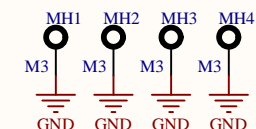
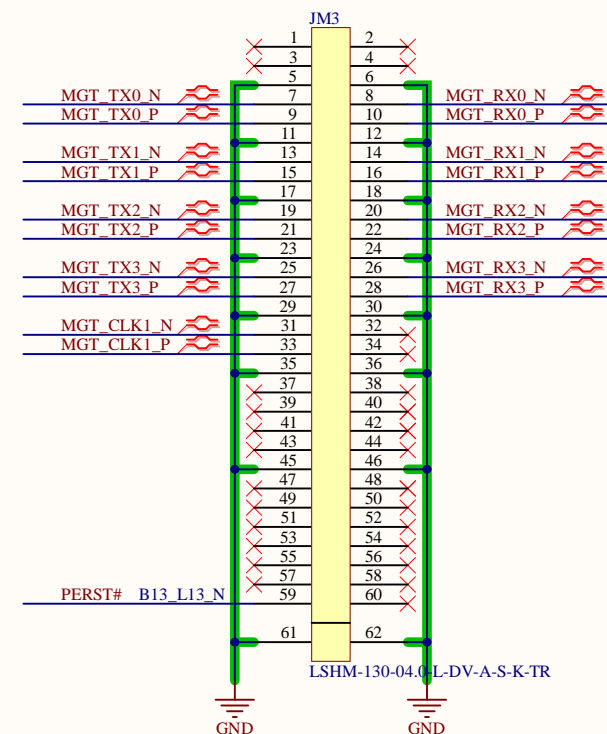
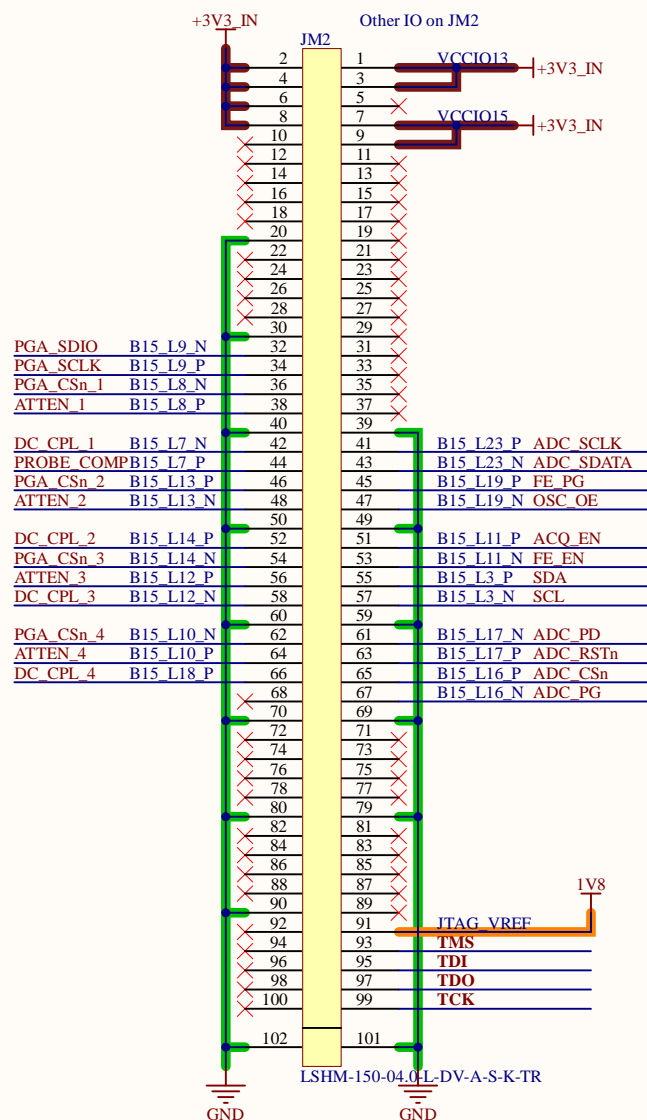
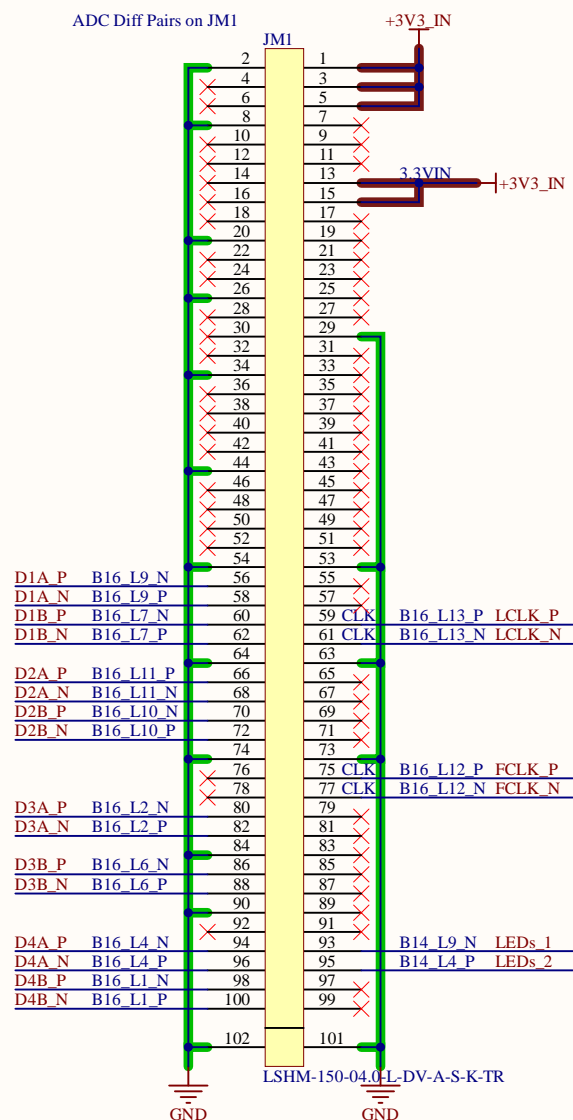


