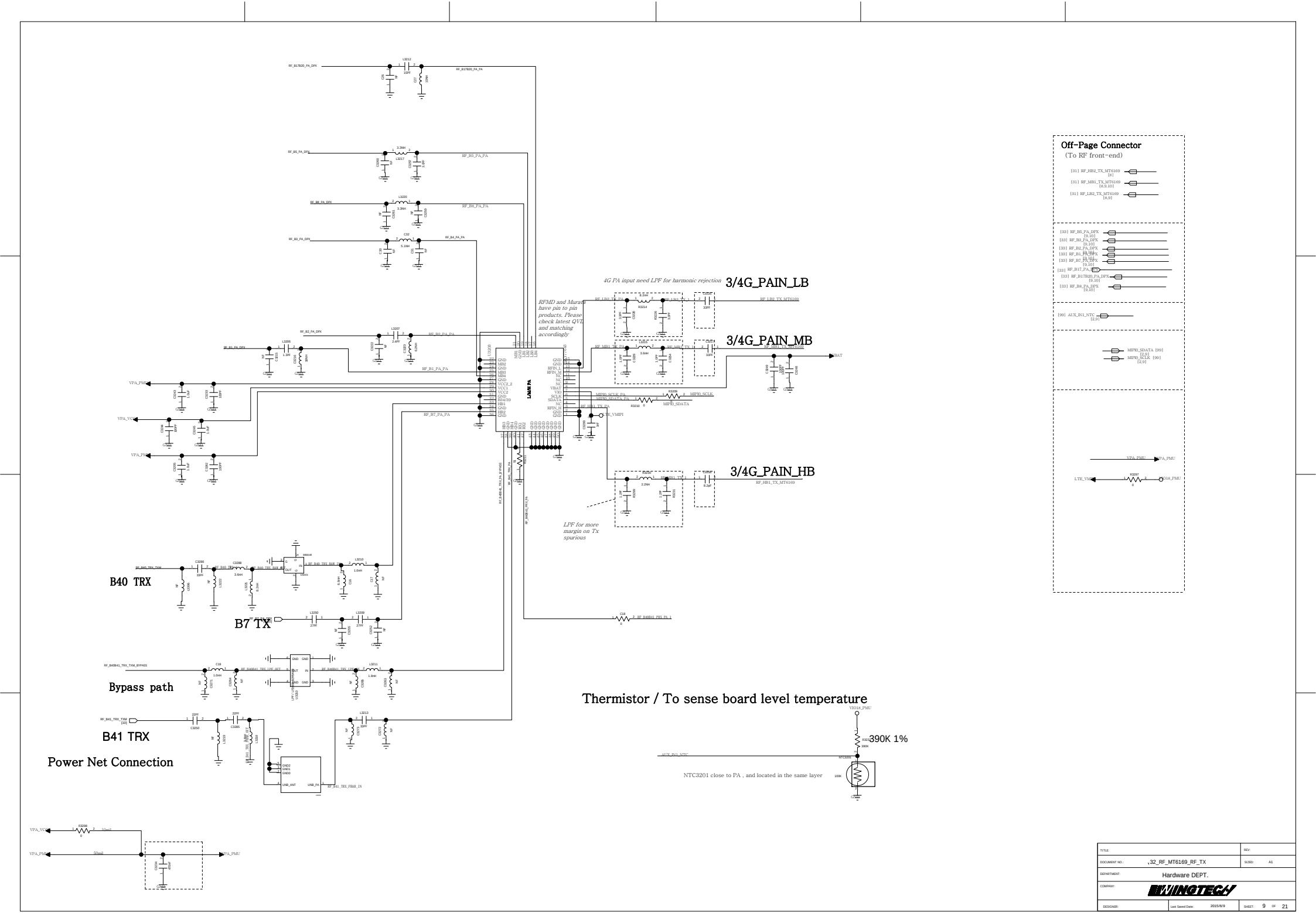
External Buck for DRAM

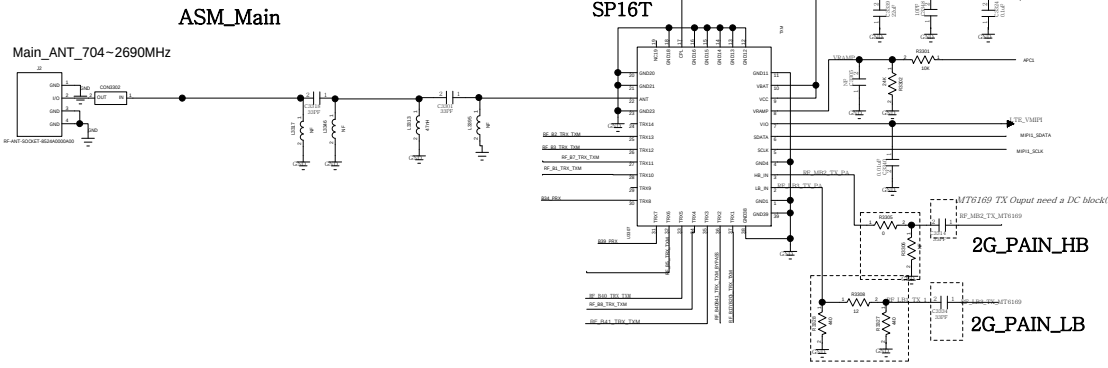


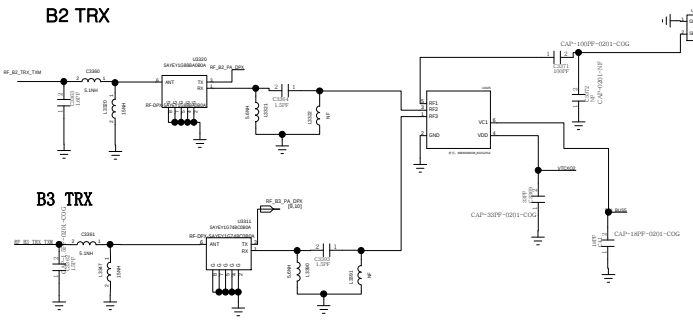
TITLE:		REV:	
DOCUMENT NO.:	24_POWER_THIRD-PARTY	SIZE:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/6/9	SHEET:	7 OF 21

