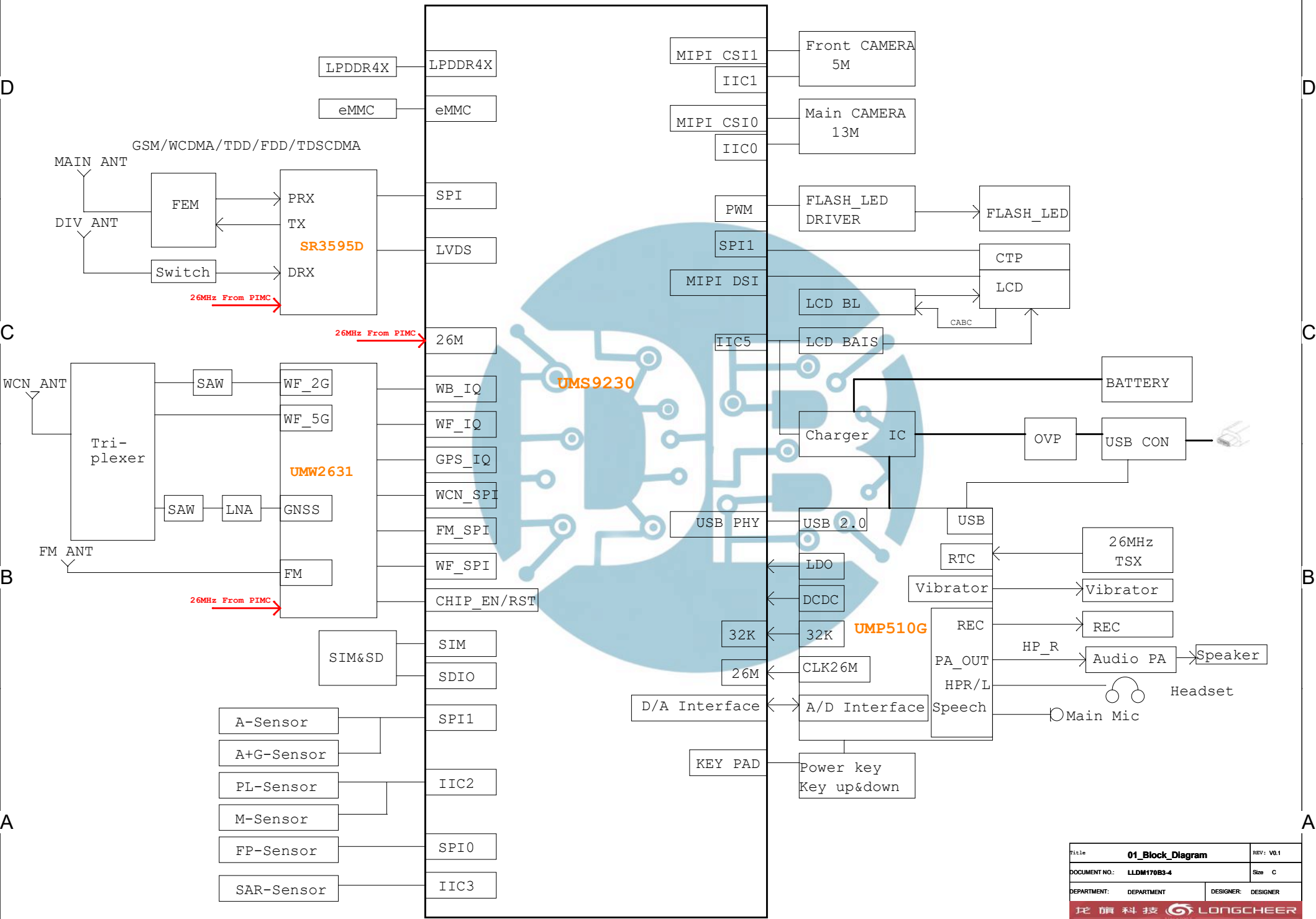
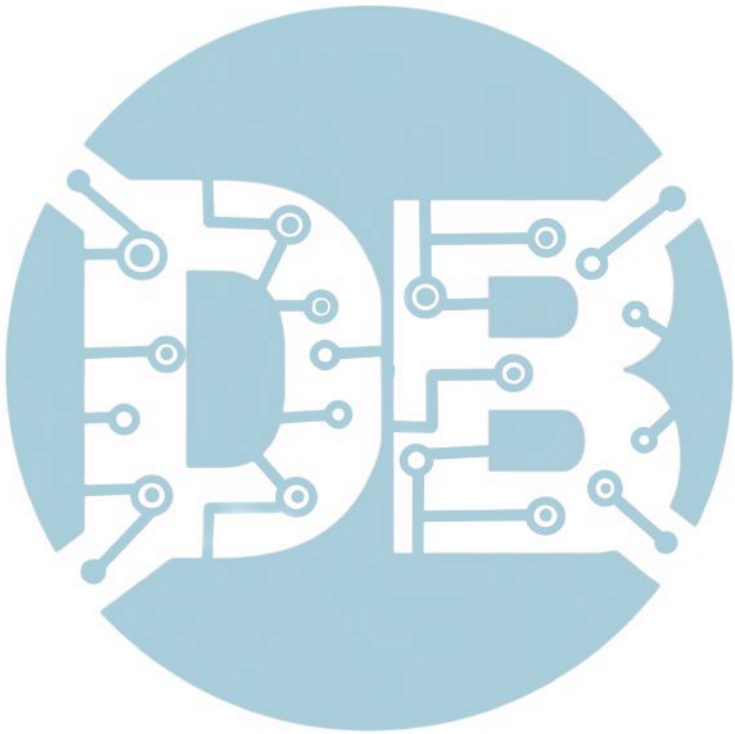


BLOCK DIAGRAM



REV	Description
REV0.1	Initial release



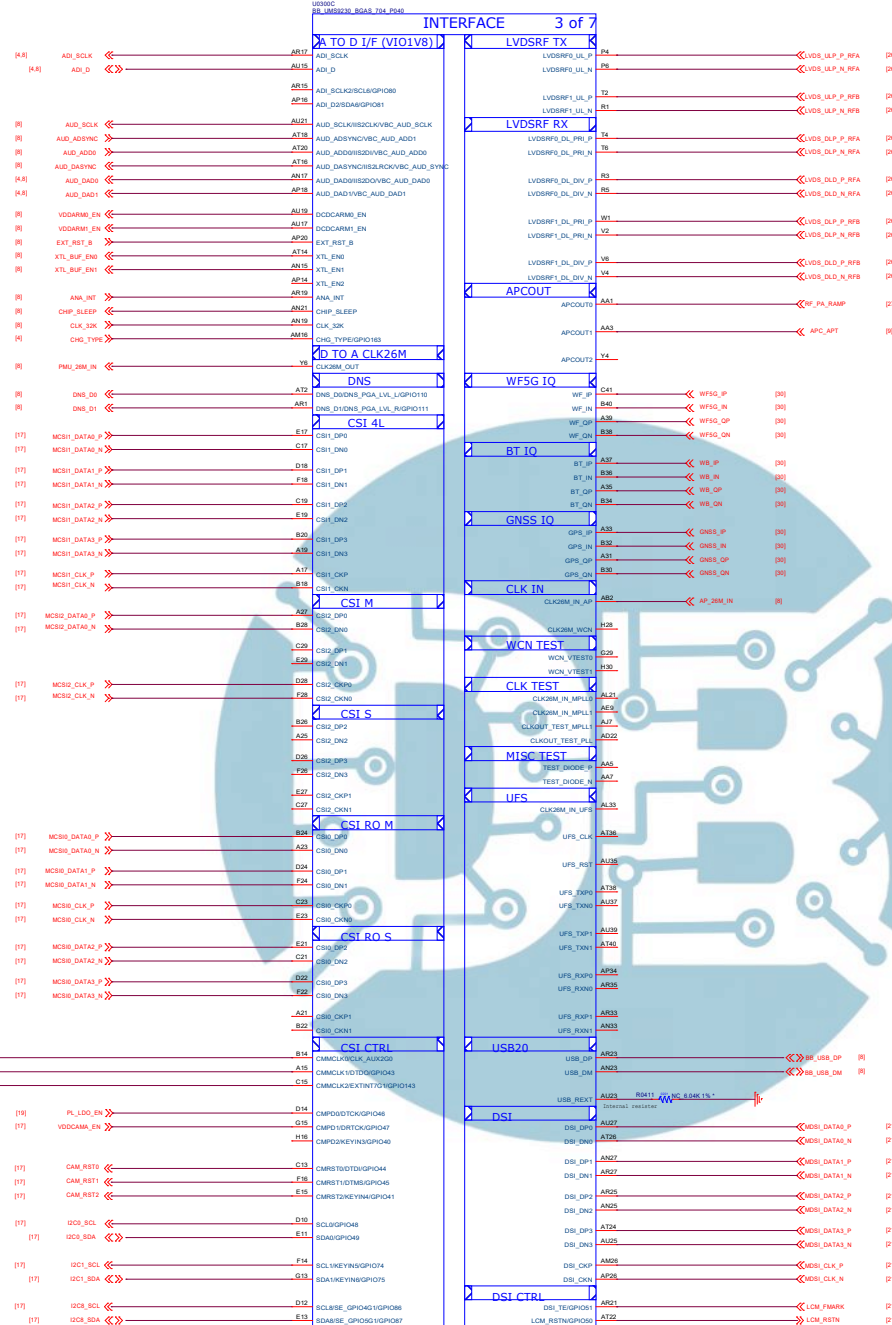
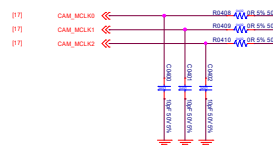
Title02_BB_change list		REV: V0.1
DOCUMENT NO.: LLD170B3-4		Size B
DEPARTMENT: DEPARTMENT	DESIGNER: DESIGNER	
龙旗科技LONGCHEER		
Date: Friday, August 19, 2022	Sheet 2	of 99