These connectors are hermaphroditic. Odd pin numbers on the module are connected to even pin numbers on the baseboard and vice versa.



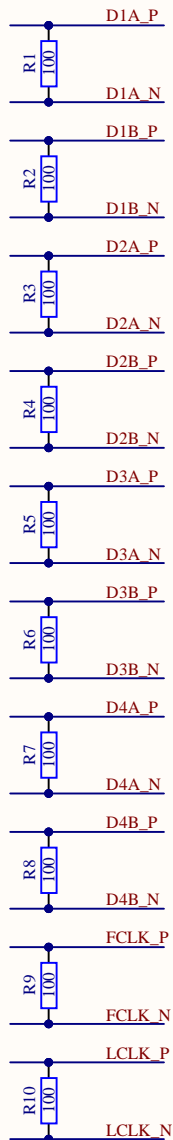
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File:	C:\Users\...\Connectors.SchDoc	Drawn By:

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## BANK 34

IO_0_34	J6	ACQ_EN
IO_L1P_T0_34	K6	FE_EN
IO_L1N_T0_34	K5	PERST#
IO_L2P_T0_34	L5	LEDs_1
IO_L2N_T0_34	L4	LEDs_2
IO_L3P_T0_DQS_34	K2	D1A_P
IO_L3N_T0_DQS_34	K1	D1A_N
IO_L4P_T0_34	K3	D1B_P
IO_L4N_T0_34	L2	D1B_N
IO_L5P_T0_34	L4	D2A_P
IO_L5N_T0_34	L3	D2A_N
IO_L6P_T0_34	L5	D2B_P
IO_L6N_T0_VREF_34	M5	D2B_N
IO_L7P_T1_34	M2	D3A_P
IO_L7N_T1_34	M1	D3A_N
IO_L8P_T1_34	M6	D3B_P
IO_L8N_T1_34	N6	D3B_N
IO_L9P_T1_DQS_34	N1	D4A_P
IO_L9N_T1_DQS_34	P1	D4A_N
IO_L10P_T1_34	M4	D4B_P
IO_L10N_T1_34	N4	D4B_N
IO_L11P_T1_SRCC_34	N3	FCLK_P
IO_L11N_T1_SRCC_34	N2	FCLK_N
IO_L12P_T1_MRCC_34	P4	LCLK_P
IO_L12N_T1_MRCC_34	P3	LCLK_N
IO_L13P_T2_MRCC_34	R2	PGA_SDIO
IO_L13N_T2_MRCC_34	R1	PGA_SCLK
IO_L14P_T2_SRCC_34	R3	PGA_CS <sub>n</sub> _1
IO_L14N_T2_SRCC_34	T2	ATTEN_1
IO_L15P_T2_DQS_34	U2	DC_CPL_1
IO_L15N_T2_DQS_34	U1	PROBE_COMP
IO_L16P_T2_34	V3	PGA_CS <sub>n</sub> _2
IO_L16N_T2_34	V2	ATTEN_2
IO_L17P_T2_34	T4	DC_CPL_2
IO_L17N_T2_34	T3	PGA_CS <sub>n</sub> _3
IO_L18P_T2_34	U4	ATTEN_3
IO_L18N_T2_34	V4	DC_CPL_3
IO_L19P_T3_34	P6	PGA_CS <sub>n</sub> _4
IO_L19N_T3_VREF_34	P5	ATTEN_4
IO_L20P_T3_34	U6	DC_CPL_4
IO_L20N_T3_34	U5	ADC_SCLK
IO_L21P_T3_DQS_34	R5	ADC_SDATA
IO_L21N_T3_DQS_34	T5	FE_PG
IO_L22P_T3_34	R7	SDA
IO_L22N_T3_34	T7	SCL
IO_L23P_T3_34	U7	ADC_PD
IO_L23N_T3_34	V6	ADC_RST <sub>n</sub>
IO_L24P_T3_34	V8	ADC_CS <sub>n</sub>
IO_L24N_T3_34	V7	ADC_PG
IO_25_34	R6	OSC_OE