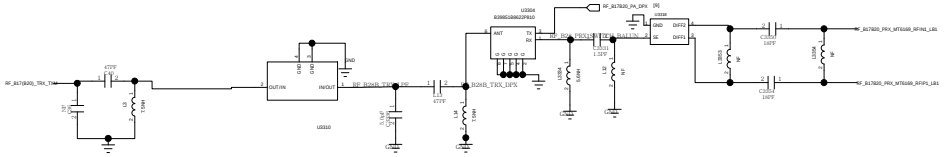


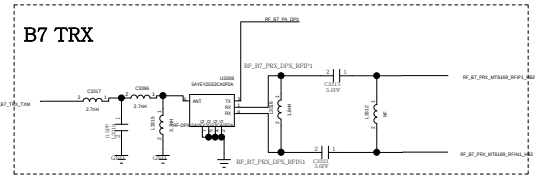
TITLE:		REV:	
DOCUMENT NO.:	31_RF_MT6169_PIN_OUT	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/8/9	SHEET:	8 OF 21

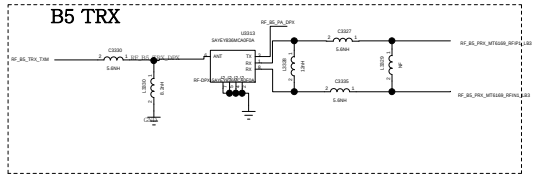

Off-Page Connector
(To RF front-end)
[31] RF_HB2_TX_MT6169 [8]
[31] RF_MB1_TX_MT6169 [8,9,10]
[31] RF_LB2_TX_MT6169 [8,9]
[33] RF_B5_PA_DPX [9,10]
[33] RF_B3_PA_DPX [9,10]
[33] RF_B2_PA_DPX [9,10]
[33] RF_B1_PA_DPX [9,10]
[33] RF_B7_PA_DPX [9,10]
[33] RF_B17_PA_DPX [9,10]
[33] RF_B17B20_PA_DPX [9,10]
[33] RF_B8_PA_DPX [9,10]
[99] AUX_IN1_NTC [2,9]
MIPI0_SDATA [99] [2,9]
MIPI0_SCLK [99] [2,9]
4G PA input need LPF for harmonic rejection
3/4G_PAIN_LB
3/4G_PAIN_MB
3/4G_PAIN_HB
RFMD and Murata have pin to pin products. Please check latest QVL and matching accordingly
LPF for more margin on Tx spurious
B40 TRX
B7 TX
Bypass path
B41 TRX
Power Net Connection
Thermistor / To sense board level temperature
390K 1%
NTC3201 close to PA , and located in the same layer
TITLE:
REV:
DOCUMENT NO.: ,32_RF_MT6169_RF_TX
SIZED: A1
DEPARTMENT: Hardware DEPT.
COMPANY: WINGTECH
DESIGNER:
Last Saved Date: 2015/6/9
SHEET: 9 OF 21

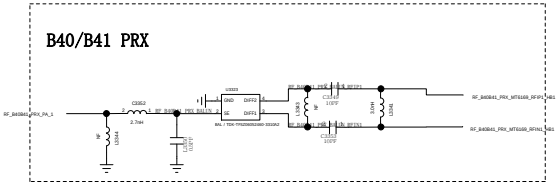


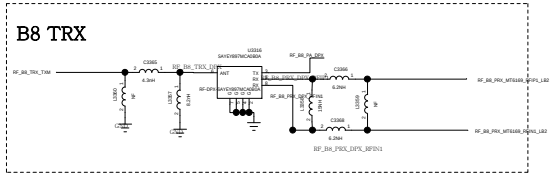


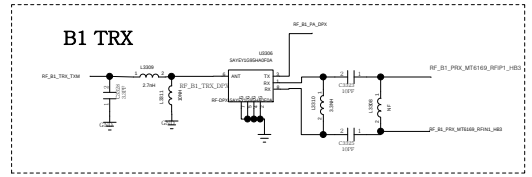


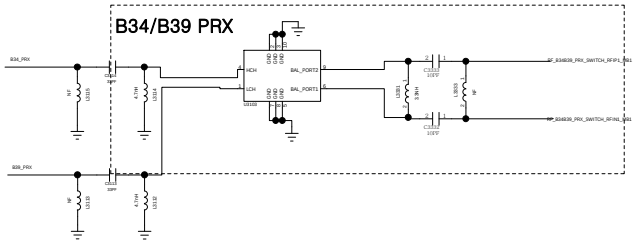


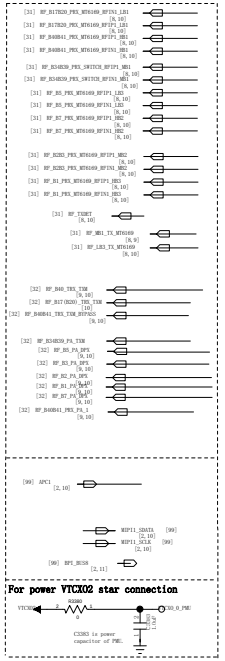












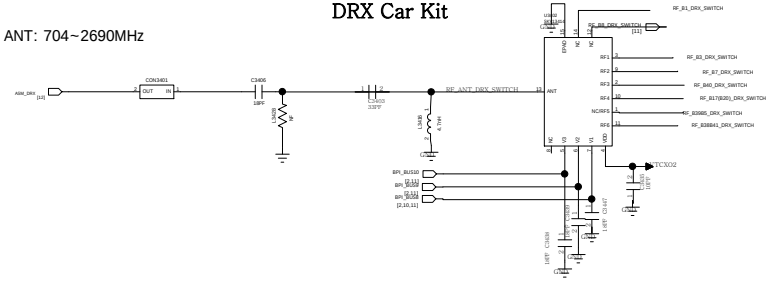
TITLE:			REV:
DOCUMENT NO.:	33_RF_MT6169_RF_PRX		SIZE: A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/6/9		SHEET: 10 OF 21

