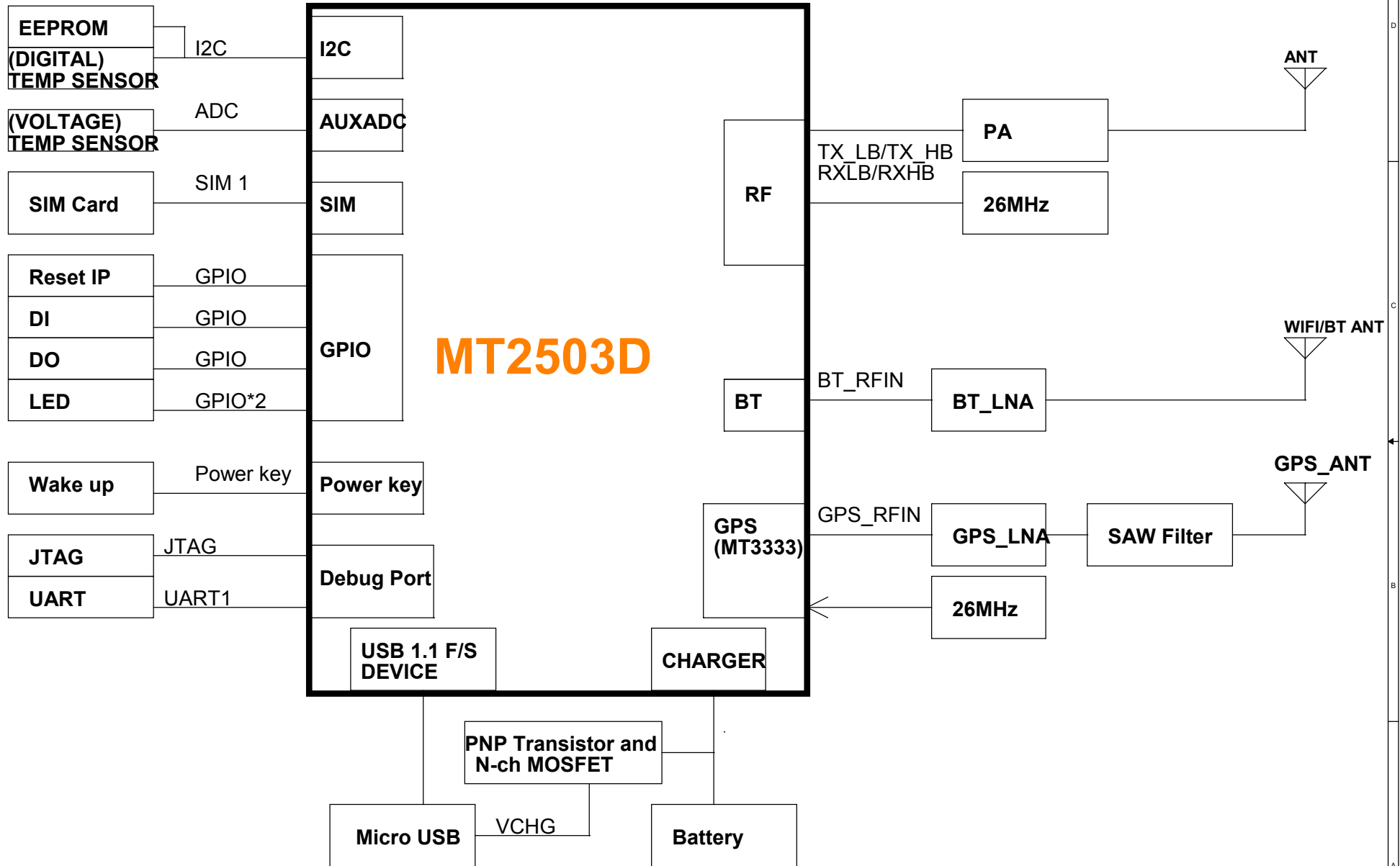
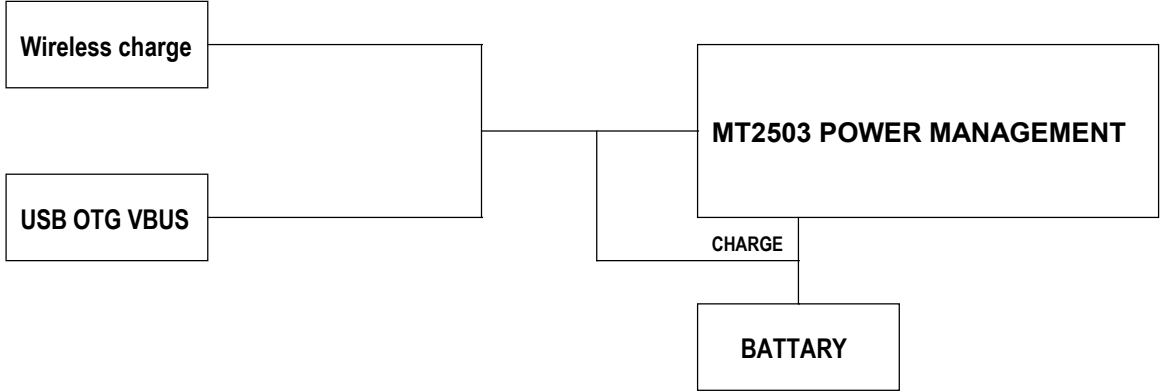


