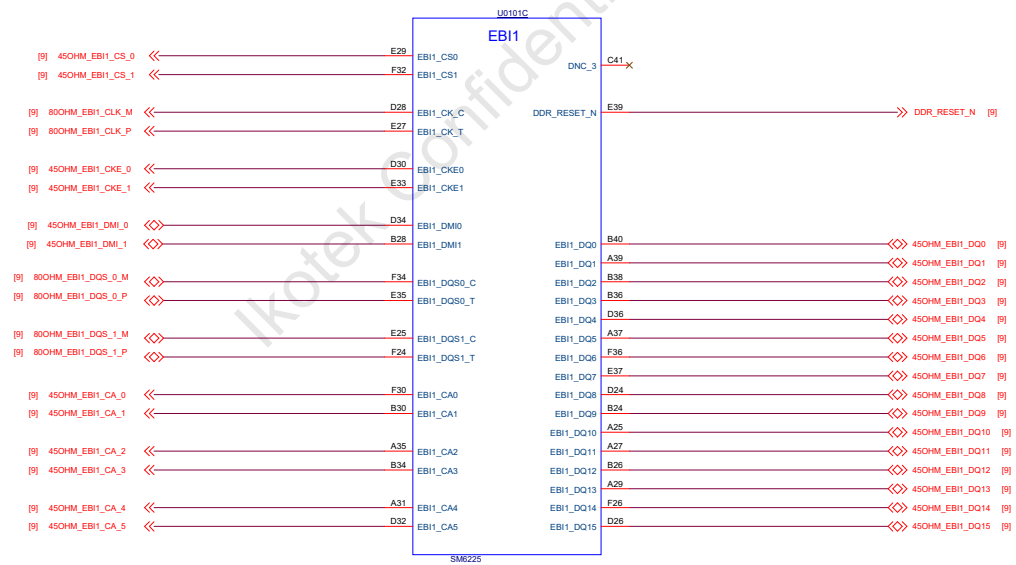
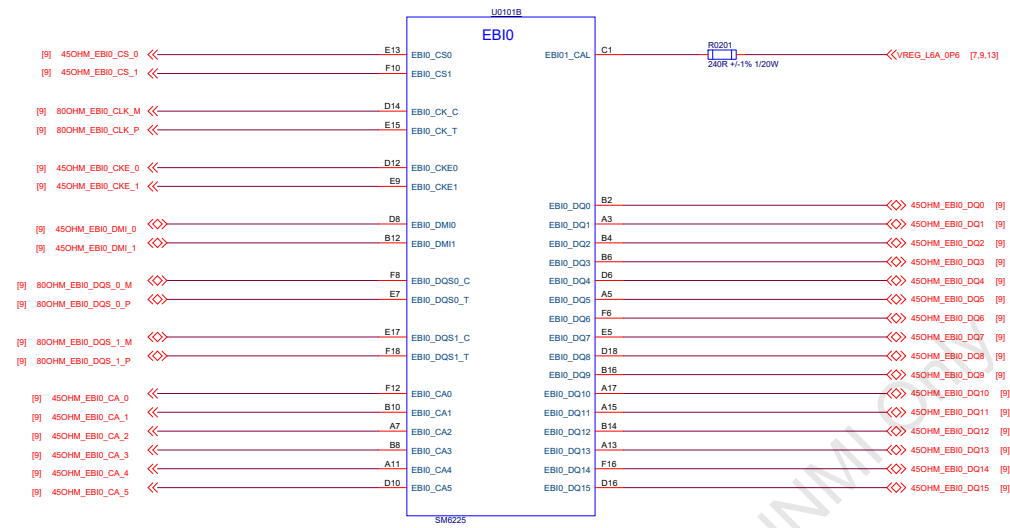
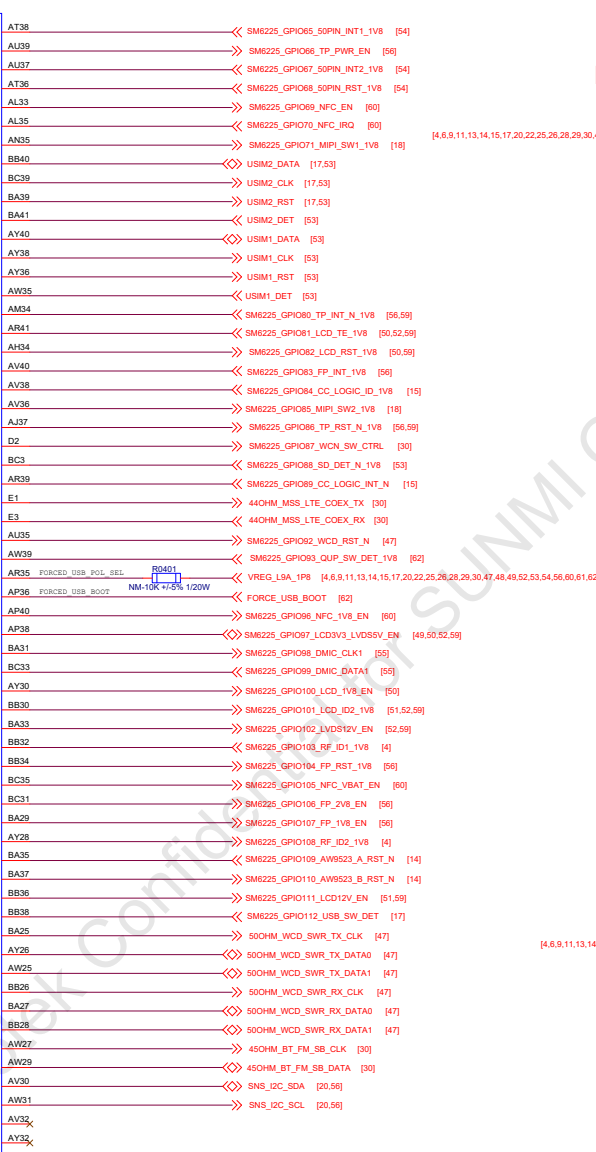
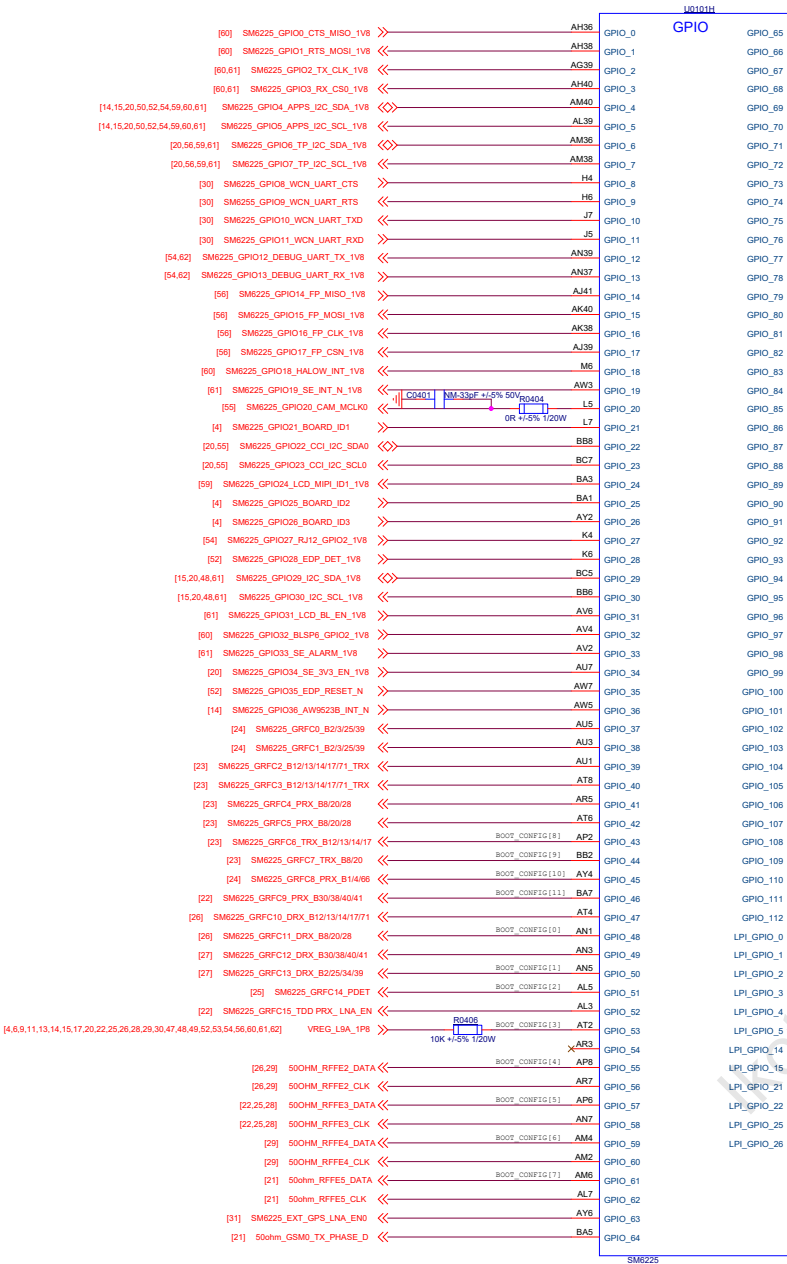
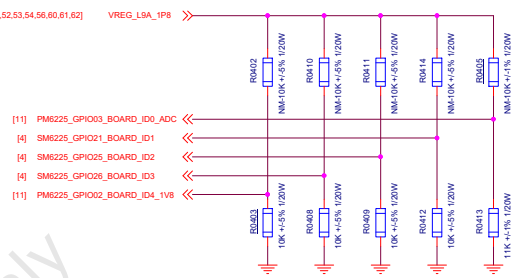




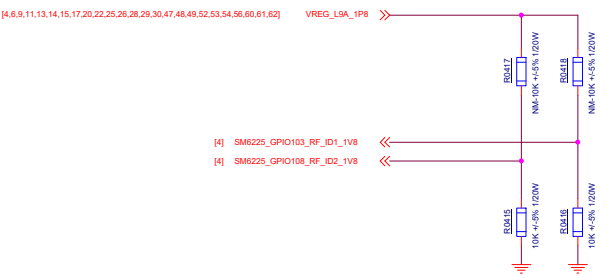


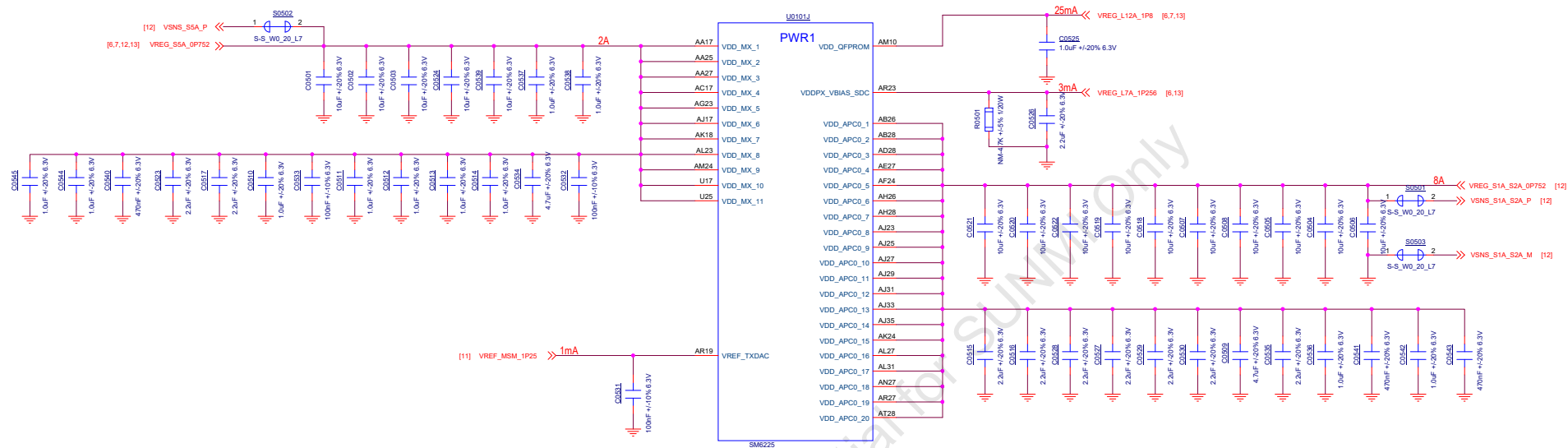
Board ID

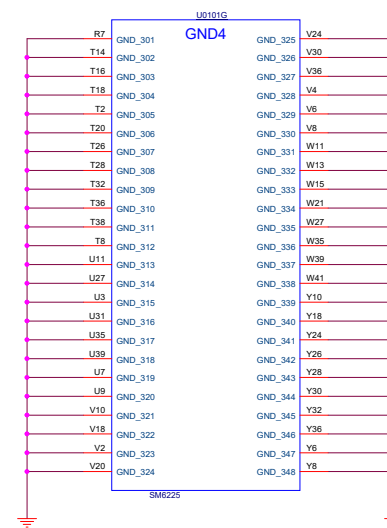
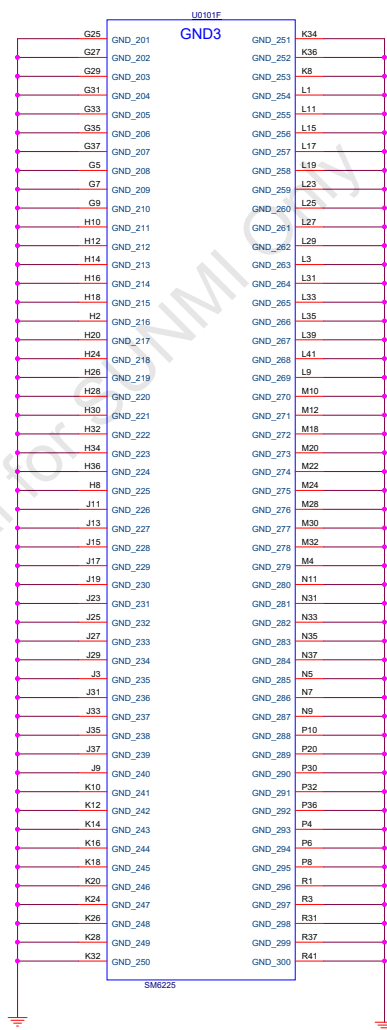
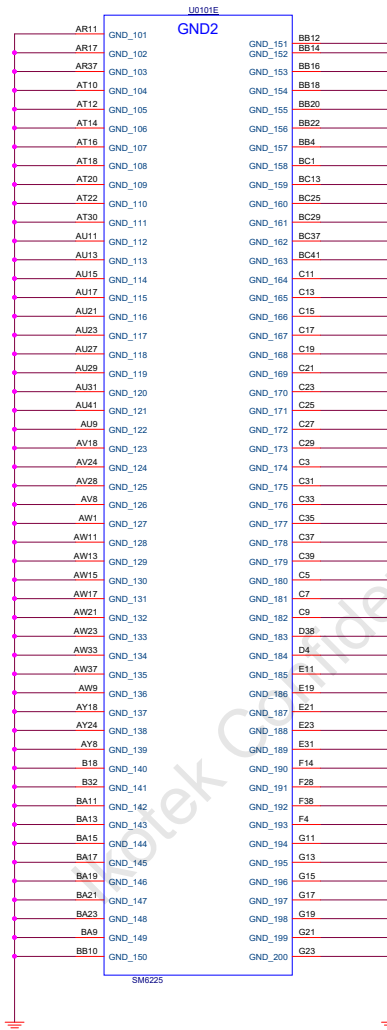
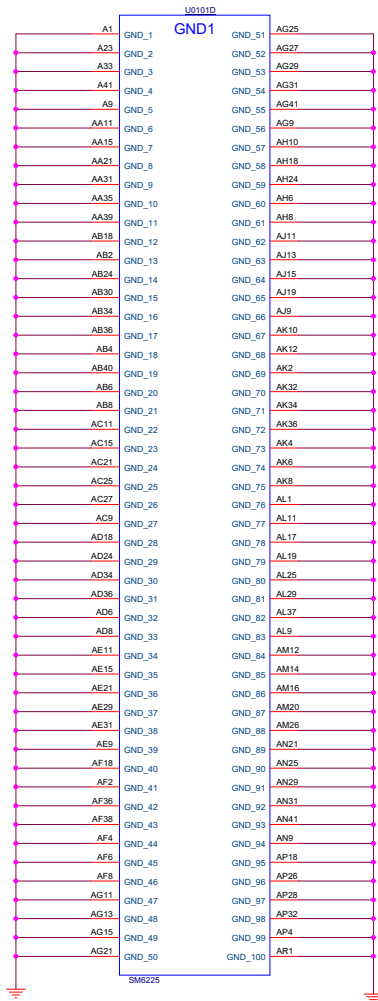


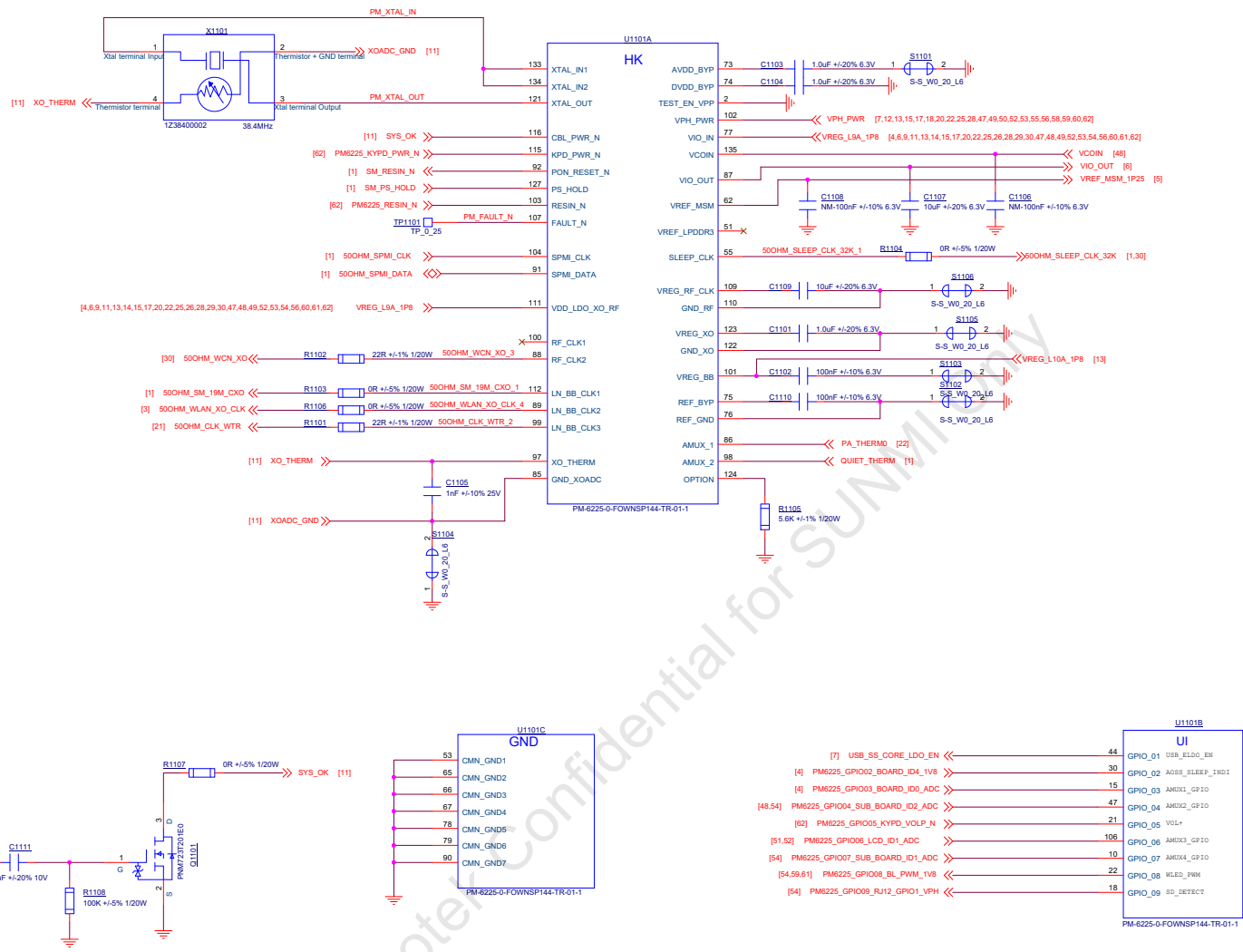
GPIO_48	WD0G_DISABLE	BOOT_CONFIG[0]
GPIO_50	FAST_BOOT_SEL_0	BOOT_CONFIG[1]
GPIO_51	FAST_BOOT_SEL_1	BOOT_CONFIG[2]
GPIO_53	FAST_BOOT_SEL_2	BOOT_CONFIG[3]
GPIO_55	FAST_BOOT_SEL_3	BOOT_CONFIG[4]

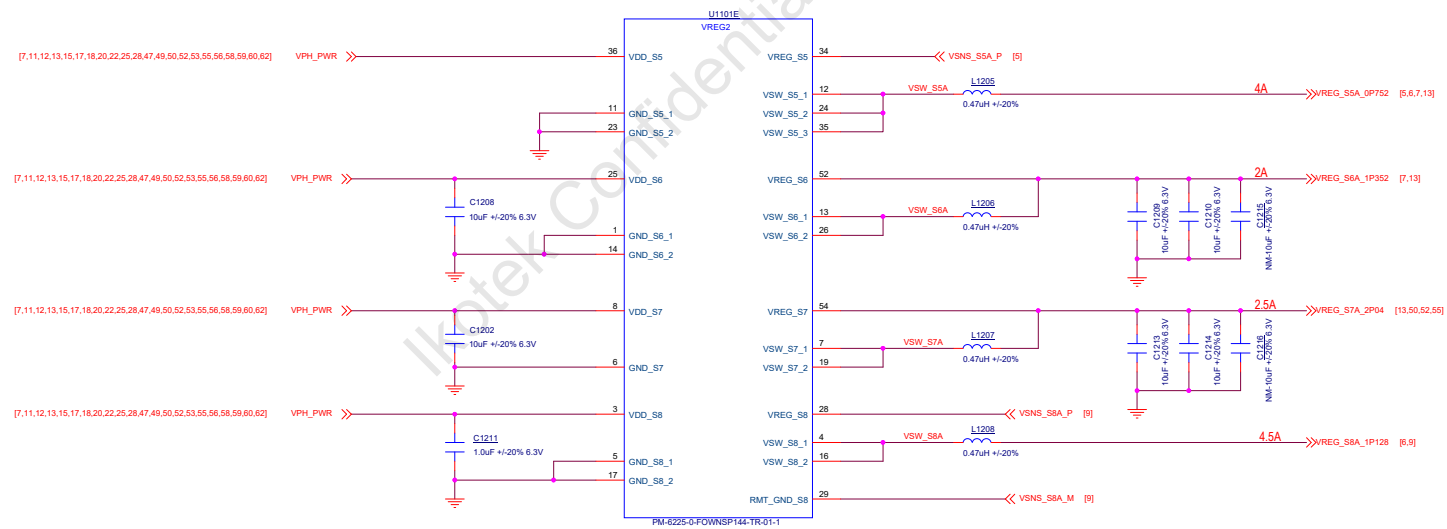
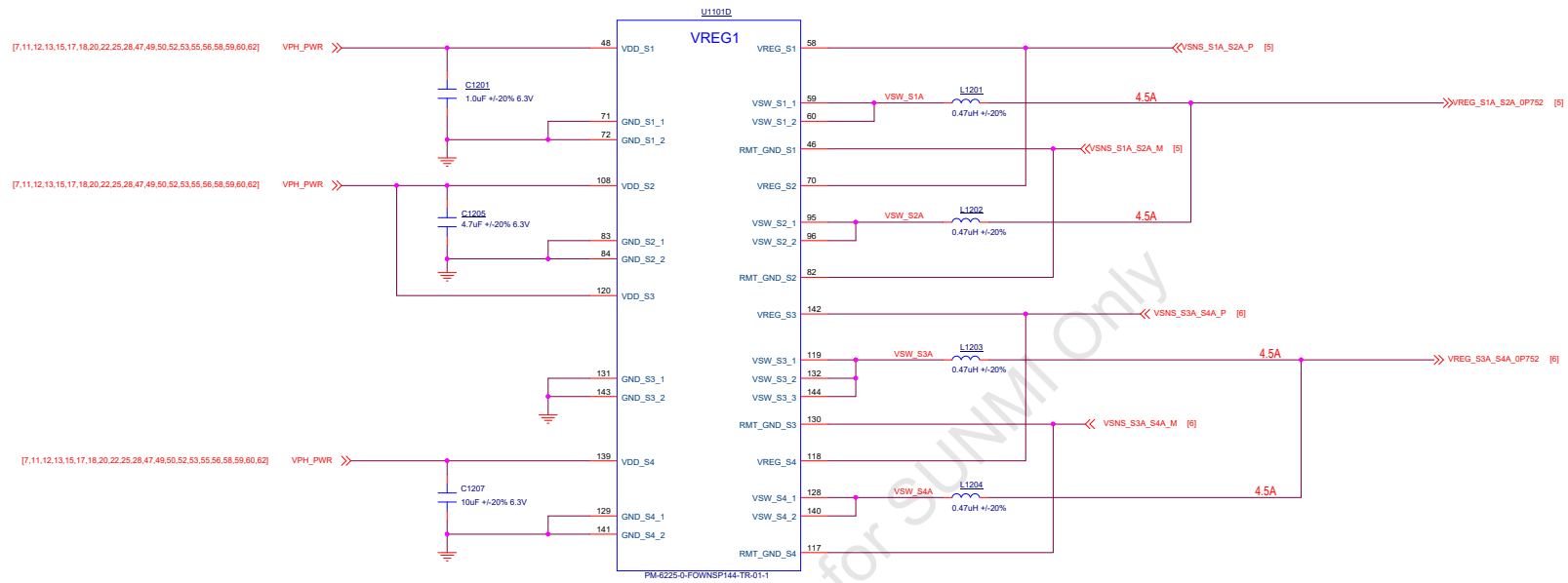
FAST_BOOT[3:0]	BOOT Sequence
0b0000	w8MC -> SD -> eDL (eDL path - USB only)
0b0001	SD -> w8MC -> eDL (eDL path - USB only)
0b0010	SD -> eDL (eDL path - USB only)
0b0011	USB -> eDL
0b0100	UPS -> SD -> wDL (eDL path - USB only)
0b0101	SD -> UPS -> wDL (eDL path - USB only)
0b0110	UPS -> eDL (eDL path - USB only)
0b0111	w8MC -> SD -> eDL (eDL path - USB only)
0b1000	w8MC -> eDL (eDL path - USB only)

