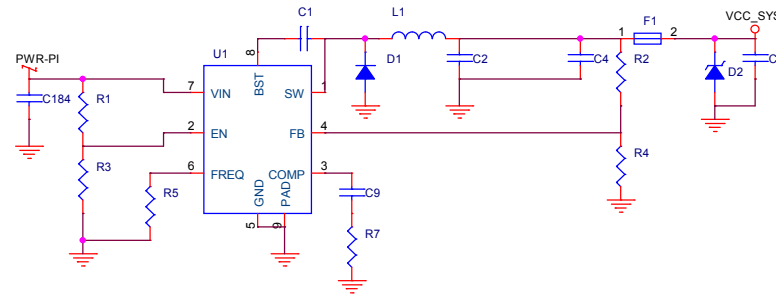
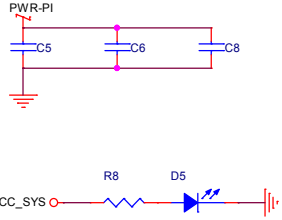


Power Timing

TYPE	VOLT	STEP	PowerName
BUCK1	1.1V		VDD_LOG
BUCK2	1.1V		VDD_ARM
BUCK3	FB=0.8V		VCC_DDR
BUCK4	3.3V		VCC_IO
LDO1	1.8V		VCC_18
LDO2	1.8V		VCC18_eMMC
LDO3	1.0V		VDD_10

IO Domain Voltage	IO Voltage=3.3V	IO Voltage=1.8V
VCCIO_PMU	3.3V	Not Support
VCCIO1	3.3V	Not Support
VCCIO2		1.8V (Default) eMMC
VCCIO3	3.3V (Default)	
VCCIO4	3.3V (Default) WIFI:RTL8723BS	
VCCIO5	3.3V (Default)	
VCCIO6	3.3V (Default)	

DC12~24V



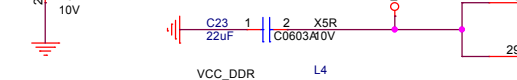
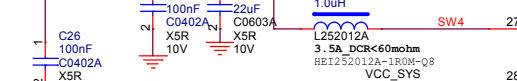
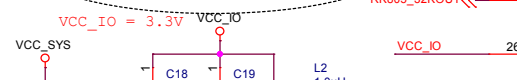
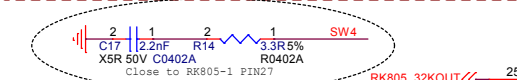
VCC_SYS

不得删除!
不得随意更换型号!

**IF TVS UNMOUNTED,
ESD OR SURGE SHOULD BE
DAMAGE THE PMIC!!!**

If using 5V adapter, this device must be mounted. Replacing TVS mode is not recommended, if must, please choose the same specifications.
Operating Supply Voltage: 5.5V (5.25~6V)
Peak Pulse Current: >10A (t_p=8/20μs)
Surge Clamping Voltage: <6.5V

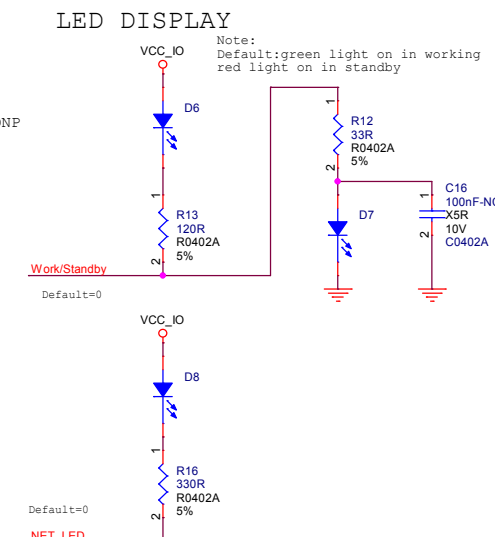
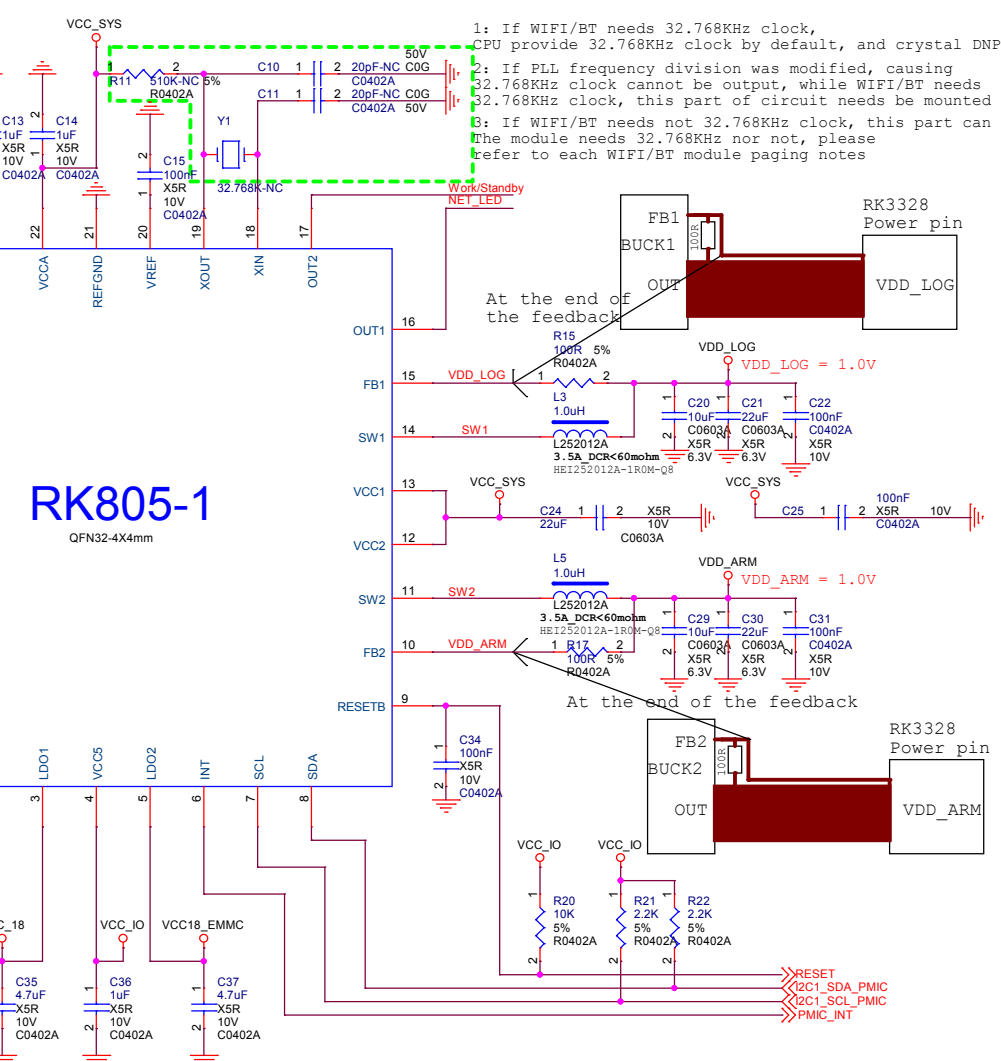
DO NOT DELETE IT!



Default:DDR3=1.5V

	DDR3	DDR3L	DDR4
VCC_DDR	1.527V	1.353V	1.2V
R725	100K 1%	47K 1%	51K 1%
R726	110K 1%	68K 1%	100K 1%

please adjust voltage value according to the actual selected DDR

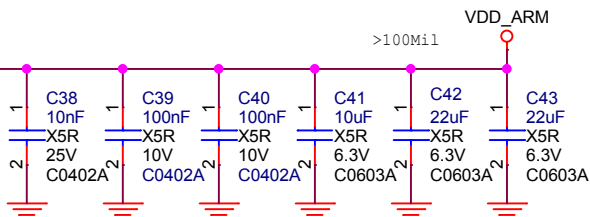


U3N

ARM

VDD_CORE
VDD_CORE
VDD_CORE
VDD_CORE
VDD_CORE
VDD_CORE
VDD_CORE

P13
P14
R13
R14
T13
T14
T15

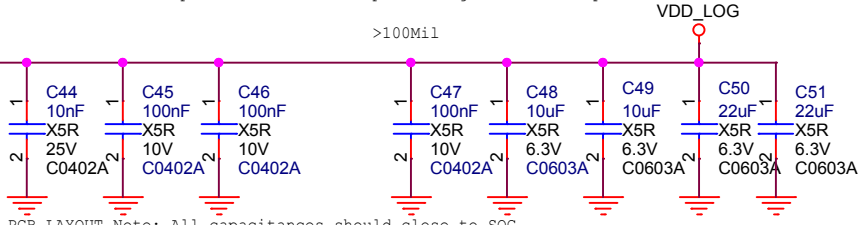


PCB LAYOUT Note: All capacitances should close to SOC,
and one of 22uF capacitance should be placed right under the pin

GPU/Logic

VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC

N9
N10
N11
P9
P10
P11
R9
R10
R11

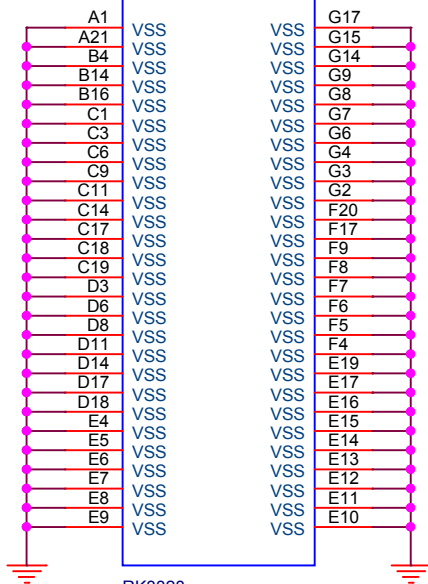


PCB LAYOUT Note: All capacitances should close to SOC,
and one of 22uF capacitance should be placed right under the pin

RK3328

TFBGA395L-14X14mmA

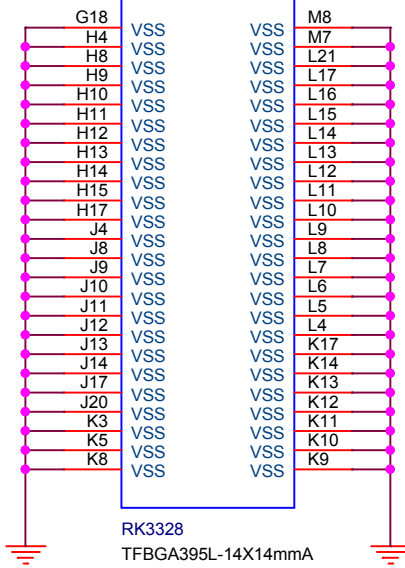
U3O



RK3328

TFBGA395L-14X14mmA

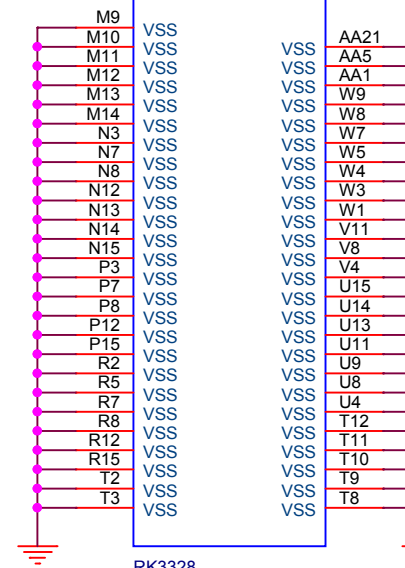
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RK3328

