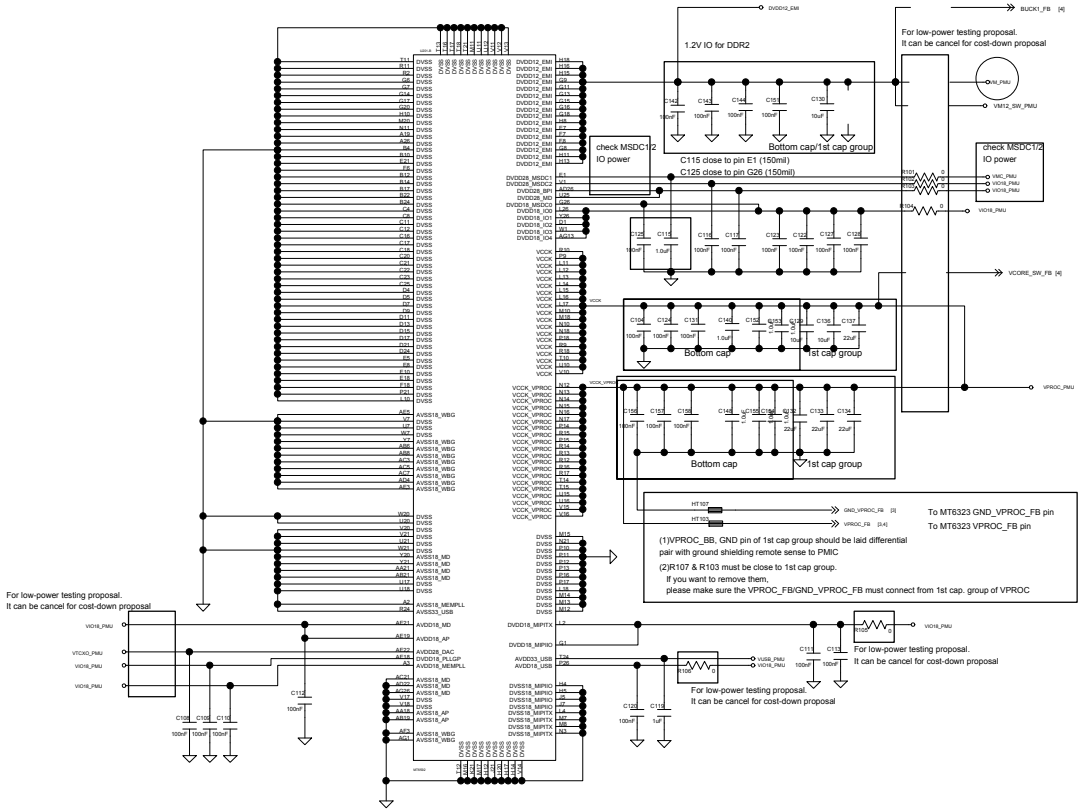


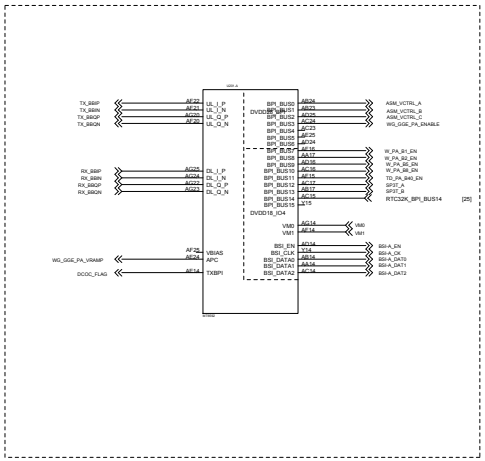
MT6582 R119=NF, R101=0, R102=NF, R120=NF, R110=0

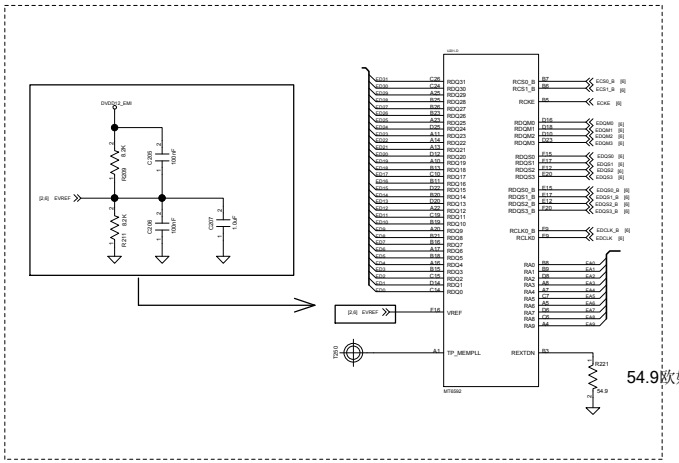
MT6592 R119=0, R101=NF, R102=0, R120=0, R110=NF

