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RELAY CONTROL CHART

CONTROL	CODE	DEVICE	FUNCTION	CONNECTOR

JUMPER TABLE		
JP#	ON	OFF
1		
2		
3		
4		
5		

* SEE ASSEMBLY INSTRUCTIONS


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	24OCT22	D. HARRINGTON
B	CHANGES AS PER ECR-113417	21MAR23	D. HARRINGTON

ADSP21835W-EV-SOM

ADSP-21835 SYSTEM ON MODULE

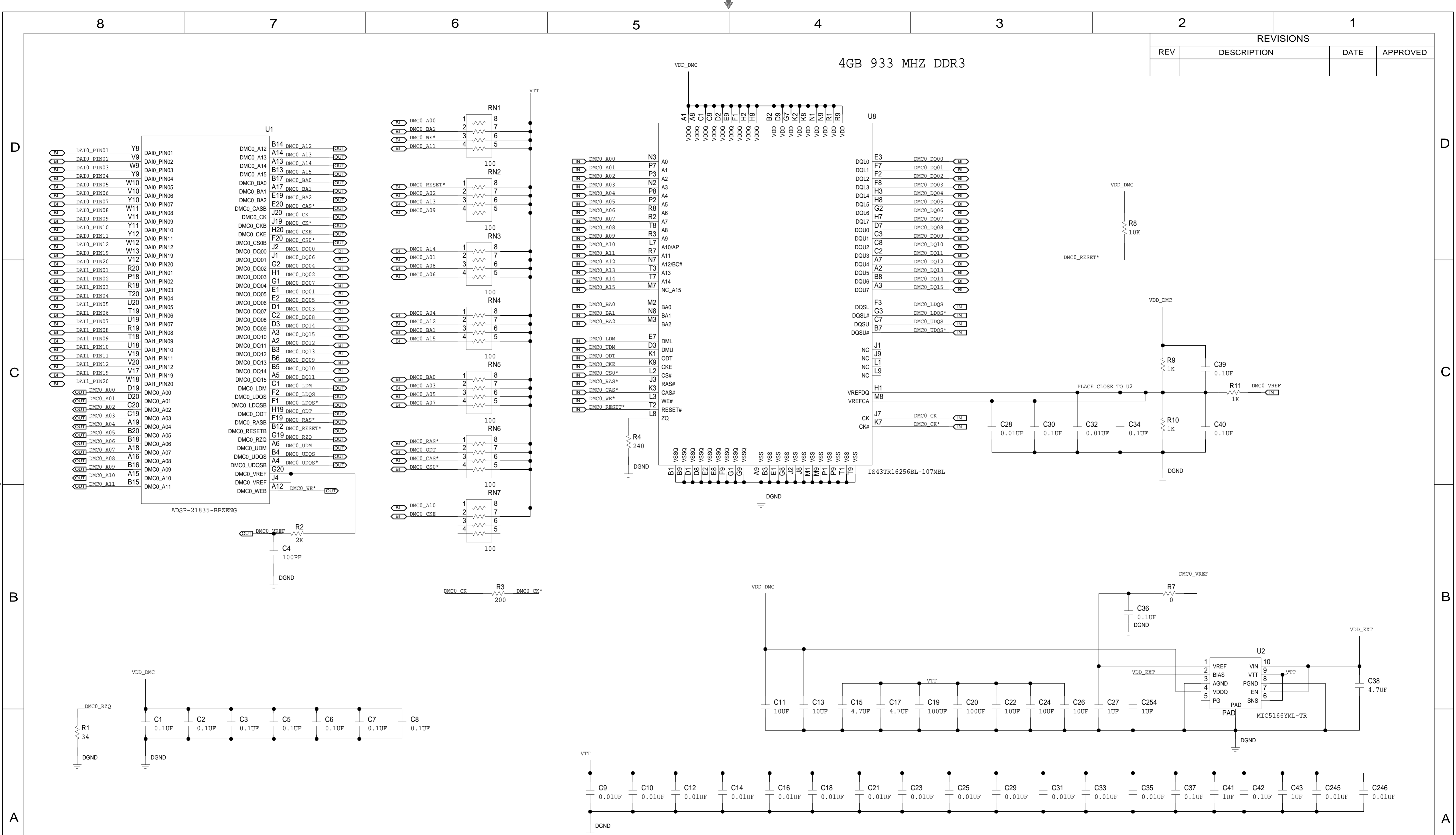
03-20-2023

P.O SPEC.	BK/BD SPEC.	SOCKET OEM	OEM PART#	HANDLER

TEMPLATE ENGINEER -	DATE 24OCT22	SCHEMATIC						
HARDWARE SERVICES M. VALE	24OCT22							
HARDWARE SYSTEMS -		HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM						
TEST ENGINEER -		PACKAGE : LeadCount-lead BodySize PackageType-family : Pitch-pitch StyleVendor Style						
COMPONENT ENGINEER T. TAMISEN	24OCT22	<User Define> <User Define> <User Define>						
TEST PROCESS -								
HARDWARE RELEASE K. JABATAN	24OCT22							
DESIGNER K. MOYO	24OCT22	MASTER PROJECT TEMPLATE TBD	TESTER TEMPLATE 067706_a					
PTD ENGINEER D. HARRINGTON	24OCT22	DRAWING NO. 02_071515						
CHECKER -		REV. B						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DECIMALS X.XX +0.010 X.XXX +0.005	FRACTIONS +1/32	ANGLES +2	SIZE D	SCALE 1:1	CODE ID NO. CodeID	SHEET 1 OF 15

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

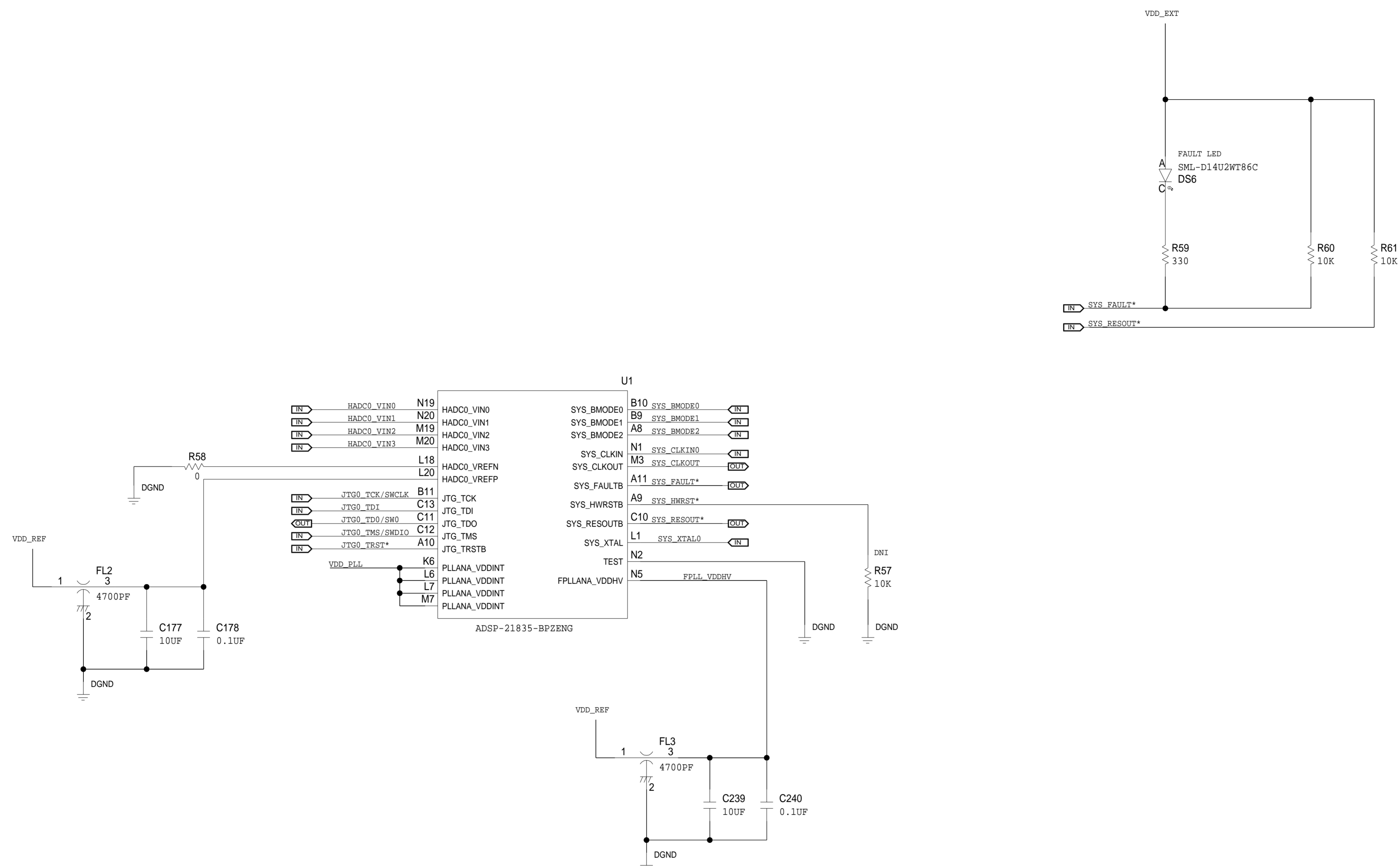
4GB 933 MHZ DDR3



	SCHEMATIC		
	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B	
PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1	SHEET 2 OF 15

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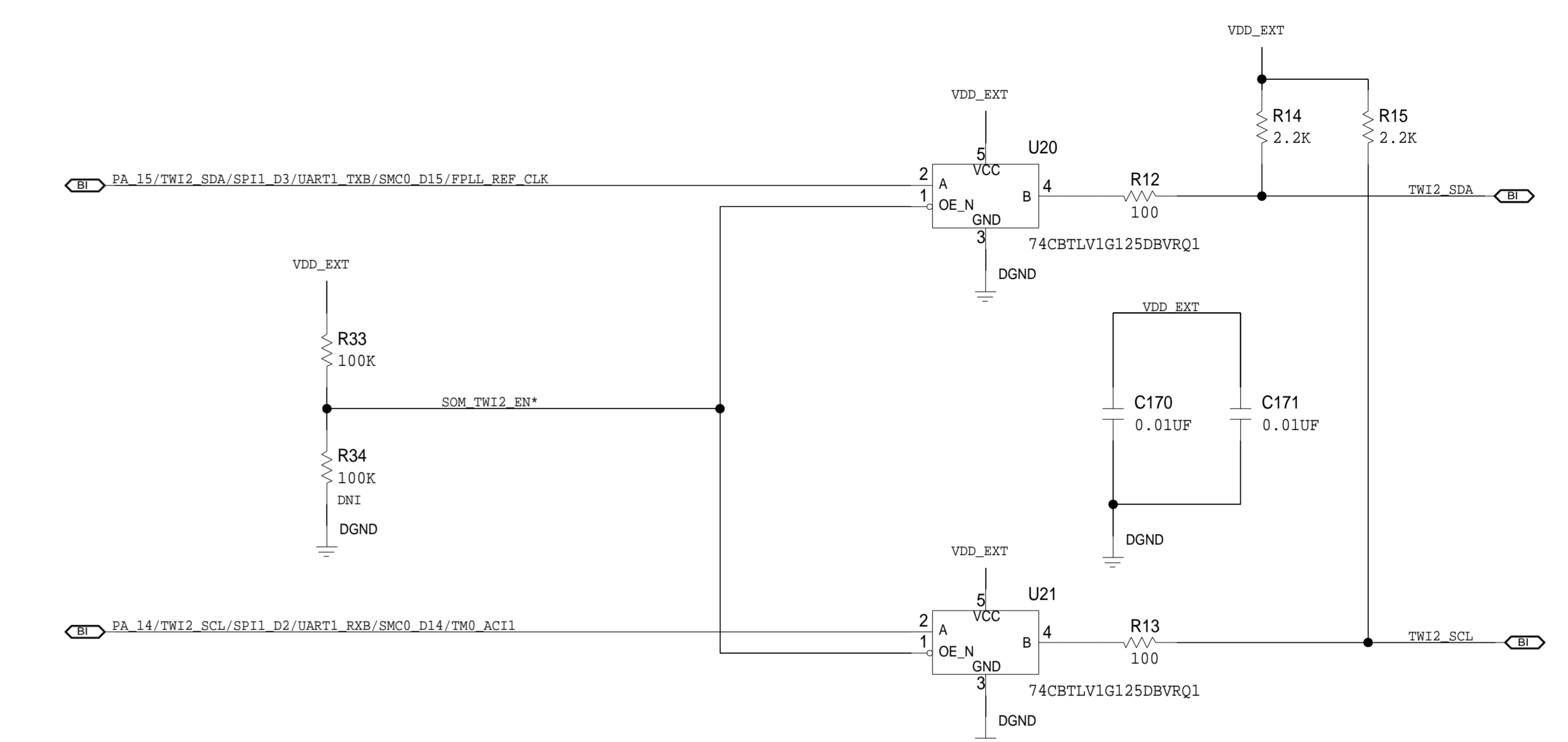
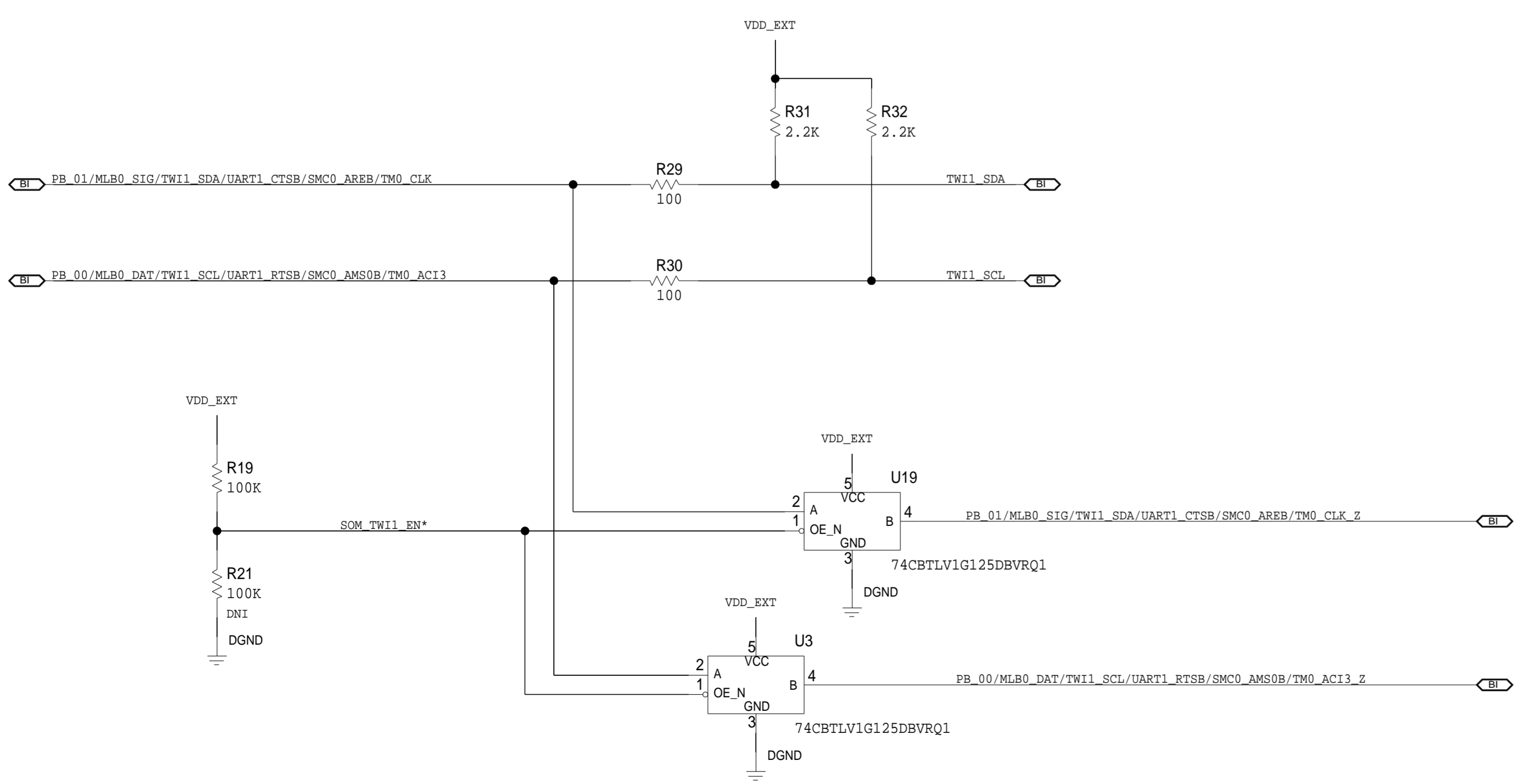
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