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## BANK 14

IO_0_14	L14	SPI_DQ0_1V35
IO_L1P_T0_D00_MOSI_14	K16	SPI_DQ1_1V35
IO_L1N_T0_D01_DIN_14	L17	SPI_DQ2_1V35
IO_L2P_T0_D02_14	J15	SPI_DQ3_1V35
IO_L2N_T0_D03_14	J16	DDR3_A0
IO_L3P_T0_DQS_PUDC_B_14	J18	DDR3_A1
IO_L3N_T0_DQS_EMCCLK_14	K18	DDR3_A2
IO_L4P_T0_D04_14	K17	DDR3_A3
IO_L4N_T0_D05_14	L18	
IO_L5P_T0_D06_14	J14	
IO_L5N_T0_D07_14	K15	SPI_CS_1V35
IO_L6P_T0_FCS_B_14	L15	
IO_L6N_T0_D08_VREF_14	M15	
IO_L7P_T1_D09_14	M16	
IO_L7N_T1_D10_14	M17	DDR3_A4
IO_L8P_T1_D11_14	M14	
IO_L8N_T1_D12_14	N14	
IO_L9P_T1_DQS_14	N16	
IO_L9N_T1_DQS_D13_14	N17	DDR3_A5
IO_L10P_T1_D14_14	N18	DDR3_A6
IO_L10N_T1_D15_14	P18	DDR3_A7
IO_L11P_T1_SRCC_14	P15	
IO_L11N_T1_SRCC_14	P16	
IO_L12P_T1_MRCC_14	P14	
IO_L12N_T1_MRCC_14	R15	
IO_L13P_T2_MRCC_14	T14	
IO_L13N_T2_MRCC_14	T15	
IO_L14P_T2_SRCC_14	R16	
IO_L14N_T2_SRCC_14	R17	DDR3_A8
IO_L15P_T2_DQS_RDWR_B_14	R18	DDR3_A9
IO_L15N_T2_DQS_DOUT_CSO_B_14	T18	DDR3_A10
IO_L16P_T2_CSL_B_14	T17	DDR3_A11
IO_L16N_T2_A15_D31_14	U17	DDR3_A12
IO_L17P_T2_A14_D30_14	U15	DDR3_BA0
IO_L17N_T2_A13_D29_14	U16	DDR3_BA1
IO_L18P_T2_A12_D28_14	V16	DDR3_BA2
IO_L18N_T2_A11_D27_14	V17	DDR3_CKE
IO_L19P_T3_A10_D26_14	R13	
IO_L19N_T3_A09_D25_VREF_14	T13	
IO_L20P_T3_A08_D24_14	U14	DDR3_WE
IO_L20N_T3_A07_D23_14	V14	DDR3_CAS
IO_L21P_T3_DQS_14	V12	DDR3_RAS
IO_L21N_T3_DQS_A06_D22_14	V13	
IO_L22P_T3_A05_D21_14	T12	
IO_L22N_T3_A04_D20_14	U12	DDR3_S0
IO_L23P_T3_A03_D19_14	U11	DDR3_ODT
IO_L23N_T3_A02_D18_14	V11	DDR3_RESET
IO_L24P_T3_A01_D17_14	U9	DDR3_CLK_P
IO_L24N_T3_A00_D16_14	V9	DDR3_CLK_N
IO_25_14	U10	