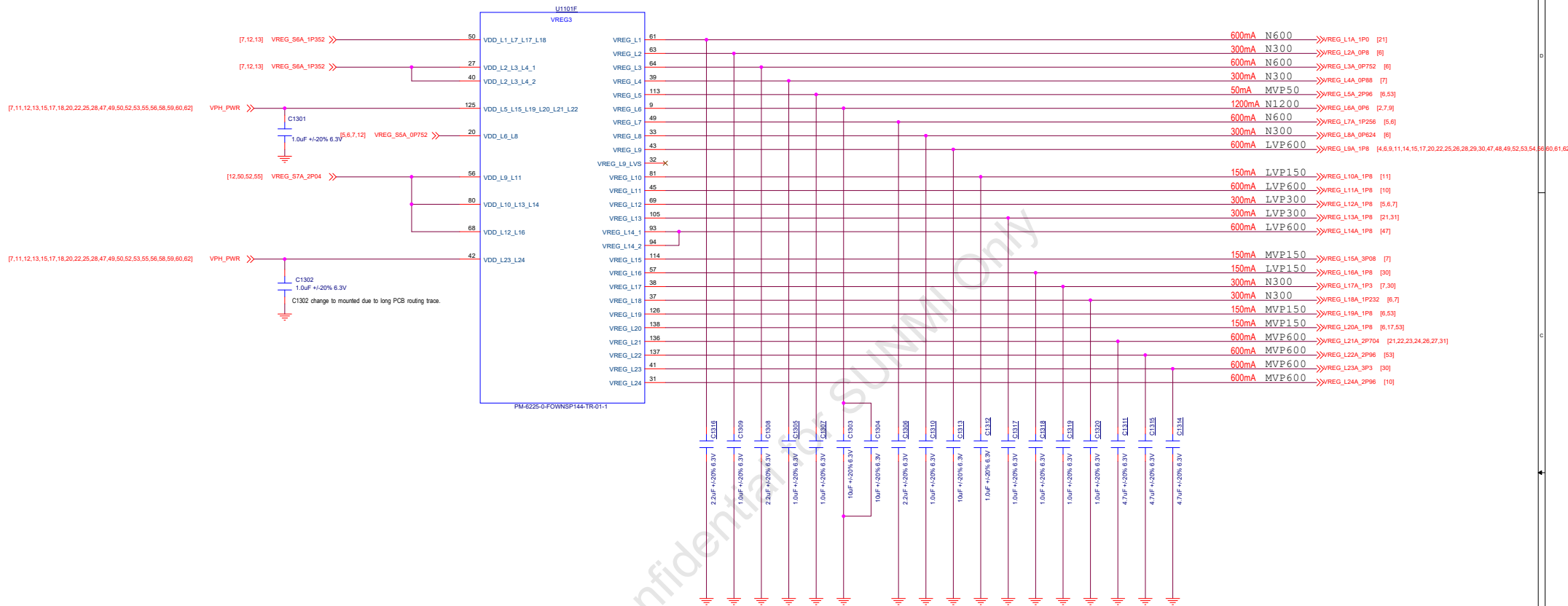












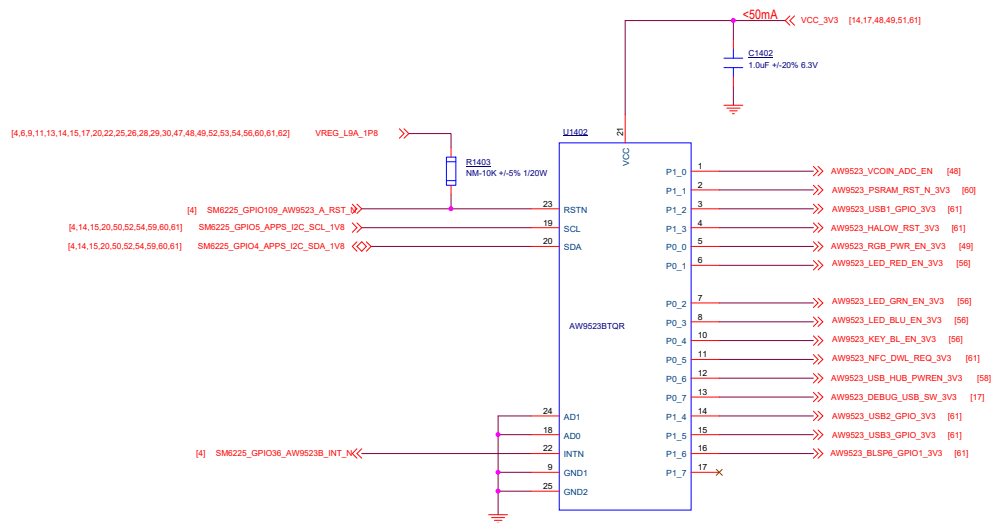
NOTE: Place these caps close to PMIC.
Prioritize N1200s over N300s for placement.

N1200FT(2 x 10uF)
Min : 20uF , Max : 44uF
N1200 (1x 4.7uF)
Min : 4.7uF , Max : 22uF
N600 (1x 2.2uF)
N300 (1 X 1uF)
Min : 1uF , Max : 10uF

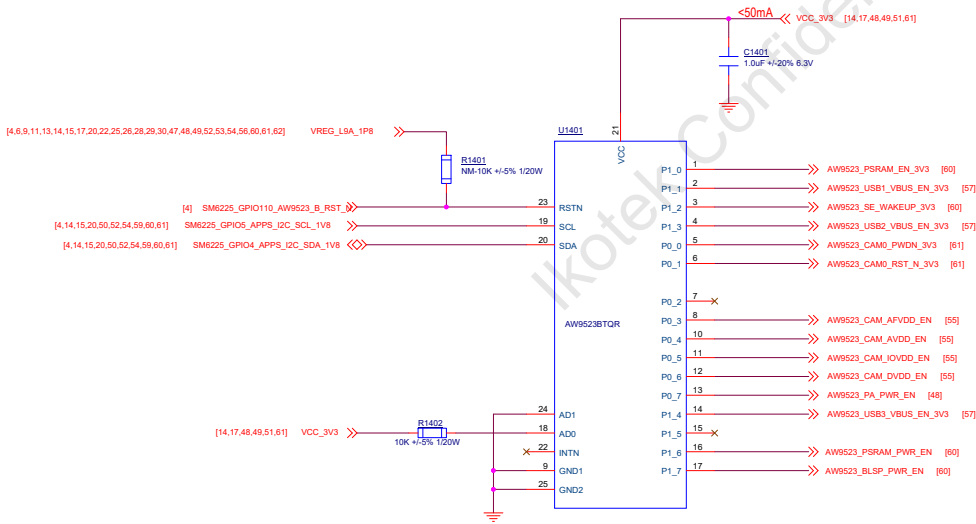
Doesn't have to be close to its pin

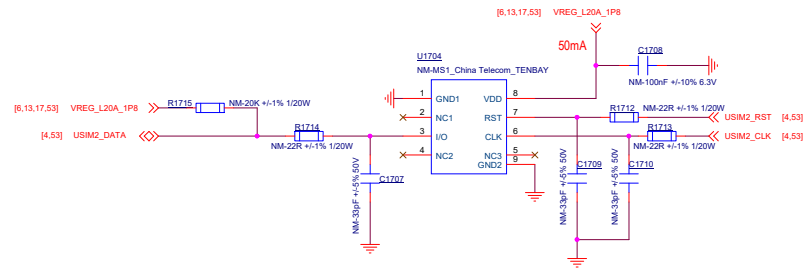
Pseudo-Capless
MVP150 - Min : 0.47uF , Max : 5uF
MVP600 - Min : 4.7uF , Max : 23.5uF
LVP600 - Min : 4.7uF , Max :

Organization			
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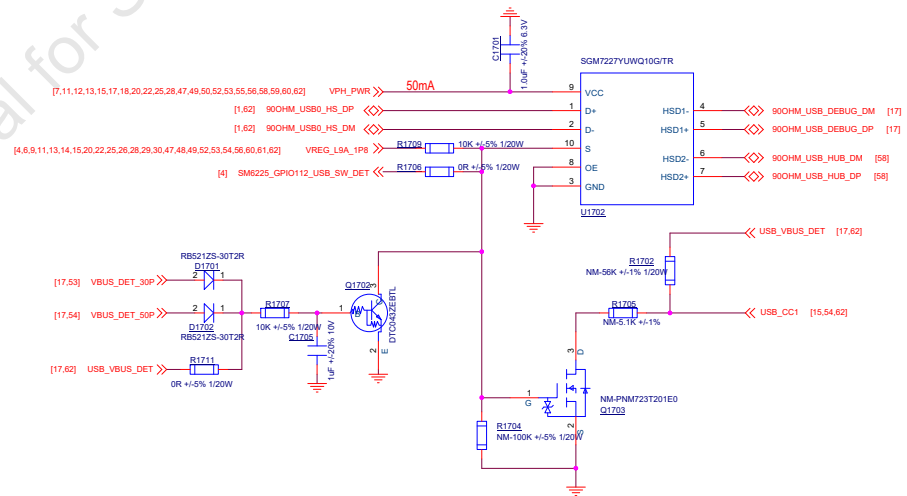
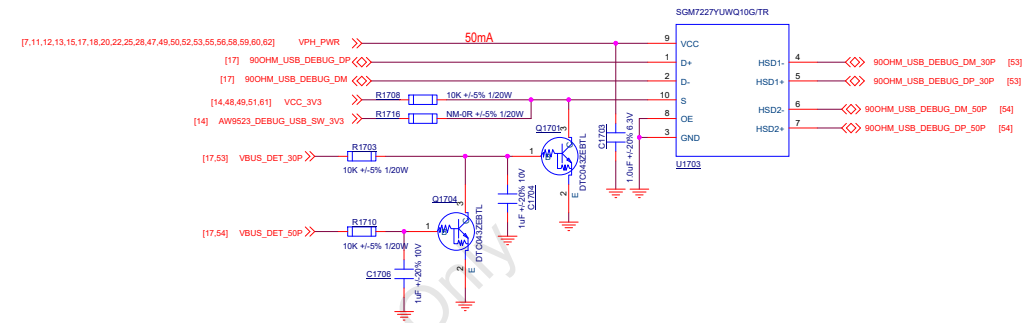


AD1	AD0	P1_7	P1_6	P1_5	P1_4	P1_3	P1_2	P1_1	P1_0	P0_7	P0_6	P0_5	P0_4	P0_3	P0_2	P0_1	P0_0
GND	GND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GND	VBAT	0	0	0	0	1	1	1	1	0	0	0	0	Hi-Z	Hi-Z	Hi-Z	Hi-Z
VBAT	GND	1	1	1	1	0	0	0	0	Hi-Z	Hi-Z	Hi-Z	Hi-Z	0	0	0	0
VBAT	VBAT	1	1	1	1	1	1	1	1	Hi-Z	Hi-Z	Hi-Z	Hi-Z	Hi-Z	Hi-Z	Hi-Z	Hi-Z





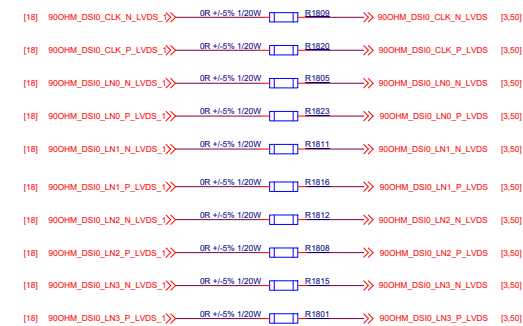
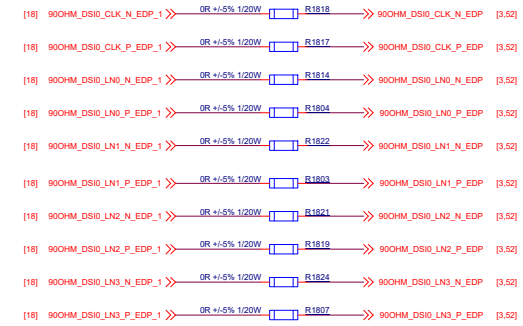
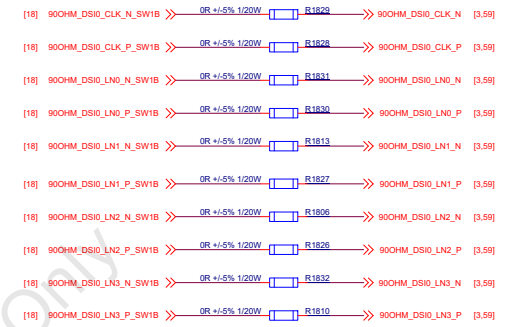
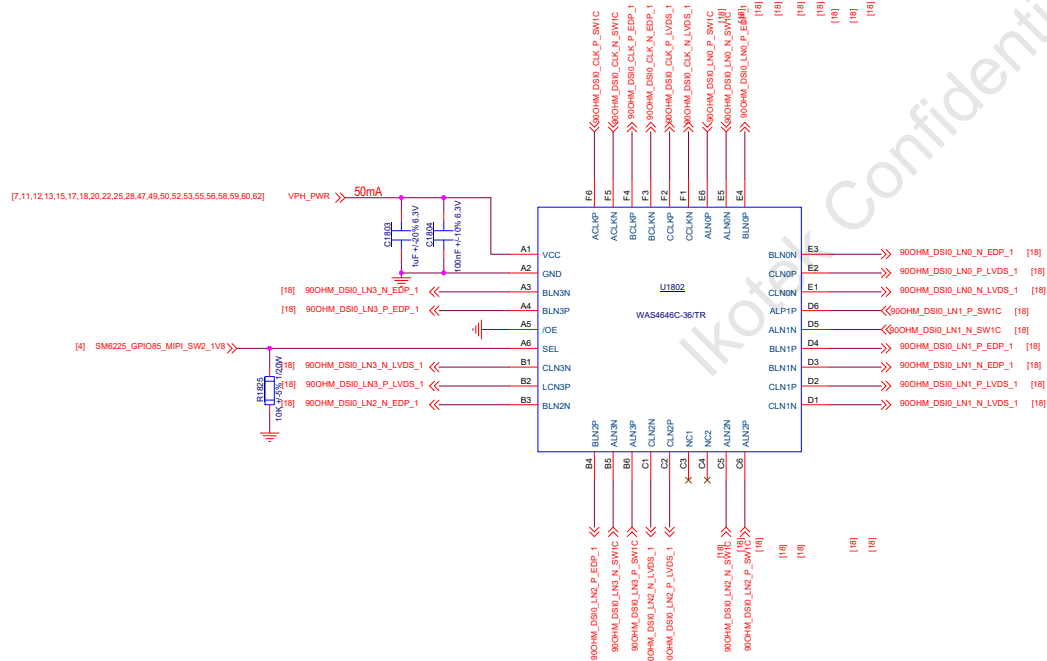
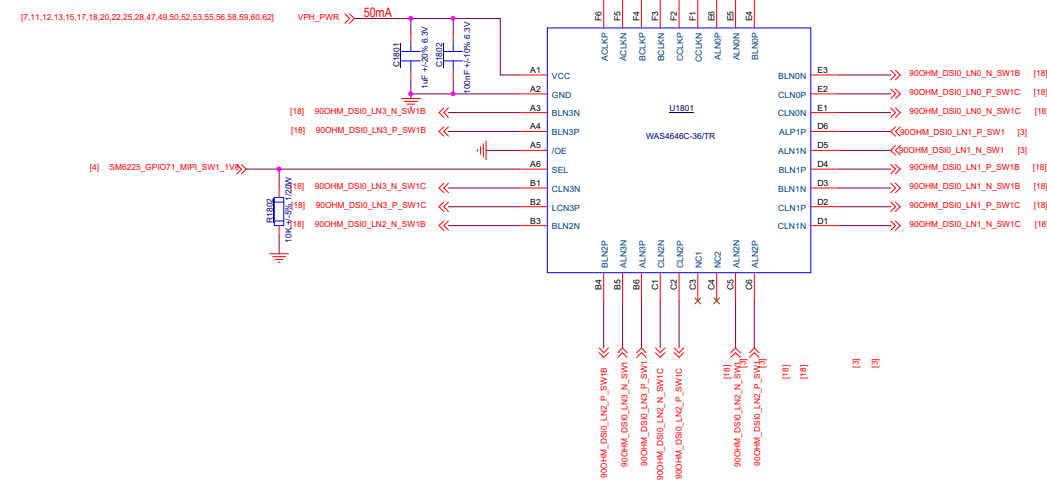
USB DEBUG SWITCH

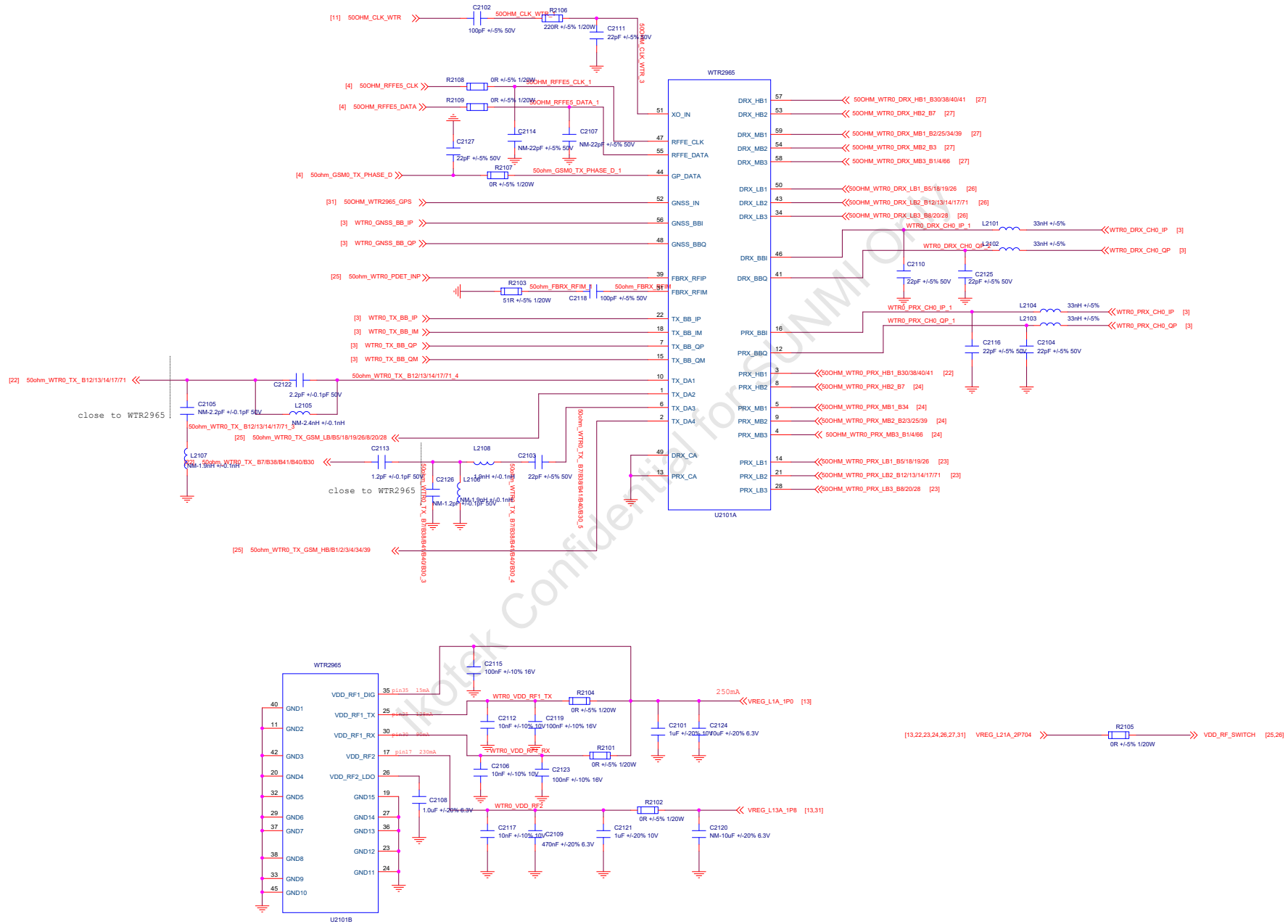


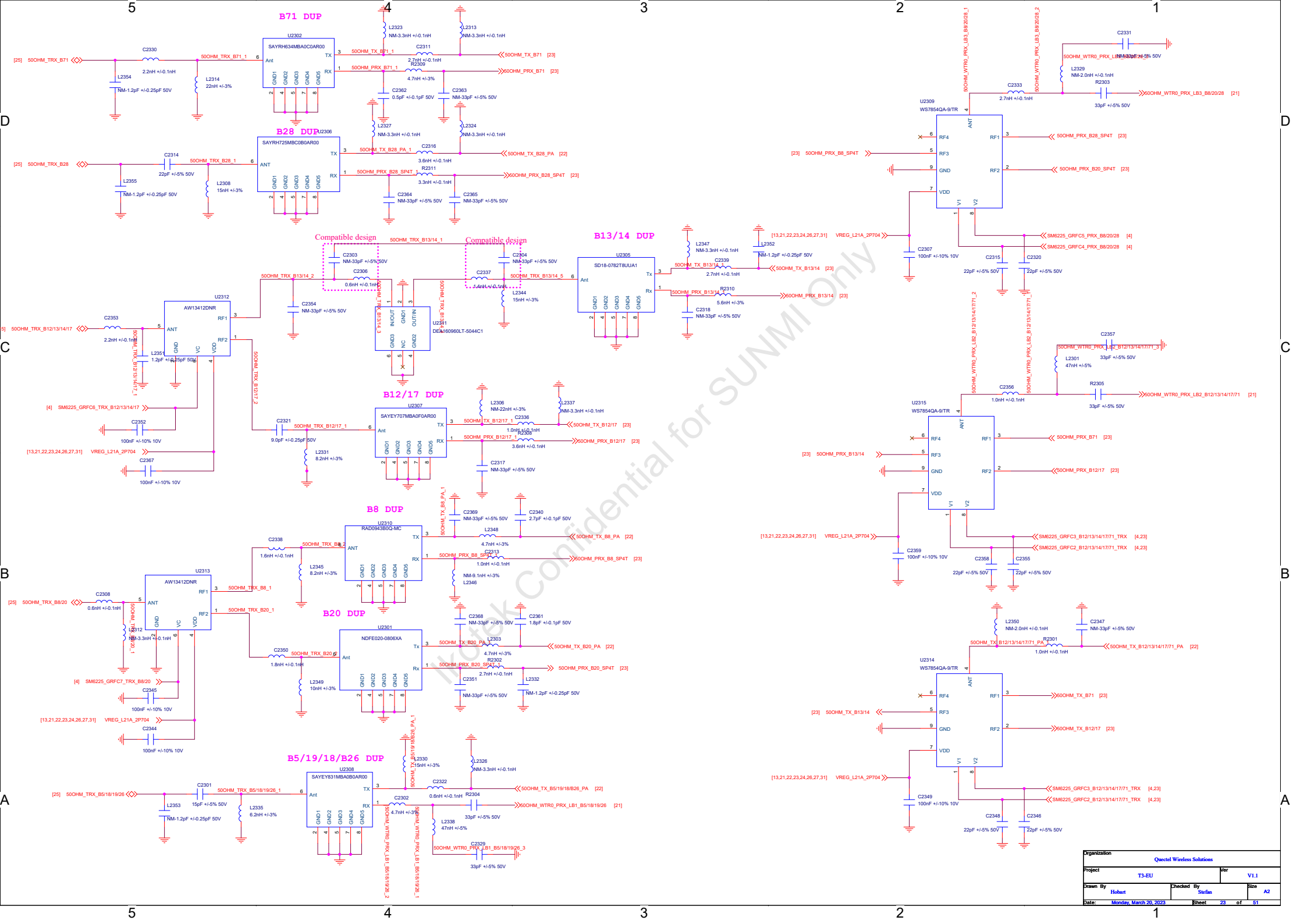
FUNCTION TABLE

$\overline{\text{OE}}$	S	HSD1+, HSD1-	HSD2+, HSD2-
0	0	ON	OFF
0	1	OFF	ON
1	x	OFF	OFF

