



RD_T41_TOMCAT_D

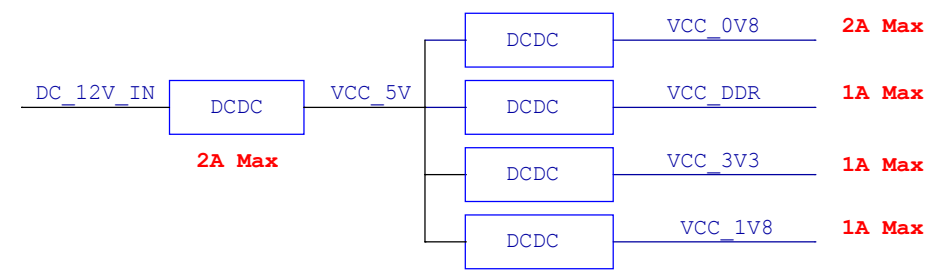
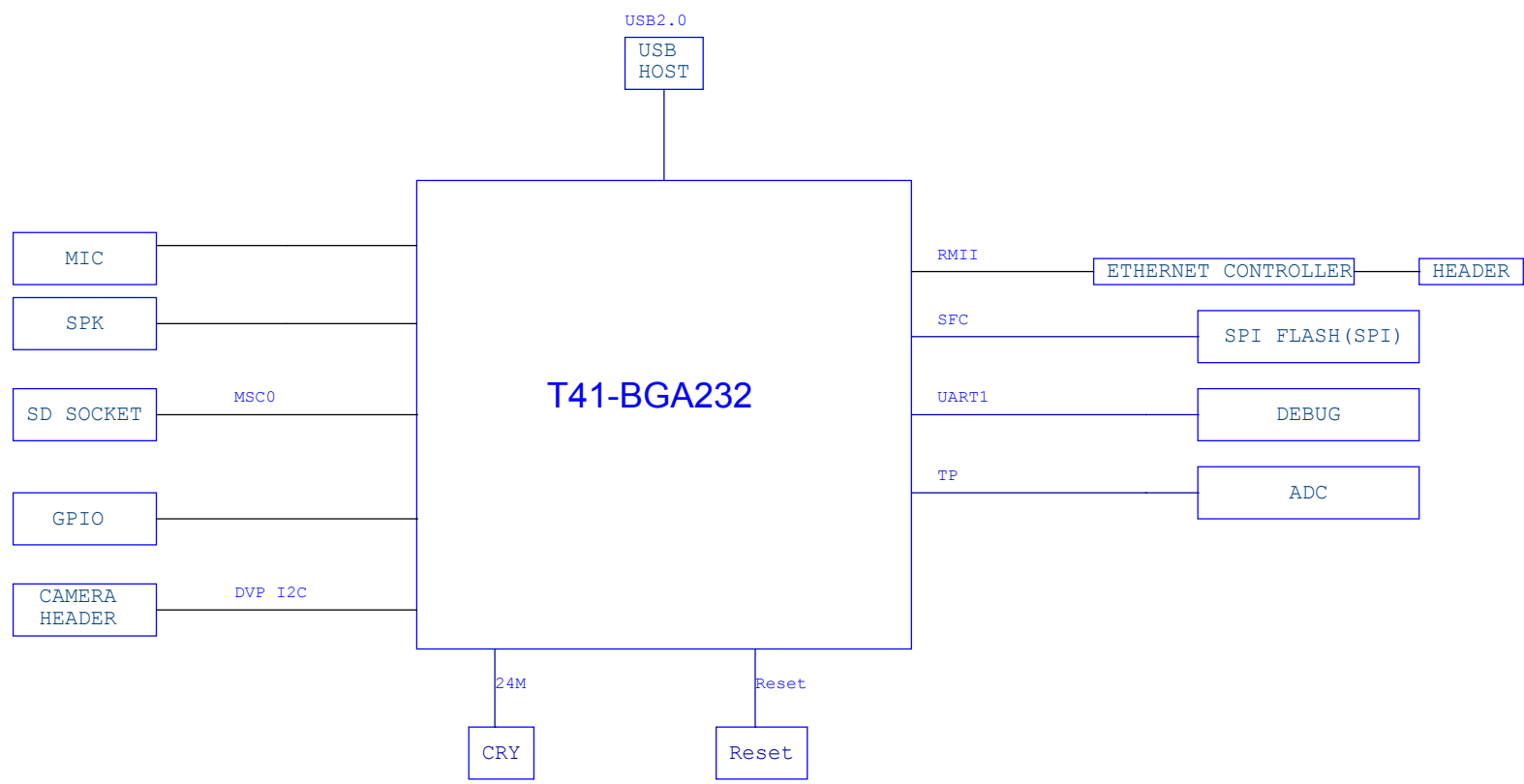
Schematic Revision 1.1