	SCHEMATIC		
	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B
	PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1
SHEET 3 OF 15			

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

U1		ADSP-21835-BPZENG	
BI PA_00/SPI2_MISO/XSPI0_MISO/PWM0_AH/SMC0_D00	N3	PA_00	PC_07
BI PA_01/SPI2_MOSI/XSPI0_MOSI/PWM0_AL/SMC0_D01	P3	PA_01	PC_06
BI PA_02/SPI2_D2/XSPI0_D2/TWI3_SCL/SMC0_D02/TM0_ACLK3	P2	PA_02	PC_05
BI PA_03/SPI2_D3/XSPI0_D3/TWI3_SDA/SMC0_D03	R3	PA_03	PC_04
BI PA_04/SPI2_CLK/XSPI0_CLK/PWM0_BH/SMC0_D04	R1	PA_04	PC_03
BI PA_05/SPI2_SEL1B/XSPI0_SEL1B/FPLL_DBG_LOCK/SMC0_D05/SPI2_SSB	T2	PA_05	PC_02
BI PA_06/SPI2_CLK/UART0_TXB/XSPI0_D4/SMC0_D06/TM0_ACLK1	T3	PA_06	PC_01
BI PA_07/SPI0_MISO/UART0_RXB/XSPI0_D5/SMC0_D07/TM0_ACI0	V1	PA_07	PC_00
BI PA_08/SPI0_MOSI/UART0_RTSB/XSPI0_D6/SMC0_D08/TM0_ACLK2	U3	PA_08	PB_15
BI PA_09/SPI0_SEL1B/UART0_CTSB/XSPI0_D7/SMC0_D09/SPI0_SSB	V2	PA_09	PB_14
BI PA_10/TM10_SCL/SPI1_CLK/TM0_TMR0/SMC0_D10	U2	PA_10	PB_13
BI PA_11/TM10_SDA/SPI1_MISO/HADC_ROC_OUT/SMC0_D11/TM0_ACI4	V8	PA_11	PB_12
BI PA_12/FLG0/SPI1_MOSI/TM0_TMR1/SMC0_D12	W6	PA_12	PB_11
BI PA_13/FLG1/SPI1_SEL1B/TM0_TMR2/SMC0_D13/SPI1_SSB	Y6	PA_13	PB_10
BI PA_14/TM12_SCL/SPI1_D2/UART1_RXB/SMC0_D14/TM0_ACI1	W7	PA_14	PB_09
BI PA_15/TM12_SDA/SPI1_D3/UART1_TXB/SMC0_D15/FPLL_REF_CLK	W8	PA_15	PB_08
BI PB_00/MLB0_DAT/TWI1_SCL/UART1_RTSB/SMC0_AMS0B/TM0_ACI3	A7	PB_00	PB_07
BI PB_01/MLB0_SIG/TWI1_SDA/UART1_CTSB/SMC0_AREB/TM0_CLK	C9	PB_01	PB_06
BI PB_02/MLB0_CLK/FLG3/LP1_ACK/SMC0_AWB8/TM0_ACLK4	B8	PB_02	PB_05
BI PB_03/TM0_TMR3/FLG2/SPI2_SEL2B/SMC0_ADDR1/CNT0_UD	C7	PB_03	PB_04
BI PC_07/LP1_CLK/TM0_TMR9/SYS_FAULT*	Y18	PC_07	W17
BI PC_06/LP1_D7/SPI1_RDY/PWM0_TRIPB/SMC0_ADDR7	W17	PC_06	V14
BI PC_05/LP1_D6/XSPI0_SEL3B/TM0_TMR8/SMC0_ADDR6	V14	PC_05	Y17
BI PC_04/LP1_D5/XSPI0_SEL2B/PWM0_SYNC/SMC0_ADDR5	Y17	PC_04	W16
BI PC_03/LP1_D4/TWI5_SDA/TRACE0_D07/SPI2_SEL6B	W16	PC_03	Y15
BI PC_02/LP1_D3/TWI5_SCL/TRACE0_D06/SPI1_SEL6B	Y15	PC_02	W15
BI PC_01/LP1_D2/TWI4_SDA/TRACE0_D05/SPI2_SEL4B	W15	PC_01	V13
BI PC_00/LP1_D1/TWI4_SCL/TRACE0_D04/SPI1_SEL4B	V13	PC_00	Y14
BI PB_15/LP0_D7/SPI0_SEL4B/SMC0_ADDR4	Y14	PB_15	W14
BI PB_14/LP0_D6/SPI0_SEL3B/PWM0_DL/UART2_CTSB	W14	PB_14	Y14
BI PB_13/LP0_D5/SPI2_SEL3B/XSPI0_QOSB_RNDS/UART2_RTSB	Y14	PB_13	W5
BI PB_12/LP0_D4/SPI2_SEL2B/PWM0_DH/UART2_TXB	W5	PB_12	V7
BI PB_11/LP0_D3/SPI1_SEL2B/PWM0_CH/TRACE0_D03	V7	PB_11	Y4
BI PB_10/LP0_D2/SPI2_SEL7B/TM0_TMR7/TRACE0_D02	Y4	PB_10	W6
BI PB_09/LP0_D1/SPI1_SEL7B/TM0_TMR6/TRACE0_D01	W6	PB_09	Y3
BI PB_08/LP0_D0/SPI2_SEL5B/TRACE0_D00	Y3	PB_08	W4
BI PB_07/LP0_CLK/SPI1_SEL5B/PWM0_BL/TRACE0_CLK	W4	PB_07	V5
BI PB_06/TM0_TMR5/SPI2_RDY/SPI0_SEL2B/SMC0_ADDR3/CNT0_DG	V5	PB_06	C8
BI PB_05/TM0_TMR5/SPI2_RDY/SPI0_SEL2B/SMC0_ADDR3/CNT0_DG	C8	PB_05	B7
BI PB_04/TM0_TMR4/SPI1_RDY/LP0_ACK/SMC0_ADDR2/CNT0_ZM	B7	PB_04	

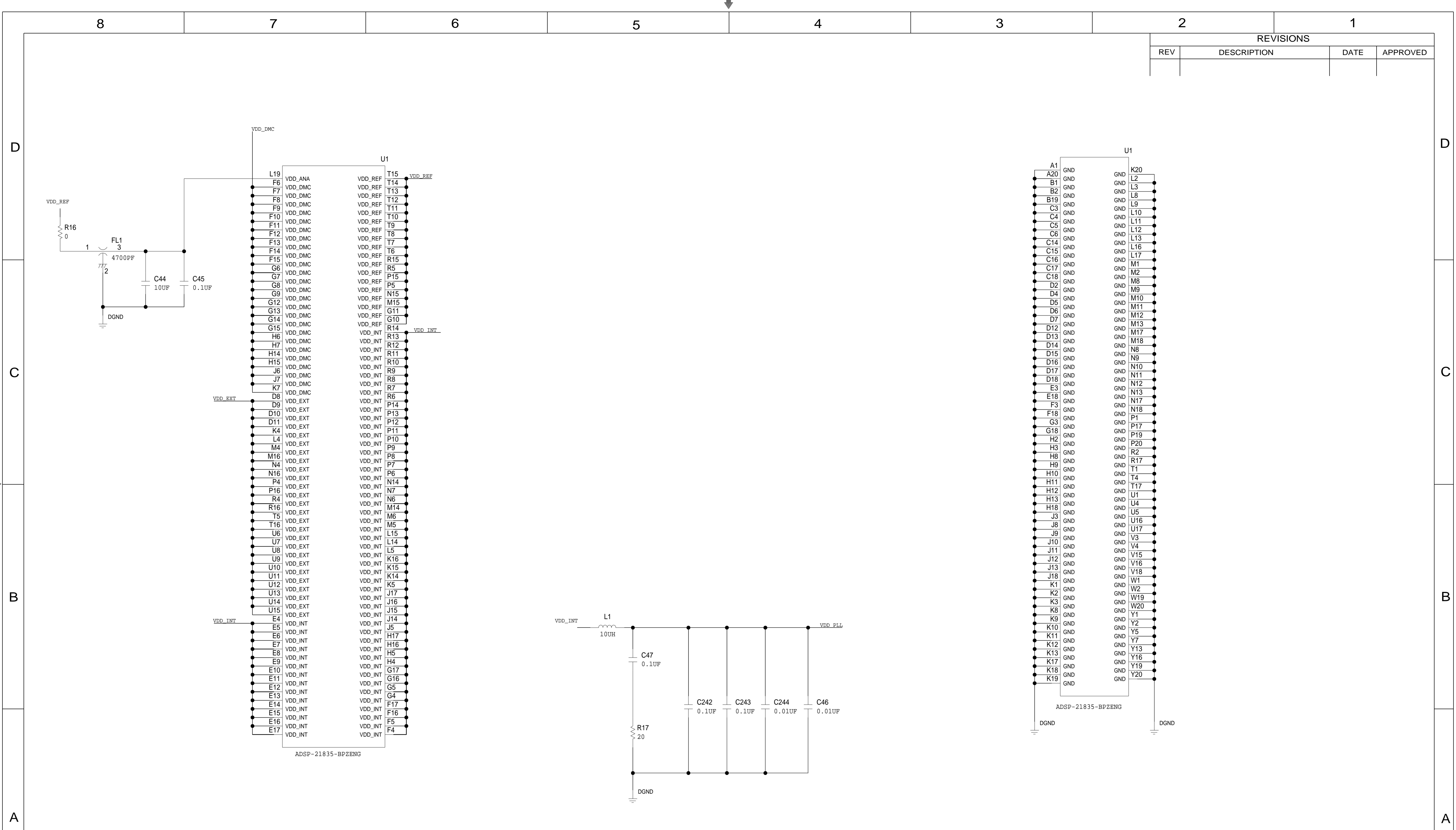


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	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B
	PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1

