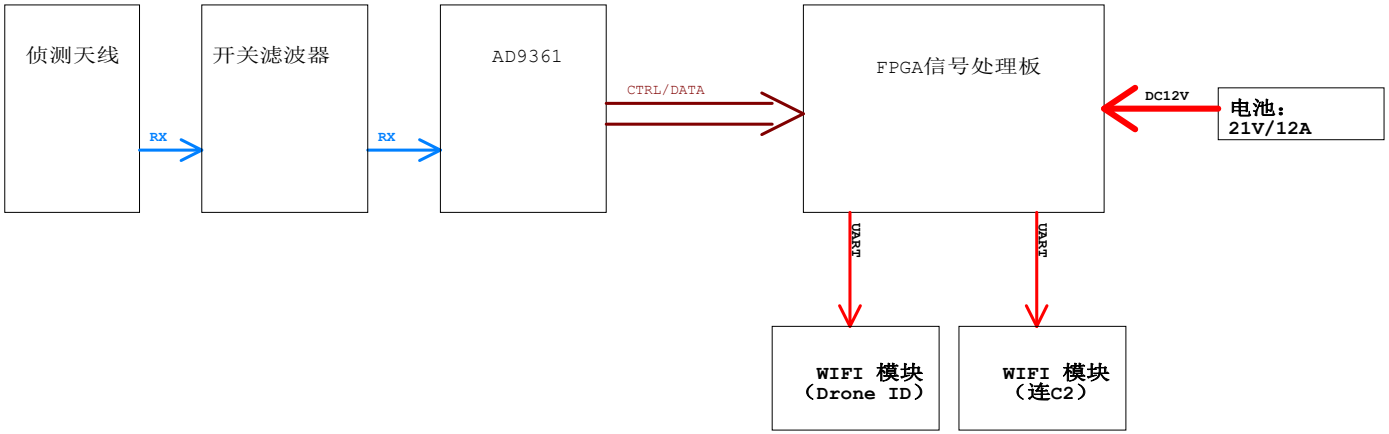
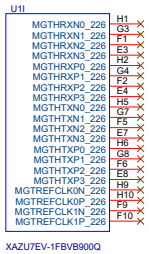
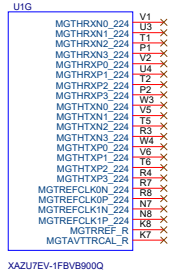
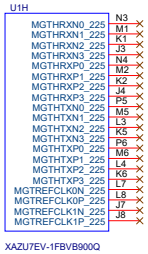
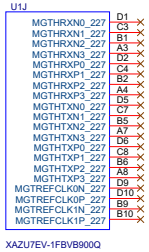


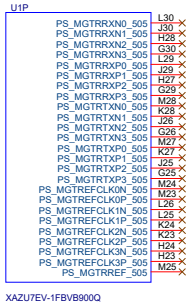
Schematic by	Yangyunbo	
Title	SHRD100_BB_T1	
Size C	Page Name 01_System block	Rev T1
Date: Friday, April 07, 2023	Sheet 1 of 17	