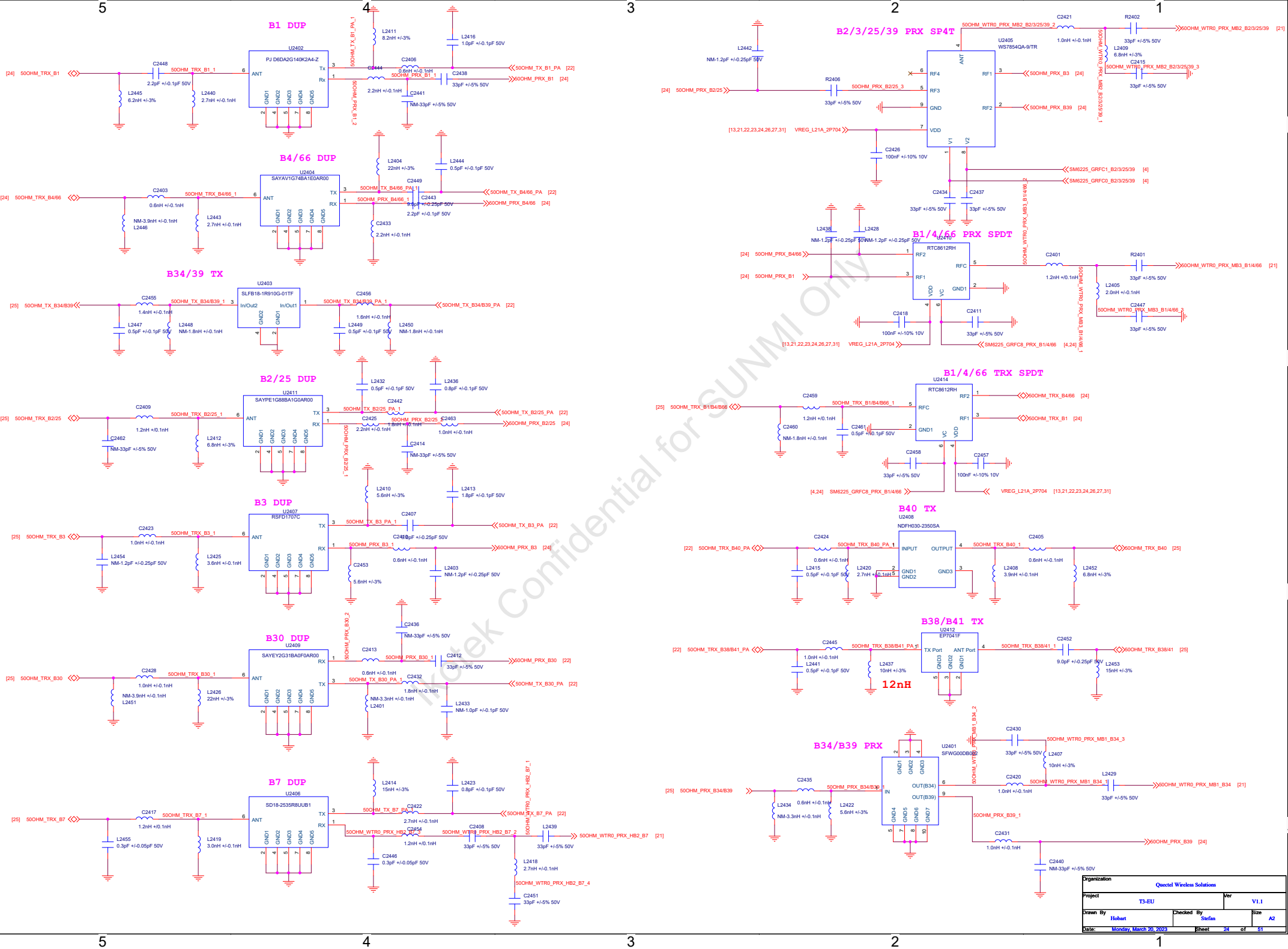
Switches Shown For Logic "0" Input



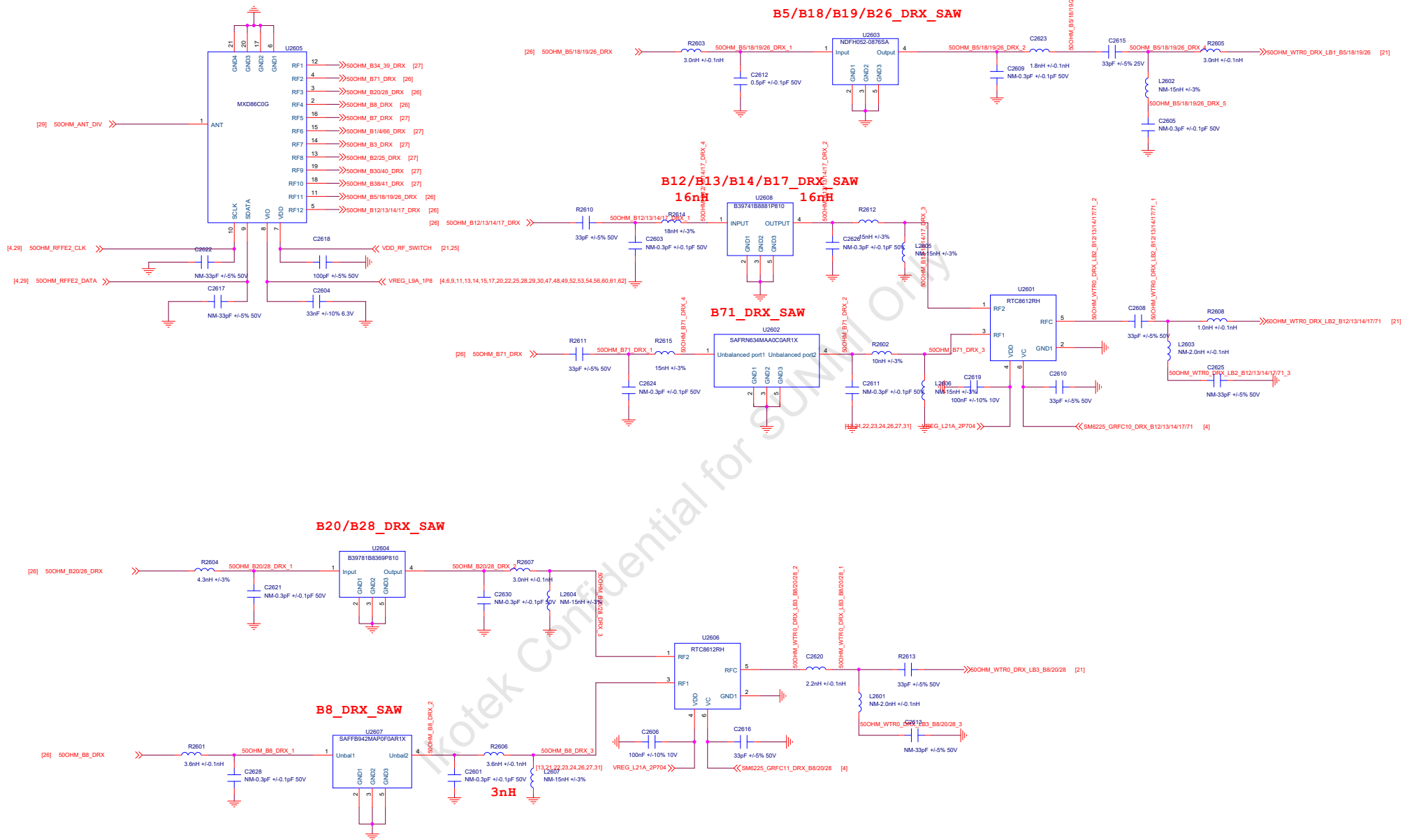




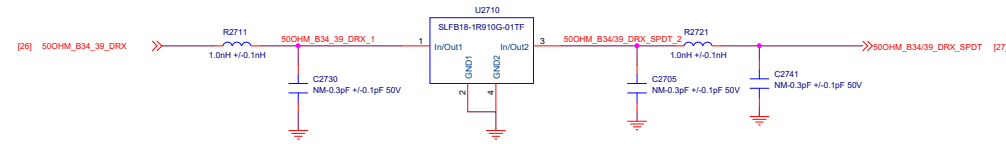
Organization			
Questel Wireless Solutions			
Project		Ver	V1.1
T3-EU			
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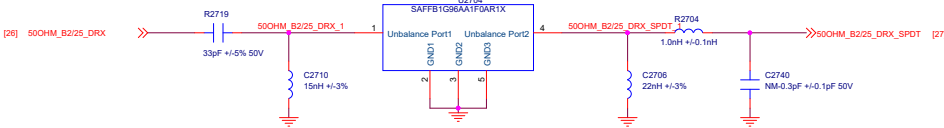
Organization			
Quectel Wireless Solutions			
Project	TJ-EU	Ver	V1.1
Drawn By	Hobart	Checked By	Stefan
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	Sheet	24	of 81



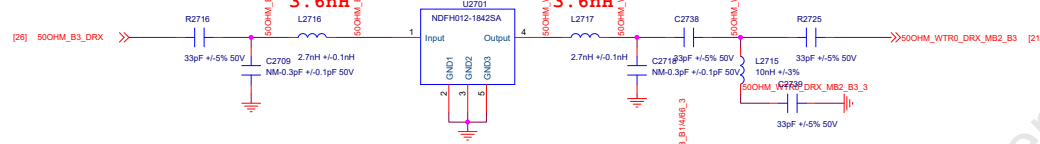
B34_B39_DRX_SAW



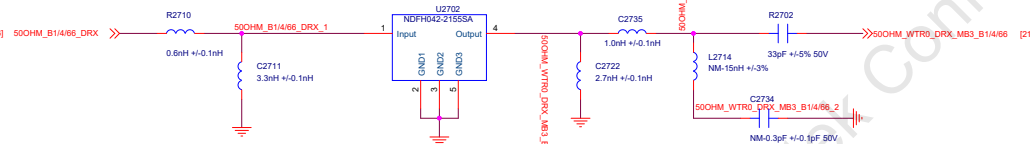
B2/B25_DRX_SAW



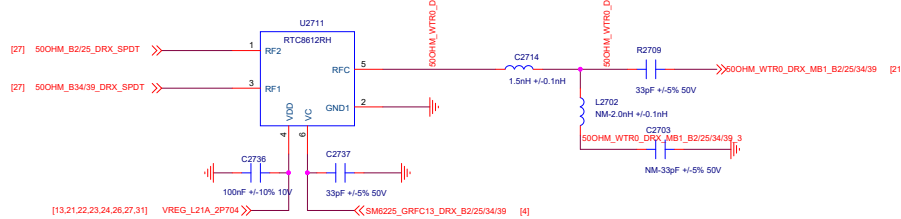
B3_DRX_SAW



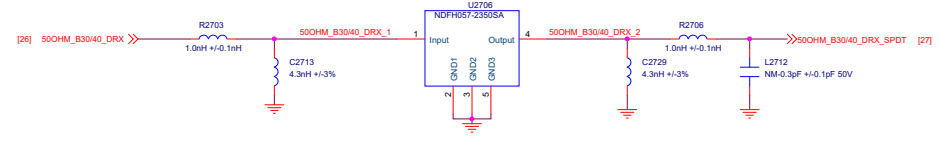
B1/B4/B66_DRX_SAW



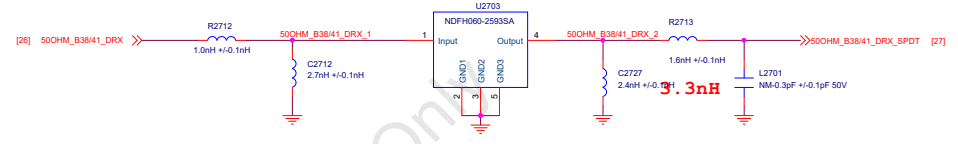
B2/25/34/39_DRX_SPDT



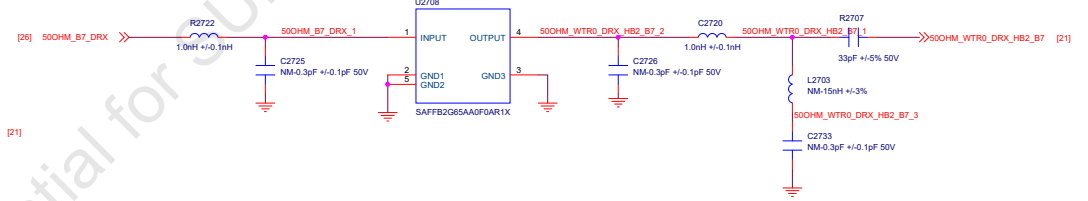
B30/B40_DRX_SAW



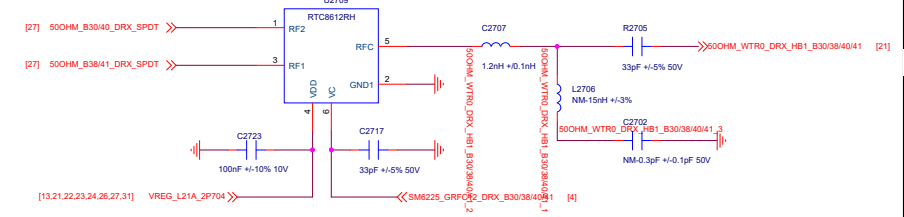
B38/B41_DRX_SAW



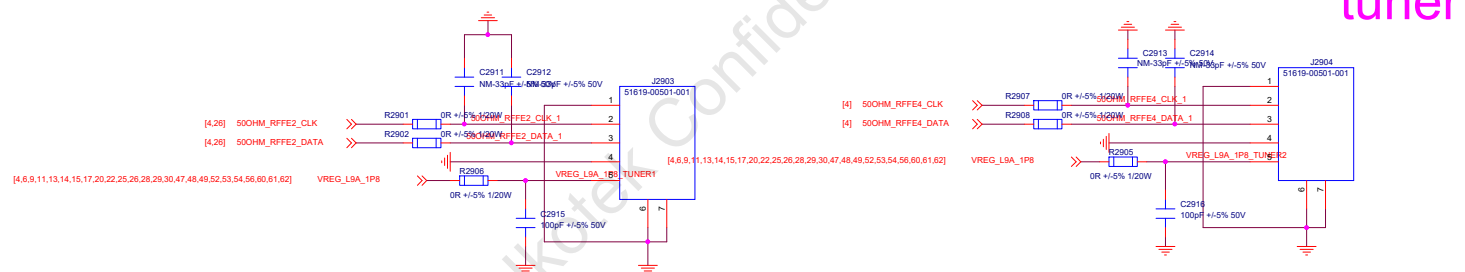
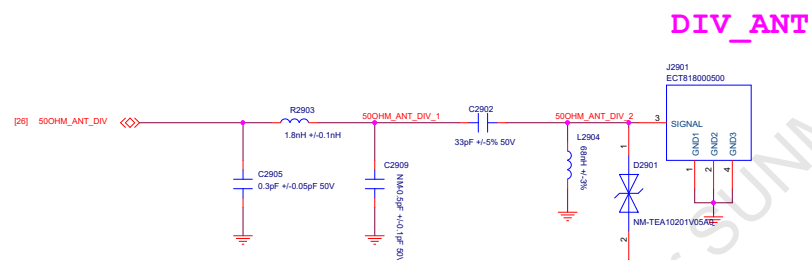
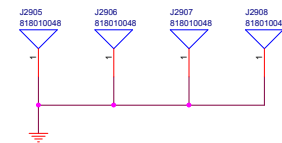
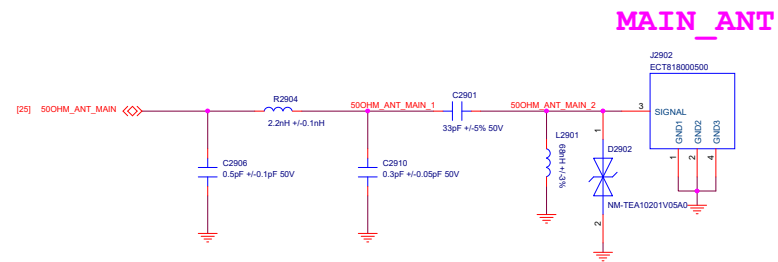
B7_DRX_SAW

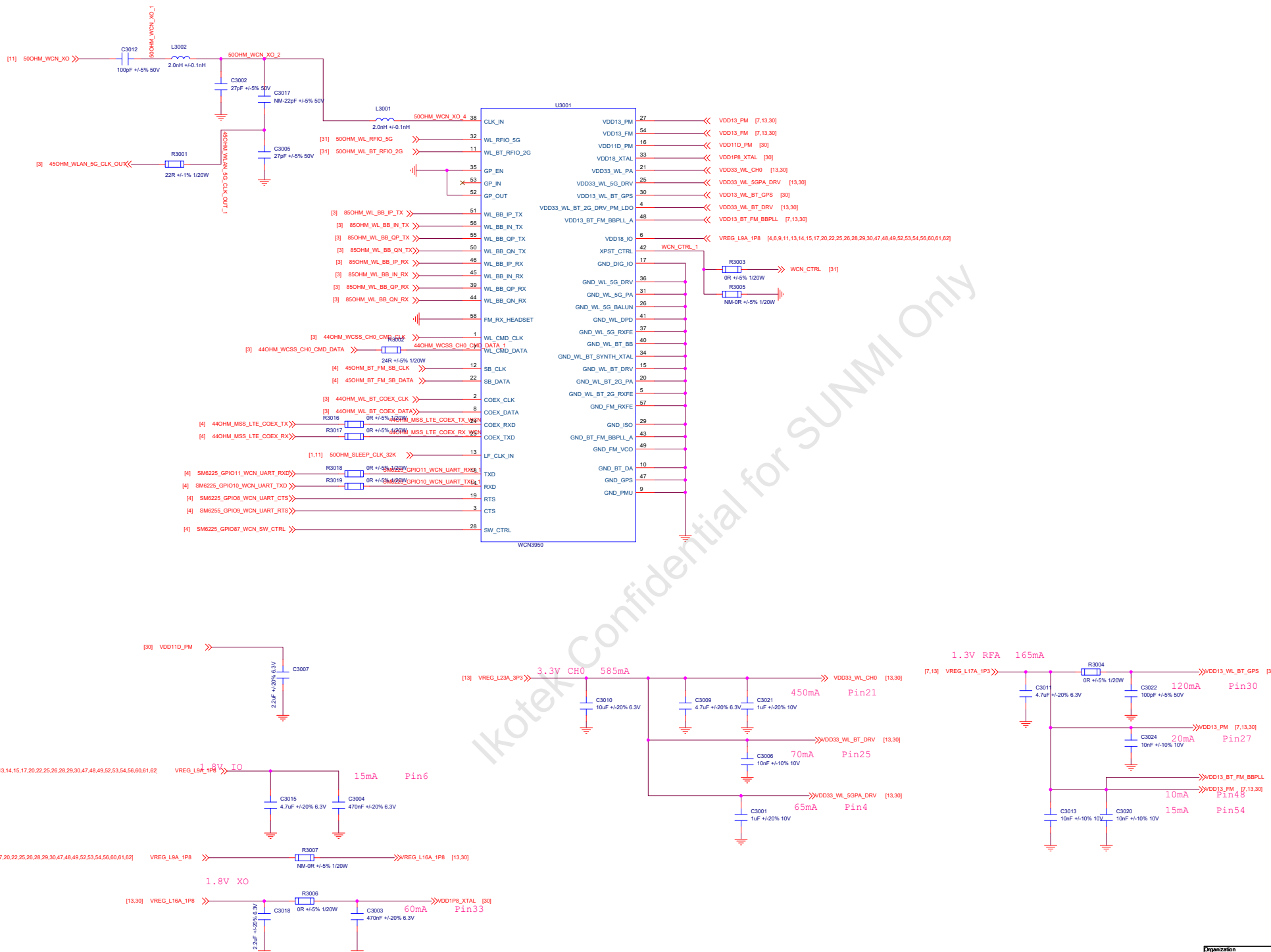


B30/38/40/41_DRX_SPDT



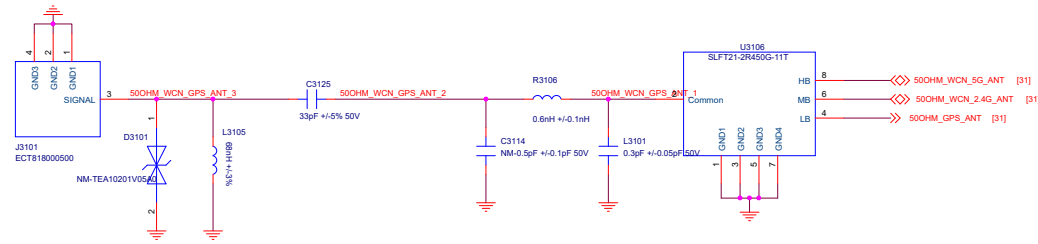
Organization			
Questel Wireless Solutions			
Project	T3-EU	Ver	V1.1
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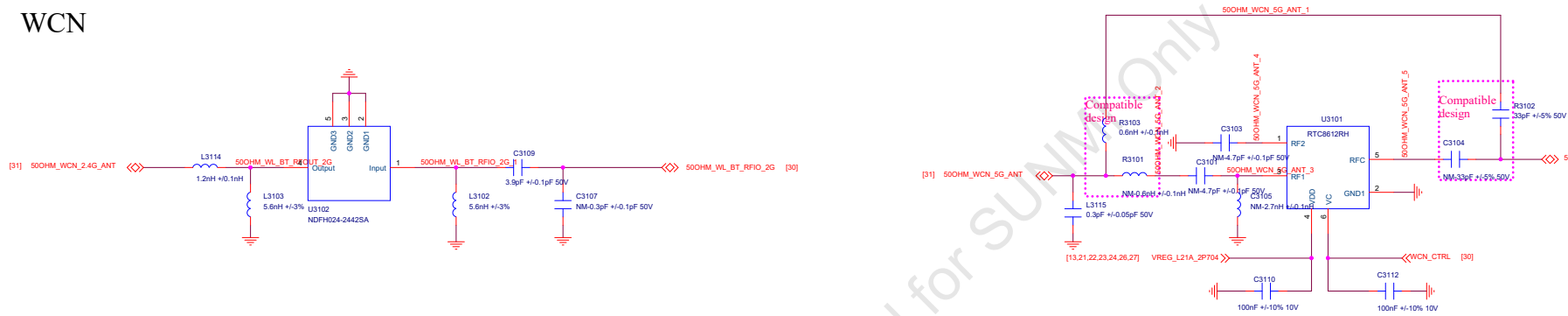


Organization			
Qualtel Wireless Solutions			
Project		Ver	
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WIFI_BT_GPS_ANT

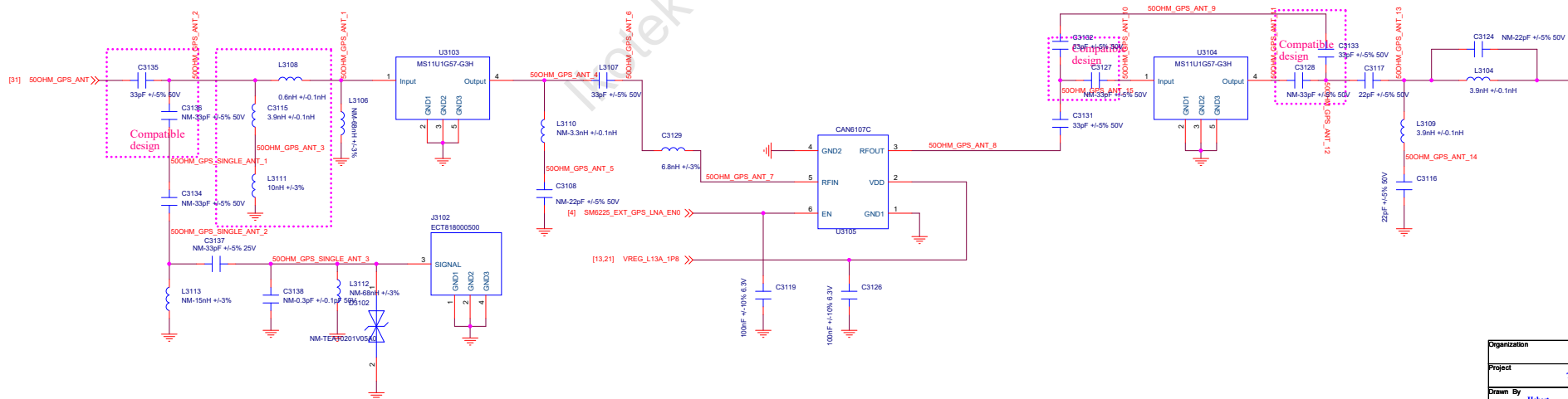


WCN



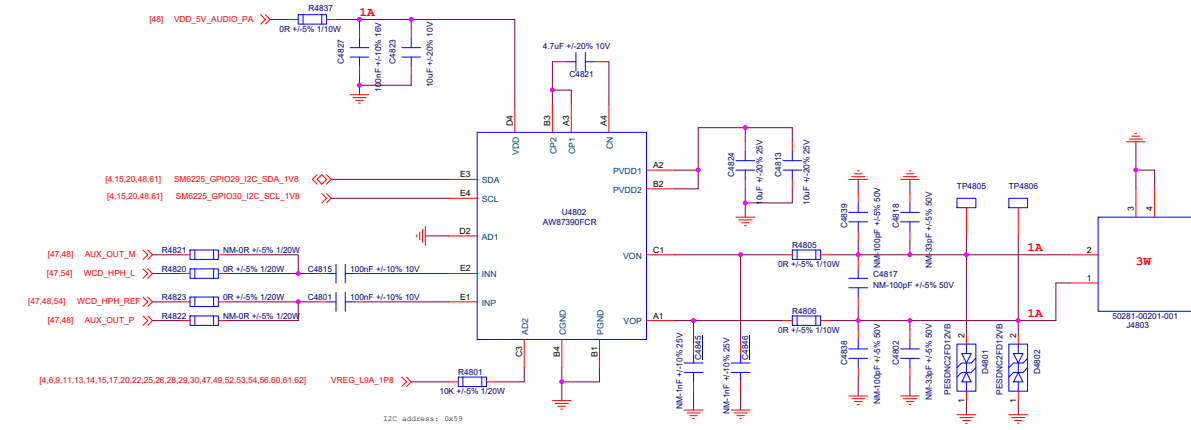
GPS

Notch filter: If B13 is supported, B13 Notch is required to suppress 2nd order harmonics of B13 TX.