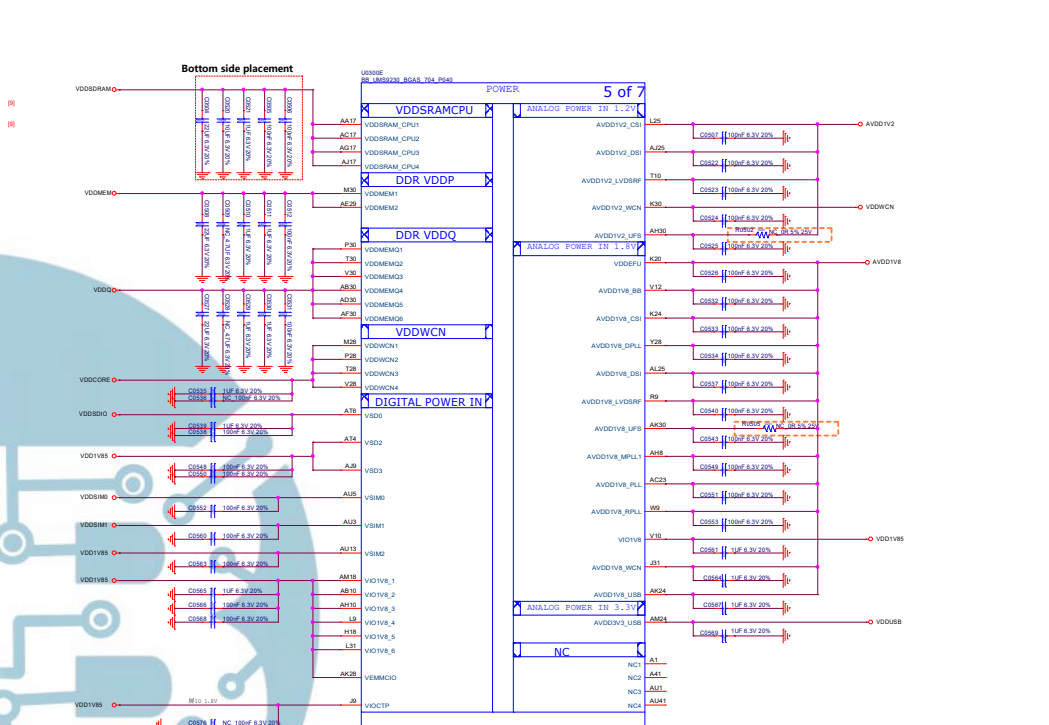


Title		03_BB_DIGITAL1		REV: V0.1	
DOCUMENT NO.: LLDMT003-4				Size D	
DEPARTMENT: DEPARTMENT			DESIGNER: DESIGNER		
 龙 顶 科 技 LONGCHEER					
DATE: Friday, October 21, 2022			Sheet 3 of 99		



Ball name	Signal name in boot code	Value	Descriptions	Default value
U1TXD	USB_DOWNLOAD_EN	0	USB download(no time out)	1 (ie=1, npu)
		1	UART download	