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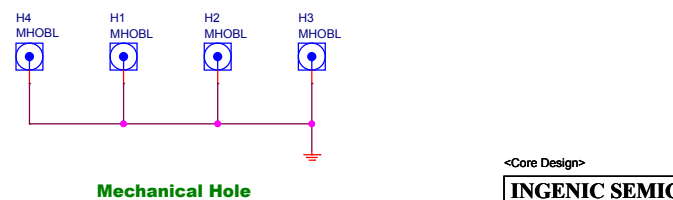
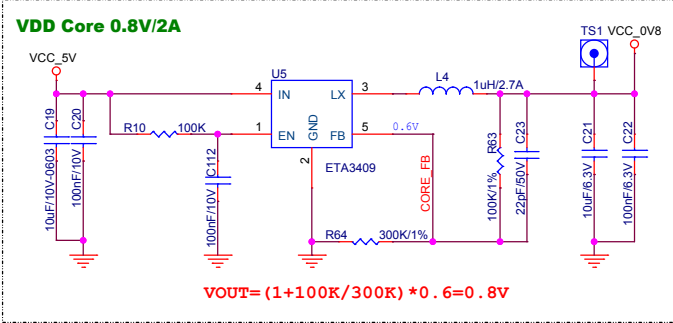
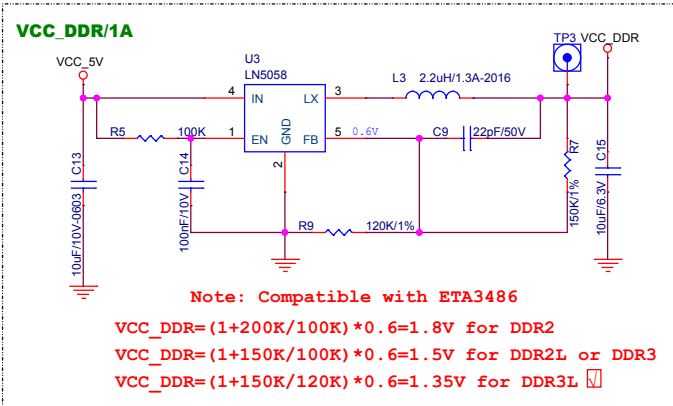
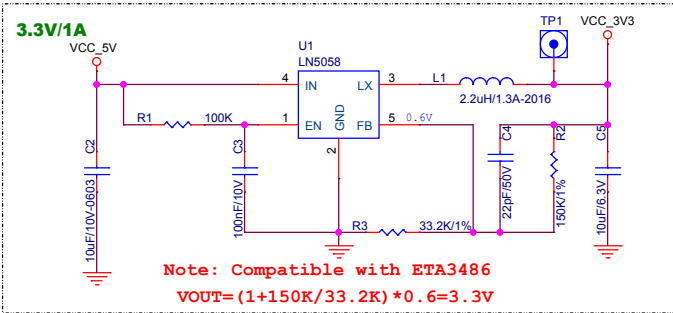
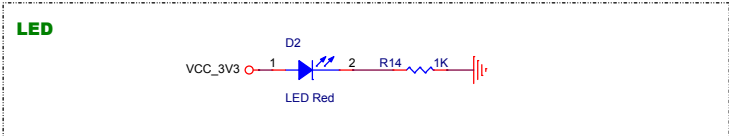
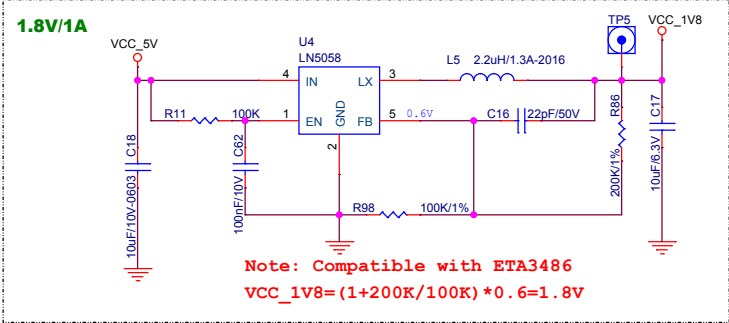
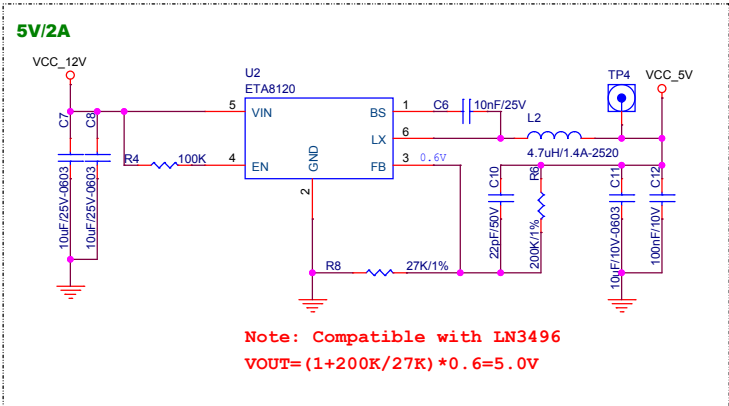
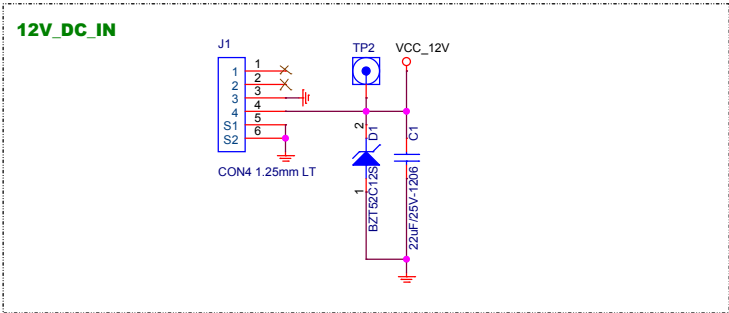
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SYSTEM_ARCHITECT