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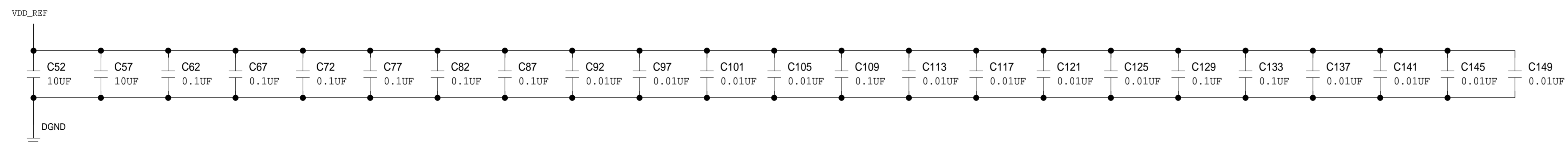
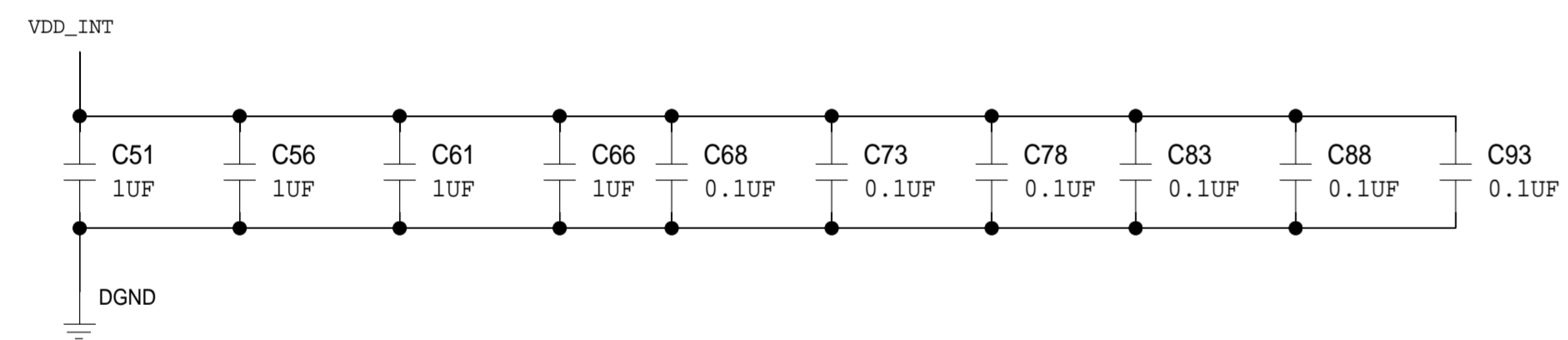
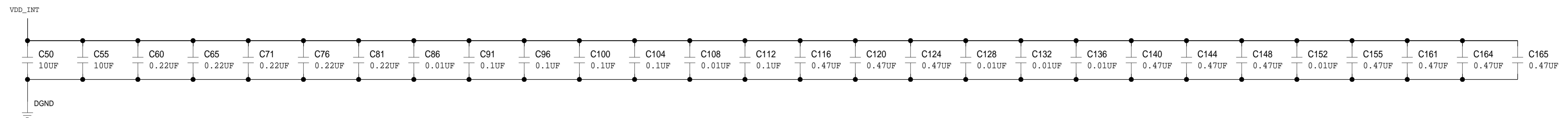
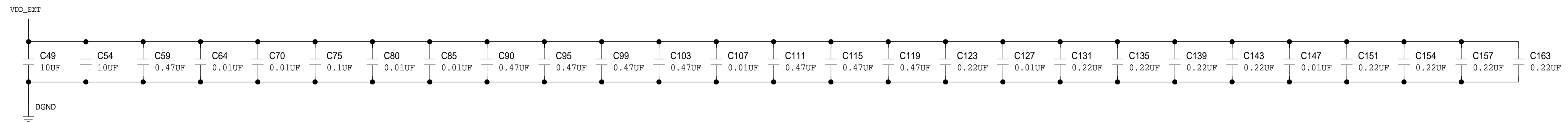
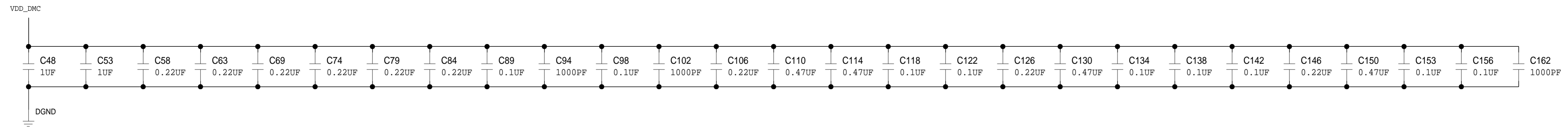
SHEET 4 OF 15

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



	SCHEMATIC		
	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B
PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1	SHEET 5 OF 15

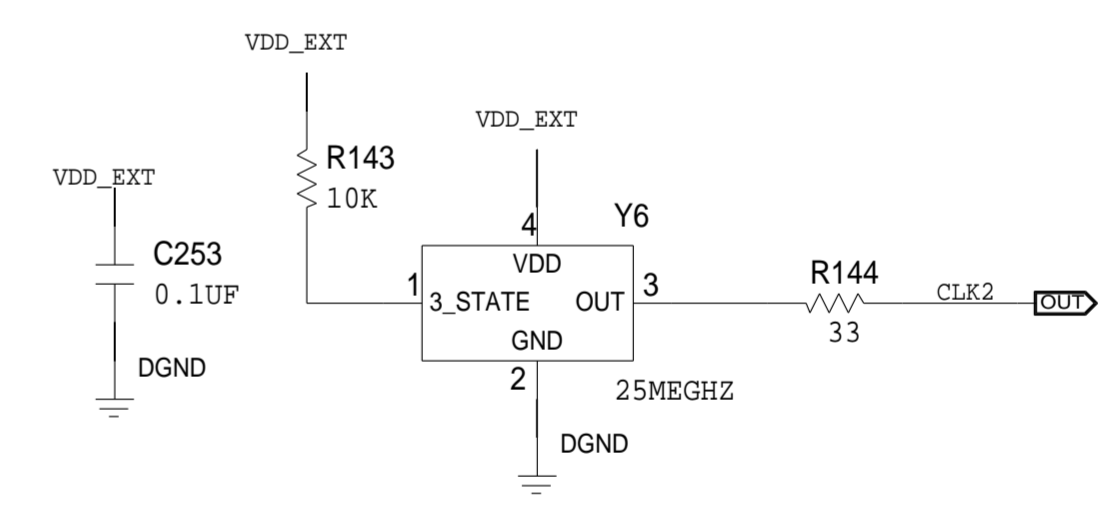
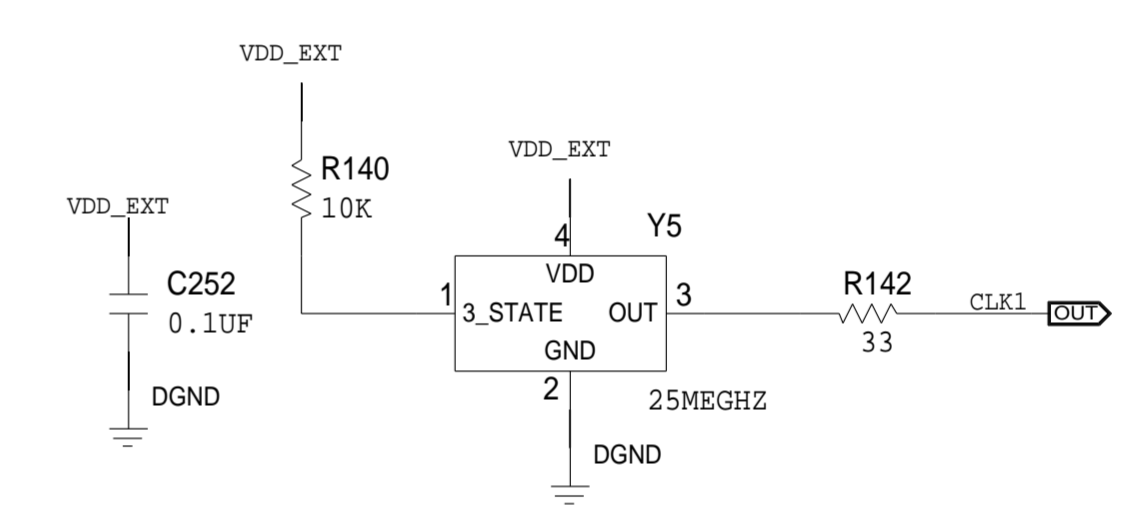
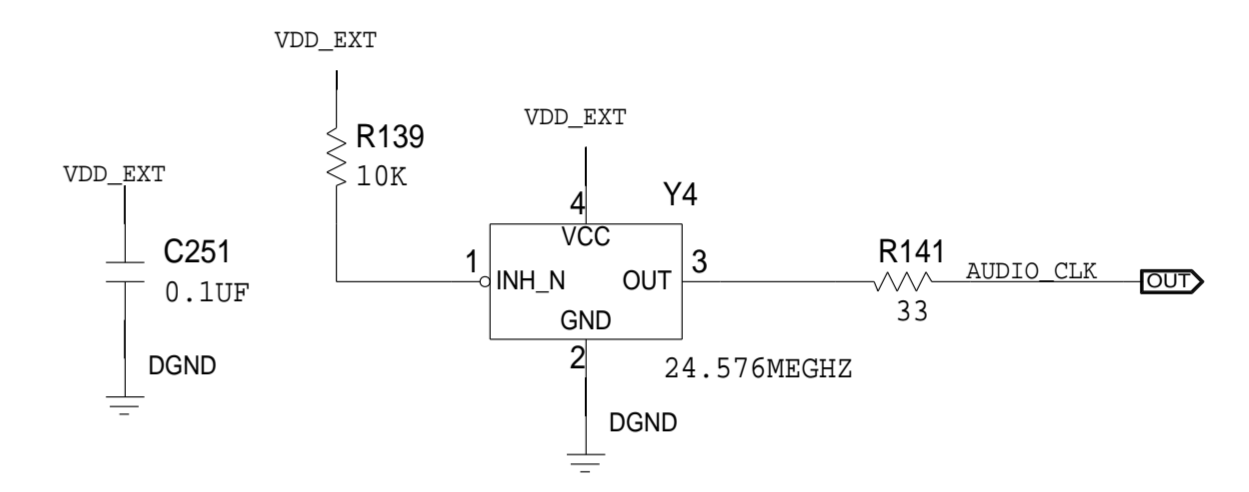
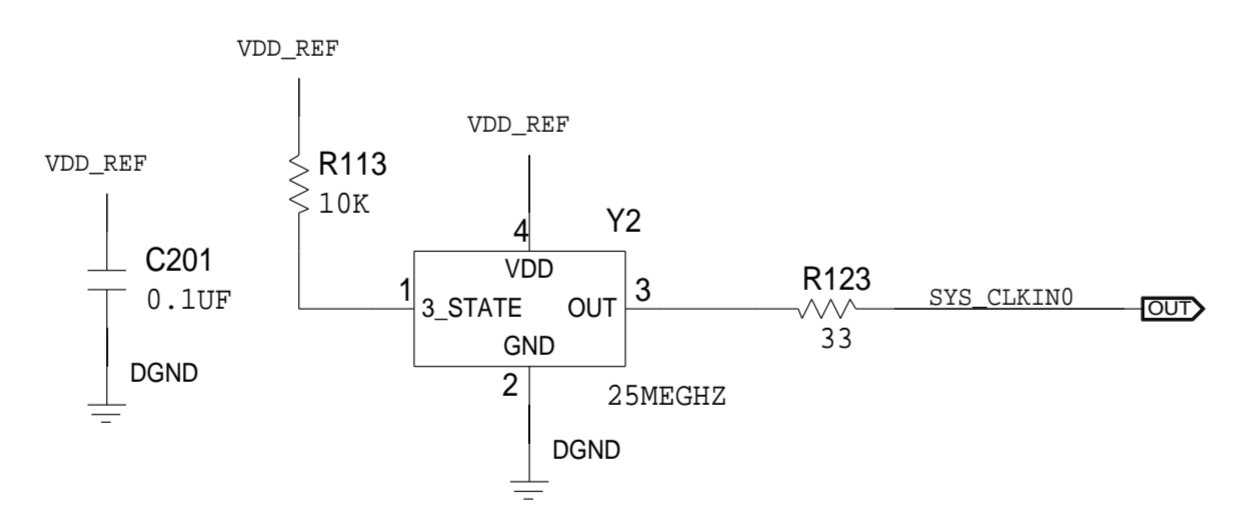
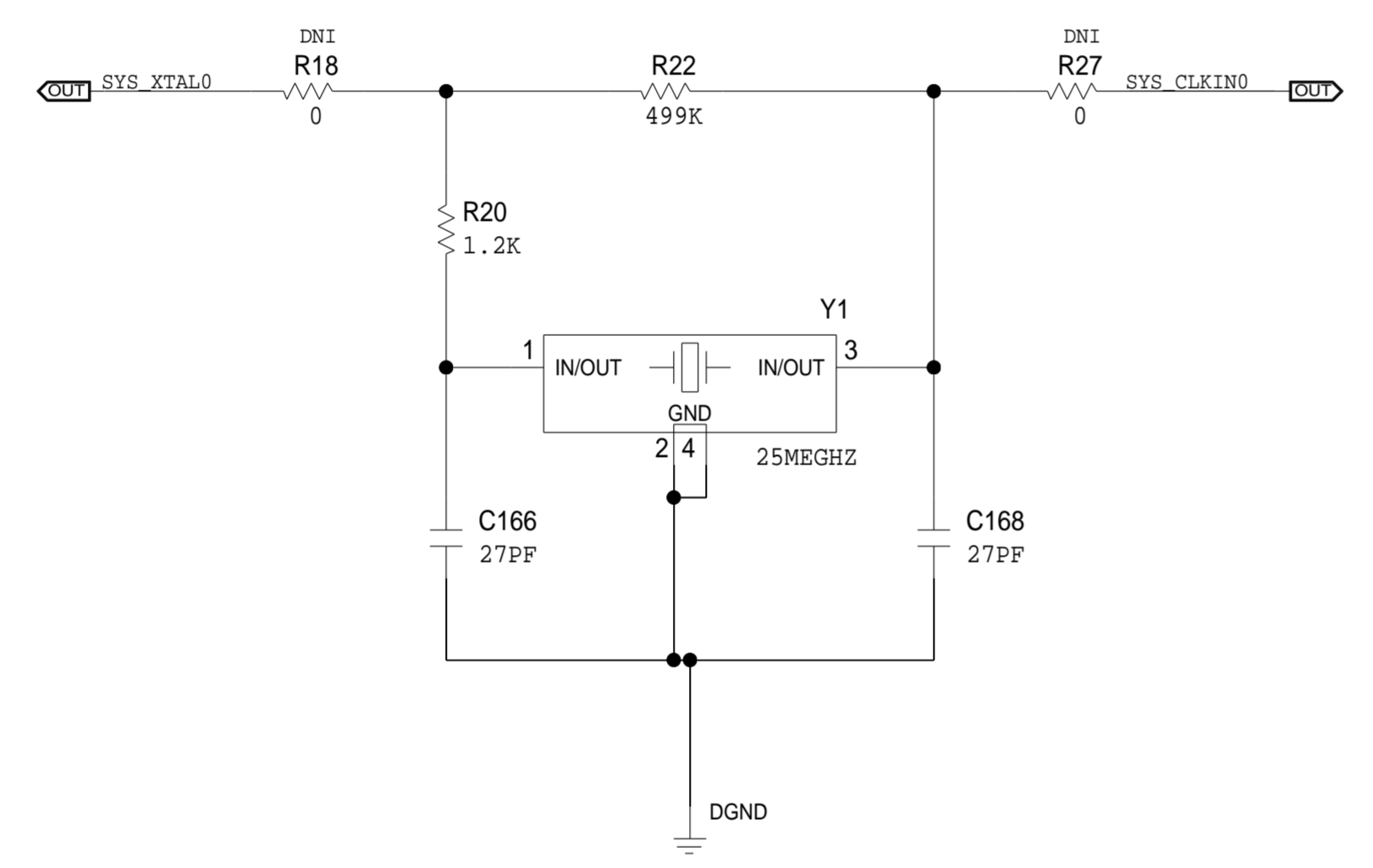
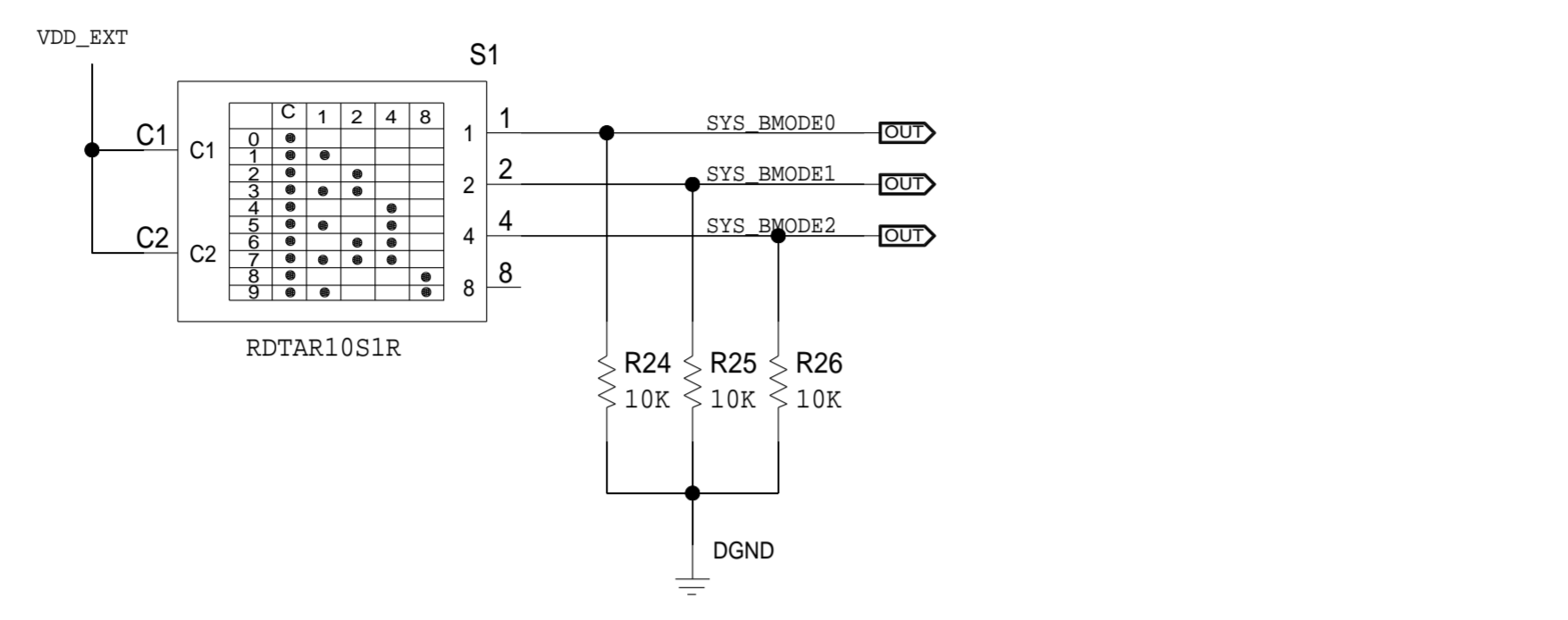
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REV	DESCRIPTION	DATE	APPROVED