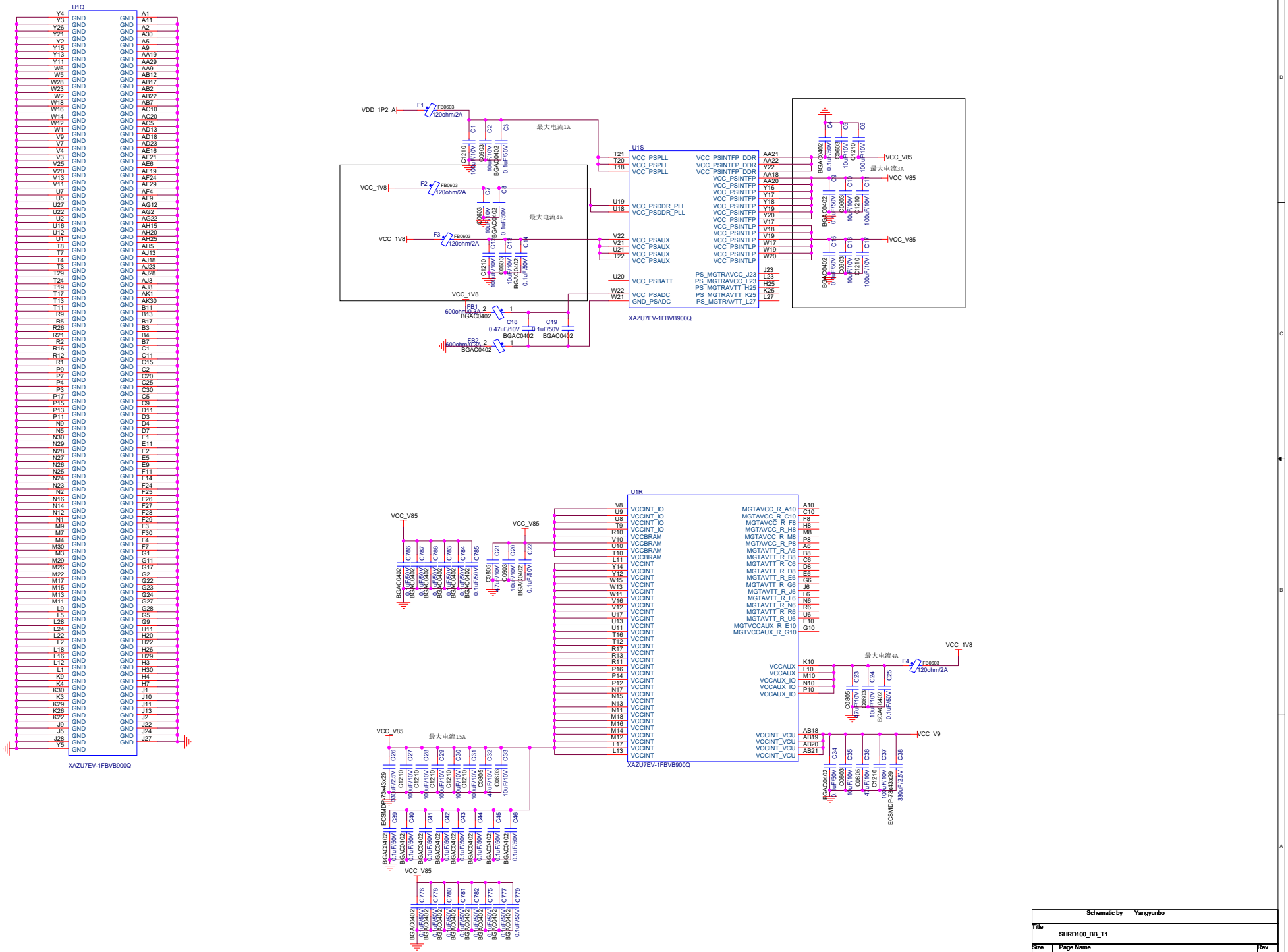


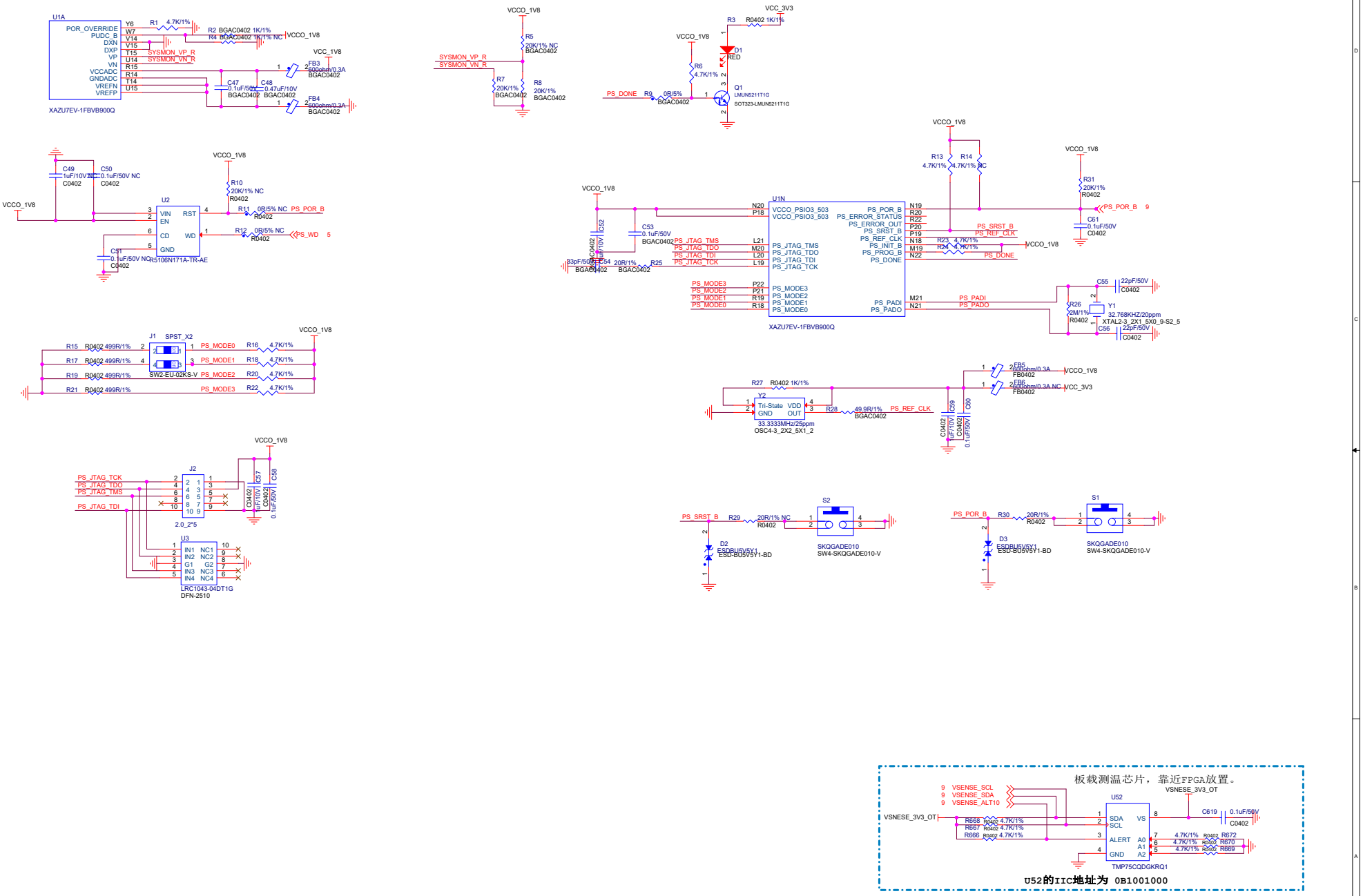




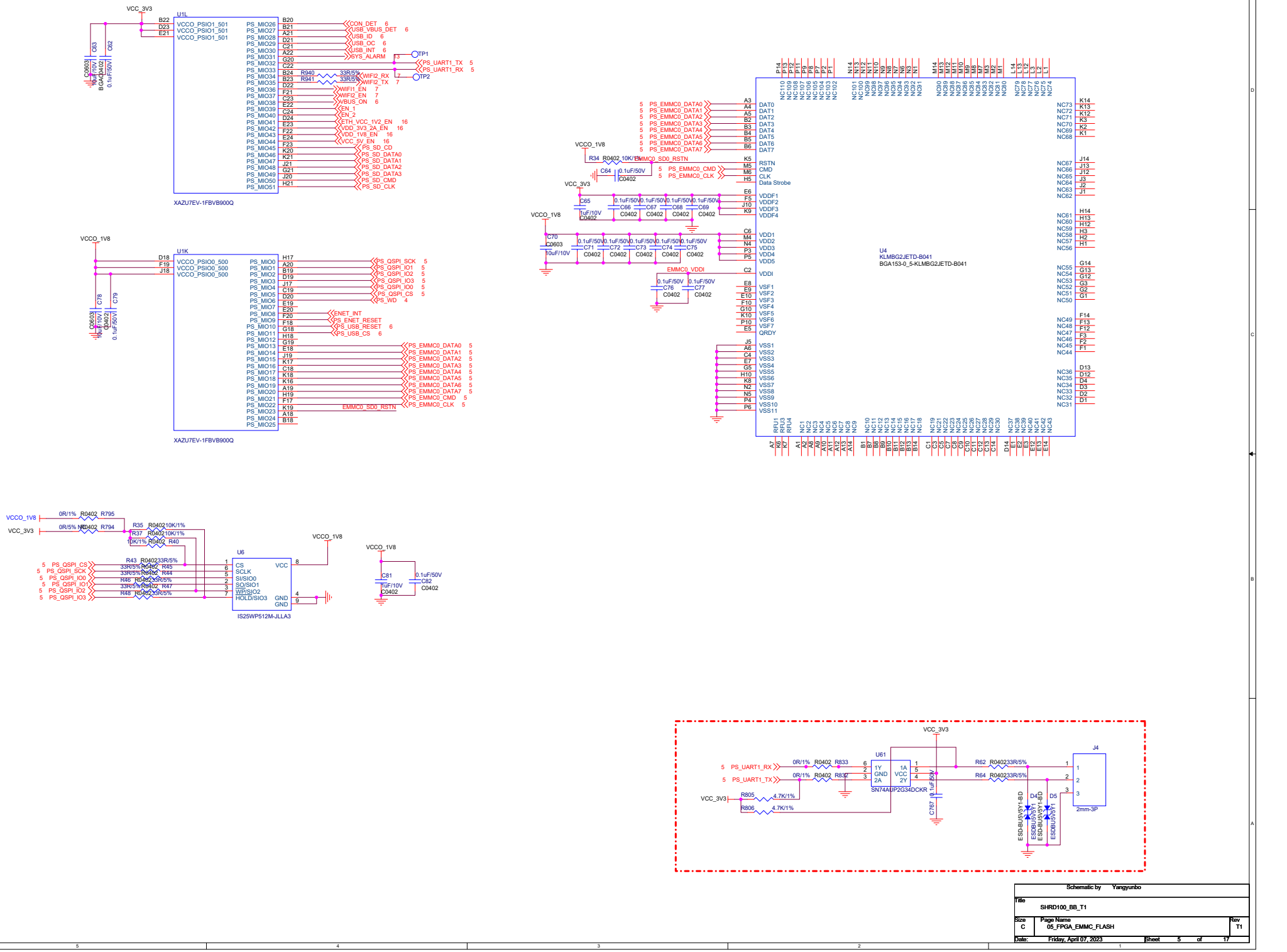


Schematic by	Yangyunbo	
Title	SHRD100_BB_T1	
Size C	Page Name 02_FPGA_NONE	Rev T1
Date: Friday, April 07, 2023	Sheet 2 of 17	

