

8		7		6		5		4		3		2		1		
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									REV	DESCRIPTION		DATE	APPROVED			
						JP#	ON	OFF	A	INITIAL RELEASE		25NOV21	D. SMITH			
	RELAY CONTROL CHART															
	CONTROL	CODE	DEVICE	FUNCTION	CONNECTOR											
C																
B																
A						TEMPLATE ENGINEER -		DATE		SCHEMATIC						
						HARDWARE SERVICES M. VALE		25NOV21								
						HARDWARE SYSTEMS -				HW TYPE : Customer Evaluation Z Product(s): ADE9113 : n/a  PACKAGE : LeadCount-lead BodySize PackageType-family : Pitch-pitch StyleVendor Style						
						TEST ENGINEER -										
						COMPONENT ENGINEER J. GIRON										
						TEST PROCESS -										
						HARDWARE RELEASE K. JABATAN		25NOV21		<User Define> <User Define> <User Define>						
						DESIGNER G. ARON		25NOV21								
						PTD ENGINEER D. SMITH		25NOV21		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  TOLERANCES						
						CHECKER -										
P.O SPEC.		BK/BD SPEC.	SOCKET OEM	OEM PART#	HANDLER	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 4
8		7		6		5		4		3		2		1		



8

7

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3

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1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED

# SDP EVAL BOARD TEMPLATE (REV A)

MANDATORY: ENSURE THAT THE SAP CODE FOR THIS BOARD TAKES THE FORM EVAL-ADXXXX-SDZ

NOTE: IF YOU HAVE ANY QUESTIONS ABOUT THE SDP EVAL BOARD TEMPLATE PLEASE EMAIL SDP.SUPPORT@ANALOG.COM

NOTE: THIS TEMPLATE WAS DESIGNED TO WORK WITH THE SDP-K1 AND TO BE BACKWARDS COMPATIBLE WITH THE SDP-S, SDP-B AND SDP-H1

MANDATORY: THIS EEPROM MUST BE INCLUDED ON ALL SDP EVAL BOARDS

USING THE RESISTORS CONNECTED TO THE ADDRESS PINS OF THE EEPROM YOU CAN SELECT THE I2C ADDRESS, AFTER SELECTING YOUR ADDRESS THE DNI RESISTORS SHOULD NOT BE REMOVED TO ENSURE YOU CAN CONNECT MULTIPLE BOARDS TO A SYSTEM. THE I2C ADDRESS NUMBER OF THIS EEPROM WILL BE IN THE RANGE OF 0X50 TO 0X57.

THE SDP CONNECTOR IMPLEMENTS THE E13 CONNECTOR SPECIFICATION STANDARD. THIS IS A STANDARD FOR USE ACROSS ADI AND CANNOT BE MODIFIED  
BMODE1: PULL UP WITH A 10K RESISTOR TO SET SDP-B OR SDP-H1 TO BOOT FROM A SPI FLASH ON THE DAUGHTER BOARD

NOTE: TIMER C(TMR\_C) IS NOT CONNECTED ON ANY SDP BOARD

NOTE: I2C BUS 1 IS COMMON ACROSS BOTH CONNECTORS ON SDP-B (PULL-UP RESISTORS REQUIRED)  
(I2C BUS 1 IS CONNECTED TO BLACKFIN GPIO'S ON THE SDP-B - USE I2C\_0 FIRST)