MT6582 C135, C137, 可以NF

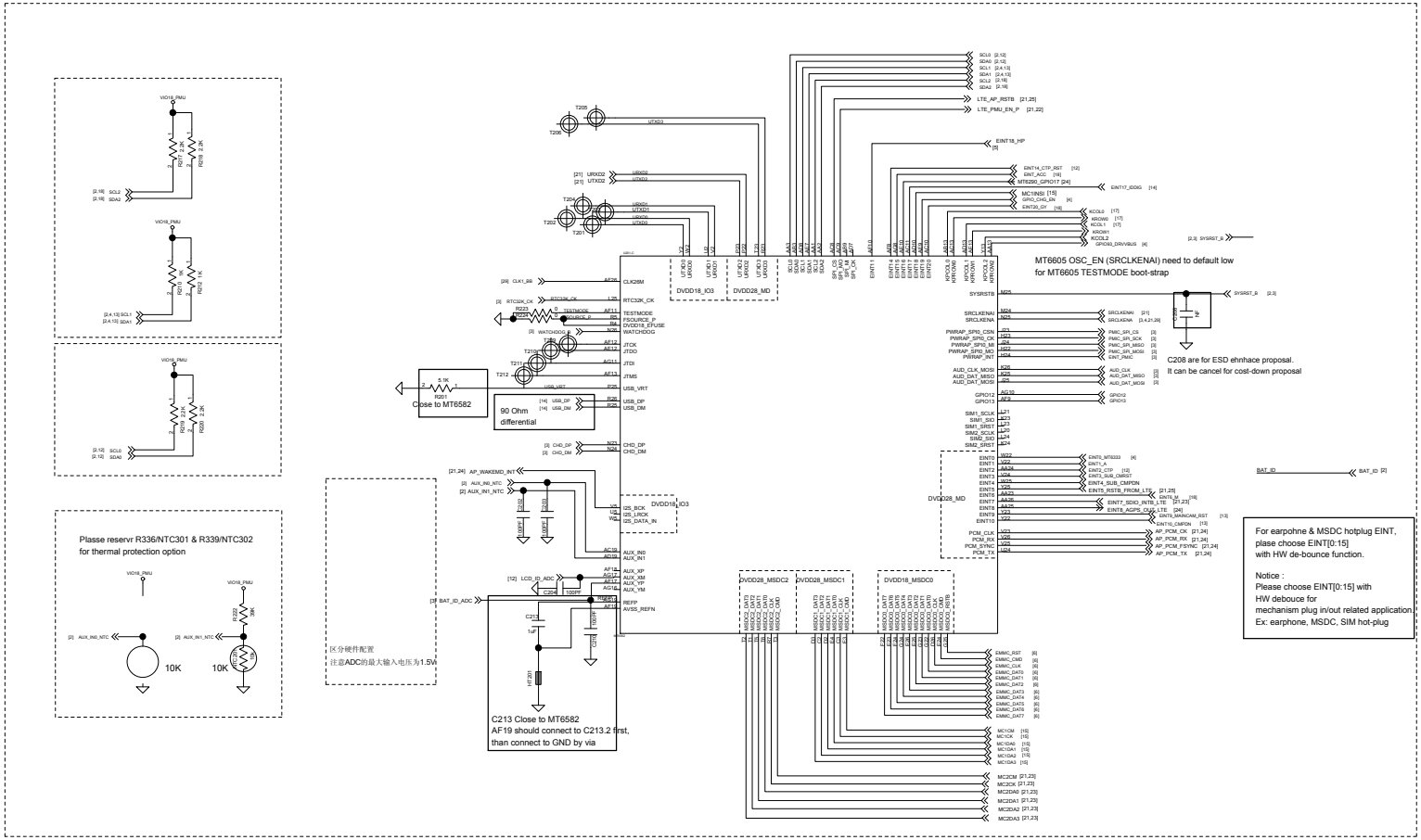
MT6592 C135=22uF, C137=22uF

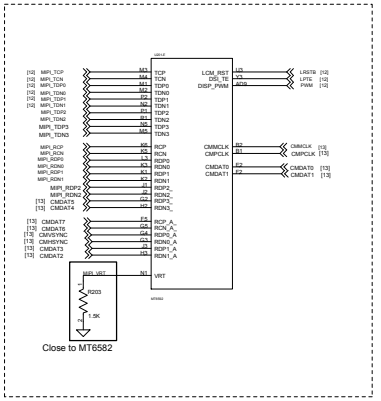
TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	,01_MT6582_POWER	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 1 OF 33





54.9欧姆，1%，0402





<Parallel Cam./MIPI CSI Mux Table>

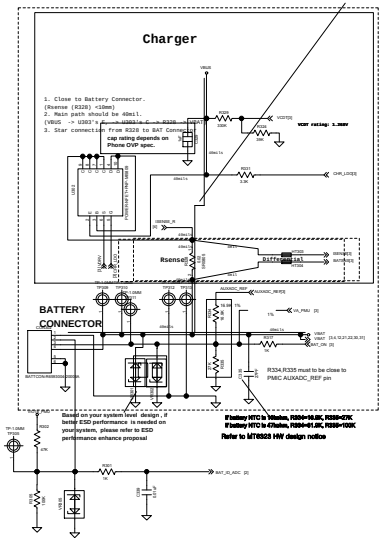
MIPI CSI IF Port	Parallel Camera IF Port
RDP2	CMDAT9
RDN2	CMDAT8
RDP3	CMDAT5
RDN3	CMDAT4
RCP_A	CMDAT7
RCN_A	CMDAT6
RDP0_A	CMVSYNC
RDN0_A	CMHSYNC
RDP1_A	CMDAT3
RDN1_A	CMDAT2
CMDAT1	CMDAT1
CMDAT0	CMDAT0
CMMCLK	CMMCLK
CMPCLK	CMPCLK

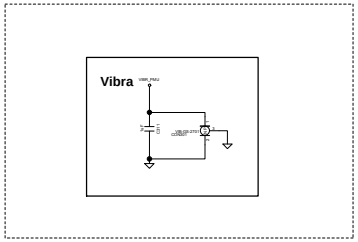
TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	02_MT6582_BASEBAND	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 2 OF 33

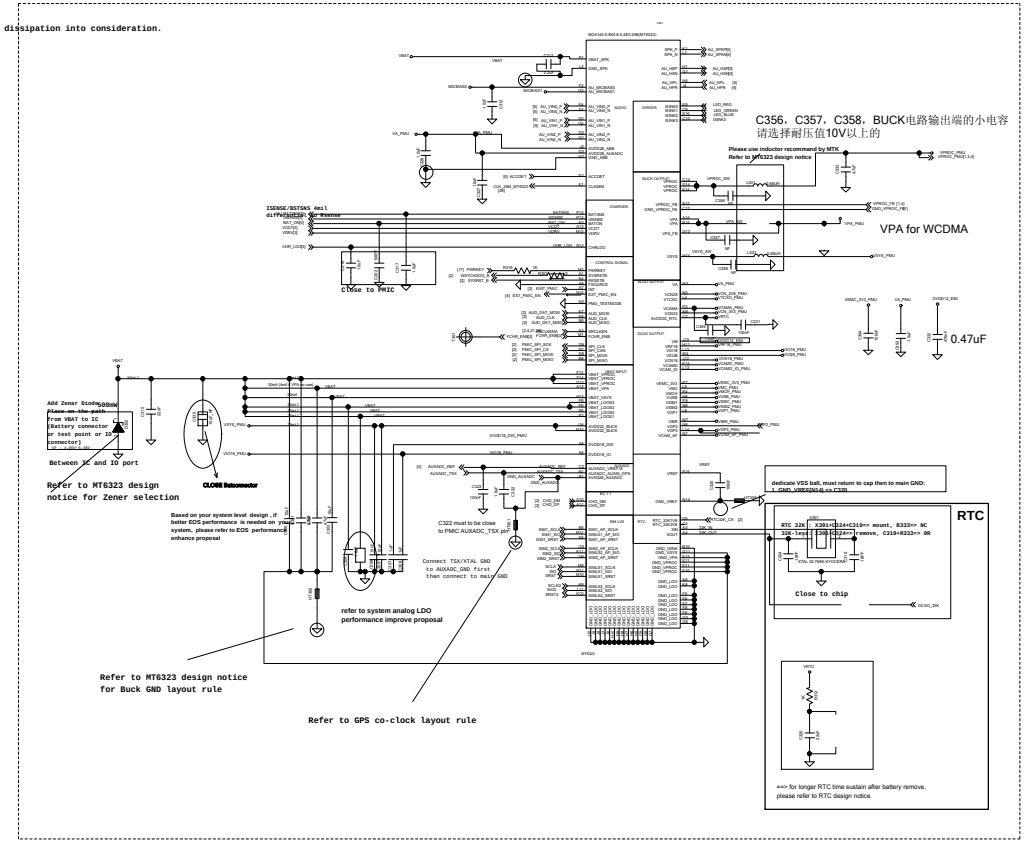
Regulator	Output Voltage(V)	Output Current(mA)	Input Decoupling	Output Decoupling	Notes
VPROC	0.7~1.4	2800	>10uF	L=0.68uH,C=10uF*4	Total outputu cap>40uF
VSYS	2.2	1200	>10uF	L=0.68uH,C=10uF*2	Total outputu cap>20uF
VPA	0.5~3.4	600	>4.7uF	L=2.2uH,C=2.2uF+2.2uF	Output cap range:4.4uF +/-20%

LDO	Output Voltage(V)	Output Current(mA)	Input Decoupling	Output Decoupling	Notes
VM	1.24 /1.39/1.54/1.84	700	10uF	-20%~+20%	Far-end bypass cap
VRF18	1.825	200	1uF	-20%~+200%	Far-end bypass cap
VIO18	1.8	300	4.7uF	-20%~+200%	Far-end bypass cap
VCN18	1.8	120	1uF	-20%~+20%	Far-end bypass cap
VCAMD	1.2 /1.3/1.5/1.8	150	1uF	-20%~+20%	Far-end bypass cap
VCAM_IO	1.8	100	1uF	-20%~+20%	Far-end bypass cap
VGP3	1.2 /1.3/1.5/1.8	200	1uF	-20%~+20%	Far-end bypass cap
VA	2.8	150	1uF	-20%~+20%	Far-end bypass cap
VTCXO	2.8	40	1uF	-20%~+20%	Far-end bypass cap
VCN28	2.8	30	1uF	-20%~+20%	Far-end bypass cap
VCAMA	2.8	150	3.2uF	-20%~+20%	1uF near-end 2.2uF Far-end bypass cap
VCN33	3.3/3.4/3.5/3.6	240(MT6323) 350(MT6322)	4.7uF	-20%~+20%	Far-end bypass cap
VIO28	2.8	200	2.2uF	-20%~+200%	Far-end bypass cap
VUSB	3.3	20	1uF	-20%~+20%	Far-end bypass cap
VMC	1.8 /3.3	100	1uF	-20%~+20%	Far-end bypass cap
VMCH	3.0 /3.3	400	2.2uF	-20%~+20%	Far-end bypass cap
VEMC_3V3	3.0 /3.3	400	4.7uF	-20%~+20%	Far-end bypass cap
VCAM_AF	1.2/1.3/1.5/1.8 /2.0 2.8/3.0/3.3	100	1uF	-20%~+20%	Far-end bypass cap
VSIM1	1.8 /3.0	50	1uF	-20%~+20%	Far-end bypass cap
VSIM2	1.8 /3.0	50	1uF	-20%~+20%	Far-end bypass cap
VGP1	1.2/1.3/1.5/1.8/2.0 2.8 /3.0/3.3	100	1uF	-20%~+20%	Far-end bypass cap
VGP2	1.2/1.3/1.5/1.8/2.0 2.5 /2.8/3.0	100	1uF	-20%~+20%	Far-end bypass cap
VIBR	1.2 /1.3/1.5/1.8/2.0 2.8/3.0/3.3	100	1uF	-20%~+20%	Far-end bypass cap
VDIG18	1.8	20	1uF	-20%~+20%	Far-end bypass cap
VRTC	2.8	2	0.1uF to 1000uF	-20%~+20%	Far-end bypass cap