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	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B
	PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1
		SHEET 6 OF 15	

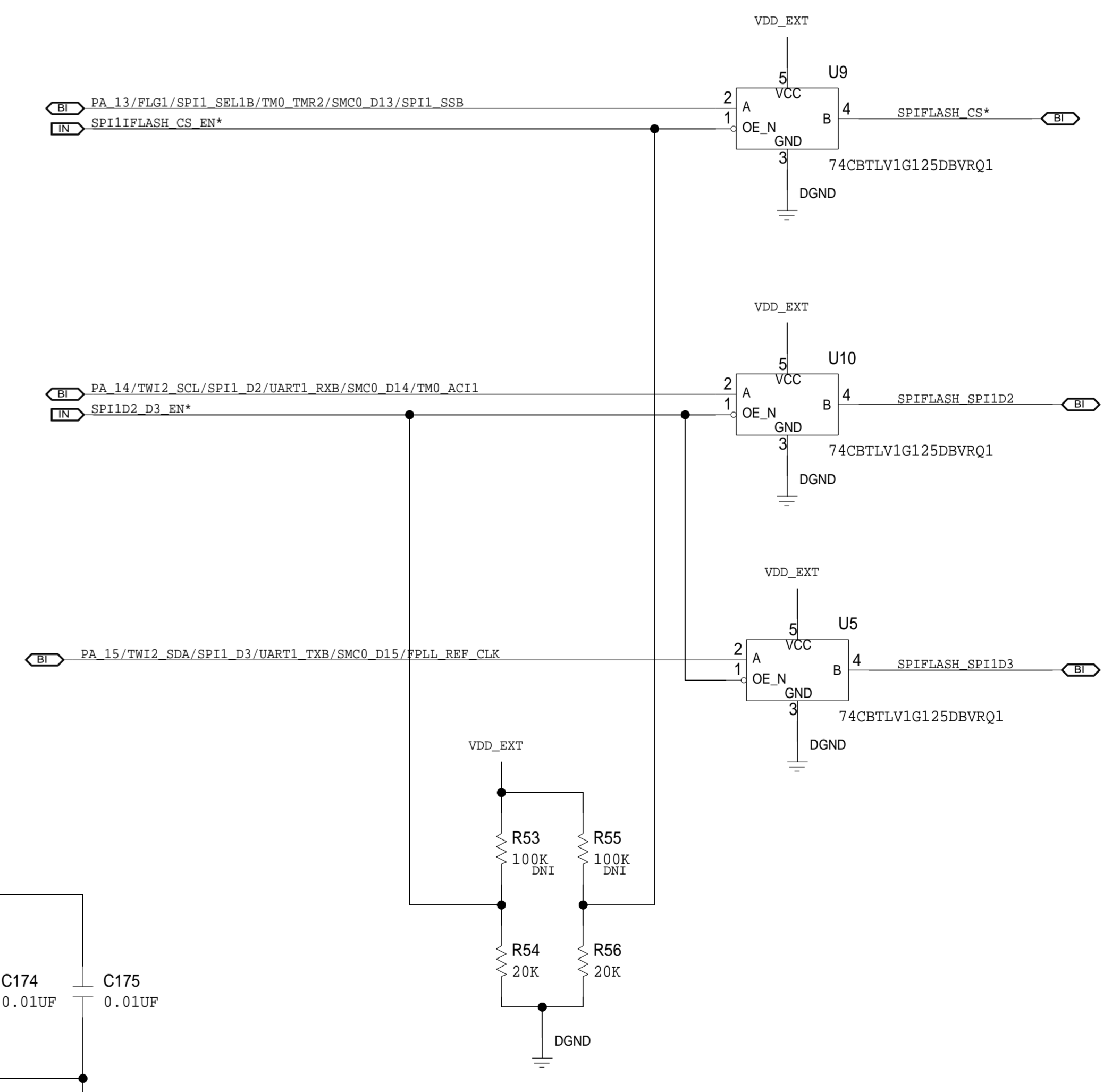
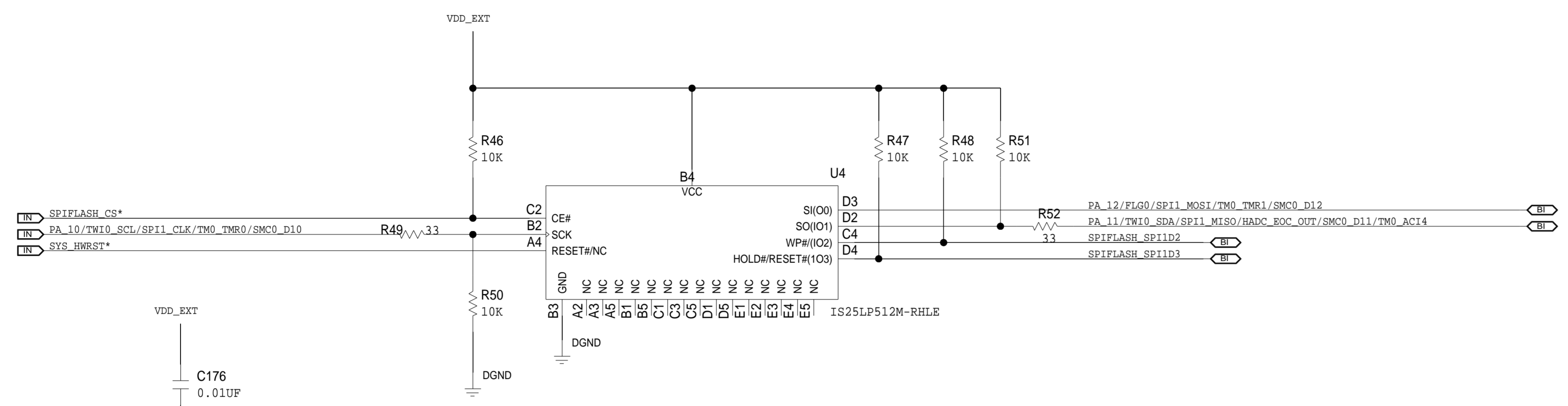
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

BOOT MODES
 0: NO BOOT
 1: SPI MASTER BOOT
 2: SPI SLAVE BOOT
 3: UART BOOT
 4: LPO SLAVE BOOT
 5: XSPI BOOT



	SCHEMATIC		
	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B
	PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1
		SHEET 7 OF 15	