DRX ANT: 1805-2690MHz

SP6T

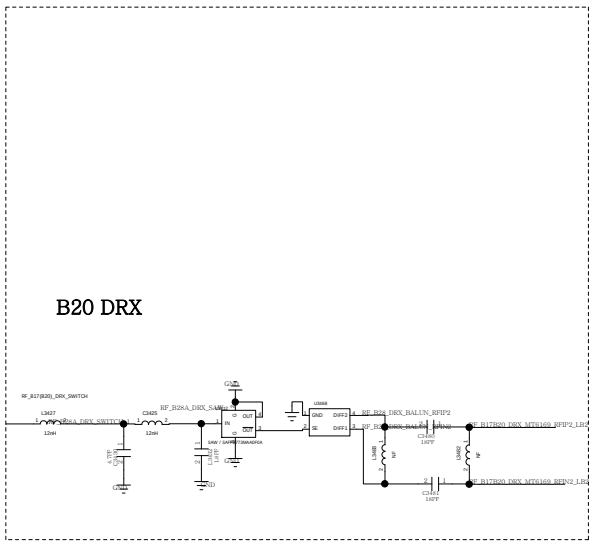
DRX Car Kit

DRX ANT: 704~2690MHz

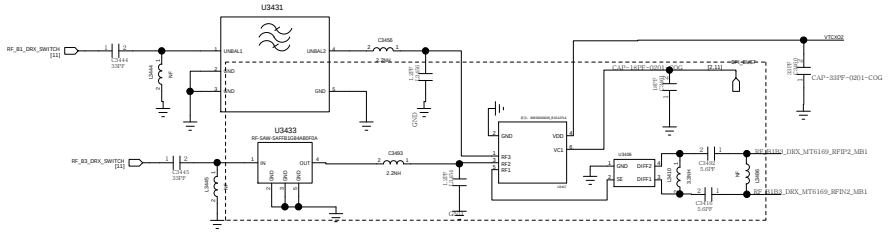


可以实现4频\6频\8频兼容

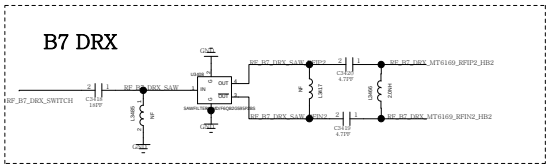
B20 DRX

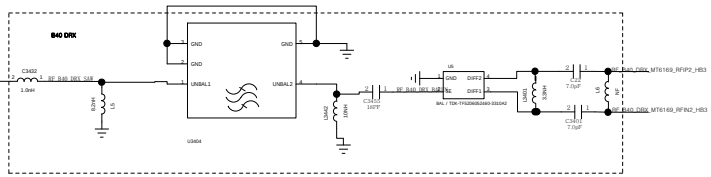


B1&B3 DRX

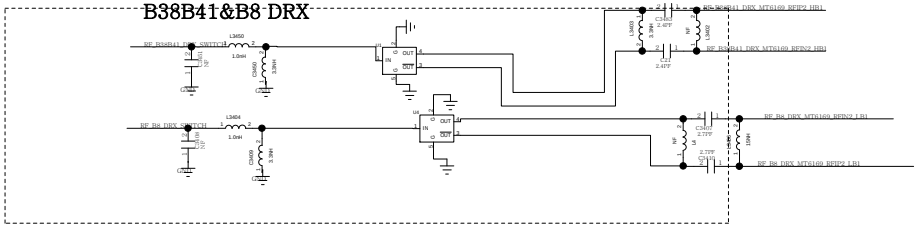


B7 DRX

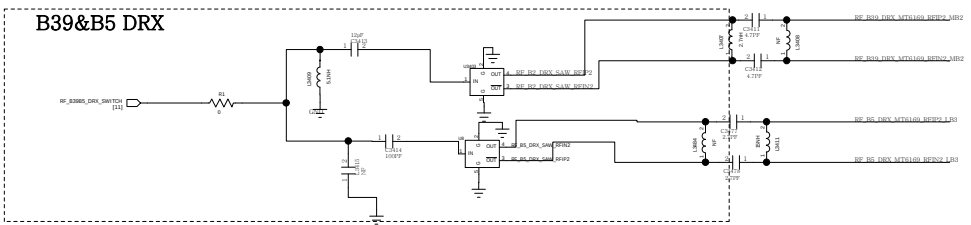


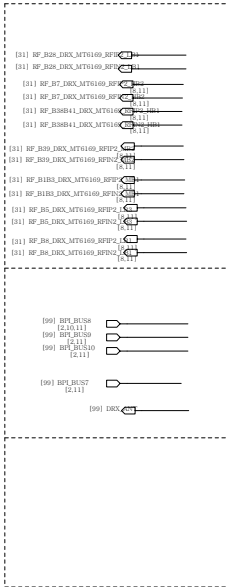


B38B41&B8 DRX



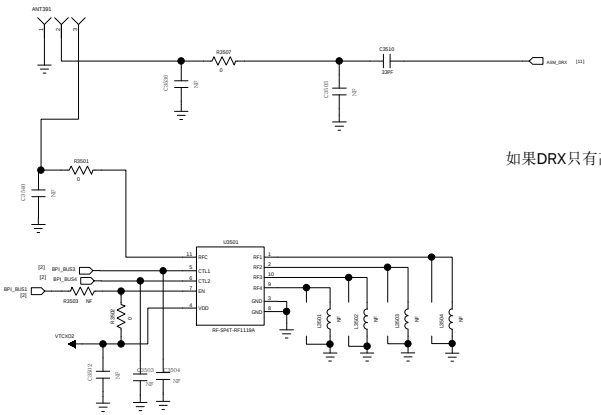
B39&B5 DRX





TITLE:		REV:
DOCUMENT NO.:	34_RF_MT6169_RF_DRX	SIZE: A1
DEPARTMENT:	Hardware DEPT.	
COMPANY:	WINGTECH	
DESIGNER:	Last Saved Date: 2015/8/9	SHEET: 11 OF 21