Before you select BJT , please take power dissipation into consideration.
Refer to MT6323 design notice

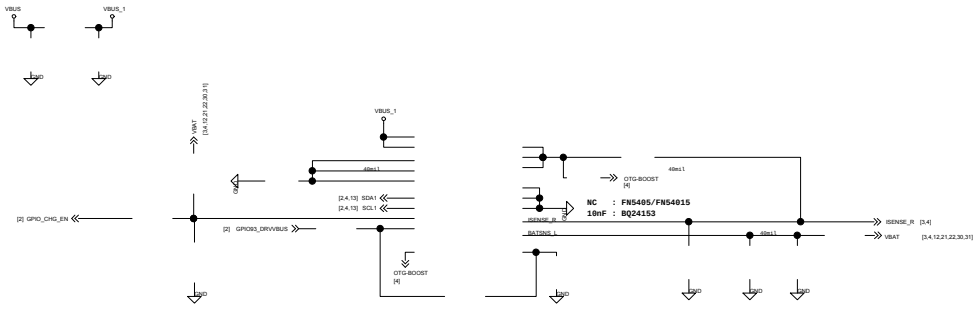






TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO:	03_MT6323_PMIC_AUDIO	SIZE:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:			
DESIGNER:	<DESIGNER>	Last Saved Date:	2014-7-30
		SHEET	3 OF 33

当使用Switching charger :Rsense R328 use 56m ohm



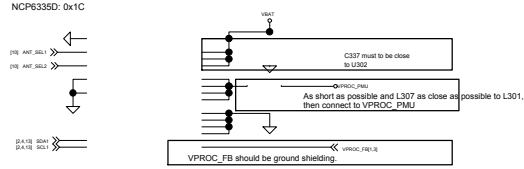
FN5405 R410=10K,R412=NF, C402=NF
FN5402 R410=NF, R412=10K,C402=NF
BQ24158 R410=10K,R412=NF, C402=10nF

If switching charger is used:
(1) R1801~R1805, C1801~C1806, L1801, U1801 are needed
(2) U303, U304 change to NC
(3) R328 change to 56m Ohm

Switching Charger

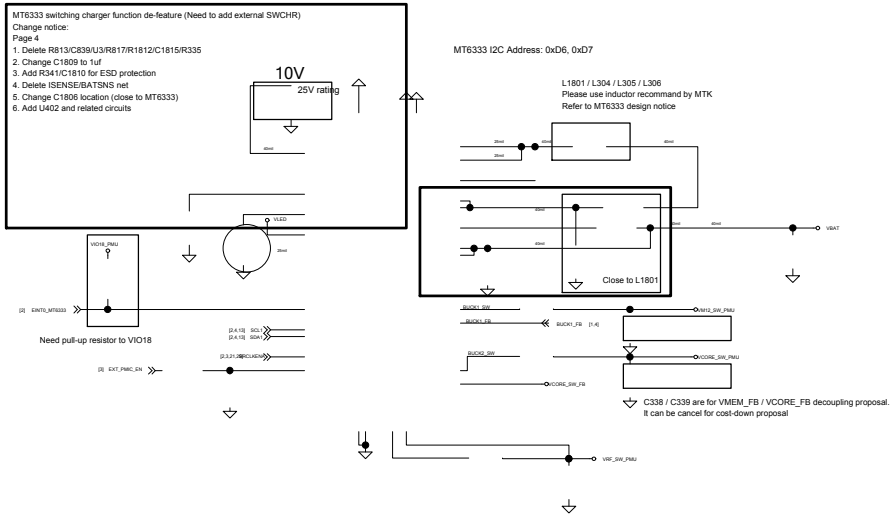
U302 placement, please be close to MT6322
L307 placement, please be close to L301

I2C Address
FAN53555 : 0xC0
NCP6335D: 0x1C



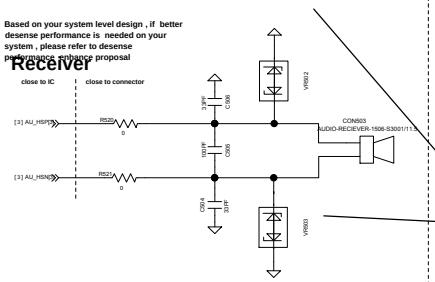
External DC-DC for VPROC

EXT_PMIC

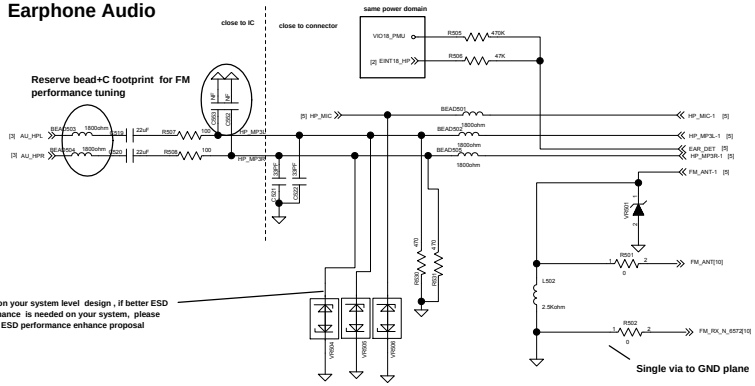


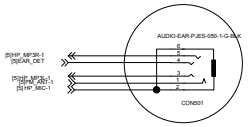
TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	04_POWER_SWCHR_EXT_PMIC	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 4 OF 33