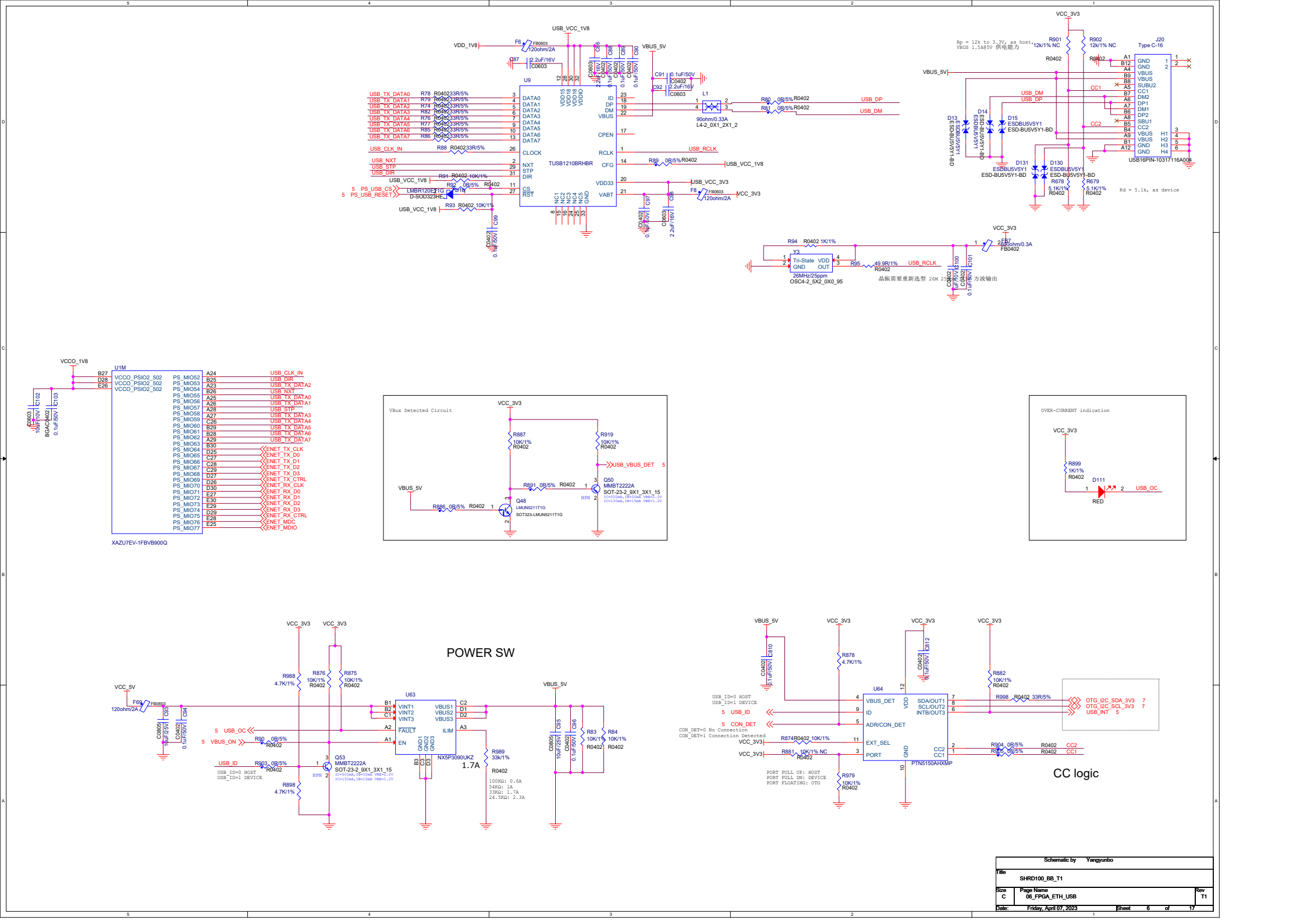

U1Q
XAZU7EV-1FBVB900Q
U1S
XAZU7EV-1FBVB900Q
U1R
XAZU7EV-1FBVB900Q
VDD_1P2_A
VCC_1V8
VCC_V85
VCC_V9
最大电流1A
最大电流3A
最大电流4A
最大电流15A
Schematic by Yangyunbo
Title
SHRD100_BB_T1
Size C
Page Name 03_FPGA_POWER
Rev T1
Date: Friday, April 07, 2023
Sheet 3 of 17



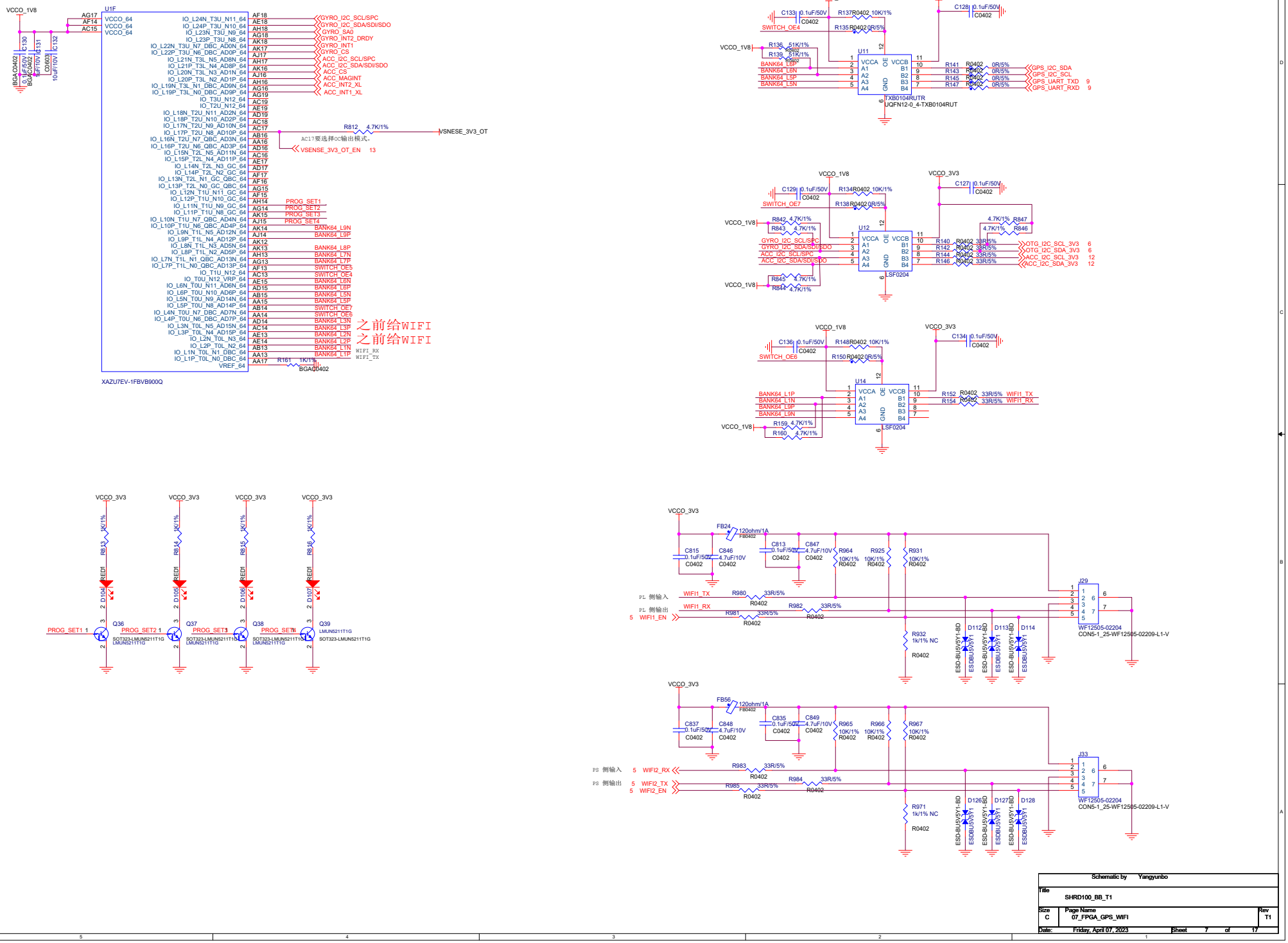
Schematic by	Yangyunbo		
Title	SHRD100_BB_T1		
Size C	Page Name 04_FPGA_BIOS		Rev T1
Date: Friday, April 07, 2023	Sheet 4	of 17	