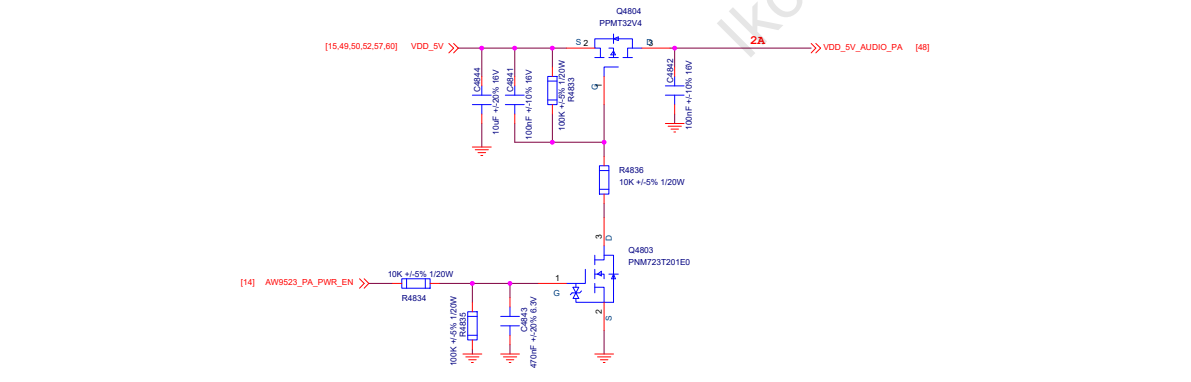
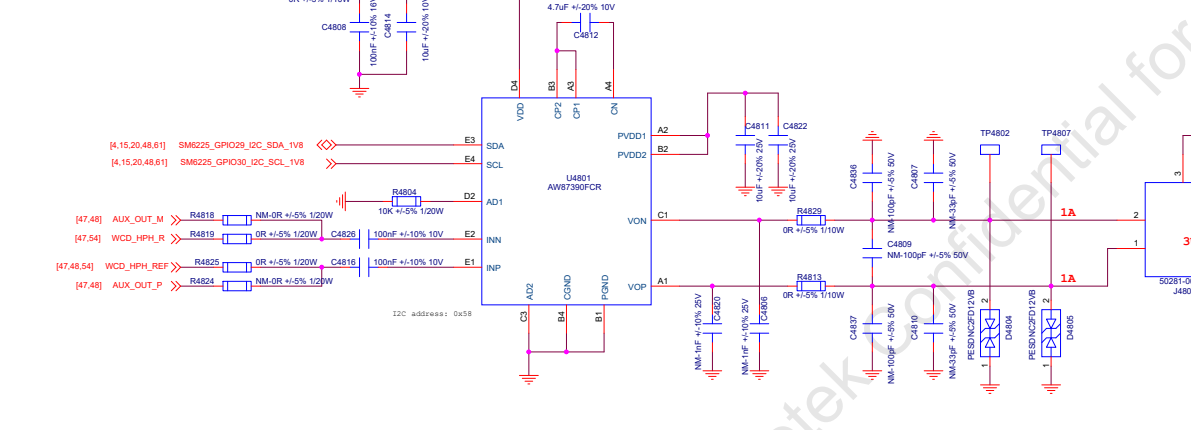


Organization			
Quectel Wireless Solutions			
Project		Ver	V1.1
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Hobart		Stefan	A2
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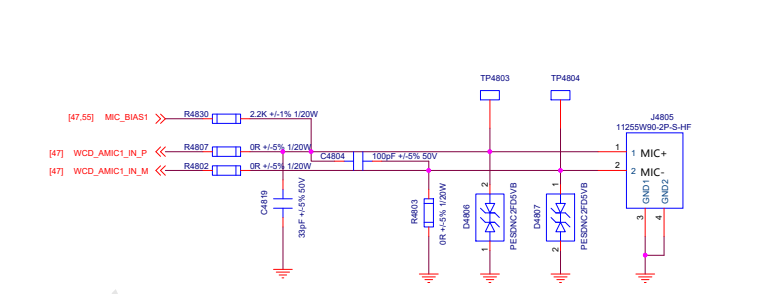
SPK_L



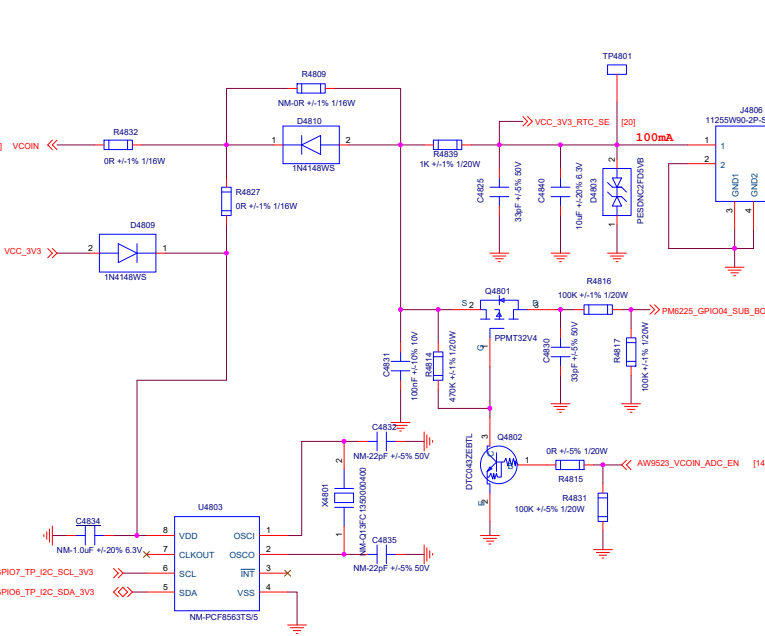
SPK_R



AMIC

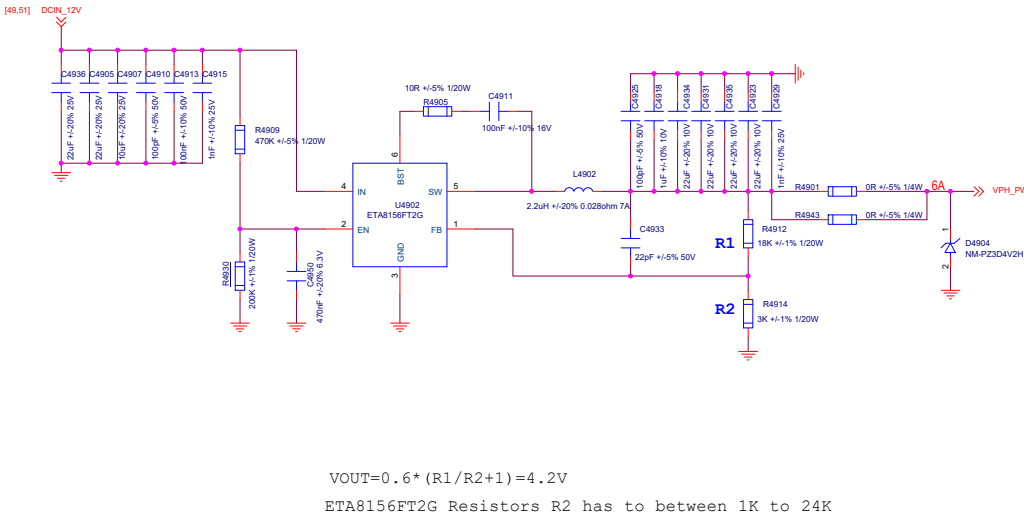


RTC

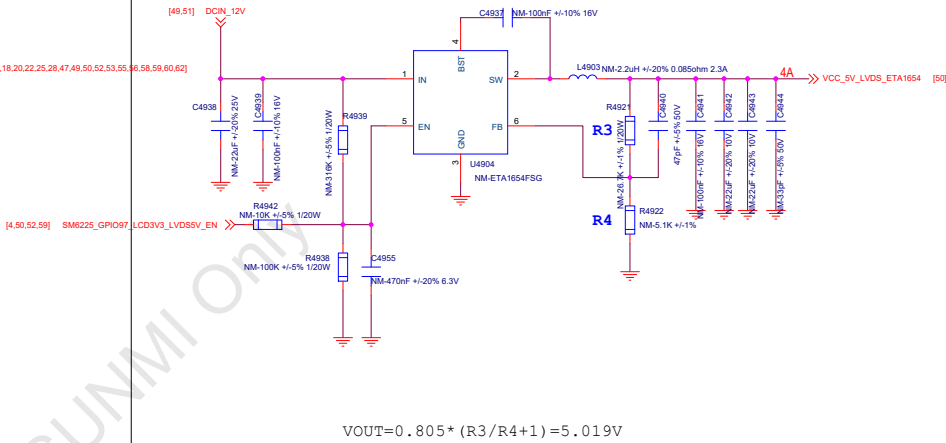


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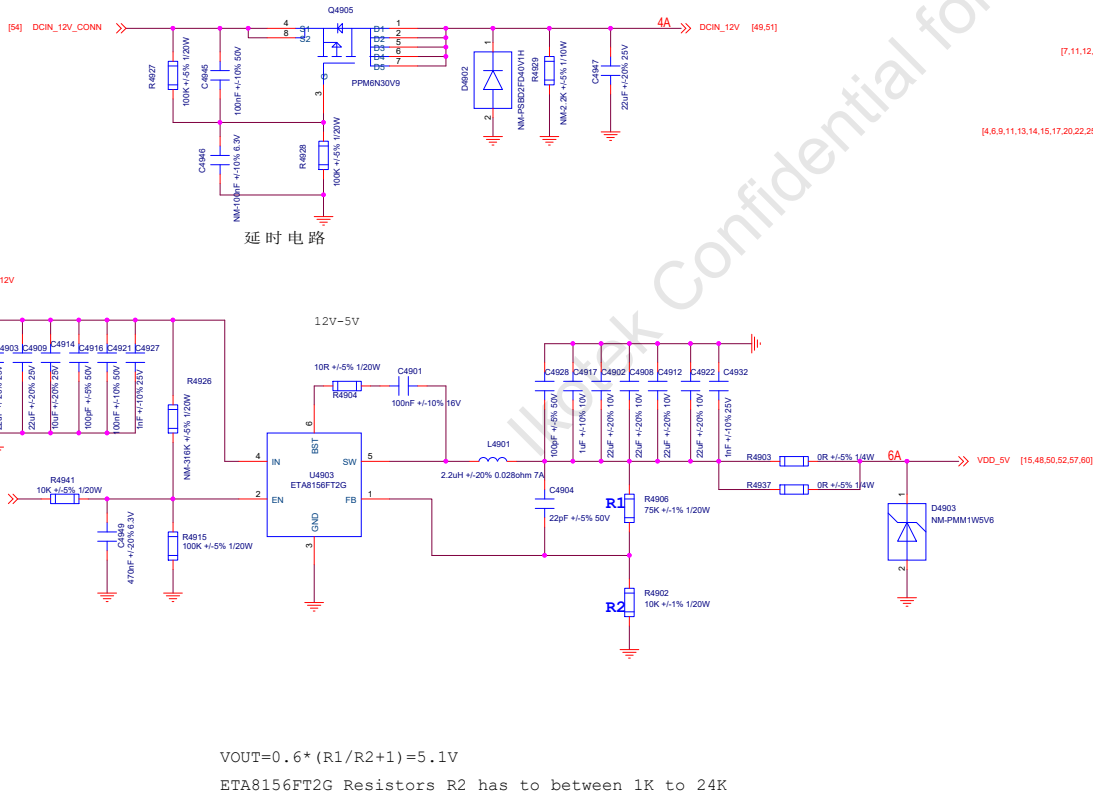
DC12V to 4V



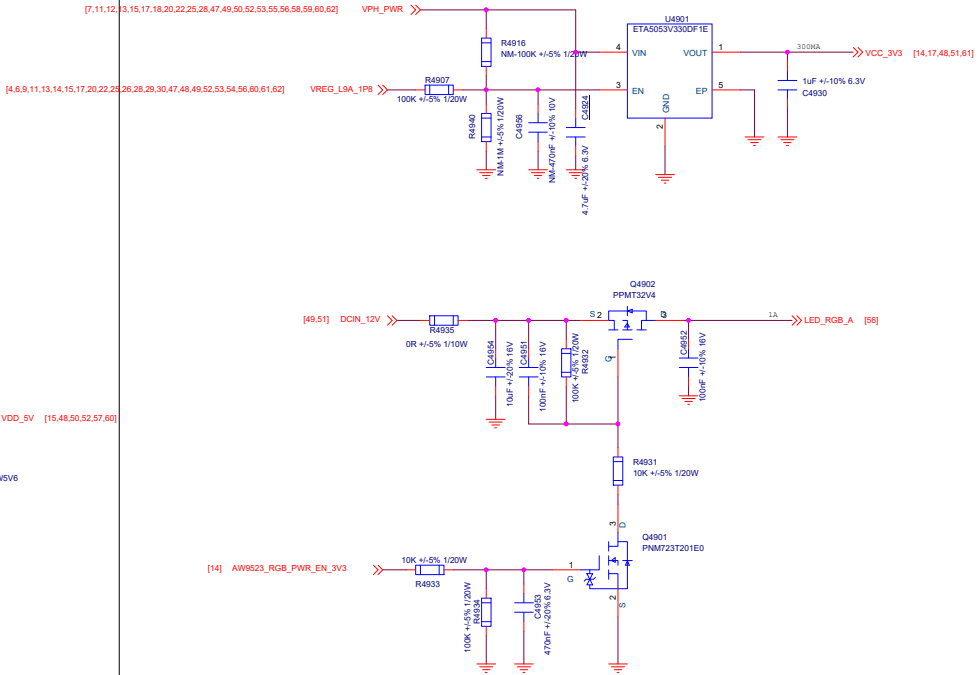
DC12V to 5V



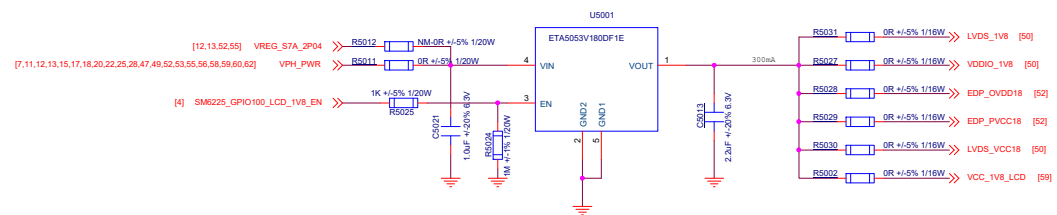
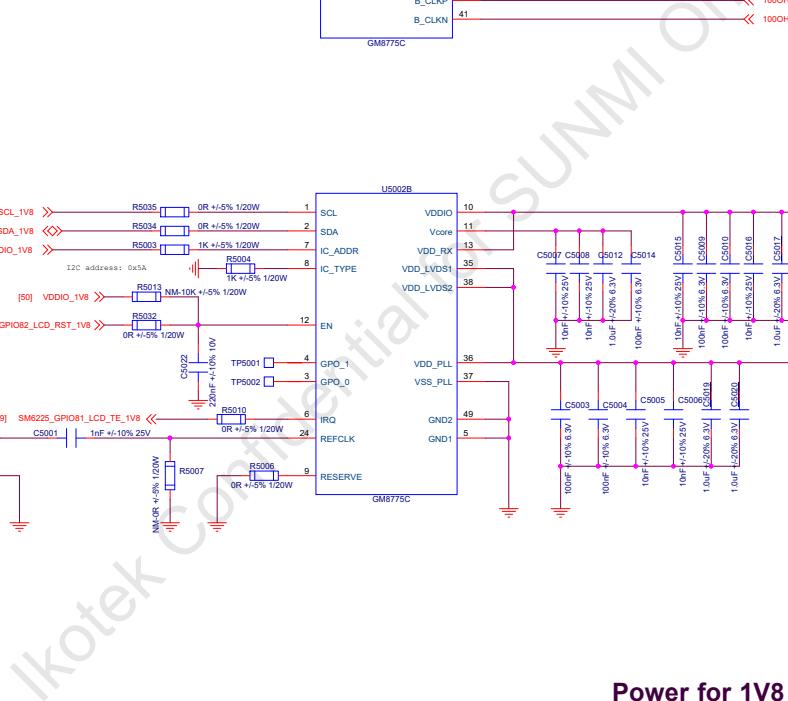
DC12V to 5V



VCC_3V3

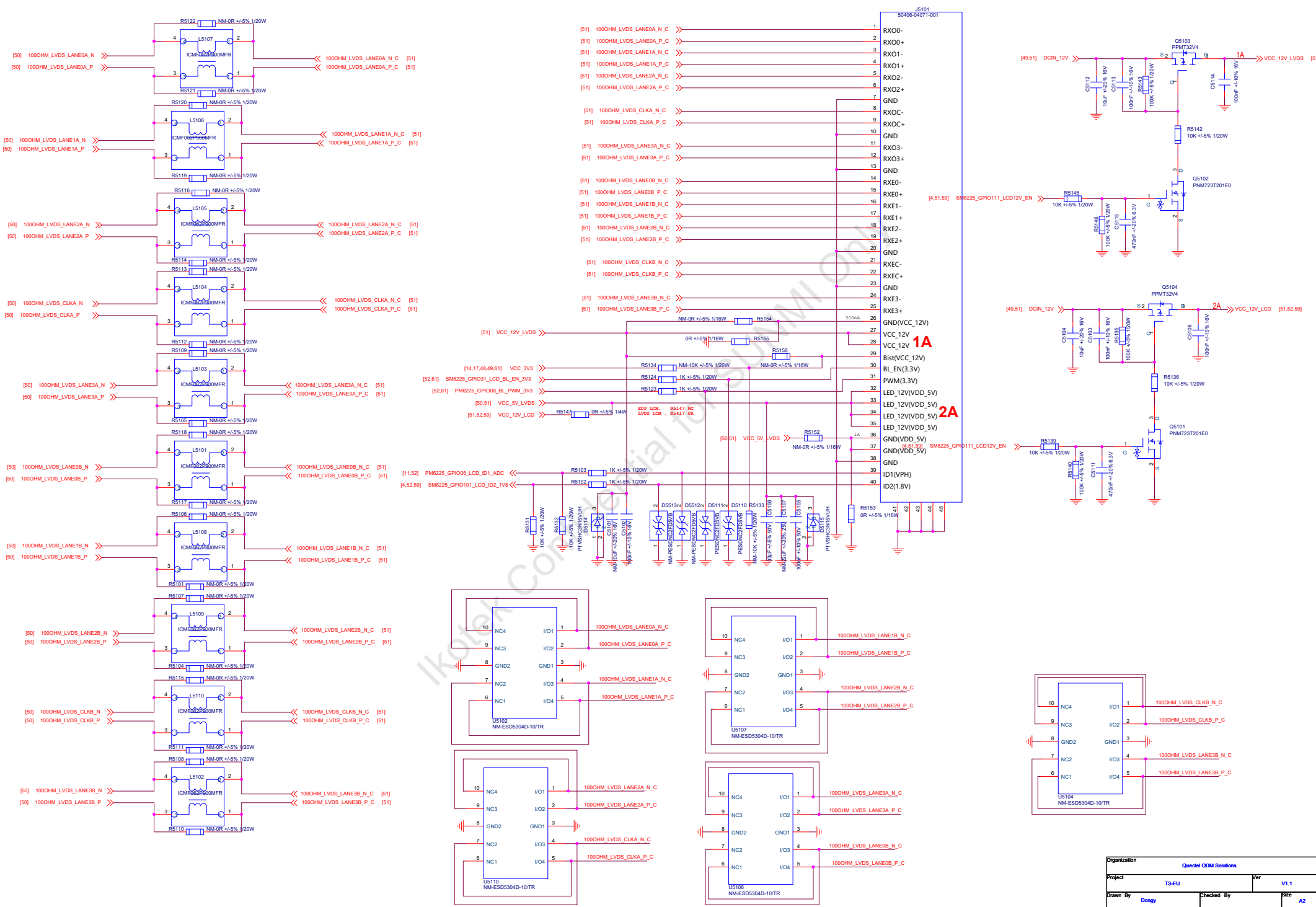


Organization			
Quectel ODM Solutions			
Project		Ver	V1.1
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Dongy		Huon	A2
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Monday, March 20, 2023			

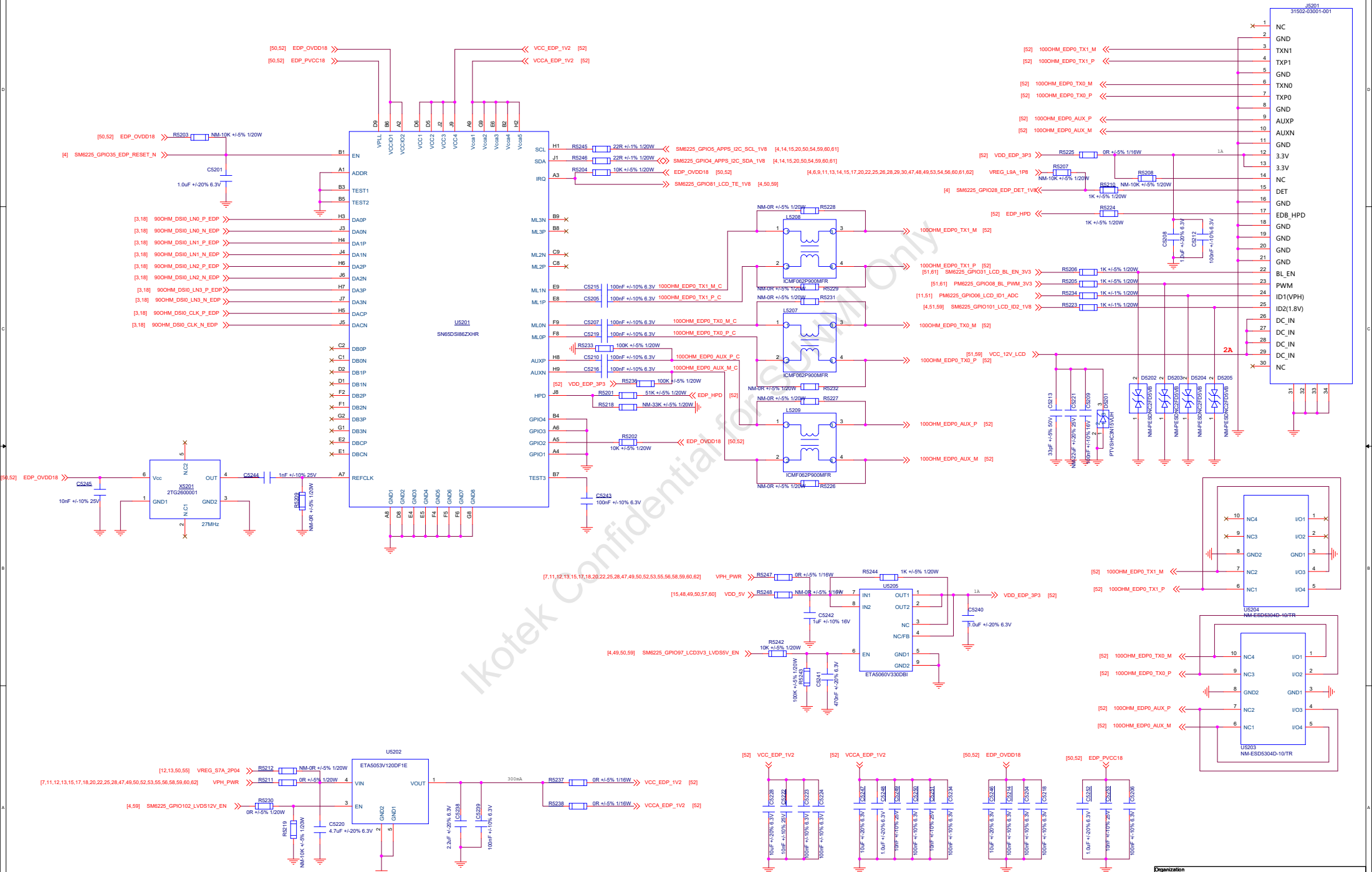


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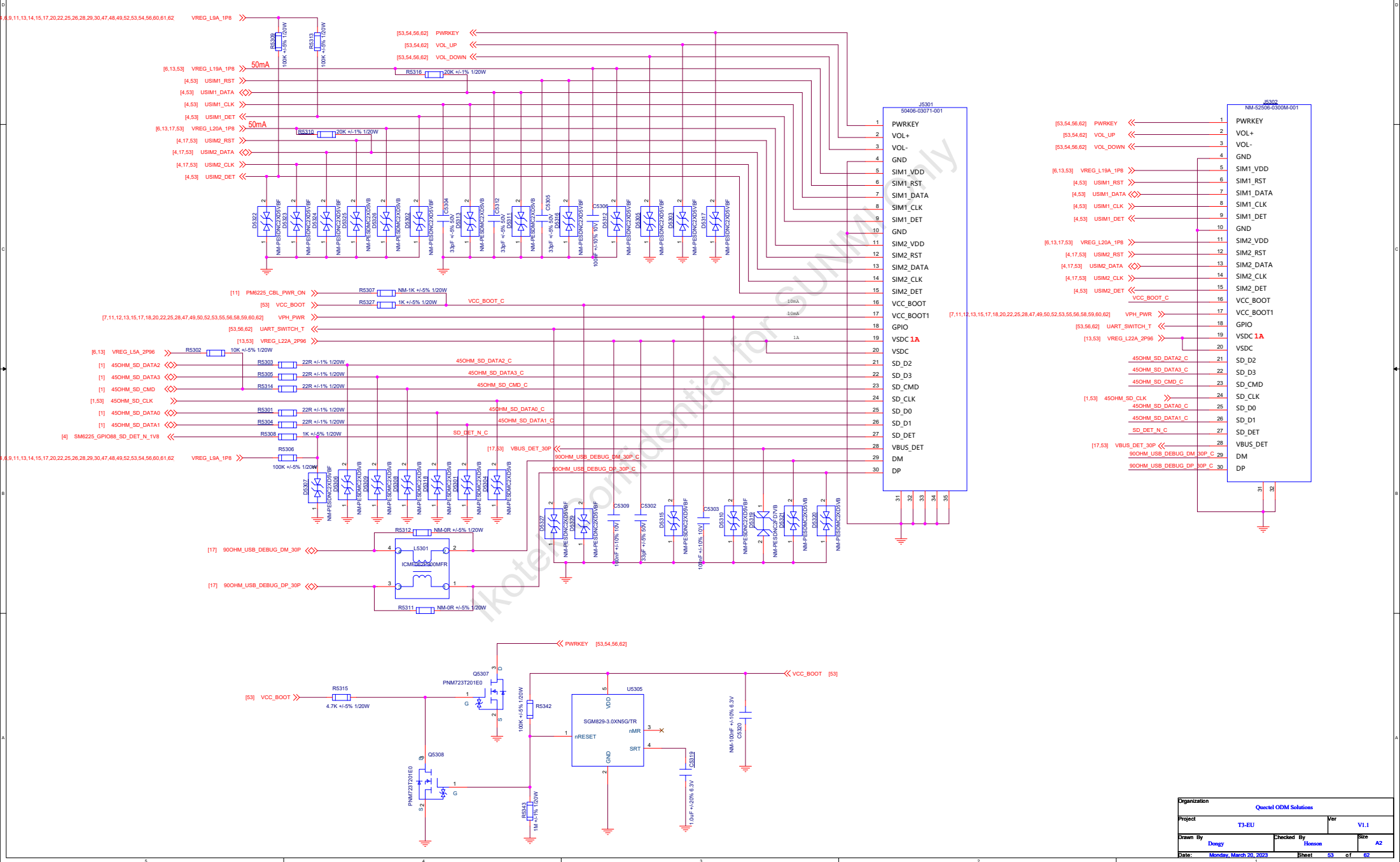
LVDS_CONNECTOR