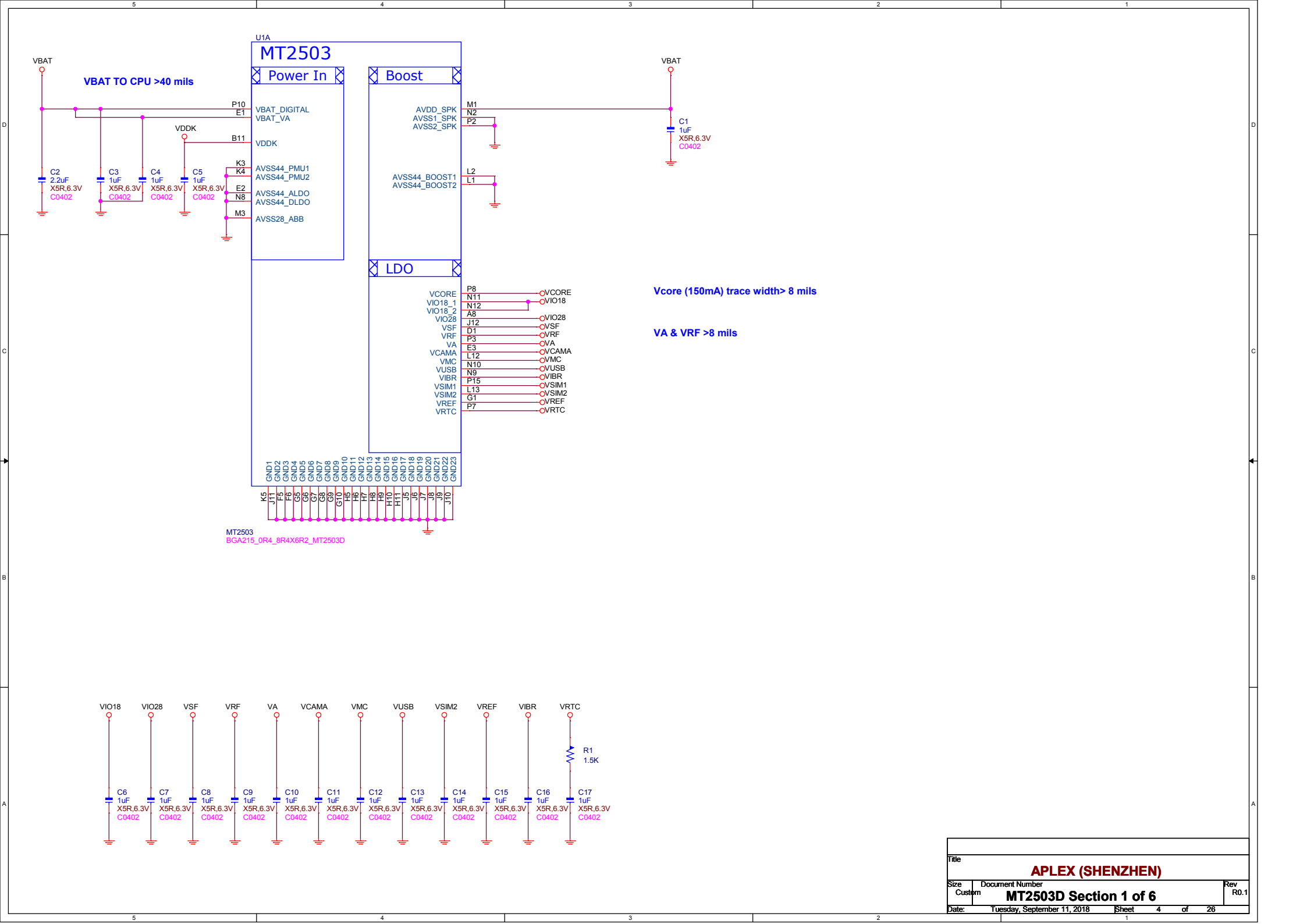
CMI-AT753 Rev: 0.10

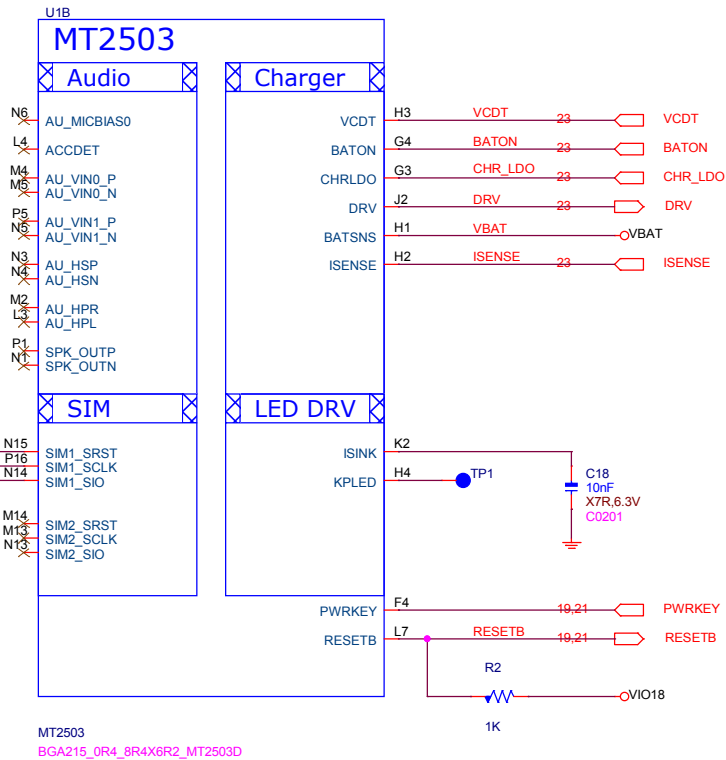


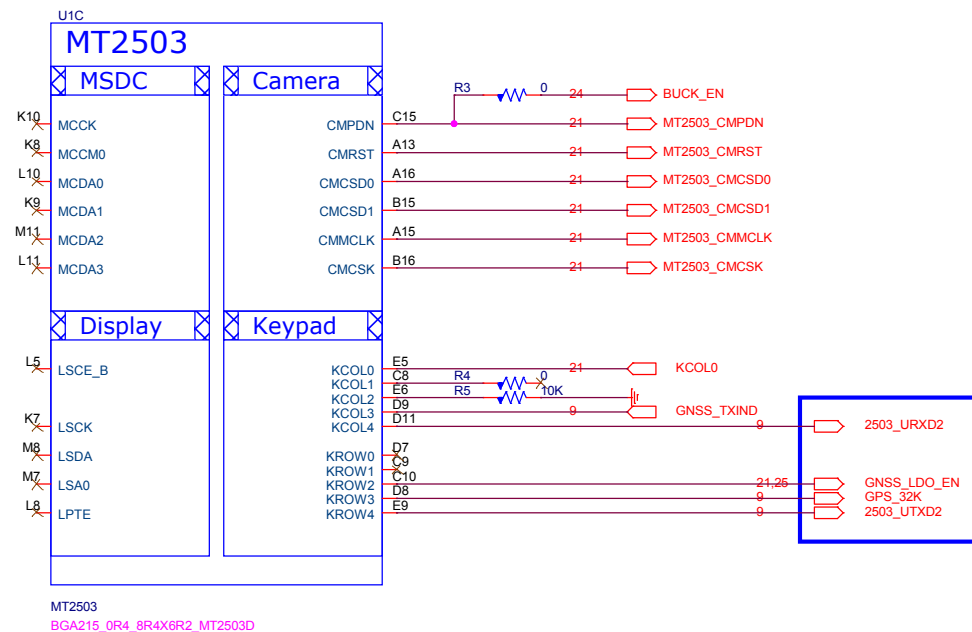


Page 1	Block Diagram
Page 2	Power Diagram
Page 3	Tittle Block
Page 4	MT2503D Section 1 of 6
Page 5	MT2503D Section 2 of 6
Page 6	MT2503D Section 3 of 6
Page 7	MT2503D Section 4 of 6
Page 8	MT2503D Section 5 of 6
Page 9	MT2503D Section 6 of 6
Page 10	ROM
Page 11	GPS ATENNA
Page 12	GPRS ATENNA
Page 13	BT ATENNA
Page 14	SIM SOCKET
Page 15	Hall SENSOR
Page 16	TEMP SENSOR
Page 17	VALVE OUTPUT
Page 18	DUAL COLOUR LED
Page 19	Reset_TSVA-31_01
Page 20	USB_SLAVE
Page 21	MIO,JTAG,DEBUG
Page 22	Wireless Charger
Page 23	CHARGE & BATTERY
Page 24	VCORE
Page 25	3P3V_GPS