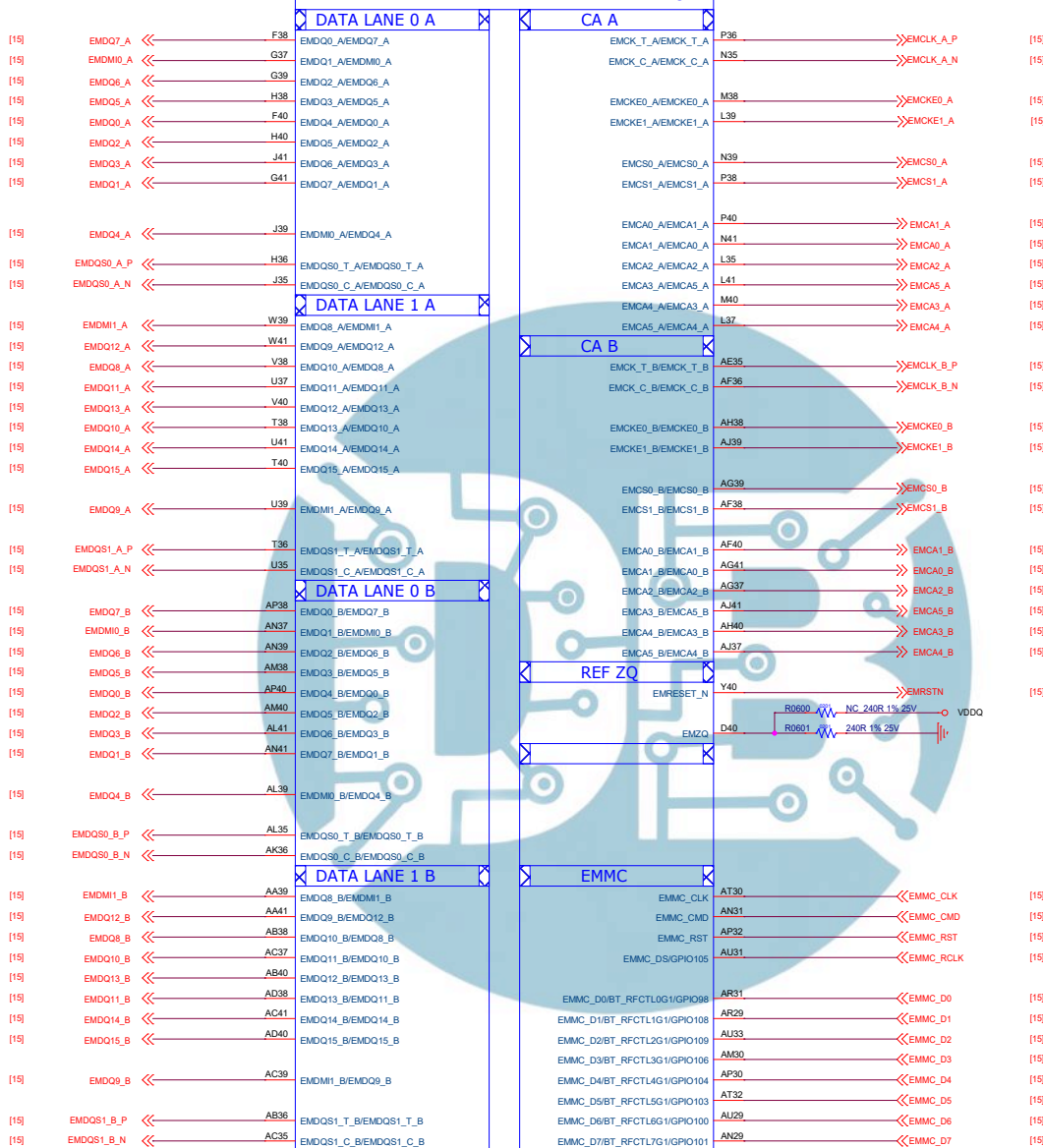


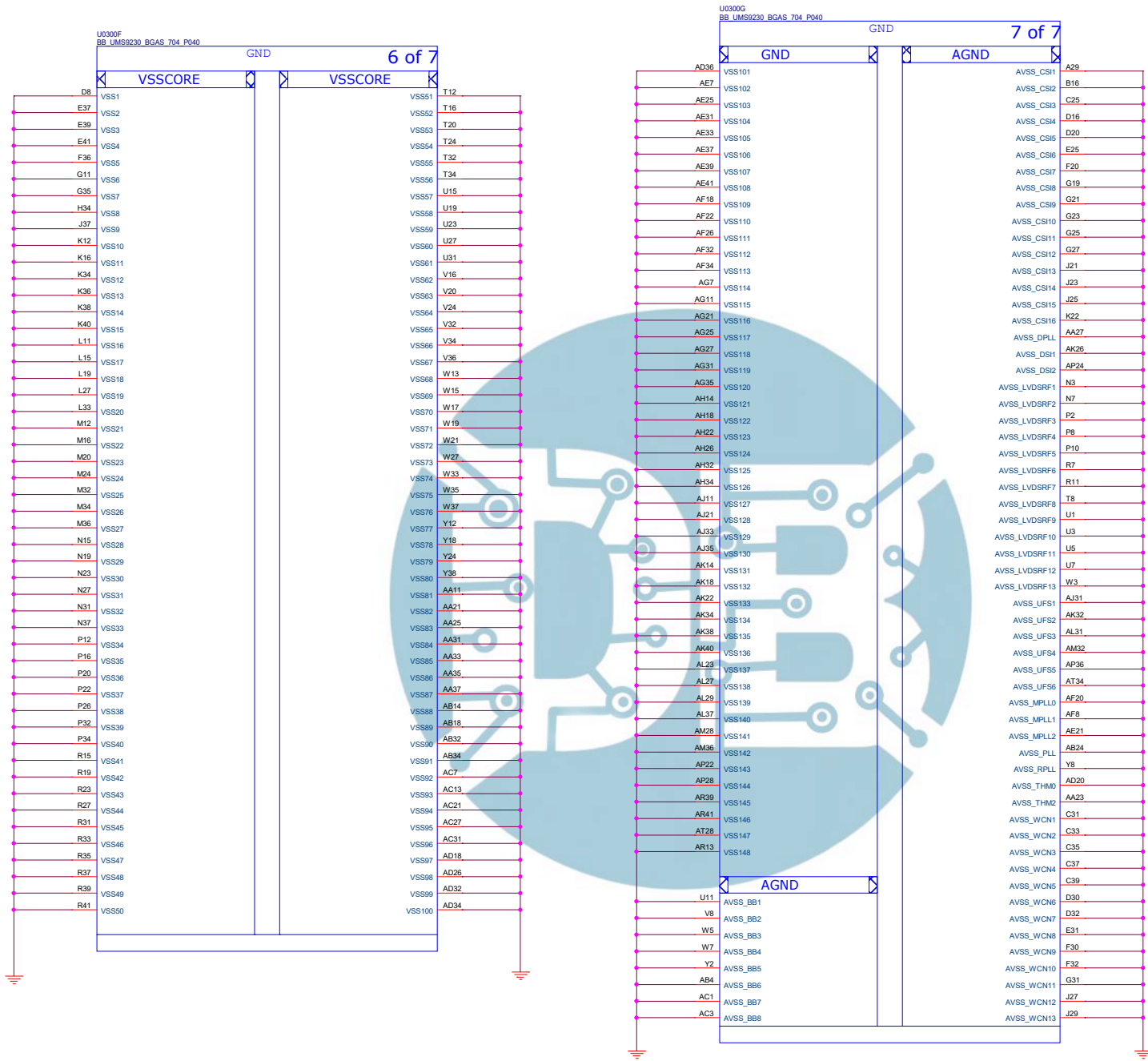
Title		05_BB_POWER		REV: V0.1	
DOCUMENT NO.:		LLDM17003-4		Size D	
DEPARTMENT:		DEPARTMENT		DESIGNER: DESIGNER	
 LONGCHEER					
Date:		Friday, August 19, 2022		Sheet 5 of 99	

U0300B
BB UM59230 BGAS 704 P040

MEMORY Order by Func.2 D.LP4(x)

2 of 7

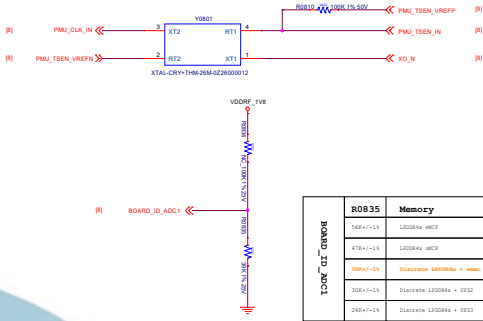
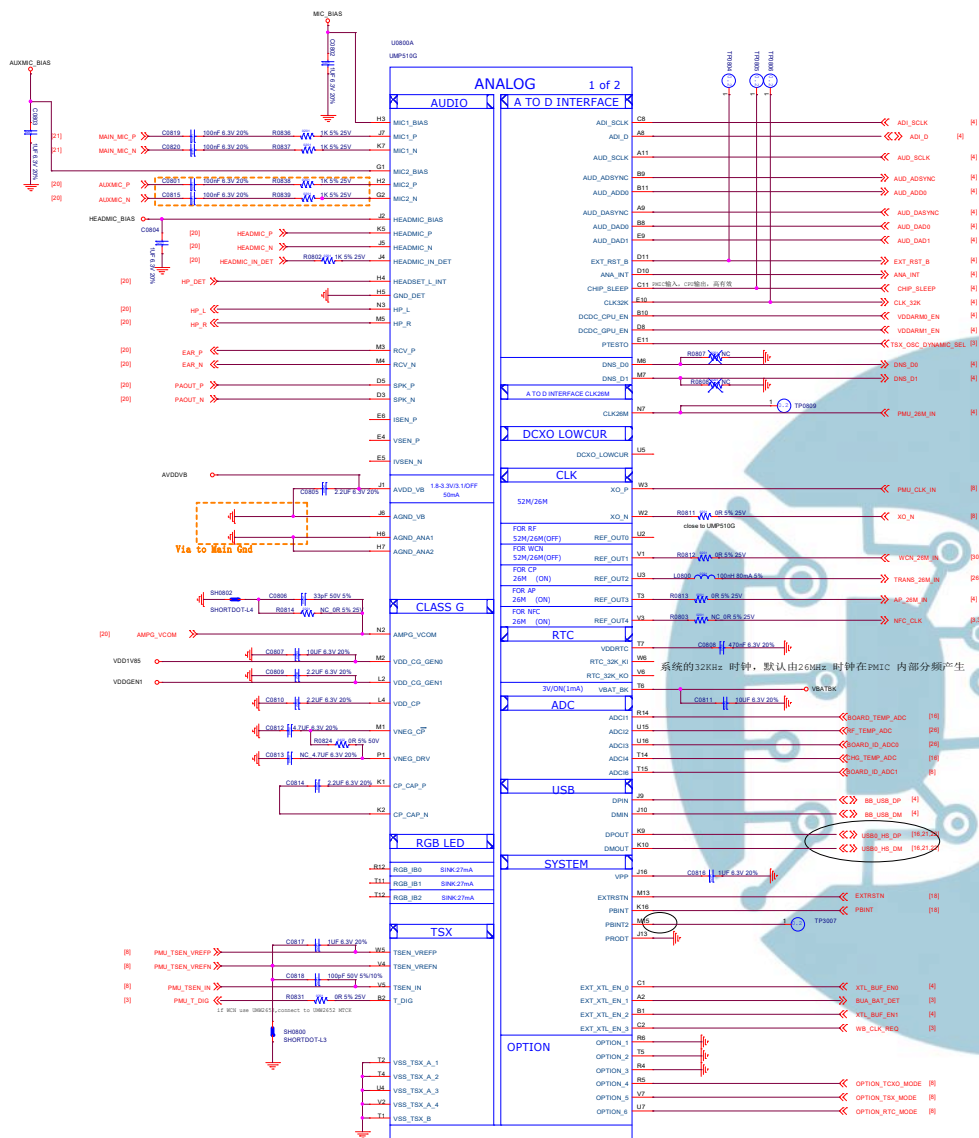