NOTE: I2C BUS 1 IS NOT CONNECTED ON THE SDP-K1

NOTE: SPI\_SEL1/SPI\_SS MUST BE ONLY USED WITH AN EXTERNAL SPI FLASH

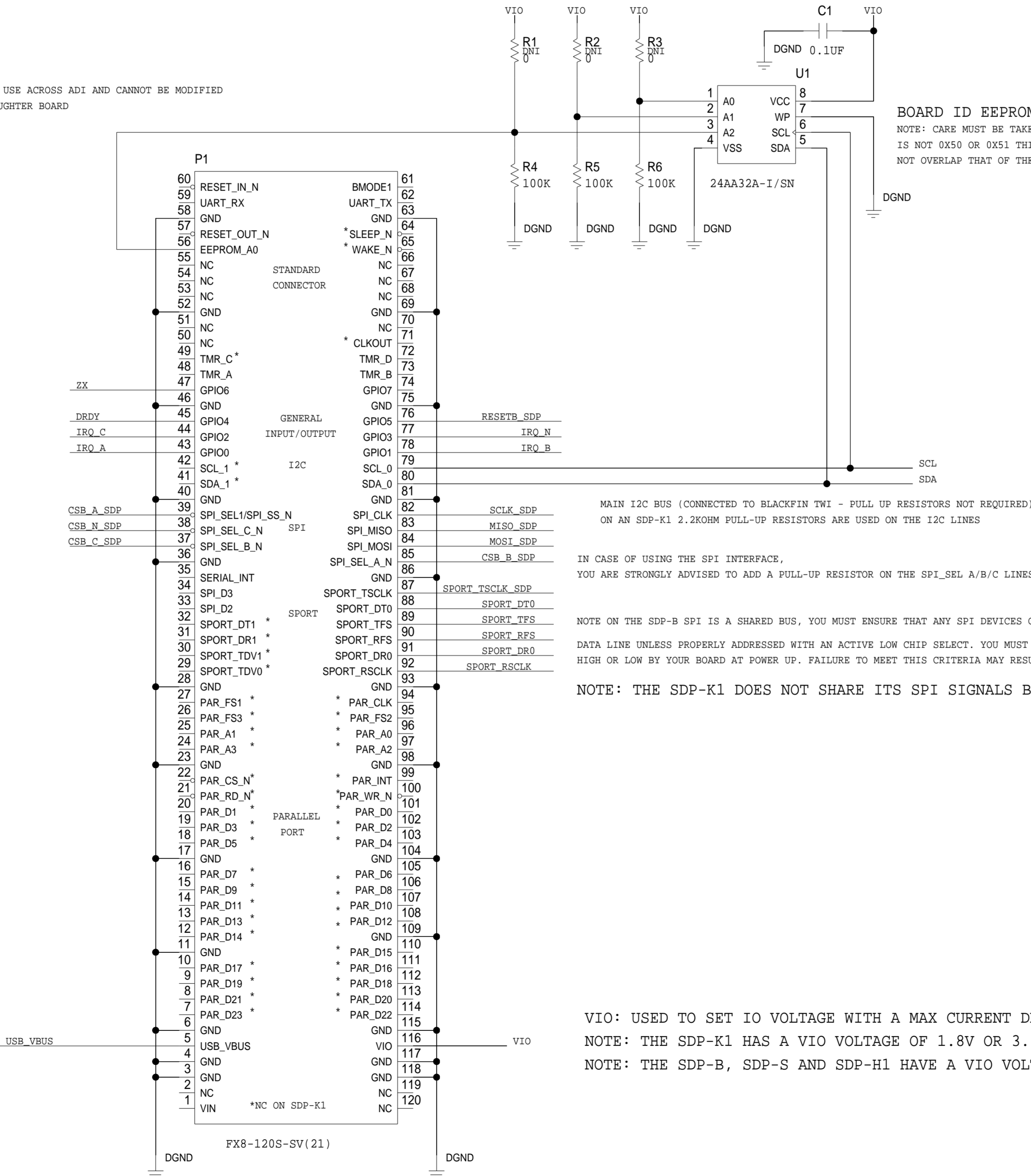
NOTE: QUADSPI IS ONLY SUPPORTED ON THE SDP-K1, USING 6 PINS, SPI\_CLK, SPI\_MOSI(SPI\_D0)  
SPI\_MISO(SPI\_D1), SPI\_D2, SPI\_D3 AND ANY OF THE SPI CS PINS CAN BE USED FOR THE QUAD SPI CS

NOTE: SPORT SECOND DATA LINE IS NOT CONNECTED ON SDP-K1

NOTE: PARALLEL BUS IS NOT CONNECTED ON AN SDP-K1

USB\_VBUS: THIS PIN CAN SUPPLY A VOLTAGE OF 5V +/- 10% WITH  
A MAXIMUM CURRENT DRAW UP TO 200MA, IF YOUR EVAL BOARD REQUIRES  
MORE THAN 200MA, YOU SHOULD ADD A DC JACK TO YOUR EVAL BOARD  
TO SUPPLY THE NECESSARY POWER

VIN: USE THIS PIN TO POWER AN SDP CONTROLLER BOARD  
NOTE: VIN POWER SUPPLY REQUIRES 5V AT 300MA



BOARD ID EEPROM (24AA32) MUST BE ON I2C BUS 0 OF SDP CONNECTOR.