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U1B

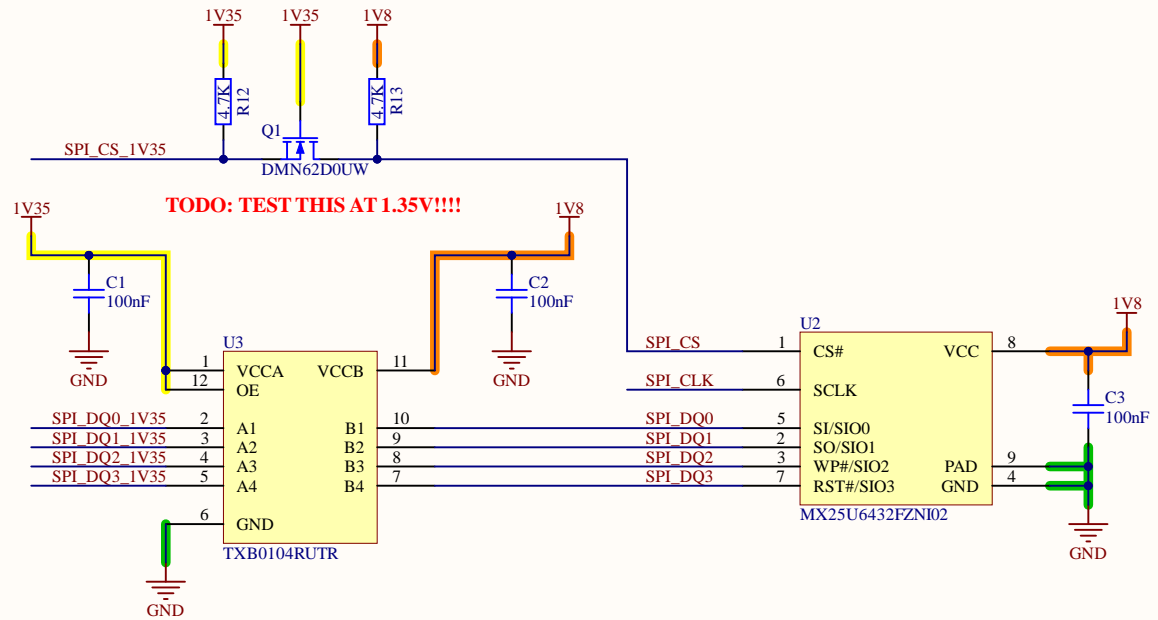
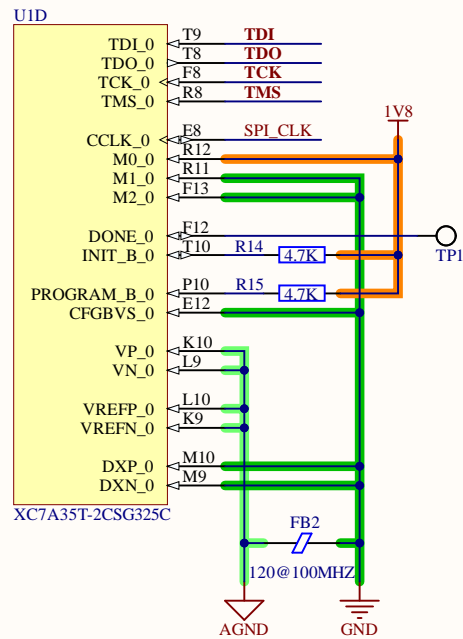
## BANK 15