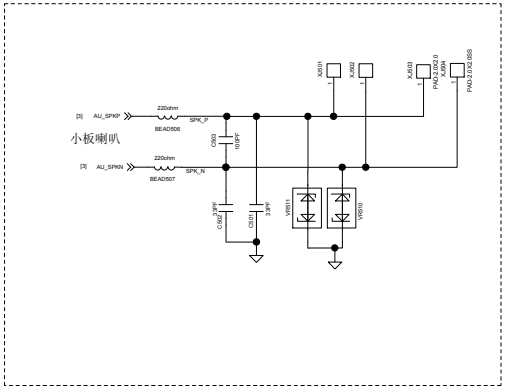
Receiver



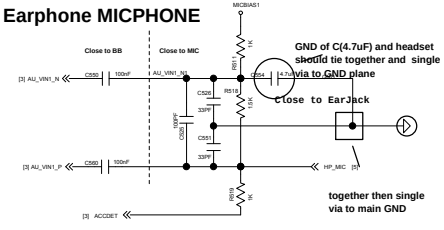
Earphone Audio



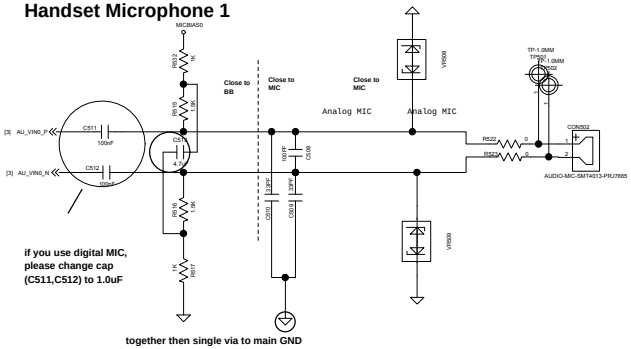




Earphone MICPHONE



Handset Microphone 1



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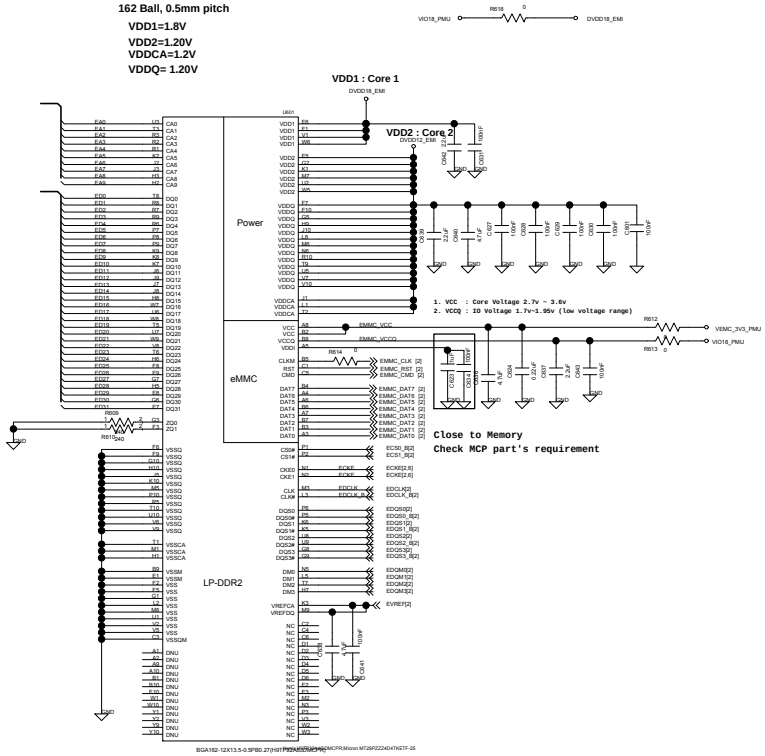
DOCUMENT NO.:	05_AUDIO	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 5 OF 33

eMMC+LPDDR2

162 Ball, 0.5mm pitch

VDD1=1.8V

VDD2=1.20V
VDDCA=1.2V
VDDQ= 1.20V



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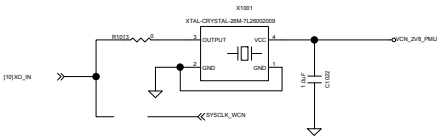
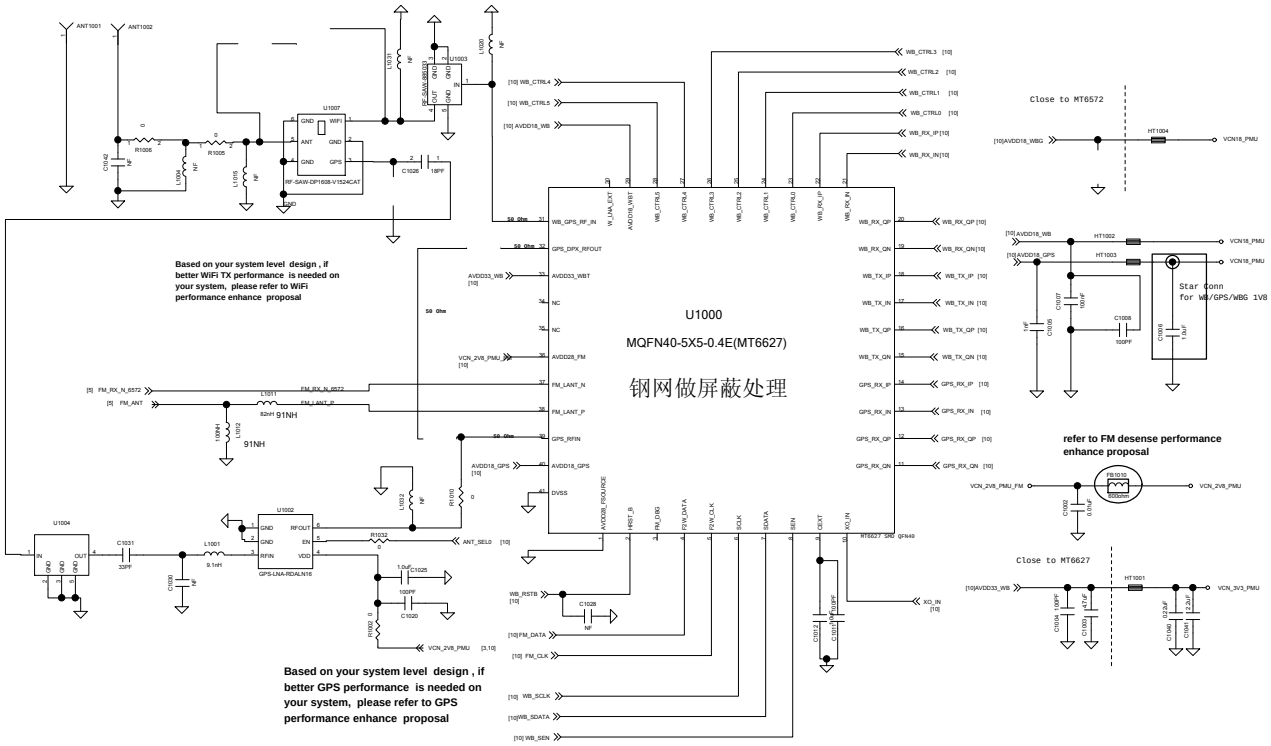
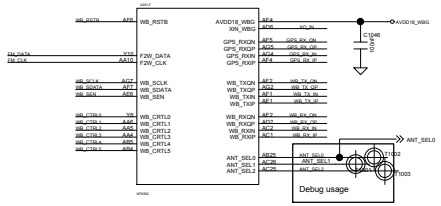
DOCUMENT NO.:	06_MEMORY_EMMC_LPDDR2	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 6 OF 33



WIFI/BT/GPS Single ANT Ref.





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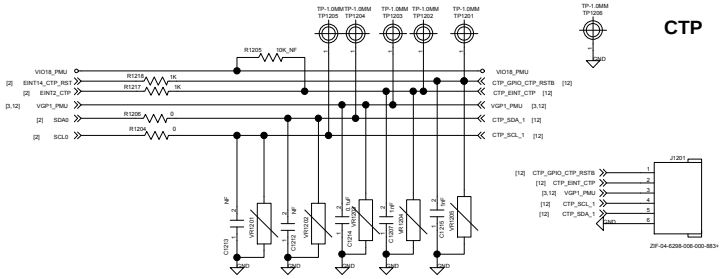
DOCUMENT NO.:	10_WIFI_BT_GPS_FM_MT6627	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 10 OF 33

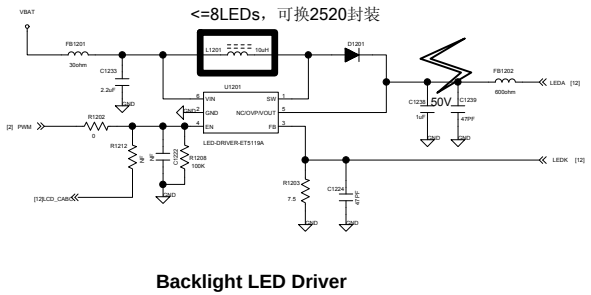
NFC

TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	11_NFC	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER: <DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 11 OF 33	