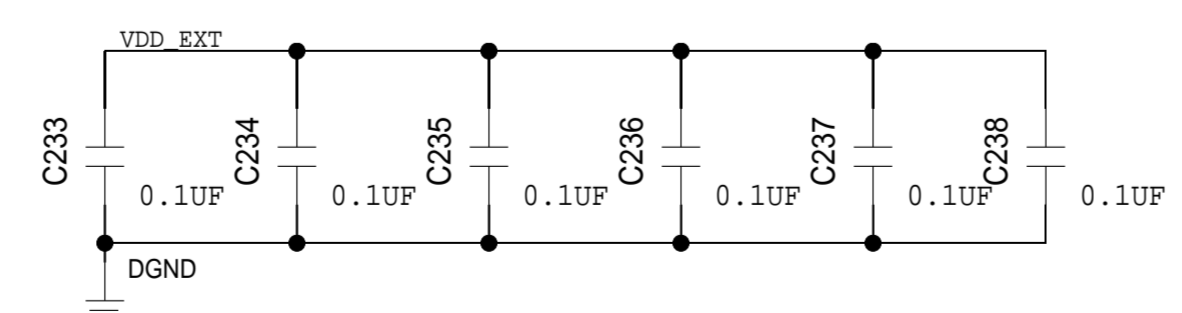
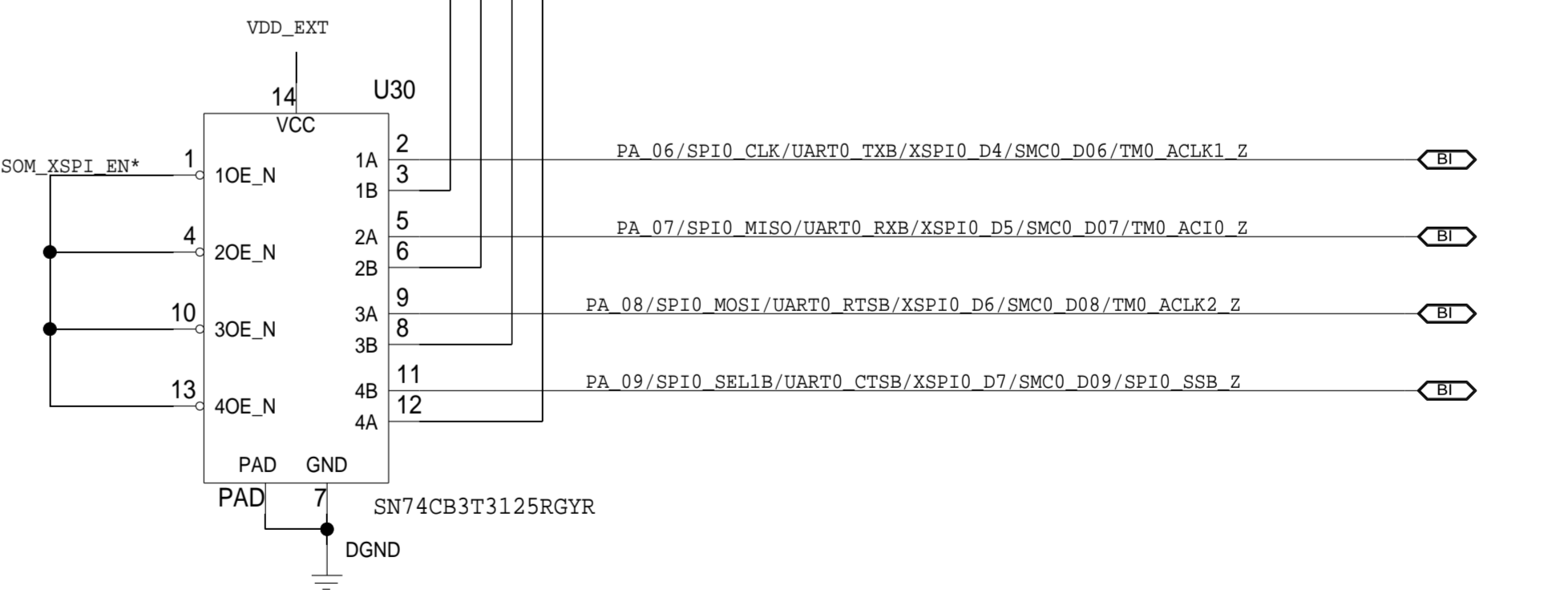
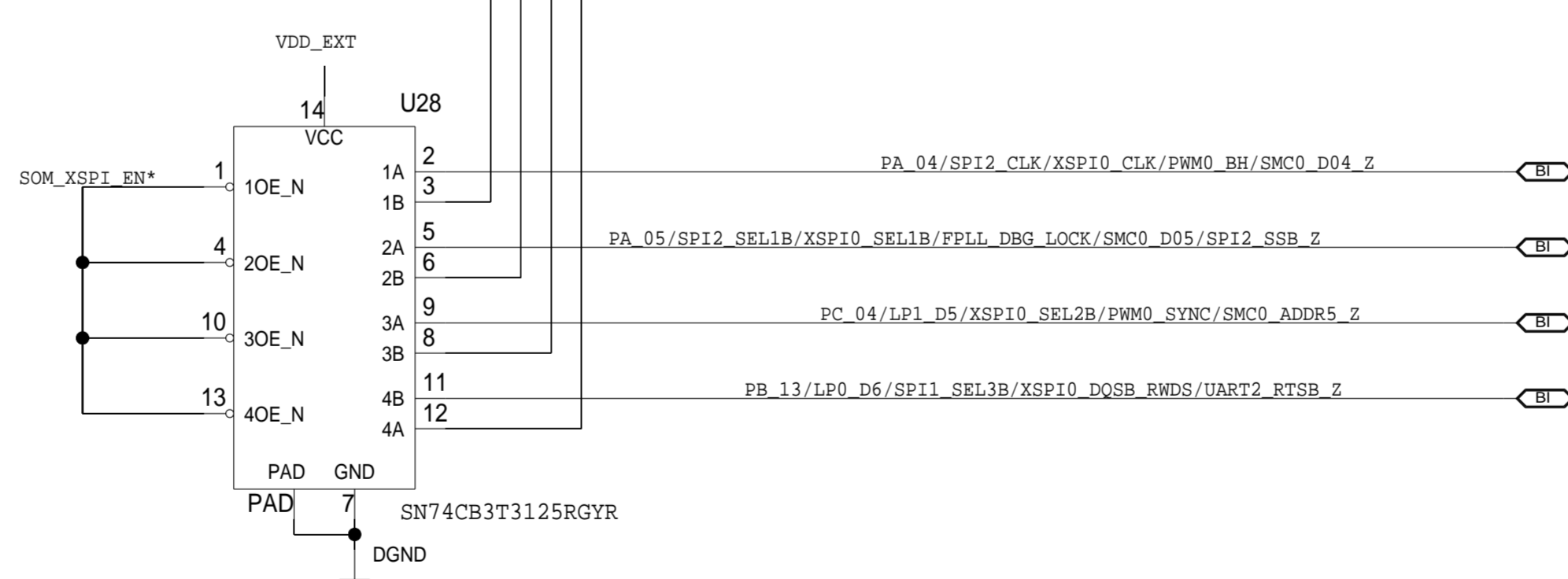
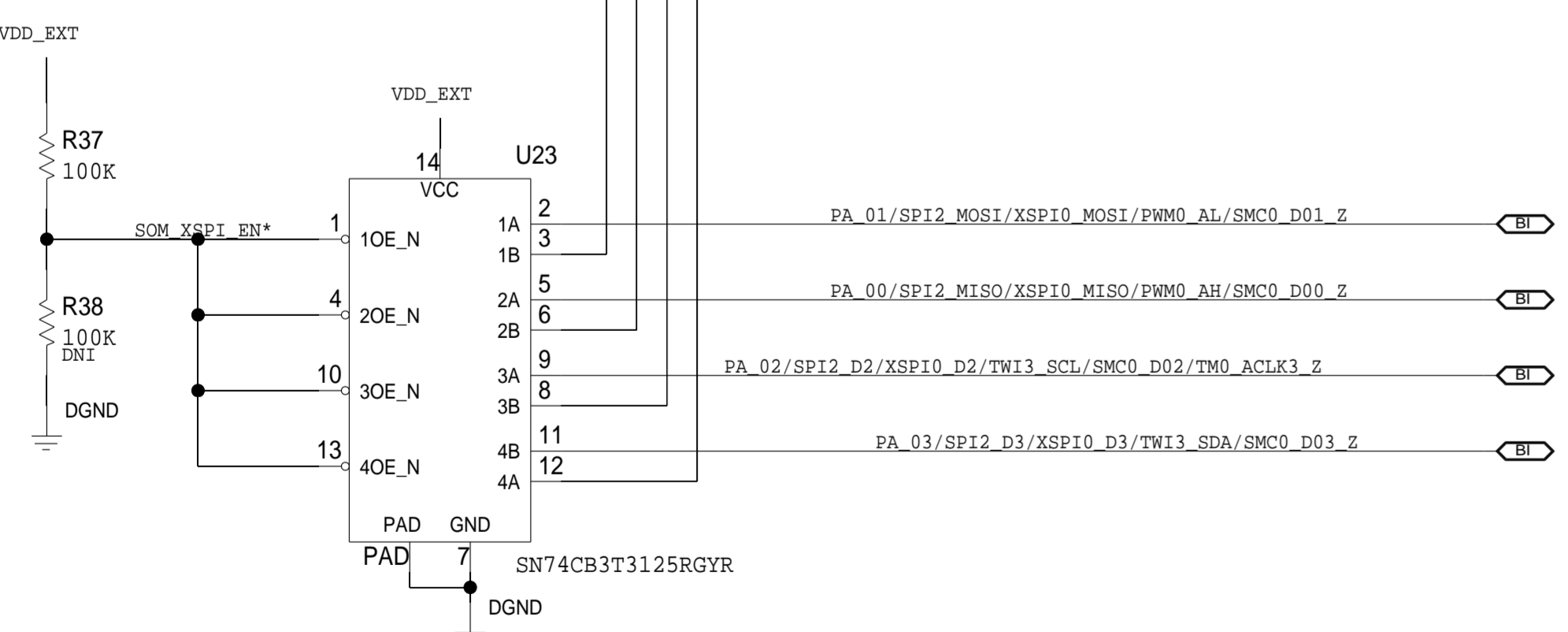
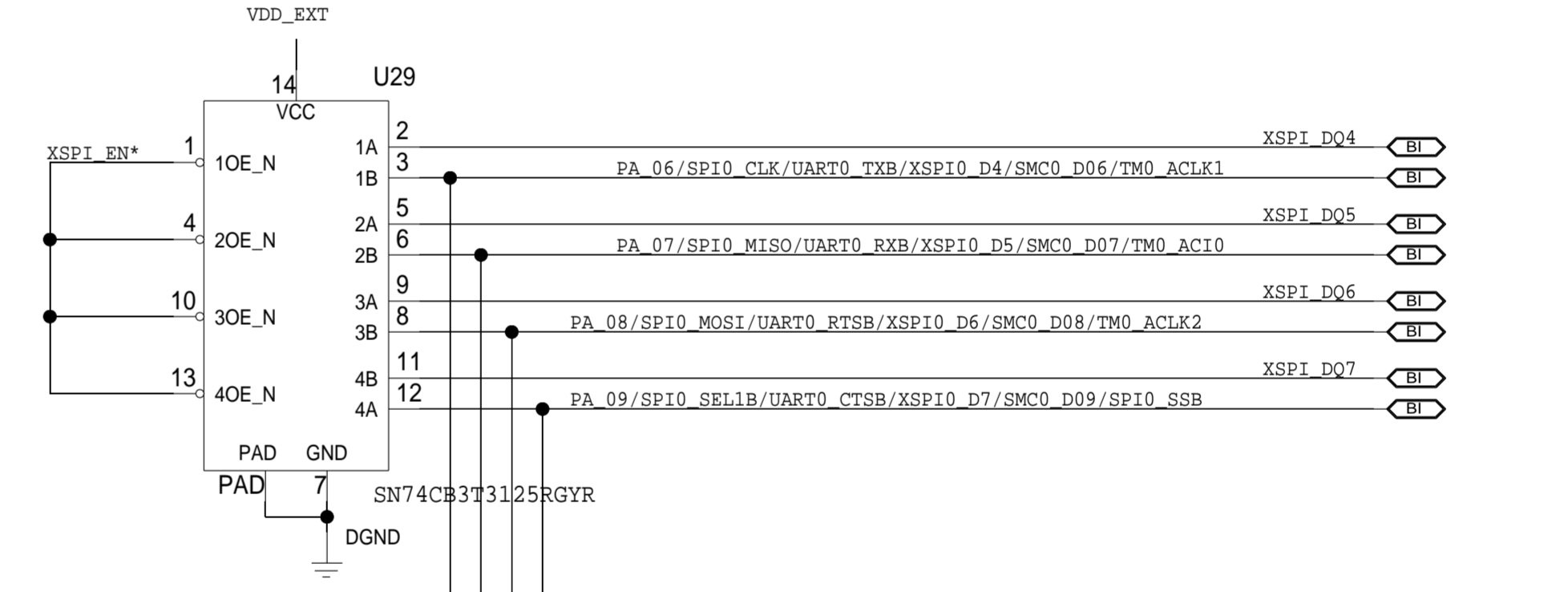
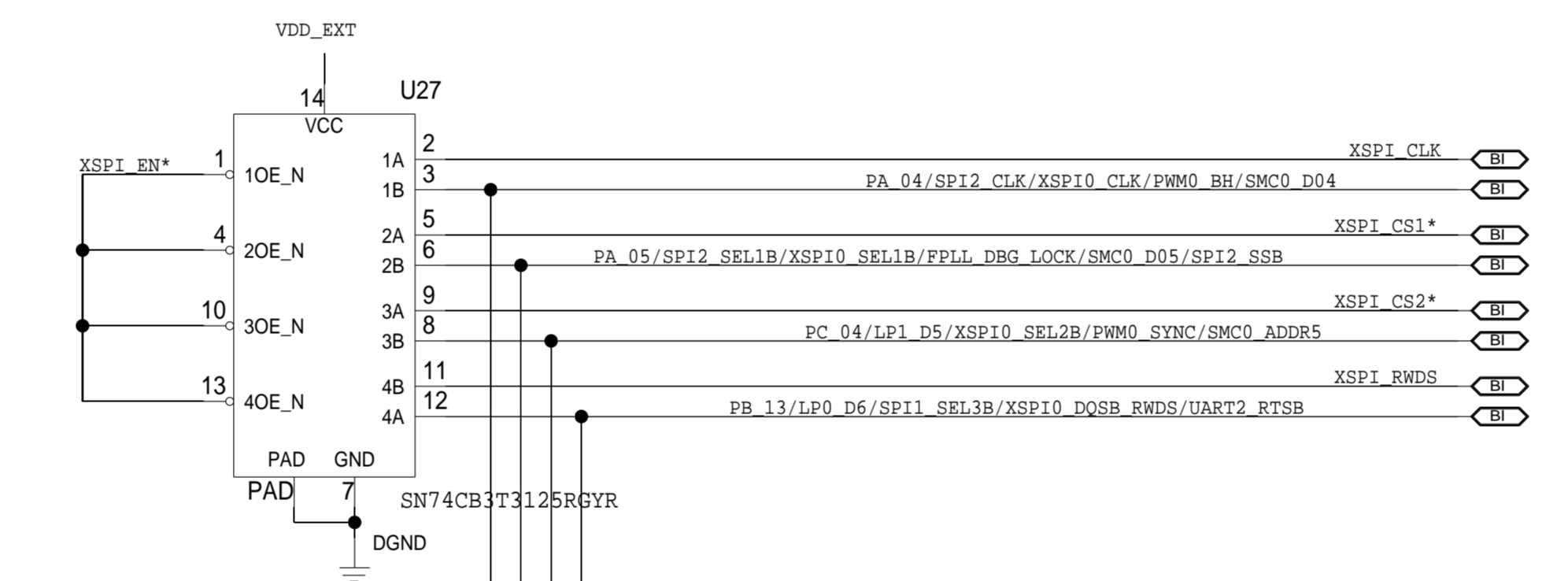
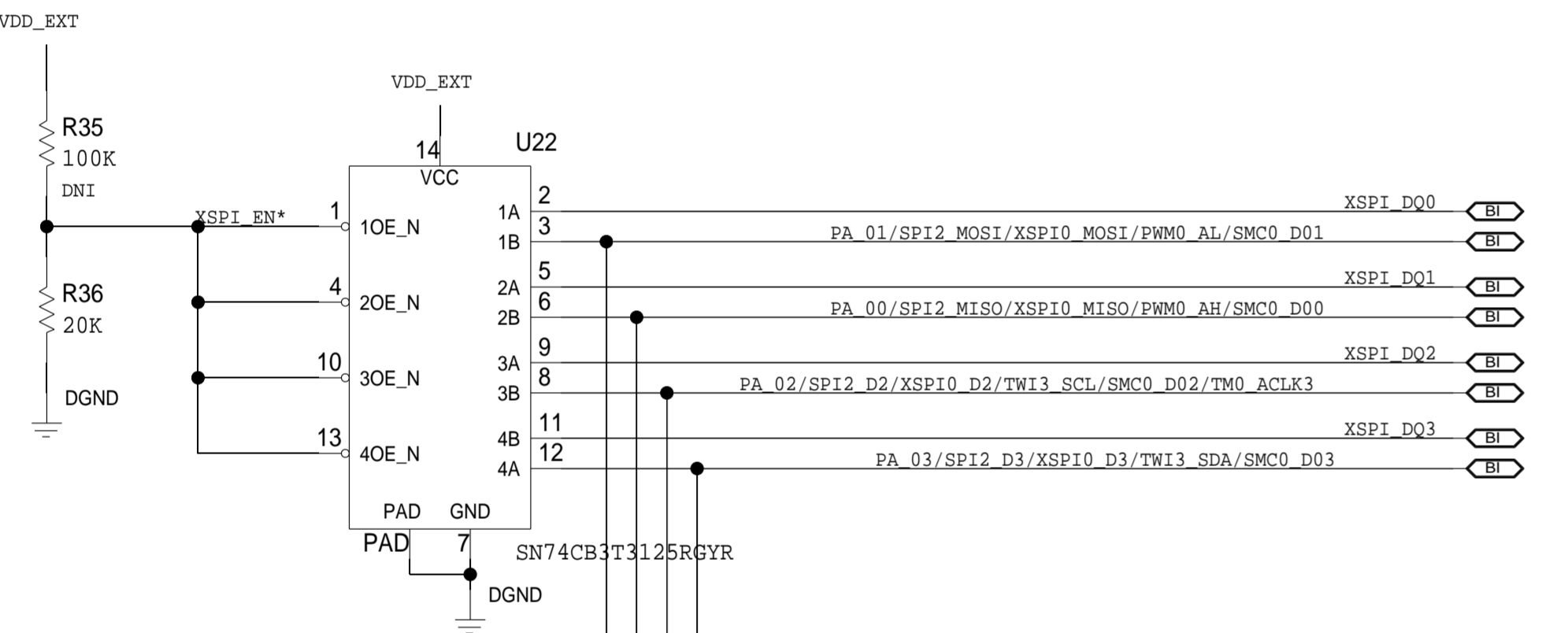
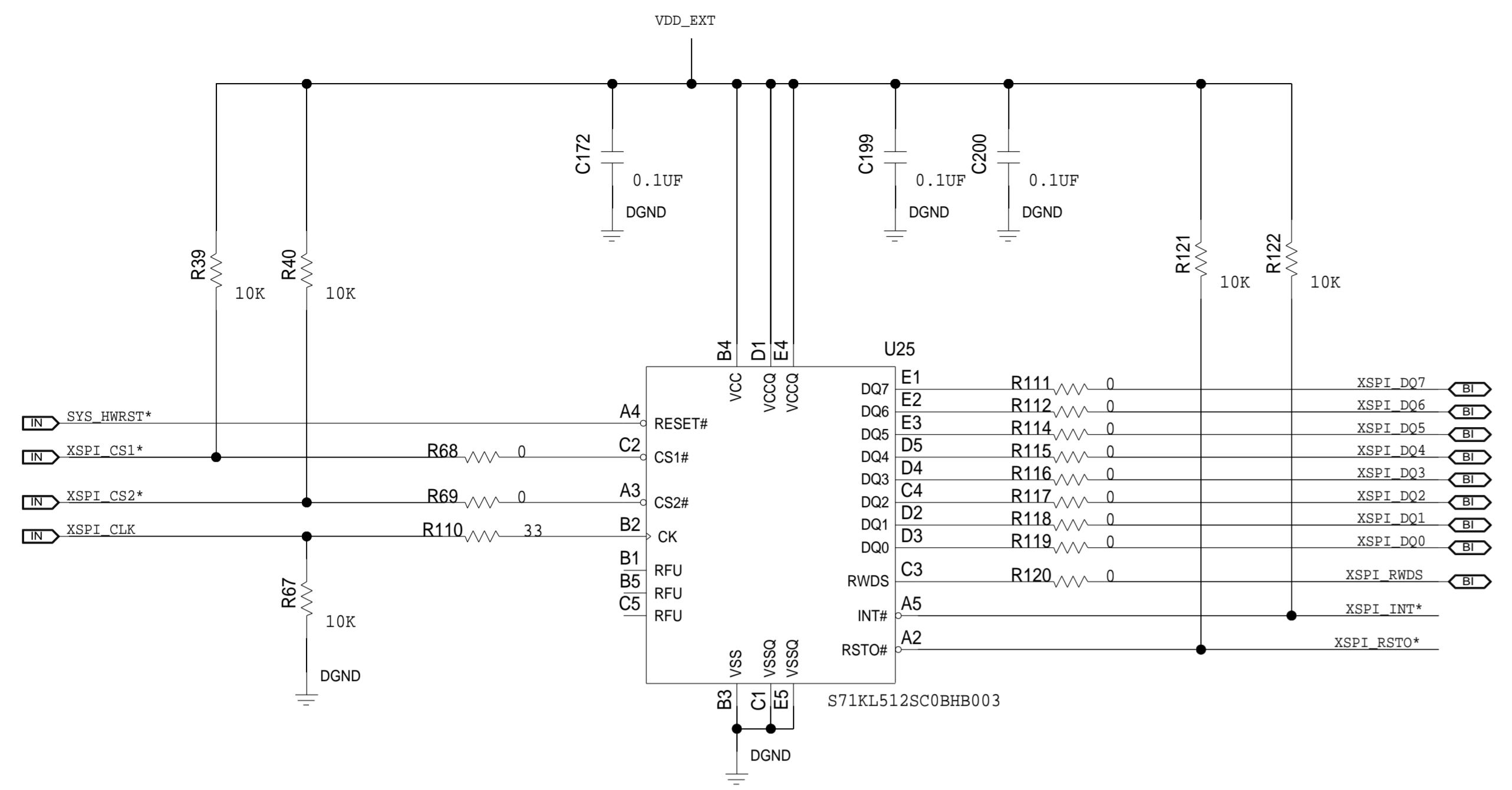
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SPI FLASH IS ENABLED BY DEFAULT ON SPI1

