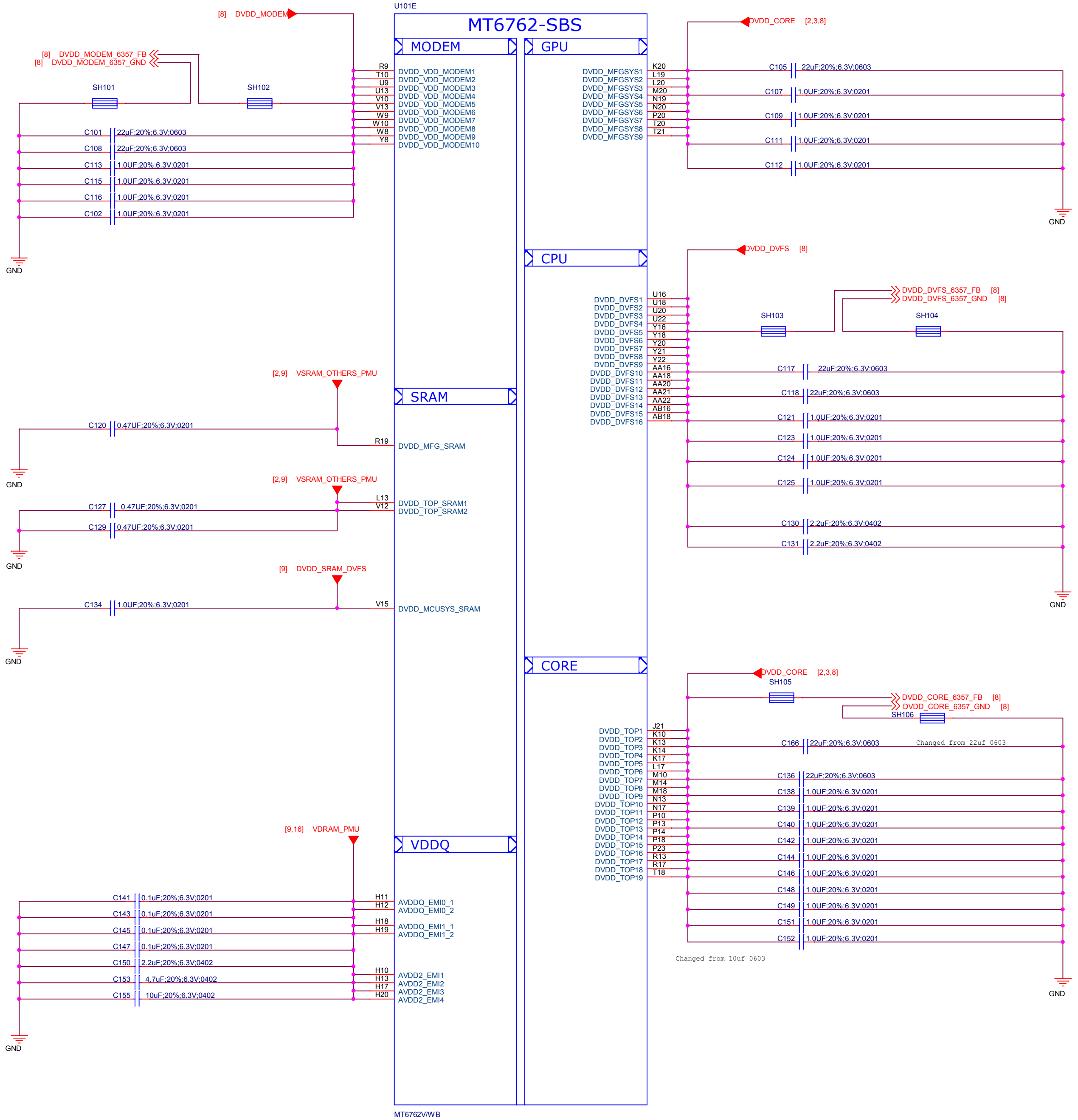
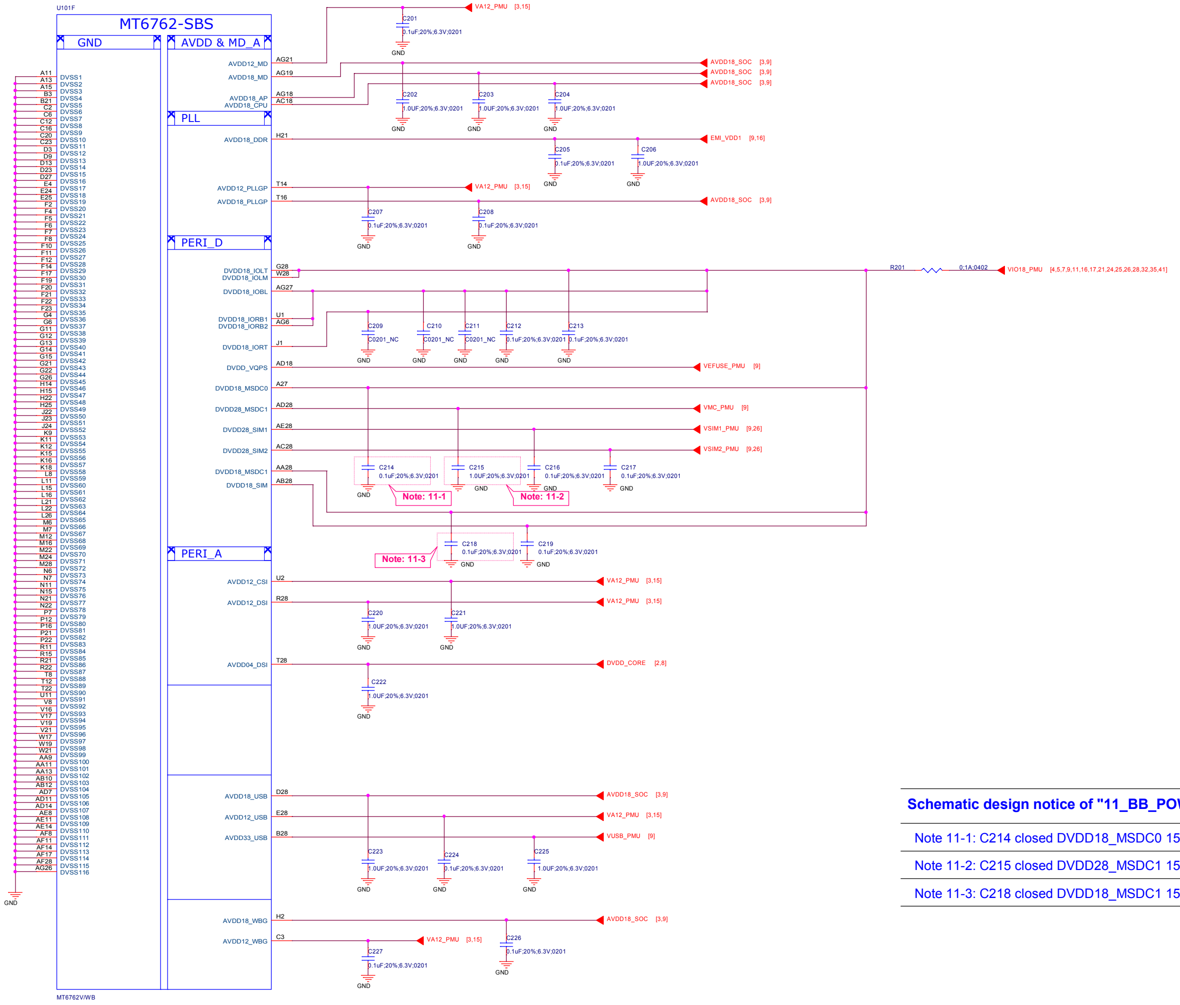
Revision History

REV	DATE	DESCRIPTION
A1	20181203	Refer to MTK DVT1.1 Reference design
A1	20181205	Change from K4 Sch 1. Change PA from 87318 to 87319 2.Change Charger IC from SM5414 to ETA6793 3.Change P-L sensor from STK3331 to Spring board STK3332 4. Delete LCM I2C switch 5. Delete USB switch 6.Delete KEY Pressed force download circuit 7.Change CAM I2C connection 8.Change BAT CONN

Title	**00_History**	REV: V10	
DOCUMENT NO.:	**S96116-1-13_MB_20190409-1317**	Size A2	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
WINGTECH			
Date:	Monday, April 08, 2019	Sheet 1	of 53



Title	01_BB_ POWER_PDN	REV: V10
DOCUMENT NO.:	Design Name	Size A2
DEPARTMENT: WINGTECH-SH		DESIGNER: LIUFENGLEI
Date: Monday, April 08, 2019		Sheet 2 of 53



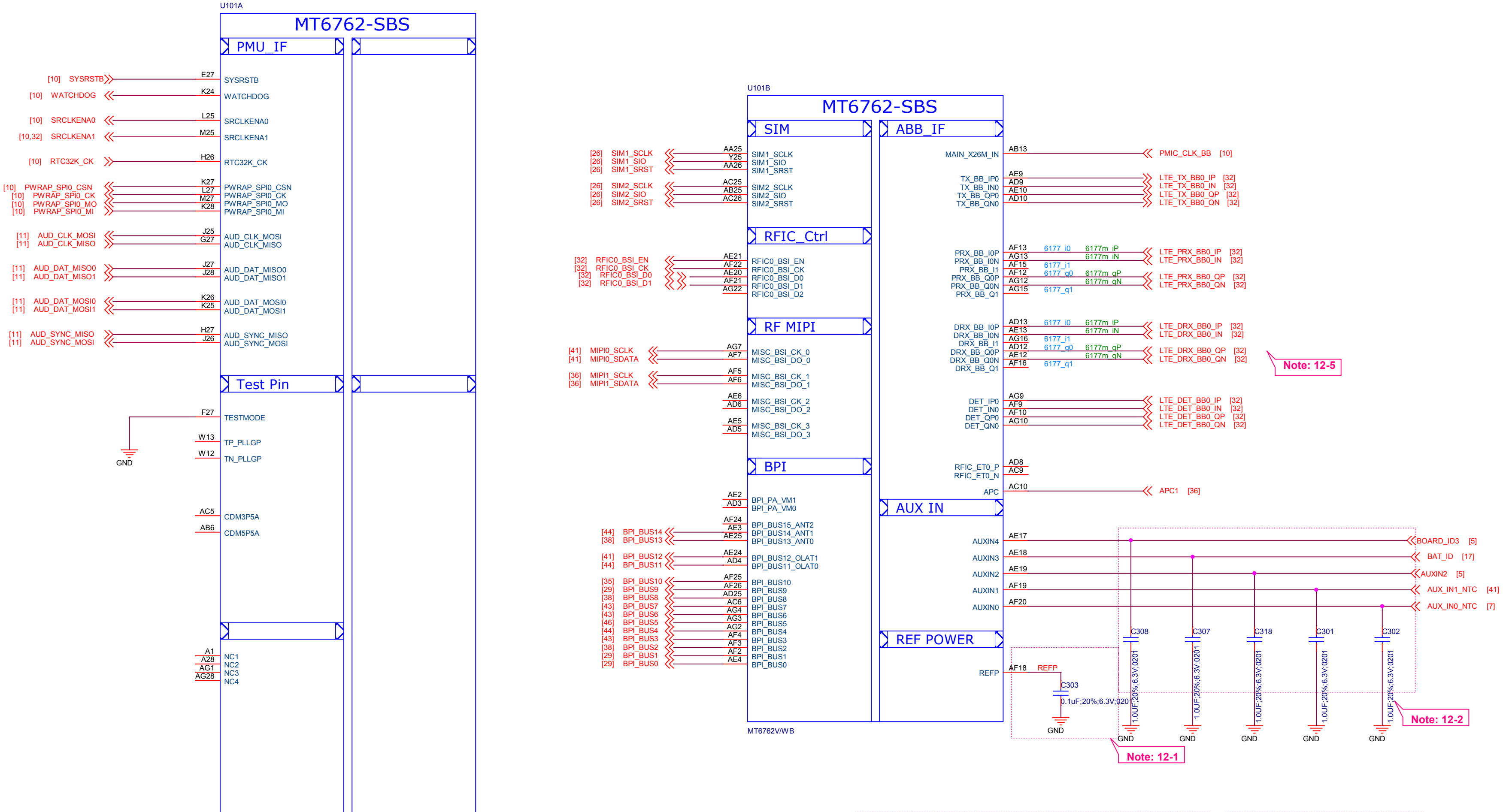
Schematic design notice of "11_BB_POWER_IO" page.

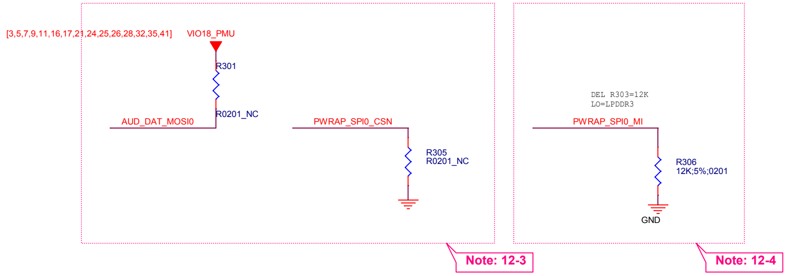
Note 11-1: C214 closed DVDD18_MSDC0 150mil

Note 11-2: C215 closed DVDD28_MSDC1 150mil

Note 11-3: C218 closed DVDD18_MSDC1 150mil

Title	02_BB_POWER_IO	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
WINGTECH			
Date:	Monday, April 08, 2019	Sheet 3	of 53





Schematic design notice of "12_BB_1" page.

Note 12-1: The de-coupling cap. for REFP (AF18 ball) have to be placed as close to BB as possible.

Note 12-2: To shunt a 1uF capacitor in the AUXIN ADC input to prevent noise coupling. It should be placed as close to BB as possible. Connect the unused AUX ADC input to GND.

Note 12-3: "PWRAP_SPI0_CSN" and "AUD_DAT_MOSI0" are bootstrap pin to select which interface will be the JTAG pin out.