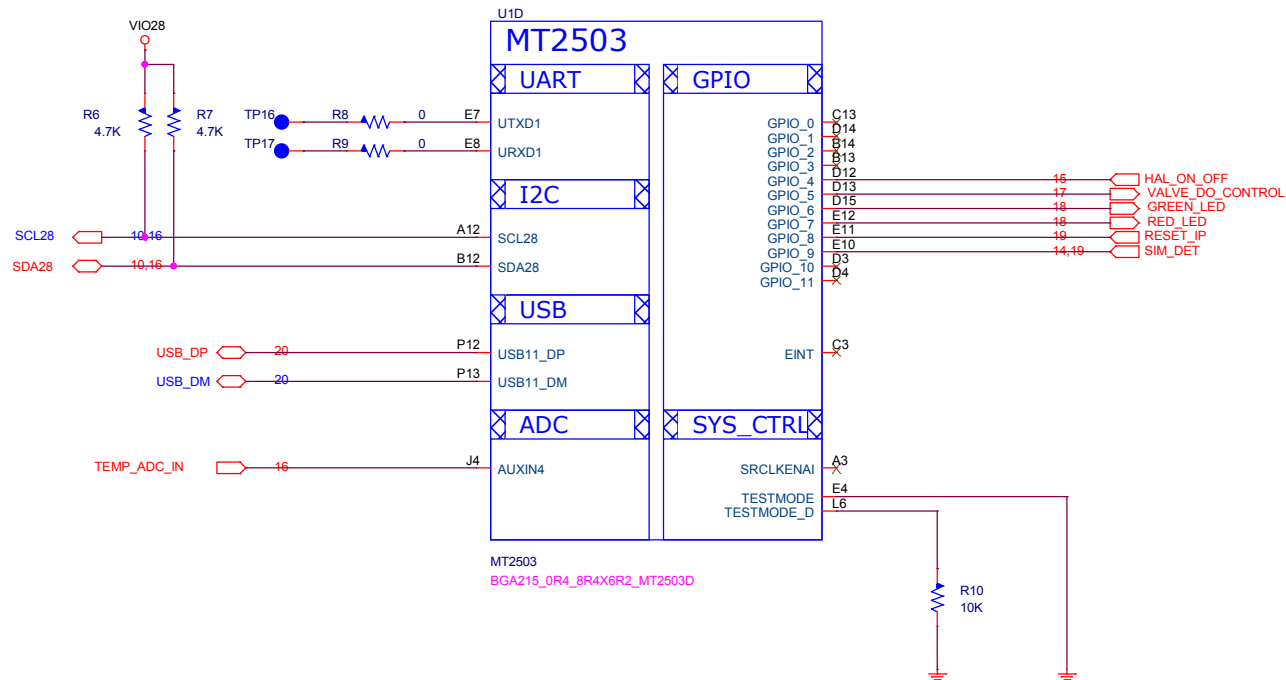
[illegible]





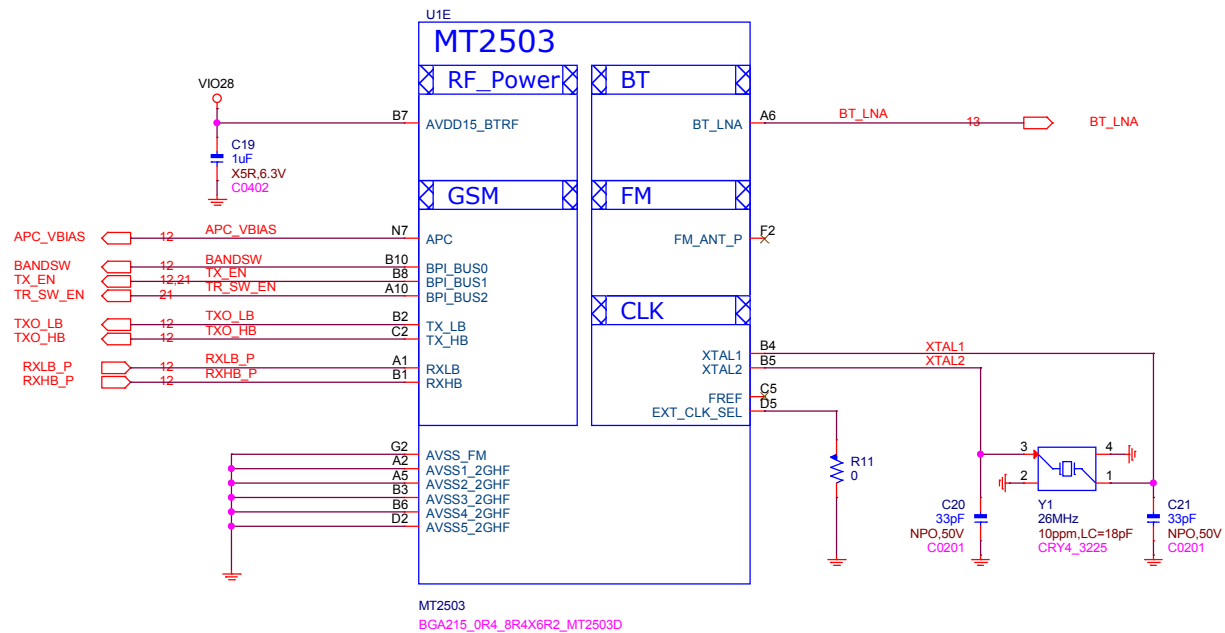


Don't change those pins of KCOL4/KROW4/KROW3/KROW2
for GPS control



初始化设定:
GPIO4,8,9 input default pull down
GPIO5,6,7 output default low

For MT2503A, GPIO_4~GPIO_9 are for serial flash interface
For MT2503D, GPIO_4~GPIO_9 are for GPIO function