DRX ANT: 734~960MHz + 1805~2690MHz



如果DRX只有高频，此13489可以不用预留。

TITLE:			REV:
DOCUMENT NO.:	36_RF_AT		SIZE: A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:		Last Saved Date: 2015/6/9	SHEET: 12 OF 21

Connect to AP

DQ[0..31]	DQ[0..31]
CA[0..9]	CA[0..9]
CS0_N	CS0_N
CS1_N	CS1_N
CKE	CKE
DQM0	DQM0
DQM1	DQM1
DQM2	DQM2
DQM3	DQM3
DQS0_C	DQS0_C
DQS1_C	DQS1_C
DQS2_C	DQS2_C
DQS3_C	DQS3_C
DQS0_T	DQS0_T
DQS1_T	DQS1_T
DQS2_T	DQS2_T
DQS3_T	DQS3_T
CLK0_T	CLK0_T
CLK0_C	CLK0_C
VREF_CA	VREF_CA
VREF_DQ	VREF_DQ
MSDC0_RSTB	MSDC0_RSTB
MSDC0_CMD	MSDC0_CMD
MSDC0_CLK	MSDC0_CLK
MSDC0_DSL	MSDC0_DSL
MSDC0_DAT0	MSDC0_DAT0
MSDC0_DAT1	MSDC0_DAT1
MSDC0_DAT2	MSDC0_DAT2
MSDC0_DAT3	MSDC0_DAT3
MSDC0_DAT4	MSDC0_DAT4
MSDC0_DAT5	MSDC0_DAT5
MSDC0_DAT6	MSDC0_DAT6
MSDC0_DAT7	MSDC0_DAT7