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POWER_SUPPLY



T41_POWER

Pinout of T41 BGA232:

Pin	Signal	Pin	Signal
H5	VDD	G6	VSS1
H6	VDD	G7	VSS2
H7	VDD	G8	VSS3
H8	VDD	G9	VSS4
H9	VDD	G10	VSS5
H10	VDD	G11	VSS6
H11	VDD	G12	VSS7
H12	VDD	G13	VSS8
H13	VDD	J6	VSS9
J5	VDD	J7	VSS10
J13	VDD	J8	VSS11
K5	VDD	J9	VSS12
K13	VDD	J10	VSS13
L5	VDD	J11	VSS14
M5	VDD	J12	VSS15
M6	VDD	K6	VSS16
N6	VDD	K7	VSS17
N7	VDD	K8	VSS18
N8	VDD	K9	VSS19
N9	VDD	K10	VSS20
N10	VDD	K11	VSS21
		K12	VSS22
E6	VDDMEM	L6	VSS23
E7	VDDMEM	L7	VSS24
E8	VDDMEM	L8	VSS25
E9	VDDMEM	L9	VSS26
E10	VDDMEM	L10	VSS27
E11	VDDMEM	L11	VSS28
E12	VDDMEM	L12	VSS29
F5	DDRVDD	M7	VSS30
F6	DDRVDD	M8	VSS31
F7	DDRVDD	M9	VSS32
F8	DDRVDD	M10	VSS33
F9	DDRVDD	M11	VSS34
F10	DDRVDD	M12	VSS35
F11	DDRVDD	M13	VSS36
F12	DDRVDD	N12	VSS37

Power and Signal Connections:

- VDD:** Connected to VCC_0V8. Capacitors: C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53.
- VDDMEM:** Connected to VCC_DDR. Capacitors: C25, C24, C26, C27, C28.
- DDRVDD:** Connected to VCC_DDR. Capacitors: C32, C33, C35, C37, C34.
- DDRPLL_VCCA:** Connected to VCC_1V8. Capacitors: C54, C64.
- DDRPLL_VSSA:** Connected to C9.
- DDR VREF:** Connected to VCC_DDR. Capacitors: C42, C40, C41. Resistors: R15, R17.
- DDR ZQ:** Connected to R16, R18.
- DDR RZQ:** Connected to R16, R18.