IO_0_15	D10	DDR3_D0
IO_L1P_T0_AD0P_15	D8	DDR3_D1
IO_L1N_T0_AD0N_15	C8	DDR3_D2
IO_L2P_T0_AD8P_15	D9	DDR3_D3
IO_L2N_T0_AD8N_15	C9	DDR3_DQS0_P
IO_L3P_T0_DQS_AD1P_15	B9	DDR3_DQS0_N
IO_L3N_T0_DQS_AD1N_15	A9	DDR3_D4
IO_L4P_T0_15	C11	DDR3_D5
IO_L4N_T0_15	B11	DDR3_D6
IO_L5P_T0_AD9P_15	B10	DDR3_D7
IO_L5N_T0_AD9N_15	A10	DDR3_DM0
IO_L6P_T0_15	D11	
IO_L6N_T0_VREF_15	C12	DDR3_D8
IO_L7P_T1_AD2P_15	B12	DDR3_D9
IO_L7N_T1_AD2N_15	A12	DDR3_D10
IO_L8P_T1_AD10P_15	A13	DDR3_D11
IO_L8N_T1_AD10N_15	A14	DDR3_DQS1_P
IO_L9P_T1_DQS_AD3P_15	C14	DDR3_DQS1_N
IO_L9N_T1_DQS_AD3N_15	B15	DDR3_D12
IO_L10P_T1_AD11P_15	B14	DDR3_D13
IO_L10N_T1_AD11N_15	A15	DDR3_D14
IO_L11P_T1_SRCC_15	D13	DDR3_D15
IO_L11N_T1_SRCC_15	C13	DDR3_DM1
IO_L12P_T1_MRCC_15	E13	
IO_L12N_T1_MRCC_15	D14	DDR3_D16
IO_L13P_T2_MRCC_15	E15	DDR3_D17
IO_L13N_T2_MRCC_15	D15	DDR3_D18
IO_L14P_T2_SRCC_15	E16	DDR3_D19
IO_L14N_T2_SRCC_15	D16	DDR3_DQS2_P
IO_L15P_T2_DQS_15	B16	DDR3_DQS2_N
IO_L15N_T2_DQS_ADV_B_15	A17	DDR3_D20
IO_L16P_T2_A28_15	C16	DDR3_D21
IO_L16N_T2_A27_15	B17	DDR3_D22
IO_L17P_T2_A26_15	E17	DDR3_D23
IO_L17N_T2_A25_15	D18	DDR3_DM2
IO_L18P_T2_A24_15	C17	
IO_L18N_T2_A23_15	C18	DDR3_D24
IO_L19P_T3_A22_15	G17	
IO_L19N_T3_A21_VREF_15	F18	
IO_L20P_T3_A20_15	H16	DDR3_D25
IO_L20N_T3_A19_15	G16	DDR3_D26
IO_L21P_T3_DQS_15	G15	DDR3_DQS3_P
IO_L21N_T3_DQS_A18_15	F15	DDR3_DQS3_N
IO_L22P_T3_A17_15	G14	DDR3_D27
IO_L22N_T3_A16_15	F14	DDR3_D28
IO_L23P_T3_FOE_B_15	H17	DDR3_D29
IO_L23N_T3_FWE_B_15	H18	DDR3_D30
IO_L24P_T3_RS1_15	F17	DDR3_D31
IO_L24N_T3_RS0_15	E18	DDR3_DM3
IO_25_15	H14	