CTP

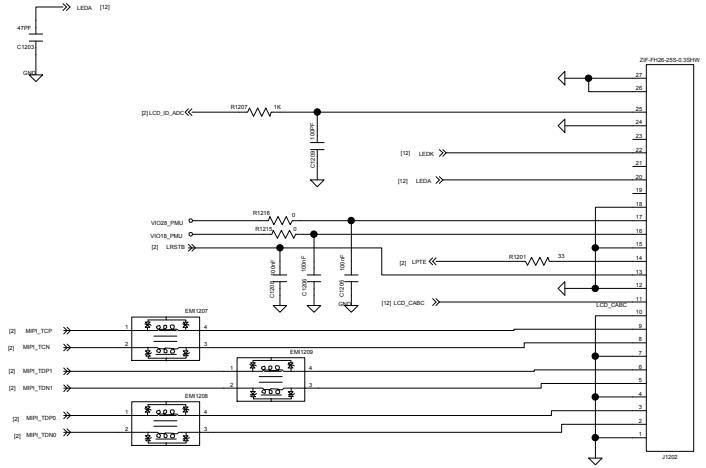


默认3*3封装
<=8LEDs，可换2520封装

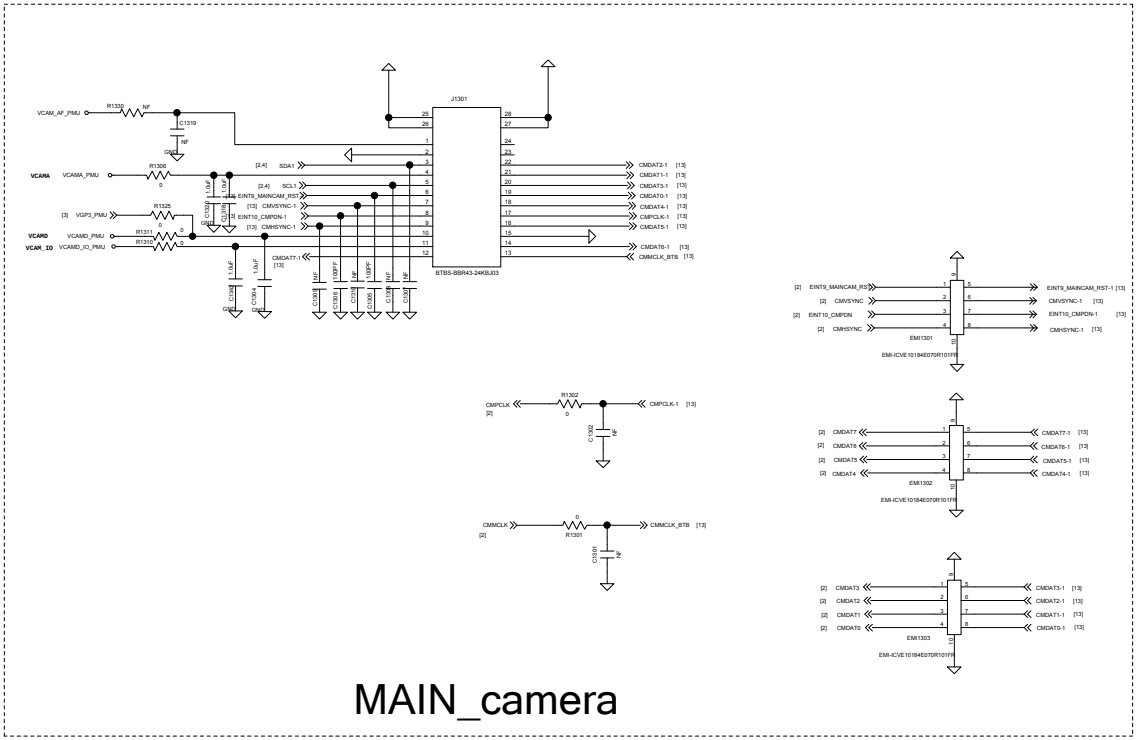


Backlight LED Driver

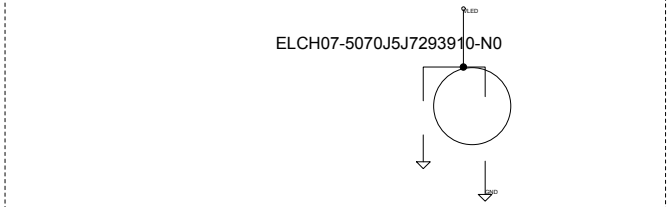
Main LCM



TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	12_LCD_CTP_SIDEKEY	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 12 OF 33



MAIN_camera



OCP8111 R1315=68K R1317=0.22

OCP8110 R1315=82K R1317=0.47

FLASH LED

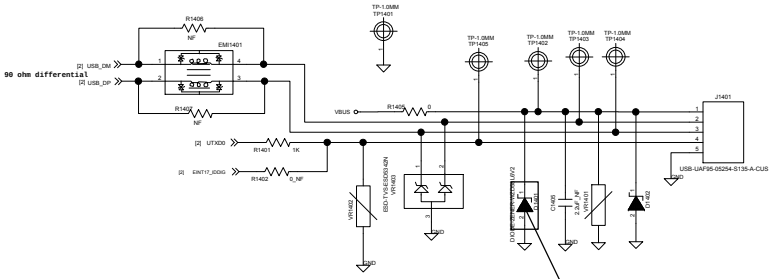
light sensor 0x90 Write(STK3171)

light sensor 0x46 Write (LTR-558ALS)

```
Main Camera / Sub Camera share power domain design
should double check the voltage level is compatible
```


TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	13_CAMERA	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER: <DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 13 OF 33	

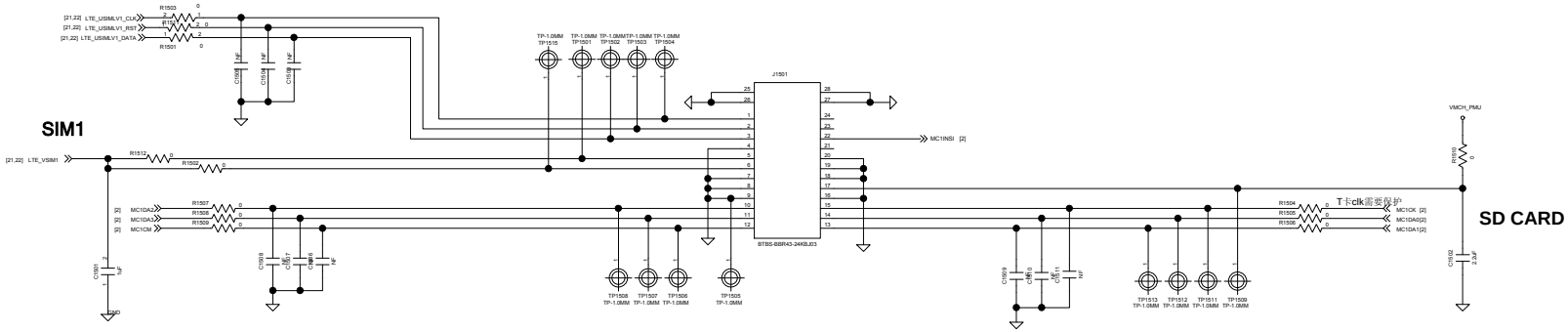
USB HS IF



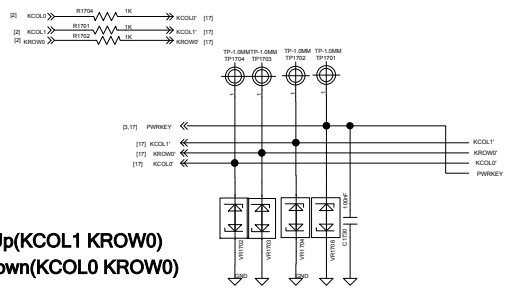
华为项目请预留此二极管，有要求

1. 为方便软件调试打LOG，将UTXD0接至USB接口的Pin 4；
2. 如果有OTG功能， R708=0 欧姆

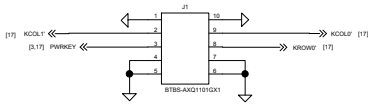
TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	14_USB	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER: <DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 14 OF 33	