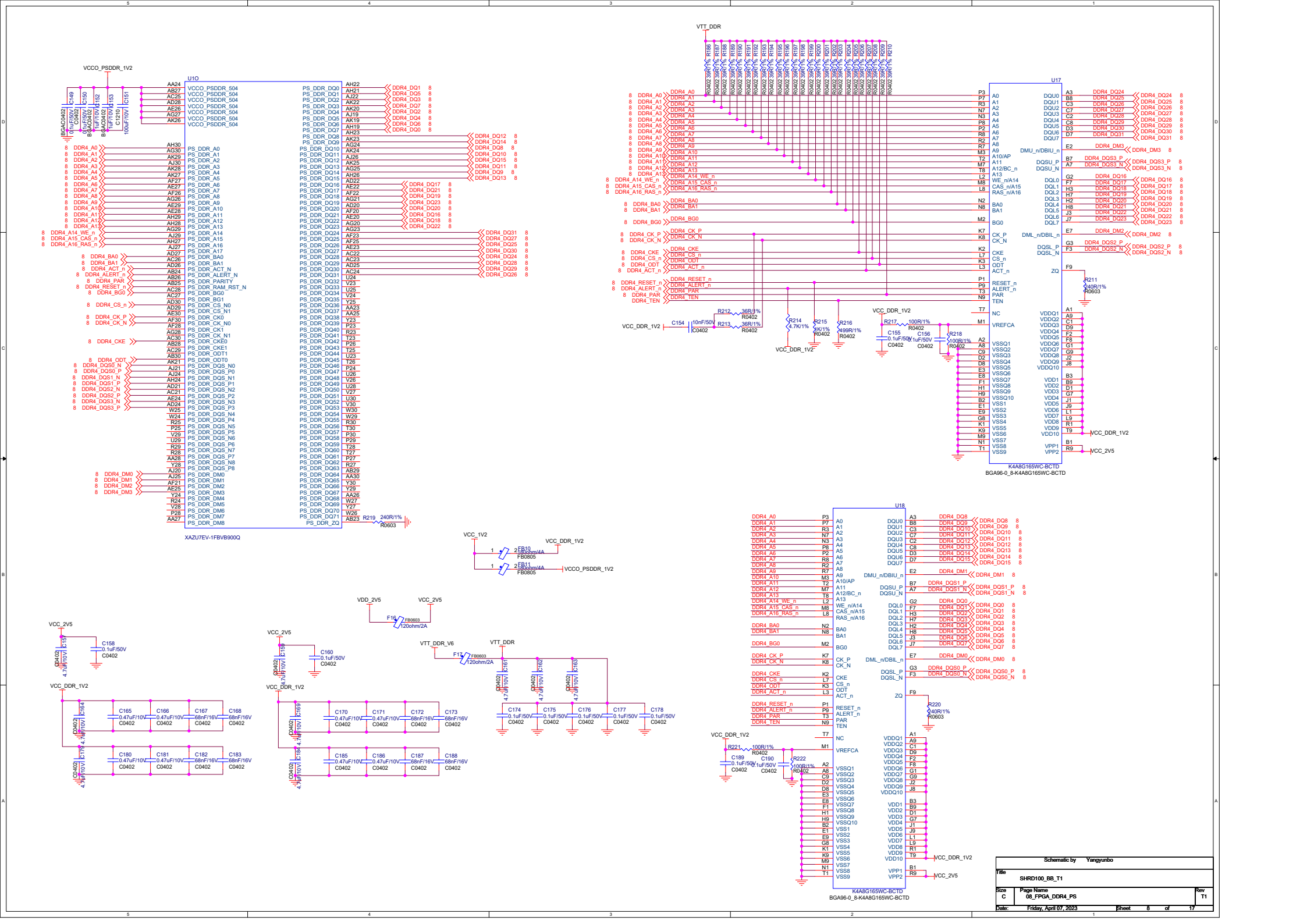
Schematic by	Yangyunbo		
Title	SHRD100_BB_T1		
Size	Page Name		Rev
C	05_FPGA_EMMC_FLASH		T1
Date:	Friday, April 07, 2023	Sheet 5 of 17	