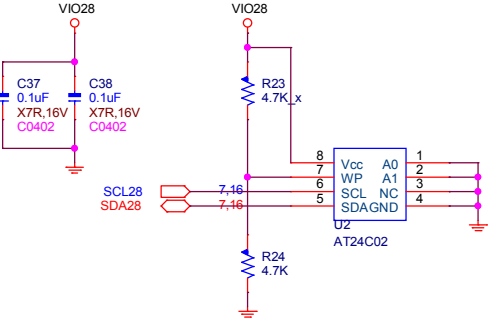


标准图料号：

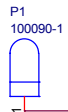
HA5EEM-10101

标准图版本：

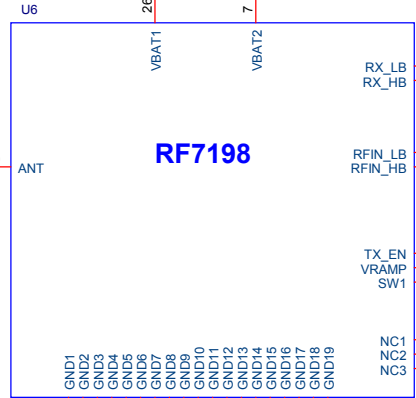
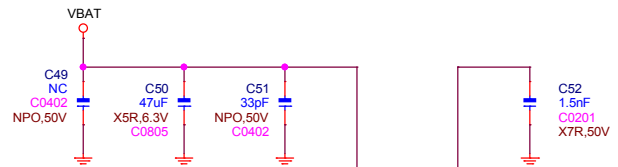
V0.1



HA5EEM-10101	2Kb	AT24C02

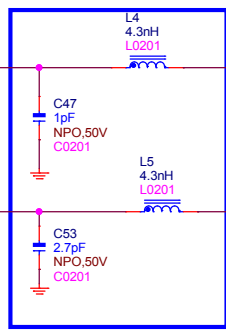


Single-End

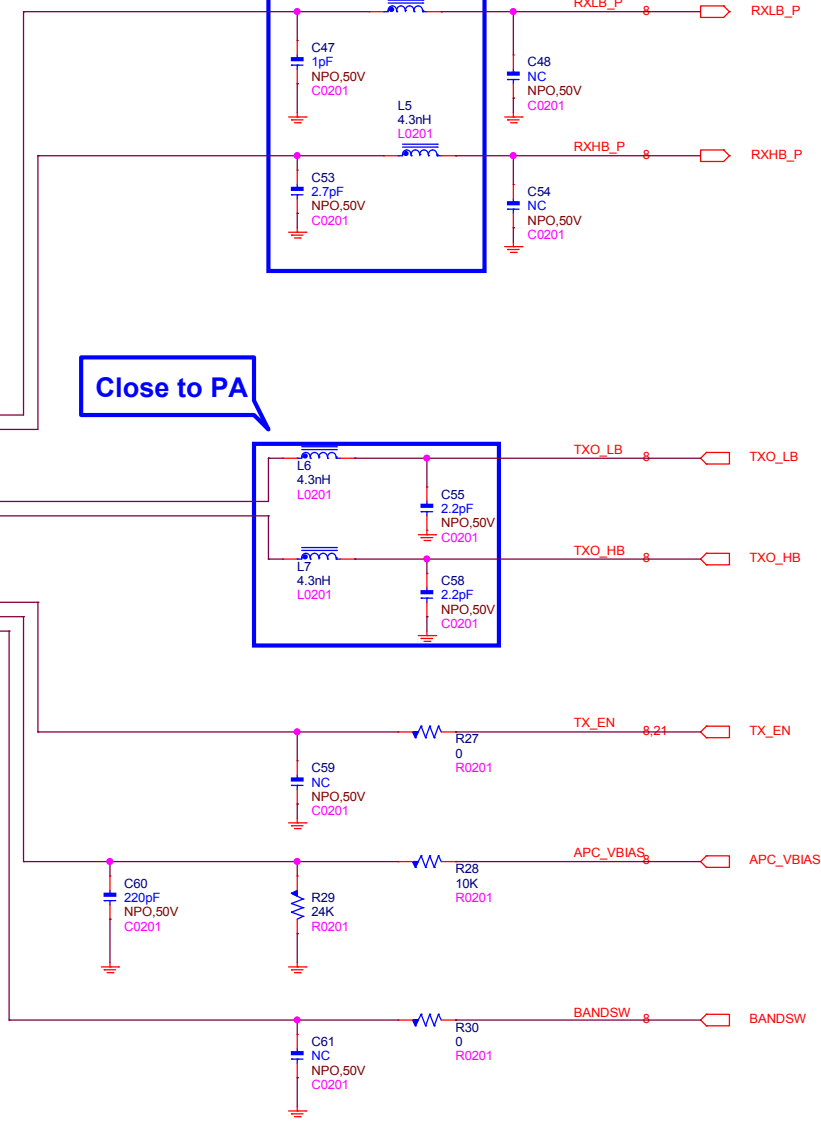
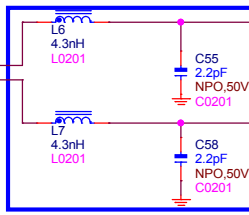