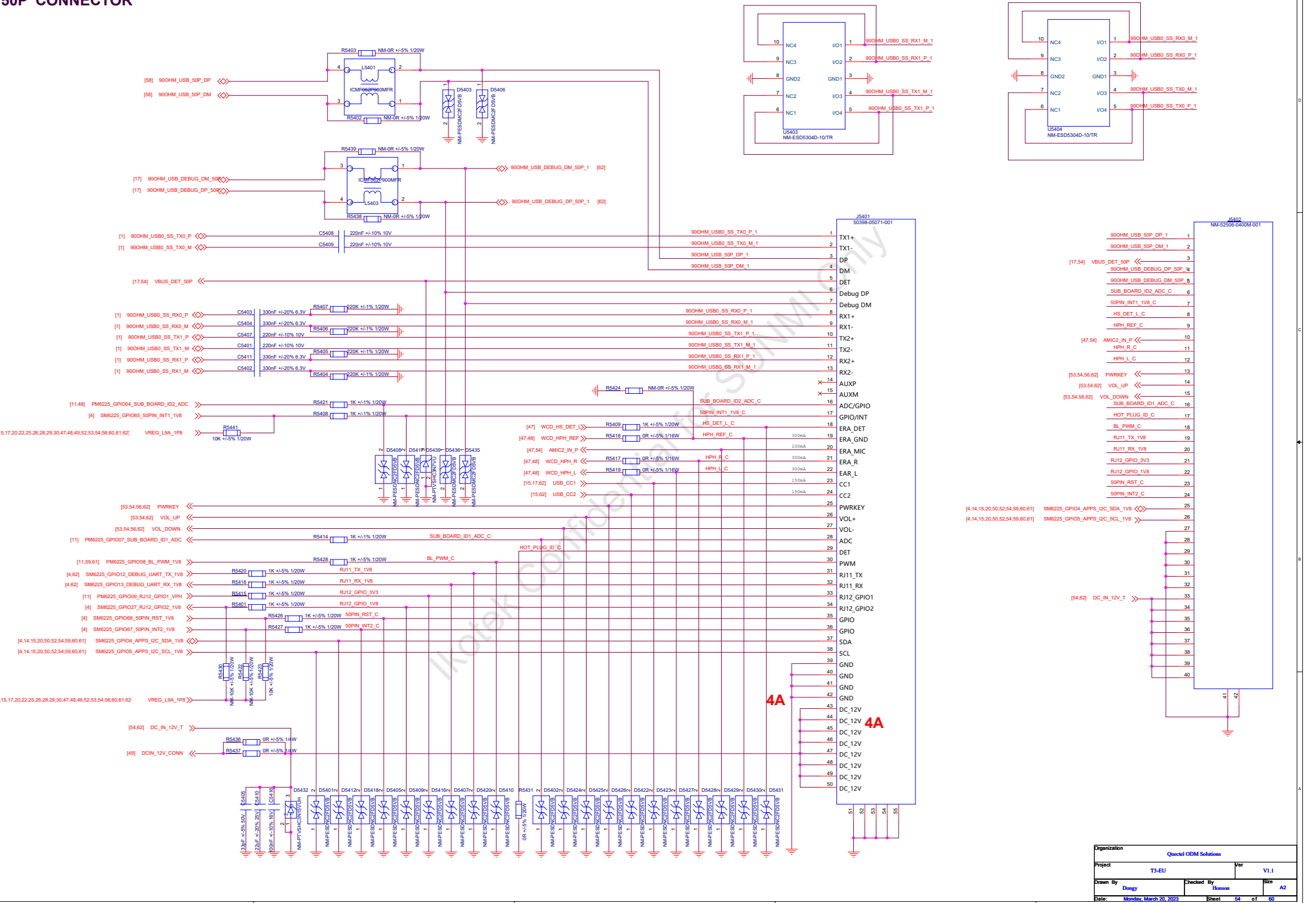
Organization			Quectel ODM Solutions		
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Dongy				A2	
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30P CONNECTOR

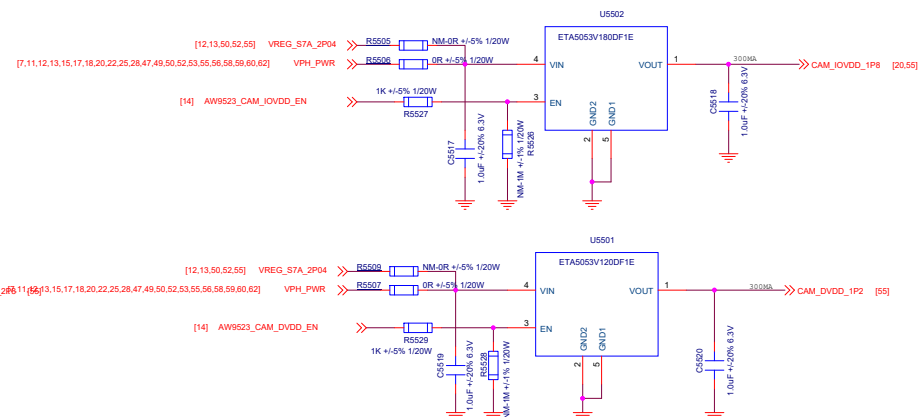
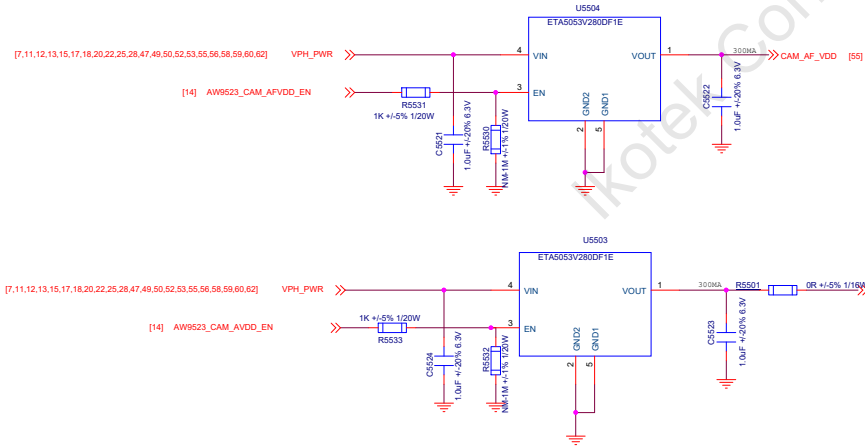
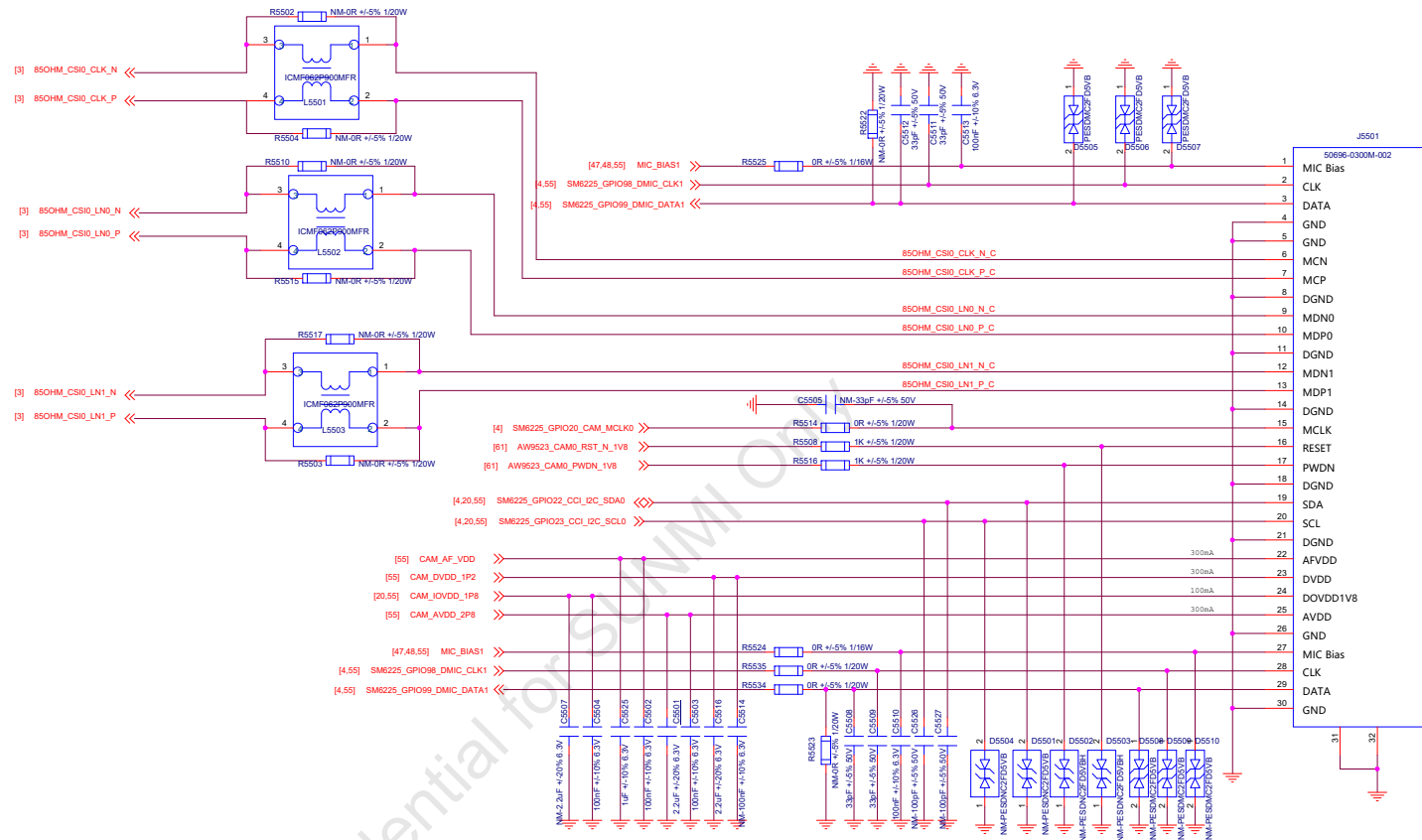
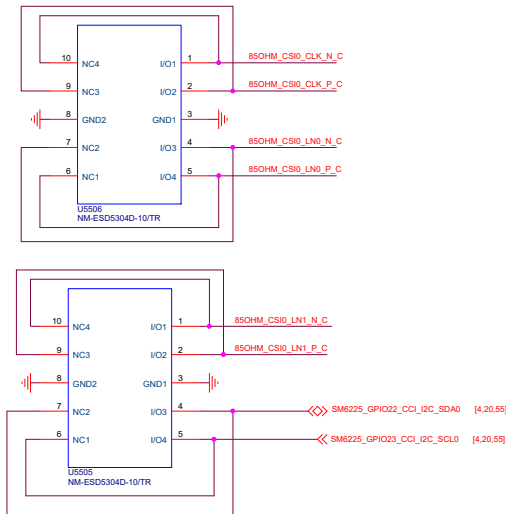


50P CONNECTOR

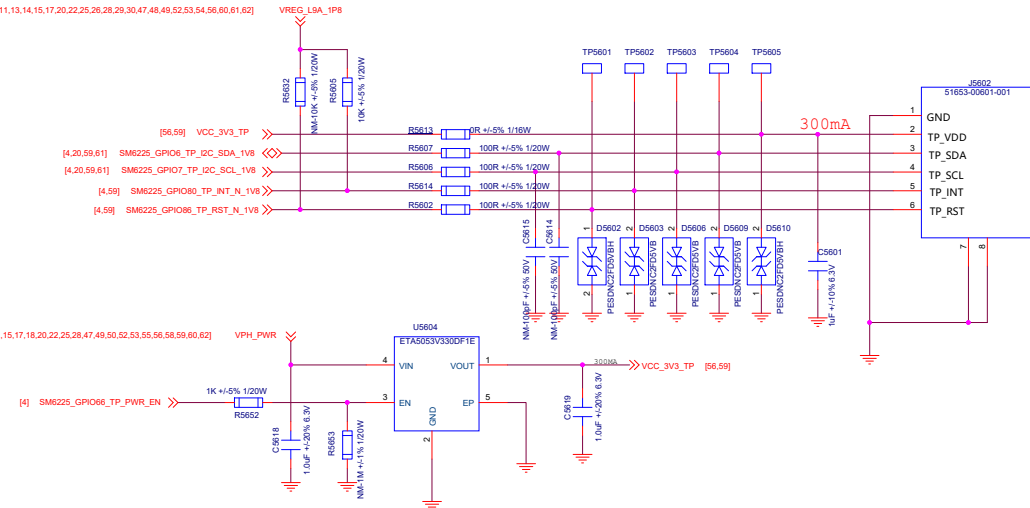


Organization			
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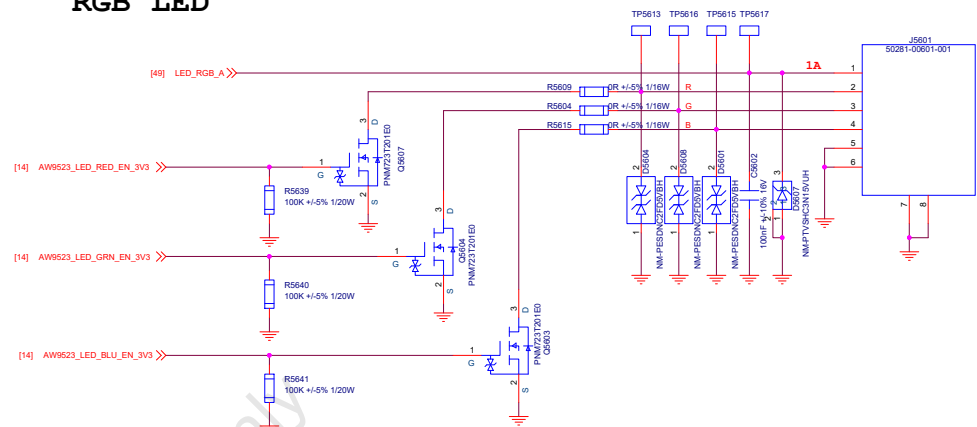
MIPI CAMERA



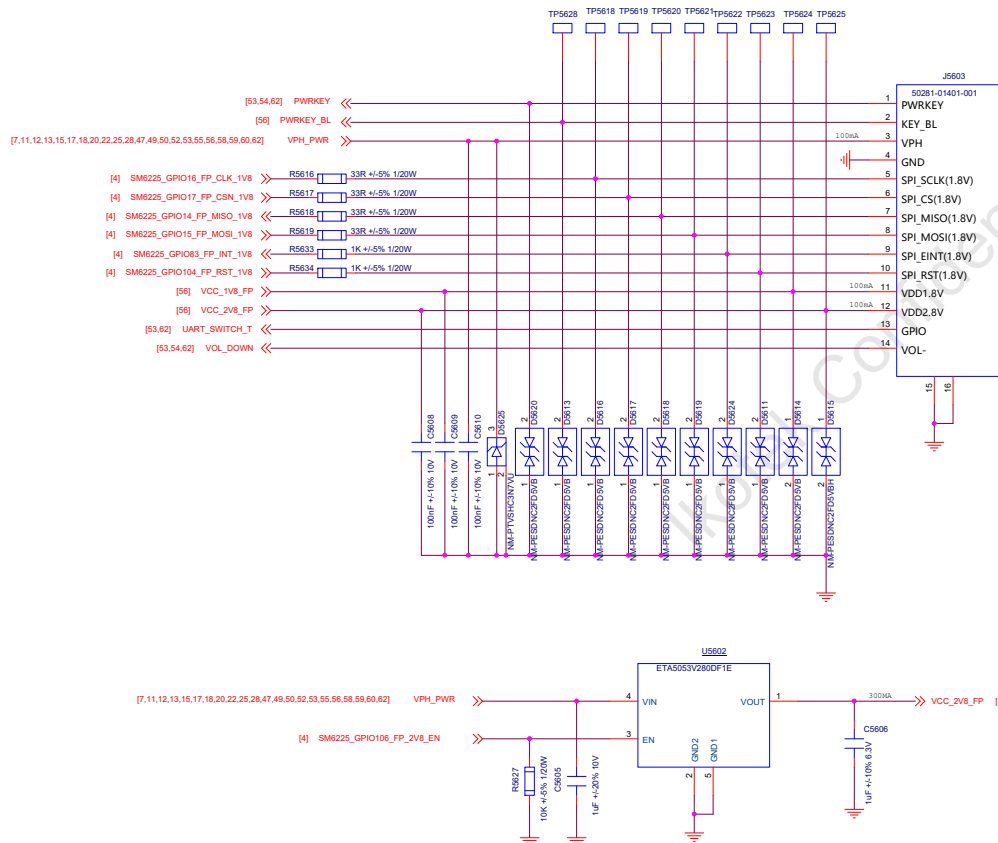
TP



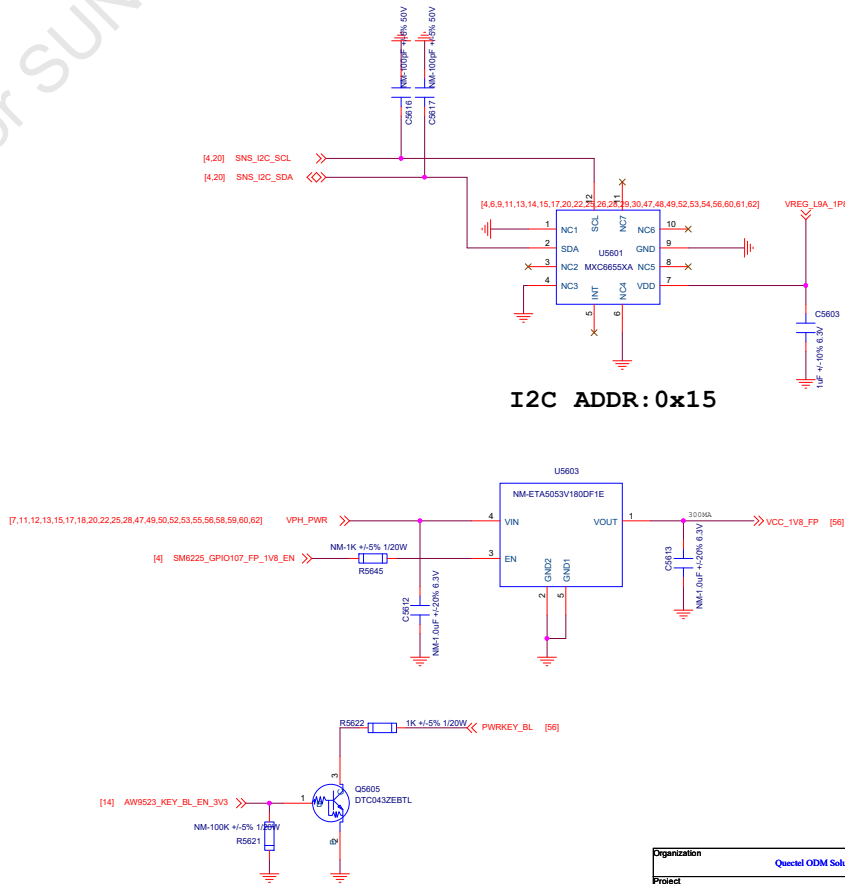
RGB LED



PWRKEY

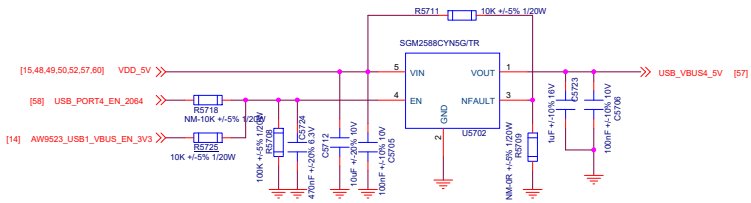


G-SENSOR

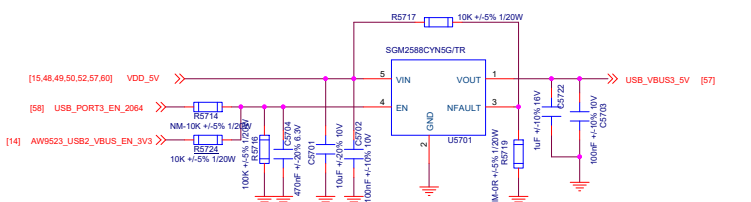


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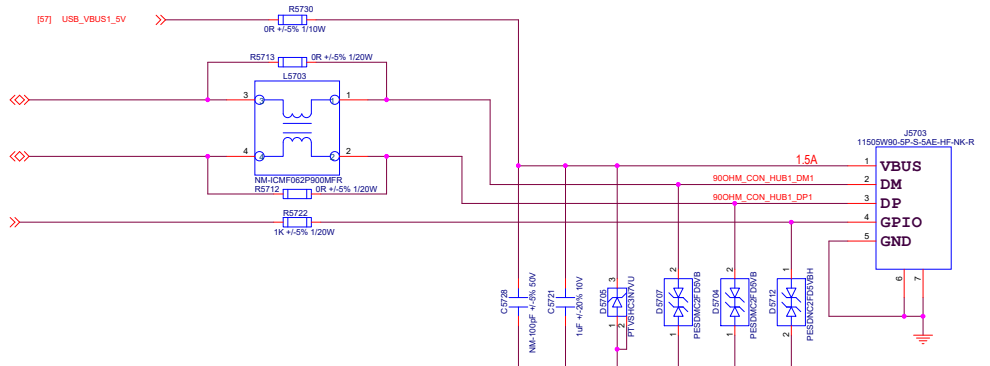
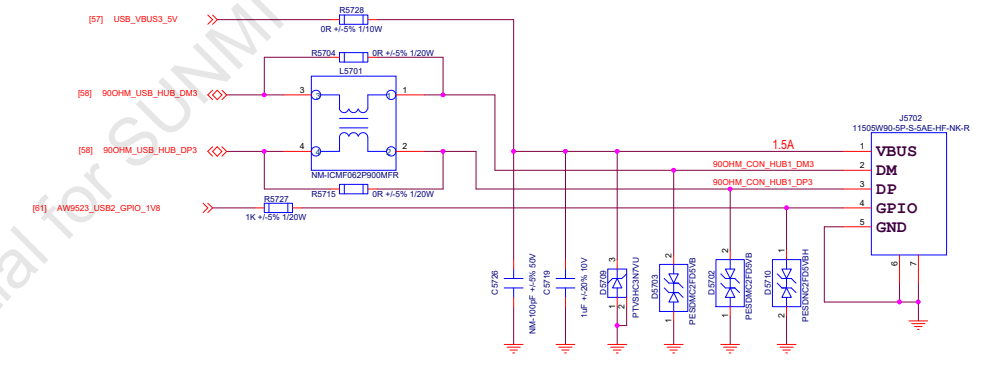
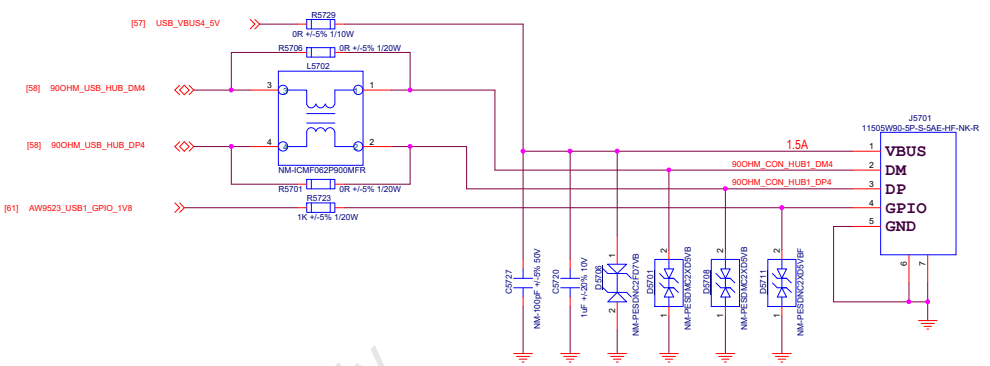
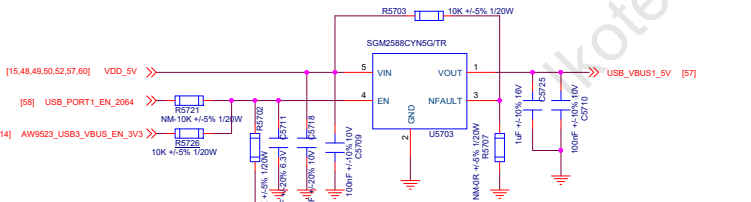
USB1_VBUS_OCP