PWRAP_SPI0_CSN	AUD_DAT_MOSI0	JTAG Function	
default=PU	default=PD	AP_JTAG	MD_JTAG
HI	LO	N/A	N/A
HI	HI (by ext. PU)	SPI0+EINT8	SPI1+SPI3
LO (by ext. PD)	LO	SPI0+EINT8	N/A
LO (by ext. PD)	HI (by ext. PU)	MSDC1	N/A

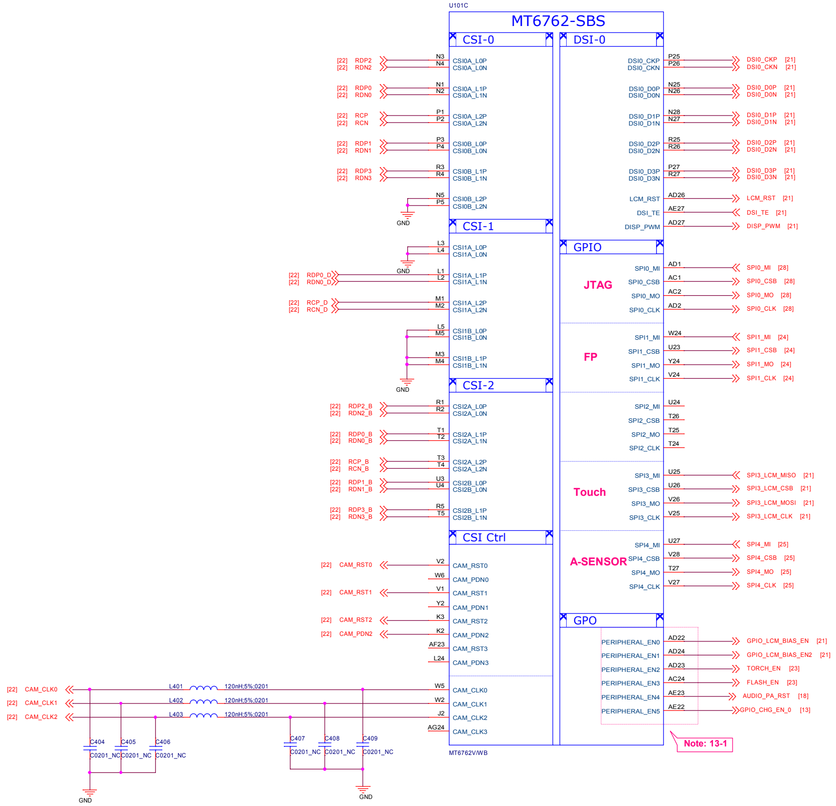
Note 12-4: PWRAP_SPI0_MI is DDR type feature in bootstrap

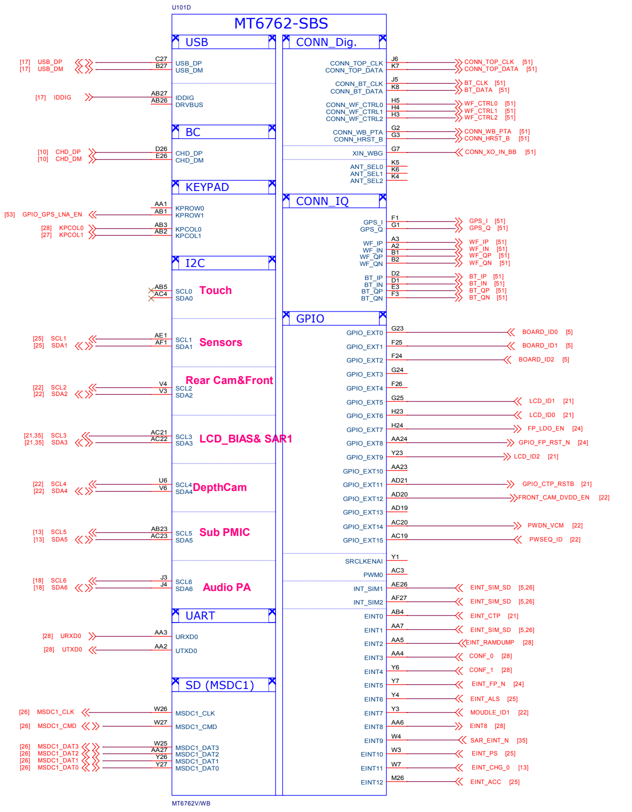
PWRAP_SPI0_MI	Booting interface	
default=PU	DDR	MSDC0 pin mux
LO (by ext. PD)	LPDDR3	follow LP3 Ref SCH.
HI	LPDDR4X	follow LP4X Ref SCH.

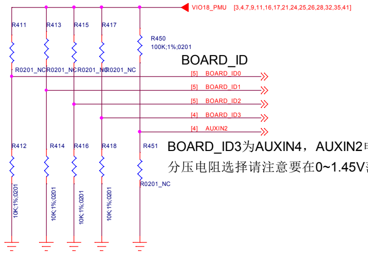
Note 12-5: Please set unused IQ pins in NC

Title	03_BB_1_RF&SIM_IF	REV: V10	
DOCUMENT NO.:	Design Name	Size A2	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 4	of 53

Note 13-2: MIPI CSI unused pin can be floating, but need correct SW setting





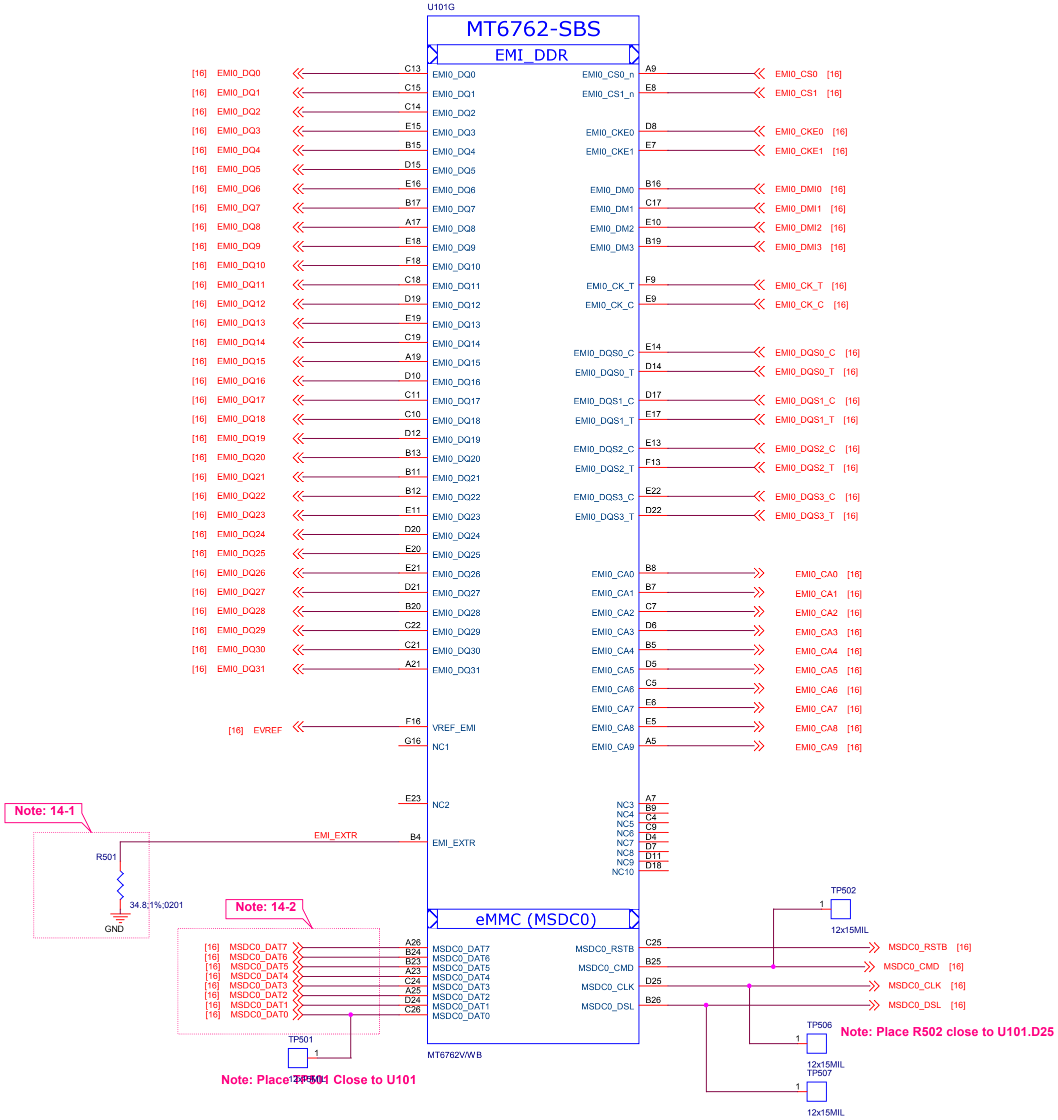


BOARD_ID3为AUXIN4，AUXIN2电源域为0~1.45V
分压电阻选择请注意要在0~1.45V范围内

Schematic design notice of "13_BB_2" page.

Note 13-1: The enable pin of acoustic or optoelectronic devices (e.g. SPK AMP/Backlight/Charger OCP/OVP) suggest to use Peripheral_EN[0:5]
If use other GPIOs as enable pin, suggest to reserve 0201 NC to GND

Title	04_BB_2_MIPI&GPIO	REV: V10
DOCUMENT NO.:	Design Name	Size D
DEPARTMENT: WINGTECH-SH		DESIGNER: LIUFENGLEI
Date: Monday, April 08, 2019		Sheet 5 of 53



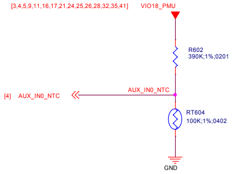
Schematic design notice of "14_BB_3" page.

Note 14-1: R501 please select 34.8 ohm (1%) resistor

Note 14-2: Please check eMCP LP3 and eMCP LP4X pin mux

Title 05_BB_3_EMMC		REV: V10
DOCUMENT NO.: Design Name		Size A2
DEPARTMENT: WINGTECH-SH	DESIGNER: LIUFENGLEI	
Date: Monday, April 08, 2019	Sheet 6 of 53	

The pull up ressister need to be 1% accuracy
NTC=100K



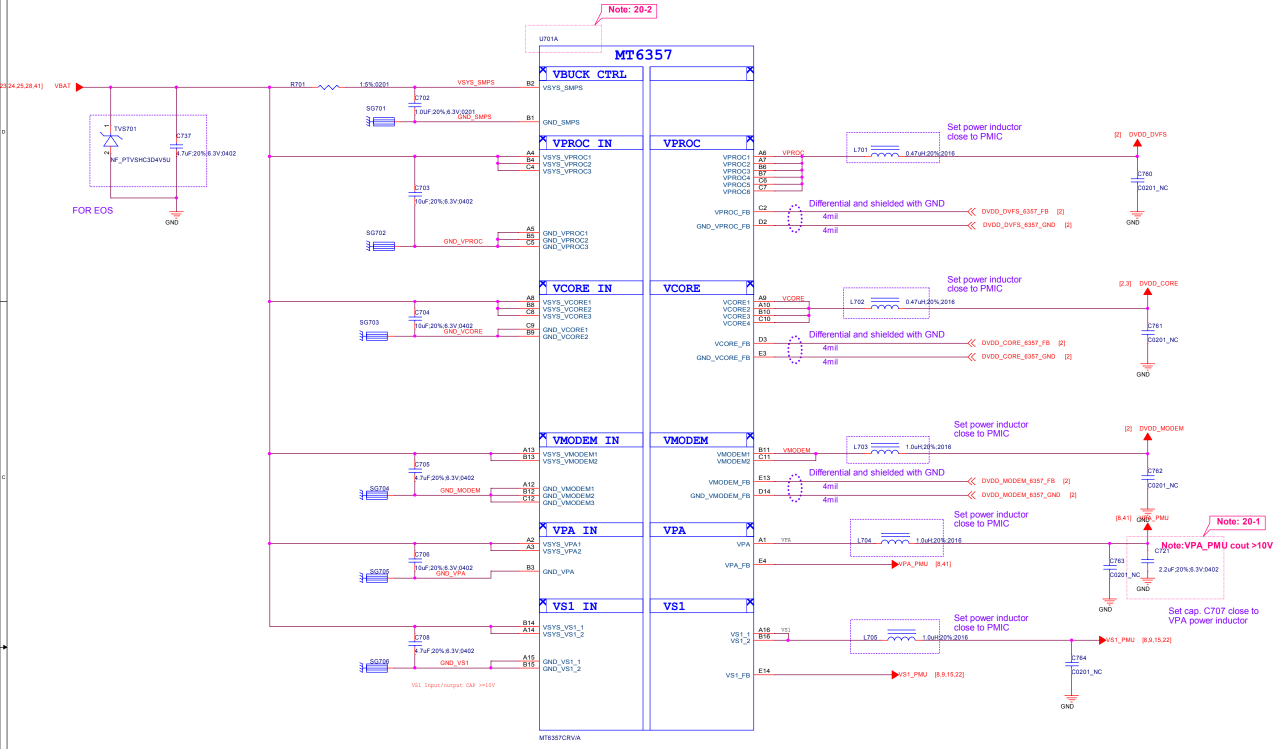
Thermistor to sense CHARGER temperature

Huawei NOTE:1. NTC606 must keep a distance about 3~5 mm away from Charger IC and far from other heat sources 5~10 mm at least.

Thermistor to sense AP temperature

1. RT604must keep a distance about 6~8 mm away from AP and far from other heat sources 10 mm at least.
2. The distance is the shortest distance from package edge to edge.