SCHEMATIC			
		HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM	
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B	
PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1	SHEET 8 OF 15

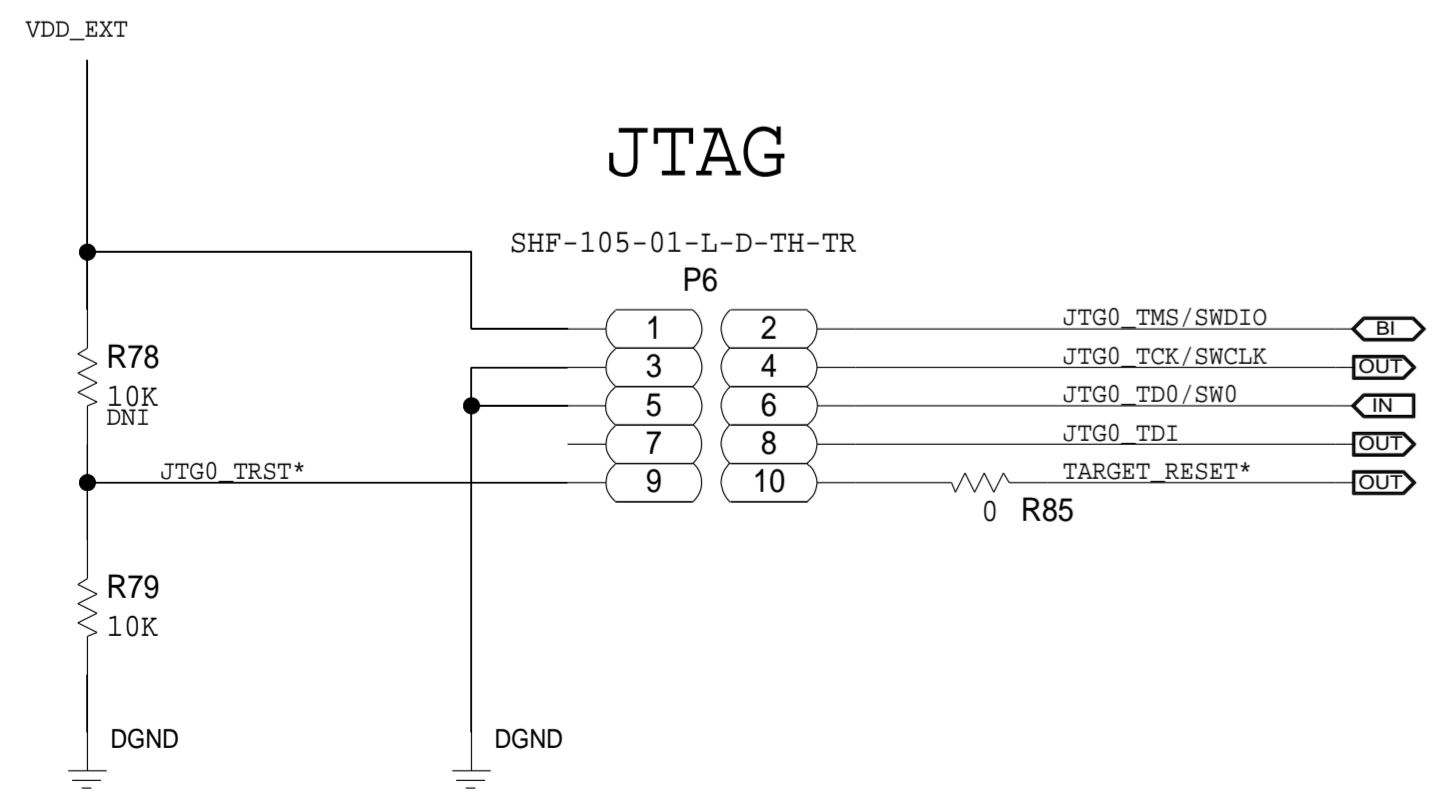
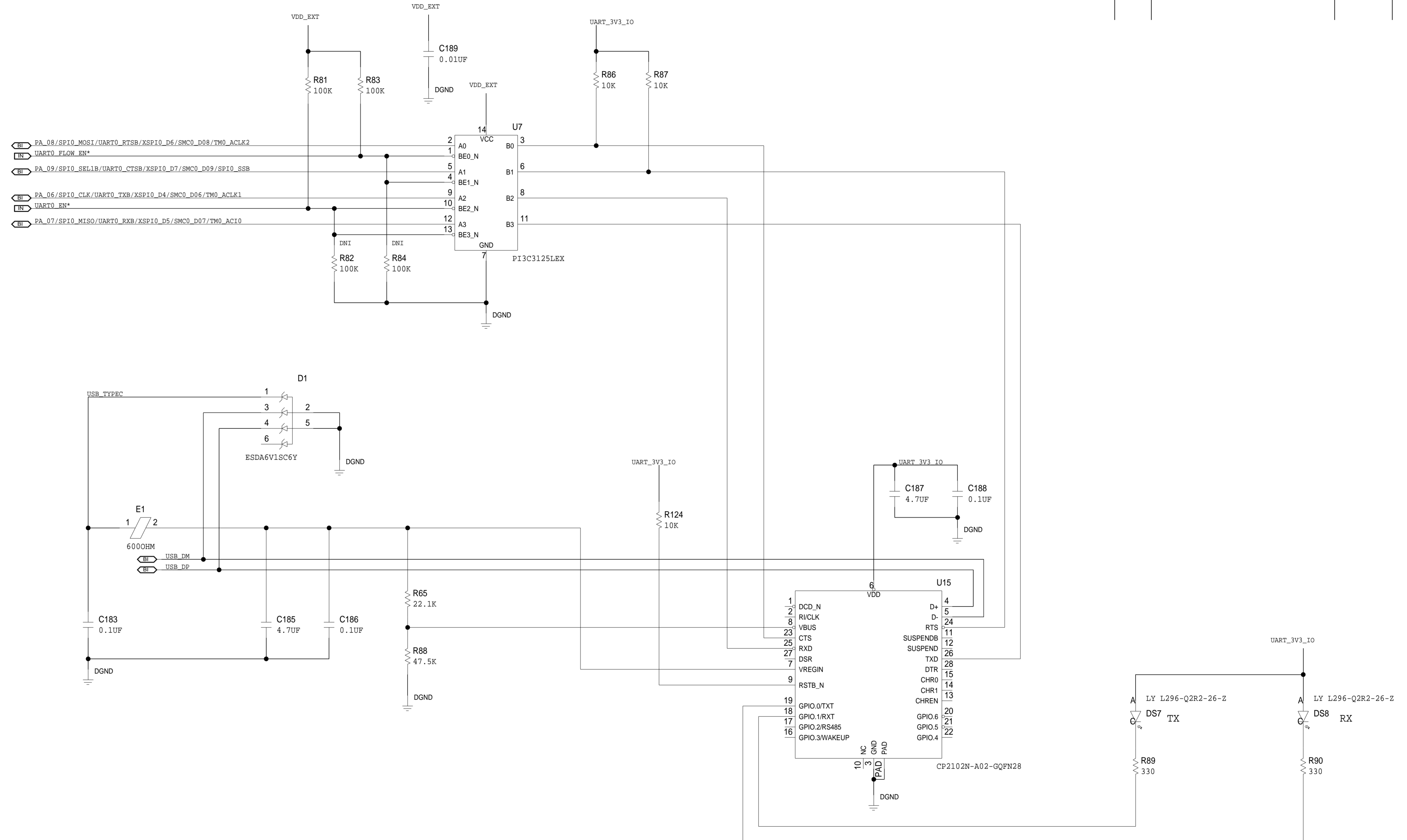
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



XSPI FLASH IS ENABLED BY DEFAULT.
 XSPI CONNECTIONS TO SOM INTERFACE CONNECTORS DISABLED BY DEFAULT

	SCHEMATIC		
	HW TYPE : Customer Evaluation Z Product(s): 21835 : SOM		
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B	SHEET 9 OF 15
PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1	SHEET 9 OF 15