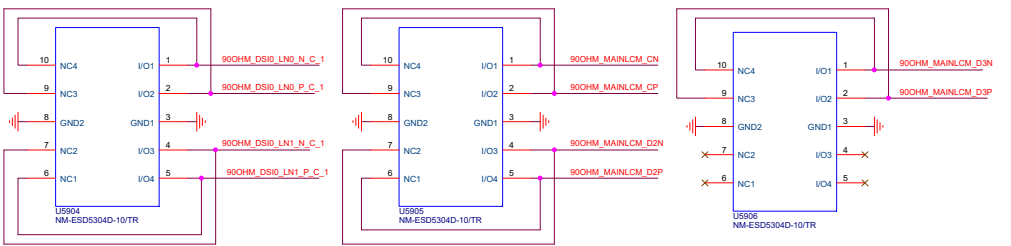
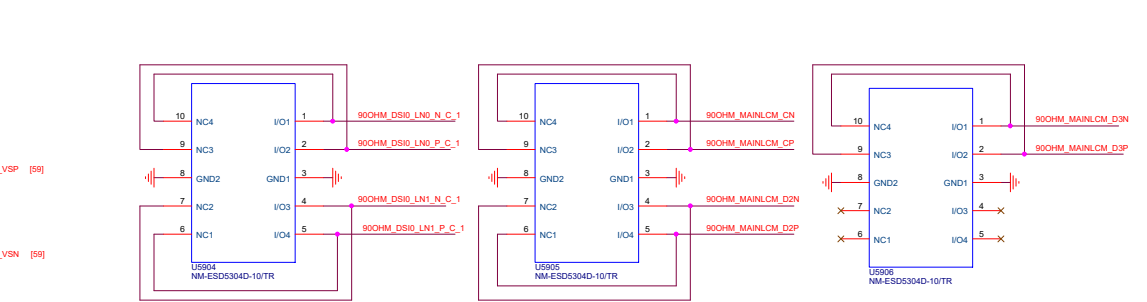
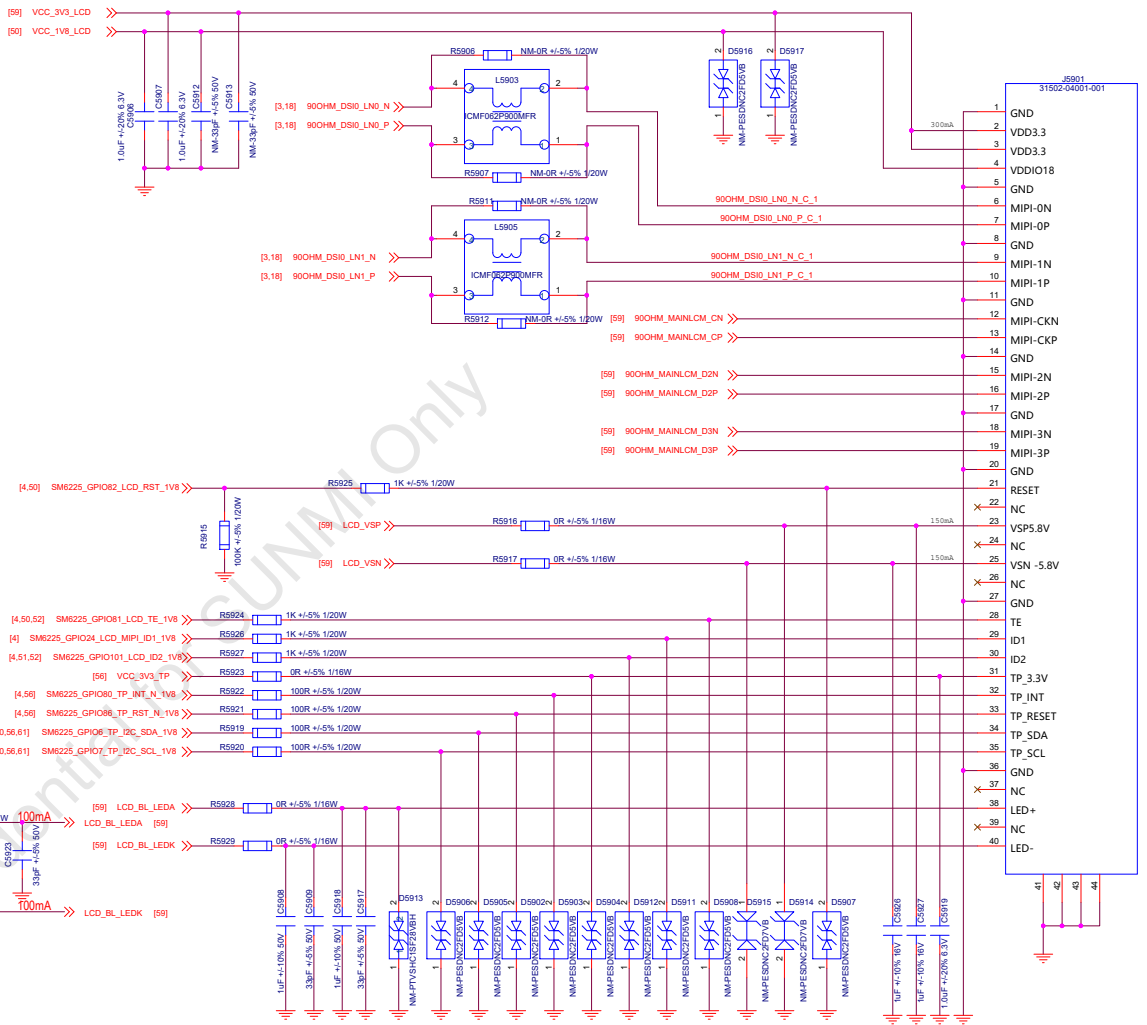
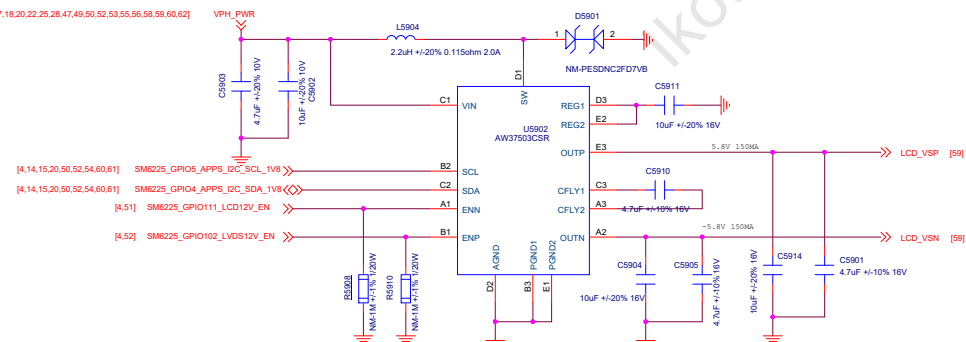
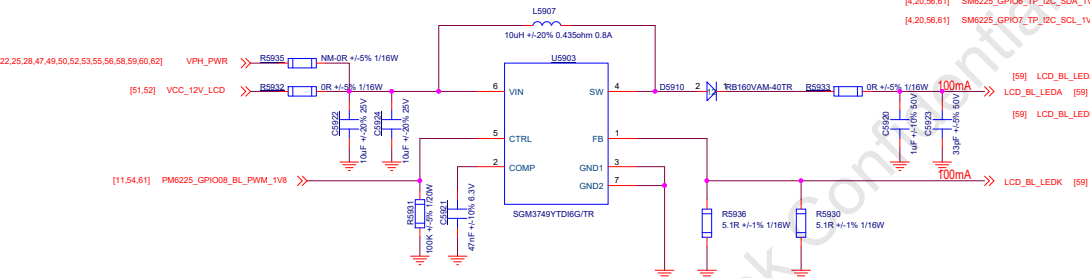
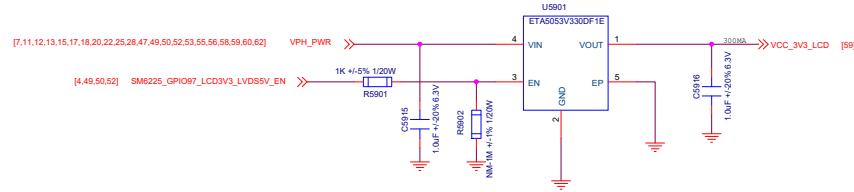
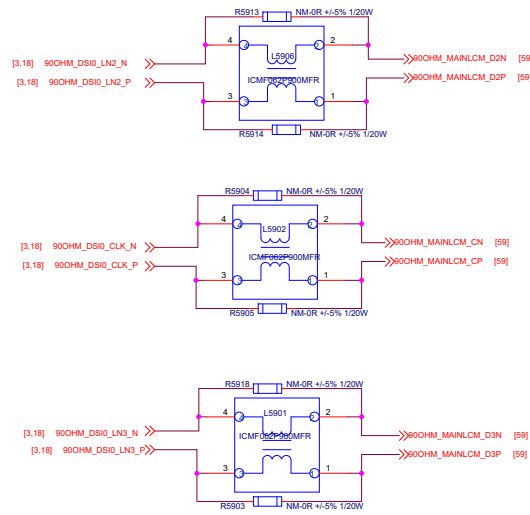
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USB3_VBUS_OCP

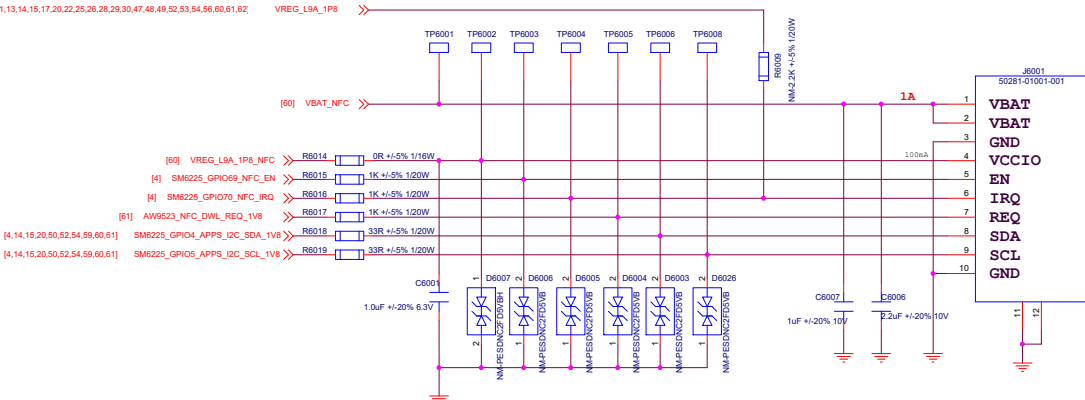


MIPI LCM

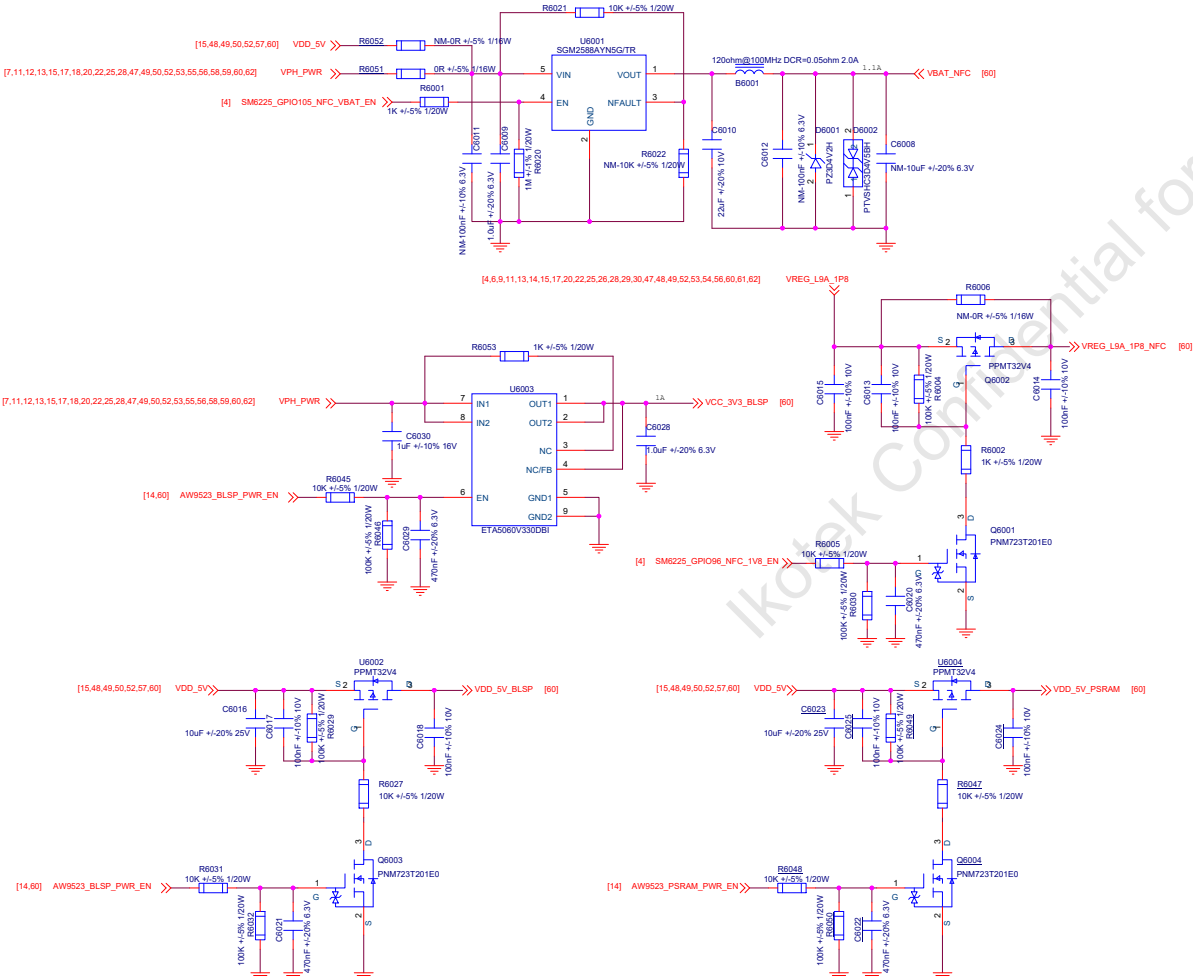


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Quectel ODM Solutions			
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T3-EU		V1.1	
Drawn By		Size	
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Date		Sheet	
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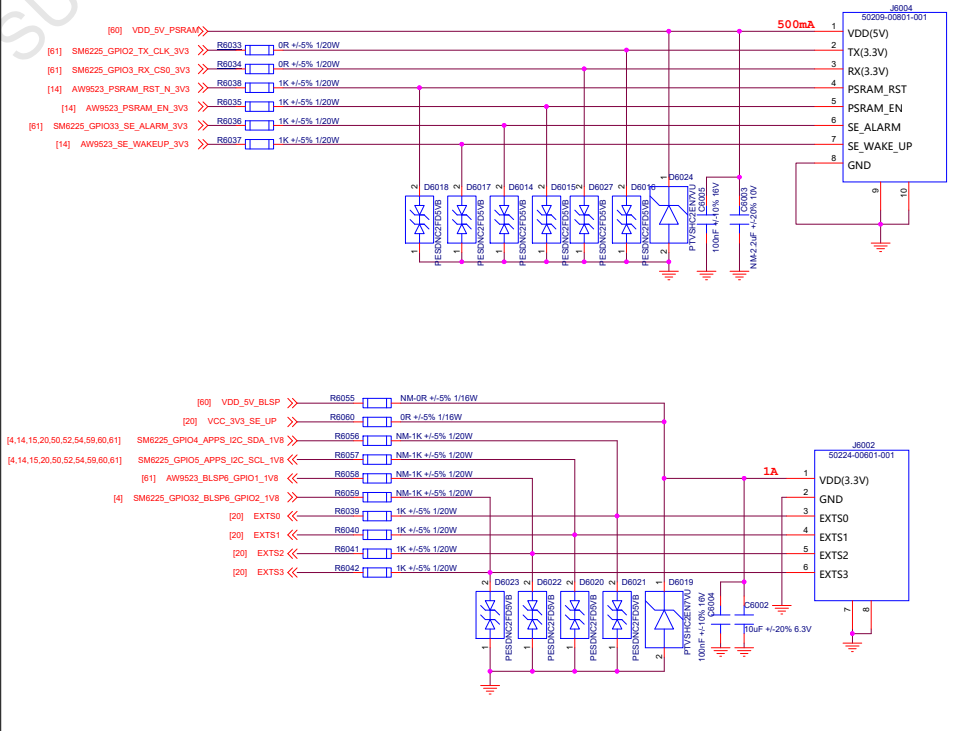
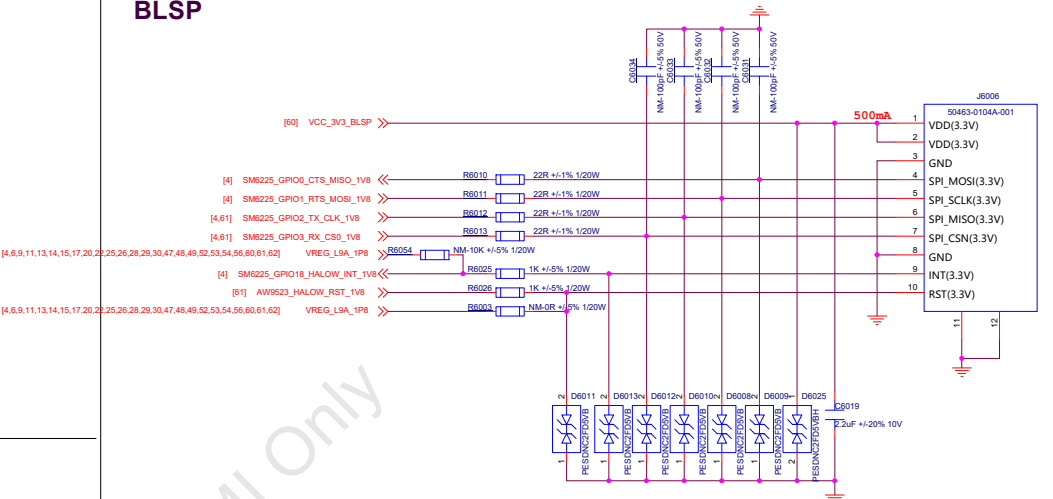
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NFC POWER

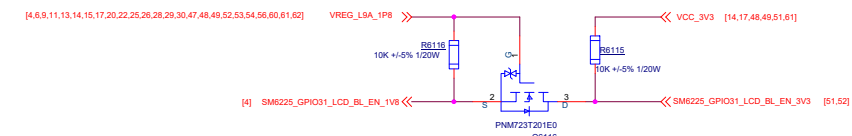
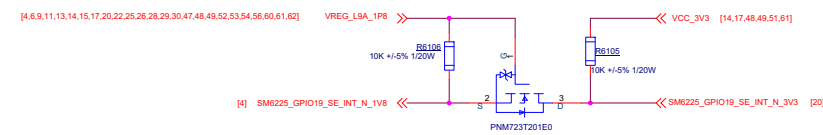
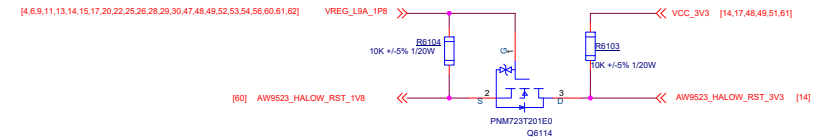
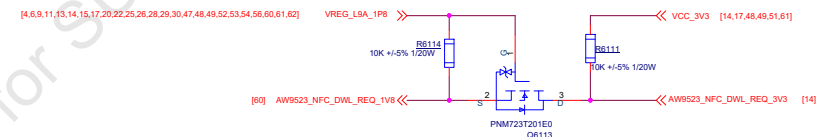
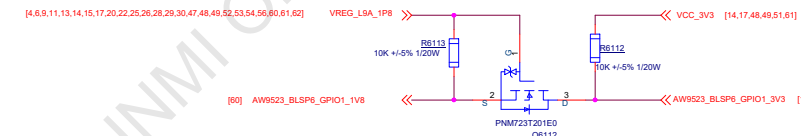
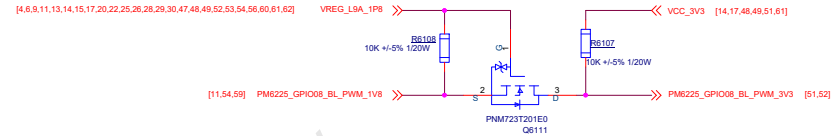
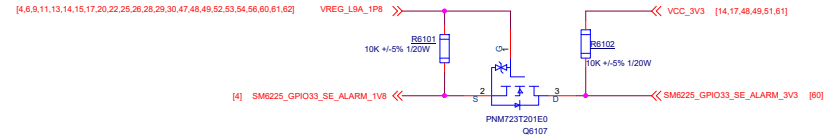
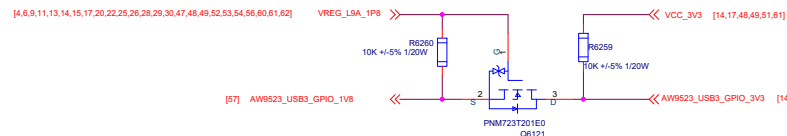
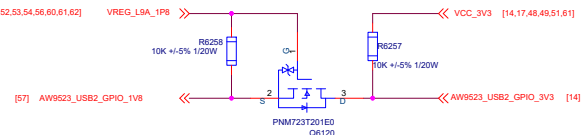
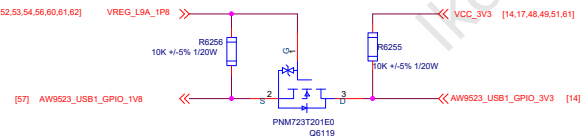
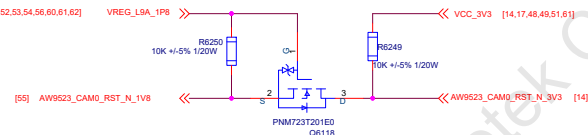
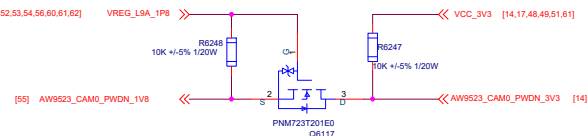
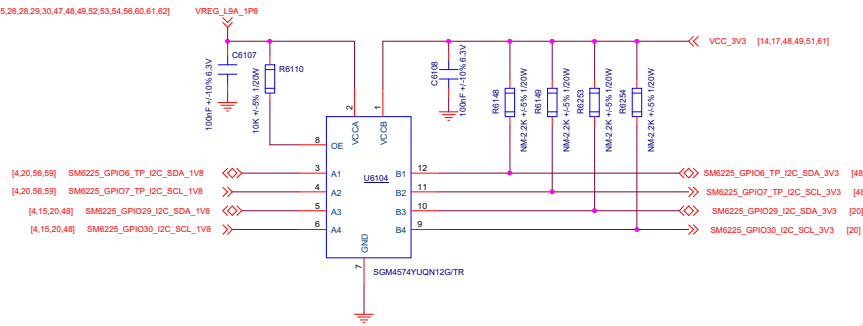
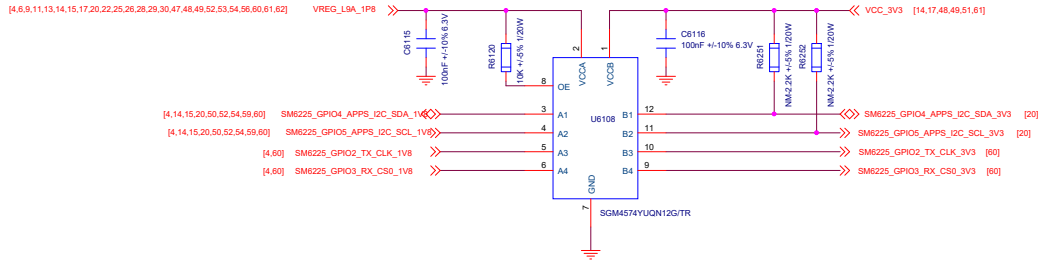