Title		07_BB_GND	REV: V0.1
DOCUMENT NO.:		LLDM170B3-4	Size C
DEPARTMENT:	DEPARTMENT	DESIGNER:	DESIGNER
龙 腾 科 技 LONGCHEER			
Date:	Friday, August 19, 2022		Sheet 7 of 99

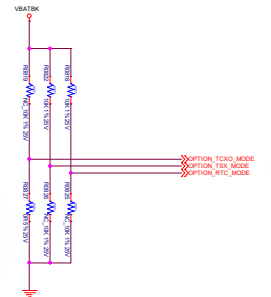
PMU_ANALOG

TSX (PMU) Only



R0835	Memory
500kV-24	1024kbit, 1024
500kV-24	1024kbit, 1024
500kV-24	1024kbit, 1024
500kV-24	1024kbit, 1024
500kV-24	1024kbit, 1024

Board ID



Item	Scenario	Option1	Option2
0	Qogir L6+UMP510G	0	0
1	Qogir L6+UMP510G+DCDC	0	1
2			
3			

Scenario	Option3(20M/32M)	Option4(TCXX_MODE)	Option5(TSX_MODE)	Option6(RTC_MODE)
26M TCXX+32K Crystal	0	1	0	0
26M TSX+32K Crystal	0	0	1	0
26M TSX+32K-less from PMIC internal	0	0	1	1
26M DCXO+32K-less from PMIC internal	0	1	1	1
26M DCXO+32K Crystal	0	1	1	0

Option1	Option2	Description
0	0	The DCDCGPU controlled by UMP510G ADI interface signal DCDC_GPU_EN. The typical application of DCDCGPU is Unisoc BB chip CPU power supply.
0	1	The DCDCGPU default on and uncontrollable by UMP510G ADI interface signal DCDC_GPU_EN
1	0	The DCDCMEMQ controlled by UMP510G ADI interface signal DCDC_GPU_EN. The typical application of DCDCMEMQ is Unisoc BB chip dual rail SRAM power supply.
1	1	



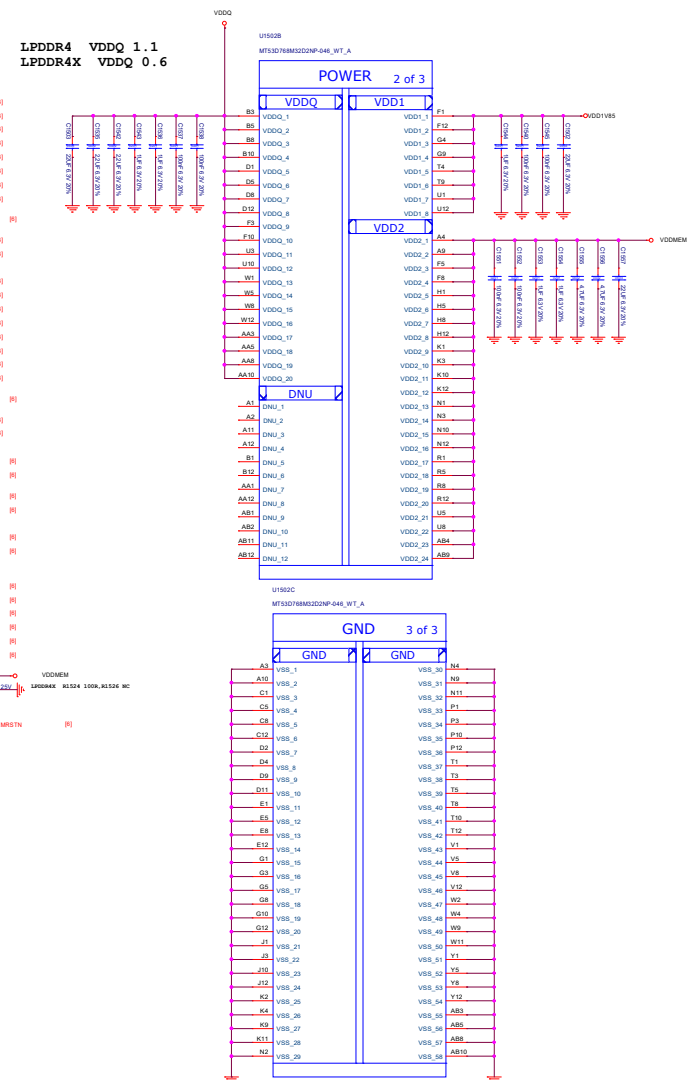
Power Plane	PowerFETs	Control FETs	Output FETs	Trace width (mm)	Trace length (mm)	Feedback FETs	Usage
VMAIN	VDD0AM0	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM1	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM2	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM3	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM4	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM5	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM6	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM7	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM8	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM9	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM10	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0AM11	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
VBAT	VDD0B0	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B1	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B2	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B3	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B4	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B5	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B6	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B7	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B8	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B9	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B10	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply
	VDD0B11	1.8-3.3	200	0.2	2.0	0 FET	Current sensing power supply