Legend:

- VDD: 100nF/6.3V
- VDDMEM: 100nF/6.3V
- DDRVDD: 100nF/6.3V
- DDRPLL: 100nF/6.3V
- DDR VREF: 100nF/6.3V
- DDR ZQ: 240R/1%
- DDR RZQ: 240R/1%

Core Design:

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RD_T41_TOMCAT_D

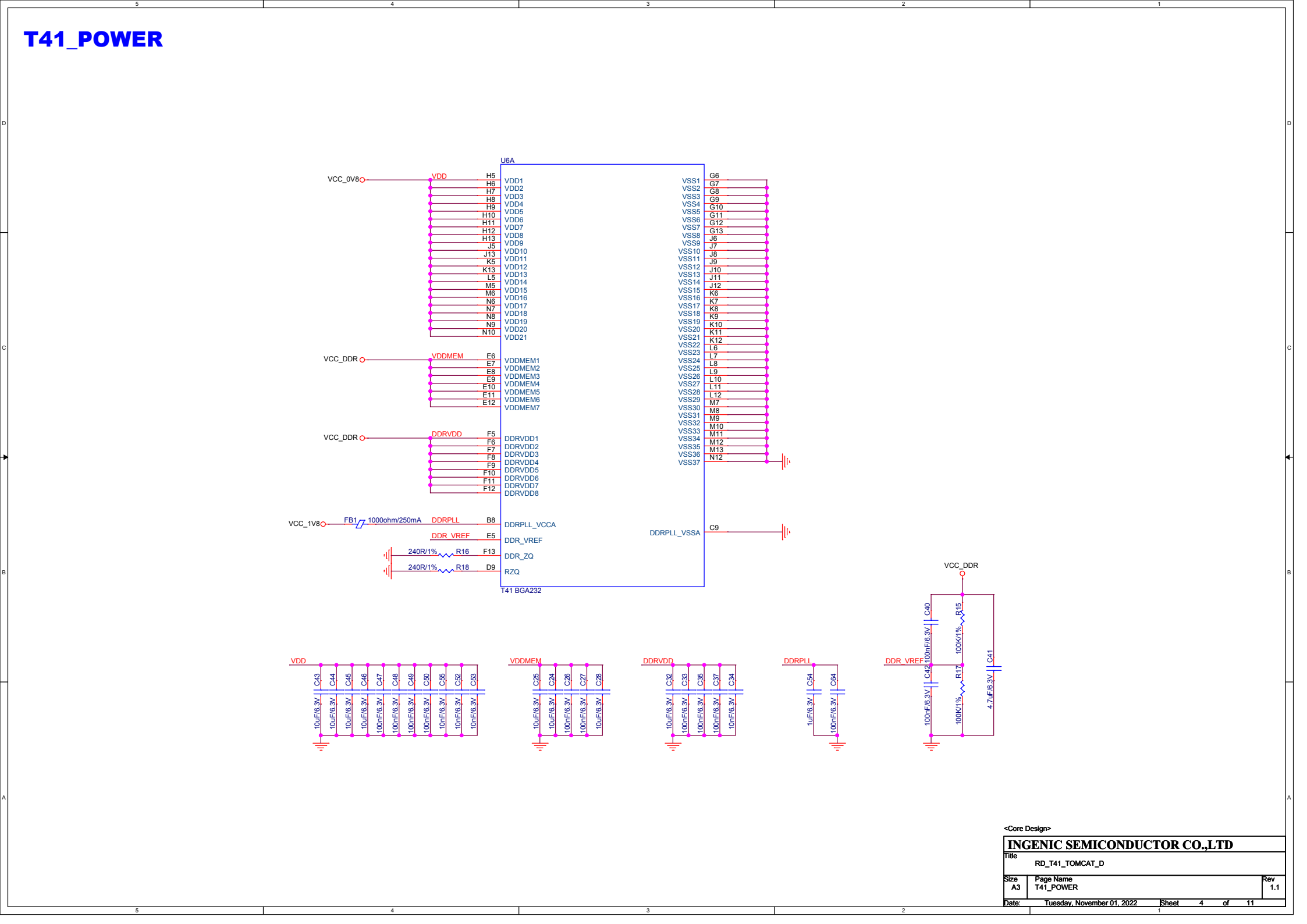
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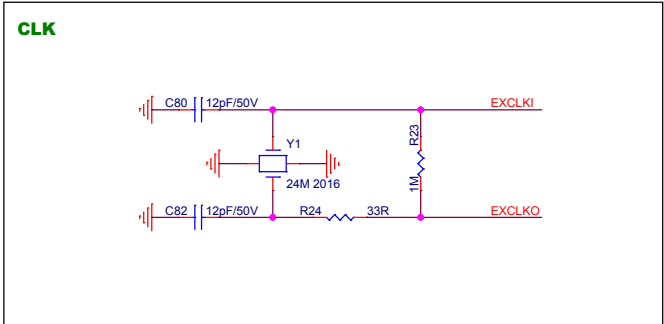
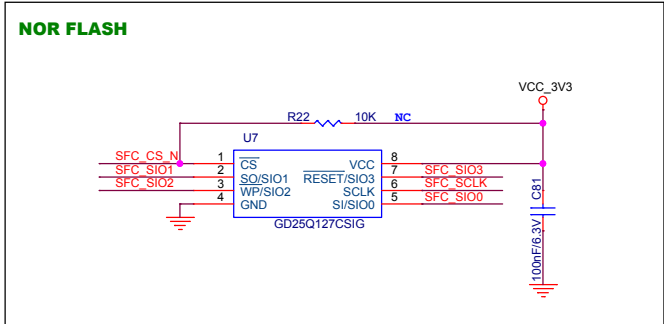
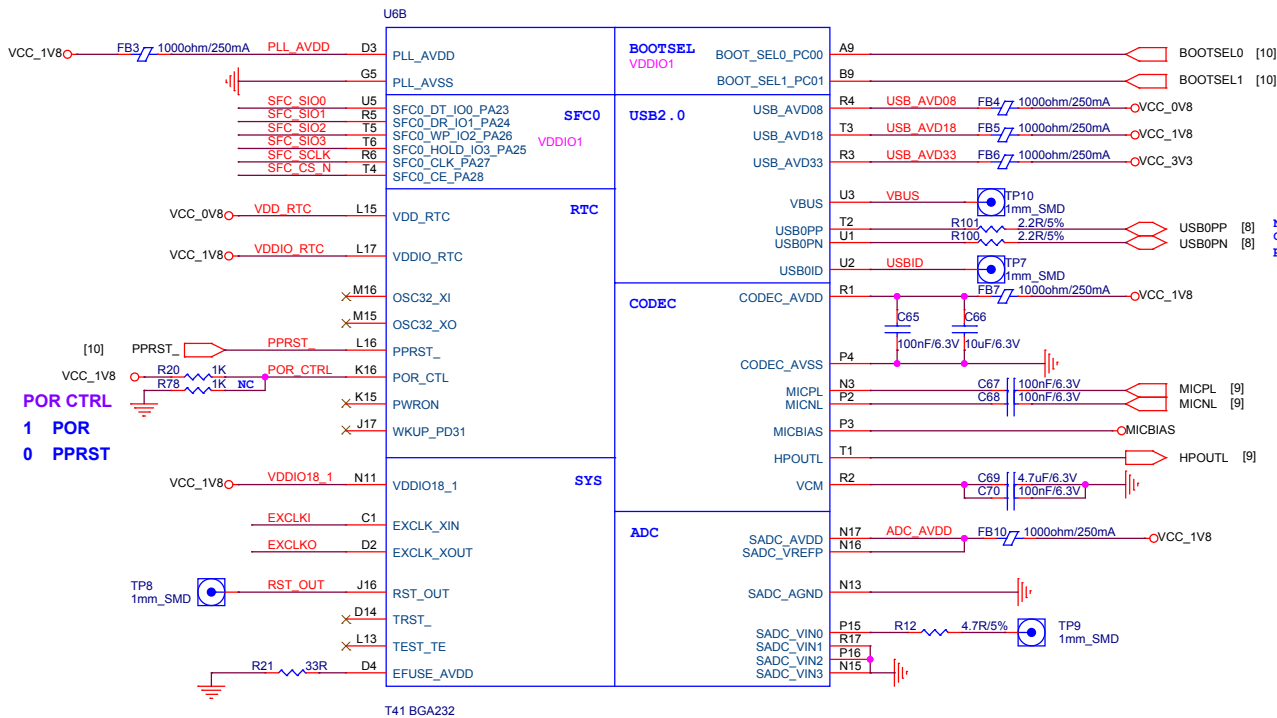