Title	06_BB_AUXADC_Thermal	REV: V10	
DOCUMENT NO.:	Design Name	Size D	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 7 of 53	



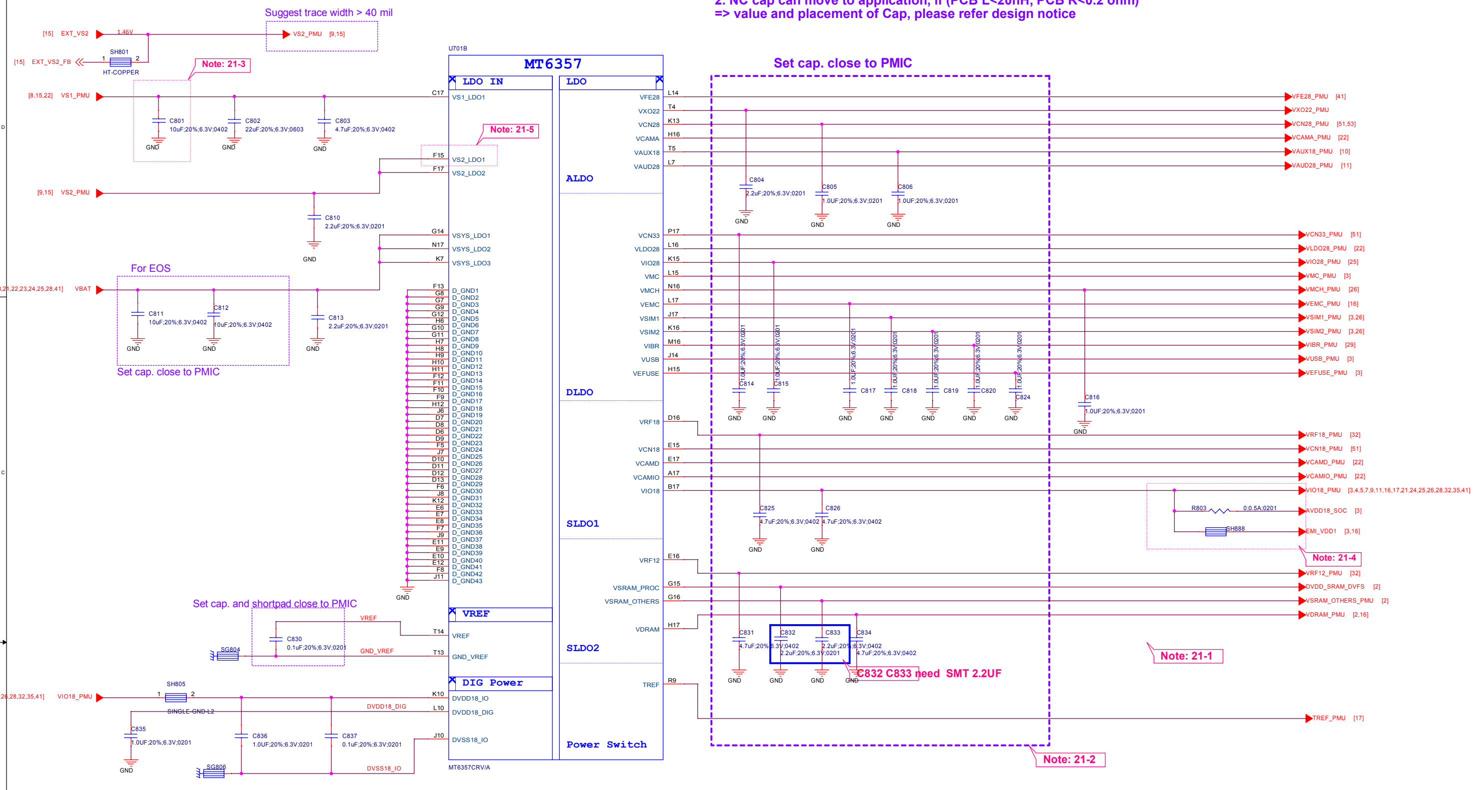
Schematic design notice of "20_POWER_MT6357_Buck"

Note 20-1: C707, please choose 0402 size

Note 20-2: For MT6765/62/61 platform, please only use MT6357CRV

Title 07_POWER_MT6357_Buck
REV: V10
DOCUMENT NO.: Design Name
Size D
DEPARTMENT: WINGTECH-SH
DESIGNER: LIUFENGLEI
WINGTECH
Date: Monday, April 08, 2019
Sheet 8 of 53

1. "Typical Cap" defined in design notice is the minimum cap. to LDO Cout.
2. NC cap can move to application, if (PCB L<20nH, PCB R<0.2 ohm)
=> value and placement of Cap, please refer design notice



Schematic design notice of "21_POWER_MT6357_LDO"

Note 21-1: If these power trace can meet LDO layout constraint, these CAP can be NC or removed. Please refer to MT6357 design notice.

Note 21-2: Output cap range please follow MT6357CRV LDO design notice

Note 21-3: Ext Buck BOM option

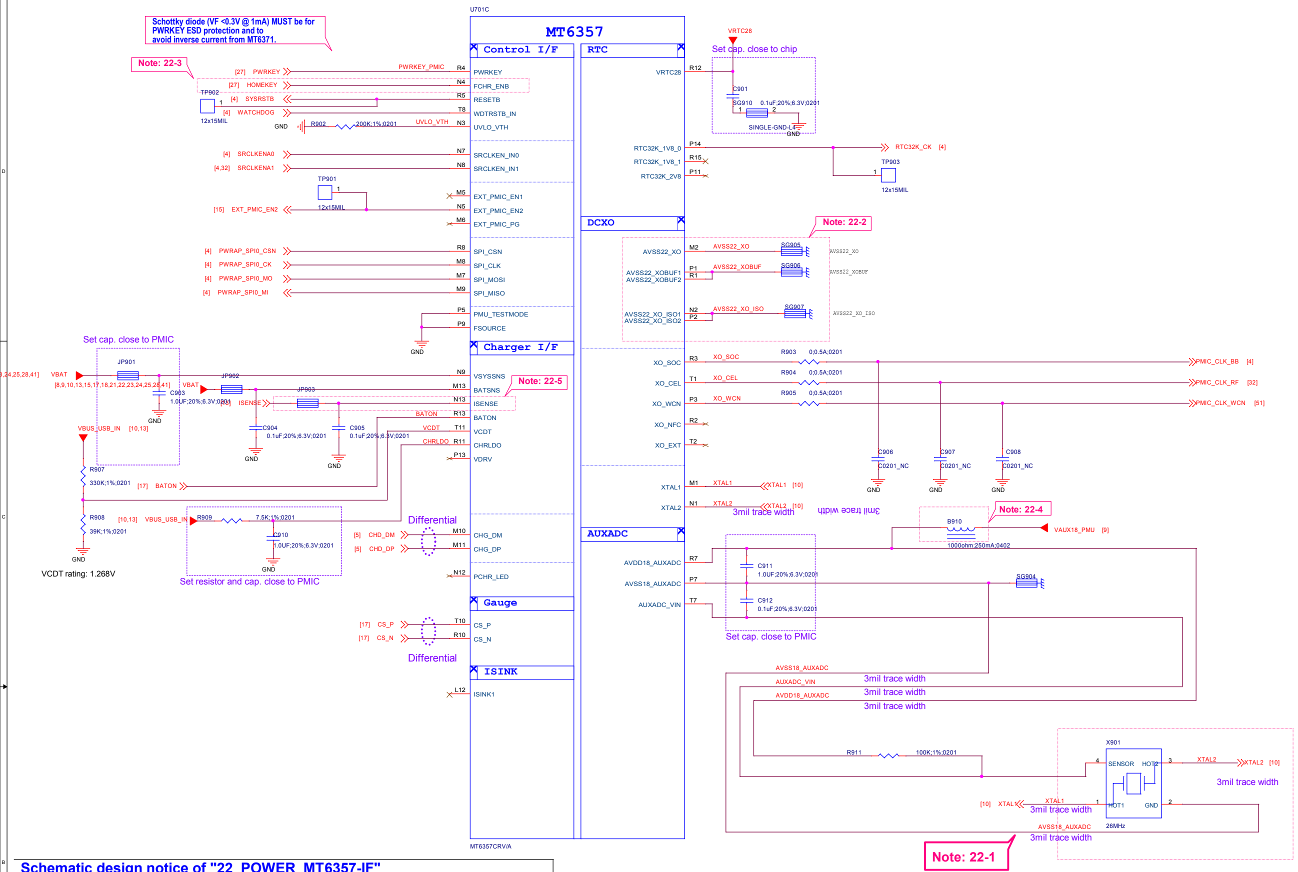
	Ext. buck option	
	w/ EXT VS2 Buck	w/o EXT VS2 Buck
C801	10uF	22uF

Note 21-4: Please set R803 and R803 close to C826, making star connection among VIO18_PMU, AVDD18_SOC, and EMI_VDD1 near to LDO cap. C826

Please also refer to MT6357 design notice for further detail design information

Note 21-5: Please connect VS2_LDO1(F15) to VS1_PMU if voltage applied to VCAMD(E17) >= 1.3 V

Title	08_POWER_MT6357_LDO	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 9	of 53

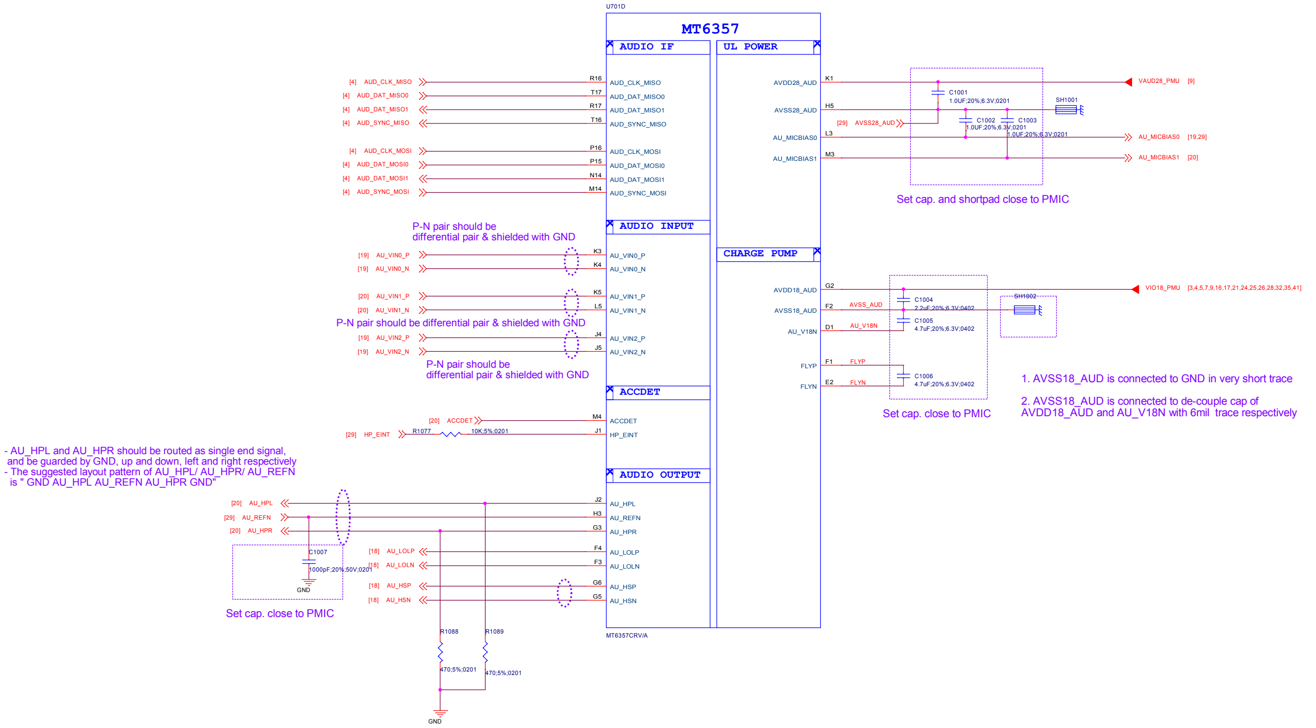


Route AVDD18_AUXADC, AUXADC_VIN, and AVSS18_AUXADC with 3mils width traces and well GND shielding

Schematic design notice of "22_POWER_MT6357-IF"

Note 22-1:	Please implement 2520 & 2016 Size TMS PCB co-layout. Please refer to MT6762_MT6357 Co-Clock Design Notice for co-layout guide
Note 22-2:	1. Please Connect P1 and R1 ball first and then to GND 2. Please Connect P2 and N2 ball first and then to GND 3. Please connect DCXO GND to main GND by independent L1-2 GND via.; DO NOT connect it through L1 GND
Note 22-3:	Let floating if disable HOMEKEY function
Note 22-4:	Please follow MT6762_MT6357 Co-Clock Design Notice for Layout guide of VAUX18, then R8101 can use 0 ohm to replace BEAD. Please route VAUX18_PMU with well-ground sheilding if using 0 ohm to replace BEAD for AVDD18_AUXADC
Note 22-5:	Please connect to battery connector

Title	09_POWER_MT6357_IF	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet	10 of 53



P-N pair should be
differential pair & shielded with GND

P-N pair should be differential pair & shielded with GND

P-N pair should be
differential pair & shielded with GND

- AU_HPL and AU_HPR should be routed as single end signal,
  and be guarded by GND, up and down, left and right respectively
- The suggested layout pattern of AU_HPL/ AU_HPR/ AU_REFN
  is " GND AU_HPL AU_REFN AU_HPR GND"

Set cap. close to PMIC

Set cap. and shortpad close to PMIC

Set cap. close to PMIC

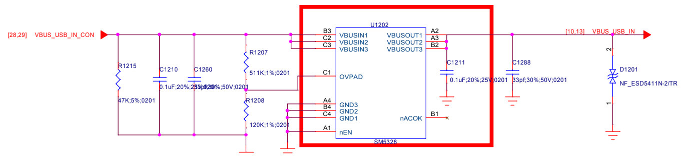
1. AVSS18_AUD is connected to GND in very short trace

2. AVSS18_AUD is connected to de-couple cap of
AVDD18_AUD and AU_V18N with 6mil trace respectively

Title	10_POWER_MT6357_Audio	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
WINGTECH			
Date:	Monday, April 08, 2019	Sheet	11 of 53

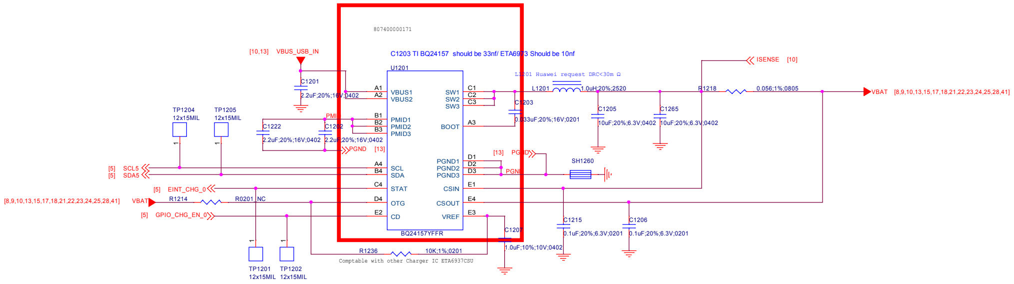
Title	11_POWER_SubPMIC-General	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
WINGTECH			
Date:	Monday, April 08, 2019	Sheet	12 of 53

OVP



Surge VBUS: ±100V with Overvoltage Protection up to 29V DC

Vovp=6.3V when R1207=511K R1208=120K +-3%



C1203 TI BQ24157 should be 33nf/ ETA6973 Should be 10nf

L1201 Huawei request DRC<30m Ω

Comptable with other Charger IC ETA6937CSU

Schematic design notice of "26_POWER_SubPMIC-Charger + PP" page.

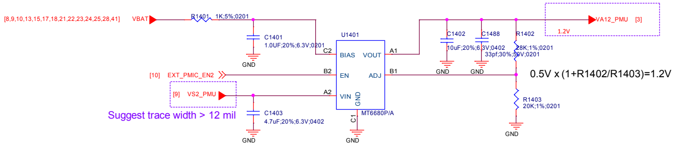
Note 26-1: For better ESD or surge performance we need choose suitable device for system protection. Please refer to [Surge device selection guide V2.0] provide by MTK.