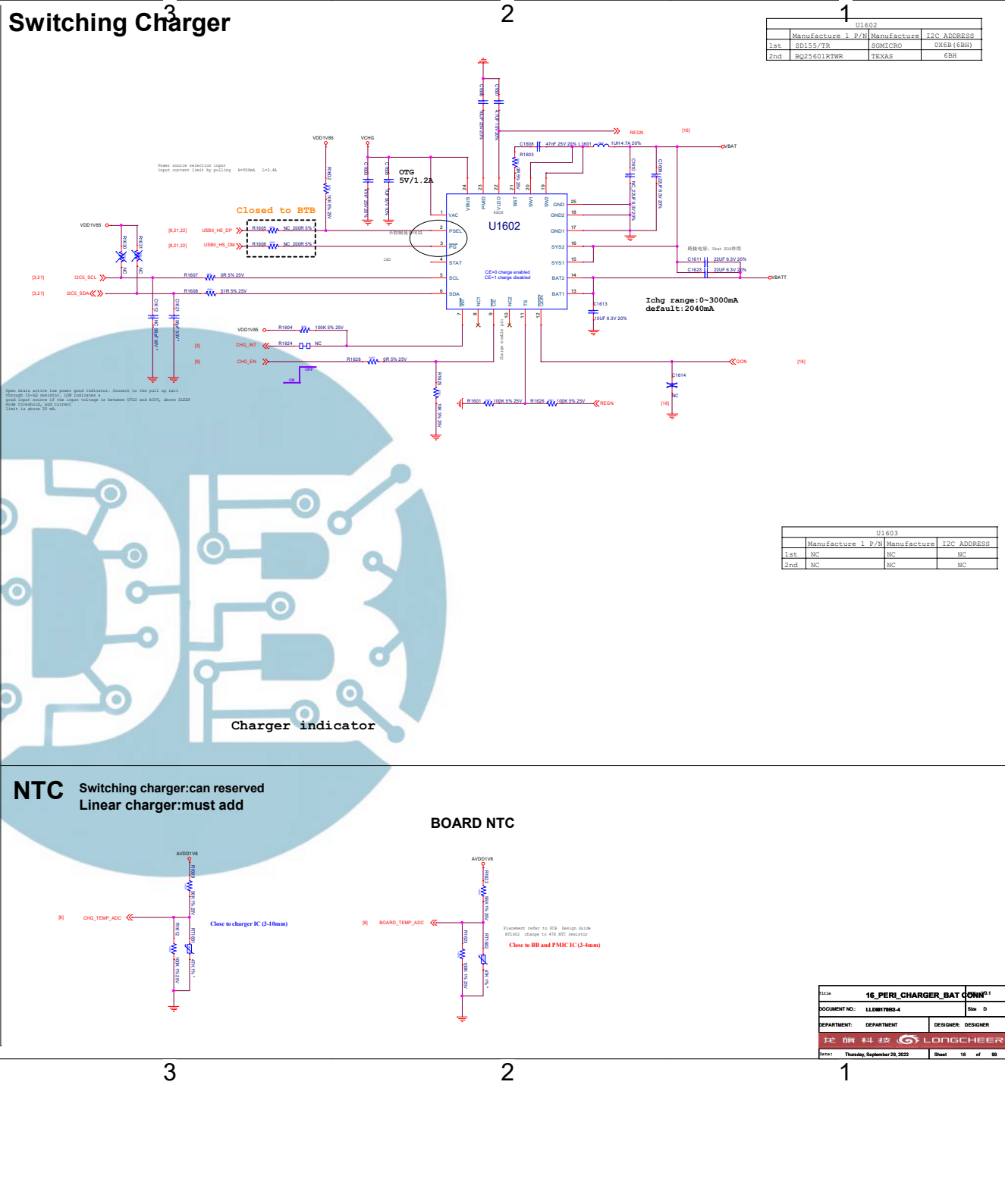
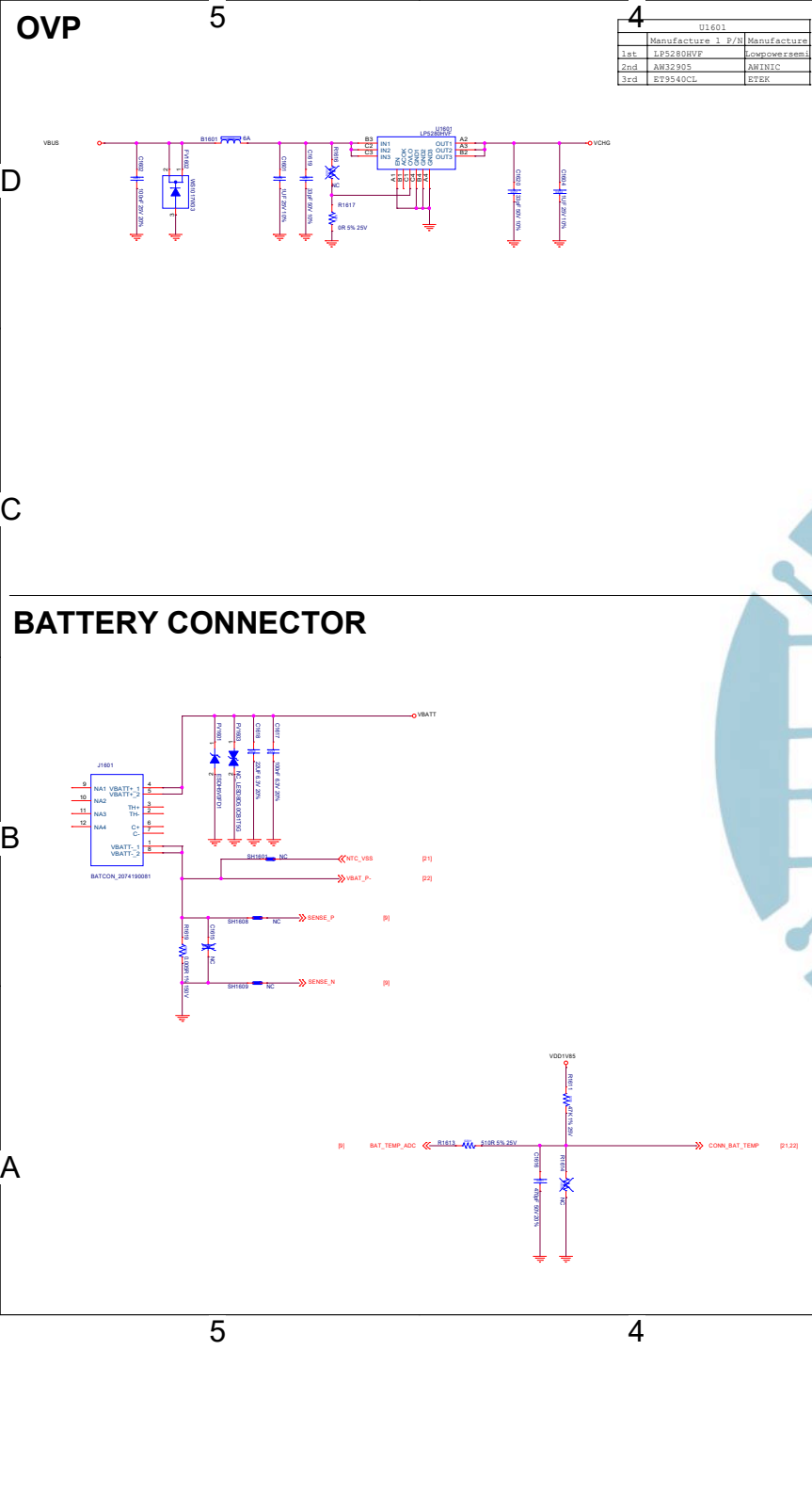
Input Power	Power Name	Output Voltage (V)	Output Current (mA)	Default Voltage (V)	Default
VBAT	DCDC CORE	0.3-1.3	2000	0.8	ON
	DCDC GPU	0.3-1.3	4000	0.8	ON
	DCDC CPU	0.3-1.3	4000	0.8	ON
	DCDC MODEM	0.3-1.3	4000	0.8	ON
	DCDC MEM	0.25-1.25	2000	1.15	ON
	DCDC MEMQ	0.25-1.25	1000	0.6	ON
	DCDC GEN0	1.8-2.5	1500	1.85	ON
	DCDC GEN1	0.6-1.5	1000	1.3	ON
	DCDC SRAM	0.3-1.3	2000	0.8	ON
	DCDC WPA	0.6-3.3	1500	/	OFF

Input Power	Power Name	Output Voltage (V)	Output Current (mA)	Default Voltage (V)	Default
VBAT	VDD28	1.8-3.3	200	2.8	ON
	VDDCAMA0	1.8-3.3	200	2.8	OFF
	VDDCAMA1	1.8-3.3	200	2.8	OFF
	VDDCMMOT	1.8-3.3	400	3	OFF
	VDD18_DCXO	1.8-3.3	50	1.8	ON
	VDDEMMCORE	1.8-3.3	600	3	ON
	VDDSDCORE	1.8-3.3	800	3	ON
	VDDSDIO	1.8-3.3	200	3	ON
	VDDSIM0	1.8-3.3	60	3	OFF
	VDDSIM1	1.8-3.3	60	3	OFF
	VDDSIM2	1.8-3.3	60	3	OFF
	VDDUSB33	1.8-3.3	100	3.3	ON
	VDDWIFIPA	1.8-3.3	500	3.3	OFF
	VDDLDO0	1.8-3.3	50	2.8	OFF
	VDDLDO1	1.8-3.3	100	3.3	OFF
VDDLDO2	1.8-3.3	200	3.3	OFF	
GEN1	VDDCAMD0	1.0-1.25	400	1.1	OFF
	VDDCAMD1	1.0-1.25	200	1.1	OFF
	VDDRF1V25	1.0-1.25	300	1.25	OFF
GEN0	AVDD12	1.0-1.25	150	1.2	ON
	AVDD18	1.2-1.8	200	1.8	ON
	VDDRF18	1.2-1.8	300	1.8	ON
	VDDCAMIO	1.2-1.8	100	1.8	OFF
GEN1	WCN	1.0-1.6	200	1	OFF