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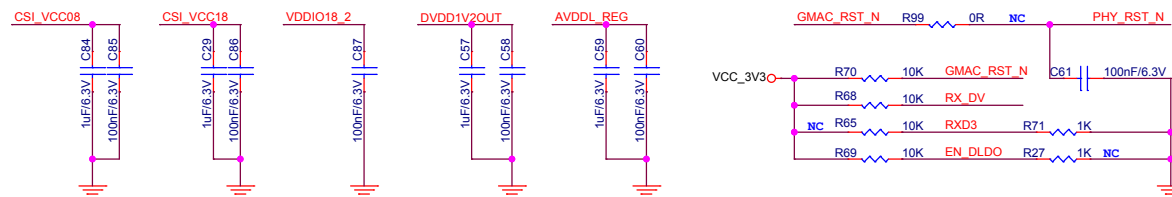
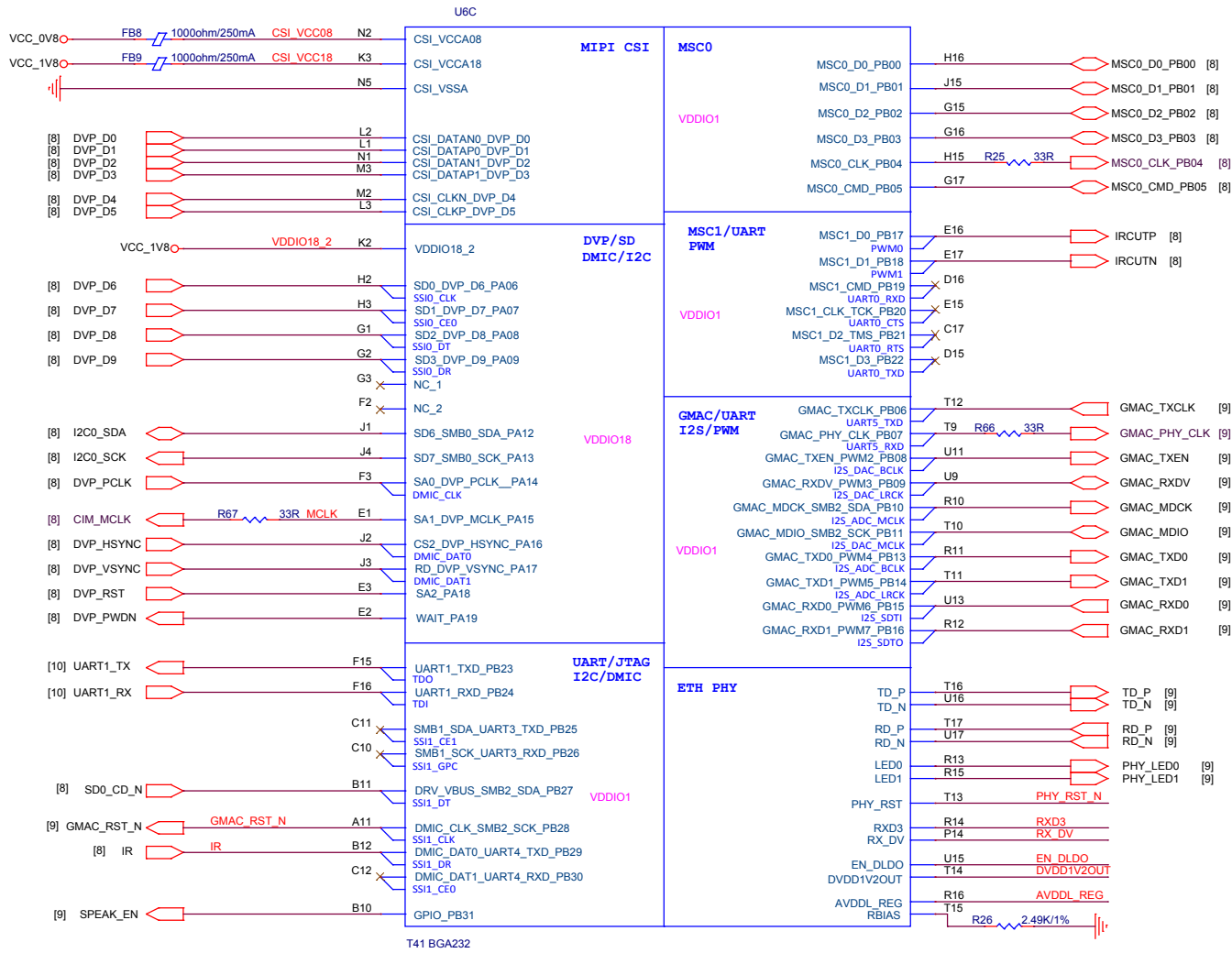
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T41_INTERFACE1