BLSP



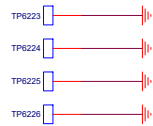
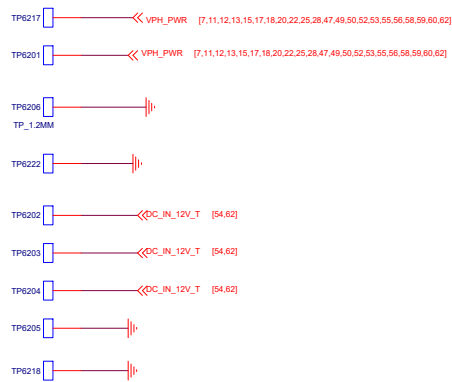
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Project			Ver		
T3-EU			V1.1		
Drawn By		Checked By		Size	
Dongy		Homon		A2	
Date: Monday, March 29, 2022			Sheet: 60 of 63		

QUP[0]

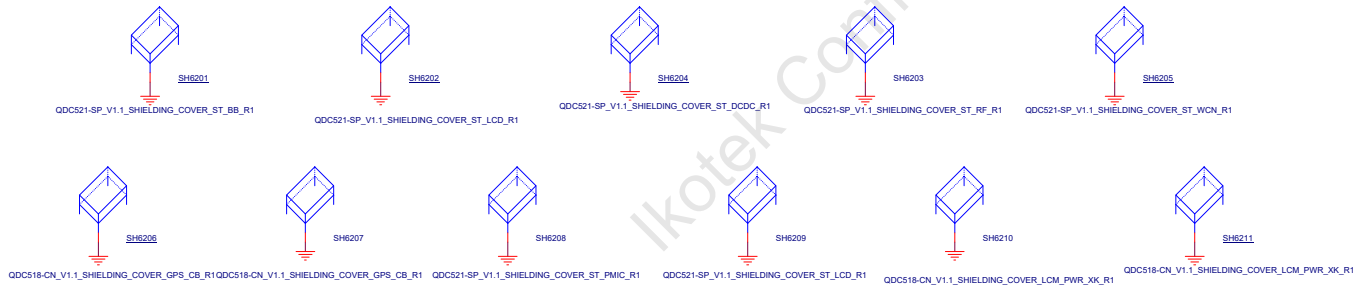


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Project		T3-EU	Ver V1.1
Drawn By	Dongy	Checked By	Huomun
Date:	Monday, March 20, 2023	Sheet	61 of 63

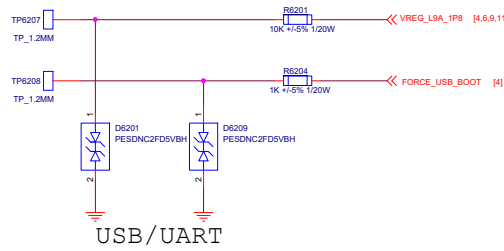
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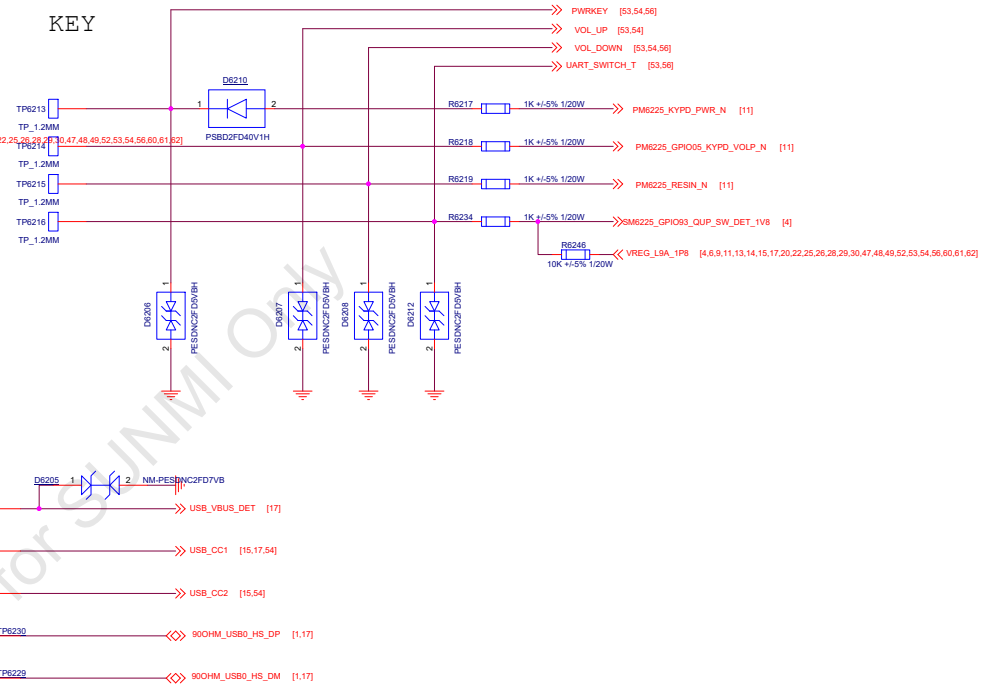
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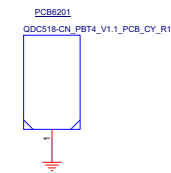
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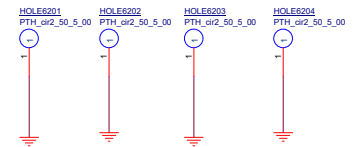
KEY



PCB



HOLE



Title <Title>				
Size A2	Document <Doc>	Number		Rev <Rev Code>
Date:	Monday, March 20, 2023	Sheet	62 of 63	

IO CONNECT

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LTR	ECO NO.	APPROVED	DATE

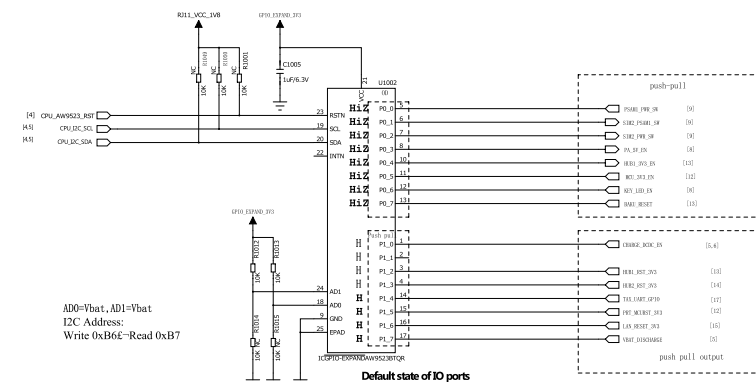
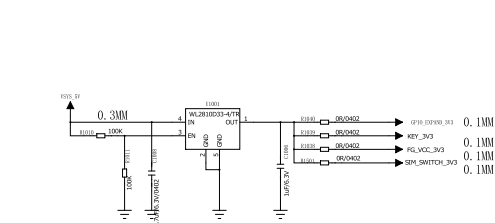
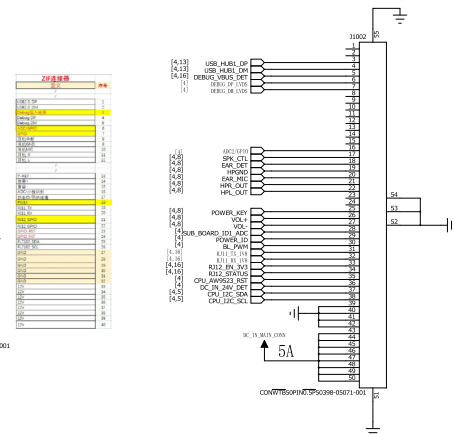
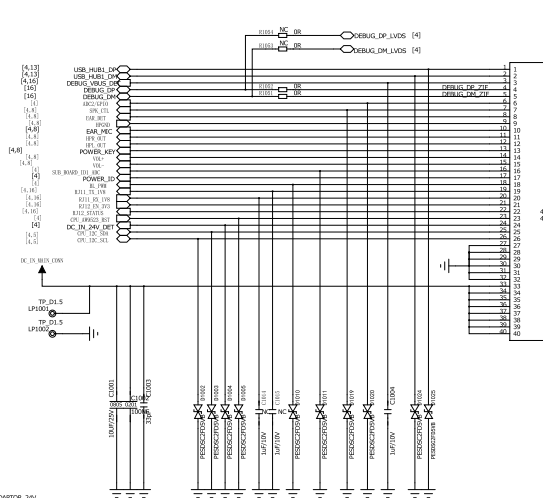
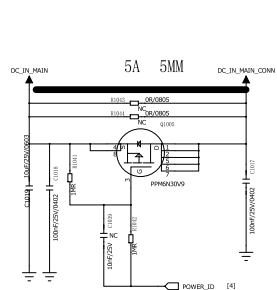
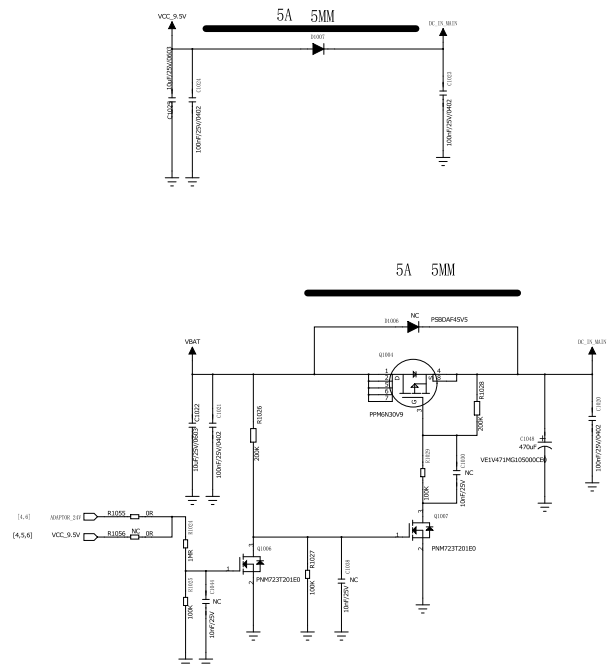


Table 1. Default state of IO ports, AD1/AD0 and P0_x/P1_x

AD1	AD0	P1_7	P1_6	P1_5	P1_4	P1_3	P1_2	P1_1	P1_0	P0_5	P0_4	P0_3	P0_2	P0_1	P0_0
GND	GND	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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AWINIC 上海艾为电子技术有限公司
SHANGHAI AWINIC TECHNOLOGY CO., LTD.

AW9523B datasheet
May 2016 V1.1.1

WMT	GND	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VBAT	VBAT	1	1	1	1	1	1	1	1	1	1	1	1	1	1

AD0=Vbat, AD1=Vbat
I2C Address:
Write 0xB6--Read 0xB7

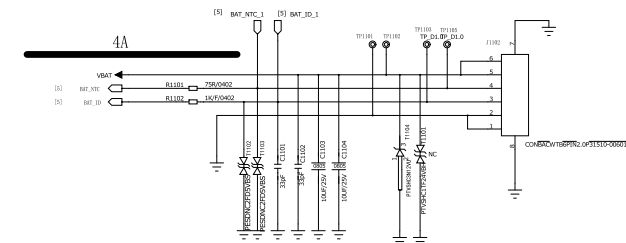
1	0	1	1	0	AD1	AD0	R/W
---	---	---	---	---	-----	-----	-----

AD1/AD0 value match with AW9523B pin AD1/AD0 respectively

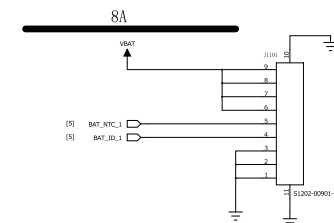
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TITLE:		Luxembourg			
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QUALITY CONTROL:	<QC By>	DATED:	<QC Date>	SIZE:	
RELEASED:	<Released By>	DATED:	<Release Date>	DRAWING NO:	
				REV:	02.0.0
				A01. BLOCK DIAGRAM	
				SHEET: 4 of 18	

REVISION RECORD			
LTR	ECO NO.	APPROVED:	DATE:

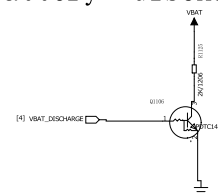
58 Battery CON



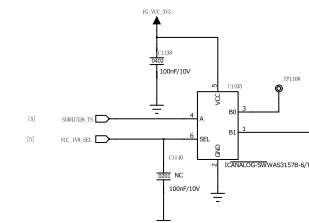
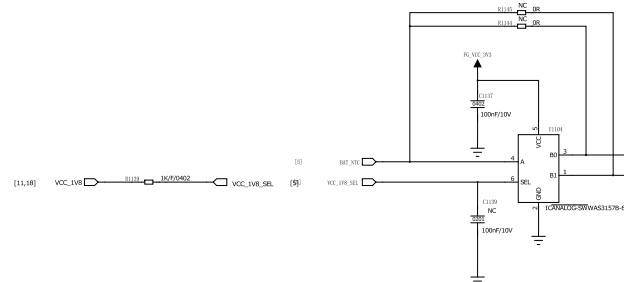
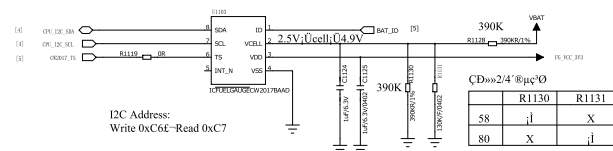
80 Battery CON



Battery discharge



Fuel Gauge

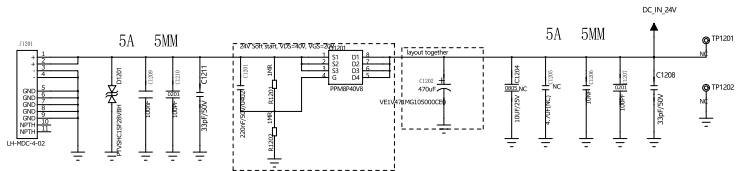


Logic Level (SEL pin, Pin 6)	Function
L	B0 connected to A
H	B1 connected to A

COMPANY:		Sunmi			
TITLE:		Luxembourg			
DRAWN:	ZMQ	DATED:	23.02.27	CODE:	
CHECKED:	<Checked By>	DATED:	<Checked Date>	SIZE:	
QUALITY CONTROL:	<QC By>	DATED:	<QC Date>	DRAWING NO:	
RELEASED:	<Released By>	DATED:	<Release Date>	REV:	
SCALE:				SHEET: 50F 18	

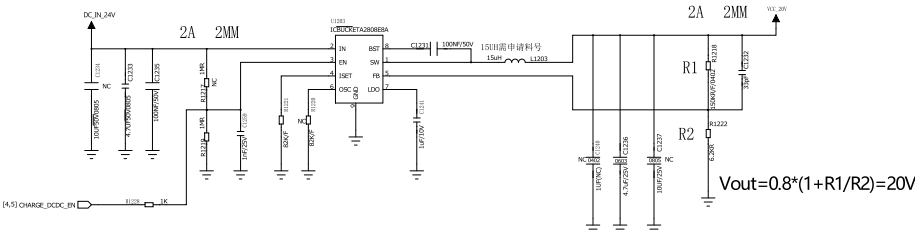
A01.BLOCK DIAGRAM 2.0.C					
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24V DCIN

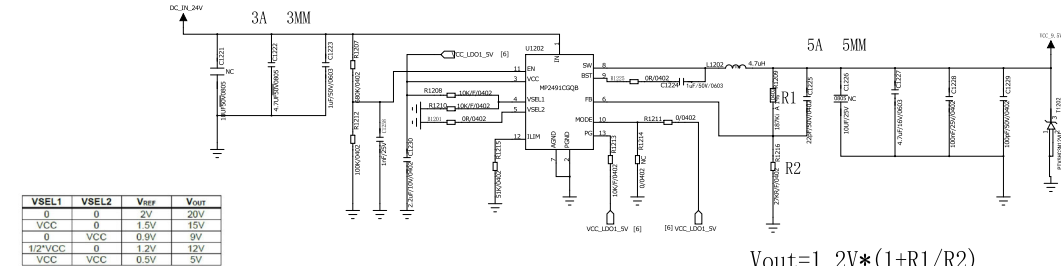


Reference FTP:DC-IN_STD_SCH_V1.1_20221209

DCDC 24V-20V 3A



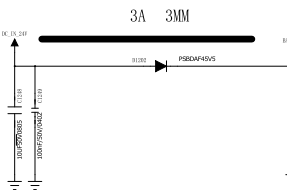
DCDC 24V-9.5V 6A



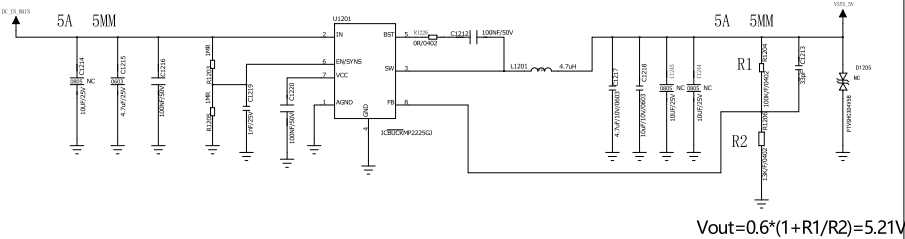
VSEL1	VSEL2	Vref	Vout
0	0	2V	20V
VCC	0	1.5V	15V
0	VCC	0.9V	9V
1/2*VCC	0	1.2V	12V
VCC	VCC	0.5V	5V

Reference FTP:Manila_MB_SCH_V1.0.A_20220826-1536

REVISION RECORD			
LTR	ECO NO.	APPROVED:	DATE



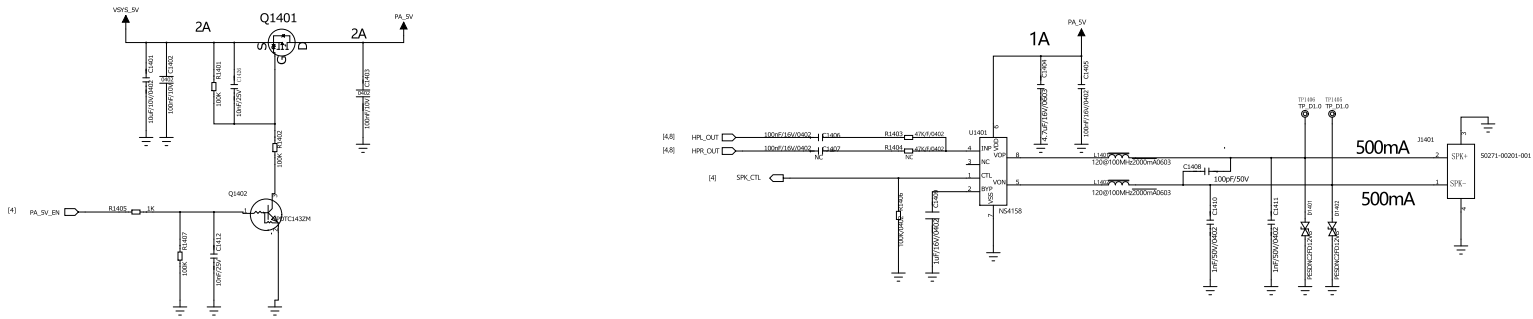
DCDC VBAT/9.5V - 5V 5A



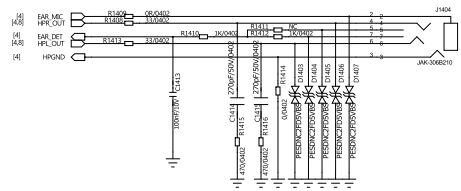
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REVISION RECORD			
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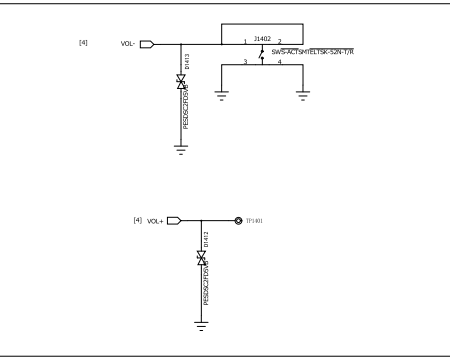
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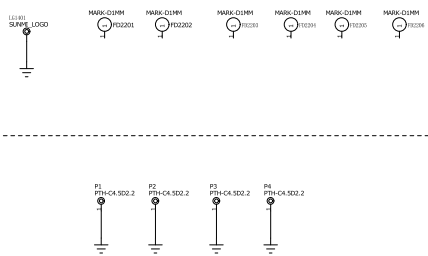
Audio JACK



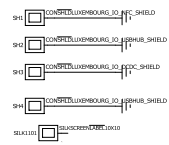
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LOGO&MARK POINT



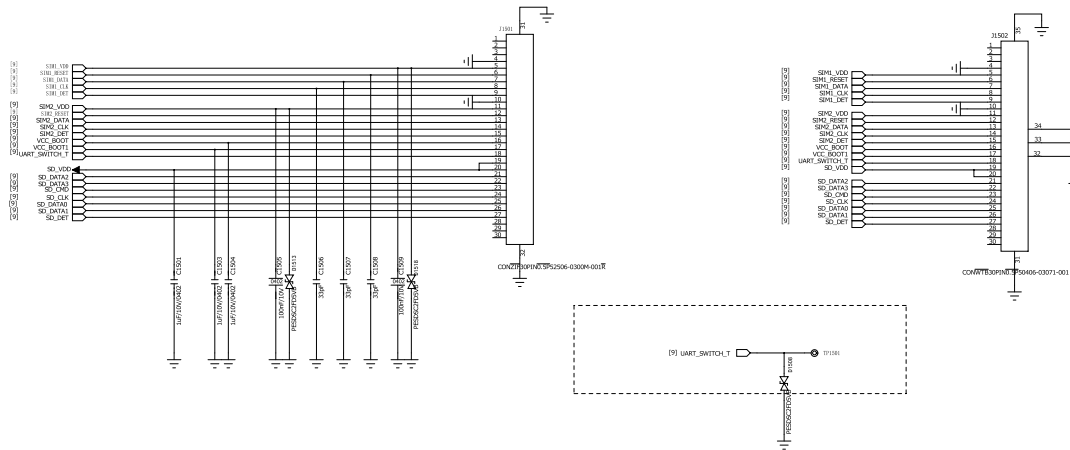
Shielding



COMPANY: Sunmi			
TITLE: Luxembourg			
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QUALITY CONTROL: <QC By>	DATED: <QC Date>	SCALE: <Scale>	SHEET: 8 of 18
RELEASED: <Release Date>	DATED: <Release Date>		

ZIF

LVDS



序号	定义
1	POWERKEY 1.8V
2	VOL+ 1.8V
3	VOL- 1.8V
4	GPIO
5	SIM1_VDD 1.8V
6	SIM1_RESET 1.8V
7	SIM1_DATA 1.8V
8	SIM1_CLK 1.8V
9	SIM1_DET 1.8V
10	GPIO
11	SIM2_VDD 1.8V
12	SIM2_RESET 1.8V
13	SIM2_DATA 1.8V
14	SIM2_CLK 1.8V
15	SIM2_DET 1.8V
16	VCC_BOOT 1.8V
17	VCC_BOOT 1.8V
18	GPIO - OUP - Switch
19	SDCARD_VDD 1.8V
20	SDCARD_VDD 1.8V
21	SDCARD_D0 1.8V
22	SDCARD_D1 1.8V
23	SDCARD_D2 1.8V
24	SDCARD_D3 1.8V
25	SDCARD_CLK 1.8V
26	SDCARD_DET 1.8V
27	SDCARD_DET 1.8V
28	DEBUG_VBUS1 1.8V
29	USB_DEBUG_D+ 1.8V
30	USB_DEBUG_D- 1.8V