NOTE: CARE MUST BE TAKEN TO ENSURE DAUGHTER BOARD I2C EEPROM ADDRESS IS NOT 0X50 OR 0X51 THIS IS TO ENSURE THE I2C ADDRESS RANGE DOES NOT OVERLAP THAT OF THE E13 BREAK-OUT BOARD.

MAIN I2C BUS (CONNECTED TO BLACKFIN TWI - PULL UP RESISTORS NOT REQUIRED)  
ON AN SDP-K1 2.2KOHM PULL-UP RESISTORS ARE USED ON THE I2C LINES

IN CASE OF USING THE SPI INTERFACE,  
YOU ARE STRONGLY ADVISED TO ADD A PULL-UP RESISTOR ON THE SPI\_SEL A/B/C LINES

NOTE ON THE SDP-B SPI IS A SHARED BUS, YOU MUST ENSURE THAT ANY SPI DEVICES ON YOUR DAUGHTER BOARD ARE NOT ACTIVELY DRIVING THE MISO

DATA LINE UNLESS PROPERLY ADDRESSED WITH AN ACTIVE LOW CHIP SELECT. YOU MUST ALSO ENSURE THE SPI CLK LINE IS NOT HELD HIGH OR LOW BY YOUR BOARD AT POWER UP. FAILURE TO MEET THIS CRITERIA MAY RESULT IN A NON-FUNCTIONAL SYSTEM.

NOTE: THE SDP-K1 DOES NOT SHARE ITS SPI SIGNALS BETWEEN CONNECTORS

VIO: USED TO SET IO VOLTAGE WITH A MAX CURRENT DRAW OF 20MA

NOTE: THE SDP-K1 HAS A VIO VOLTAGE OF 1.8V OR 3.3V

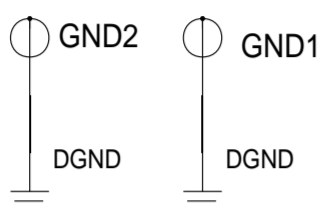
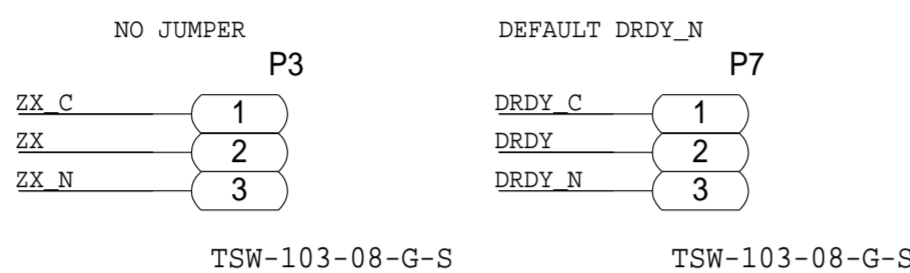
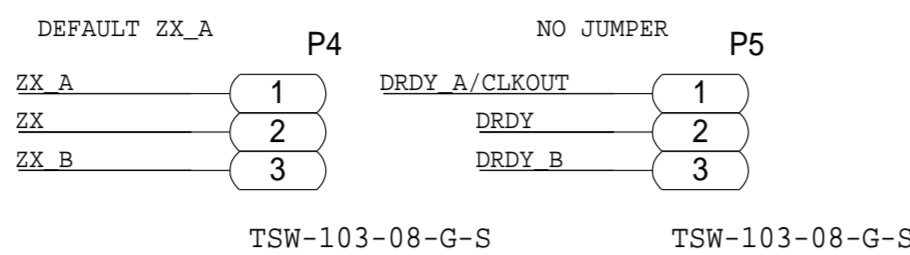
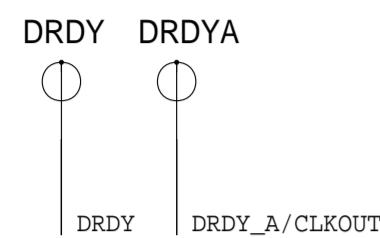
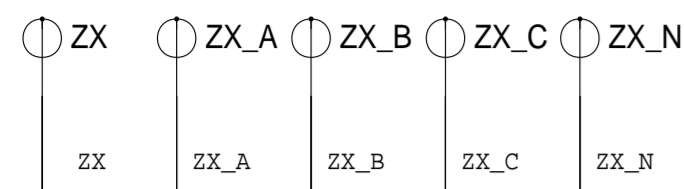
NOTE: THE SDP-B, SDP-S AND SDP-H1 HAVE A VIO VOLTAGE OF 3.3V