Power I/F

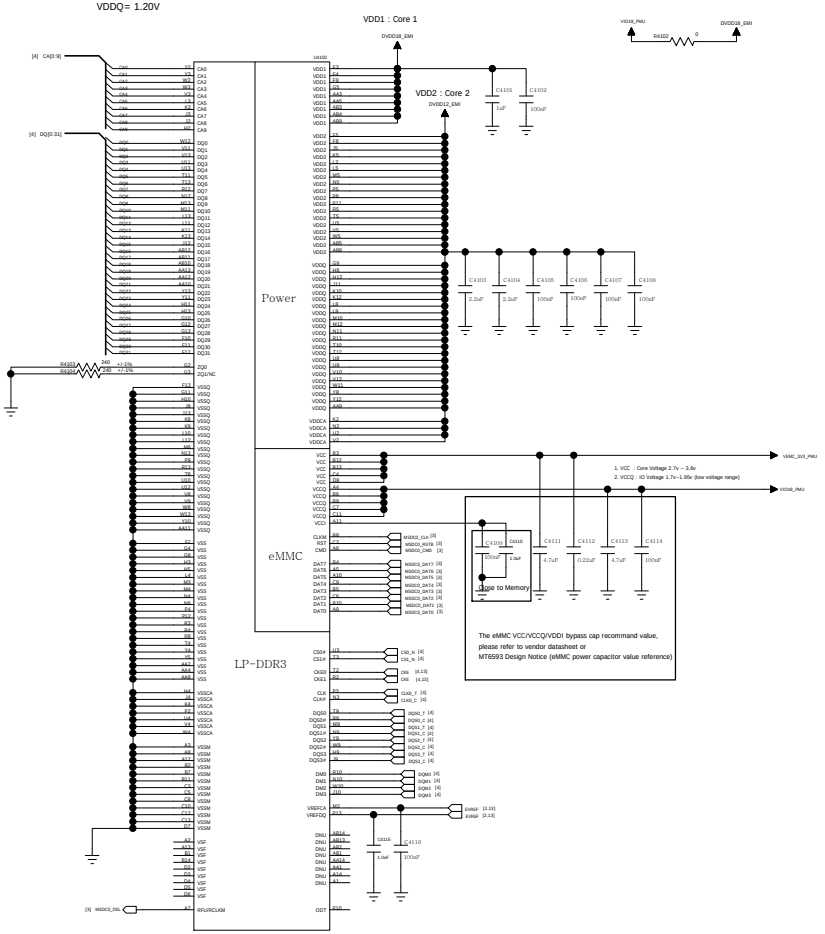
VIO18_PMU	VIO18_PMU
VEMC_3V3_PMU	VEMC_3V3_PMU
DVDD12_EMI	DVDD12_EMI

eMMC+LPDDR3

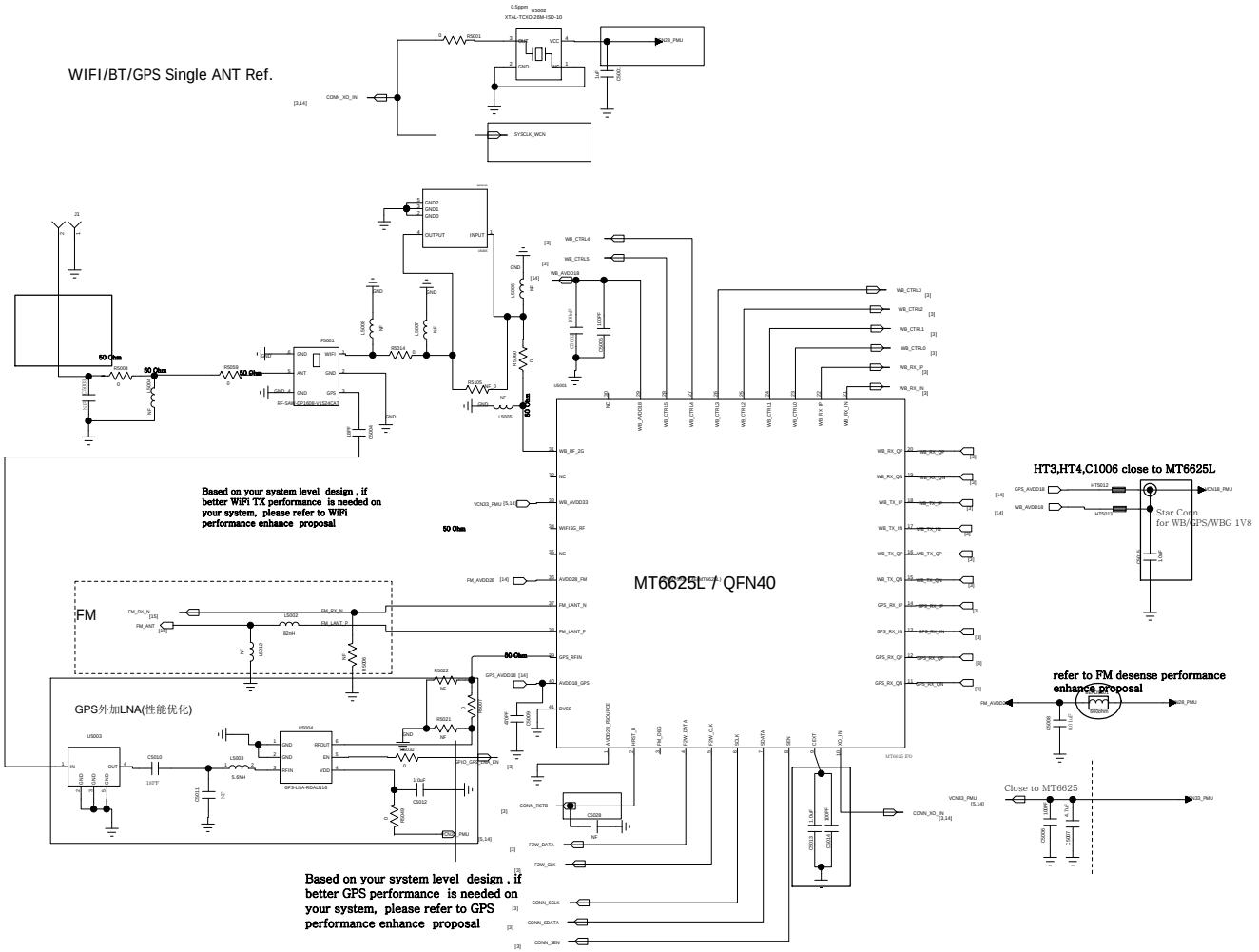
221 Ball, 0.5mm pitch

VDD1=1.8V
VDD2=1.20V
VDDCA=1.2V
VDDQ= 1.20V

8GB eMMC + 8Gb LPDDR3
Hynix/H9TQ64A8GTMCUR-KUM



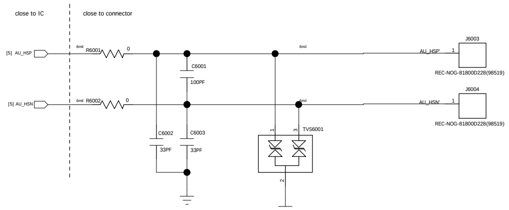
TITLE:		REV:	
DOCUMENT NO.:	41_MEMORY_EMMC_LPDDR3	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/8/9	SHEET:	13 OF 21



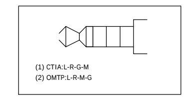
TITLE:		REV:	
DOCUMENT NO.:	5Q_CONNECTIVITY_MT6625	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/6/9	SHEET:	14 OF 21

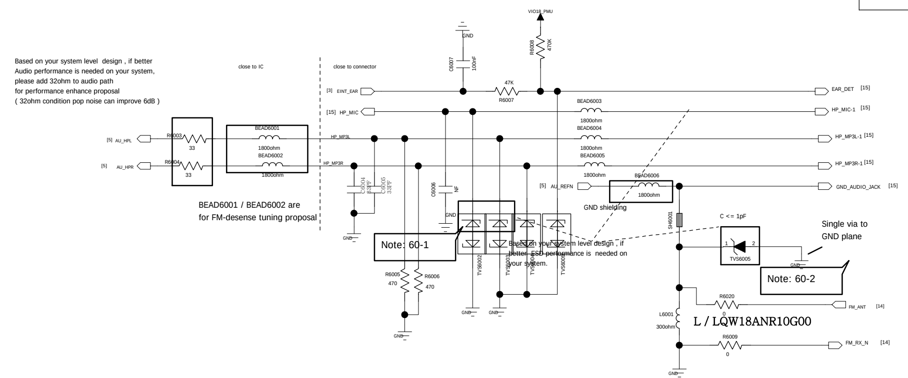
Speaker

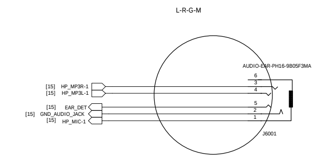
Receiver



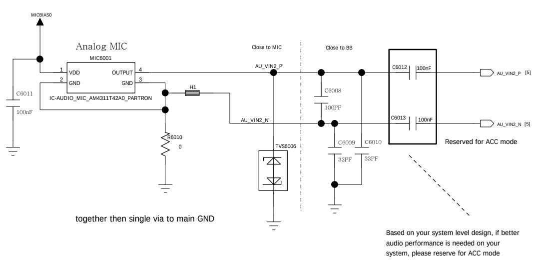
Earphone Audio





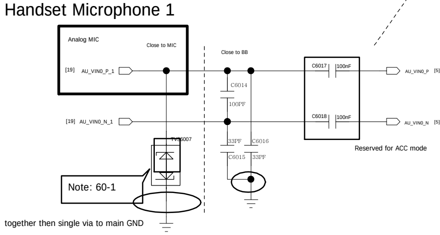


Handset Microphone 2

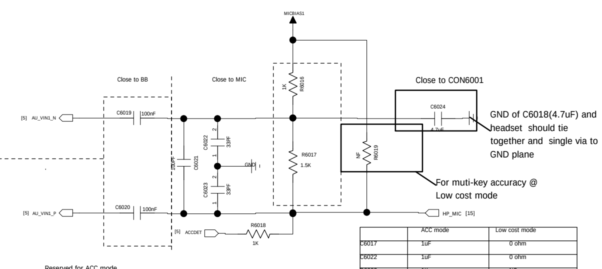


Based on your system level design, if better audio performance is needed on your system, please reserve for ACC mode