Title	12_POWER_SubPMIC-Charger + PP	REV: V1.0	
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet	13 of 53

Title	13_POWER_SubPMIC-HV powers	REV:	V10
DOCUMENT NO.:	**Design Name**	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet	14 of 53

LDO for VA12

Note: 28-1

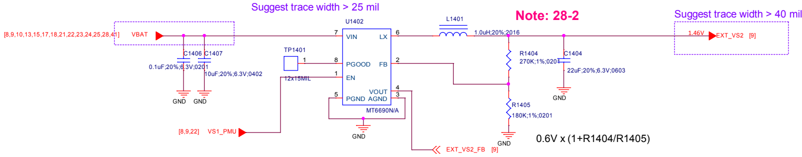

Suggest trace width > 12 mil

Suggest trace width > 12 mil

0.5V x (1+R1402/R1403)=1.2V

Ext. Bulk for VS2

Note: 28-2


Suggest trace width > 25 mil

Suggest trace width > 40 mil

0.6V x (1+R1404/R1405)

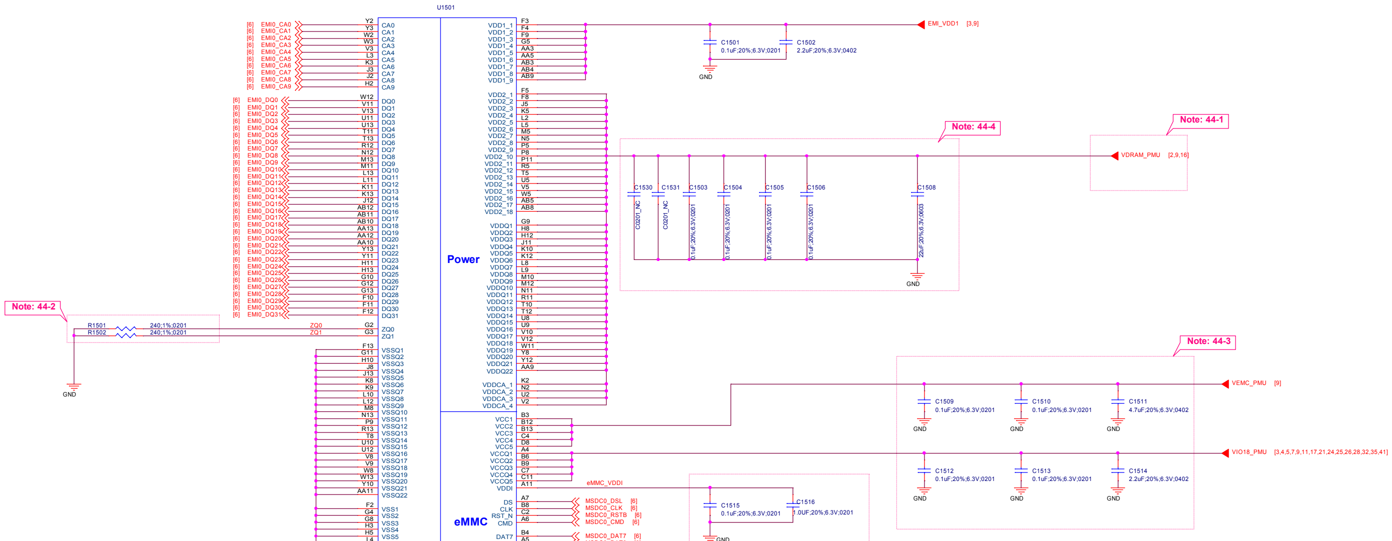
NOTE: Do not use VCAMD 1.3/1.5/1.8 when VS2 BUCK applied

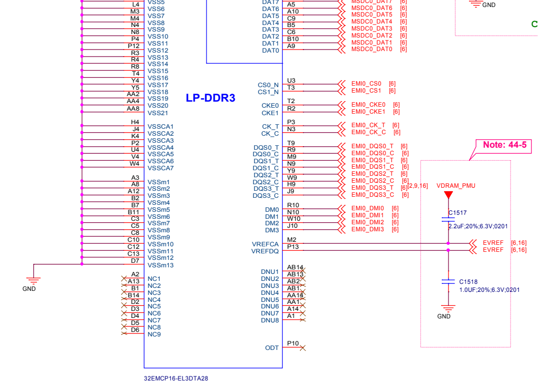
Schematic design notice of "28_POWER_ThirdParty-Power"

Note 28-1:	VA12 Layout placement please close to AP
Note 28-2:	VS2 Buck Layout placement please close to PMIC MT6357
Note 28-3:	VCN33 LDO Layout placement please close to MT6631

Title	14_POWER_ThirdParty_Powers	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet	15 of 53

LPDDR3





Schematic design notice of "44_Memory_eMMC_LPDDR3"

Note 44-1: Please refer to power supply related page select VDRAM1 output voltage properly for LPDDR3

Note 44-2: DRAM ZQx resistor = 240ohm (1%) that must be connected to GND

Note 44-3: Please refer to eMCP vendor's datasheet or MTK common design notice to get the recommendation bypass cap. value for VCC/VCCQ/VDDI power domains of eMMC.

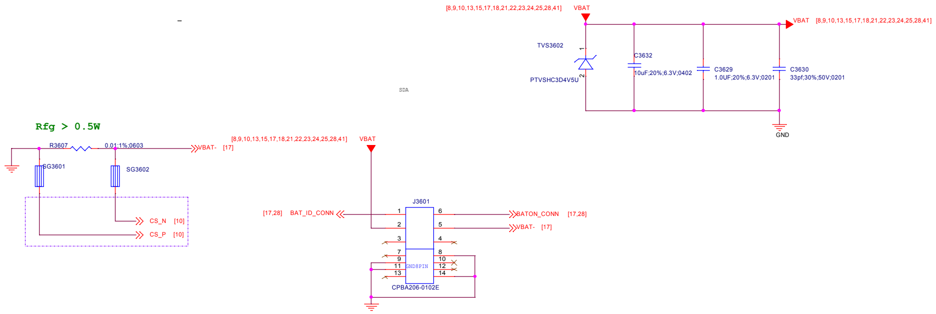
Note 44-4: VDD2 VDDQ VDDCA decoupling cap: closed to DRAM ball.
For other cap for PMIC [>10uF, at PMIC page]:
please also refer to MMD and layout guide for placement.

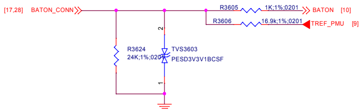
Note 44-5: Please check MT6765, MT6762 and MT6761's capacitor value.

Project	C1517	C1518
MT6765	2.2uF	1uF
MT6762	2.2uF	1uF
MT6761	0.1uF	0.1uF

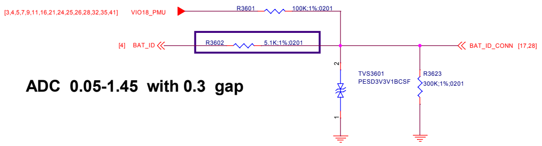
Title 15_Memory_eMMC_LPDDR3 REV: V10
DOCUMENT NO.: Design Name Size D
DEPARTMENT: WINGTECH-SH DESIGNER: YANGSHAOYUN
WINGTECH
Date: Monday, April 08, 2019 Sheet 16 of 53

BATTERY CONNECTOR

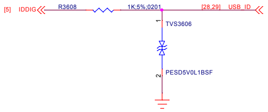


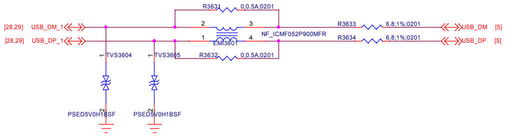


Battery pack is considered not present if BAT_ON is above 0.944*TREF



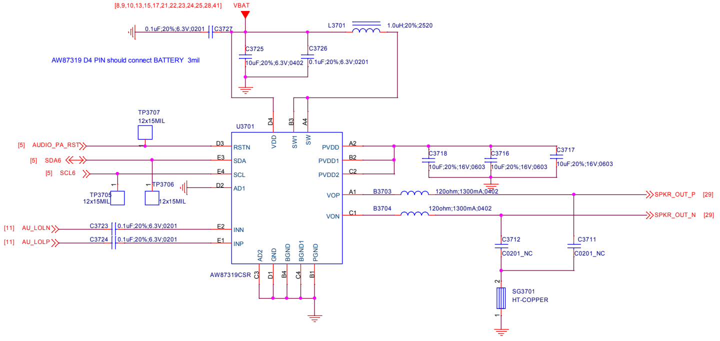
ADC 0.05-1.45 with 0.3 gap



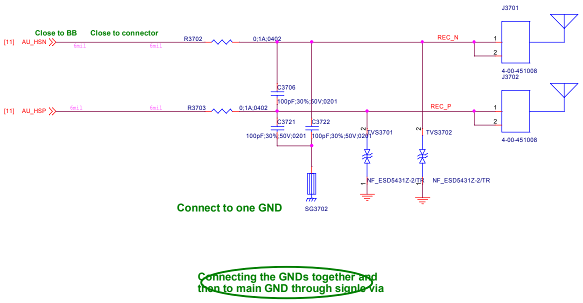


Title	36_Battery/USB IF	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet	17 of 53

SPK

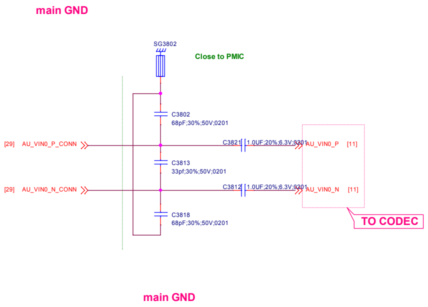


Receiver

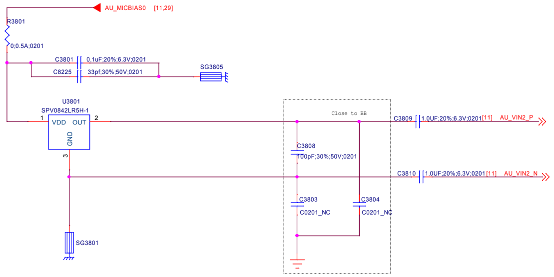


Title	37_SPK/Receiver/Vibrator	REV: V10	
DOCUMENT NO.:	Design Name	Size D	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 18	of 53

MAIN MIC

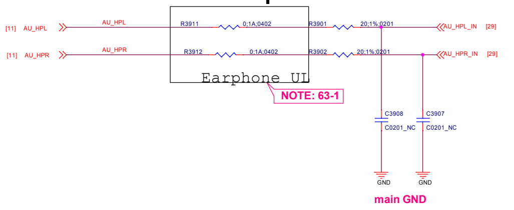


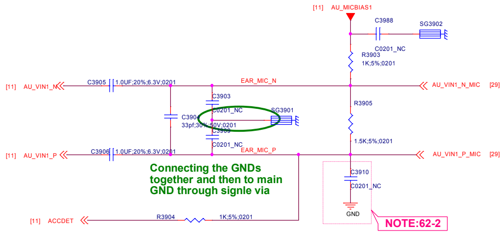
TOP MIC



Title	38_MIC	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet	19 of 53

Earphone





NOTE:62-1 R3911 R3912, BEAD6203, BEAD6204 and BEAD6205 needs changed to "BLM18BD102SN1" for high THD performance (-90dB) but this BOM change will results in FM RSSI 10dB degraded .

Note 62-2: Reserved Cap for CS/RS test, please double check multi-key function when used

Title 39_Earphone
REV: V10
DOCUMENT NO.: Design Name
Size D
DEPARTMENT: WINGTECH-SH
DESIGNER: LIUFENGLEI
Date: Monday, April 08, 2019
Sheet 20 of 53

Note 62-1: Part # of BEAD6202, BEAD6203, BEAD6204 and BEAD6205 needs changed to "BLM18BD102SN1" for high THD performance (-90dB) but this BOM change will results in FM RSSI 10dB degraded .

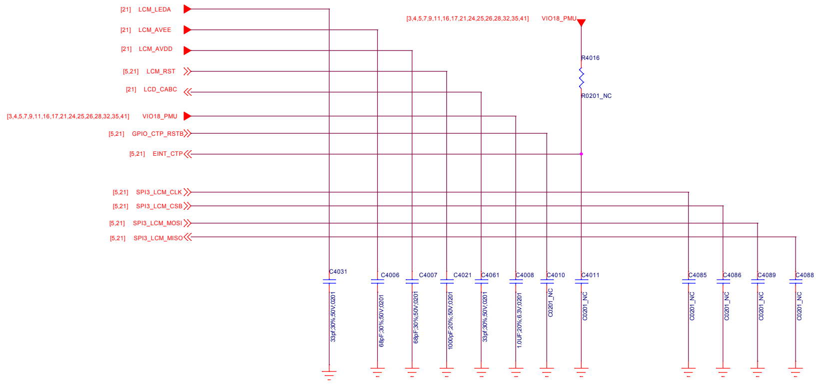
Note 62-2: Reserved Cap for CS/RS test, please double check multi-key function when used

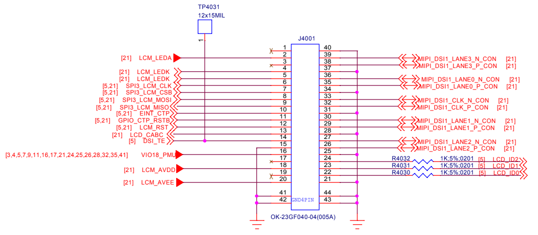
---

Note 62-3:

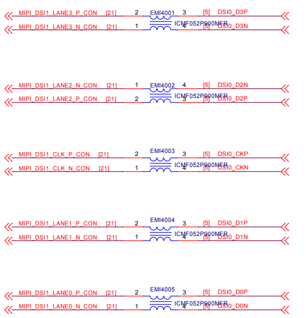
	Earphone Jack @ Main board	Earphone Jack @ Sub board
R6513	0 ohm	100nF

Note 62-4: Please Select ACC Mode for Operator Project to Pass Electrical MOS Test;