TFBGA395L-14X14mmA

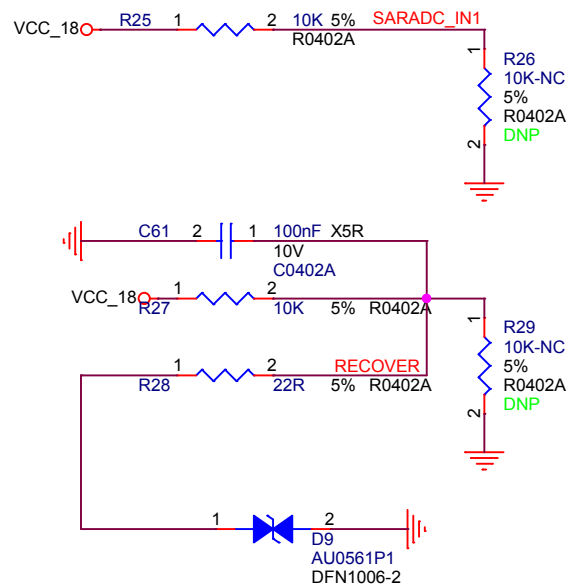
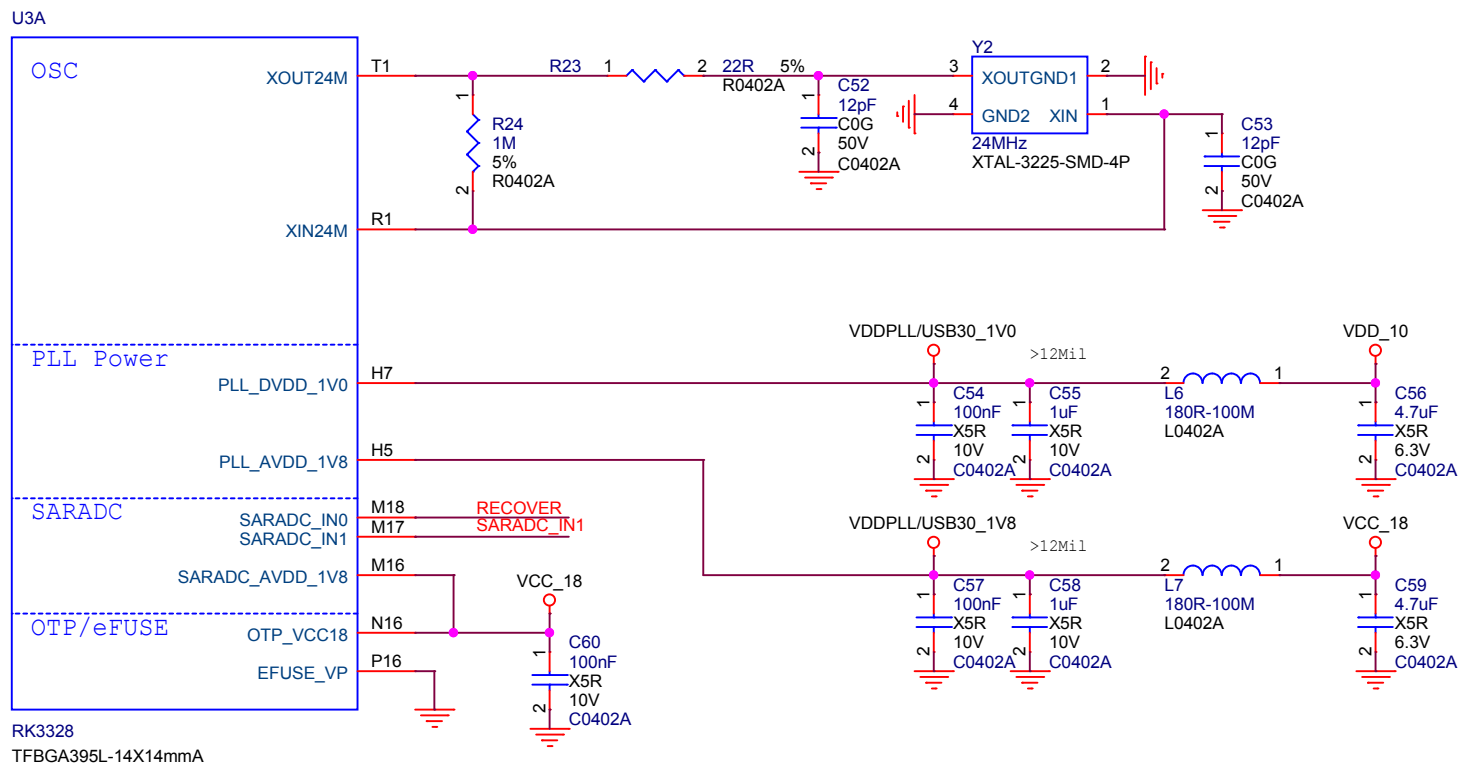
U3Q



RK3328

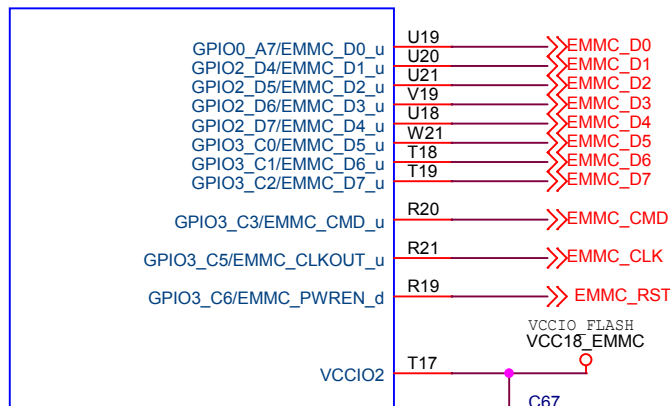
TFBGA395L-14X14mmA

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Date:		Friday, February 03, 2023		Sheet	
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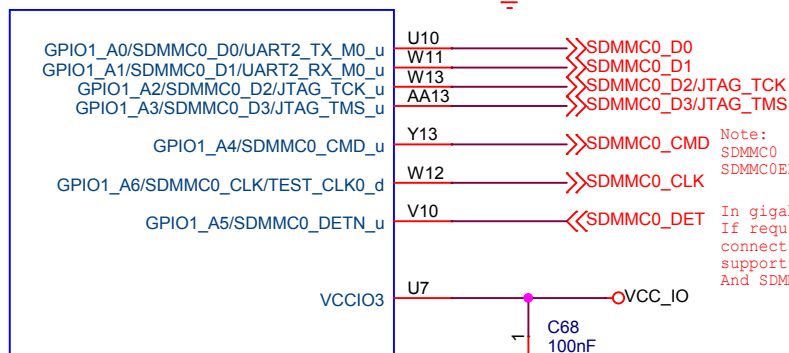
SARADC_IN0	SARADC_IN1	Up Resistance	Down Resistance	
Recover		DNP	10K	
BOM1		110K	10K	
BOM2		100K	20K	
BOM3		100K	33K	
BOM4		36K	18K	
BOM5		51K	36K	
BOM6		51K	51K	
BOM7		36K	51K	
BOM8		18K	36K	
BOM9		33K	100K	
BOM10		20K	100K	
BOM11		10K	110K	
BOM12		10K	DNP	

U3C



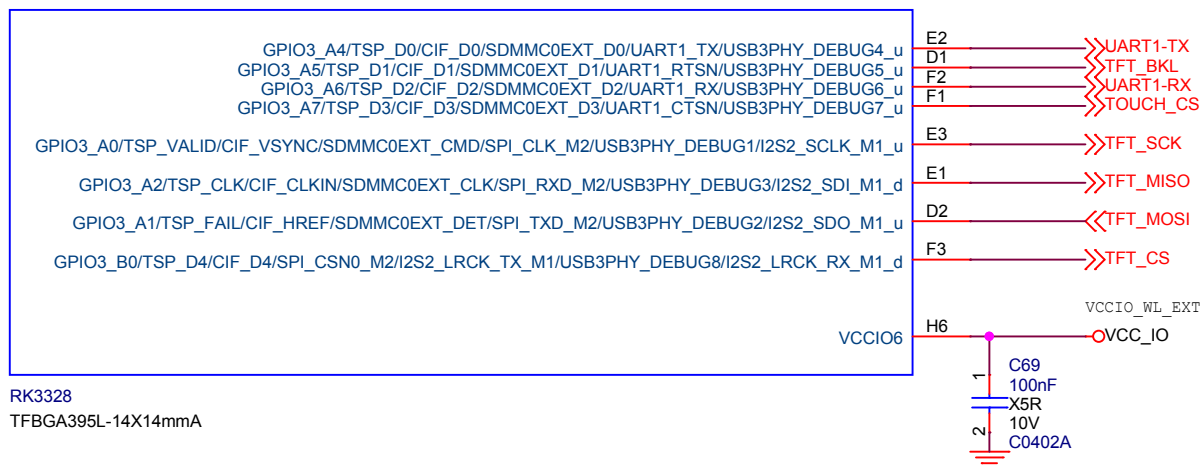
RK3328
TFBGA395L-14X14mmA

U3D

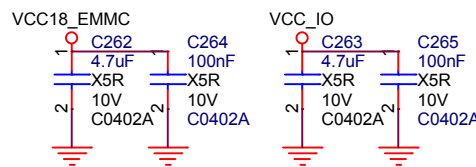
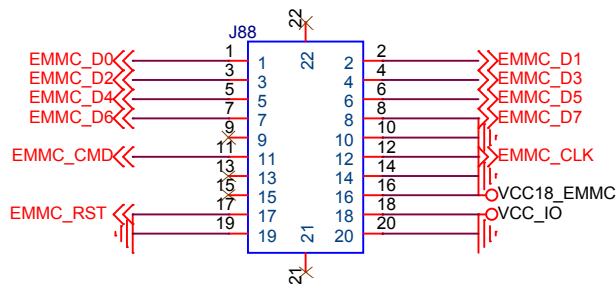