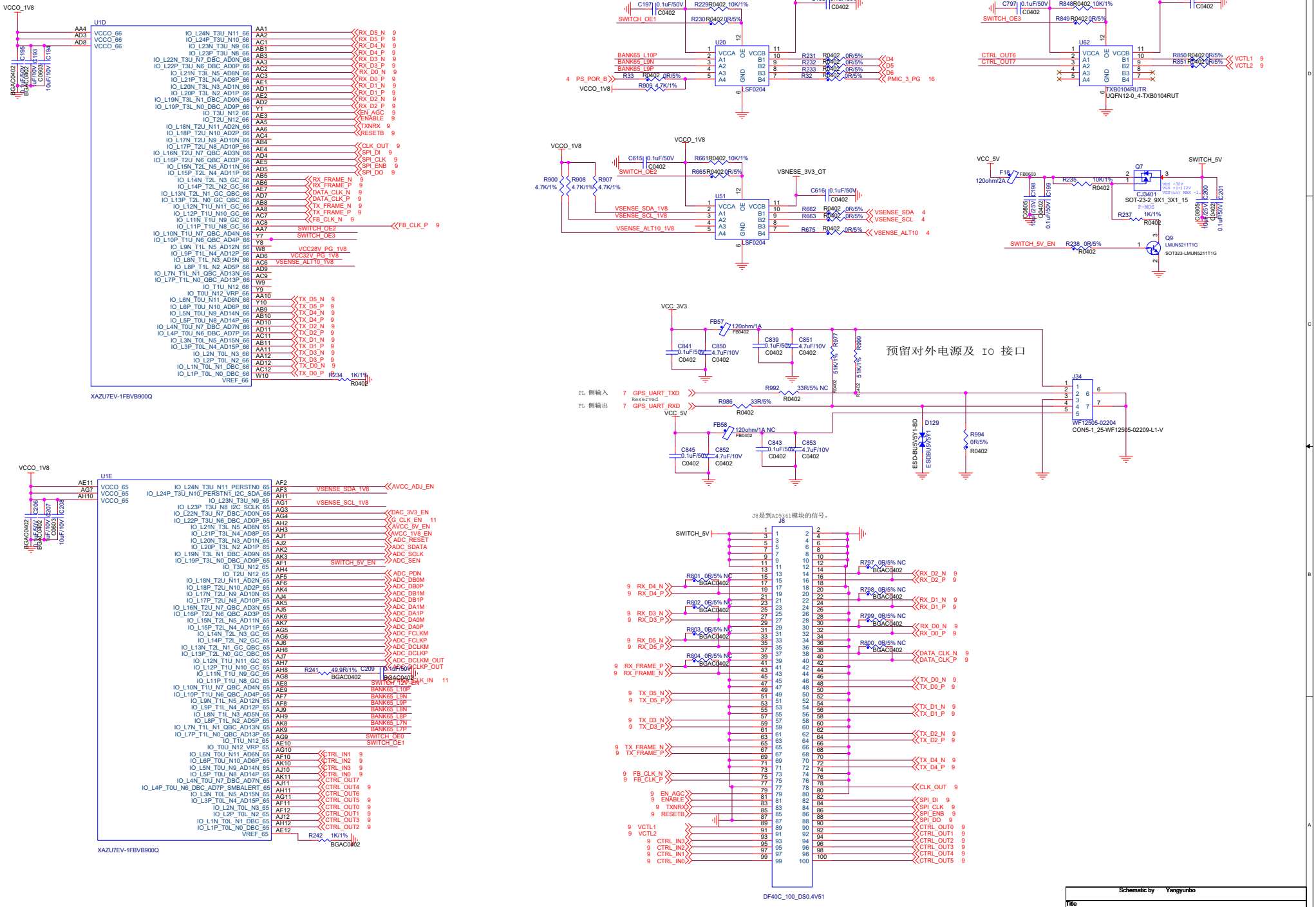


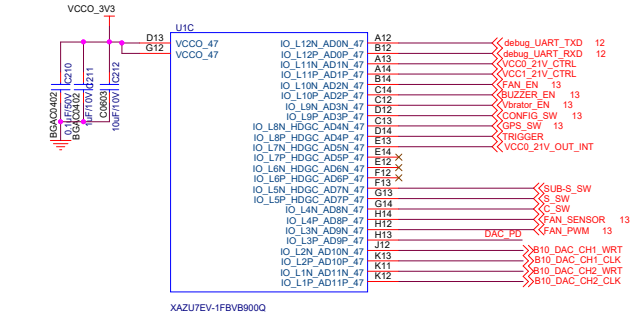
Schematic by	Yangyunbo		
Title	SHRD100_BB_T1		
Size	Page Name		Rev
C	06_FPGA_ETH_USB		T1
Date:	Friday, April 07, 2023	Sheet 6 of 17	

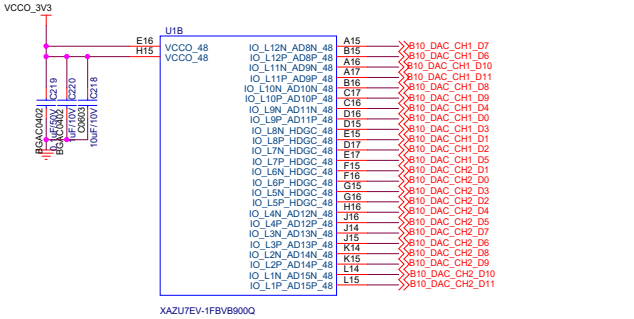


Schematic by	Yangyunbo	
Title	SHRD100_BB_T1	
Size C	Page Name 07_FPGA_GPS_WIFI	Rev T1
Date: Friday, April 07, 2023	Sheet 7 of 17	

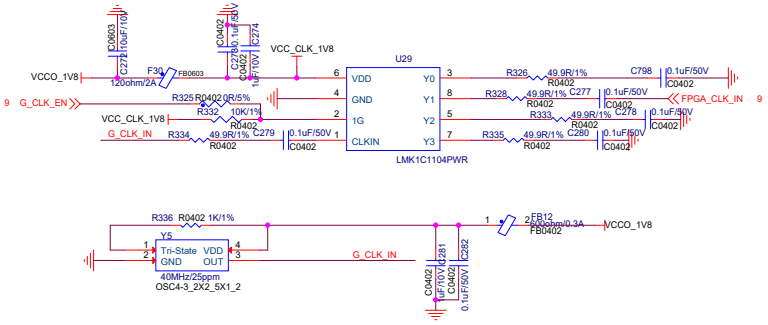

VCCO_PSDDR_1V2
U1O
XAZU7EV-1FBVB900Q
VTT_DDR
U17
K4A8G165WC-BCTD
BGA96-0_8-K4A8G165WC-BCTD
U18
VCC_DDR_1V2
VCC_2V5
VCCO_PSDDR_1V2
VDD_2V5
VTT_DDR_V6
Schematic by Yangyunbo
SHRD100_BB_T1
08_FPGA_DDR4_PS
Friday, April 07, 2023
Sheet 8 of 17


U1D
XAZU7EV-1FBVB900Q
U1E
XAZU7EV-1FBVB900Q
U20
U62
U51
LSF0204
TXB0104RUTR
UQFN12-0_4-TXB0104RUT
CJ3401
SOT-23-2_9X1_3X1_15
SOT323-LMUN5211T1G
J34
WF12505-02204
CON5-1_25-WF12505-02209-L1-V
J8
DF40C_100_DS0.4V51
预留对外电源及 IO 接口
J8是到AD9361模块的信号。
SHRD100_BB_T1
Schematic by Yangyunbo
Title
Size C
Page Name 09_FPGA_AD9361_CTRL
Rev T1
Date: Friday, April 07, 2023
Sheet 9 of 17



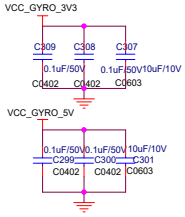


Schematic by	Yangyunbo	
Title	SHRD100_BB_T1	
Size C	Page Name 10_FPGA_DAC	Rev T1
Date: Friday, April 07, 2023	Sheet 10 of 17	

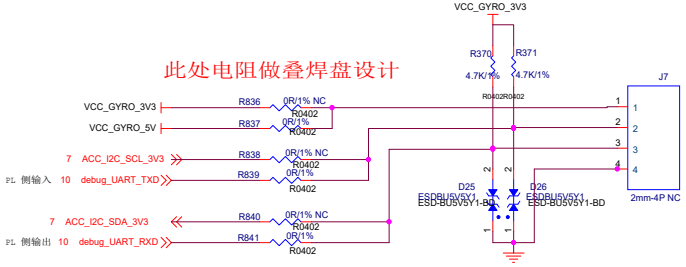


Schematic by	Yangyunbo	
Title	SHRD100_BB_T1	
Size C	Page Name 11_ADC_CLOCK	Rev T1
Date: Friday, April 07, 2023	Sheet 11 of 17	