RF7198
MODULE_RF7198

Close to CPU



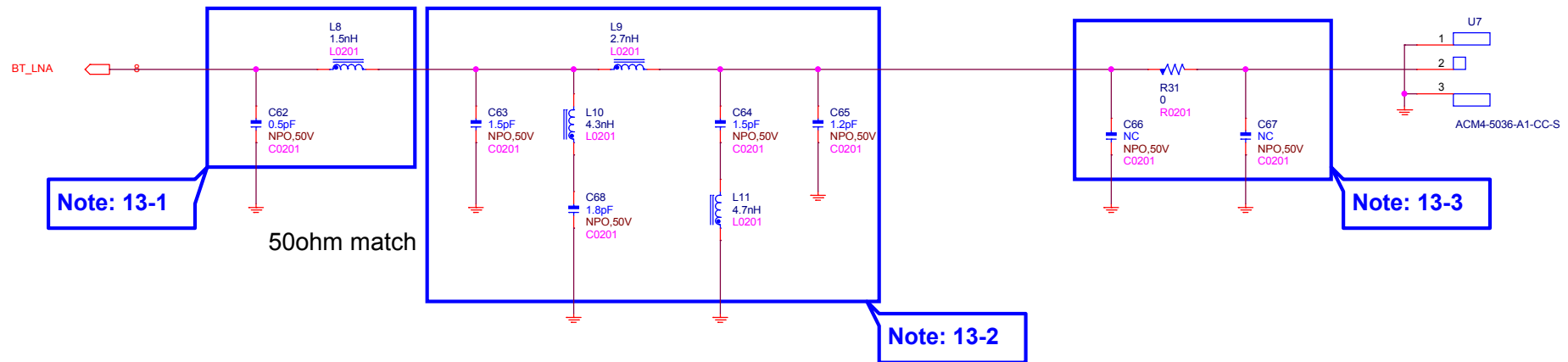
Close to PA

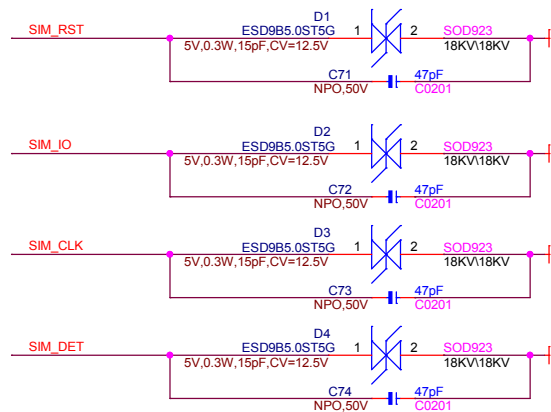
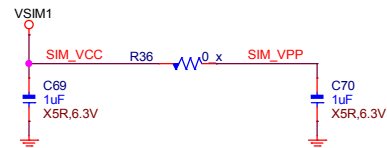
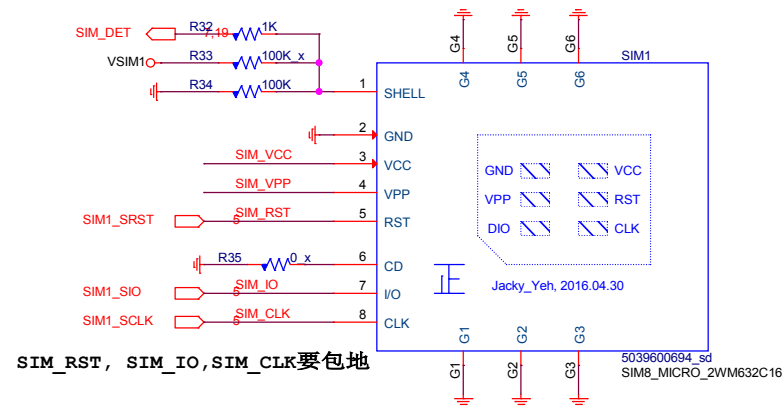


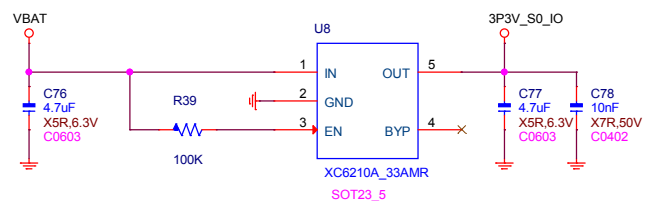
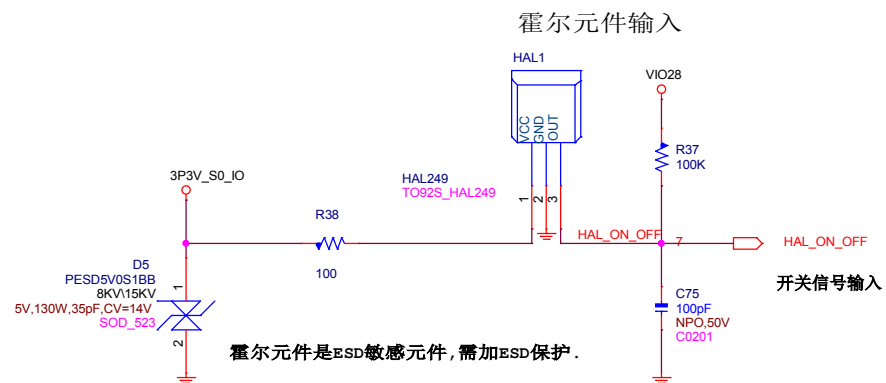
Note 13-1: These two components are optional for better BT performance (Matching)

Note 13-2: 1.Close to IC.
2.PASS SIG spec must need LC filter

Note 13-3: Reserved for BT ANT matching







3.3V LDO

TEMP1

1 2 3 4

I2C_SCL_BF

I2C_SDA_BF

3P3V_S0_IO

WTB-2031E-042NBO

conf1x4_1r25_h_smd_dfl4_107wr

C79

1 2 3 4

I2C_SCL_BF

I2C_SDA_BF

3P3V_S0_IO

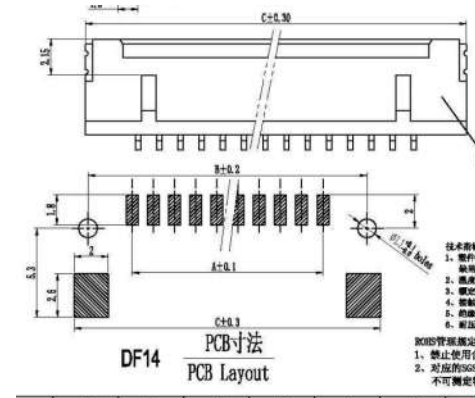
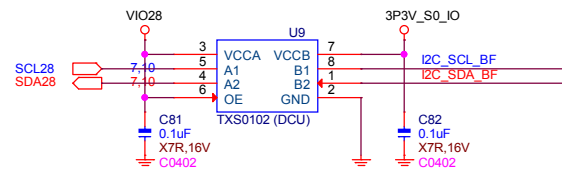
0.1uF