RK3328
TFBGA395L-14X14mmA

U3G



RK3328
TFBGA395L-14X14mmA

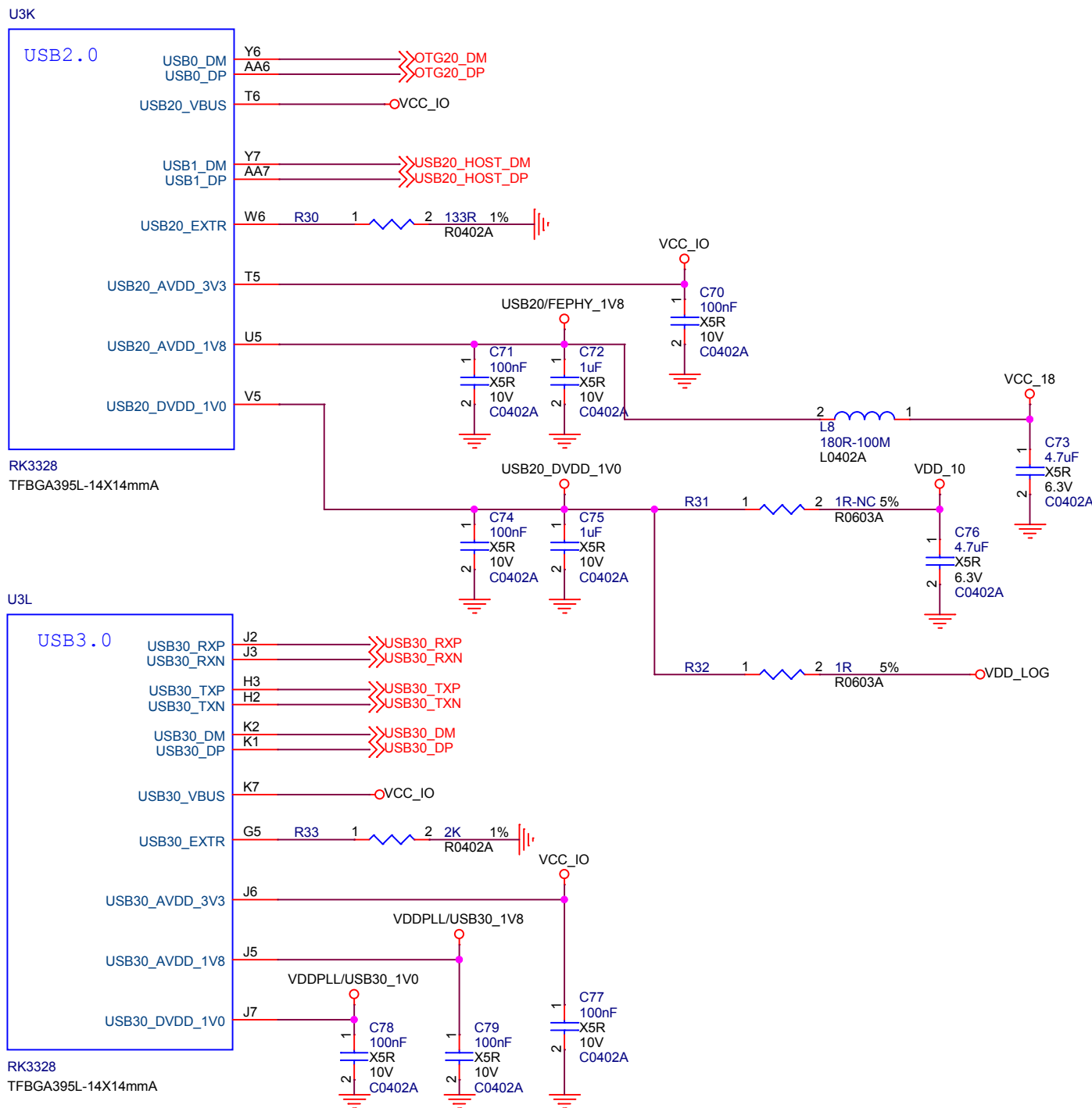


SDMMC0_D0 -----SD_D0
SDMMC0_D1 -----SD_D1
SDMMC0_D2/JTAG_TCK-----SD_D2
SDMMC0_D3/JTAG_TMS-----SD_D3
SDMMC0_CMD -----SD_CMD
SDMMC0_CLK -----SD_CLK
SDMMC0_DET -----SD_DET
VCCIO3 -----VCC_IO

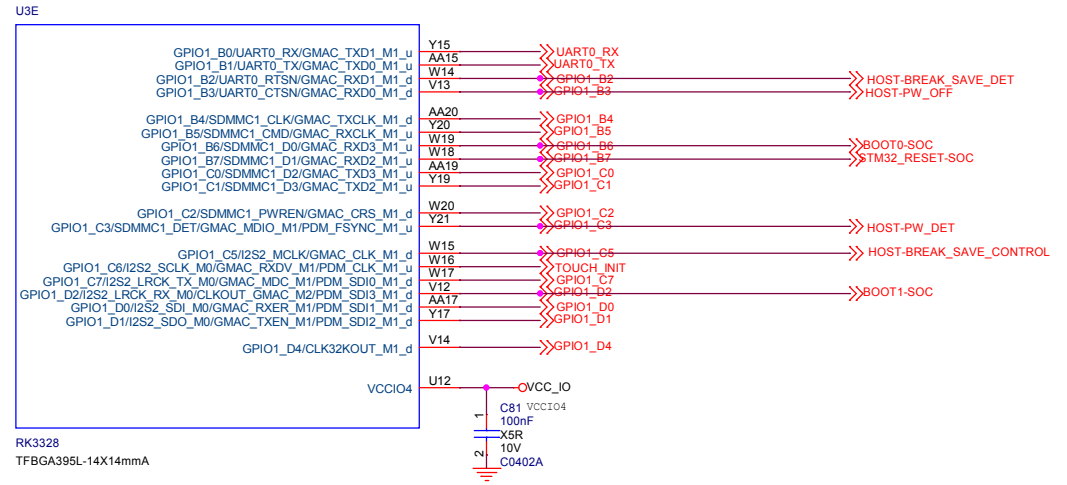
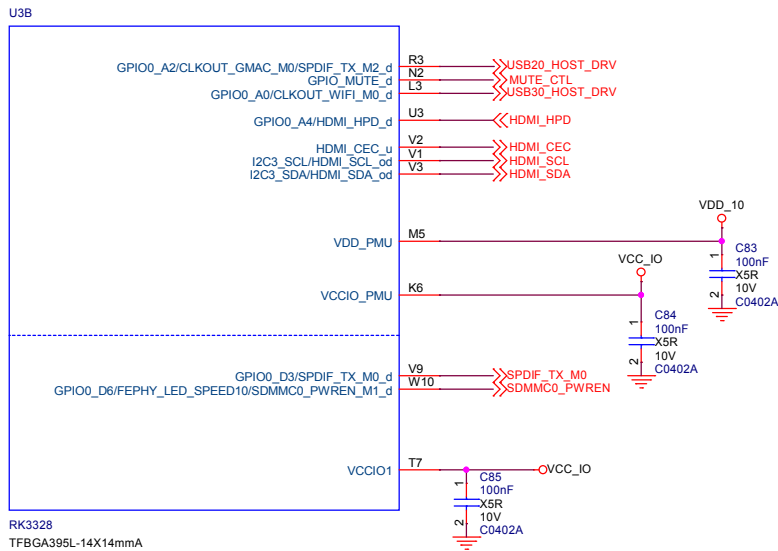
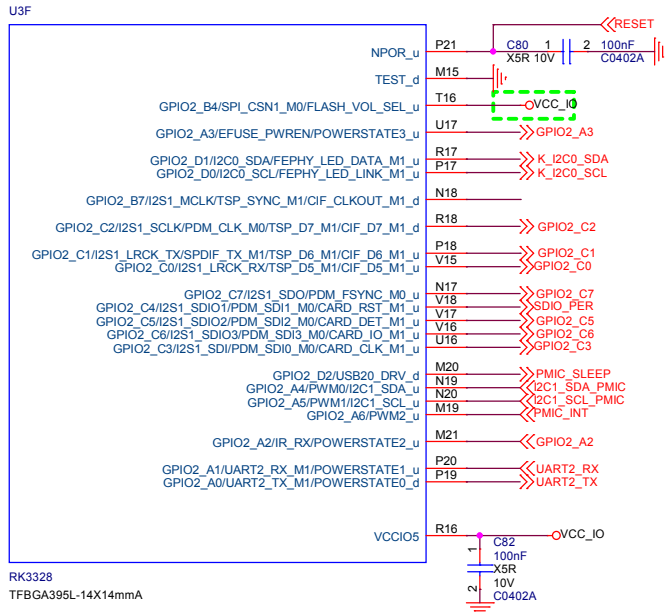
SDMMC0EXT_D0-----WIFI_D0_EXT
SDMMC0EXT_D1-----WIFI_D1_EXT
SDMMC0EXT_D2-----WIFI_D2_EXT
SDMMC0EXT_D3-----WIFI_D3_EXT
SDMMC0EXT_CMD-----WIFI_CMD_EXT
SDMMC0EXT_CLK-----WIFI_CLK_EXT
GPIO3_A1 -----WIFI_WAKE_HOST_EXT
VCCIO6 -----VCCIO_WL_EXT

Note:
SDMMC0 support SD Boot, Max 150MHz
SDMMC0EXT does not support SD Boot, Max 100MHz

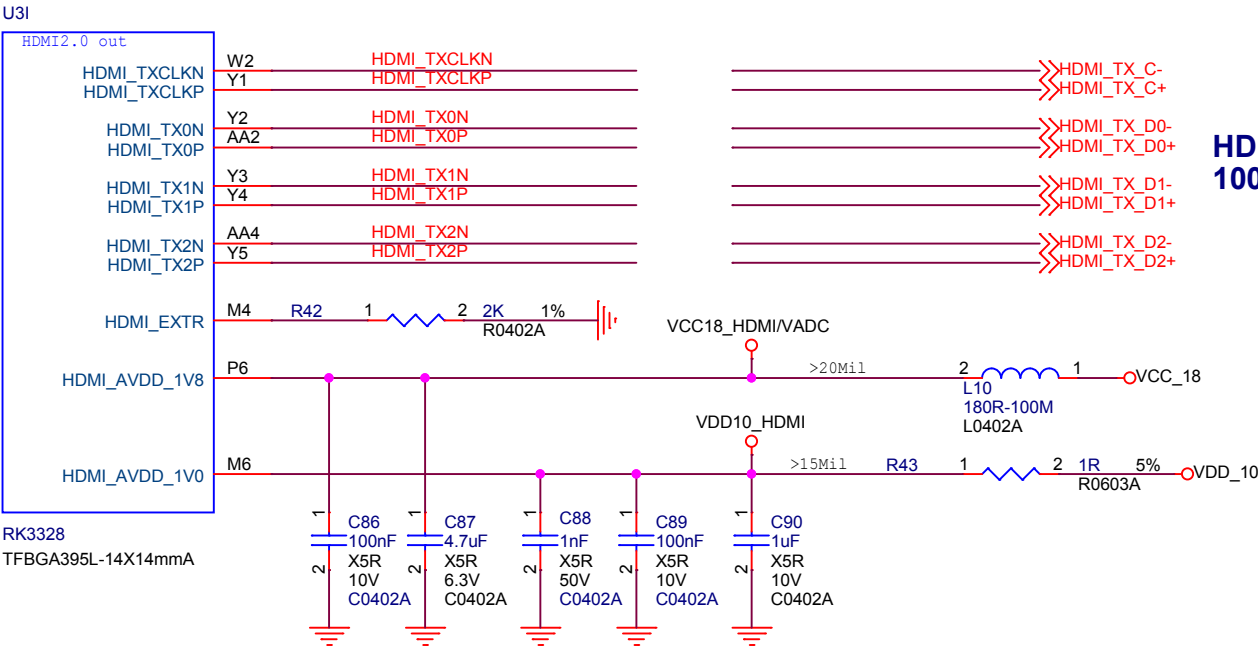
In gigabit Ethernet requirements:
If requiring high performance WIFI, WIFI SDIO
connects to SDMMC0 port, causing without
supporting SD Boot .
And SDMMC0EXT connects to SD Card



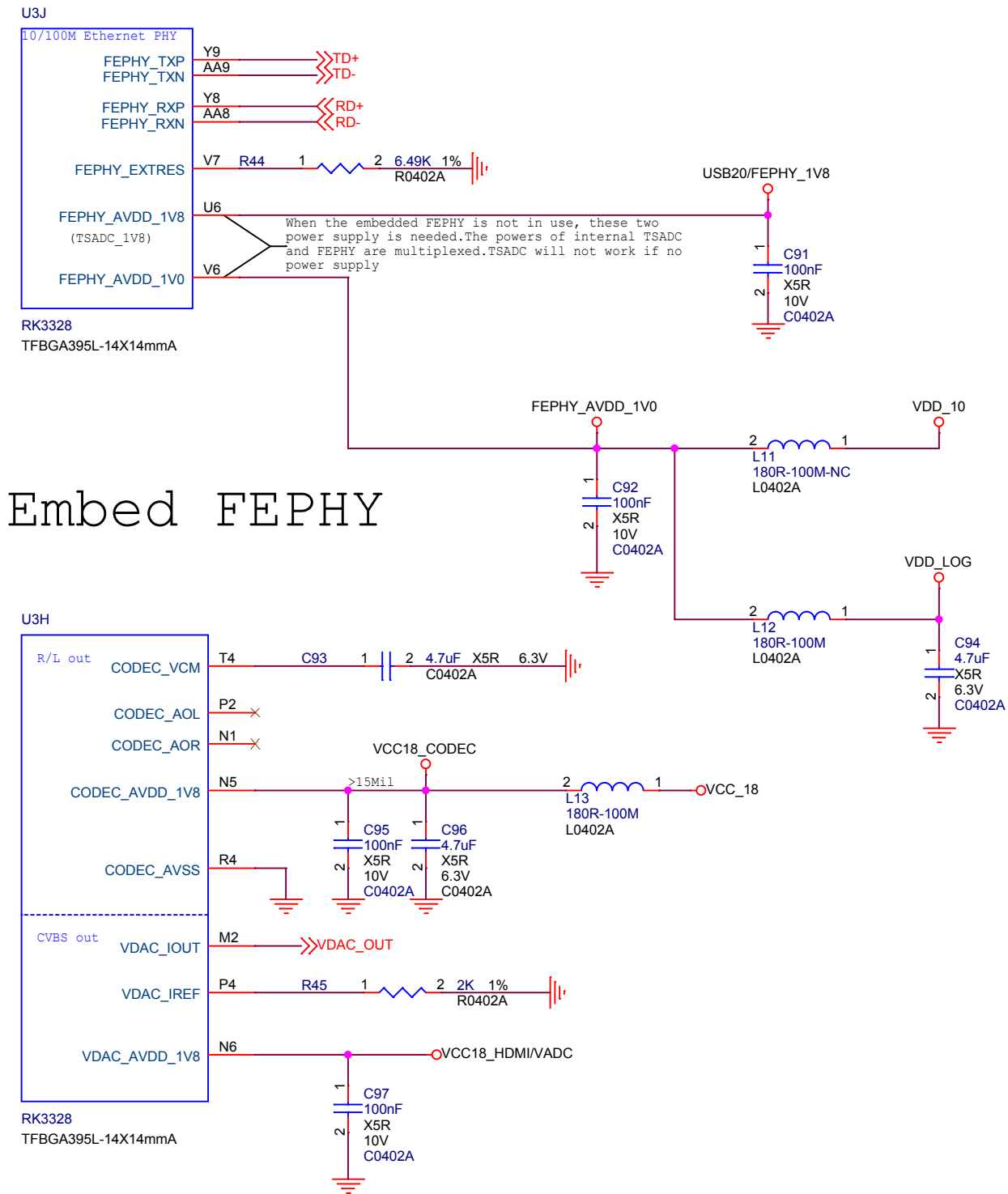
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A4	08_RK3328 USB2 PHY/USB3 PHY	V1.0		001	
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Close to RK3328