Handset Microphone 1



Earphone MICPHONE



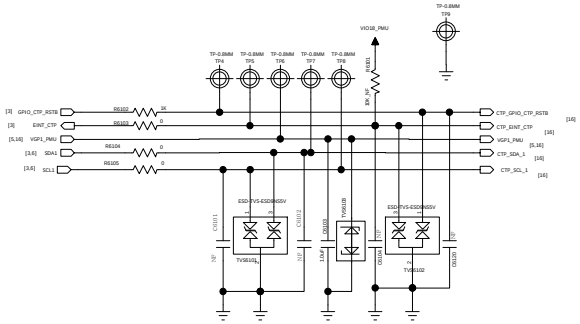
	ACC mode	Low cost mode
C6017	1uF	0 ohm
C6022	1uF	0 ohm
R6009	1K	NC
R6010	1.5K	NC
R6019	NC	2.5K
C6018	4.7uF	0 ohm

Schematic design notice of "60_PERI_AUDIO_IO" page.

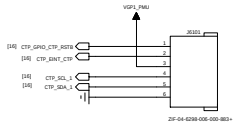
Note 60-1:	The equivalent capacitance of audio and speech ESD protection device must be <=330pF. choose bi-directional device only
Note 60-2:	The equivalent capacitance of FM ANT. ESD protection device must be <=1pF.
Note 60-3:	TVS Stand off voltage for speaker should >=5V

TITLE:		REV:	
DOCUMENT NO.:	60_PERI_AUDIO	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/6/9	SHEET:	15 OF 21

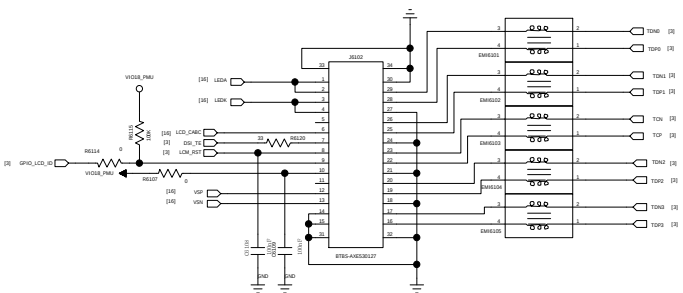
CTP



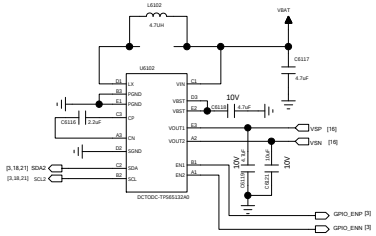
CTP Connector



Main LCM



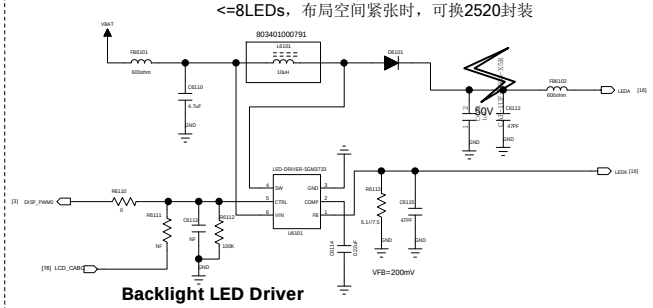
借用MHCD252010A-2R2M焊盘



0x7C for write, 0x7D for read

默认3*3封装

<=8LEDs，布局空间紧张时，可换2520封装

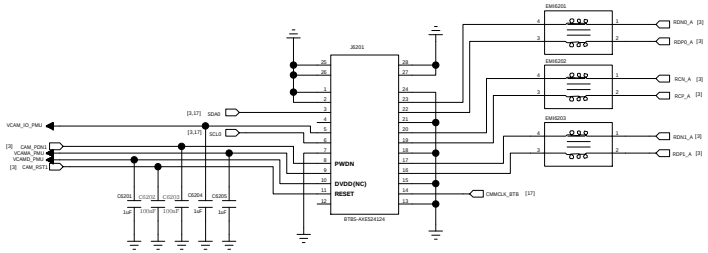


Schematic design notice of "61_PERI_LCD_CTP" page.	
Note 61-1:	GT1151 I2C address: 0X5D (Write:0xBA, Read:0xBB) or 0x14 (Write:0x28, Read:0x29)

TITLE:		REV:	
DOCUMENT NO.:	61_PERI_LCD_CTP	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/8/9	SHEET:	16 OF 21

Front Camera

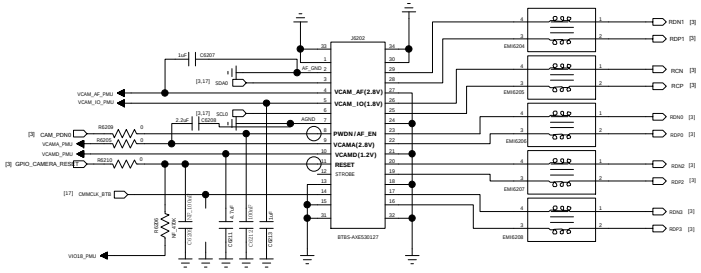
5M:HI551
5-DOVDD=1.8V
9-AVDD=2.8V
10-DVDD(NC)由内部HI-551内部LDO提供