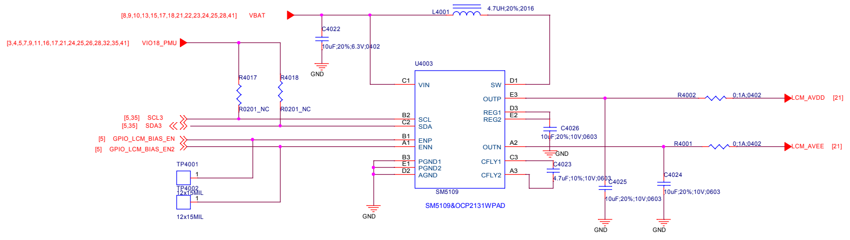


Common Mode Filter



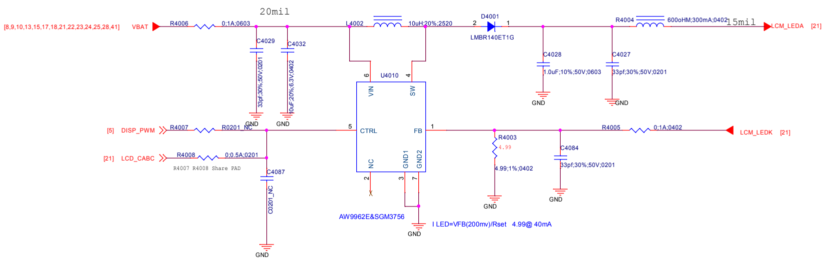
LCD Gate Drive

LCD Gate Driver I2C address: 0X3E (Write:0x7C, Read:0x7D) SM5109&OCP2131WPAD



LCD Backlight LED Driver

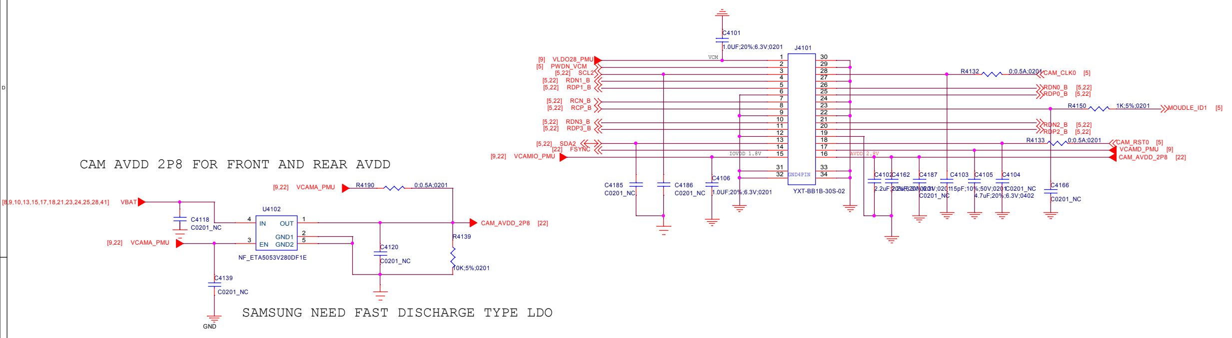
Rating : 50V

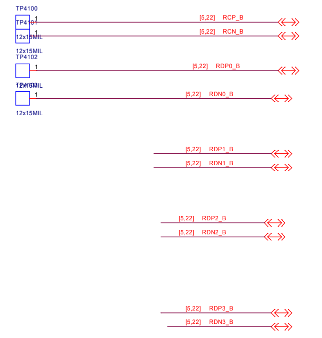


I LED=VFB(200mv)/Rset 4.99@ 40mA

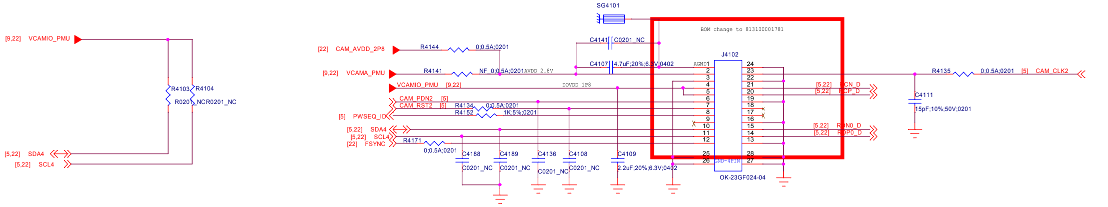
Title	40_LCD/CTP IF	REV: V10
DOCUMENT NO.:	Design Name	Size D
DEPARTMENT:	WINGTECH-SH	DESIGNER: LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 21 of 53

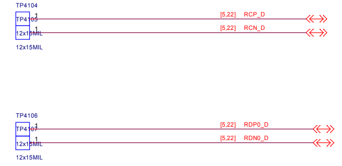
Main Camera 13M



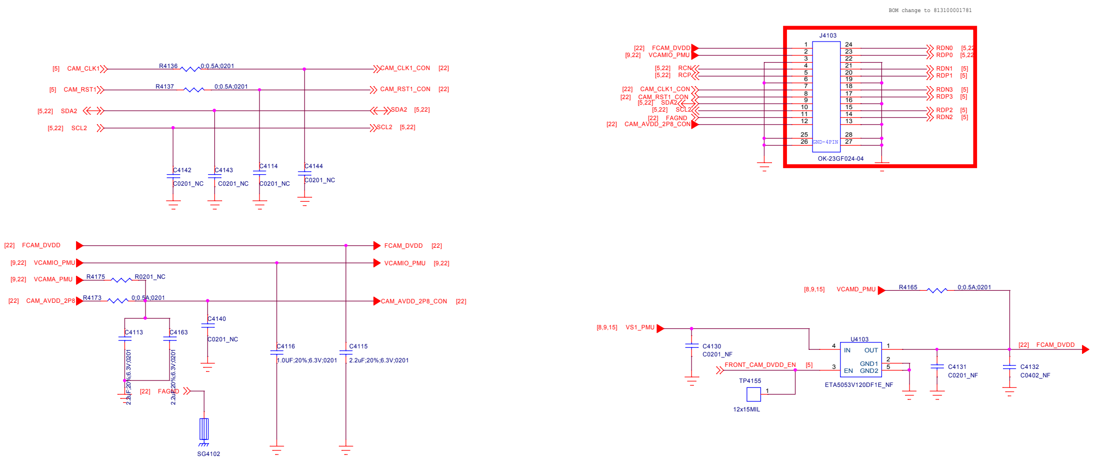


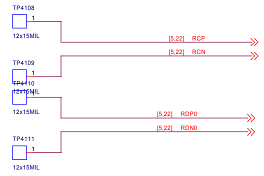
Depth Camera 2M



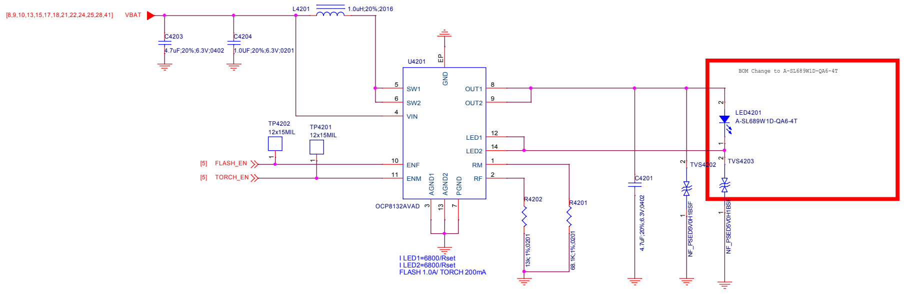


Front Camera 8M

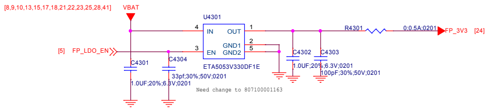




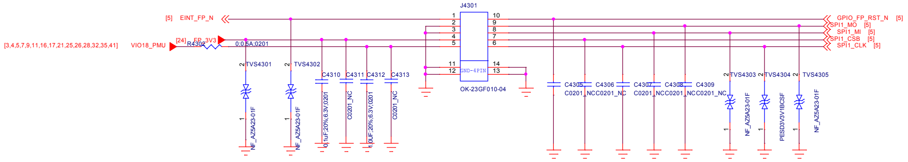
Title: **41_Camera IF**
REV: V10
DOCUMENT NO.: Design Name
Size: D
DEPARTMENT: WINGTECH-SH
DESIGNER: LIUFENGLEI
WINGTECH
Date: Tuesday, April 09, 2019
Sheet 22 of 53



Title	**42_Flash/RGB**	REV: V10	
DOCUMENT NO.:	**Design Name**	Size D	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
WINGTECH			
Date:	Monday, April 08, 2019	Sheet 23	of 53



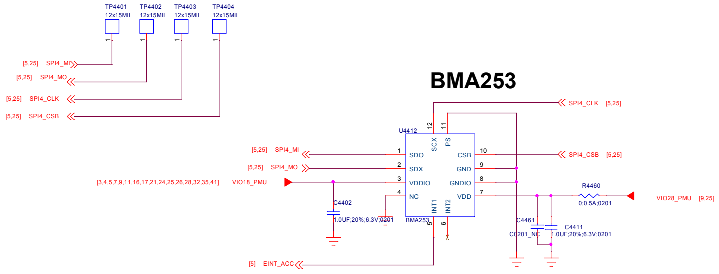
Fingerprint



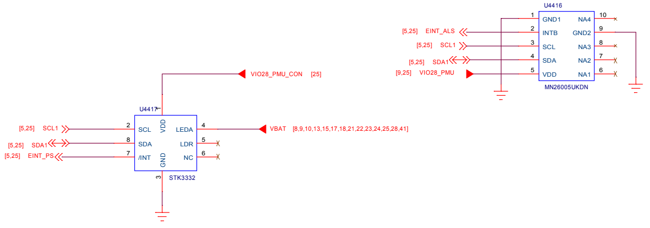
Fingerprint

Title	43.Fingerprint	REV:	V10
DOCUMENT NO.:	S96116-1-13_MB_20190409-1317	Size	D
DEPARTMENT:	Wingtech-SZ	DESIGNER:	DESIGNER
Date:	Monday, April 08, 2019	Sheet	24 of 53

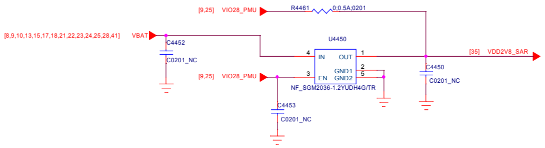
Accerometer



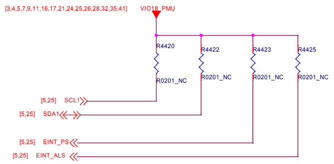
ALP-Sensor



FOR SAR sensor

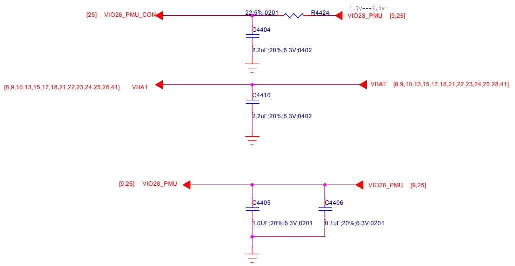


ALS/PROXIMITY SENSOR



821400000421

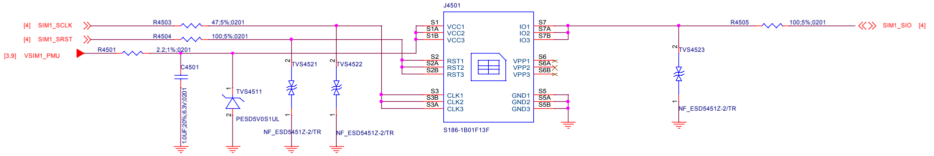
I2C Address 0x47H



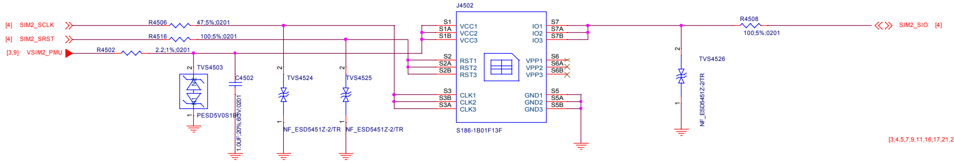
Title	**44_Sensor**	REV: V10
DOCUMENT NO.:	**Design Name**	Size D
DEPARTMENT:	WINGTECH-SH	DESIGNER: LIUFENGLEI
WINGTECH		
Date:	Monday, April 08, 2019	Sheet 25 of 53

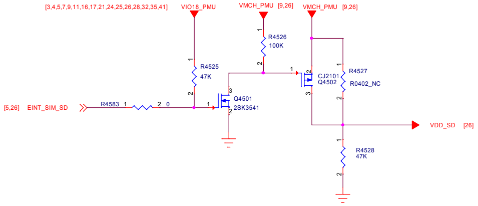
Change to 813300002141

SIM1



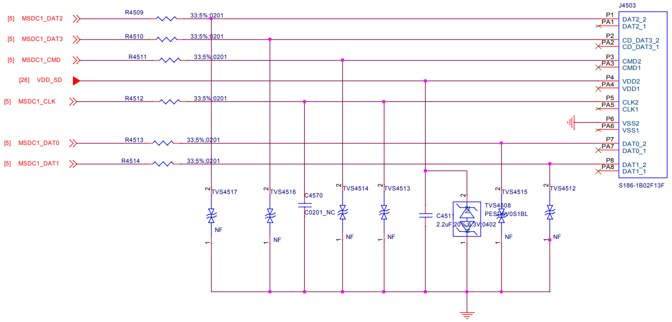
SIM2





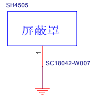
Change to-813300002241

TF CARD

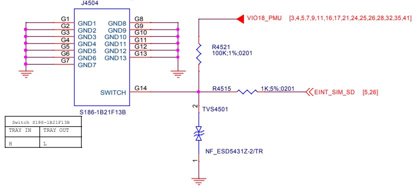


Change to813300002131

Scratch resistant steel sheet



Shielding connect to ground

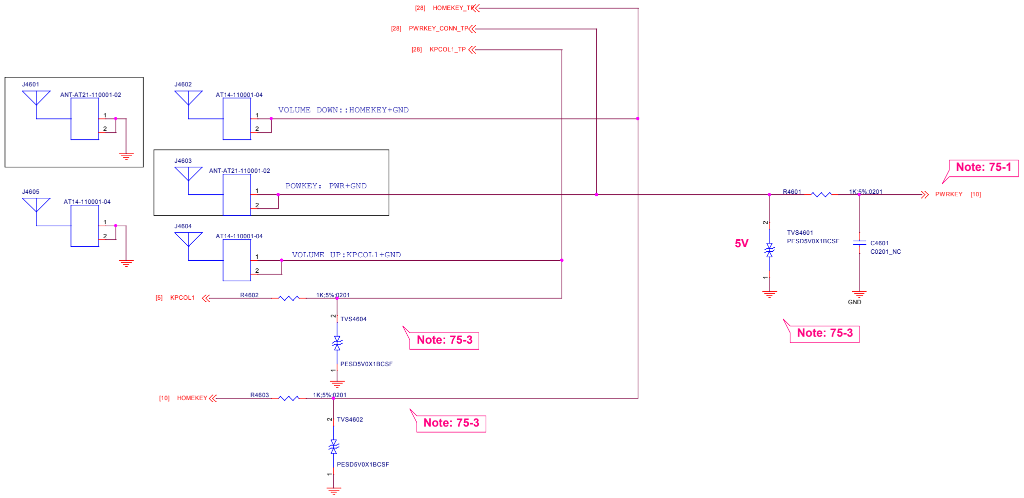


Switch S186-1B21F13B	
TRAY IN	TRAY OUT
H	L

Title	45_SIM/TF IF	REV: V10	
DOCUMENT NO.:	Design Name	Size D	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	1 Monday, April 08, 2019	Sheet 26 of 53	

Power Key / Key Pad

DO NOT put pull-up resistor on PWRKEY



SIDEKEY

VOLUME DOWN: HOMEKEY+GND

POWERON: PWRKEY+GND

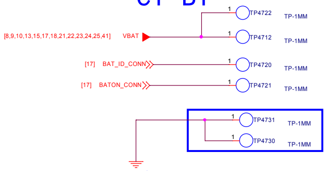
VOLUME UP: KPCOL1+GND

Note 75-1:DO NOT put pull-up resistor on PWRKEY
Note 75-2: Volume Up:HOME KEY+GND
Volume Down:KPCOL1+GND