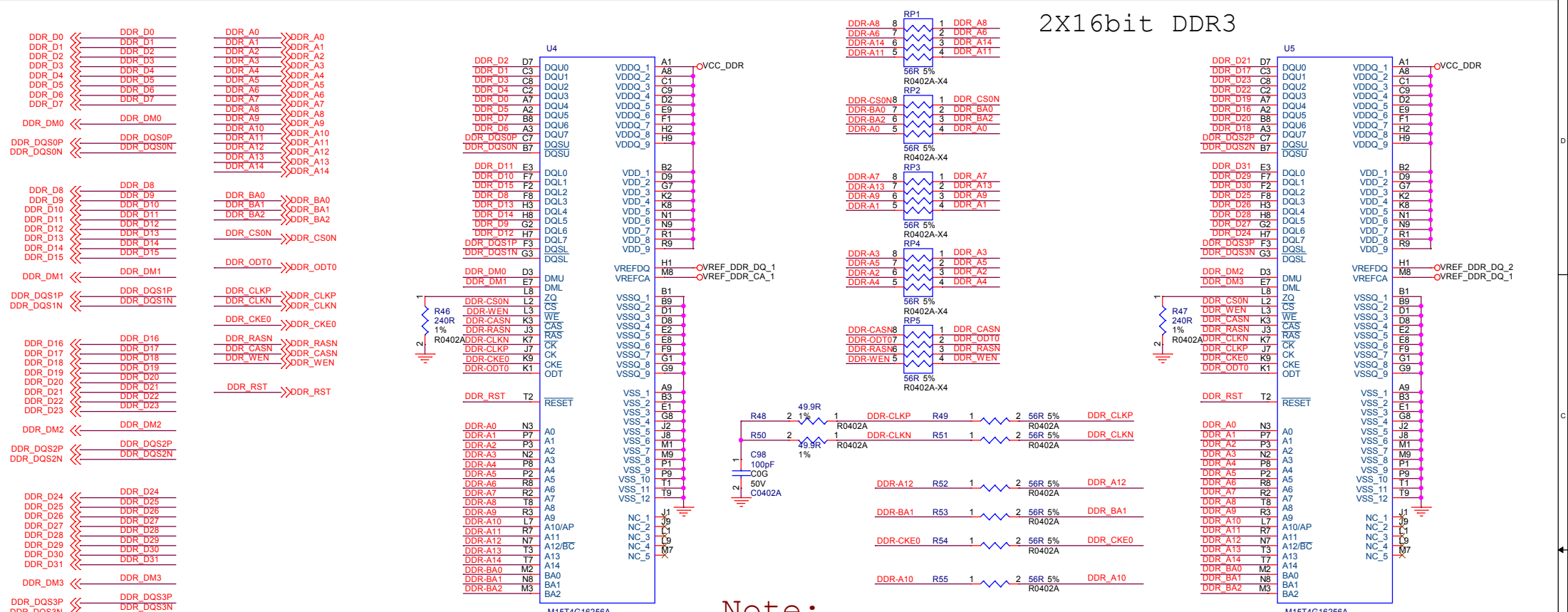


HDMI TMDs trace
100 Ohm +-10%

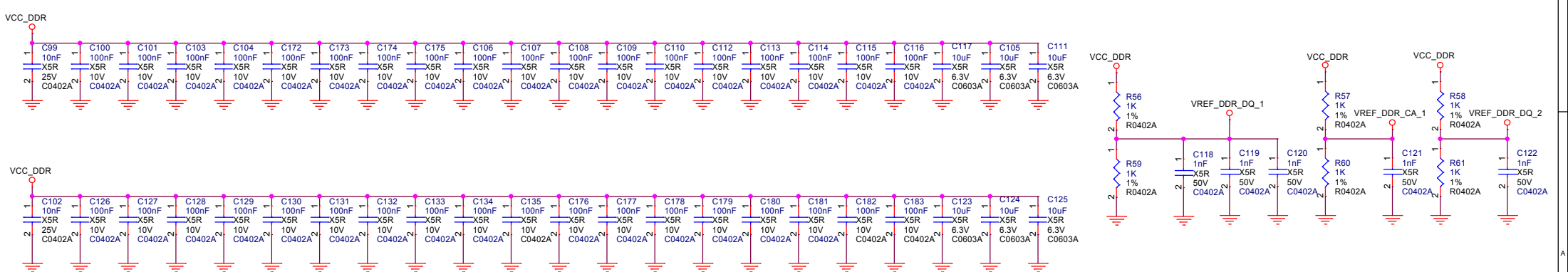


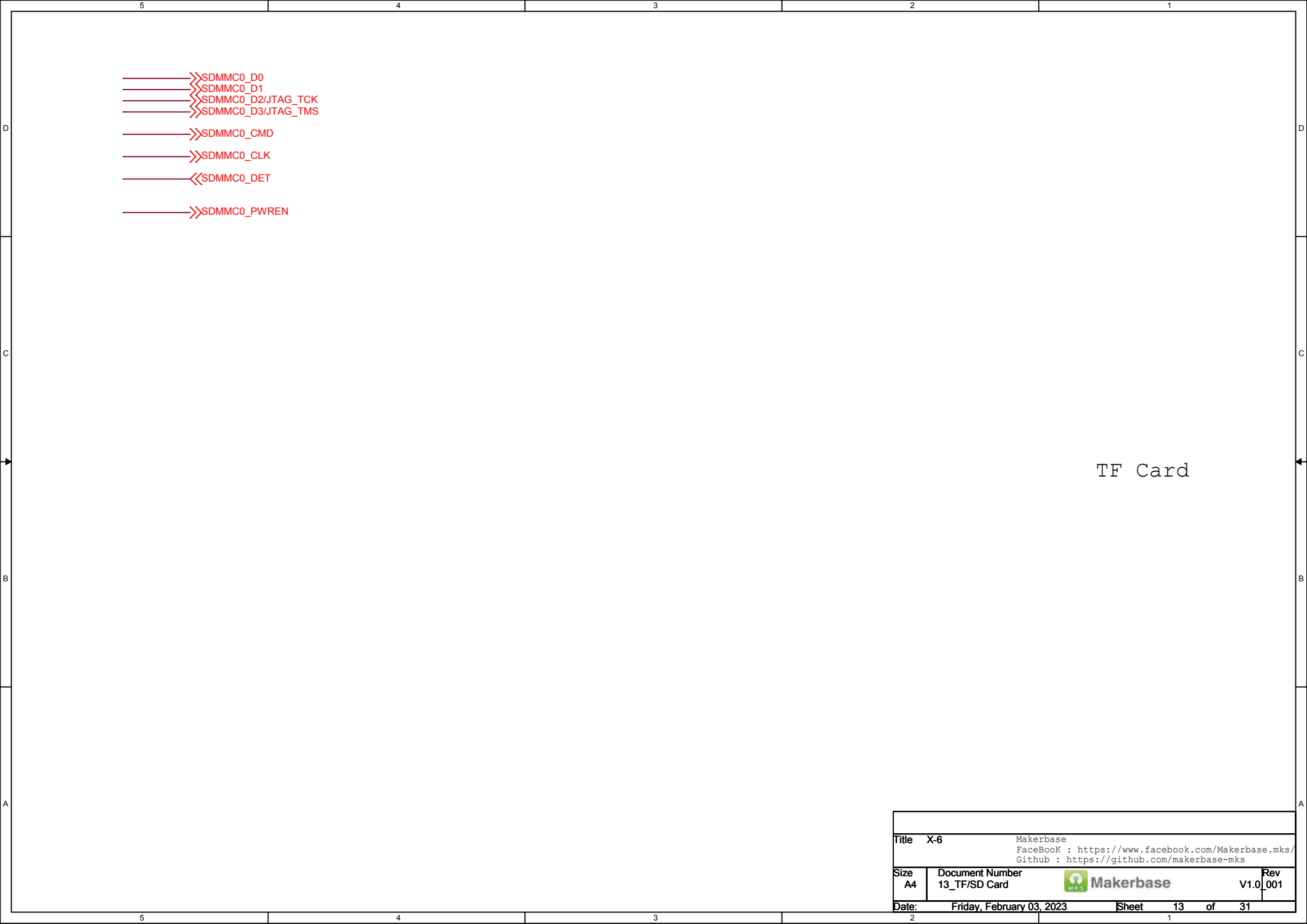
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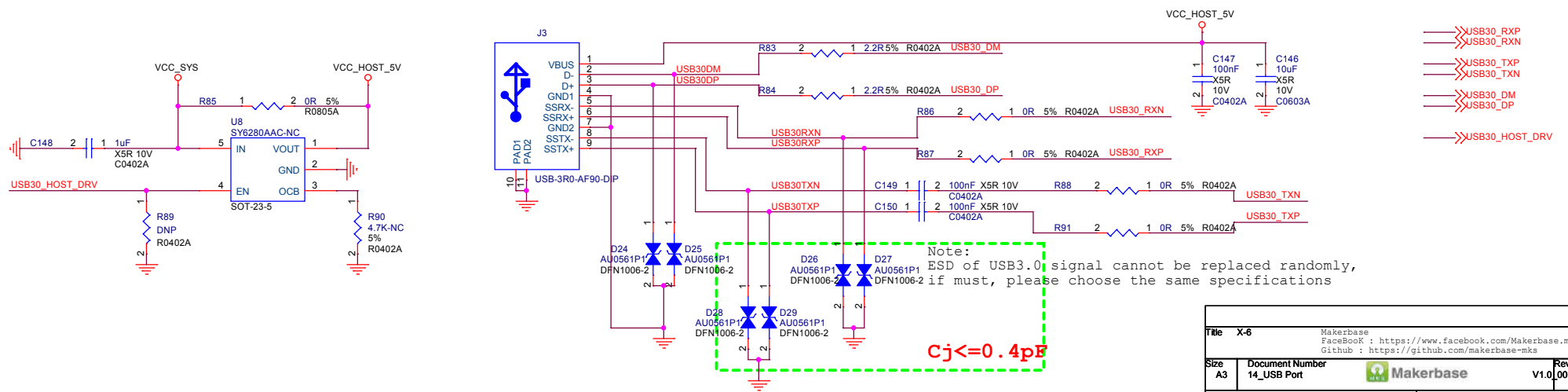
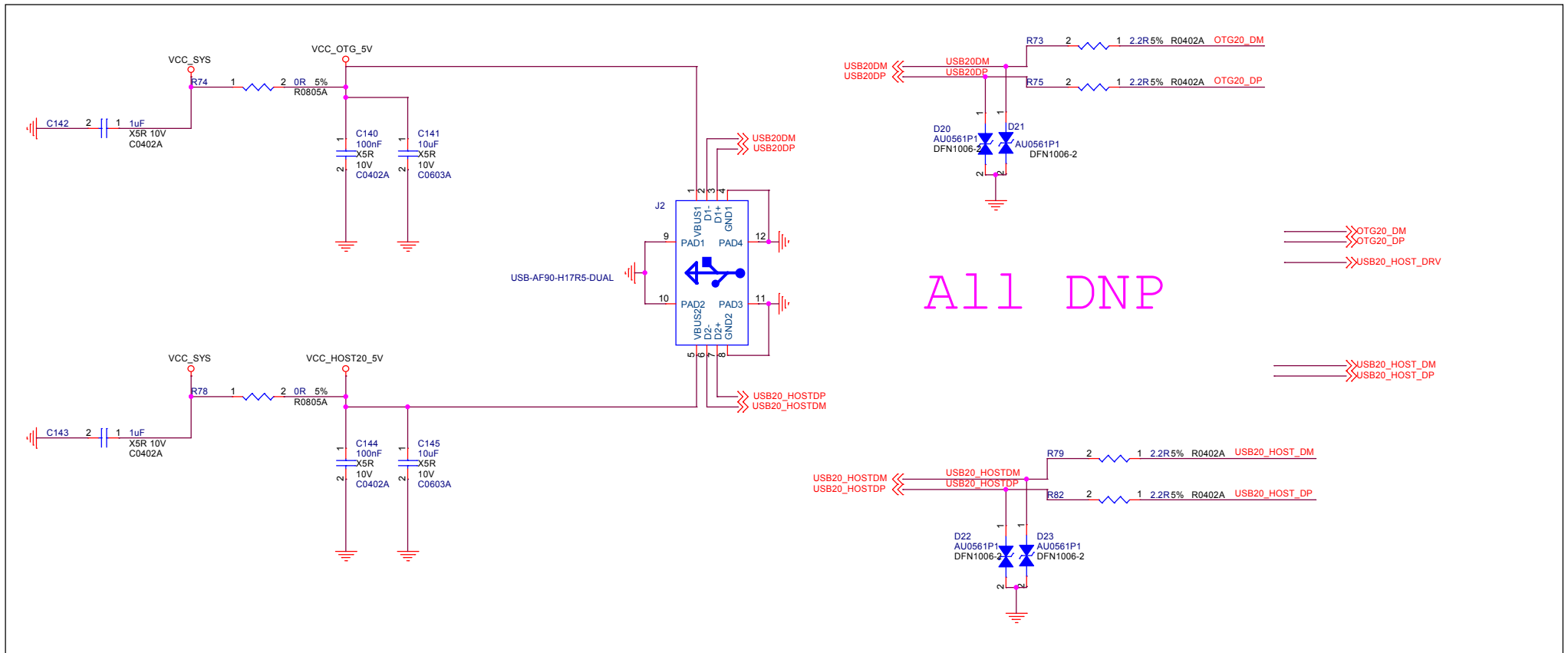
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Size A4	Document Number 11_RK3328 FEPHY/AV	 Makerbase	Rev V1.0 001
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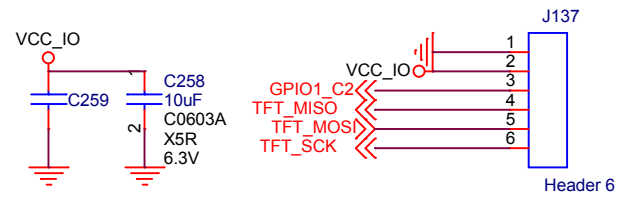