开机键和 音量- 键进FASTBOOT

1. 主板预留开机电路，
2. 通过GPIO控制开机电路方式

1. 通过GPIO控制开机电路（核心板上设计POWER
2. 通过GPIO控制开机电路（核心板上设计POWER

16 17pin连接在一起，则可以通
过主机电线实现自动开机

返回

30PIN定义 LVDS连接

连接型号: S-50398-050

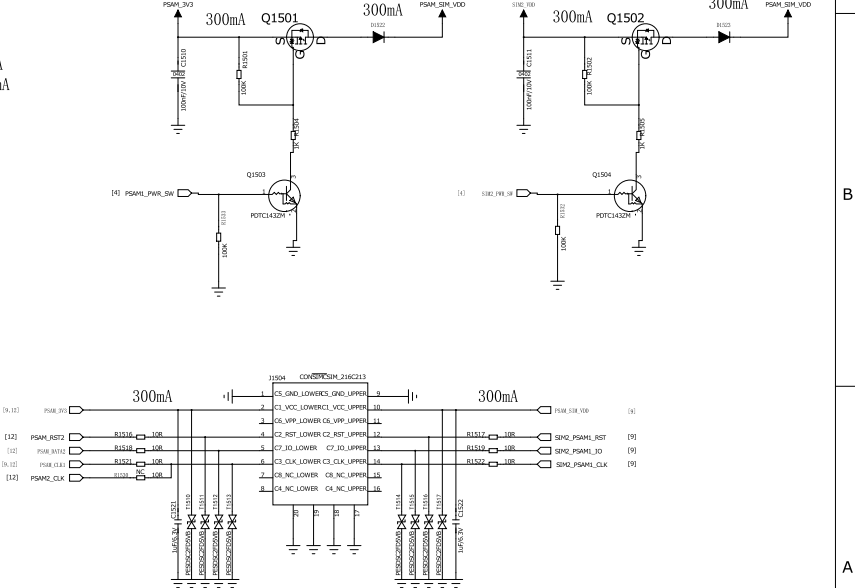
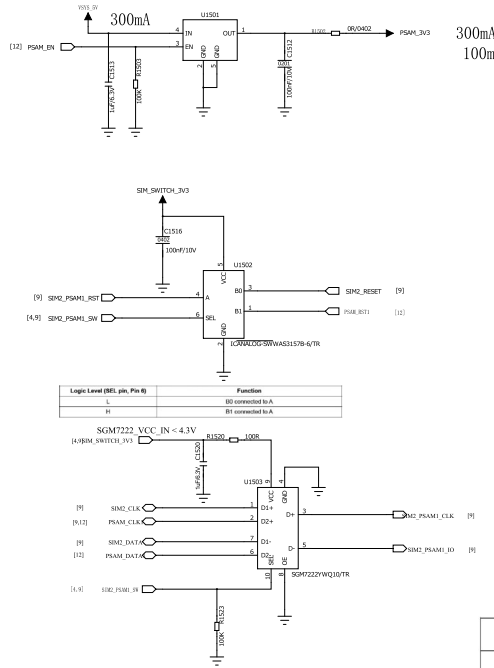
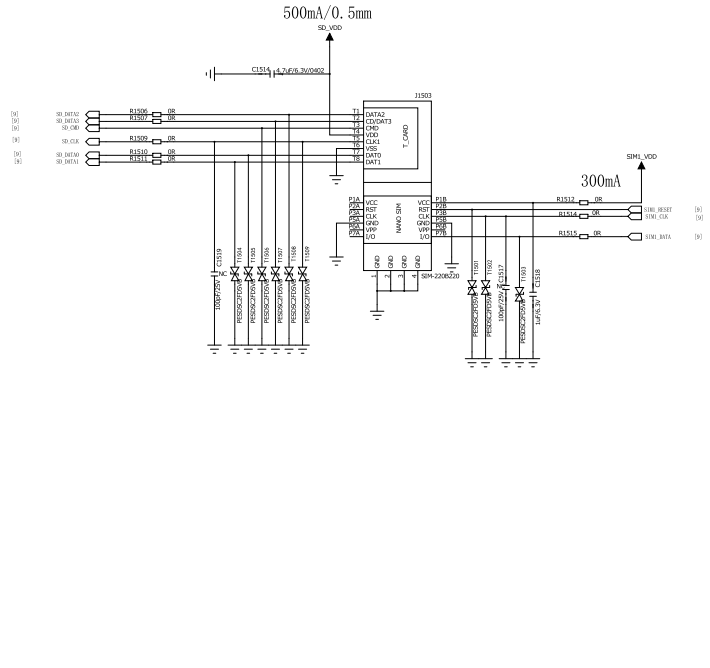
序号	定义
1	POWERKEY 1.8V
2	VOL+ 1.8V
3	VOL- 1.8V
4	GPIO
5	SIM1_VDD 1.8V
6	SIM1_RESET 1.8V
7	SIM1_DATA 1.8V
8	SIM1_CLK 1.8V
9	SIM1_DET 1.8V
10	GPIO
11	SIM2_VDD 1.8V
12	SIM2_RESET 1.8V
13	SIM2_DATA 1.8V
14	SIM2_CLK 1.8V
15	SIM2_DET 1.8V
16	VCC_BOOT 1.8V
17	VCC_BOOT 1.8V
18	GPIO - OUP - Switch
19	SDCARD_VDD 1.8V
20	SDCARD_VDD 1.8V
21	SDCARD_D0 1.8V
22	SDCARD_D1 1.8V
23	SDCARD_D2 1.8V
24	SDCARD_D3 1.8V
25	SDCARD_CLK 1.8V
26	SDCARD_DET 1.8V
27	SDCARD_DET 1.8V
28	DEBUG_VBUS1 1.8V
29	USB_DEBUG_D+ 1.8V
30	USB_DEBUG_D- 1.8V

30PIN定义 ZIF连接

连接型号: 52506-0300M-001

T+SIM1

SIM2/PSAM1+PSAM2

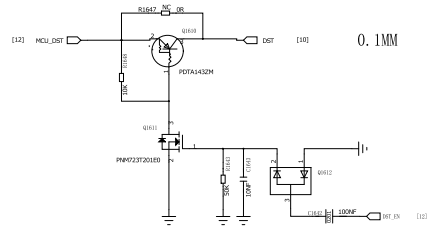


OE	S	HSD1+ HSD1-	HSD2+ HSD2-
0	0	ON	OFF
0	1	OFF	ON
1	x	OFF	OFF

GRAPH	ZMQ	DATED	23.02.27
CHECKED	<Checked By>	DATED	<Checked Date>
QUALITY CONTROL	<QC Date>	DATED	<QC Date>
RELEASED	<Release Date>	DATED	<Release Date>

SUNMI			
LUXEMBOURG			
A01.BLOCK DIAGRAM			
2.0.C			
SHEET: 9 of 18			

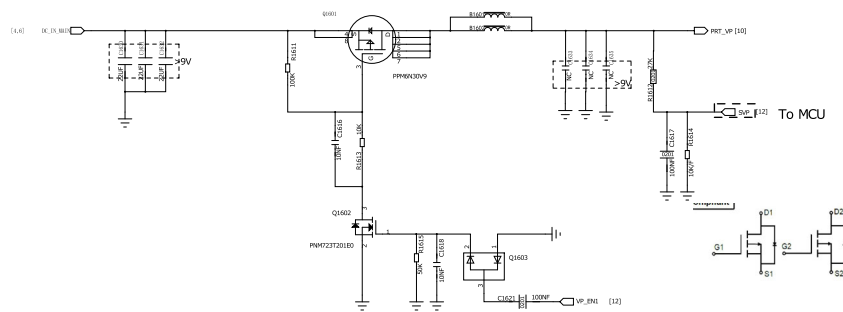
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LTR	ECO NO.	APPROVED	DATE



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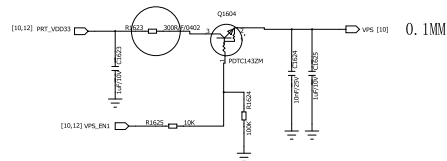
Printer Power

4A 4MM



Power for Sensor

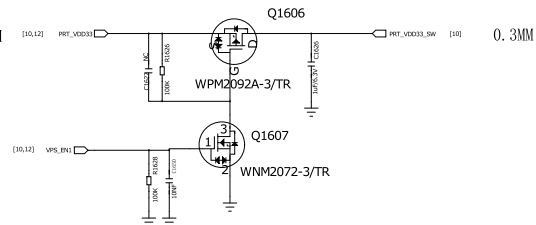
0.1MM



0.1MM

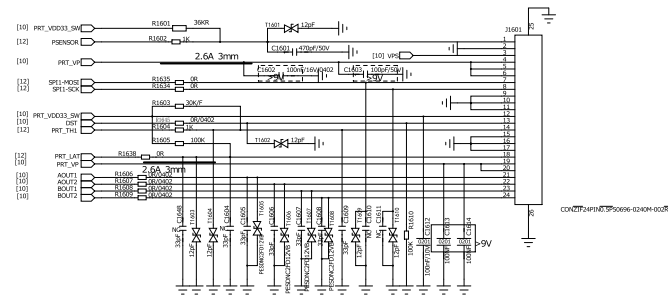
Printer VDD Supply Switch

0.3MM

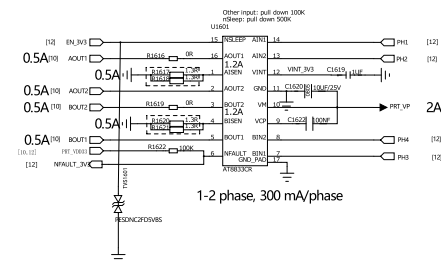


0.3MM

Printer connect

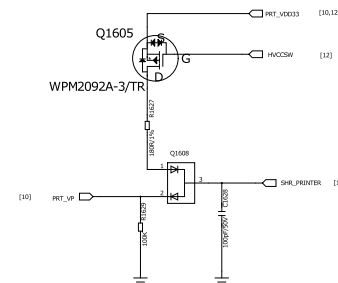


Printer MOTO Driver



1-2 phase, 300 mA/phase

Printer Heating Dot Check



COMPANY:		Sunmi			
TITLE:		Luxembourg			
DRAWN:	ZMQ	DATED:	23.02.27	CODE:	
CHECKED:	<Checked By>	DATED:	<Checked Date>	SIZE:	
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A01. BLOCK DIAGRAM 2.0.C

6

5

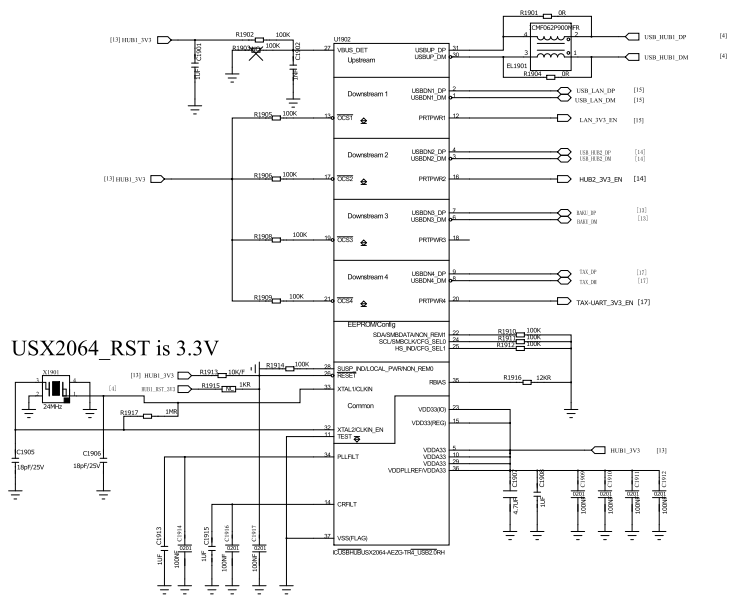
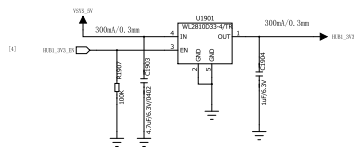
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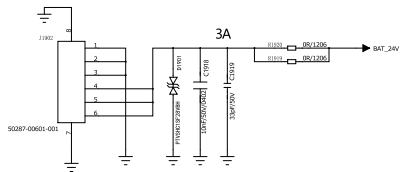
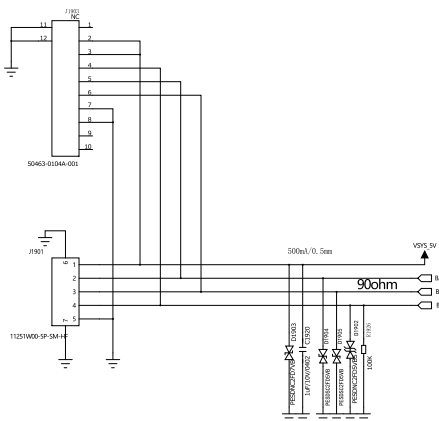
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REVISION RECORD			
LTR	ECD NO.	APPROVED	DATE



USX2064_RST is 3.3V

BAKU connect



COMPANY: Sunmi			
TITLE: Luxembourg			
DRAWN: ZMQ	DATED: 23.02.27	CODE: A01.BLOCK DIAGRAM	REV: 2.0
CHECKED: <Checked By>	DATED: <Checked Date>	SIZE: 18	DRAWING NO: 18
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6

5

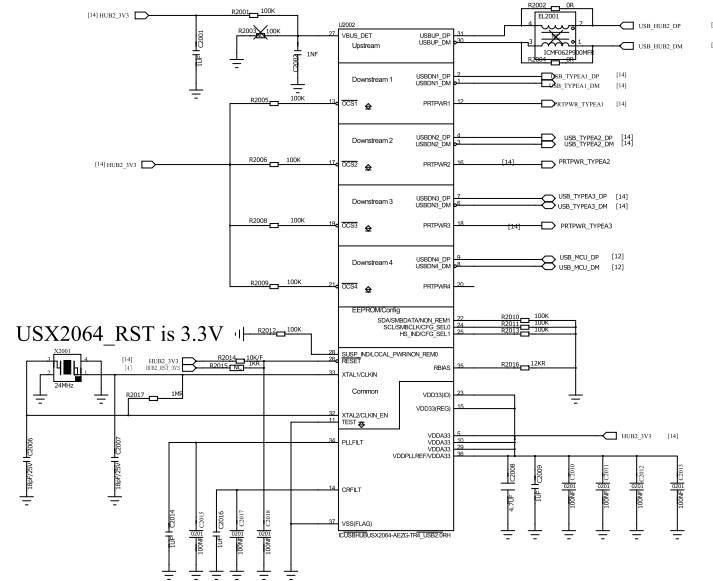
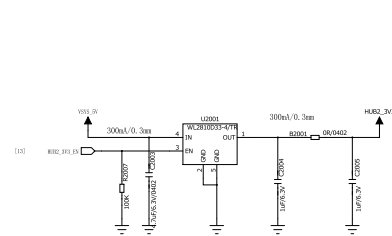
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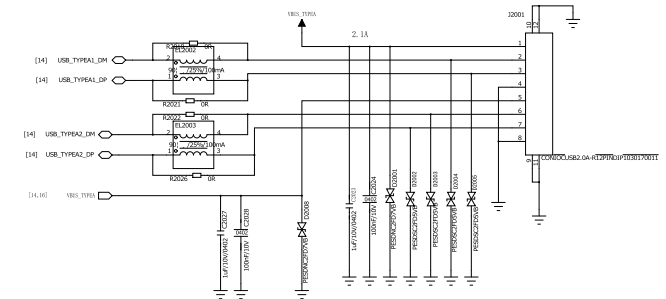
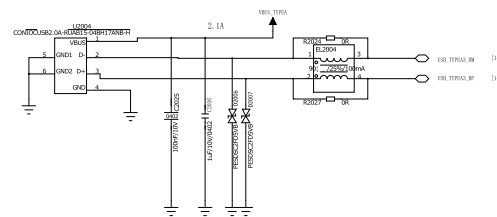
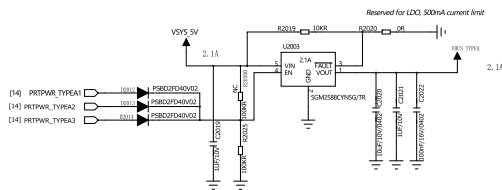
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1

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE



Double-deck TYPE-A



Reference FTP:USB2.0 interface and MOS switch circuit_V1.1
 Reference FTP:100M LAN_LAN9513_V1.1
 Reserve a GPIO to control reset signal
 Add Common-mode TVS

		COMPANY: Sunmi			
		TITLE: Luxembourg			
DRAWN: ZMQ	DATED: 23.02.27				
CHECKED: <Checked By>	DATED: <Checked Date>	DRAWING NO:			
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D

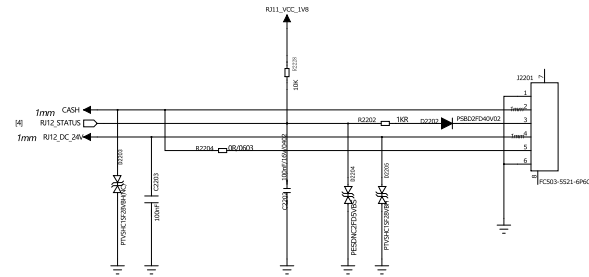
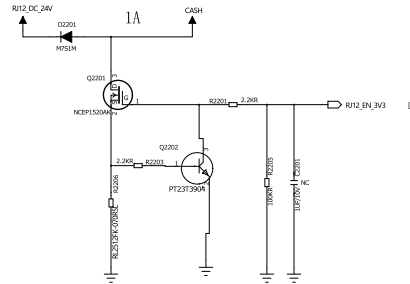
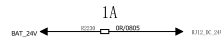


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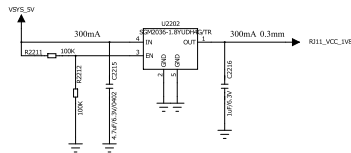
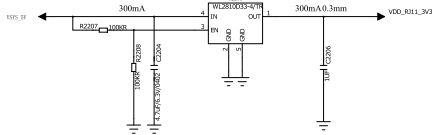
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TITLE:		Luxembourg			
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Date:	SCALE:		SHEET:		15 18

RJ12

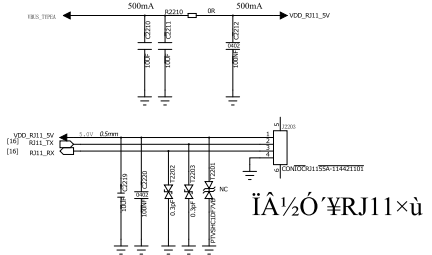
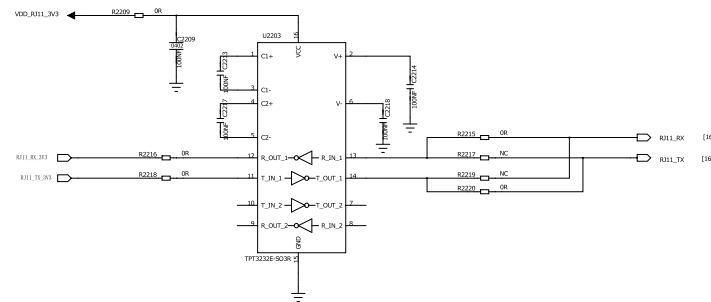


Reference FTP:RJ12_STD_SCH_V1.0_20211231

RS232

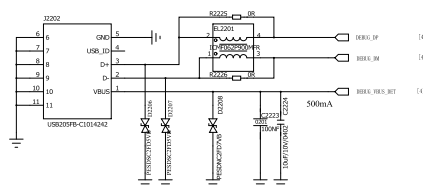


RJ11



TP_RJ11-UART_AudioJACK

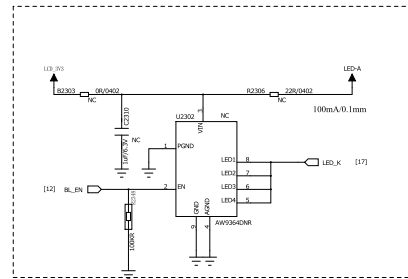
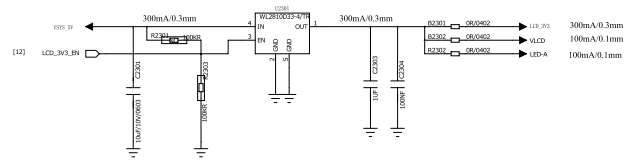
MicroUSB for Debug



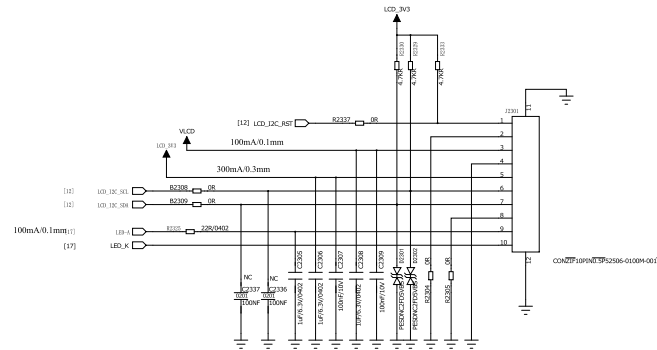
REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

COMPANY:		Sunmi			
TITLE:		Luxembourg			
Date:	CODE:	SIZE:	DRAWING NO:		REV:
<Code>	A01	BLOCK DIAGRAM	2.0.C		
Date:	SCALE:	<Scale>	SHEET: 16		18

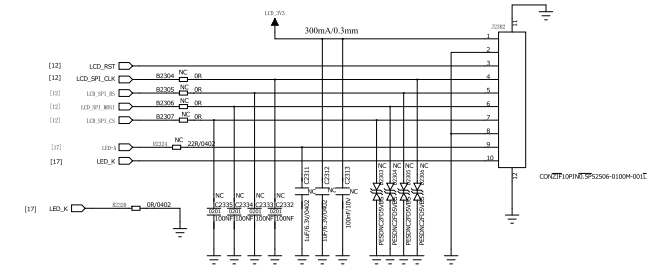
SUB LCD



LCD-I2C

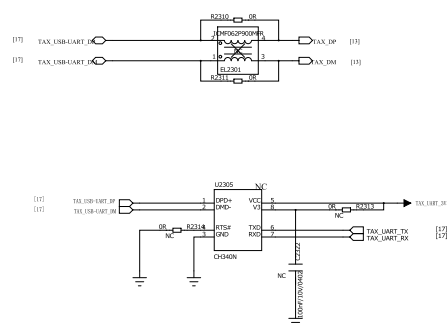
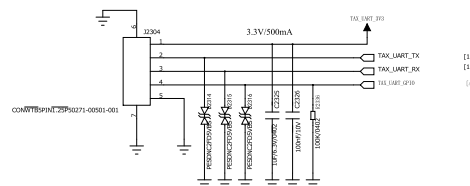
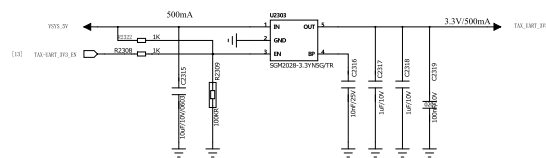


LCD-SPI

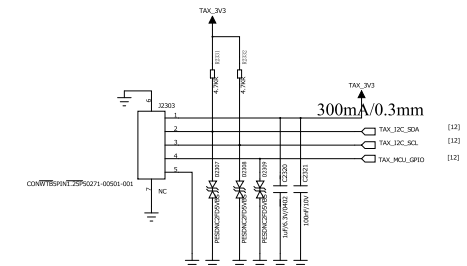


TAX-UART

NC



TAX-I2C/UART



REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

TAX-UART

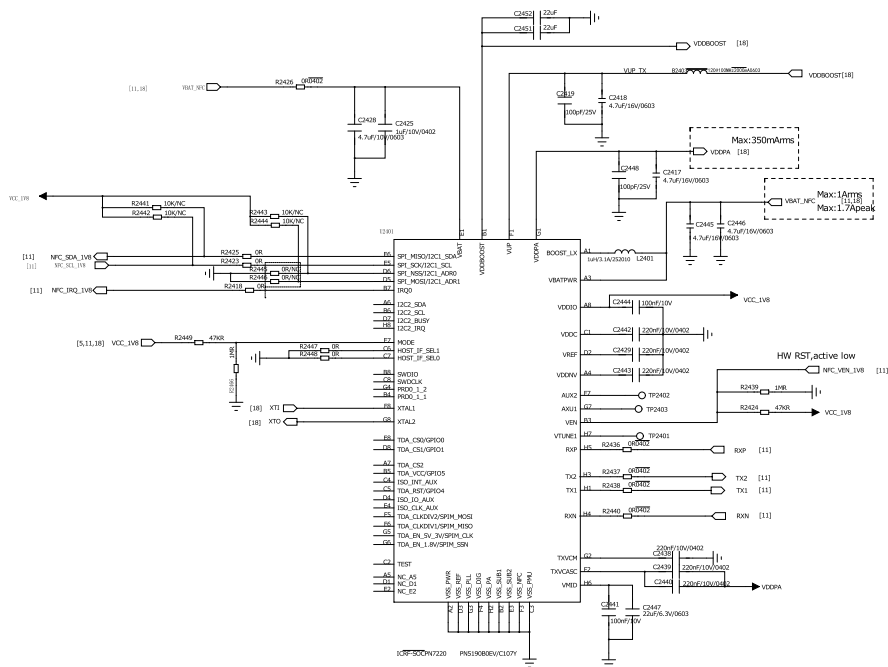
NC

TAX-I2C/UART

COMPANY:		Sunmi			
TITLE:		Luxembourg			
DRAWN:	ZMQ	DATED:	23.02.27	CODE:	
CHECKED:	<Checked By>	DATED:	<Checked Date>	SIZE:	
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SCALE: <Scale>				SHEET: 12 18	

A01. BLOCK DIAGRAM 2.0.C

REVISION RECORD			
LTR	ECO NO.	APPROVED:	DATE:



COMPANY: Sunmi			
TITLE: Luxembourg			
DRAWN: ZMQ	DATED: 23.02.27	CODE:	SIZE:
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