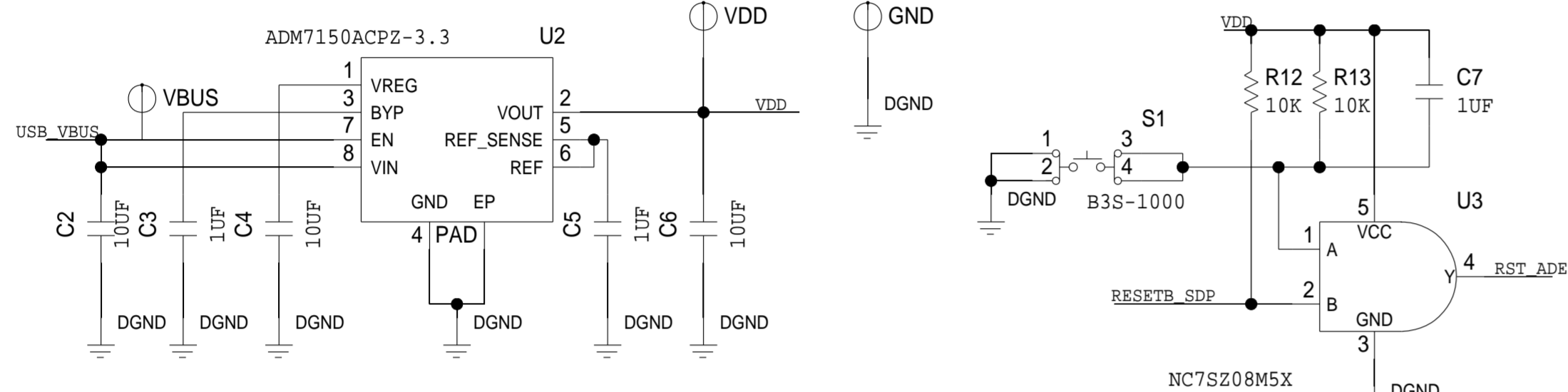
SCHEMATIC

HW TYPE : Customer Evaluation Z  
Product(s): ADE9113  
: n/a

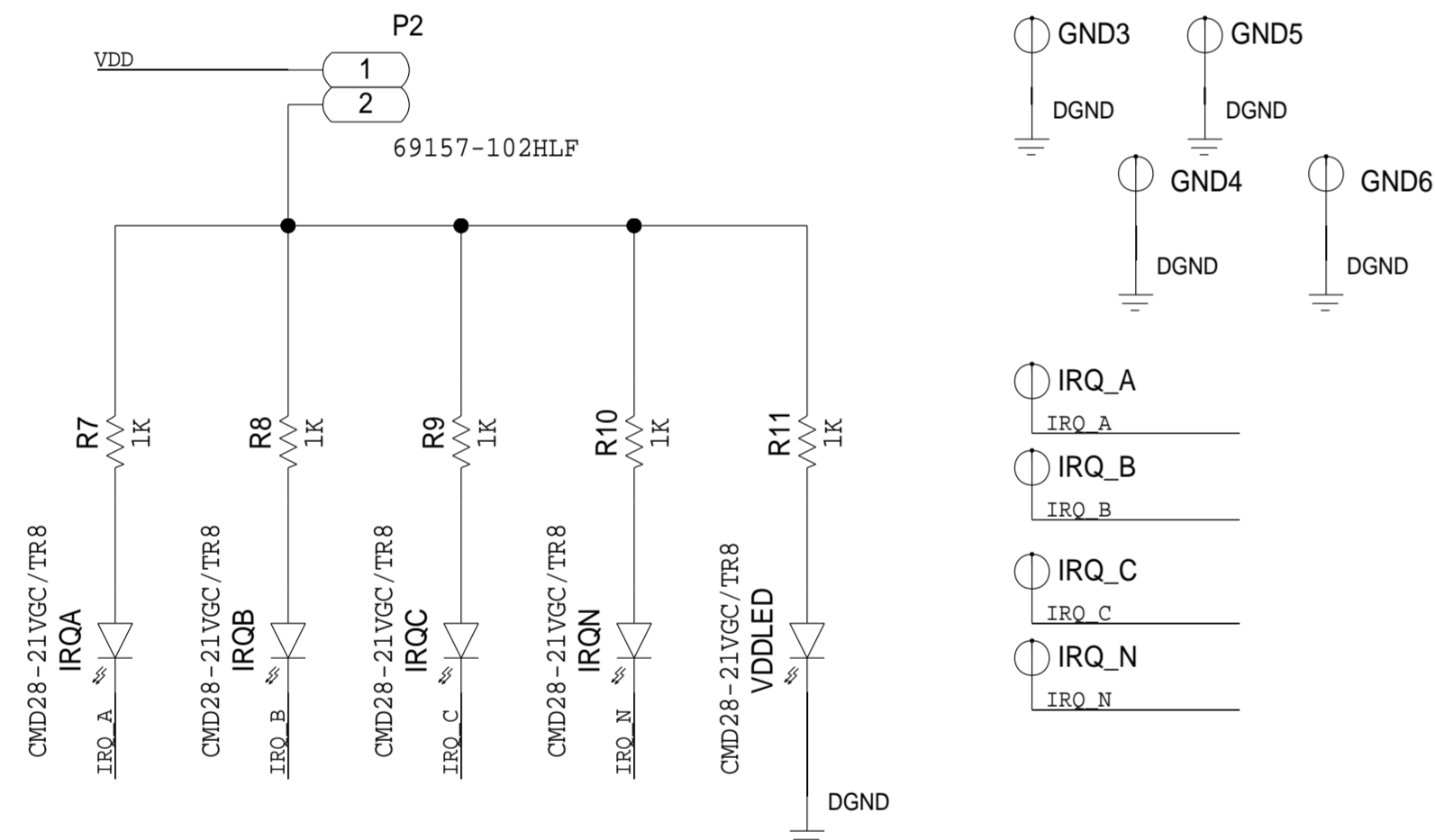
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_069244	REV A
PTD ENGINEER D. SMITH	SIZE D	SCALE 1:1
SHEET 3	OF 4	