2X16bit DDR3

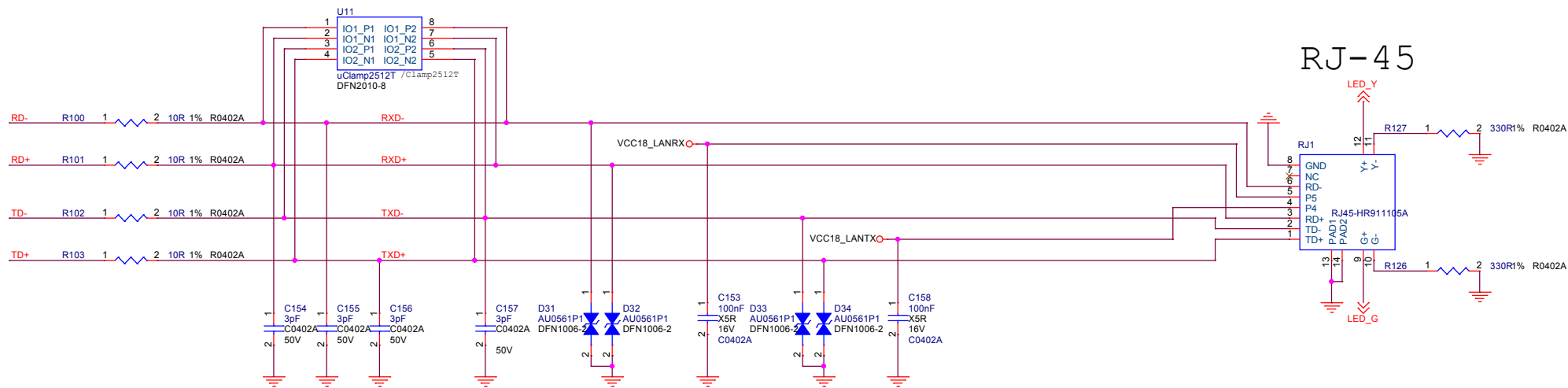




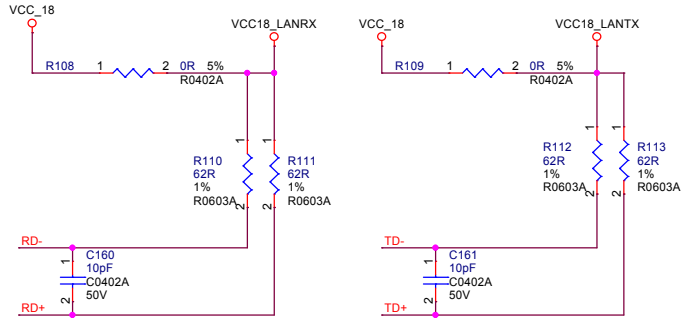
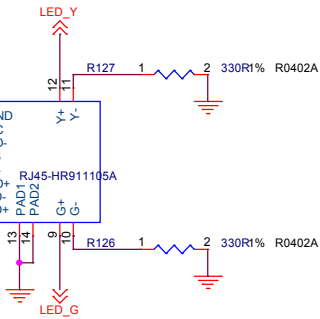




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Size A4	Document Number 15_ADXL345	 Makerbase	Rev V1.0_001
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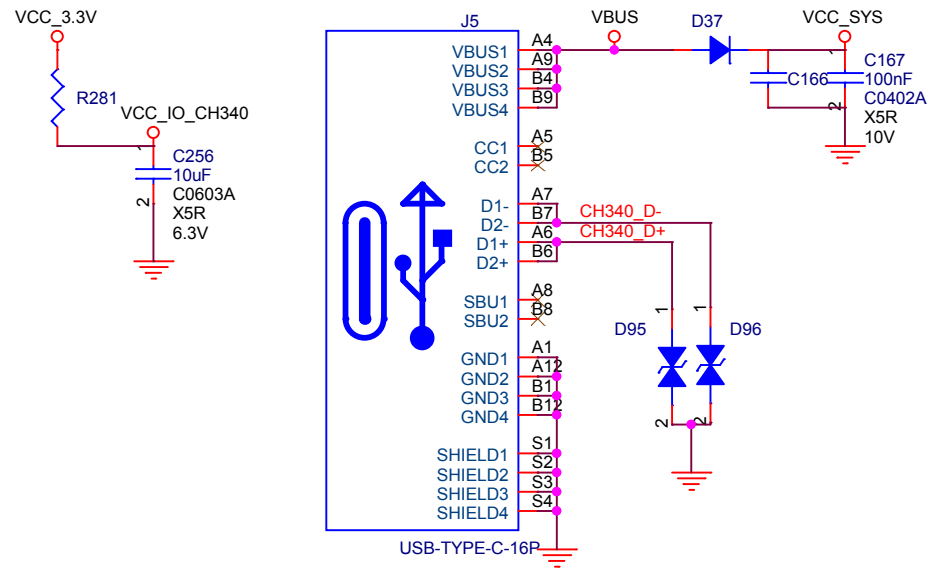
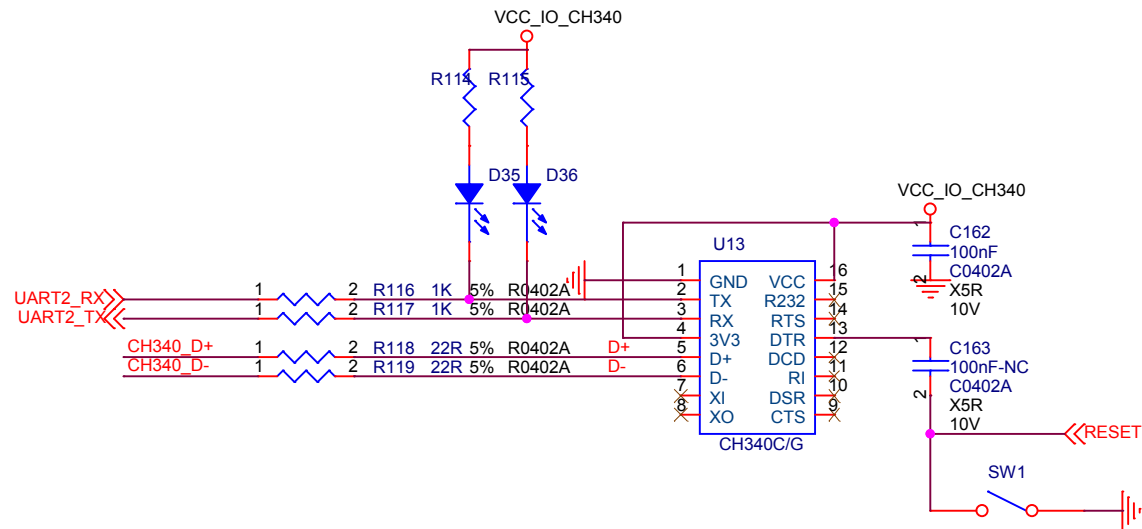
RJ-45