Title	46_Sidekey	REV:	V10
DOCUMENT NO.:	Design Name	Size	D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Thursday, April 11, 2019	Sheet	27 of 53

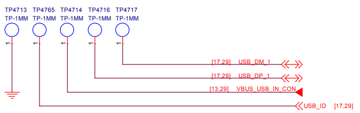
Fixture Test point

CT BT



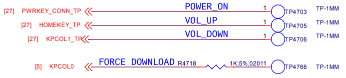
BAT GND place near the connect

USB



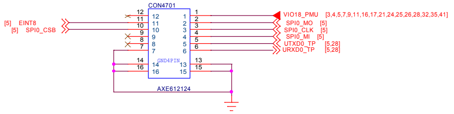
DEVICE MODE CONF

KEYS

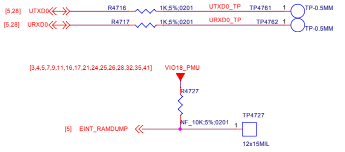


Debug

JTAG

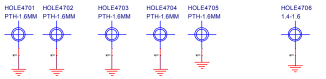


UART

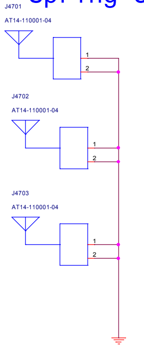


Grounding

PTH

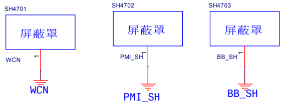


TOP Spring Grounding

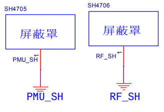


SHIELDING

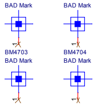
TOP



BOT



MARK

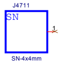


BAD MARK

BAD MARK ON PANEL

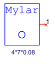
Waterproof

SN Label



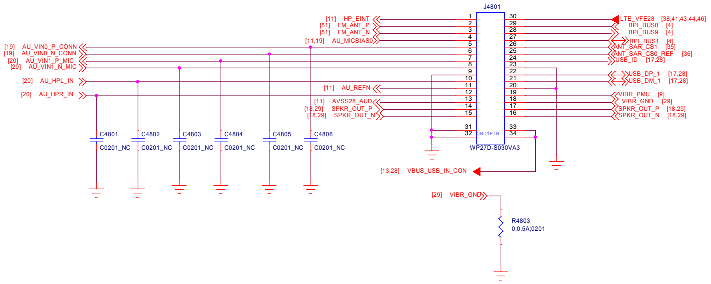
Change to 817000003431

MIC MYLAR



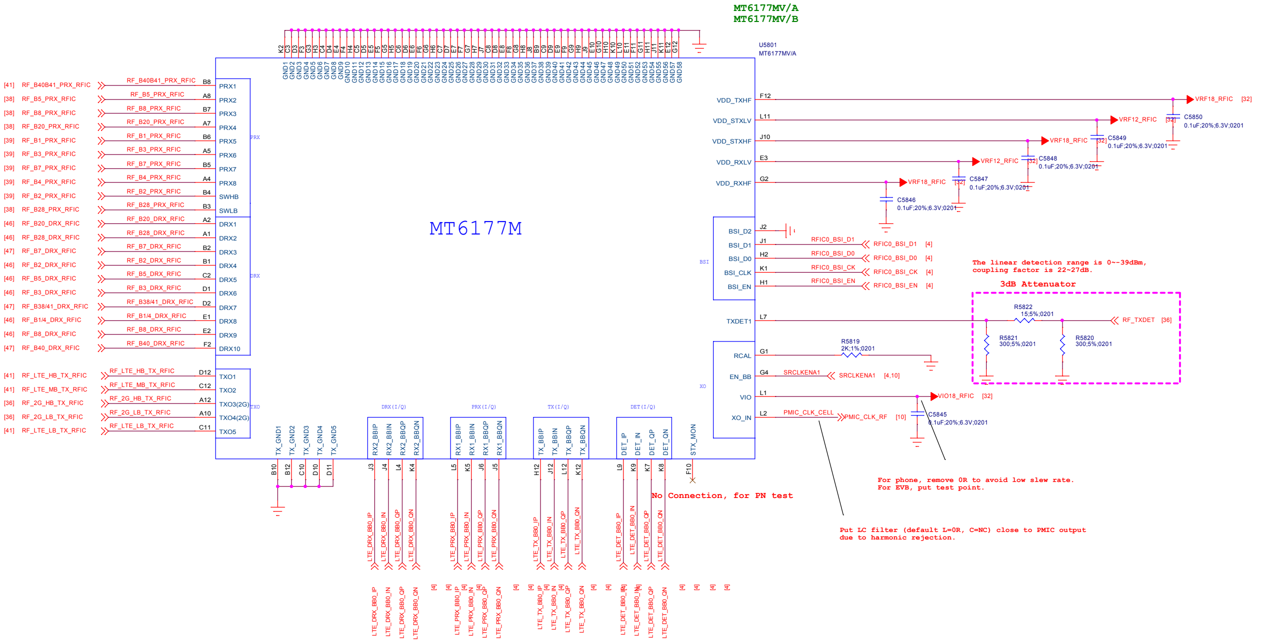
PCB

Title	47_Testpoint/Shielding/GND	REV: V10
DOCUMENT NO.:	Design Name	Size D
DEPARTMENT:	WINGTECH-SH	DESIGNER: LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 28 of 53



Title	**48_Sub PCB IF**	REV: V10	
DOCUMENT NO.:	**Design Name**	Size D	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 29	of 53

Title <Title>				
Size A1	Document Number <Doc>			Rev 1.0
Date:	Monday, April 08, 2019	Sheet	31 of 53	



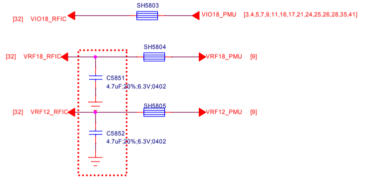
The linear detection range is 0~-39dBm, coupling factor is 22~27dB.

No Connection, for PN test

For phone, remove 0R to avoid low slew rate.
For EVB, put test point.

Put LC filter (default L=0R, C=NC) close to PMIC output due to harmonic rejection.

Power domain of MT6177M



4.7uF close to RFIC for better Ripple Performance

Title Page Name = 58_Transceiver-1
REV: V10
DOCUMENT NO.: Design Name = S96116-1-13_MB_20190409-1317
Size D
DEPARTMENT: DEPARTMENT = WINGTECH-SZ
DESIGNER: DESIGNER = LIUFENGLEI
WINGTECH
Date: Page Modify Date = Monday, April 08, 2019
Sheet 32 of 53

5 4 3 2 1

D

C

B

A

Title	**Reserved**	REV: V10	
DOCUMENT NO.:	**Design Name**	Size A1	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
WINGTECH			
Date:	Monday, April 08, 2019	Sheet 33 of 53	

5 4 3 2 1

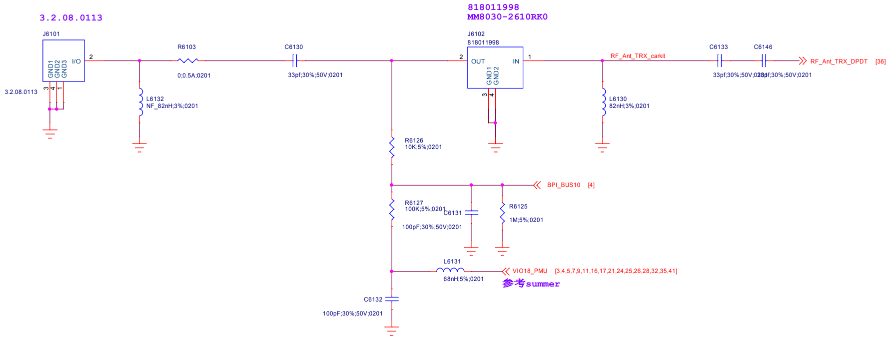
D D

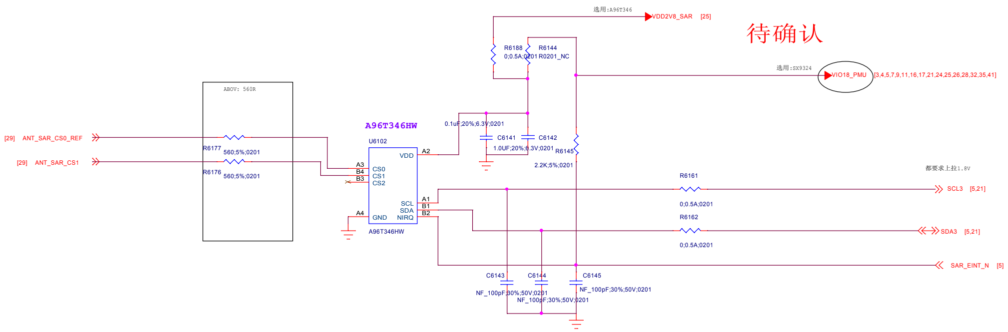
C C

B B

A A

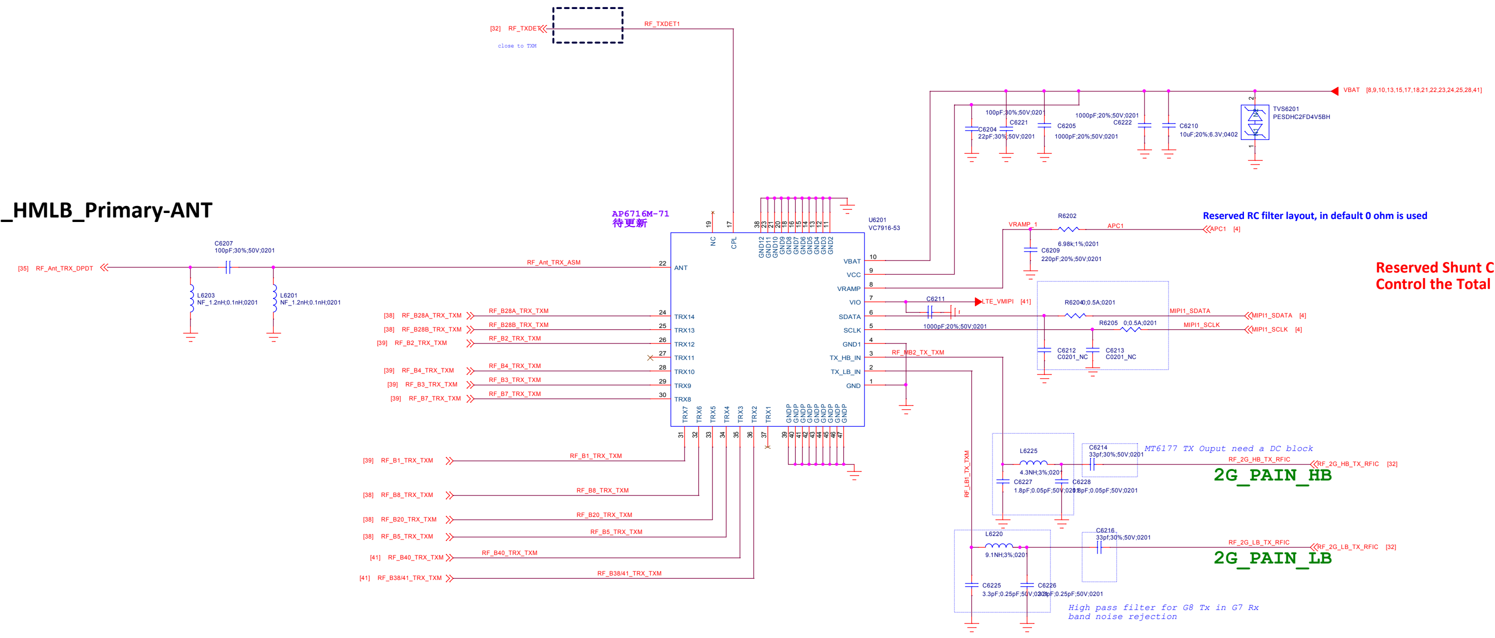
Title	**Reserved**	REV: V10	
DOCUMENT NO.:	**Design Name**	Size A1	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 34 of 53	





Title	REV: V10
DOCUMENT NO.:Design Name = S96116-1-13_MB_20190409-1357	Size D
DEPARTMENT: DEPARTMENT = WINGTECH-SZ	DESIGNER: DESIGNER = LIUFENGLEI
WINGTECH	
Date: Page Modify Date = Monday, April 08, 2019	Sheet 35 of 53

TO_HMLB_Primary-ANT



Reserved RC filter layout, in default 0 ohm is used

MT6177 TX Ouput need a DC block

High pass filter for G8 Tx in G7 Rx
band noise rejection

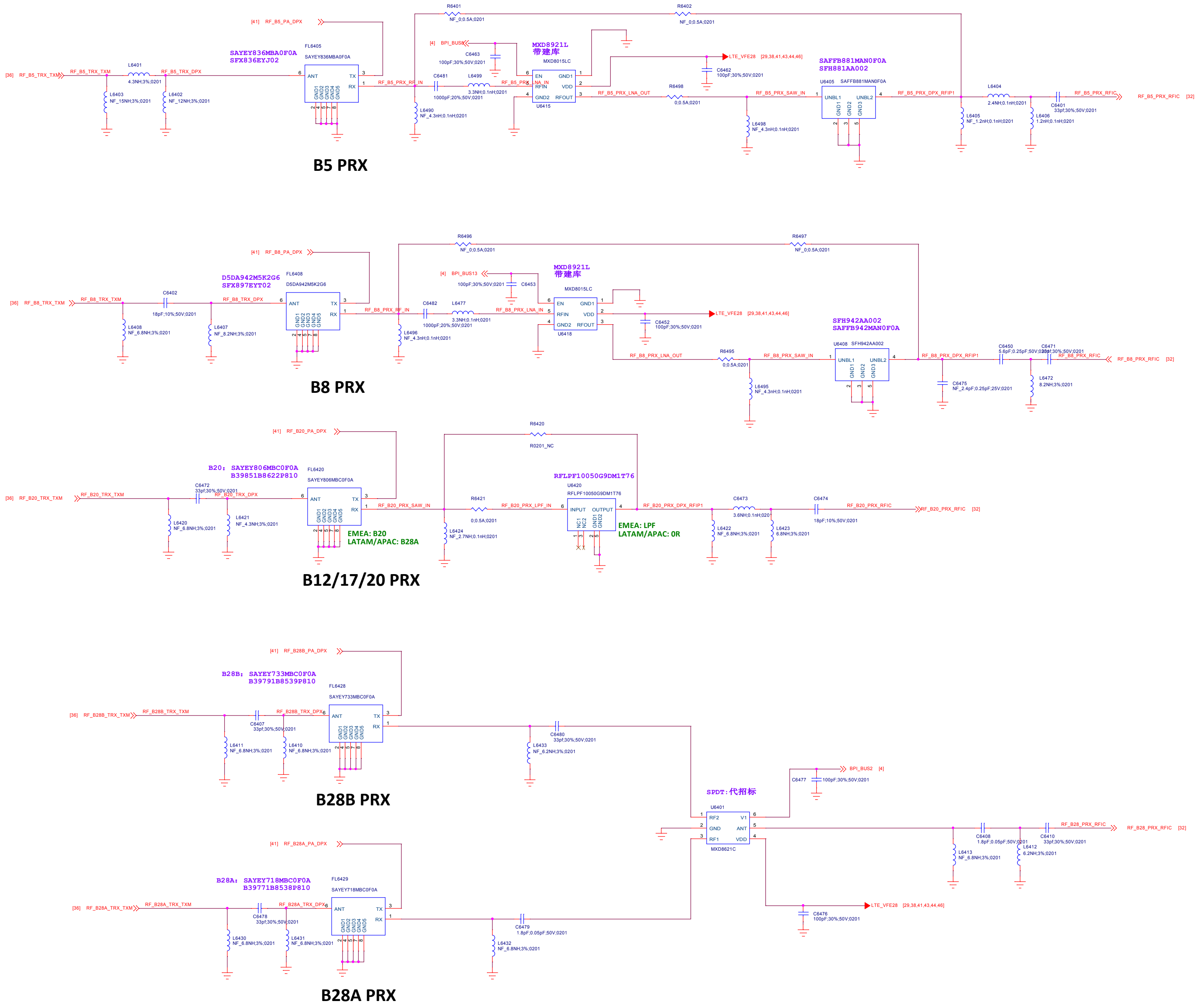
Reserved Shunt C for MIPI C-load Tuning
Control the Total Capacitance to 25pF+-3pF