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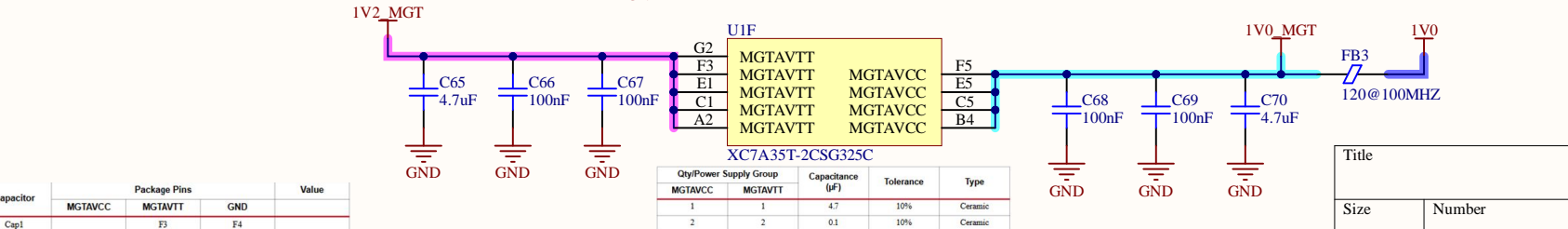
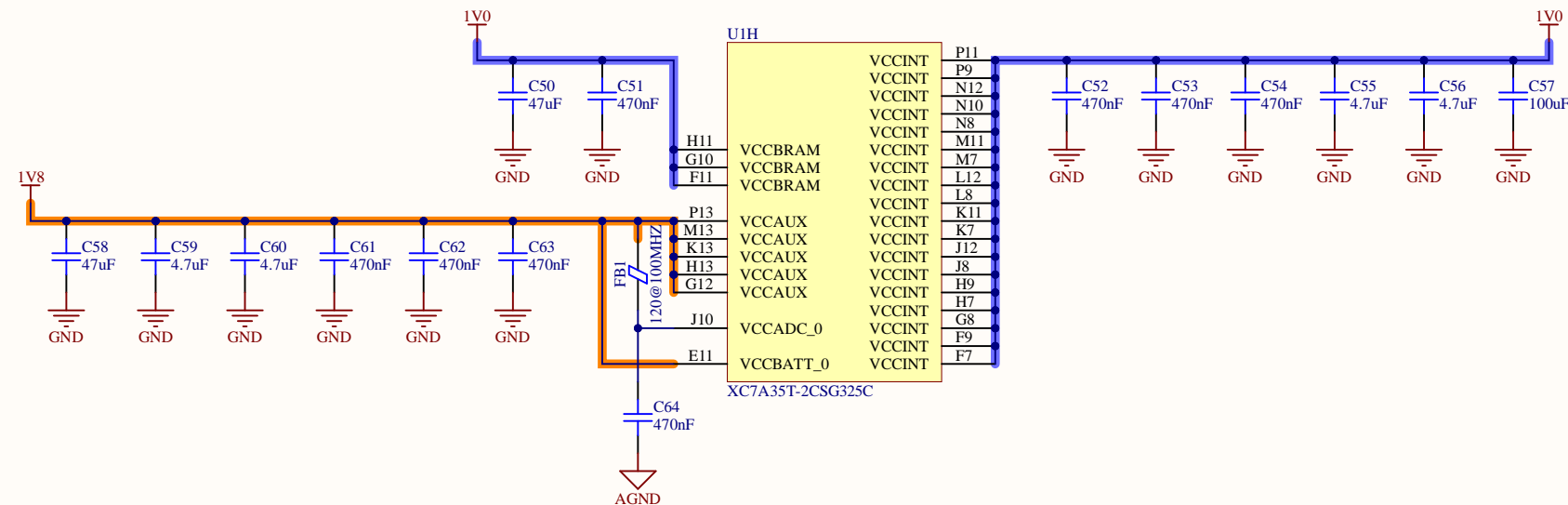
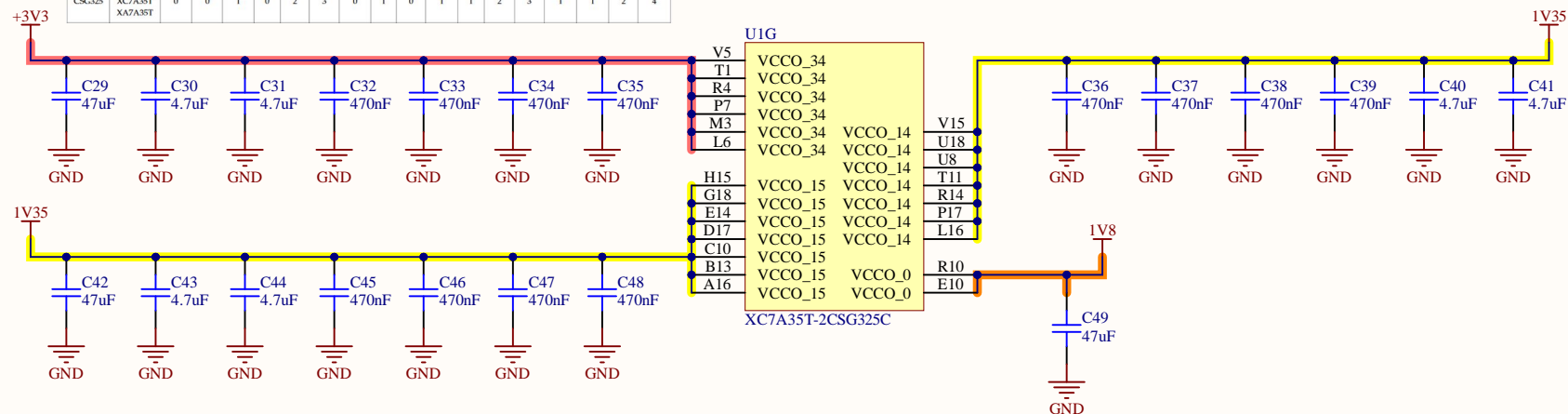
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Package	Device	VCCINT						VCCBRAM						VCCAUX						VCC0 Bank 0	VCC0 all other Banks (per Bank)			
		680 µF	330 µF	100 µF	47 µF	4.7 µF	0.47 µF	100 µF	47 µF	4.7 µF	0.47 µF	47 µF	4.7 µF	0.47 µF	4.7 µF	0.47 µF	47 µF	4.7 µF	0.47 µF	47 µF or 100 µF (3)	4.7 µF	0.47 µF		
CSC325	XC7A35T XA7A35T	0	0	1	0	2	3	0	1	0	1	1	2	3	1	1	2	4						