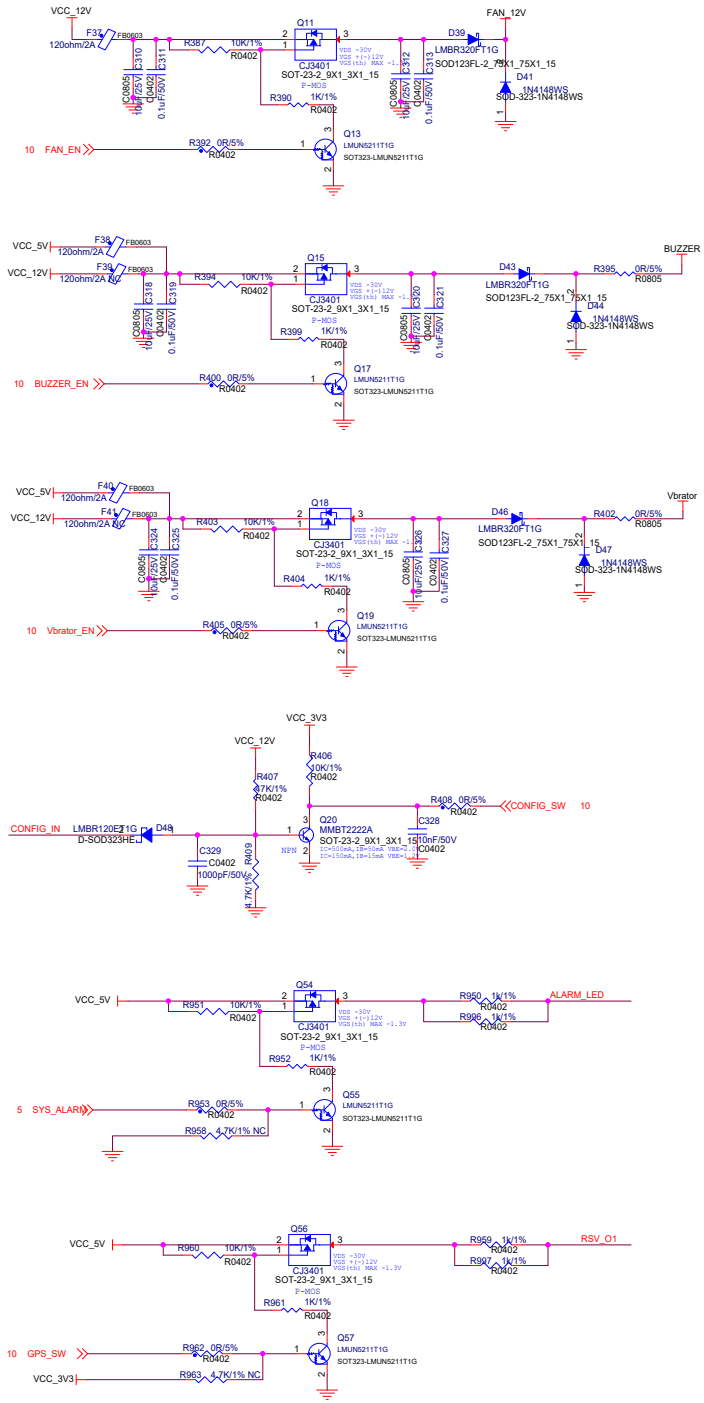
电子罗盘+陀螺仪



此处电阻做叠焊盘设计



Schematic by Yangyunbo		
Title SHRD100_BB_T1		
Size C	Page Name 12_GRYO	Rev T1
Date: Friday, April 07, 2023	Sheet 12 of 17	