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



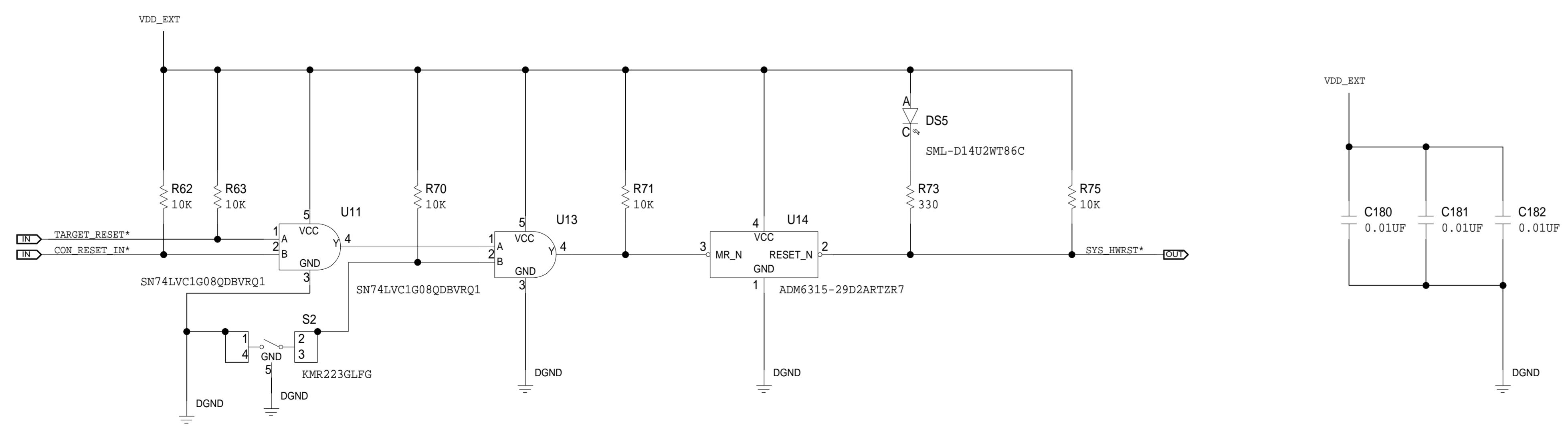
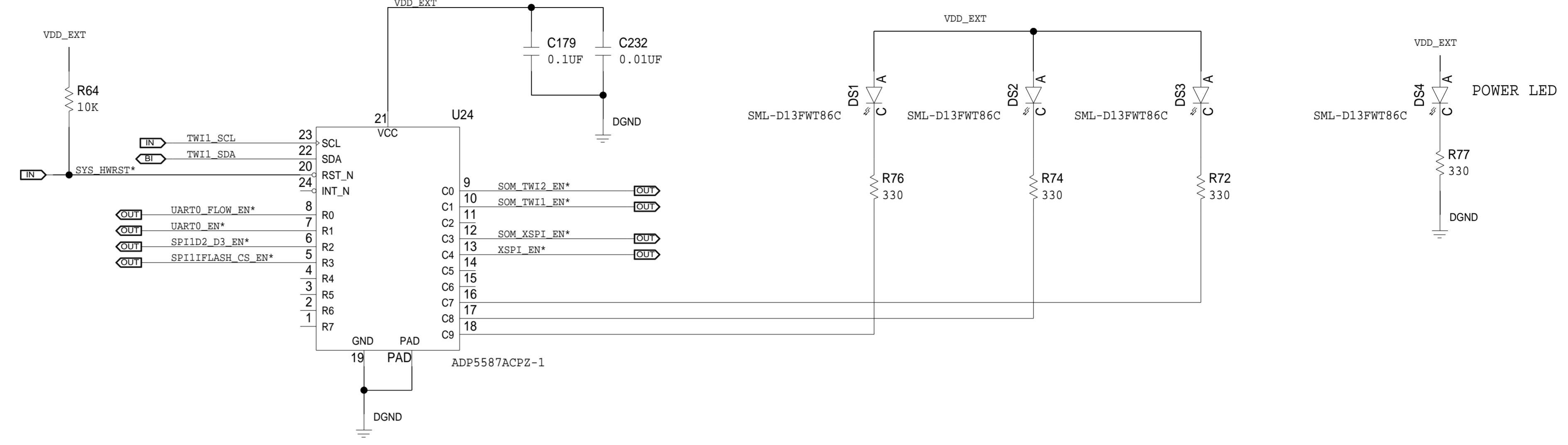
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	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
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	PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1
		SHEET 10 OF 15	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

DEFAULT SOFTCONFIG STATES

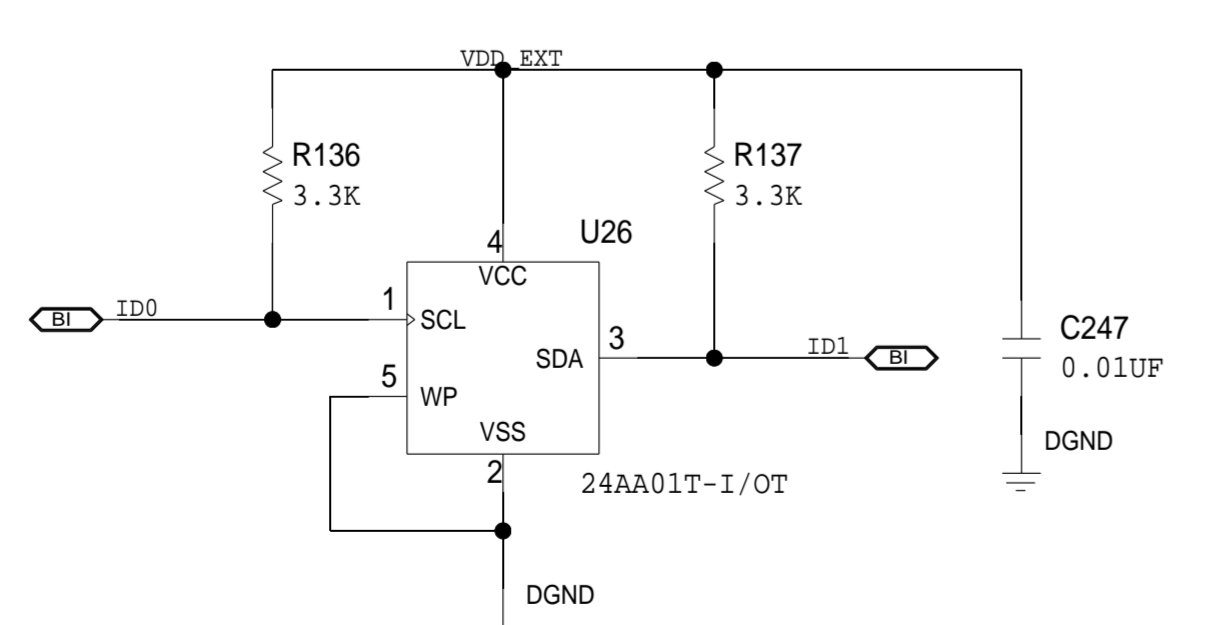
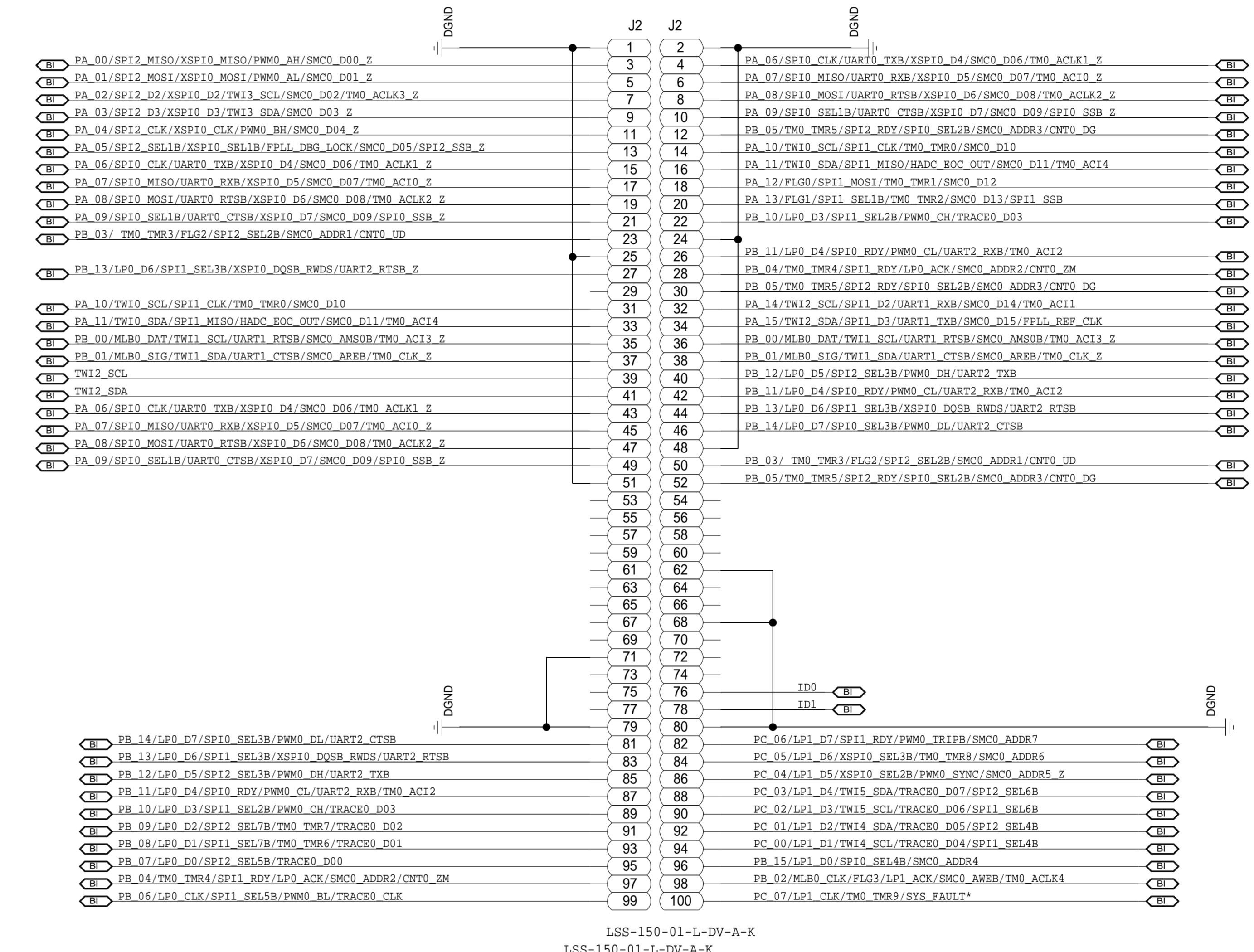
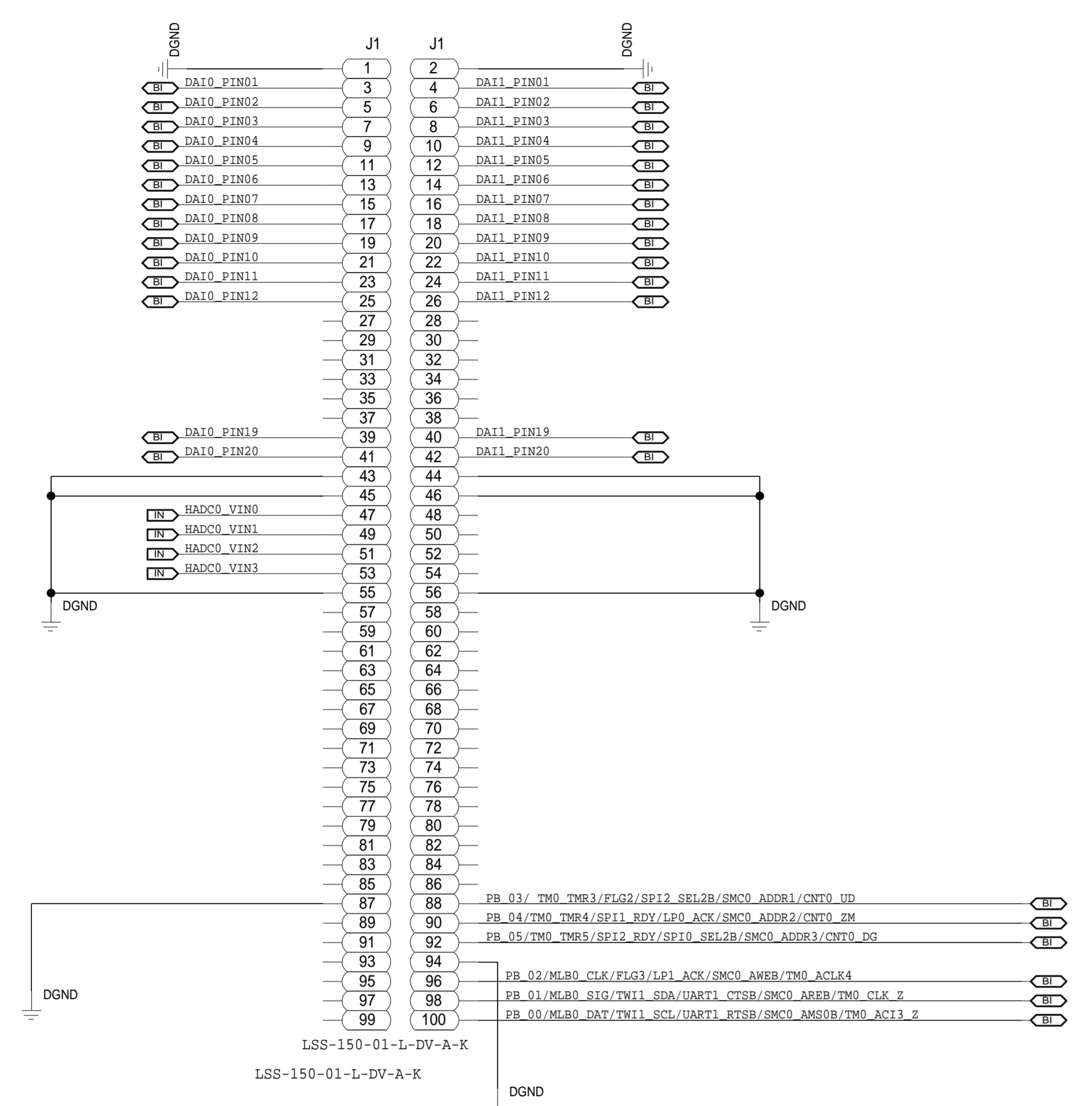
SIGNAL	STATE
UART0_FLOW_EN*	LOW
UART0_EN*	LOW
SPI1D2_D3-EN*	LOW
SPI1FLASH_CS_EN*	LOW
SOM_TWI2_EN*	HIGH
SOM_TWI1_EN*	HIGH
TWI1_EN*	LOW
SOM_XSPI_EN*	HIGH
XSPI_EN*	LOW