3. One 47 µF (or 100 µF) capacitor is required for up to four VCC0 banks when powered by the same voltage.



Capacitor	Package Pins			Value
	MGTAVCC	MGTAVTT	GND	
Cap1		F3	F4	0.1 µF
Cap2		A2	A1	
Cap3	B4		B3	
Cap4	F5		F6	

Qty/Power Supply Group		Capacitance (µF)	Tolerance	Type
MGTAVCC	MGTAVTT			
1	1	4.7	10%	Ceramic
2	2	0.1	10%	Ceramic

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A

A

B

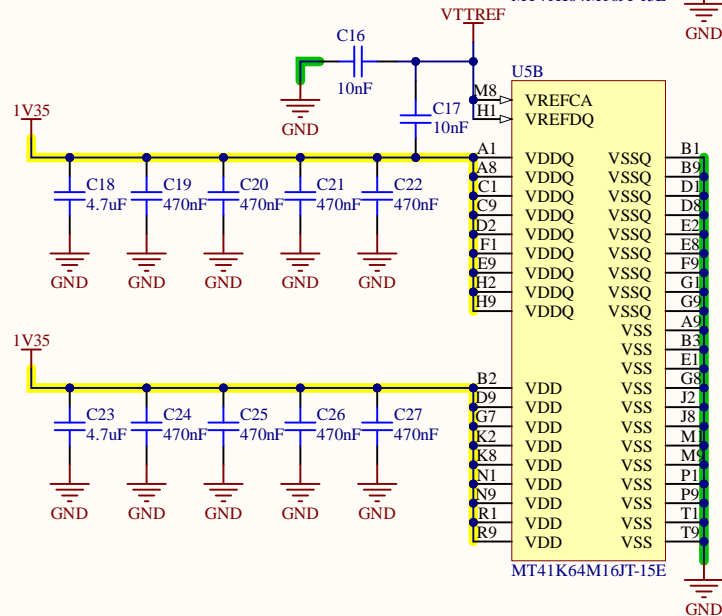
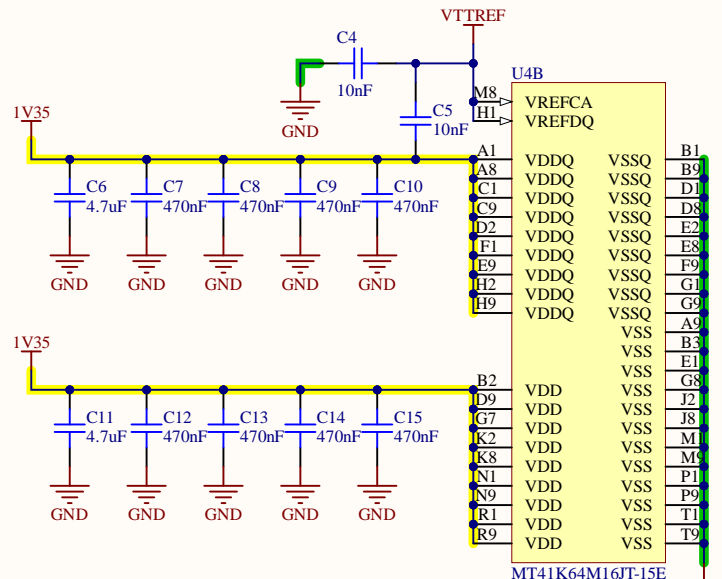
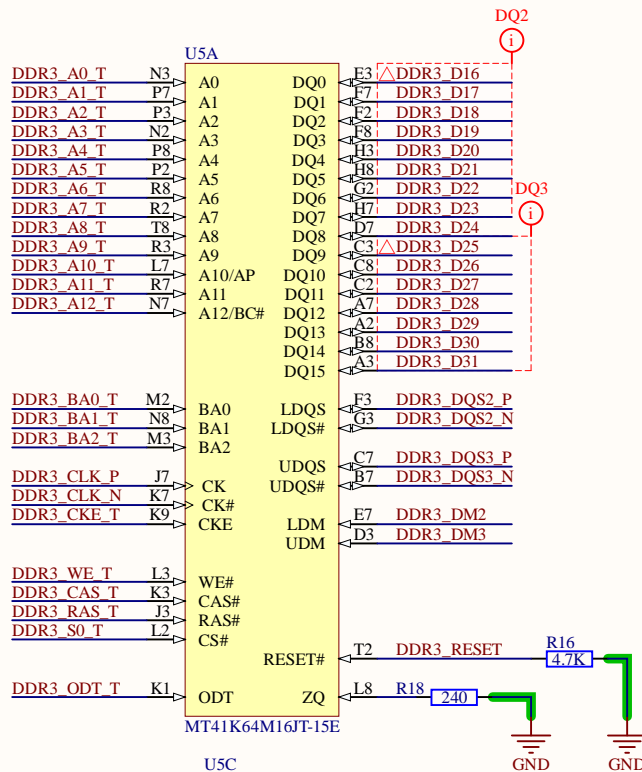
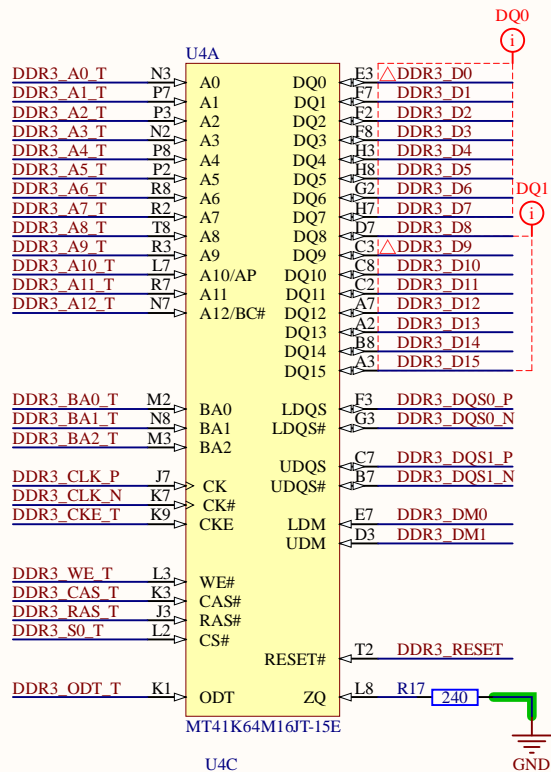
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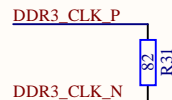
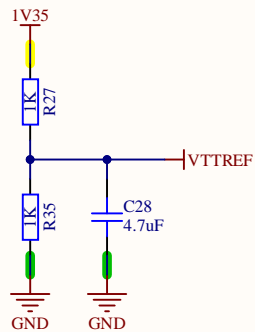
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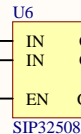
D