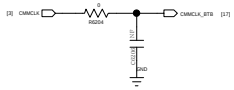


Main Camera

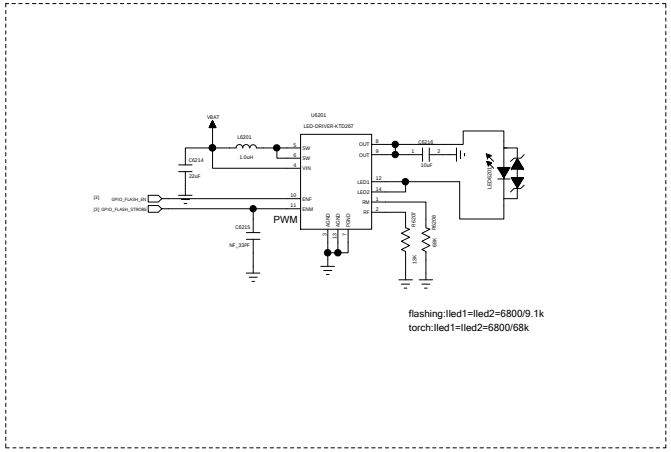
8M:OV8865
8-PWDN(NC);11-RESET

13M:OV13850
8-AF-EN;11-RESET





FLASH LED



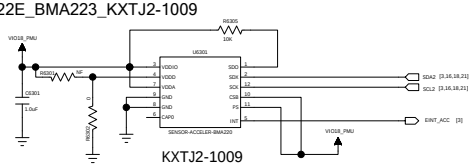
TITLE:		REV:	
DOCUMENT NO.:	62_PERI_CAMERA	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/6/9	SHEET:	17 OF 21

M-Sensor

M-Sensor I2C Address: 0x0D (Write:0x1A, Read:0x1B)

Accerometer

BMA222E_BMA223_KXTJ2-1009

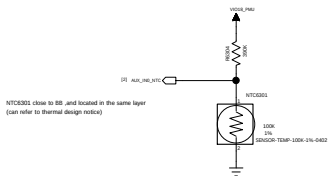


KXTJ2-1009

KXTJ2_SDO_GND: 0x0E_ Write;0X1C, REDAD;0X0D

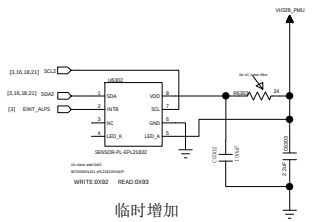
KXTJ2_SDO_HIGH: 0X0F_ Write;0X1E, REDAD;0X1F

Thermistor / To sense board level temperature



RGB LED

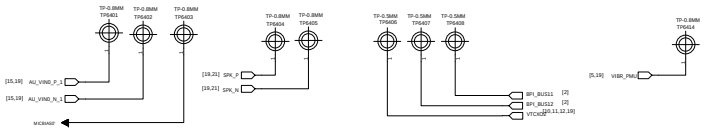
ALS+PS+IR

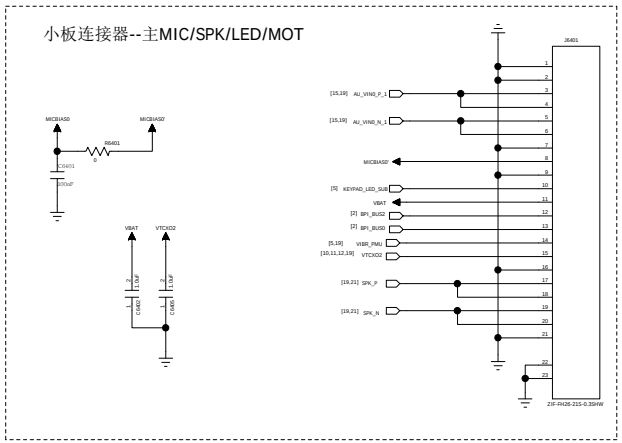


临时增加

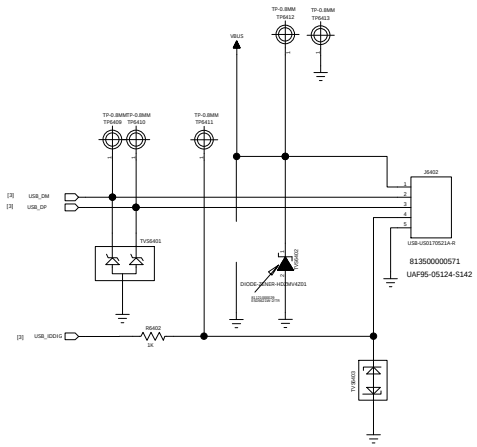
TITLE:		REV:
DOCUMENT NO.:	、63_PERI_SENSORS	SIZED: A1
DEPARTMENT:	Hardware DEPT.	
COMPANY:	WINOTECH	
DESIGNER:	Last Saved Date: 2015/6/9	SHEET: 18 OF 21