1

LPDDR4 VDDQ 1.1
LPDDR4X VDDQ 0.6

1



REAR CAMERA: 13M

D

C

FRONT CAMERA: 5M

B

A

4

4

	AVDD	DVDD	IOVDD	AFVDD
Typ	2.8V 33mA	1.1V 51mA	1.8V 6mA	TBD
Min	2.7V	1.0V	1.7V	TBD
Max	2.9V 43mA	1.2V 106mA	2.0V 7mA	TBD

For 13M
For 50M

	AVDD	DVDD	IOVDD	AFVDD
Typ	2.8V 33mA	1.2V 35mA	1.8V 0.5mA	NA
Min	2.7V	1.15V	1.7V	NA
Max	2.9V 43mA	1.2V 47mA	1.9V 1mA	NA

Macro Camera 2M

3

2

2M

	AVDD	DVDD	IOVDD	AFVDD
Typ	2.8V 23mA	NA	1.7V 30mA	NA
Min	2.6V	NA	1.6V	NA
Max	3.0V 44mA	NA	2.0V	NA

U1703		
Manufacture 1 P/N Manufacture		
1st	OC981358VAD	QCS
2nd	SGM3785VTD146/TR	SGMICRO

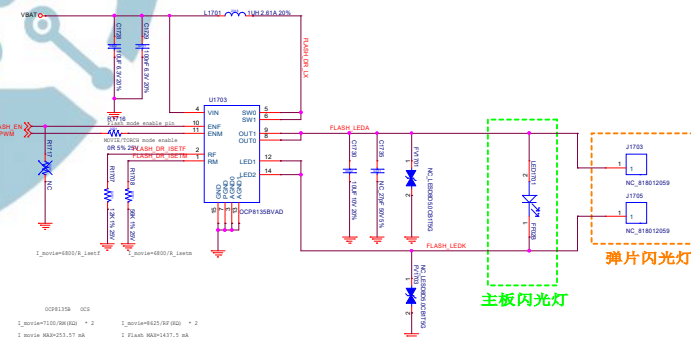
17_CAMERA		REV: V0.1
DOCUMENT NO: LLD001700-4		Rev: 0
DEPARTMENT: 龙鼎科技	DESIGNER: LONGCHEER	
Date: Saturday, October 01, 2022		Sheet 17 of 99

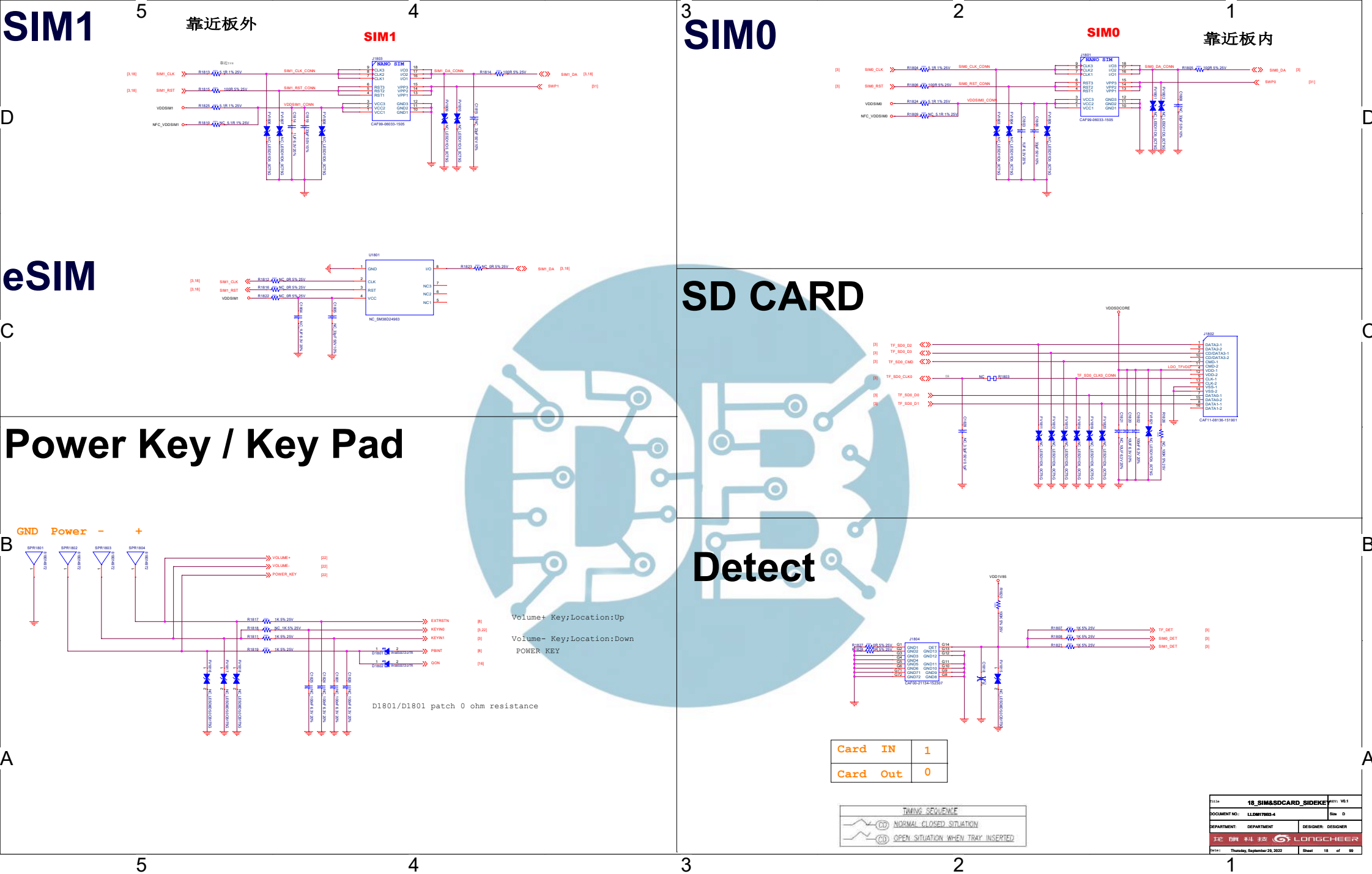
Connect to main ground plane by via directly

FLASH LED

B

A





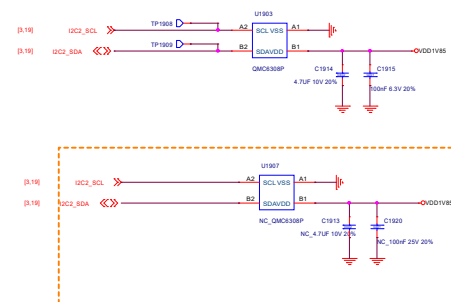
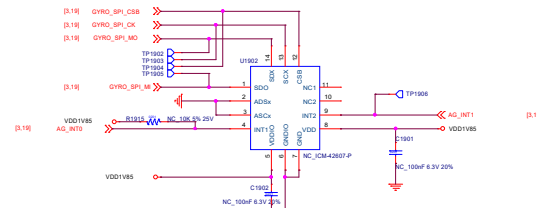
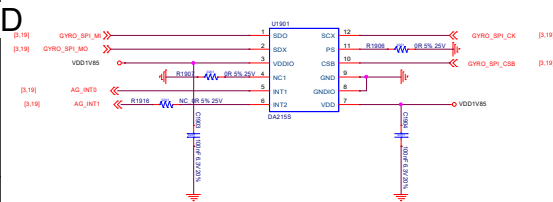
G-Sensor