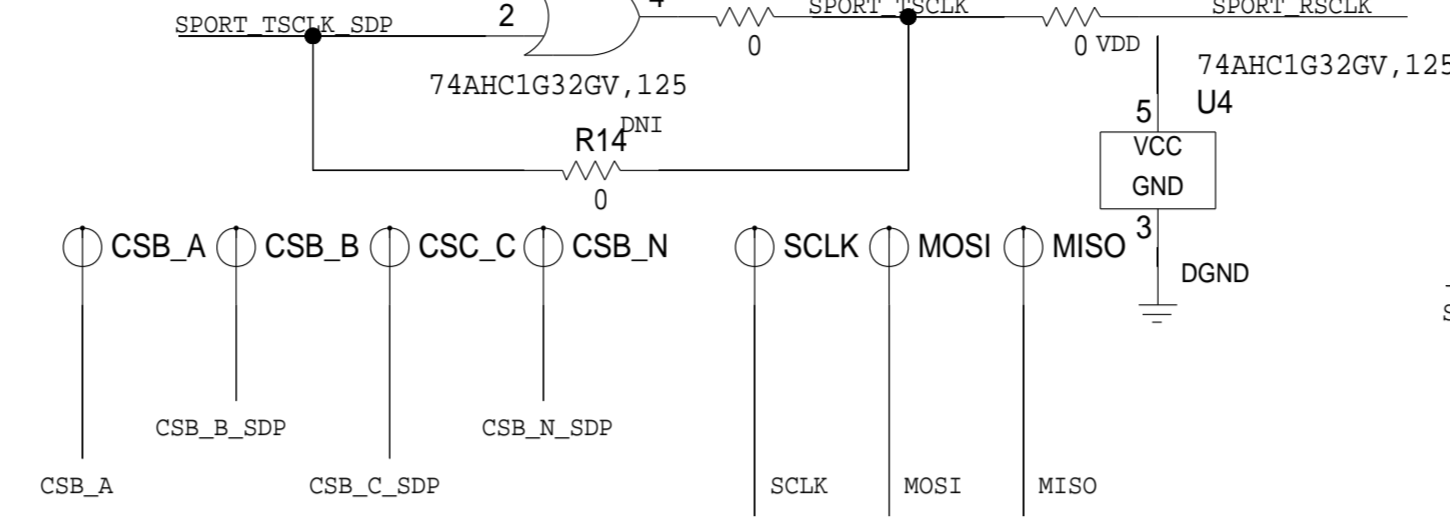
## POWER/RESET



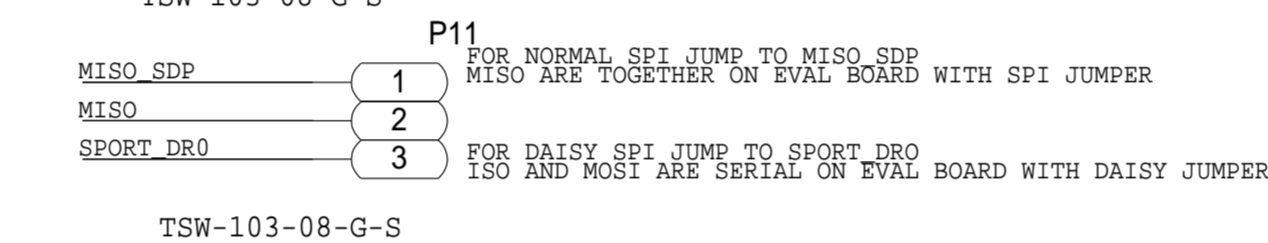
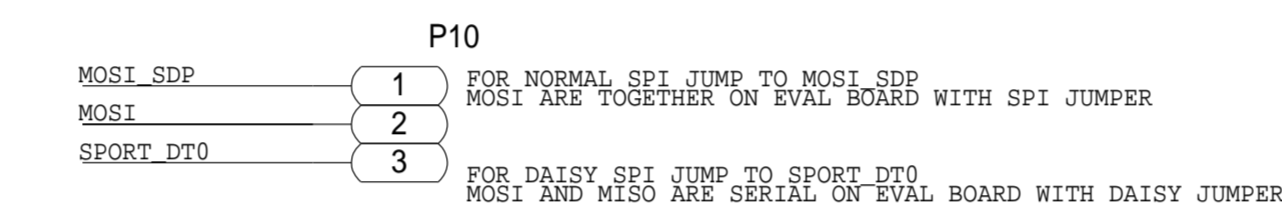
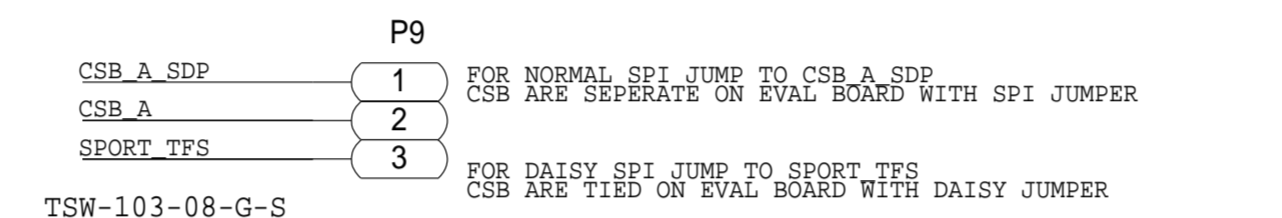
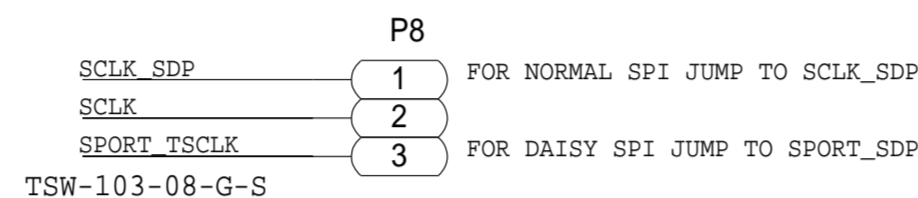
IRQ