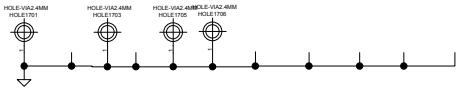


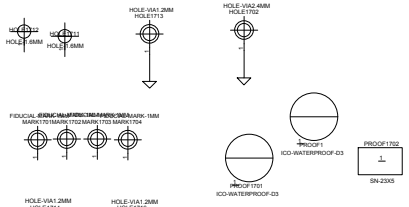
TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	15_DUAL_SIM	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 15 OF 33

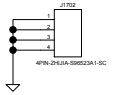


Volume Up(KCOL1 KROW0)
Volume Down(KCOL0 KROW0)



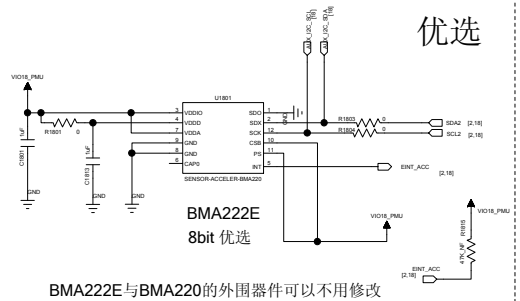






TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	17_KEY_LEDS	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER: <DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 17 OF 33	

优选



BMA222E

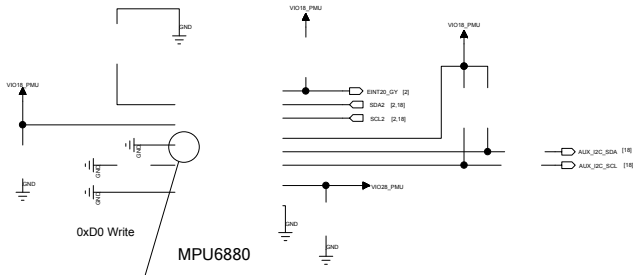
8bit 优选

BMA222E与BMA220的外围器件可以不用修改

HALL

ALS+PS+IR

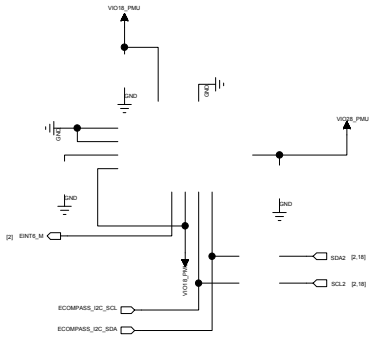
Gyroscope



AD0=0 7b1101000 0x68

AD0=1 7b1101001 0x69

M-Sensor



0x18 Write

TITLE:	<TITLE>	REV:	<REV>
DOCUMENT NO.:	18_SENSORS	SIZED:	A1
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 18 OF 33

Version History

Date	Version	Page	Description
2013/03/11	V0.1		Draft release
2013/03/22	V0.11	01	1. Add R107/R103 2. Delete R605/R107
		03	1. Add R326/R328
		04	1. Delete U1802 and related circuit 2. Add U401 and related circuit
		06	1.Add R418
		07	1.Delete R639/R634
		10	
		15	
		1	
		3	
		7 8 9	
2013/03/22	V0.12	1 3 6 12	
		10	1. C222 change to 4.7uF
		12	1. Add C914 / R904
			1. Swap U2 (MT6627) pin 36, 37 and 38 and their circuitry. 2. Remove R1070, R1073 3. F201 change footprint to DIPLEXER/6P/SMD/DIP1608
			1. Change C1218,C1219 to 22pF, Change C1214,C1215 to 1.2pF, Change C1216,C1217 to 68pF , Change c1203 4.7uF
			1. Remove C138, c153, C145. Change C140, C148 to 1u
			1. Add C353, R339, C243 2. Modify Isense trace.
			1. Update RF matching (L615, L600, L619, L616, L622, C670, L623, L626, L625, C629, C627, C603, C662, C664, L617, C624, R617, C651, C655, C652, L610, C648, C657, L609, L608, L611, C649, C626, L607, R620, C634, L631, L627, L629, L636)
			1. Add R360~R367, R101, R108, R105, R106, R109, R102, R104, R116, R117, R118, R115, R114, R113, R111 R418, R512, R513, R915, R916 for low-power testing

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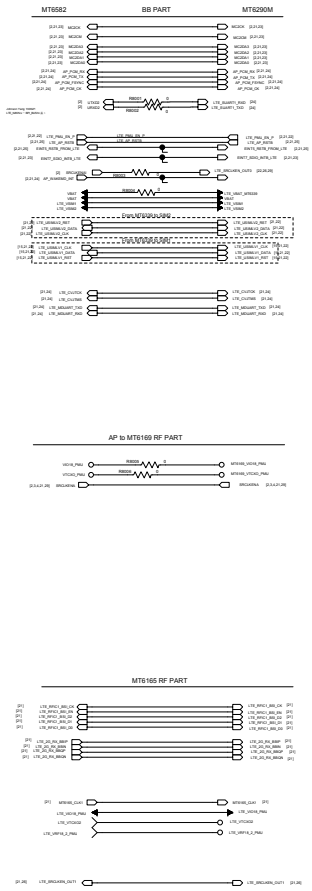
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 20 OF 33



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COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date:	2014-7-30
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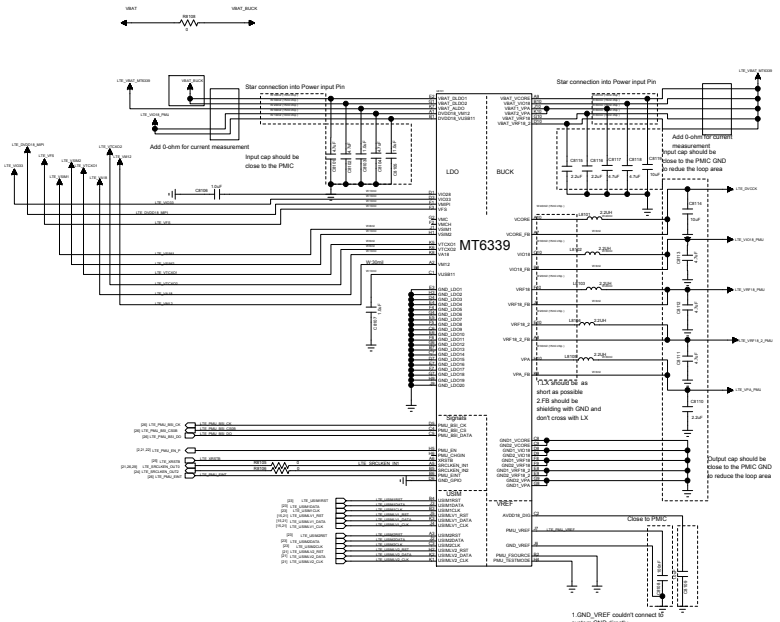

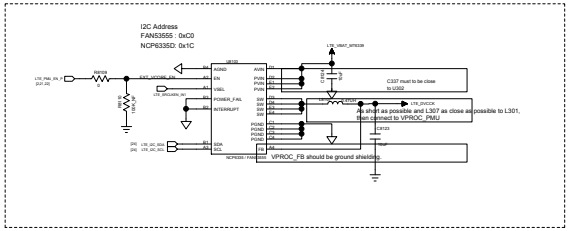

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DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
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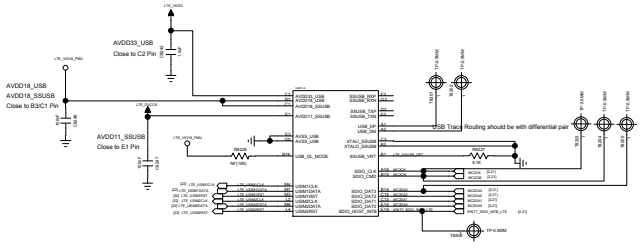