X5R, 6.3V

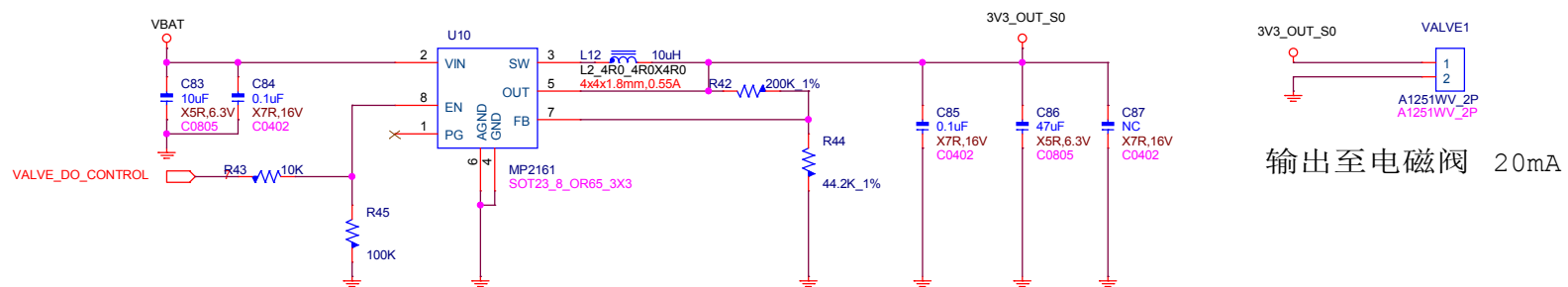
C0805

X7R, 16V

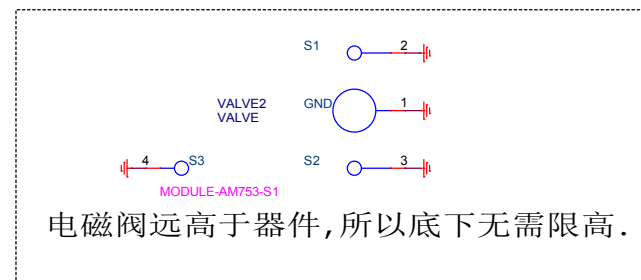
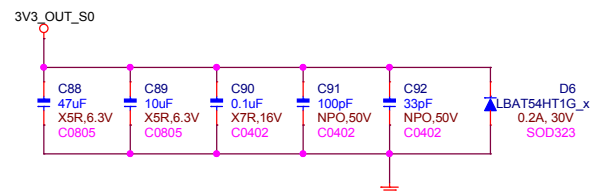
C0402

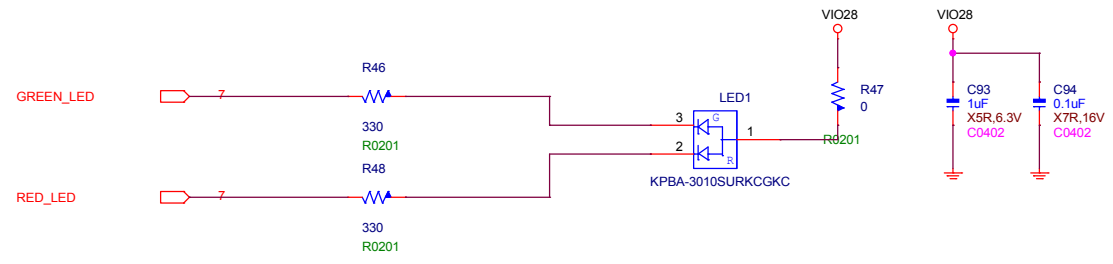


Title			
APLEX (SHENZHEN)			
Size	Document Number	Rev	
Custom	TEMP SENSOR	R0.1	
Date:	Tuesday, September 11, 2018	Sheet	16 of 26



$$V_{out} = 0.6 (1 + R1/R2) = 3.31$$





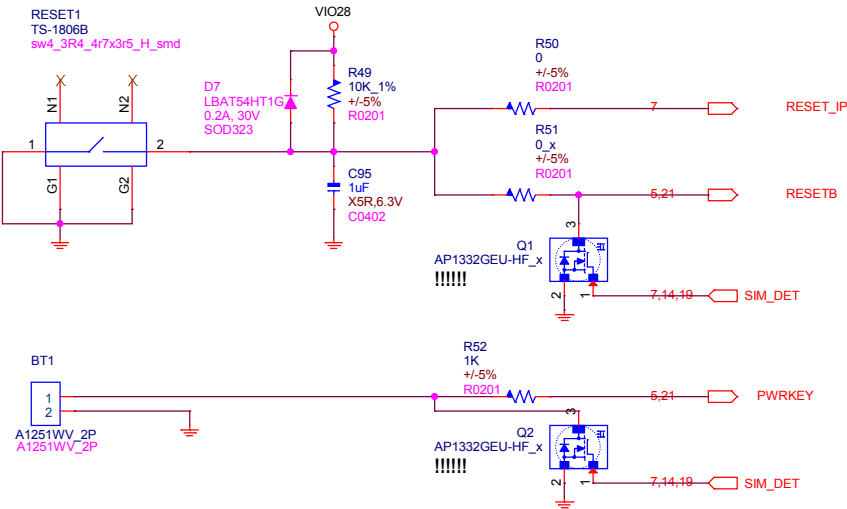
Title			
APLEX (SHENZHEN)			
Size	Document Number		Rev
Custom	DAUL COLOUR LED		R0.1
Date:	Tuesday, September 11, 2018	Sheet	18 of 26

标准图料号:

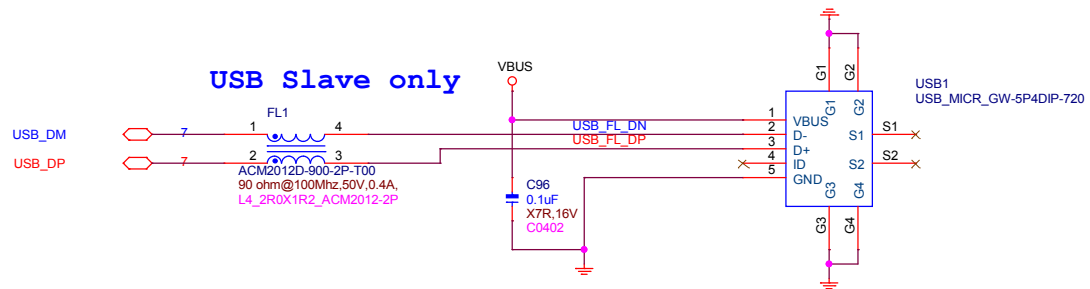
HTRST-30201

标准图版本:

V0.1



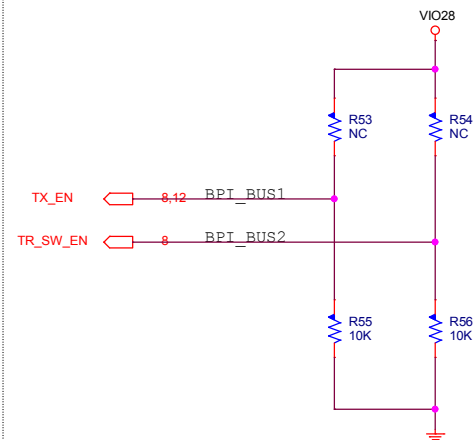
Title			
APLEX (SHENZHEN)			
Size	Document Number		Rev
Custom	Reset		R0.1
Date:	Tuesday, September 11, 2018	Sheet	19 of 26