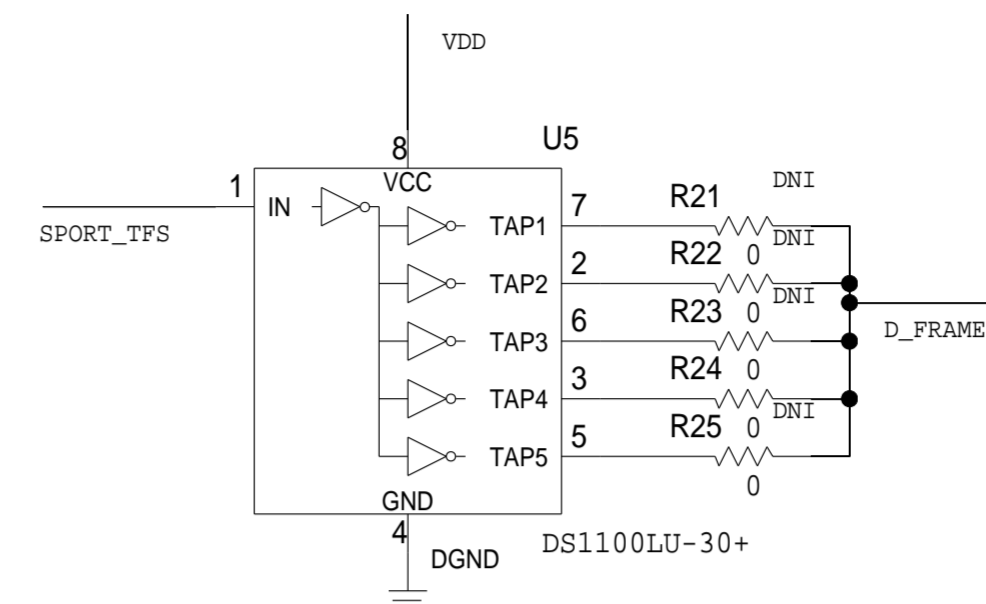
## SPI



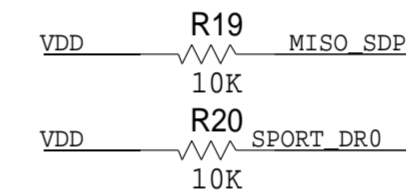
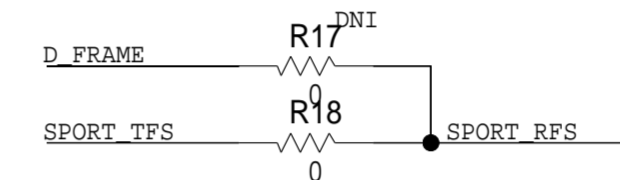
DEFAULT JUMPERS SPORT FOR DAISY CHAIN