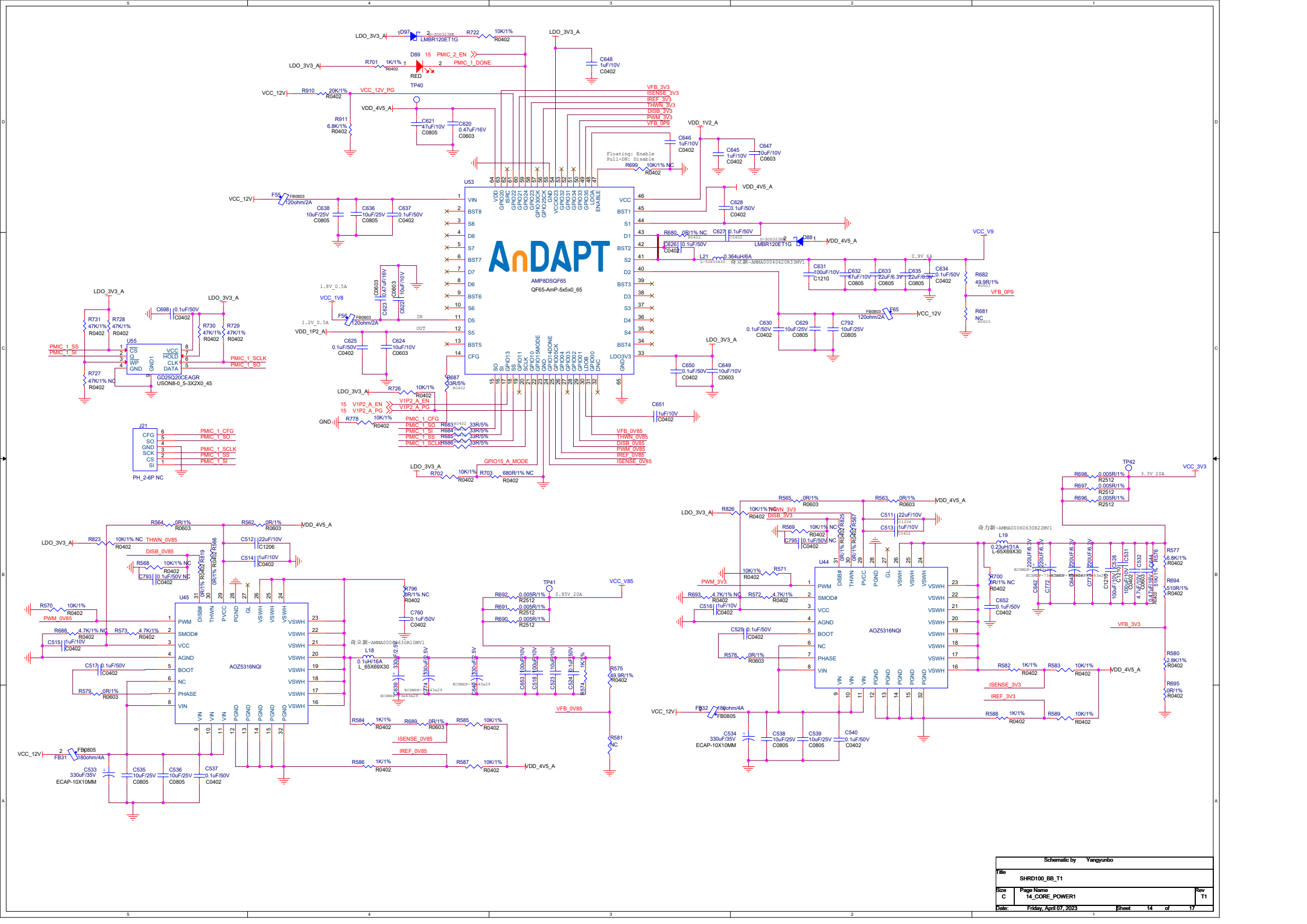


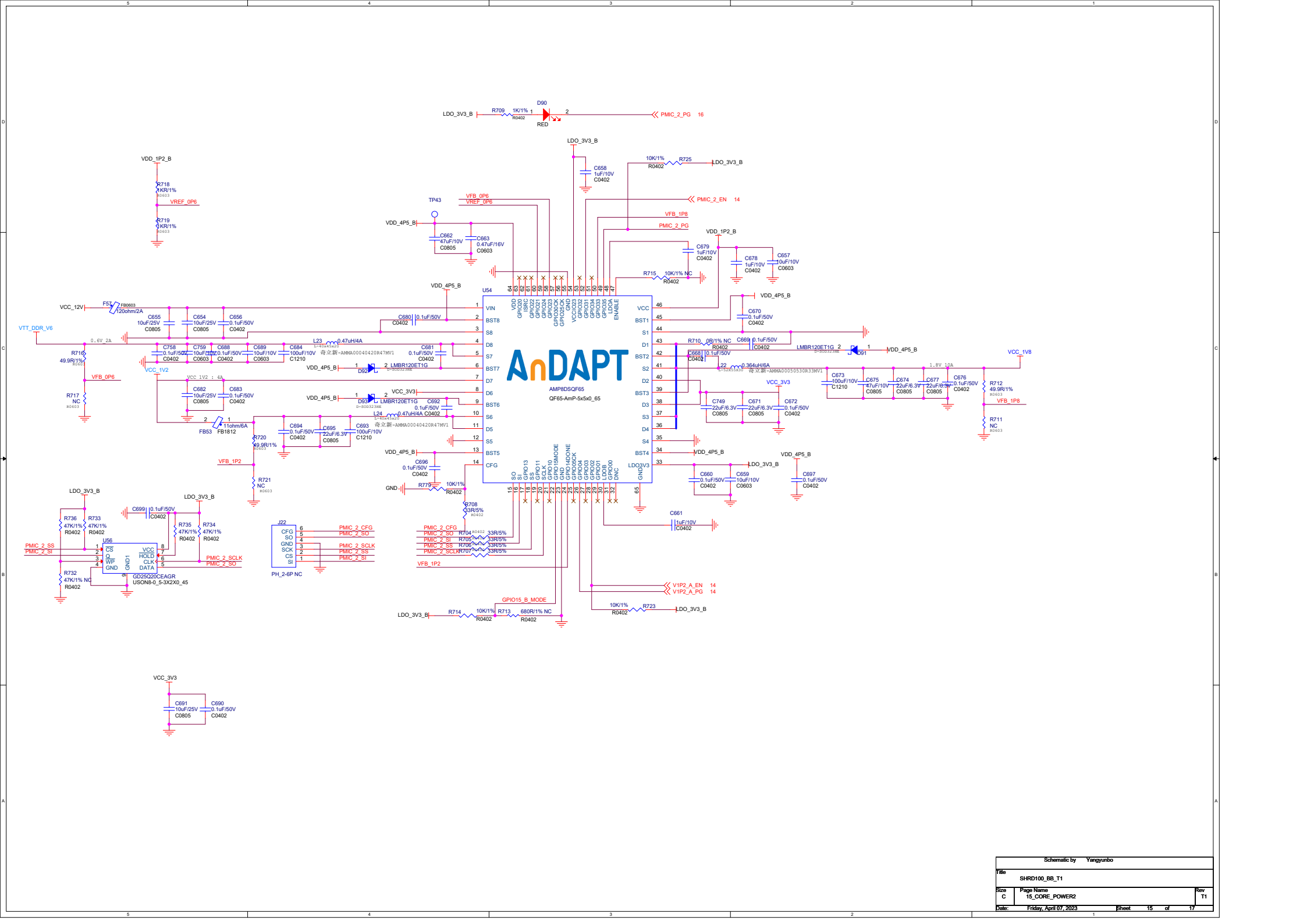
板子对外的接口，用来接外设的，采用线束设计。

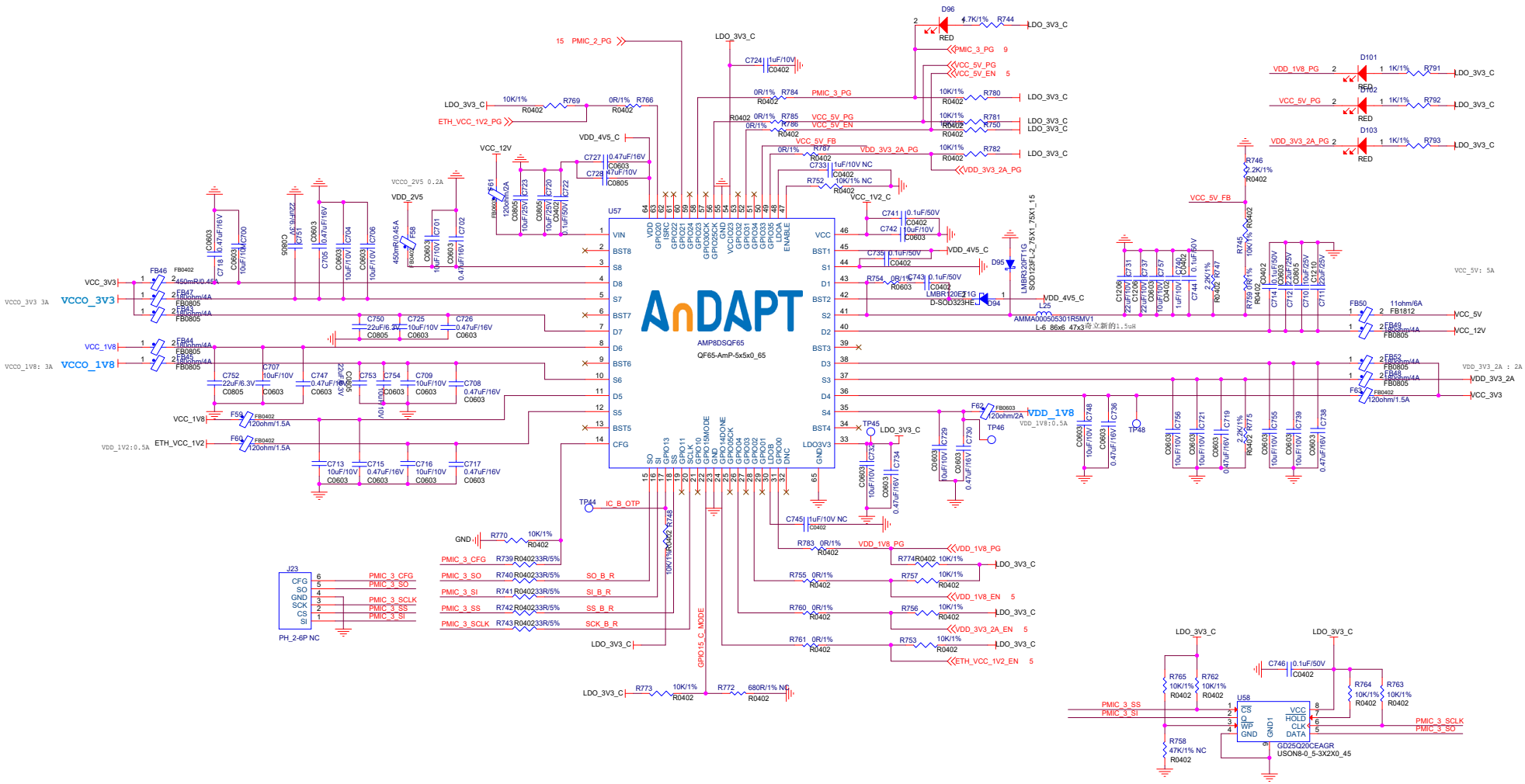
板上的螺钉通孔，内直径2.6mm。

TP49 HOLE2D6_5PTH
TP50 HOLE2D6_5PTH
TP52 HOLE2D6_5PTH
TP51 HOLE2D6_5PTH

Schematic by	Yangyunbo	
Title	SHRD100_BB_T1	
Size C	Page Name 13_CONNECTOR	Rev T1
Date: Friday, April 07, 2023	Sheet 13 of 17	