Title **Page Name = 62_Primary_ASM**		REV: V10
DOCUMENT NO.: **Design Name = S96116-1-13_MB_20190409-1317**		Size D
DEPARTMENT: DEPARTMENT = WINGTECH-SZ	DESIGNER: DESIGNER = LIUFENGLEI	
WINGTECH		
Date: Page Modify Date = Monday, April 08, 2019	Sheet 36 of 53	

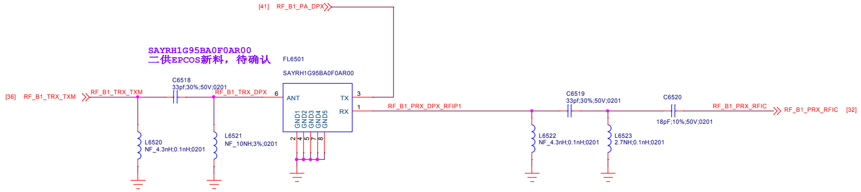
Title
<Title>

Size A1
Document Number
<Doc>
Rev 1.0

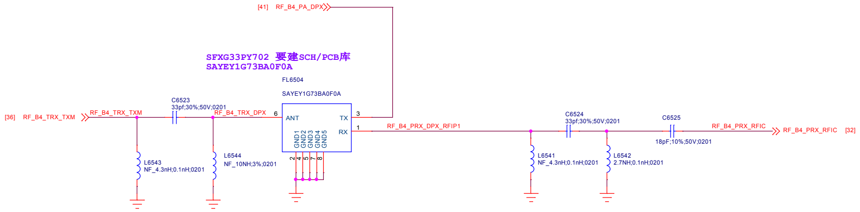
Date: Monday, April 08, 2019
Sheet 37 of 53



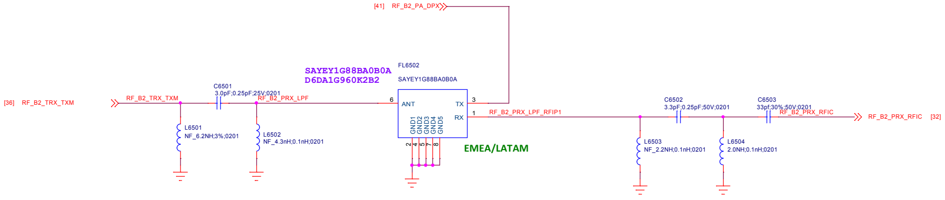
Title	Page Name = 64_TRX_LB		REV: V10
DOCUMENT NO.:	Design Name = S96116-1-13_MB_20190409-1317		D
DEPARTMENT:	DEPARTMENT = WINGTECH-SZ	DESIGNER:	DESIGNER = LIUFENGLEI
WINGTECH			
Date:	Page Modify Date = Monday, April 08, 2019	Sheet	38 of 53



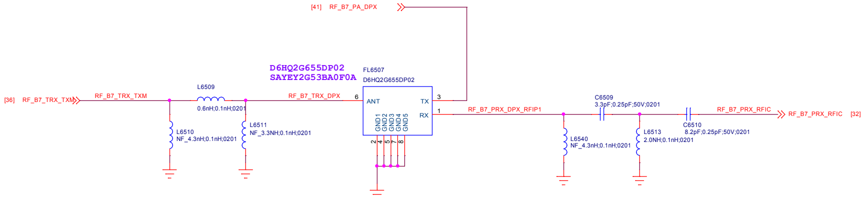
B1 PRX



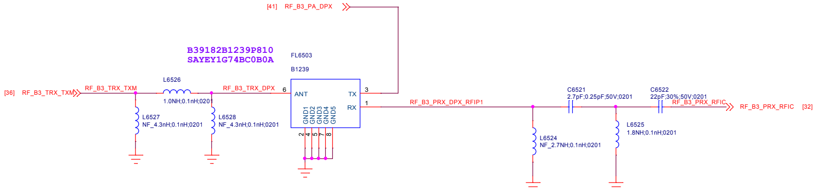
B4 PRX



B2 PRX



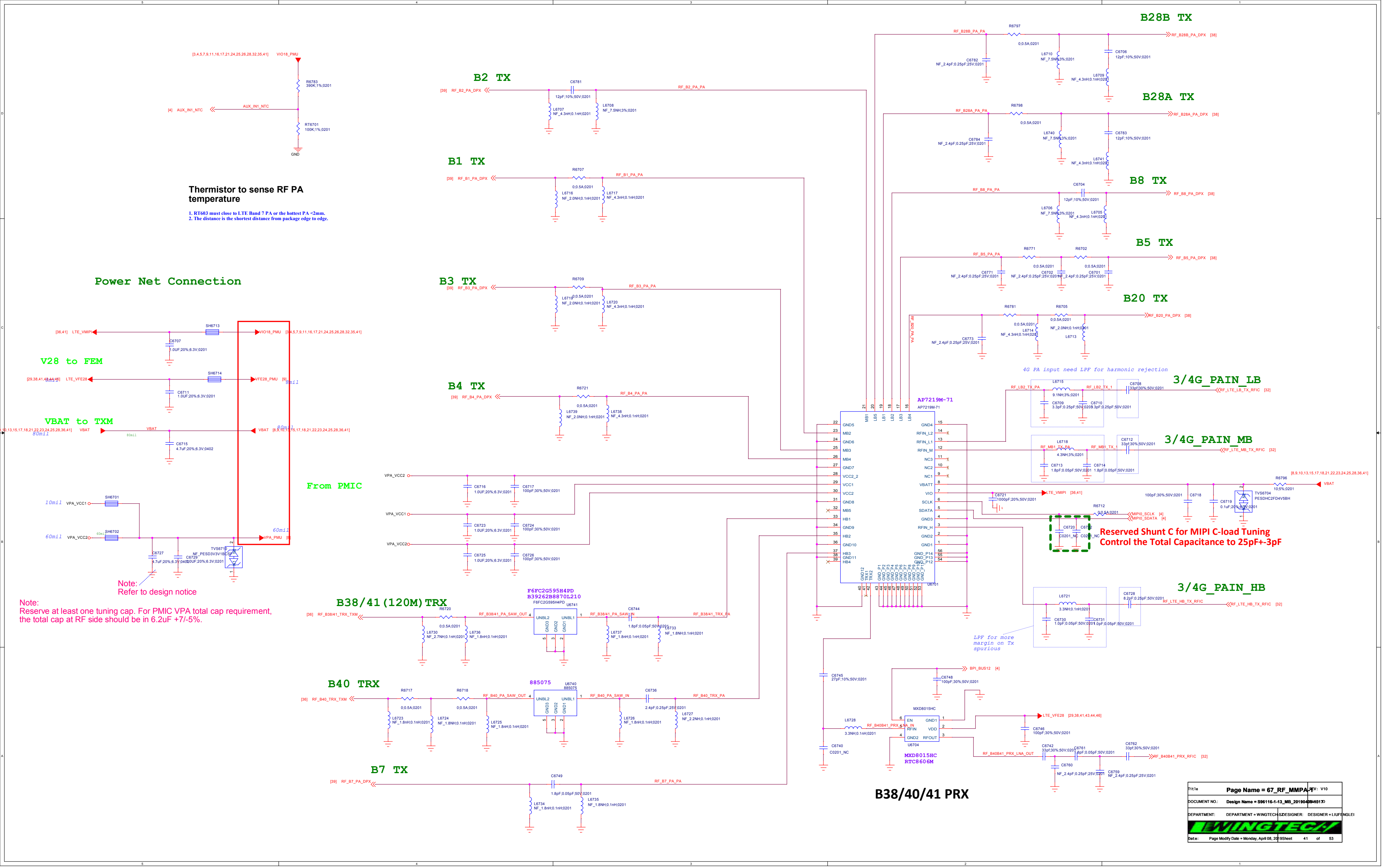
B7 PRX



B3 PRX

Title	**Page Name = 65_TRX_MHB**	REV: V10	
DOCUMENT NO.:	**Design Name = S96116-1-13_MB_20190409-1317**	Size D	
DEPARTMENT:	DEPARTMENT = WINGTECH-SZ	DESIGNER:	DESIGNER = LIUFENGLEI
WINGTECH			
Date:	Page Modify Date = Monday, April 08, 2019	Sheet 39	of 53

Title <Title>		
Size A1	Document Number <Doc>	Rev 1.0
Date: Monday, April 08, 2019	Sheet 40 of 53	



Thermistor to sense RF PA temperature

1. RT603 must close to LTE Band 7 PA or the hottest PA <2mm.
2. The distance is the shortest distance from package edge to edge.

Note:
Refer to design notice

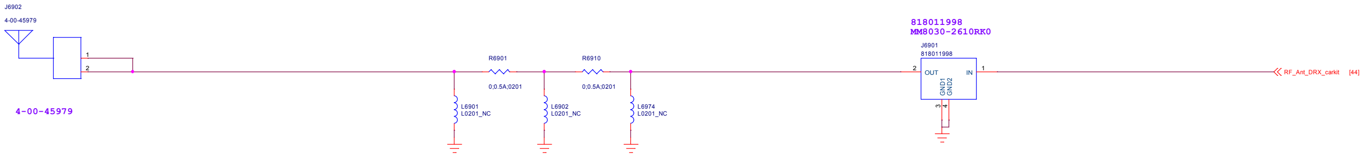
Note:
Reserve at least one tuning cap. For PMIC VPA total cap requirement,
the total cap at RF side should be in 6.2uF +7/-5%.

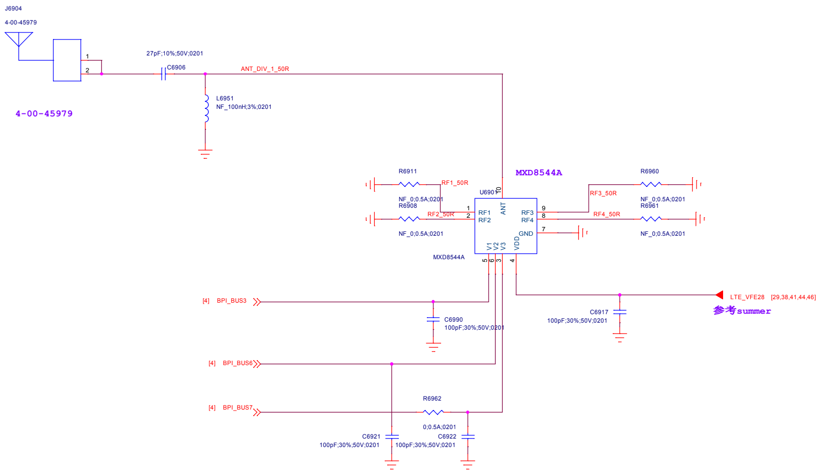
Reserved Shunt C for MIPI C-load Tuning
Control the Total Capacitance to 25pF+-3pF

B38/40/41 PRX

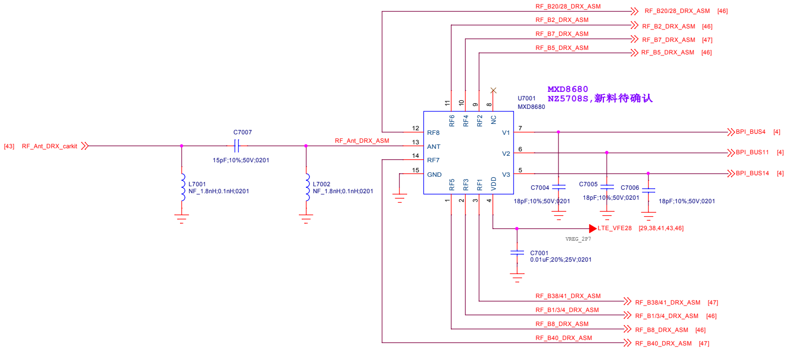
Title	Page Name = 67_RF_MMPA-1	REV: V10
DOCUMENT NO.:	Design Name = S96116-1-13_MB_20190409-1317	Size D
DEPARTMENT:	DEPARTMENT = WINGTECH-SZ	DESIGNER: DESIGNER = LIUFENGLEI
Date:	Page Modify Date = Monday, April 08, 2019	Sheet 41 of 53

Title <Title>		
Size A1	Document Number <Doc>	Rev 1.0
Date: Monday, April 08, 2019	Sheet 42 of 53	