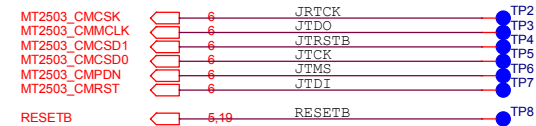
Title			
APLEX (SHENZHEN)			
Size	Document Number		Rev
Custom	USB_Slave		R0.1
Date:	Tuesday, September 11, 2018	Sheet	20 of 26

AP JTAG Trapping

Note: 21-1



Test Point of JTAG



Reserved for download debug

in early stage



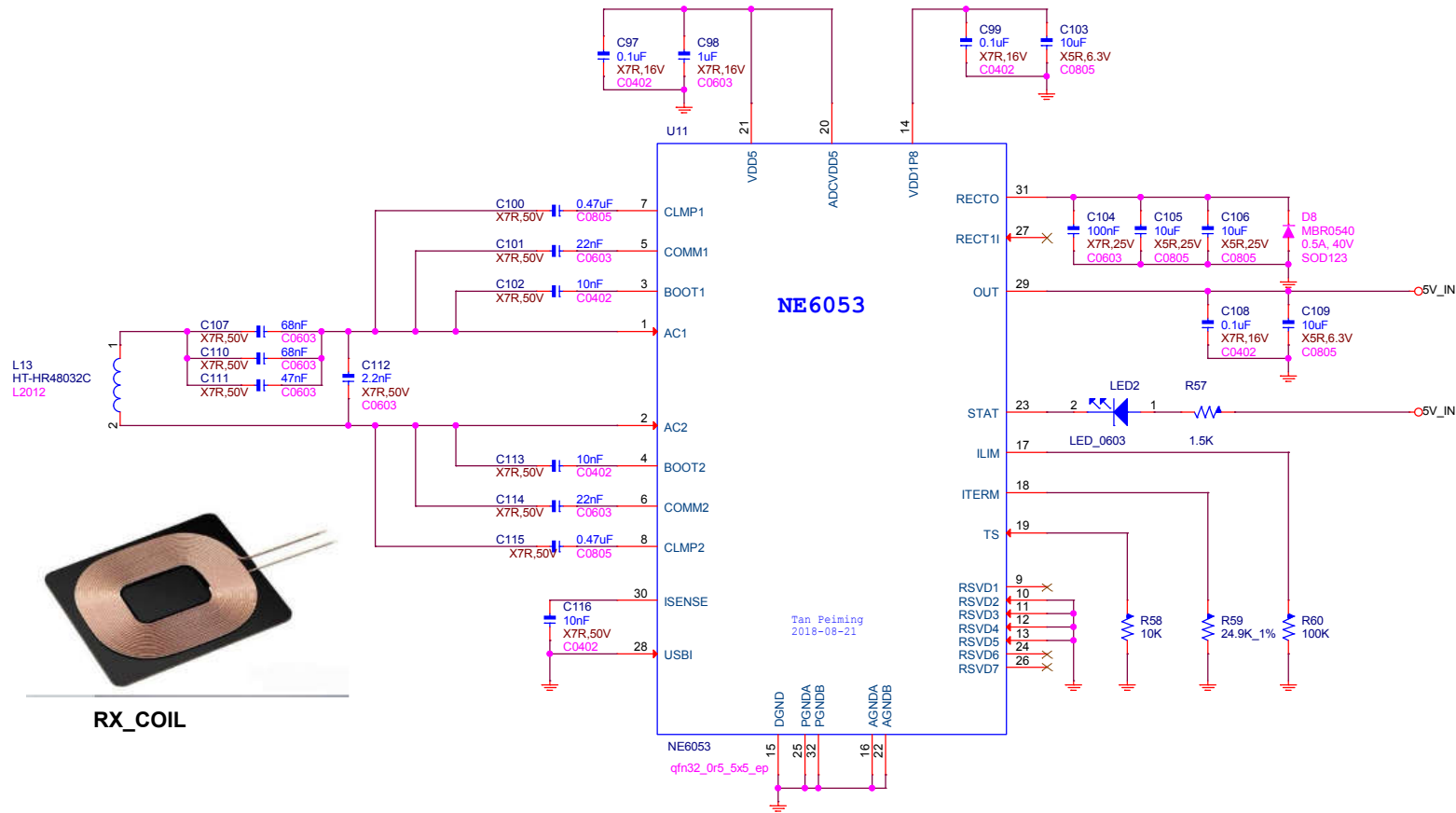
Test Point

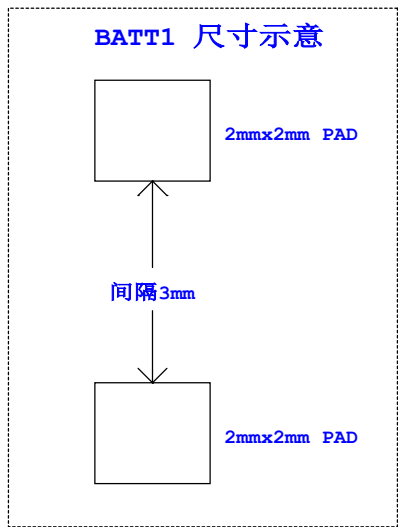


所有测试点排成多排放在一起

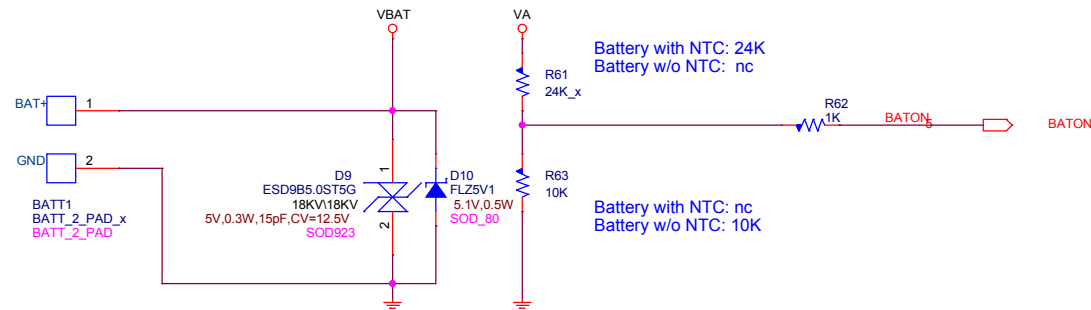
Note 21-1: 1. Refer to "MT2503 design notice" for JTAG option
 (1)BPI_BUS1=L, BPI_BUS2=L, thenJTAG=N/A
 (2)BPI_BUS1=L, BPI_BUS2=H,
 then JTAG=KROW1/KROW2/KROW3/KCOL1/KCOL3/KCOL4
 (3)BPI_BUS1=H, BPI_BUS2=H,
 then JTAG=CMRST/CMPDN/CMCS00/CMCS01/CMMCLK/CMCSK