AnDAPT
AMP8DSQF65
QF65-AmP-5x5x0_65
U53
U55
GD25Q20CEAGR
USON8-0_5-3X2X0_45
U45
AOZ5316NQI
U44
AOZ5316NQI
J21
PH_2-6P NC
LDO_3V3_A
VCC_12V
VDD_4V5_A
VDD_1V2_A
VCC_V9
VCC_V3V3
VCC_V85
VFB_0V85
VFB_0P9
VFB_3V3
PMIC_1_SS
PMIC_1_SI
PMIC_1_SCLK
PMIC_1_SO
PMIC_1_CFG
V1P2_A_EN
V1P2_A_PG
GPIO15_A_MODE
THWN_0V85
DISB_0V85
PWM_0V85
IREF_0V85
ISENSE_0V85
THWN_3V3
DISB_3V3
PWM_3V3
IREF_3V3
ISENSE_3V3
奇力新-AMMA00060630R25MV1
奇力新-AMMA00060630R10MV1
奇力新-AMMA00040420R33MV1
Schematic by Yangyunbo
Title SHRD100_BB_T1
Size C
Page Name 14_CORE_POWER1
Rev T1
Date: Friday, April 07, 2023
Sheet 14 of 17


LDO_3V3_B
R709 1K/1% R0402
D90 RED
PMIC_2_PG 16
VDD_1P2_B
R718 KR/1% R0603
VREF_0P6
R719 KR/1% R0603
TP43
VFB_0P6
VREF_0P6
VDD_4P5_B
C662 47uF/10V C0805
C663 0.47uF/16V C0603
C658 1uF/10V C0402
10K/1% R0402 R725
PMIC_2_EN 14
VFB_1P8
PMIC_2_PG
C679 1uF/10V C0402
C678 1uF/10V C0402
C657 10uF/10V C0603
R715 10K/1% NC R0402
U54
AnDAPT
AMP8DSQF65
QF65-AmP-5x5x0_65
VIN BST8 S8 D8 S7 BST7 D7 D6 BST6 S6 D5 S5 BST5 CFG
VCC BST1 S1 D1 BST2 S2 D2 BST3 D3 S3 D4 BST4 LDO3V3 GND65
VCC_12V
F57 FB0603 120ohm/2A
C655 10uF/25V C0805
C654 10uF/25V C0805
C656 0.1uF/50V C0402
C680 0.1uF/50V C0402
VTT_DDR_V6
0.6V 2A
R716 49.9R/1% R0603
C758 0.1uF/50V C0402
C759 10uF/10V C0603
C688 0.1uF/50V C0402
C689 10uF/10V C0603
C684 100uF/10V C1210
L23 0.47uH/4A 奇立新-AMMA00040420R47MV1
C681 0.1uF/50V C0402
VDD_4P5_B
D92 LMBR120ET1G
VFB_0P6
R717 NC R0603
VCC_1V2
VCC_1V2 : 4A
C682 10uF/25V C0805
C683 0.1uF/50V C0402
FB53 11ohm/6A FB1812
C694 0.1uF/50V C0402
C695 22uF/6.3V C0805
C693 100uF/10V C1210
R720 49.9R/1% R0603
VFB_1P2
R721 NC R0603
VCC_3V3
D93 LMBR120ET1G
C692 0.1uF/50V C0402
L24 0.47uH/4A C0402 奇立新-AMMA00040420R47MV1
C696 0.1uF/50V C0402
GND
R779 10K/1% R0402
R708 33R/5% R0402
PMIC_2_CFG R704 33R/5%
PMIC_2_SO R705 33R/5%
PMIC_2_SI R706 33R/5%
PMIC_2_SS R707 33R/5%
PMIC_2_SCLK
VFB_1P2
C661 1uF/10V C0402
V1P2_A_EN 14
V1P2_A_PG 14
GPIO15_B_MODE
LDO_3V3_B
R714 10K/1% R0402
R713 680R/1% NC R0402
10K/1% R0402 R723
C670 0.1uF/50V C0402
R710 0R/1% NC R0402
C669 0.1uF/50V C0402
C668 0.1uF/50V C0402
LMBR120ET1G D91
22 0.364uH/6A 奇立新-AMMA00050530R33MV1
C749 22uF/6.3V C0805
C671 22uF/6.3V C0805
C672 0.1uF/50V C0402
C660 0.1uF/50V C0402
C659 10uF/10V C0603
C697 0.1uF/50V C0402
1.8V 10A
C673 100uF/10V C1210
C675 47uF/10V C0805
C674 22uF/6.3V C0805
C677 22uF/6.3V C0805
C676 0.1uF/50V C0402
R712 49.9R/1% R0603
VFB_1P8
R711 NC R0603
VCC_1V8
C699 0.1uF/50V C0402
R736 47K/1% R0402
R733 47K/1% R0402
R735 47K/1% R0402
R734 47K/1% R0402
U56
CS SO WP GND VCC HOLD CLK DATA GND1
GD25Q20CEAGR USON8-0_5-3X2X0_45
R732 47K/1% NC R0402
PMIC_2_SS
PMIC_2_SI
PMIC_2_SCLK
PMIC_2_SO
J22
CFG SO GND SCK CS SI
PH_2-6P NC
PMIC_2_CFG
PMIC_2_SO
PMIC_2_SCLK
PMIC_2_SS
PMIC_2_SI
C691 10uF/25V C0805
C690 0.1uF/50V C0402
Schematic by Yangyunbo
Title SHRD100_BB_T1
Size C
Page Name 15_CORE_POWER2
Rev T1
Date: Friday, April 07, 2023
Sheet 15 of 17



Schematic by	Yangyunbo		
Title	SHRD100_BB_T1		
Size C	Page Name 16_CORE_POWER3		Rev T1
Date: Friday, April 07, 2023	Sheet 16	of 17	

本版在 AEAG100_CORE_T4 基础上，主要修改点如下：
1、第5页：删除 SD 卡；删除 485接口 U5，U7；
2、第6页：删除以太网（U10，J6，Y4）；删除串口屏连接器 J5；USB 改成 OTG；
3、第7页：删除 GPS（U15，J26，U13）；U12,U14 型号更改为 LSF0204RUT0012A；新增 WIFI 对外连接器（J26，J27）；
4、第9页：删除开关滤波器 （J19，U19）；U20,U51 型号更改为 LSF0204RUT0012A；增加对外预留电源和 IO 接口连接器 J31；
5、第10页：删除 DAC（U23，U24，U25，J10，J11，电源 U21，U22，R247，R249）；删除 J18，J19(开关滤波器接AD9361的TX经信号板路由到功放)
6、第11页：除 Y5，U29 以外的电路全部删除；
7、第13页：删除到射频功放板连接器 J15；删除电源连接器（J25，U59，U60），改为2*3PIN，提供12V电源；对外接口连接器 J12 删除ON/OFF_SW，GPS_SW，TRIGGER_IN，改成PWR_LED，ALARM_LED，RSV_O1；
8、第14页：VCC_12V_PG信号改成由 12V 分压产生；

遗留问题：
1、功能简化后，SoC 型号可能有更优选择；
2、电源连接器 J2 更换成，不用接线端子；
3、VSNESE_3V335OT， VDD_3V3_2A 可以合并到其它3.3V电源网络

Schematic by Yangyunbo		
Title SHRD100_BB_T1		
Size C	Page Name 17_版本说明	Rev T1
Date: Friday, April 07, 2023	Sheet 17 of 17	