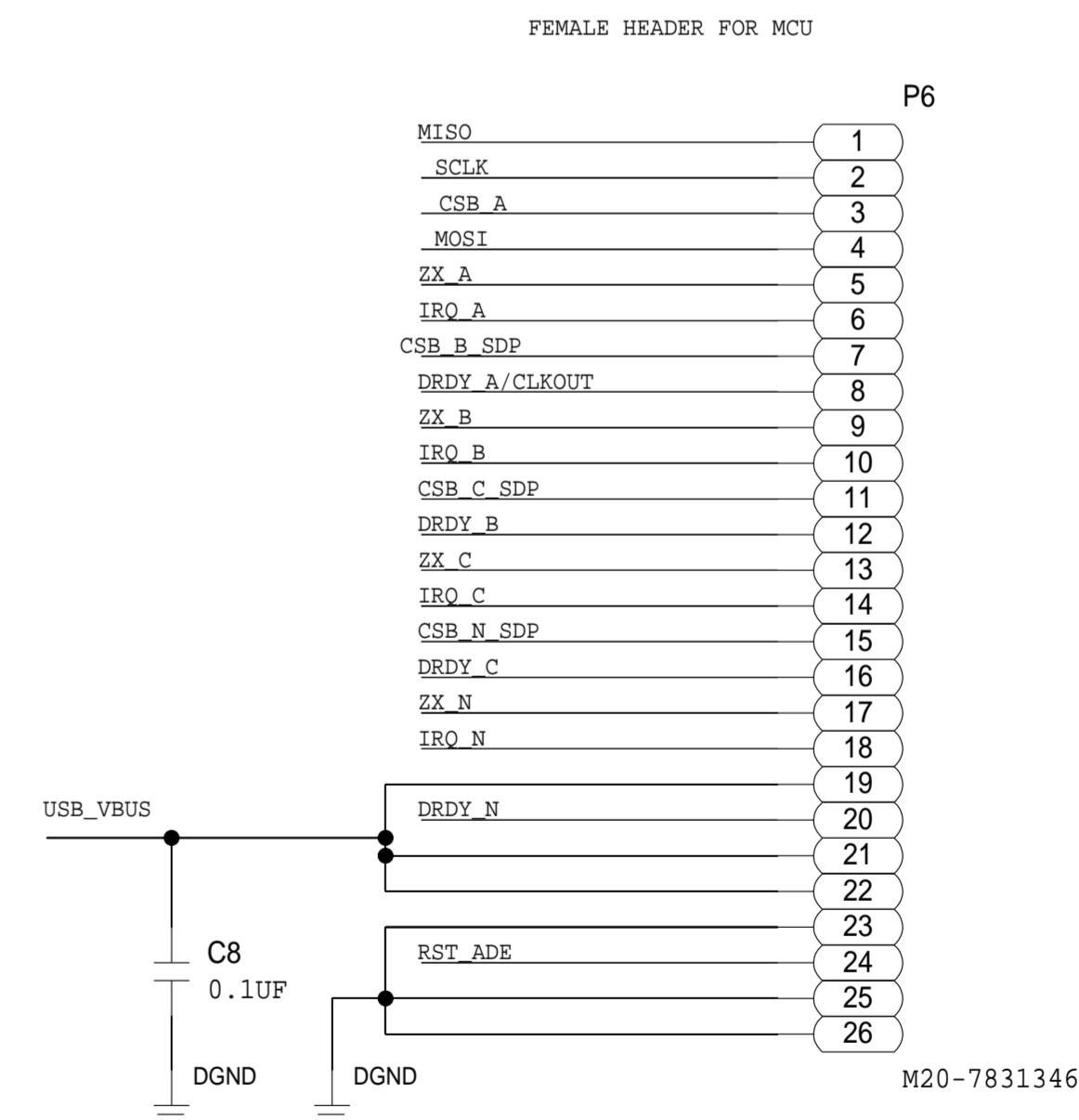
DELAY FRAME



BYPASS DELAY FRAME IF NEEDED



## ADE9113 SPI INTERFACE



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## SCHEMATIC

```
HW TYPE      : Customer Evaluation Z
Product(s)   : ADE9113
              : n/a
```

DESIGN VIEW
<DESIGN_VIEW>
PTD ENGINEER
D. SMITH

DRAWING NO.	02 069244
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SIZE	SCALE
D	1:1

REV
A

SHEET 4 OF 4