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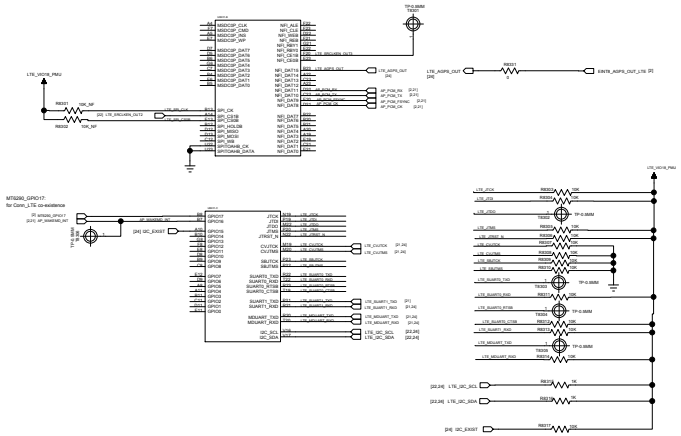
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date:	2014-7-30
		SHEET:	23 OF 33



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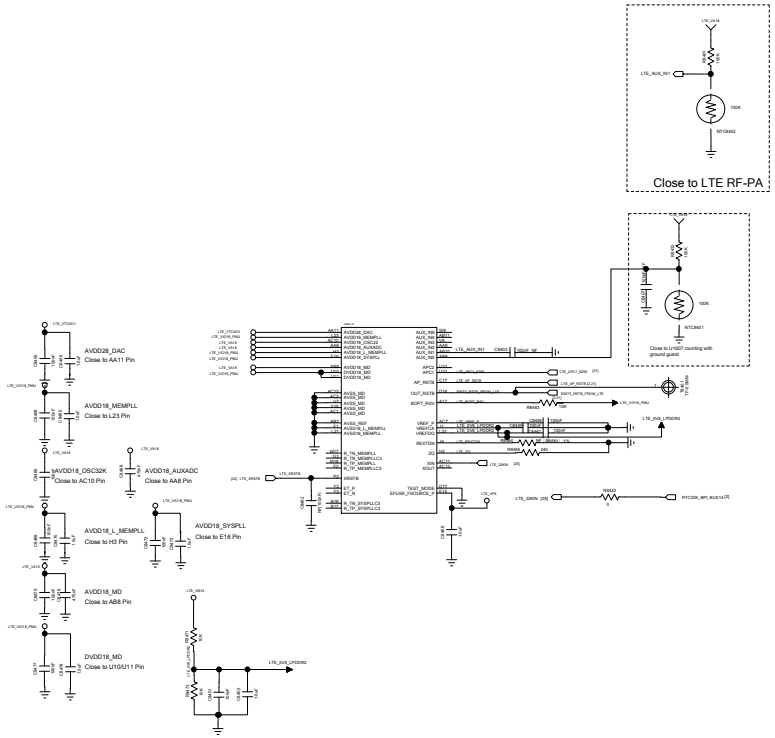
COMPANY:	WINGTECH	
DESIGNER: <DESIGNER>	Last Stored Date: 2014-7-30	SHEET: 24 OF 33



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COMPANY:			
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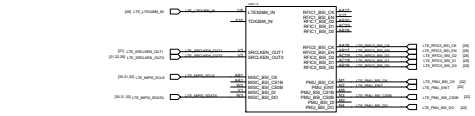

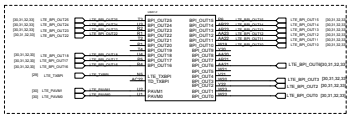

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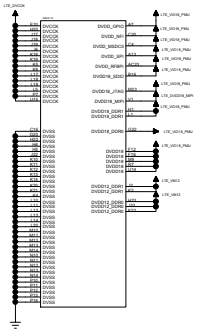

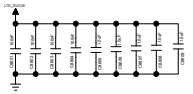

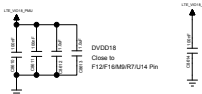

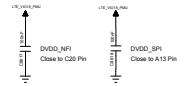

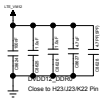

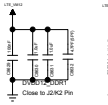

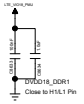

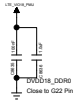

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DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Marked Date:	2014-7-30
		SHEET:	27 OF 33

TITLE:	<TITLE>	REV:	<REV>
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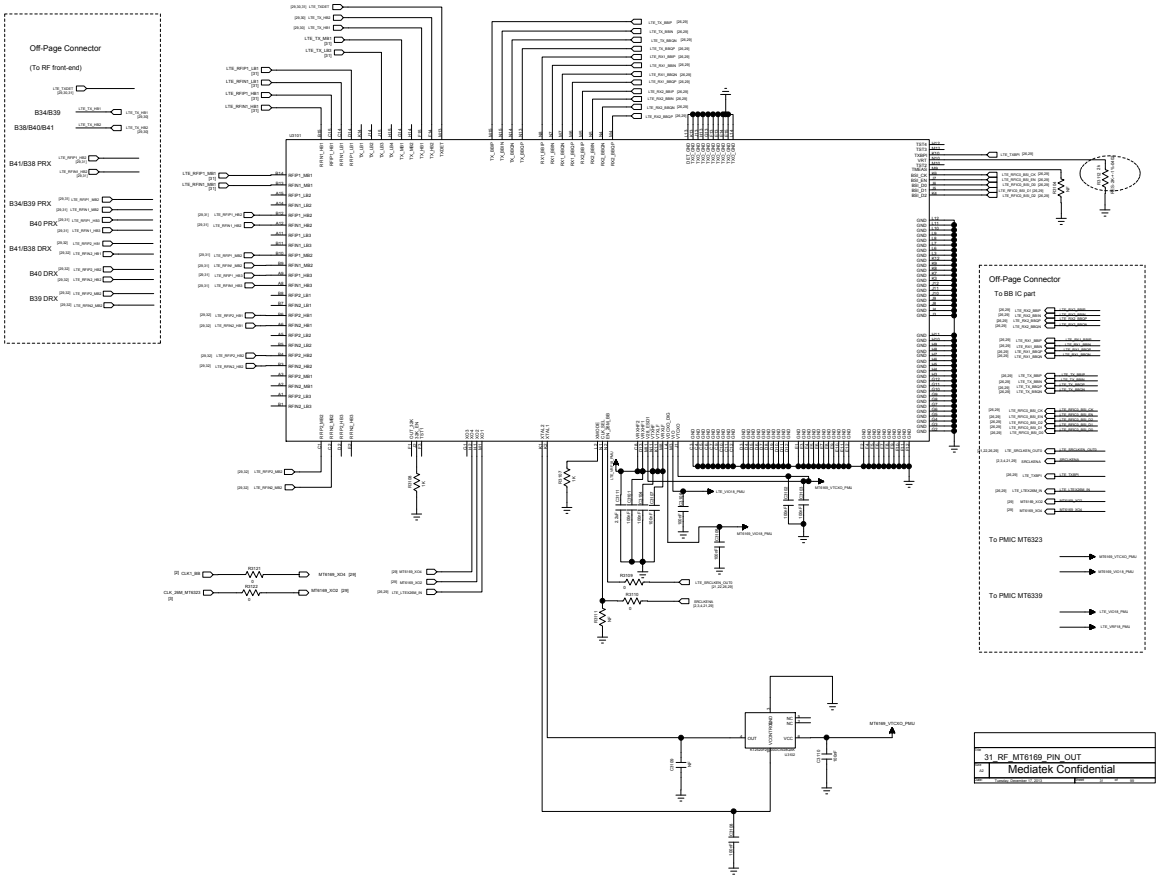
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Stored Date:	2014-7-30
		SHEET:	28 OF 33