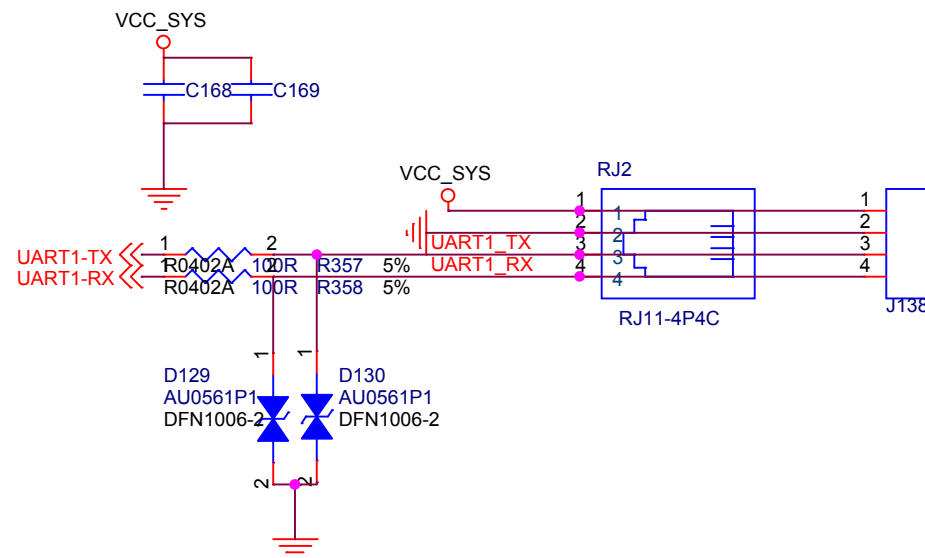



K_I2C0_SCL << >> LED_G

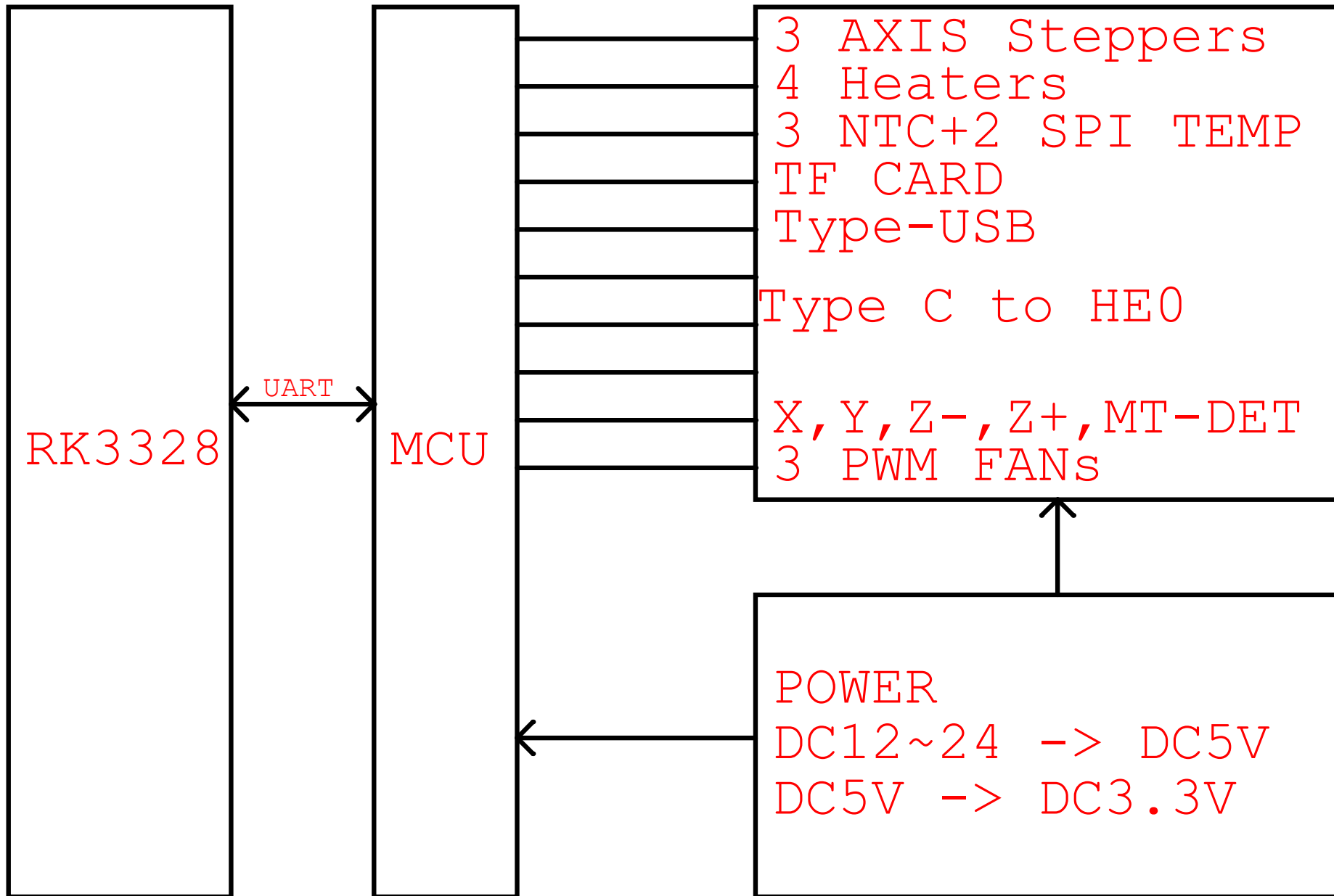
K_I2C0_SDA << >> LED_Y

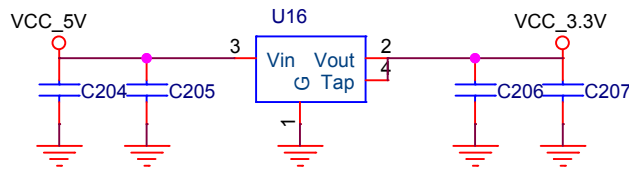
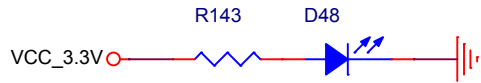
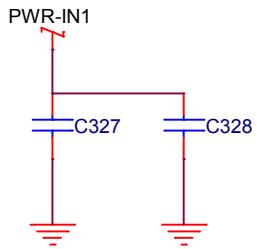
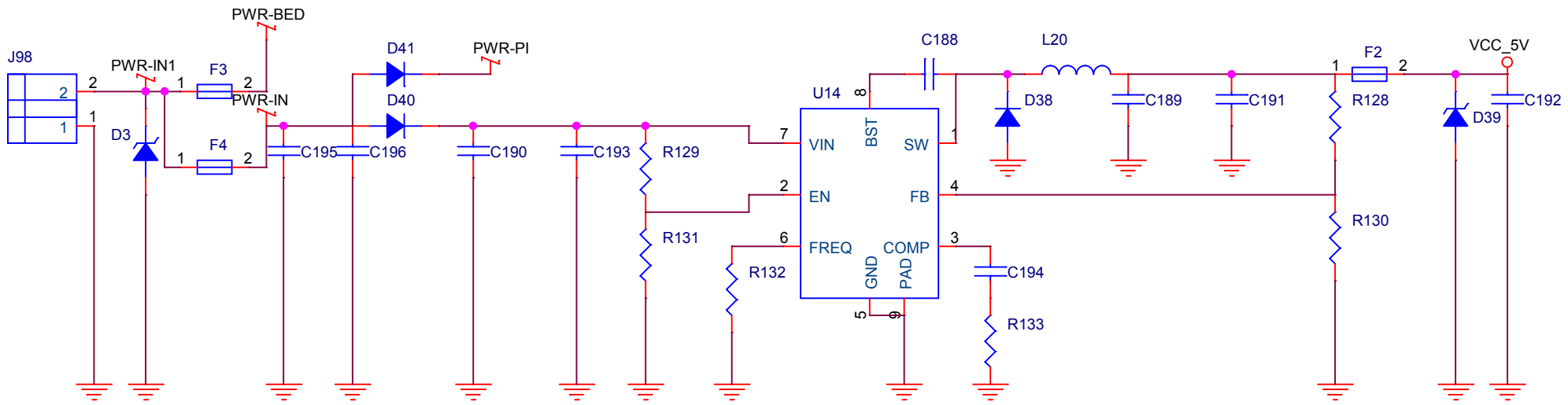




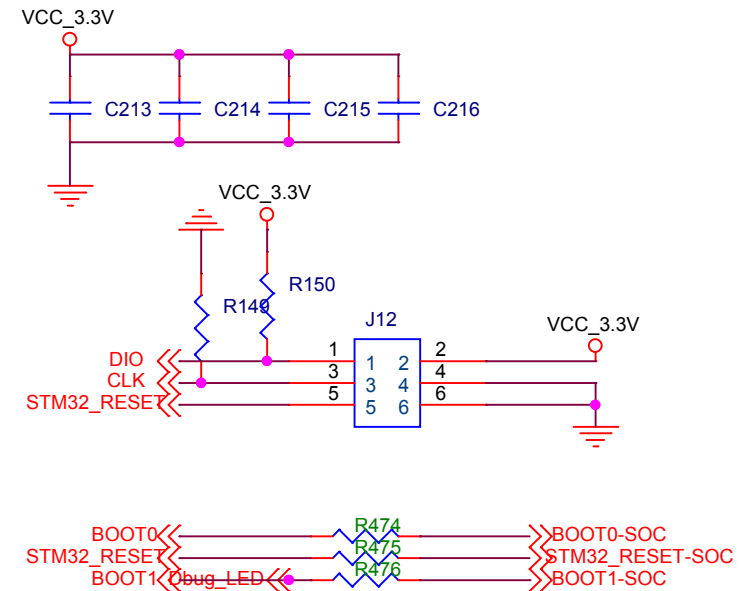
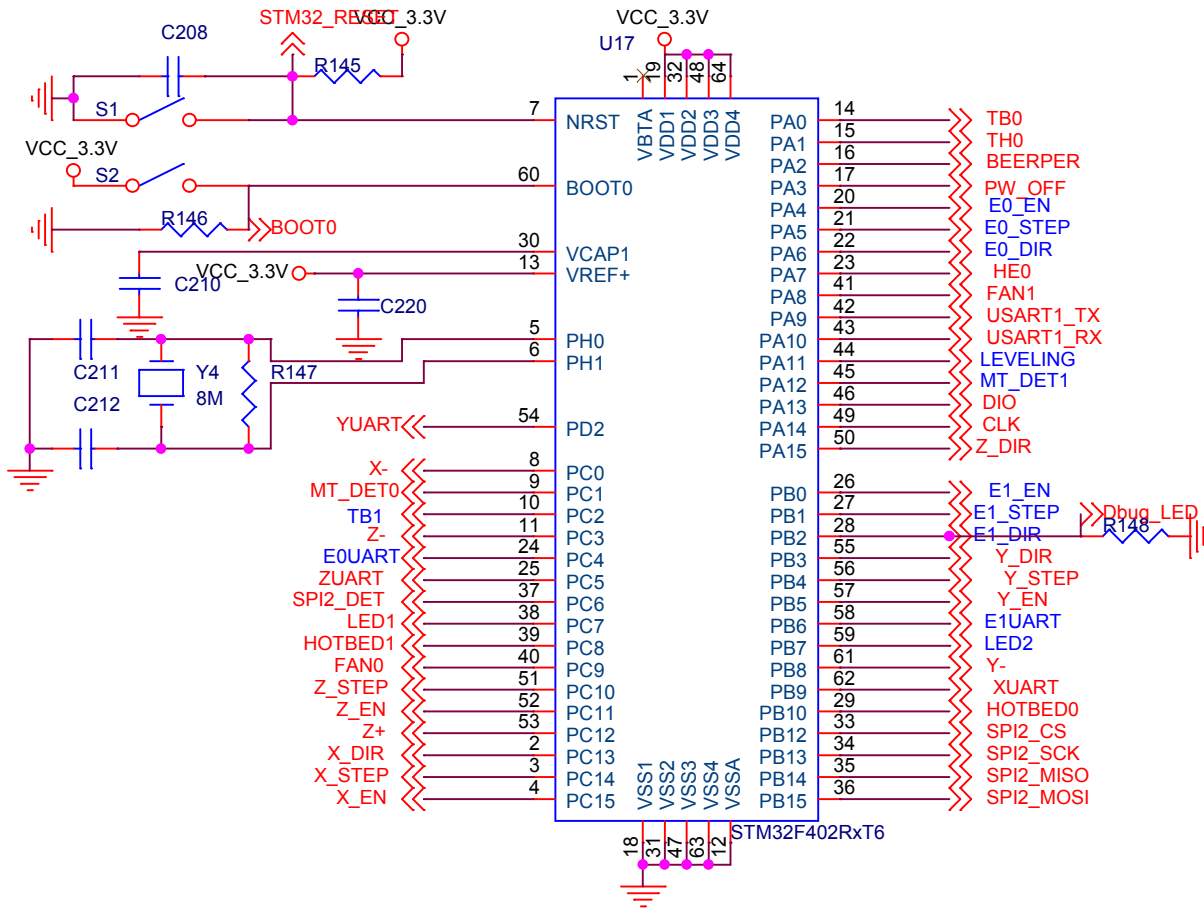