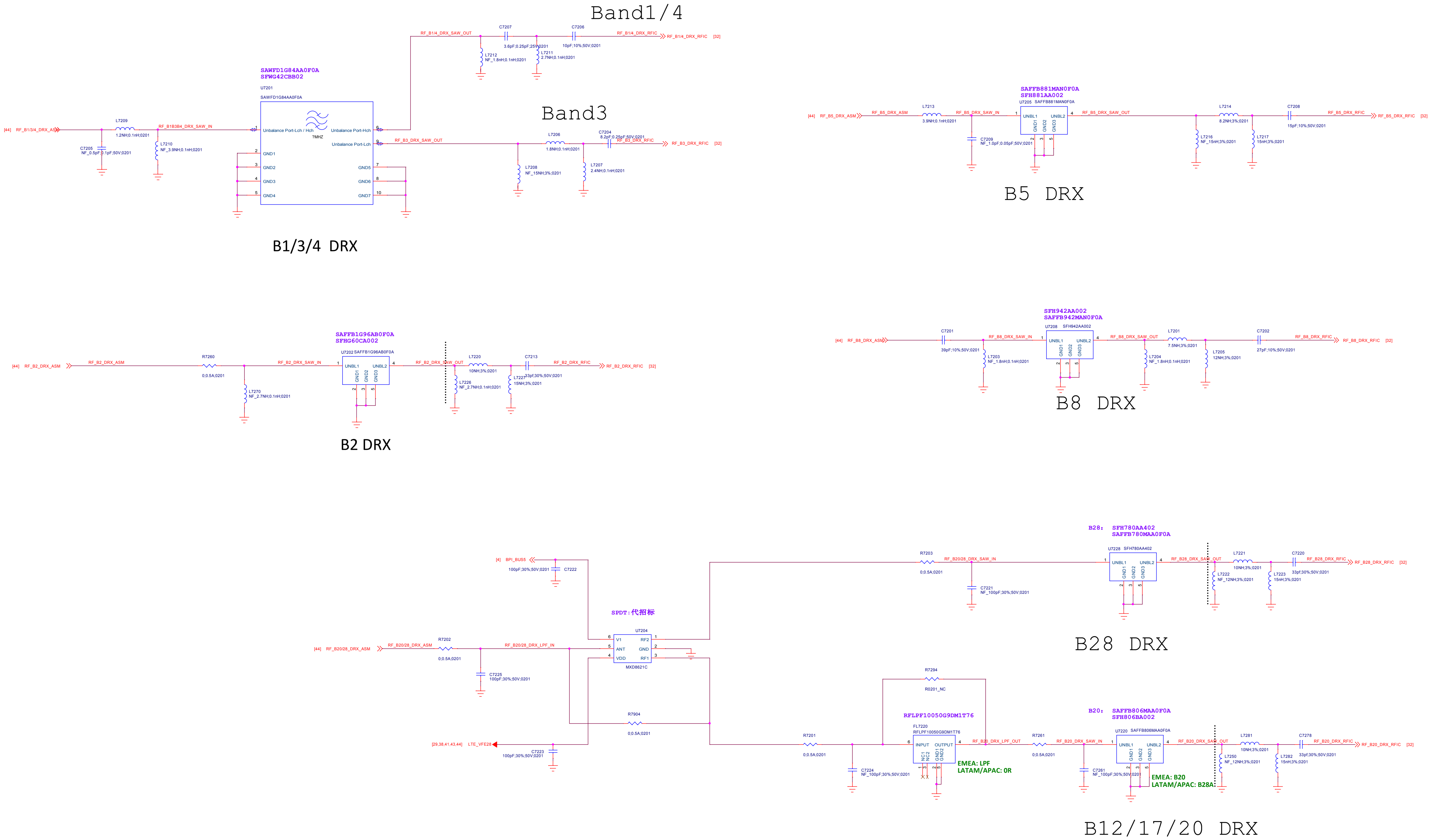


Title Page Name = 69_Diversity_ANT	REV: V10
DOCUMENT NO.:Design Name = S96116-1-13_MB_20190409-1317	Size D
DEPARTMENT:DEPARTMENT = WINGTECH-SZ	DESIGNER:DESIGNER = LIUFENGLEI
Date:Page Modify Date = Monday, April 08, 2019	Sheet 43 of 53

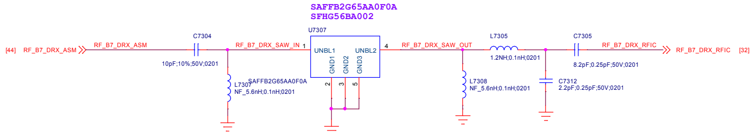


Title	**Page Name = 70_Diversity ASM**	REV	V10
DOCUMENT NO.:	**Design Name = S96116-1-13_MB_20190409-1317**	Size	D
DEPARTMENT:	DEPARTMENT = WINGTECH-SZ	DESIGNER:	DESIGNER = LIUFENGLEI
Date:	Page Modify Date = Monday, April 08, 2019	Sheet 44 of 53	

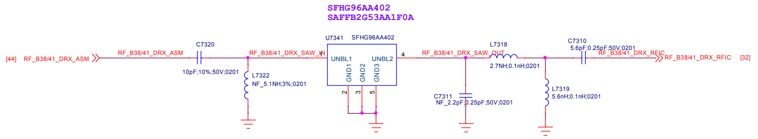
Title	Reserved		REV: V10
DOCUMENT NO.:	Design Name		Size A1
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 45	of 53



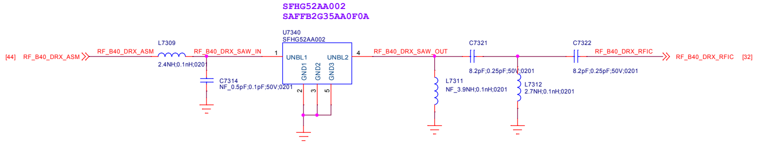
Title	Page Name = 72_DRX_LMB	REV: V10
DOCUMENT NO.:	Design Name = S96116-1-13_MB_20190409_1317	Size D
DEPARTMENT:	DEPARTMENT = WINGTECH-SZ	DESIGNER: DESIGNER = LIUFENGLEI
Date:	Page Modify Date = Monday, April 08, 2019	Sheet 46 of 53



B7 DRX



B38/41 DRX



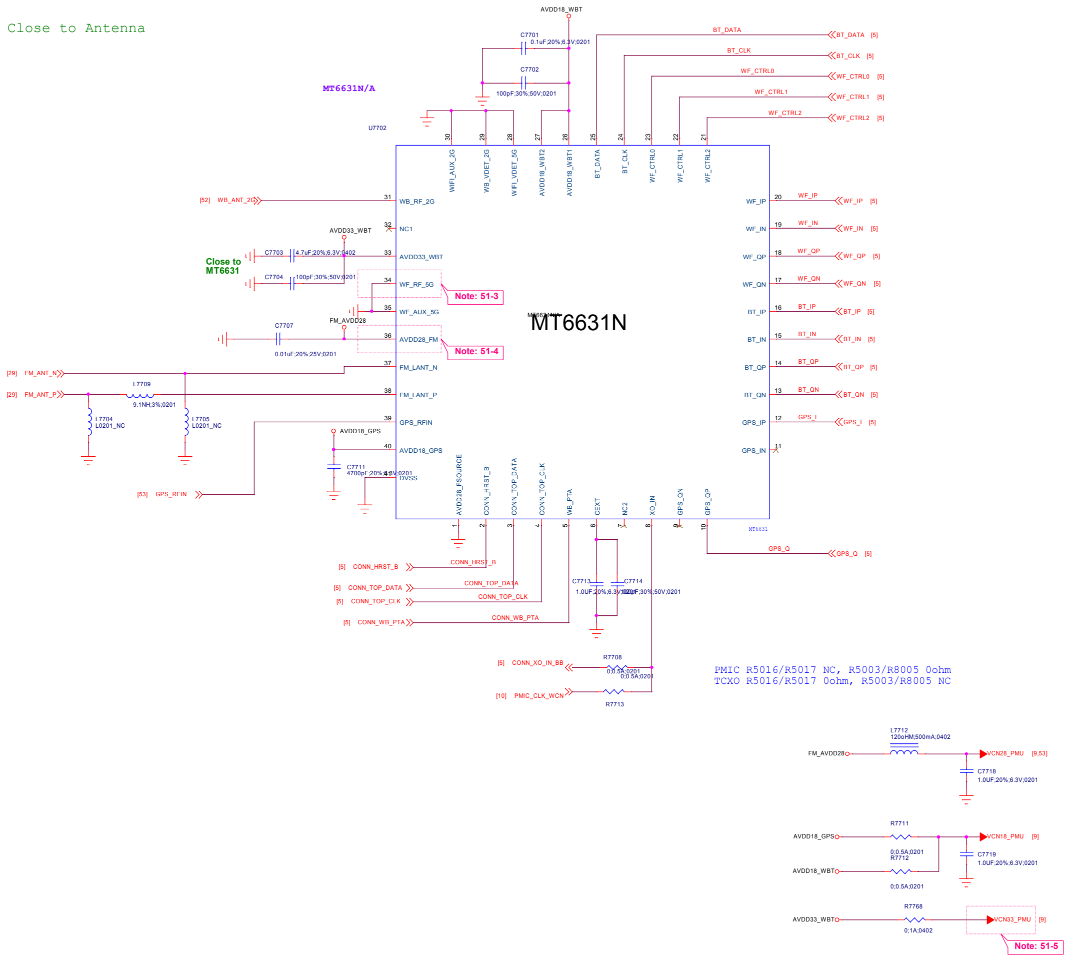
B40 DRX

Title	Page Name = 73_DRX_HB	REV: V10
DOCUMENT NO.:	Design Name = S96116-1-13_MB_20190409-1317	Size D
DEPARTMENT: DEPARTMENT = WINGTECH-SZ		DESIGNER: DESIGNER = LIUFENGLEI
Date: Page Modify Date = Monday, April 08, 2019		Sheet 47 of 53

Title <Title>		
Size A1	Document Number <Doc>	Rev 1.0
Date: Monday, April 08, 2019	Sheet 48 of 53	

Title	**Reserved**	REV: V10	
DOCUMENT NO.:	**Design Name**	Size A1	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
WINGTECH			
Date:	Monday, April 08, 2019	Sheet 49 of 53	

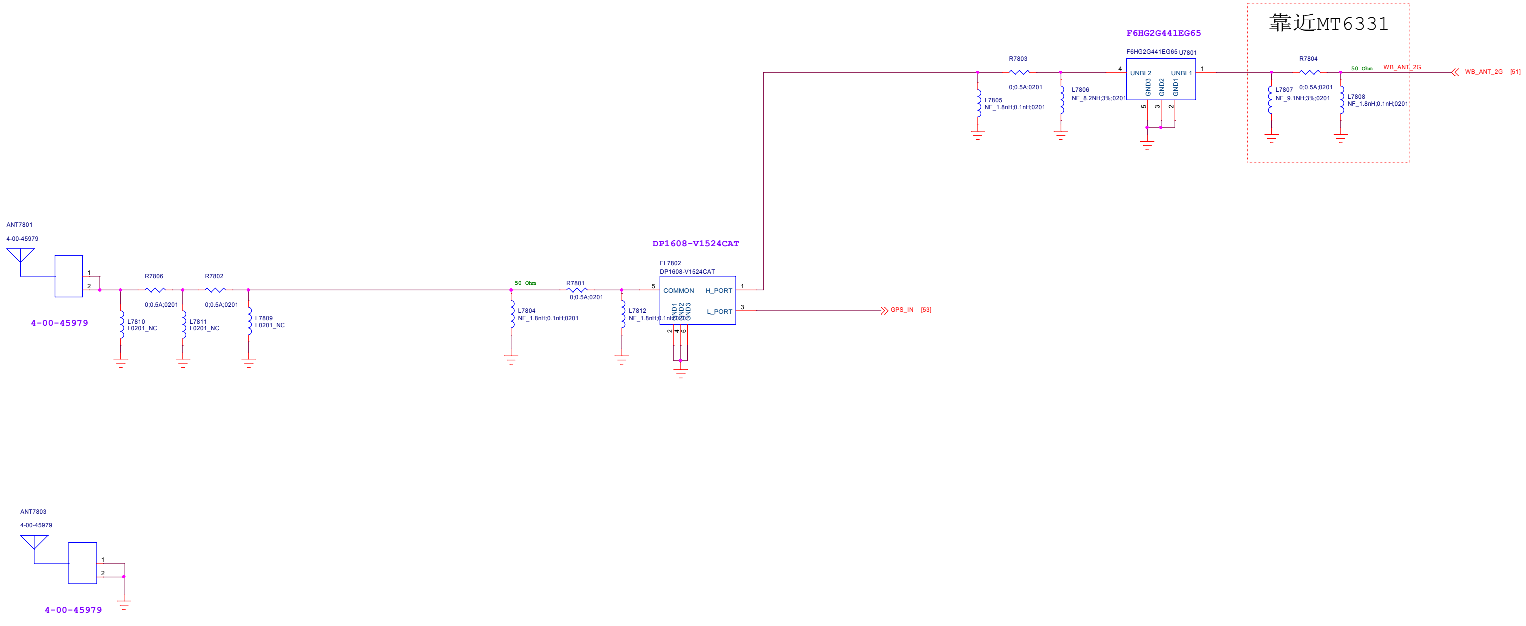
Title	**Reserved**	REV: V10	
DOCUMENT NO.:	**Design Name**	Size A1	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 50 of 53	



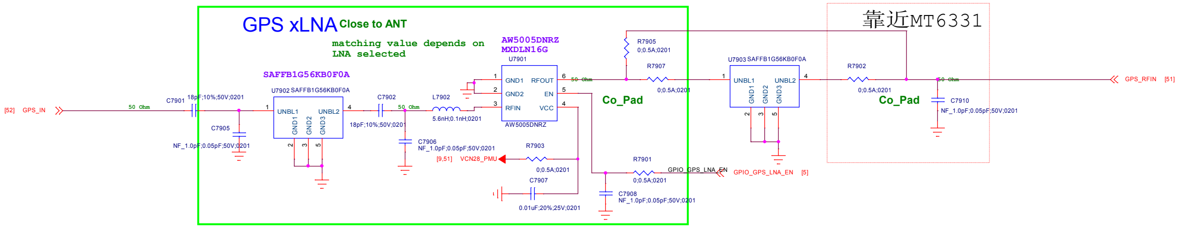
Schematic design notice of "51_CONNECTIVITY_CONSYS_MT6631"

Note 51-1:	For R5015 size, please select 0402 size or larger one
Note 51-2:	Please refer to MT6762 Baseband design notice for VCN33 LDO selection guide
Note 51-3:	If WiFi 5G not support, connect pin 34(WF_RF_5G) to GND
Note 51-4:	Pin 36 (AVDD28_FM) must be connected to VCN28 even if FM not support
Note 51-5:	If WiFi 5G were no need, VCN33 could be chosen from PMIC output (VCN33_PMU)

Title	Page Name = 77_WCN_MT6631	REV:	V10
DOCUMENT NO.:	Design Name = S96116-1-13_MB_20190409-1317	Size	D
DEPARTMENT:	DEPARTMENT = WINGTECH-SZ	DESIGNER:	DESIGNER = LIUFENGLEI
Date:	Page Modify Date = Monday, April 08, 2019	Sheet	51 of 53



Title	**Reserved**	REV: V10	
DOCUMENT NO.:	**Design Name**	Size D	
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet 52 of 53	



Title	**Reserved**		REV: V10
DOCUMENT NO.:	**Design Name**		Size D
DEPARTMENT:	WINGTECH-SH	DESIGNER:	LIUFENGLEI
Date:	Monday, April 08, 2019	Sheet	53 of 53