Note 21-2: Refer to MT2503_Design_Notice :
 please reserve R19/R20/TP9/TP10/TP11
 for download debug in early stage

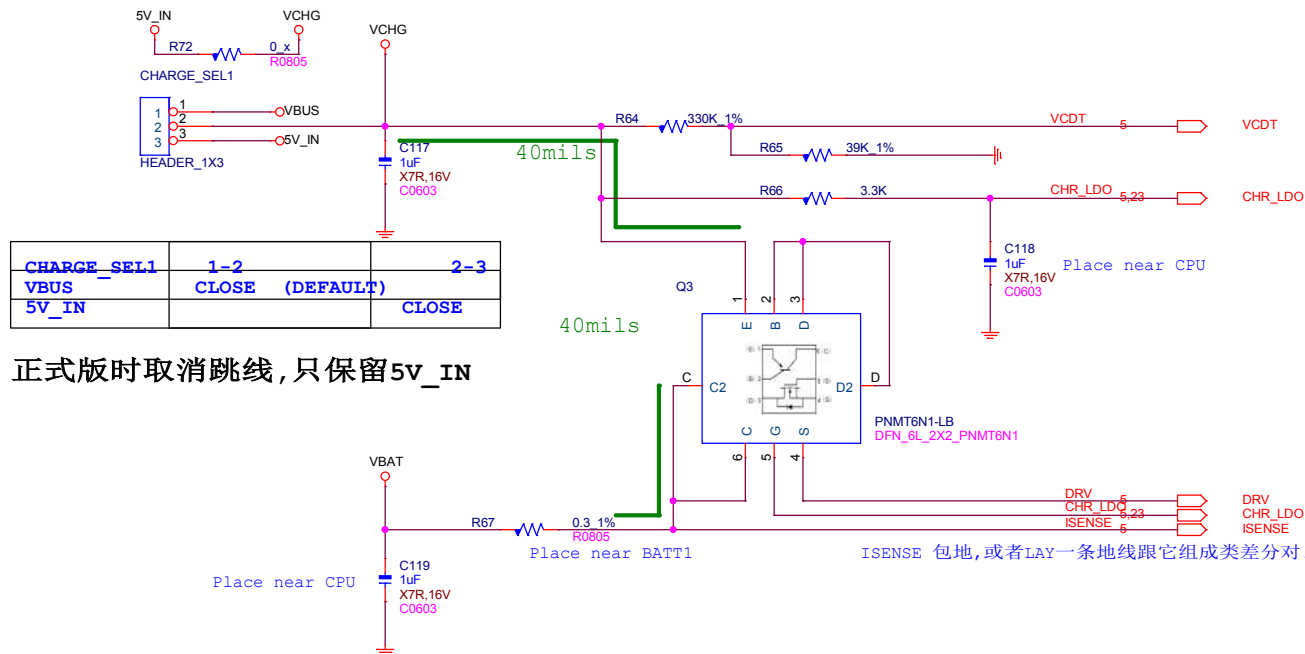




BATTERY CONNECTOR

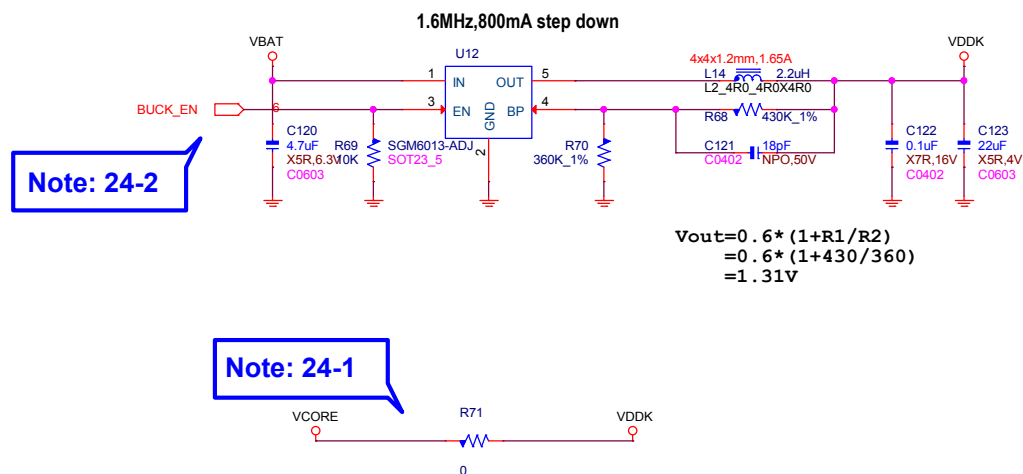


CHARGER (outside of shielding case)



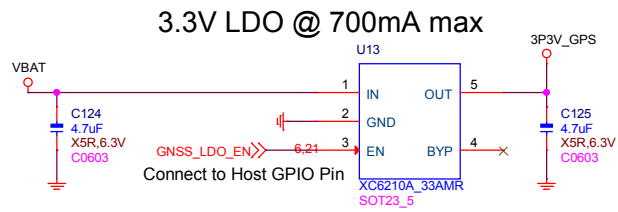
正式版时取消跳线, 只保留5V_IN

Reserve external buck for better Vcore power consumption



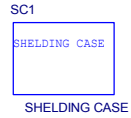
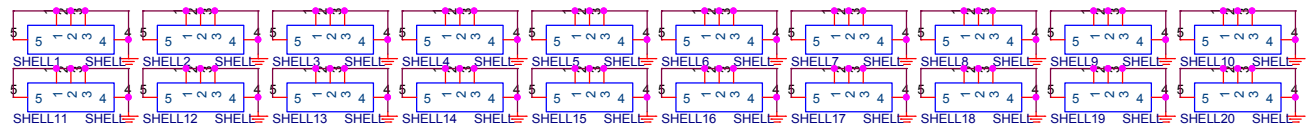
Note 24-1: Please mount R69=0 ohm whether you use external buck or not.

Note 24-2: Please use GPIO for external buck enable control.
Don't use Vcore for external buck enable control.



Title			
APLEX (SHENZHEN)			
Size	Document Number		Rev
Custom	3P3V_GPS		R0.1
Date:	Tuesday, September 11, 2018	Sheet	25 of 26

SHELDING & GND



Title			
APLEX(SHENZHEN)			
Size	Document Number		Rev
Custom	SHELDING & GND		R0.1
Date:	Tuesday, September 11, 2018	Sheet	26 of 26