	31_RF_MT6169_PIN_OUT
	Mediatek Confidential

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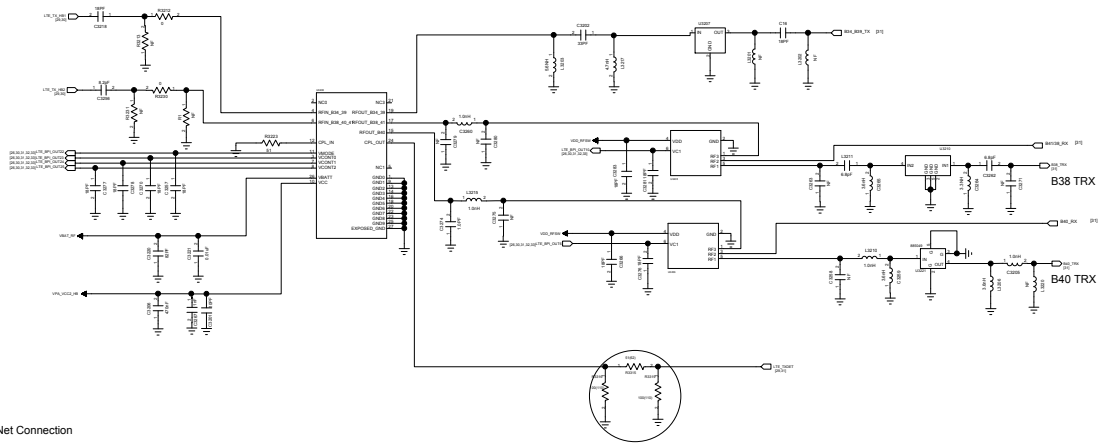
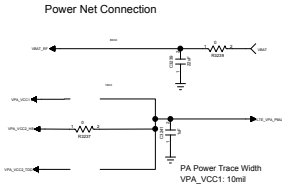
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date:	2014-7-30
		SHEET:	29 OF 33



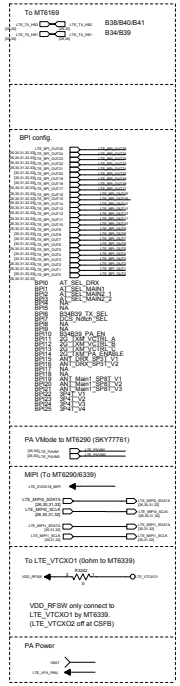
R3115 R3116 105欧姆

MTK参考设计R3114 R3115 R3116 0201封装



Power Net Connection

PA Power Trace Width
VPA_VCC1: 10mil
VPA_PMU,
VPA_VCC2,
VPA_VCC2_B7,
VPA_VCC2_TDD : 30mil
VBAT : 80mil



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REV:	A
DATE:	Tuesday, February 11, 2014
SHEET:	30 OF 33

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DOCUMENT NO.:	32_RF_MT6169_RF_TX
SIZE:	A3
DEPARTMENT:	Hardware DEPT.
COMPANY:	WINGTECH
DESIGNER:	<DESIGNER>
Last Saved Date:	2014-7-30
SHEET:	30 OF 33

SKY77593 control logic table

	Enable	VctC	VctB	VctA
LB_GMSK_TX	H	L	L	H
HB_GMSK_TX	H	L	H	H
LB_EDGE_TX	H	H	L	H
HB_EDGE_TX	H	H	H	H
2G_LB_Rx	L	H	L	L
2G_NDCS_Rx	L	H	H	L
NA	L	H	L	H
2G_HB_Rx	L	L	H	L

EDGE TXM

ASM_Main2_824~1990MHz

PRX (To MT6169)

B41/B38 PRX

B34/B39 PRX

B40 PRX

2G (To MT6165)

2G_HB_DT

2G_LB_DT

To MMMB/discrete PA/SP4T

To LTE_VTCXO1 (0ohm to MT6339)

MIPI (To MT6290/6339)

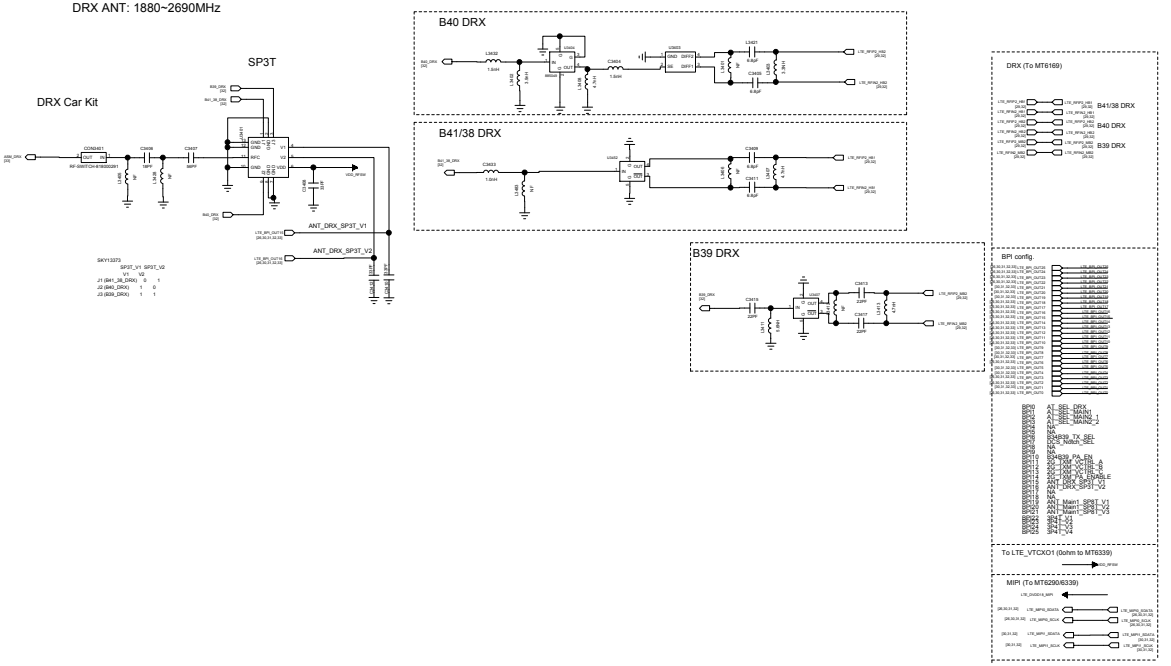
B38/41, B40 PRX

B34 & B39 PRX

BP0	A1_SEL_DRX
BP1	A1_SEL_MAIN1
BP2	A1_SEL_MAIN1_1
BP3	A1_SEL_MAIN2_2
BP4	NA
BP5	NA
BP6	B34/B39_TX_SEL
BP7	DCS_Main1_SEL
BP8	NA
BP9	NA
BP10	B34/B39_PA_EN
BP11	A2_XM_VCTB_A
BP12	A2_XM_VCTB_B
BP13	A2_XM_VCTB_C/R
BP14	A2_XM_PA_ENABLE
BP15	ANT_DRX_BP3_V1
BP16	ANT_DRX_BP3_V2
BP17	NA
BP18	NA
BP19	ANT_Main1_BP8_V1
BP20	ANT_Main1_BP8_V2
BP21	ANT_Main1_BP8_V3
BP22	SP4T_V1
BP23	SP4T_V2
BP24	SP4T_V3
BP25	SP4T_V4

TITLE:	<TITLE>		REV: <REV>
DOCUMENT NO.:	39_RF_MT6169_RF_PRX		SIZE: A3
DEPARTMENT:	Hardware DEPT.		
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Saved Date: 2014-7-30	SHEET: 31 OF 33

DRX ANT: 1880~2690MHz



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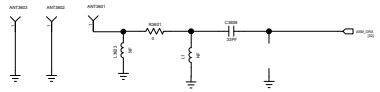
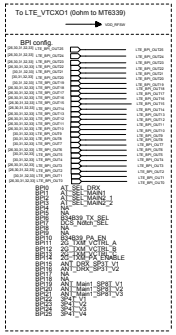
COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Moved Date:	2014-7-30
		SHEET:	32 OF 33

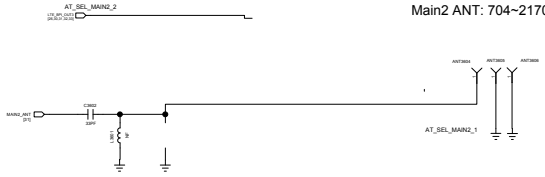
DRX ANT: 704~2700MHz



SKY13489

V1	Port
0	RF1
1	RF2





Main2 ANT: 704~2170MHz

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COMPANY:	WINGTECH		
DESIGNER:	<DESIGNER>	Last Marked Date:	2014-7-30
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