	U1901	4
1st	DA215S	MiramENS
2nd		
3rd	MC3419-P	mCube

A+G-Sensor

E-compass

	U1904	1
1st	NC	NC
2nd	NC	NC

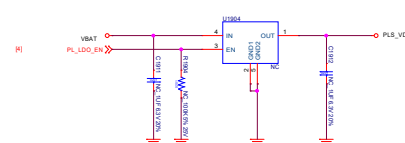
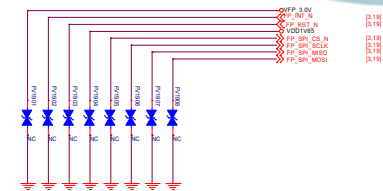
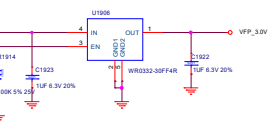
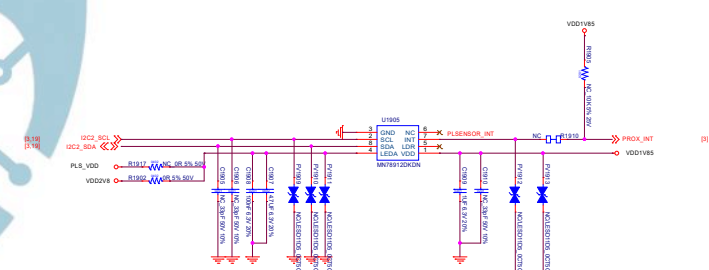
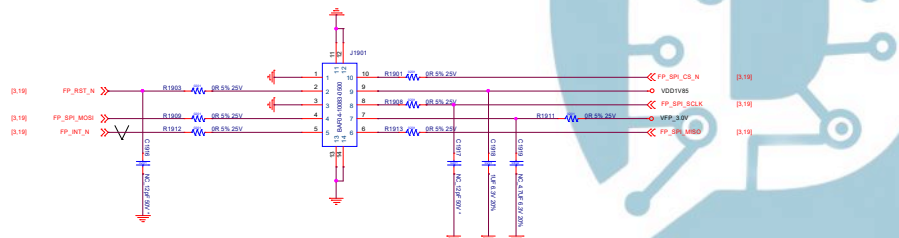


先摆放2个区域，后期根据位置环境选择一个，先做兼容设计

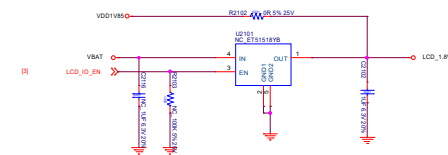
Finger Print

P+L Sensor

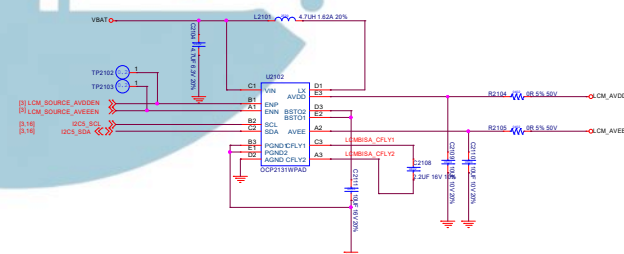
	U1905	
1st	570-569A15-WA	11T20H
2nd	LS-9800-A	1EVELEX



1



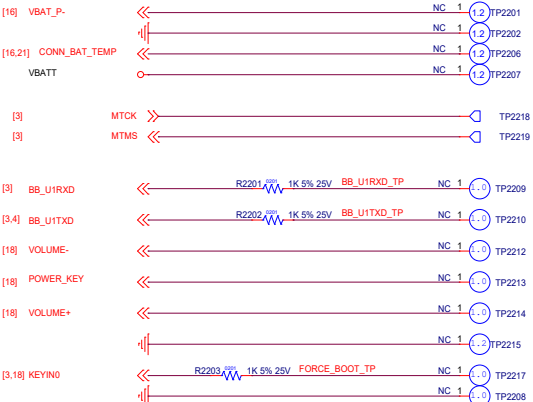
U2102			
	Manufacture 1 P/N	Manufacture	I2C ADDRESS
1st	0CP2131BWPAD	0CS	3EH
2nd	SM5109C	Silicon mitus	
3rd	AW37501CSR	AWINIC	0x3EH



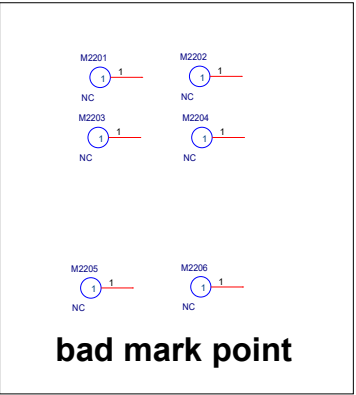
USB TEST POINT



BAT



Marks point

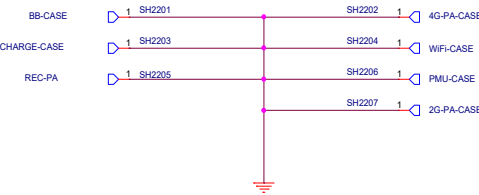


bad mark point

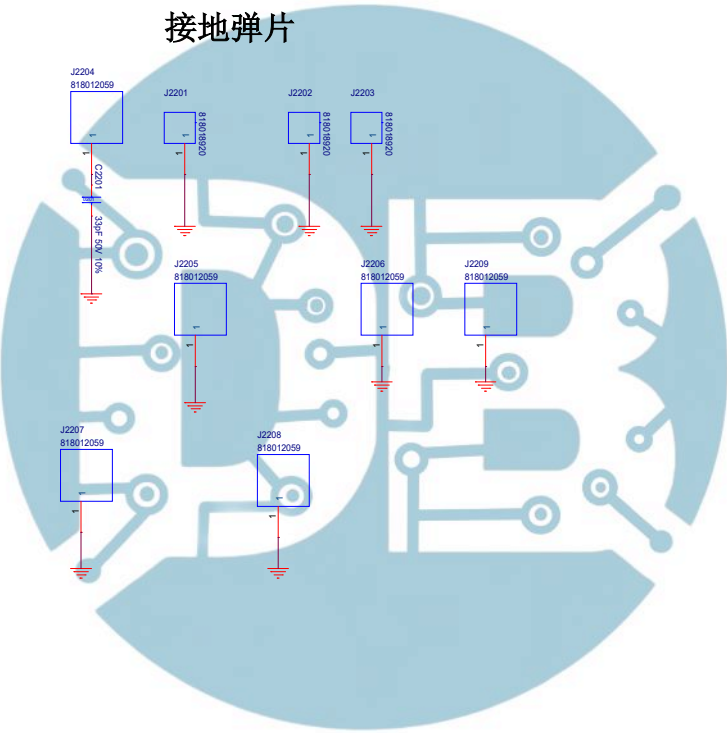
Shielding frame

TOP

BOTTOM



接地弹片



Q2201&Q2202		
	Manufacture 1 P/N	Manufacture
1st	CJBA3134K	JSCJ
2nd	LSI1012BN3T5G	LRC
3rd	PNM3FD20V1EM	Prisemi

5

4

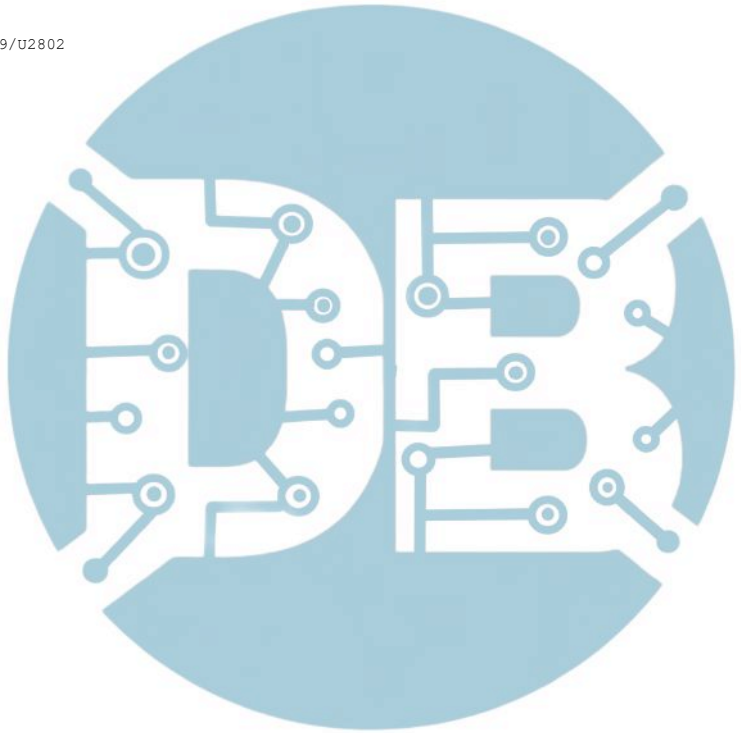
3

2

1

Modify List:

- 1:SAR Sense I2C Port change:I2C5--->I2C3.Reference Design remand
- 2:TXM TRX Port change:TRX4/6, TRX8/9
- 3:NFC Transciver change from NXP PN557 to SAMS S3NRN4V
- 4: LTE MB Tx PA out port adjust 1/3/66 for good routing
- 5:去除2908/2907
- 6:WCN VDDFU接地
- 7:去除R3001,GPS LNA R3018供电由VDD2.8换VDD SIM2
- 8:RFCTL0/1/2原本连接到TUNNERU2901变更为连接到U2818/U2819/U2802
- 9:网络名RFCTL17/18名字更换为RFCTL19/20连接到U2901
- 10:U2607/U2818/U2819/U2802的供电从VDD2V8换成VDDLDO1
- 11:U2804/U2817供电由VDDSIM2换成AVDD2V8
- 12:新增C3052
- 13:RF_B1_TRX_TXM RF_B66_TRX_TXM端口调换
- 14:U2818控制网络改成RFCTL_16
- 15:+C3053
- 16:删除物料R1801、R1802
- 17:调换C3109、C3119至NFC芯片端的网络



5

4

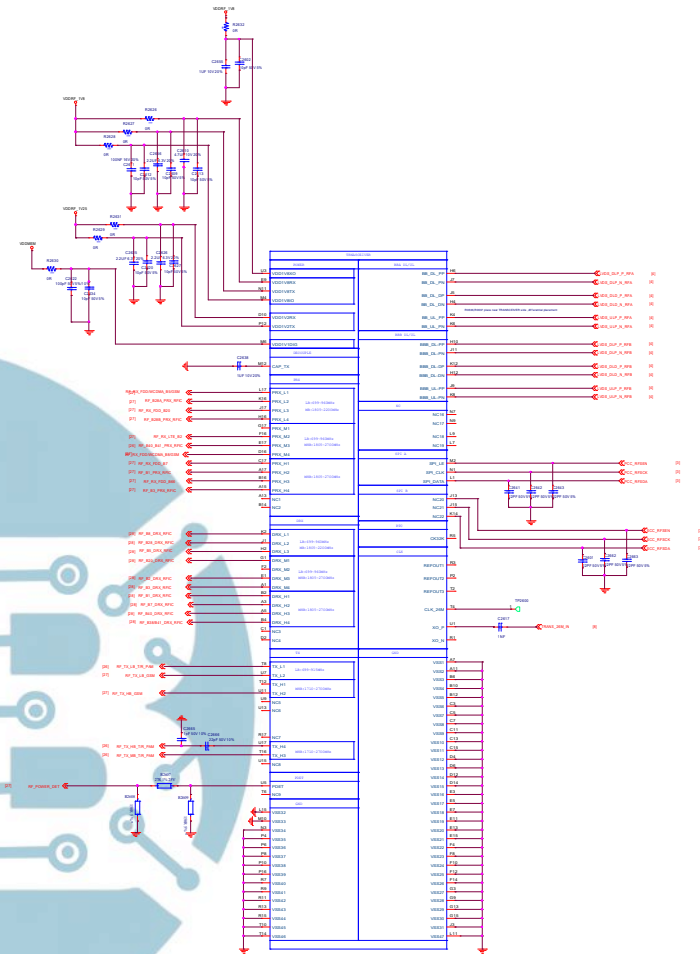
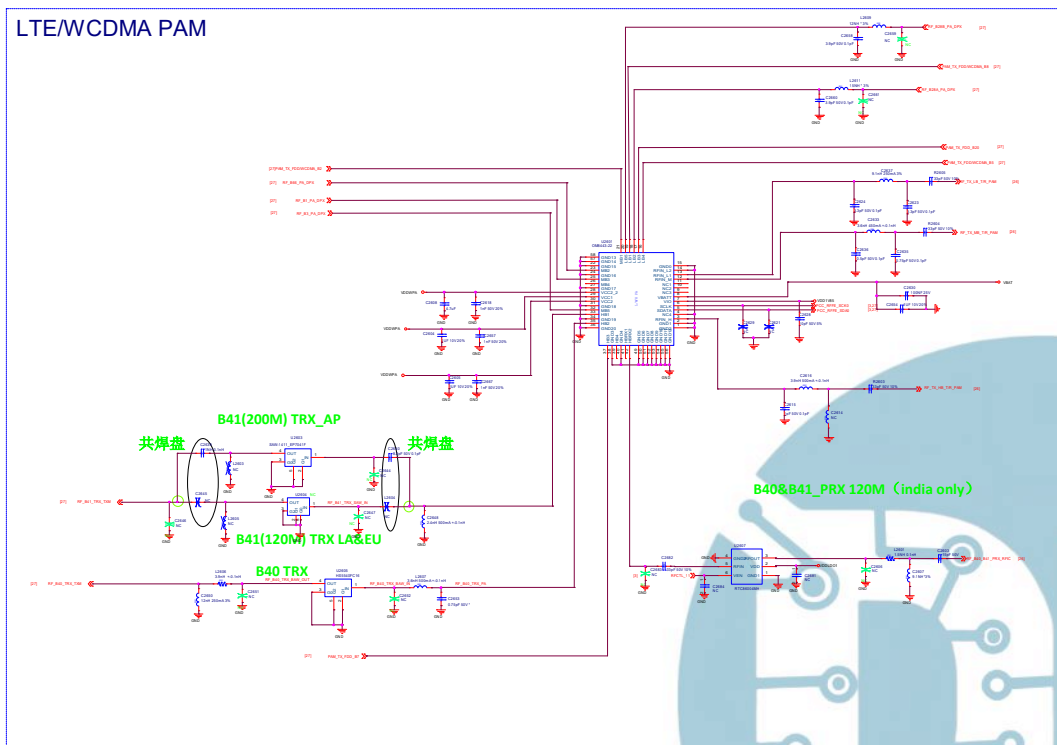
3

2

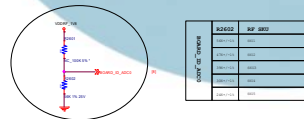
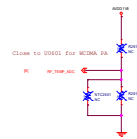
1

Title		25_RF_change list	Rev: 001
DOCUMENT NO.		LONGTECH-001	Rev: 001
REPORTING DEPARTMENT		DESIGNER	DESIGNER
LONGCHEER 龙鼎科技			
Date: Friday August 10, 2012		Sheet	26 of 38

LTE/WCDMA PAM

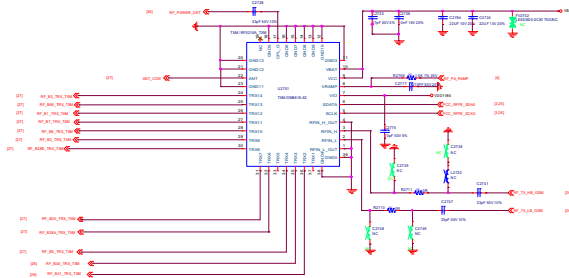


NTC

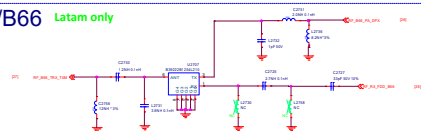




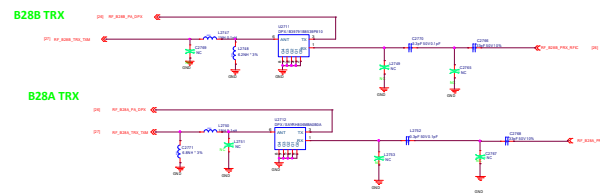
TDD B34/B39/GSM PA + Switch



B4/B66 Latam only



Latam&CIS



B28A TRX