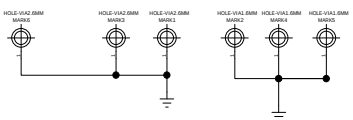
MOTO

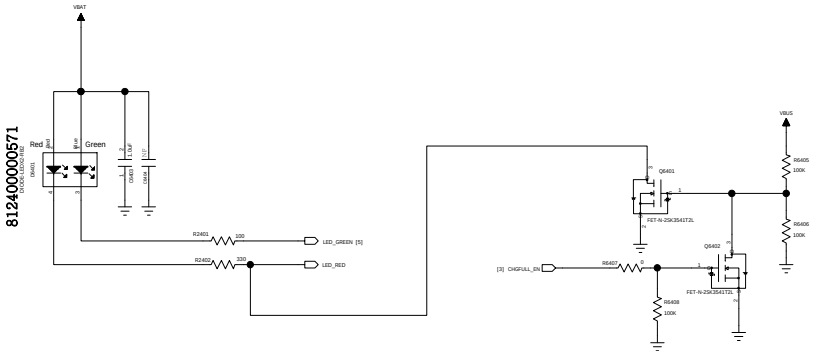




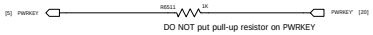
USB

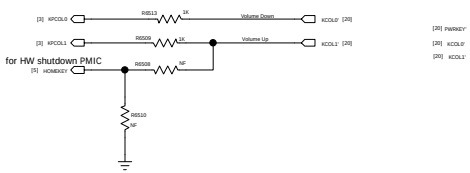


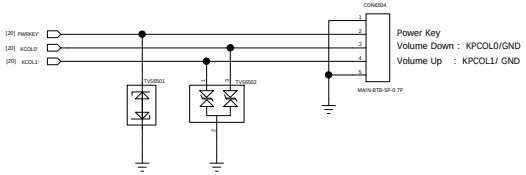


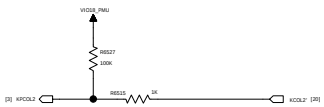


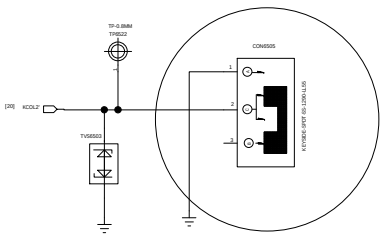
TITLE:		REV:	
DOCUMENT NO.:	64_PERI_USB_MHL/VIB/HOLE	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/8/9	SHEET:	19 OF 21



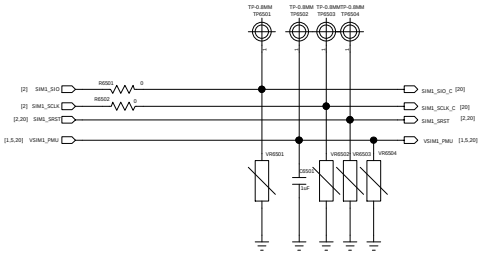


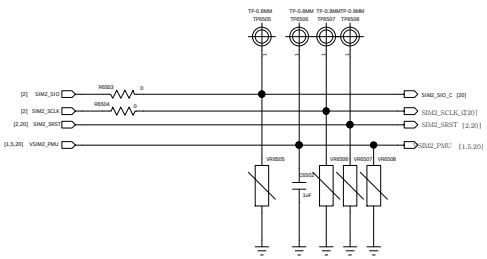


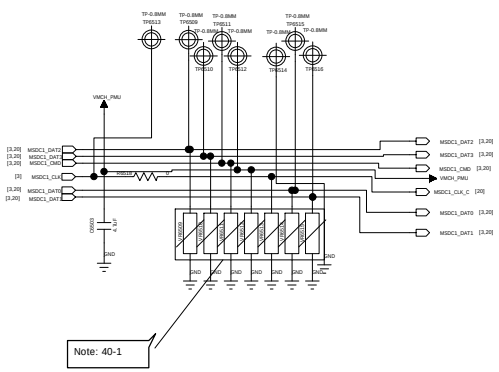




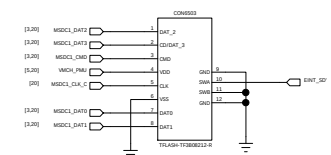
默认1-2连通,拨一下，2-3连通；再拨回去1-2再次连通

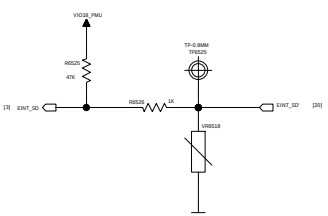






Based on your system level design , if better ESD/desense performance is needed on your system.



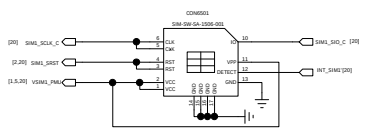


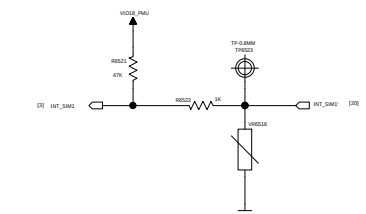
TP4005	CLK	JTCK
TP4008	DATA1	JTDO
TP4007	DATA0	JTDI
TP4003	CMD	JTMS
TP4001	DATA2	JRST_B

Schematic design notice of "40_MEMORY_SD Card" page.

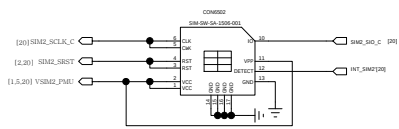
Note 40-1: The equivalent capacitance of MSDC ESD protection device must be <=10pF.
But for NFC app. equivalent capacitance of MSDC_NFC_SWPIO and MSDC_NFC_VCCSWP should <=0.5pF.

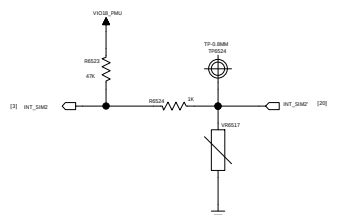
SIM1





SIM2





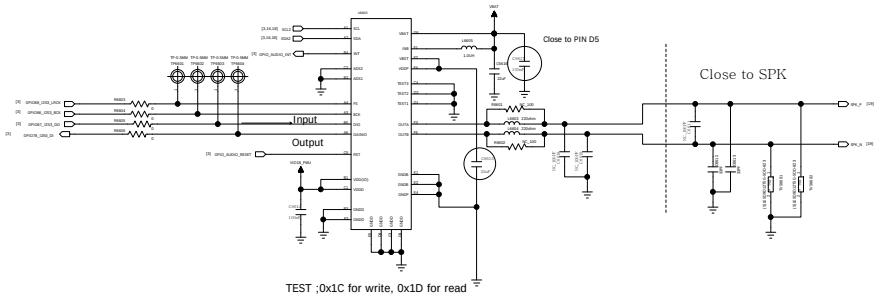
TITLE:		REV:	
DOCUMENT NO.:	65_PERI_DUAL_SIM_KEYPAD	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2015/6/9	SHEET:	20 OF 21

1,VDDP;2,VDDD;3,VBAT

Smart PA

1,VDDP;2,VDDD;3,VBAT

Smart PA



TEST ;0x1C for write, 0x1D for read

0X68 for write, 0x69 for read

TITLE:		REV:	
DOCUMENT NO.:	66_AUDIOPA	SIZE:	A3
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	Last Saved Date: 2020/6/8	PAGE:	21 OF 21