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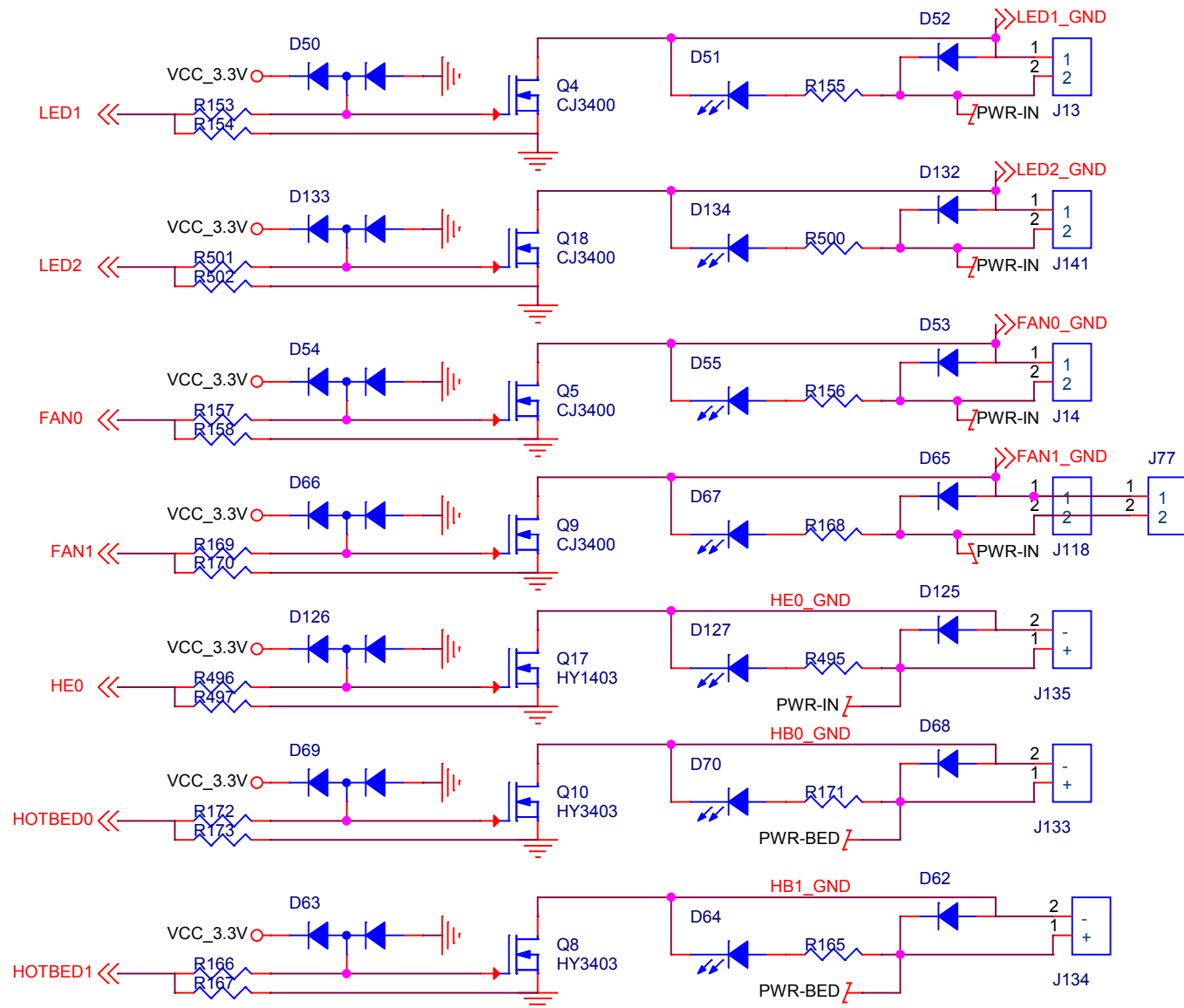