T41_INTERFACE2



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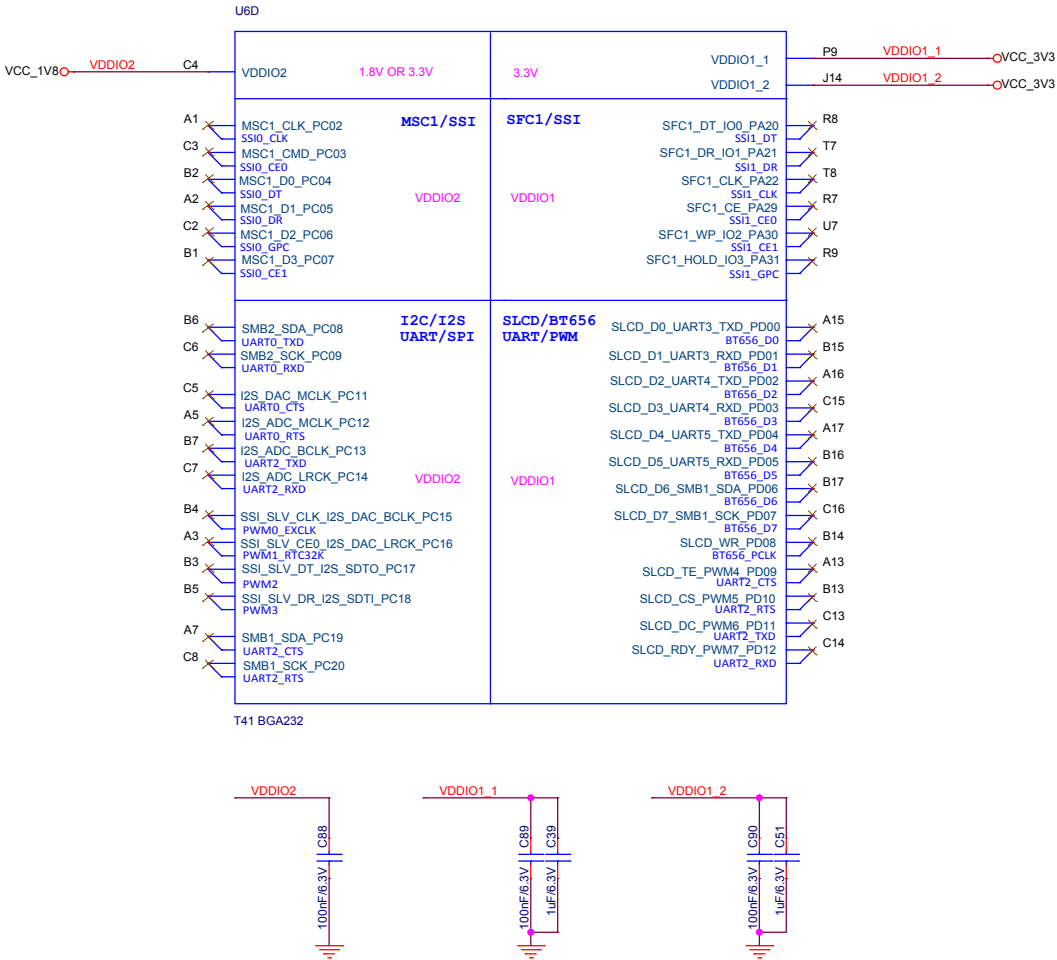
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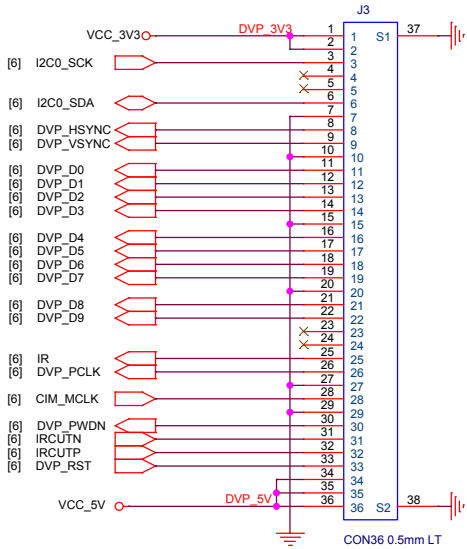
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T41_INTERFACE3

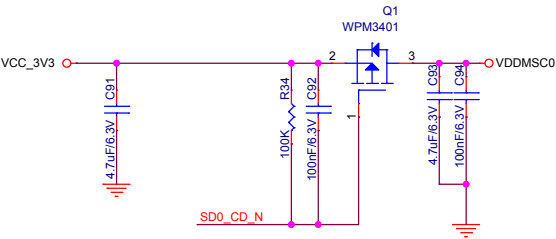
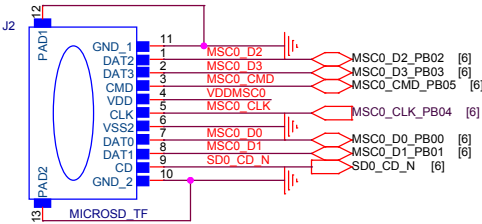