DDR3 A0	R19	33	DDR3 A0 T
DDR3 A1	R20	33	DDR3 A1 T
DDR3 A2	R21	33	DDR3 A2 T
DDR3 A3	R22	33	DDR3 A3 T
DDR3 A4	R23	33	DDR3 A4 T
DDR3 A5	R24	33	DDR3 A5 T
DDR3 A6	R25	33	DDR3 A6 T
DDR3 A7	R26	33	DDR3 A7 T
DDR3 A8	R28	33	DDR3 A8 T
DDR3 A9	R29	33	DDR3 A9 T
DDR3 A10	R30	33	DDR3 A10 T
DDR3 A11	R32	33	DDR3 A11 T
DDR3 A12	R33	33	DDR3 A12 T
DDR3 BA0	R34	33	DDR3 BA0 T
DDR3 BA1	R36	33	DDR3 BA1 T
DDR3 BA2	R37	33	DDR3 BA2 T
DDR3 CKE	R38	33	DDR3 CKE T
DDR3 WE	R39	33	DDR3 WE T
DDR3 CAS	R40	33	DDR3 CAS T
DDR3 RAS	R41	33	DDR3 RAS T
DDR3 S0	R42	33	DDR3 S0 T
DDR3 ODT	R43	33	DDR3 ODT T



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$$1.35 = 0.5 * (170 + 100) / 100$$

$R_{top} = 170k$   
 $R_{bot} = 100k$