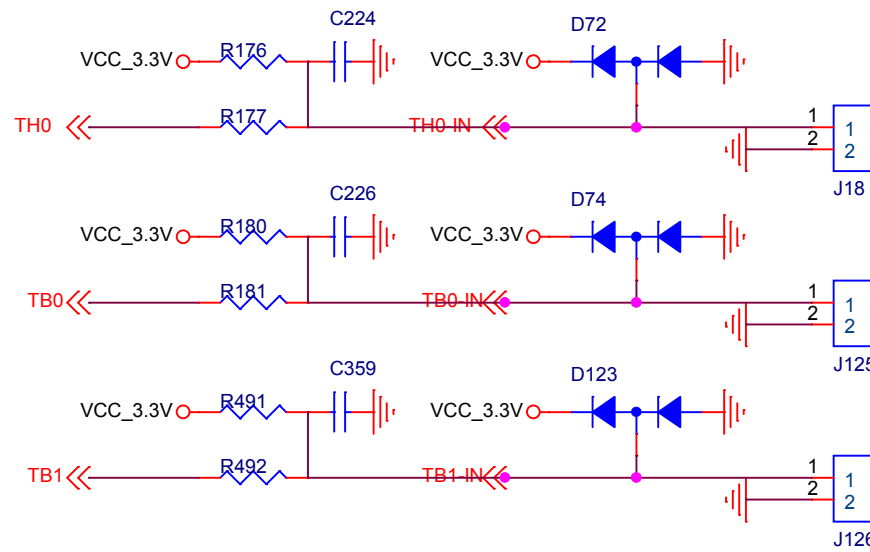
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Size	Document Number	 Makerbase			Rev	
A	20_POWER				V1.0	001
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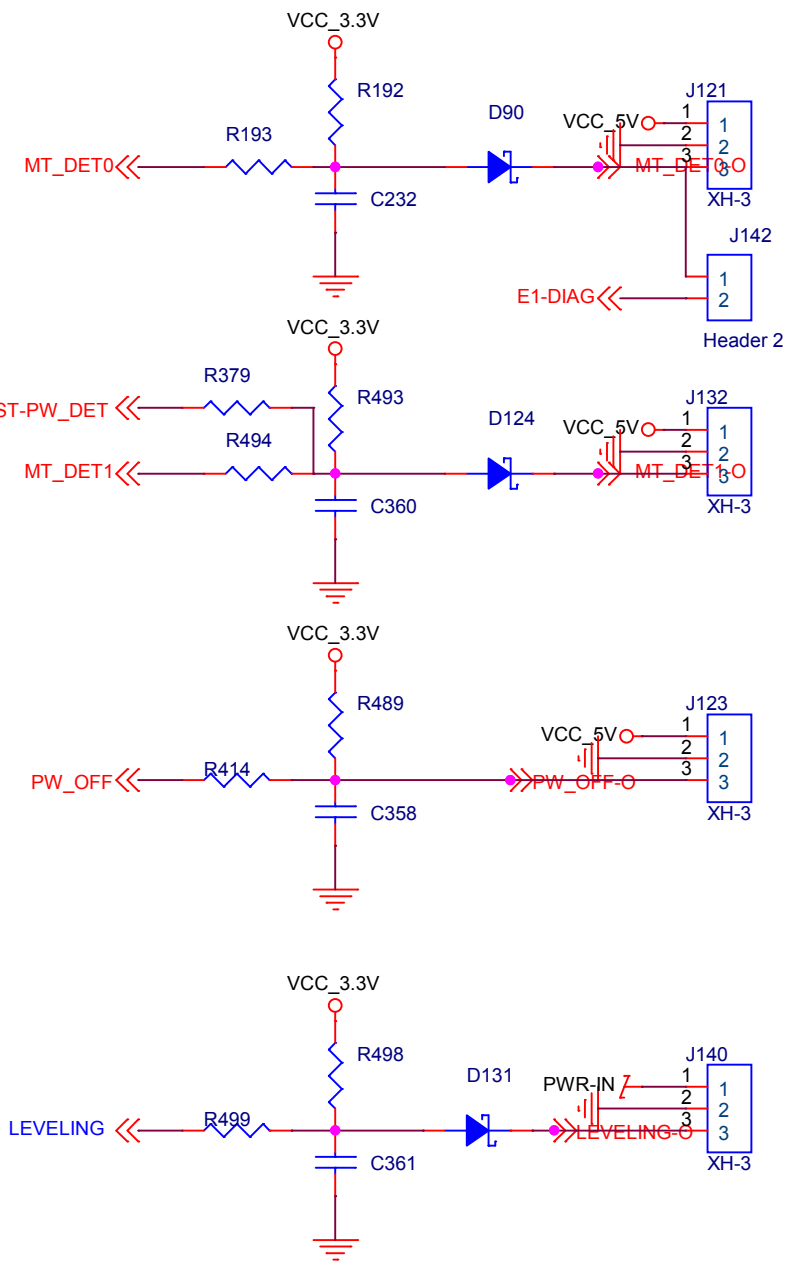
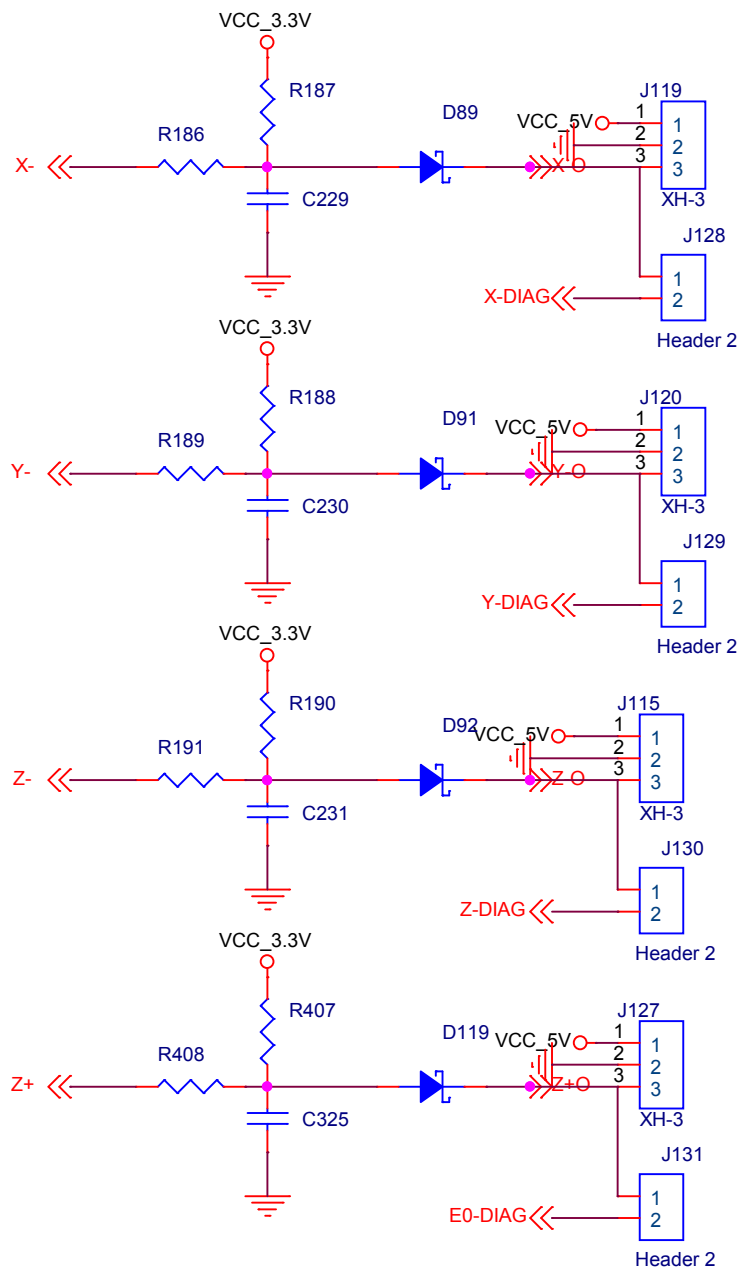
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A	22_MOSFET		V1.0 001	
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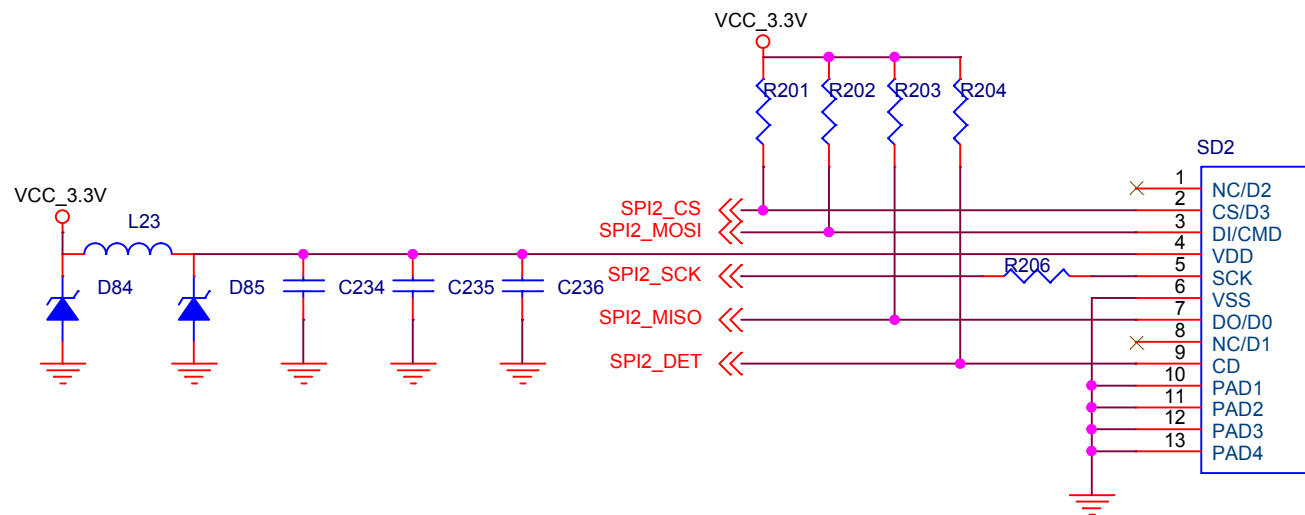
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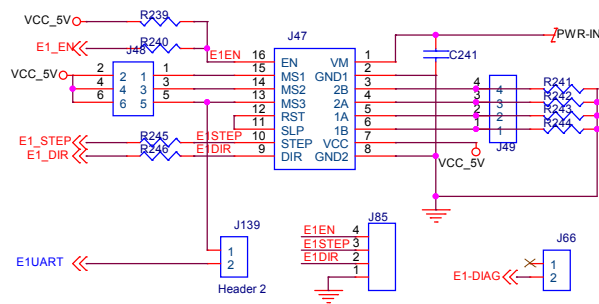
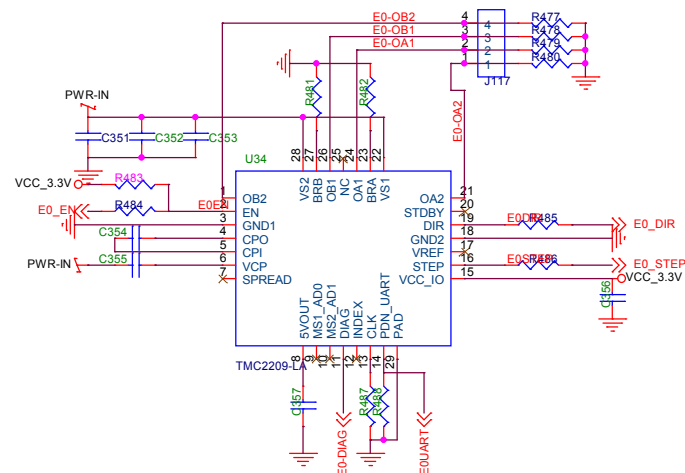
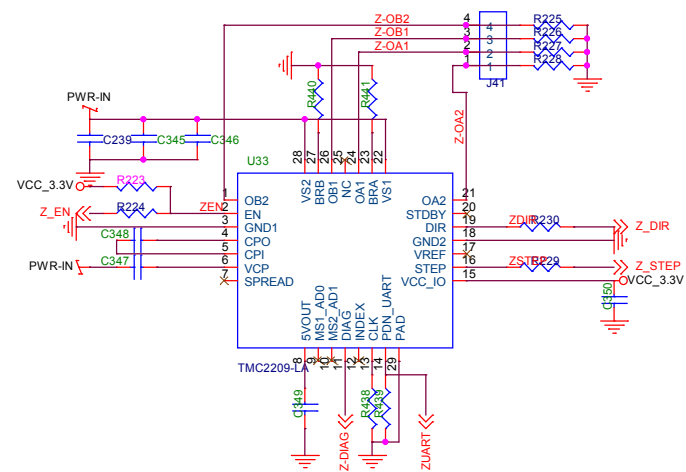
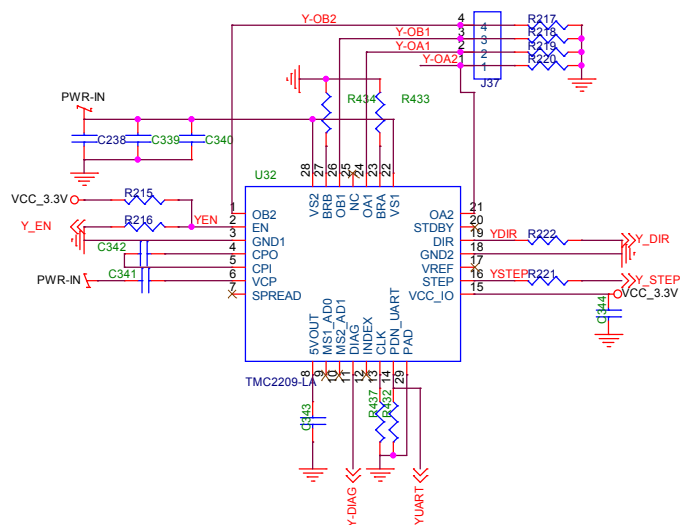
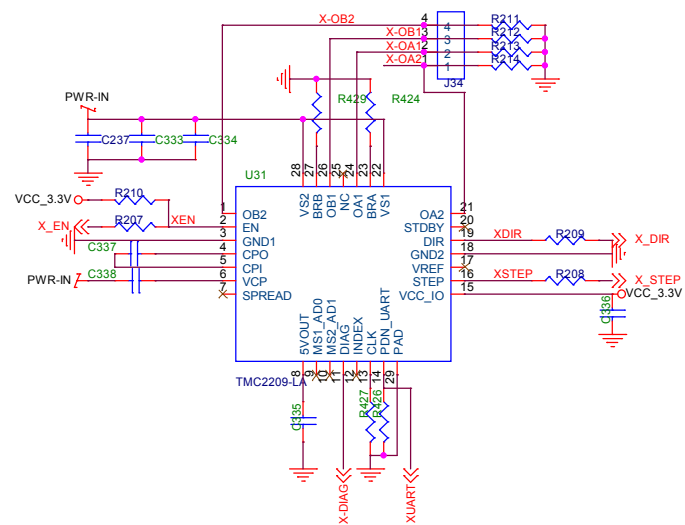
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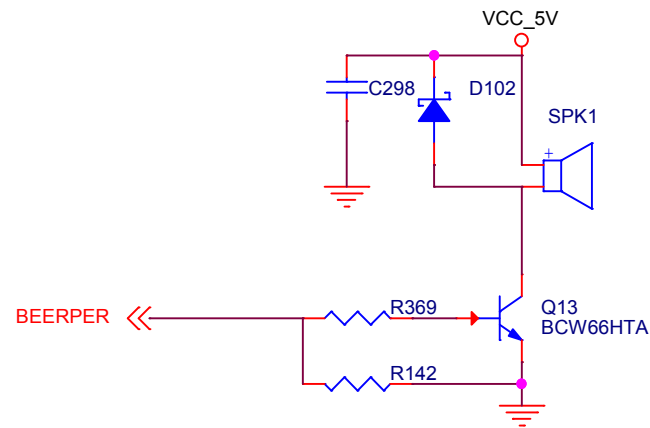
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D					D
C					C
B					B
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A	25_USB			V1.0 001
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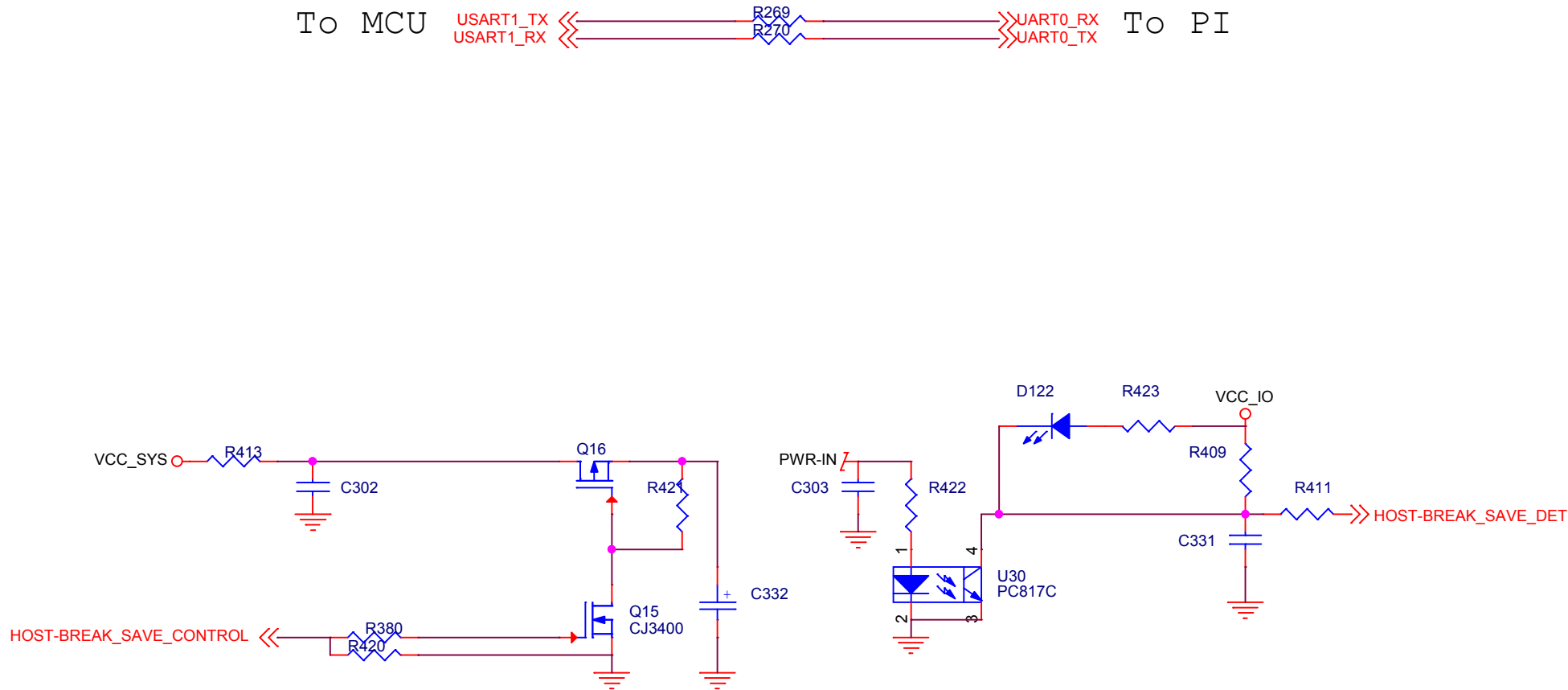


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Size	Document Number									Rev	
A	28_BEERPER									V1.0	001
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Size	Document Number				
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Date:		Wednesday, February 15, 2023		Sheet	30 of 31
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