DVP_SD_CARD_USB

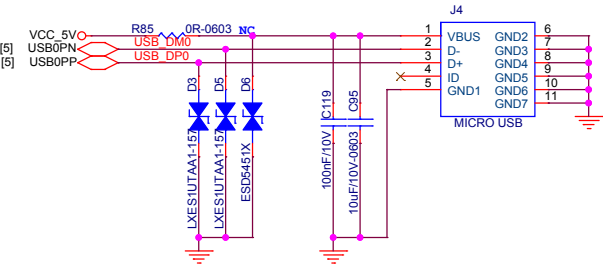
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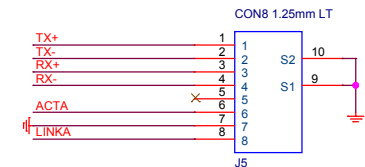
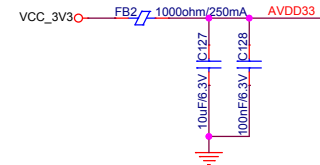
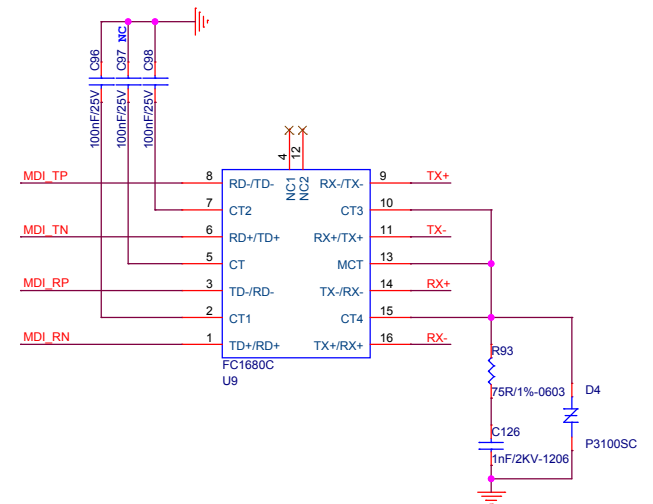
SD CARD



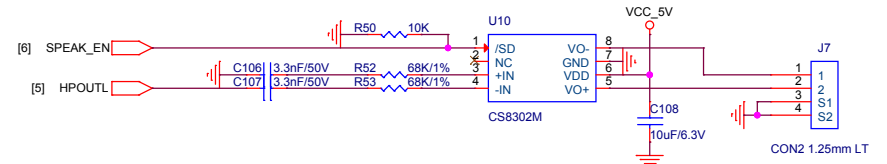
USB2.0



ETH RMII



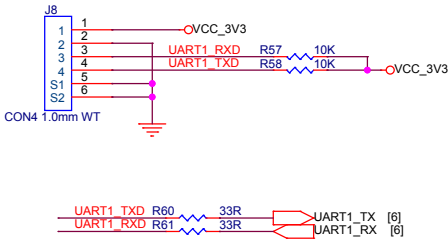
AUDIO



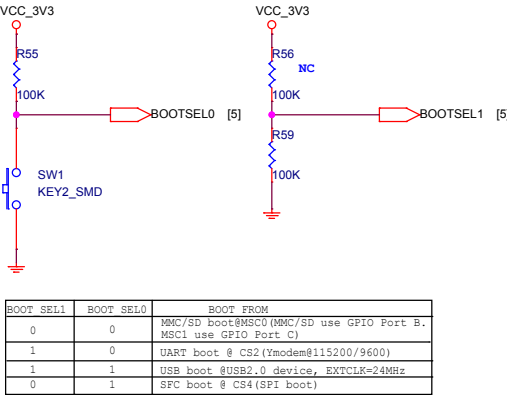
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RST_BOOT_DEBUG

DEBUG

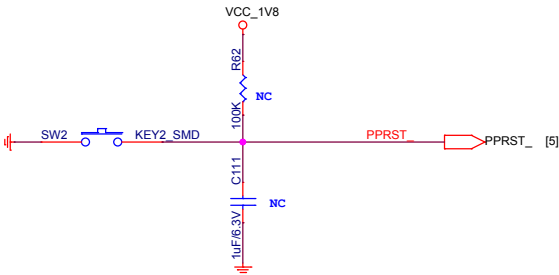


BOOT



BOOT_SEL1	BOOT_SEL0	BOOT FROM
0	0	MMC/SD boot@MSC0 (MMC/SD use GPIO Port B. MSC1 use GPIO Port C)
1	0	UART boot @ CS2 (Ymodem#115200/9600)
1	1	USB boot @USB2.0 device, EXTCLK=24MHz
0	1	SFC boot @ CS4 (SPI boot)

RESET CIRCUITS



Date	Revision	Change
Sep 20 2022	Rev1.0	1. First Revision
Nov 01 2022	Rev1.1	1.T41.G3&F2 Ball Change to NC. 2.ADC Channel Series 4.7R Resistor. 3.Update T41 package