TWI ADDRESS 0X60



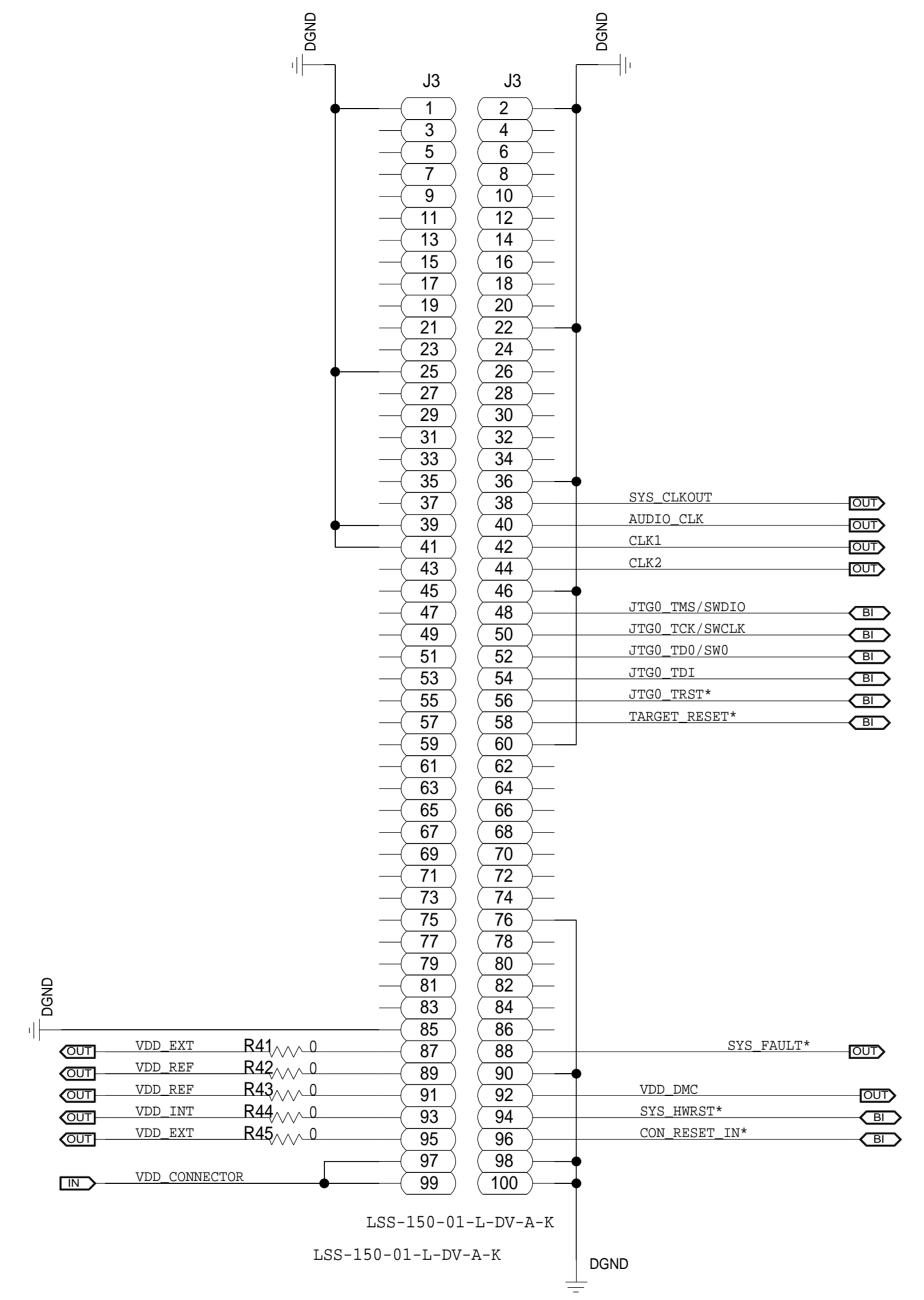
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	PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1
		SHEET 11 OF 15	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



	SCHEMATIC		
	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B	
PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1	SHEET 12 OF 15

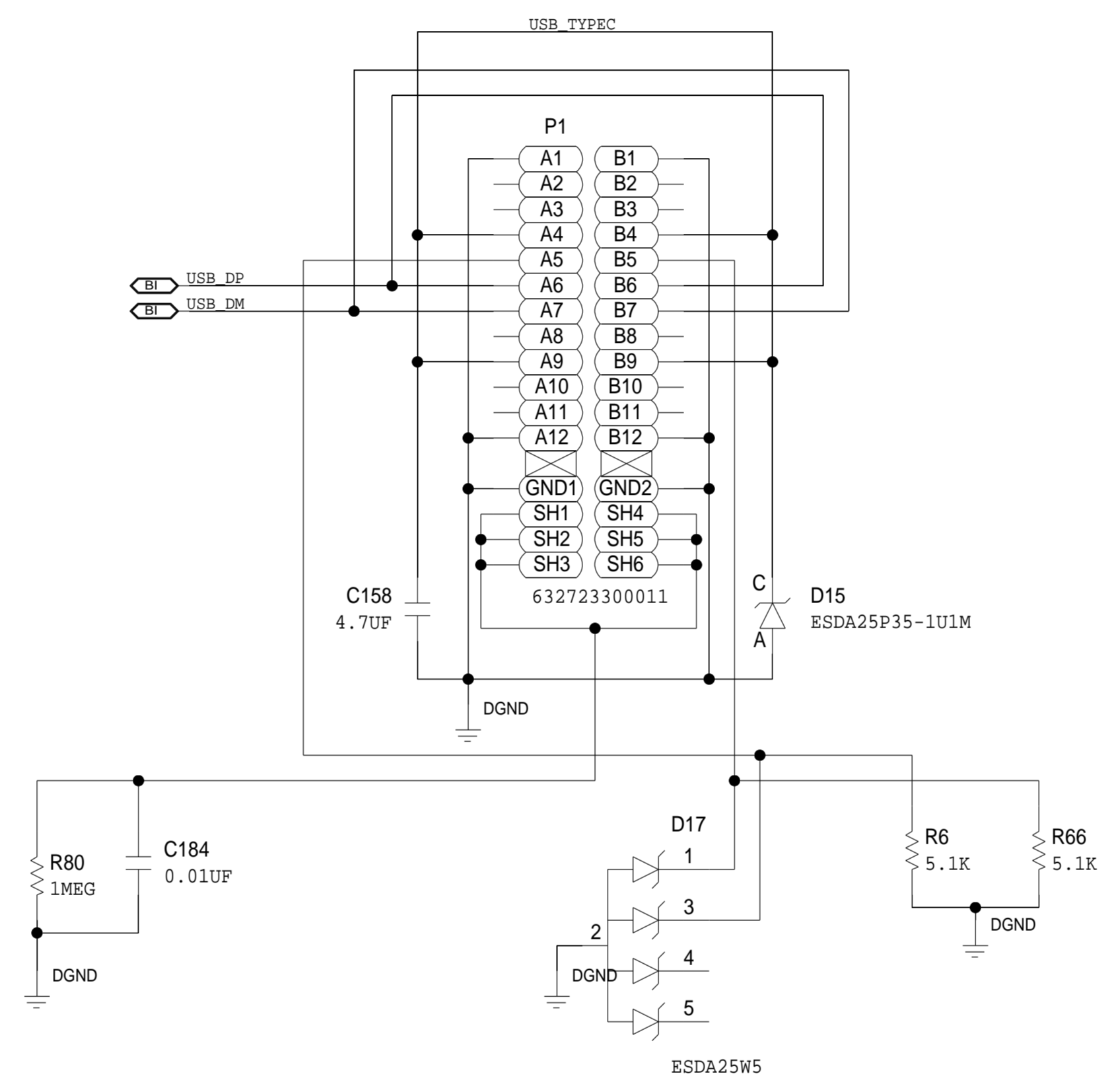
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



	SCHEMATIC		
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	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B
PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1	SHEET 13 OF 15

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USB PD MODES

5V 3A FIXED MODE - 5.1K PULL DOWN ON CC1 CC2

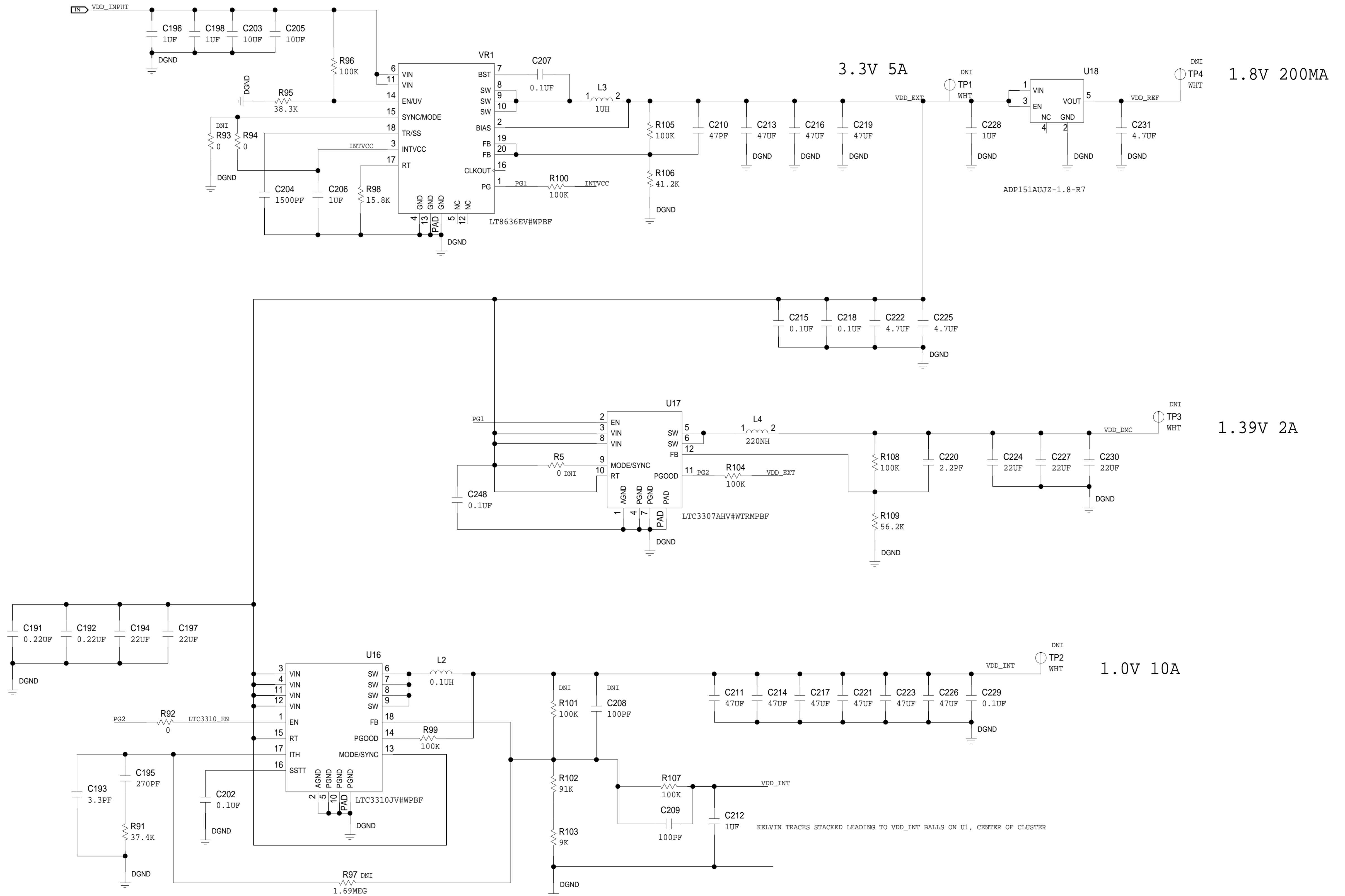
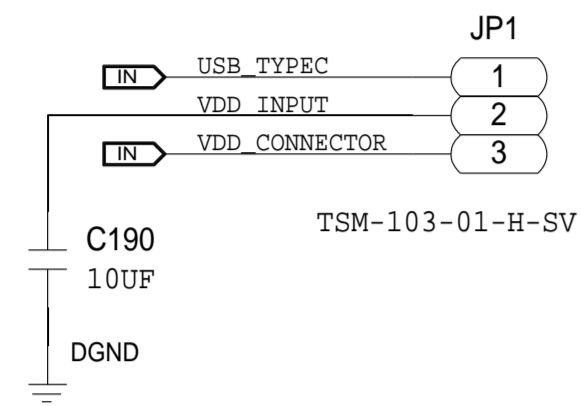
	SCHEMATIC		
	HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM		
	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_071515	REV B
PTD ENGINEER D. HARRINGTON	SIZE D	SCALE 1:1	SHEET 14 OF 15

POWER INPUT SETTINGS

JP1 PIN 1&2 POWER BY USB

JP1 PIN 2&3 POWER BY SOM CONNECTOR

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SCHEMATIC			
		HW TYPE : Customer Evaluation Z Product(s) : 21835 : SOM	
DESIGN VIEW	<DESIGN_VIEW>	DRAWING NO.	REV
PTD ENGINEER	D. HARRINGTON	02_071515	B
SIZE	SCALE	SHEET 15 OF 15	
D	1:1		

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KELVIN TRACES STACKED LEADING TO VDD_INT BALLS ON U1, CENTER OF CLUSTER