BLOCK DIAGRAM

Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
B	1	5/28/2020	Adrian Ozer	Updated C56 from 0.22uF to 47nF

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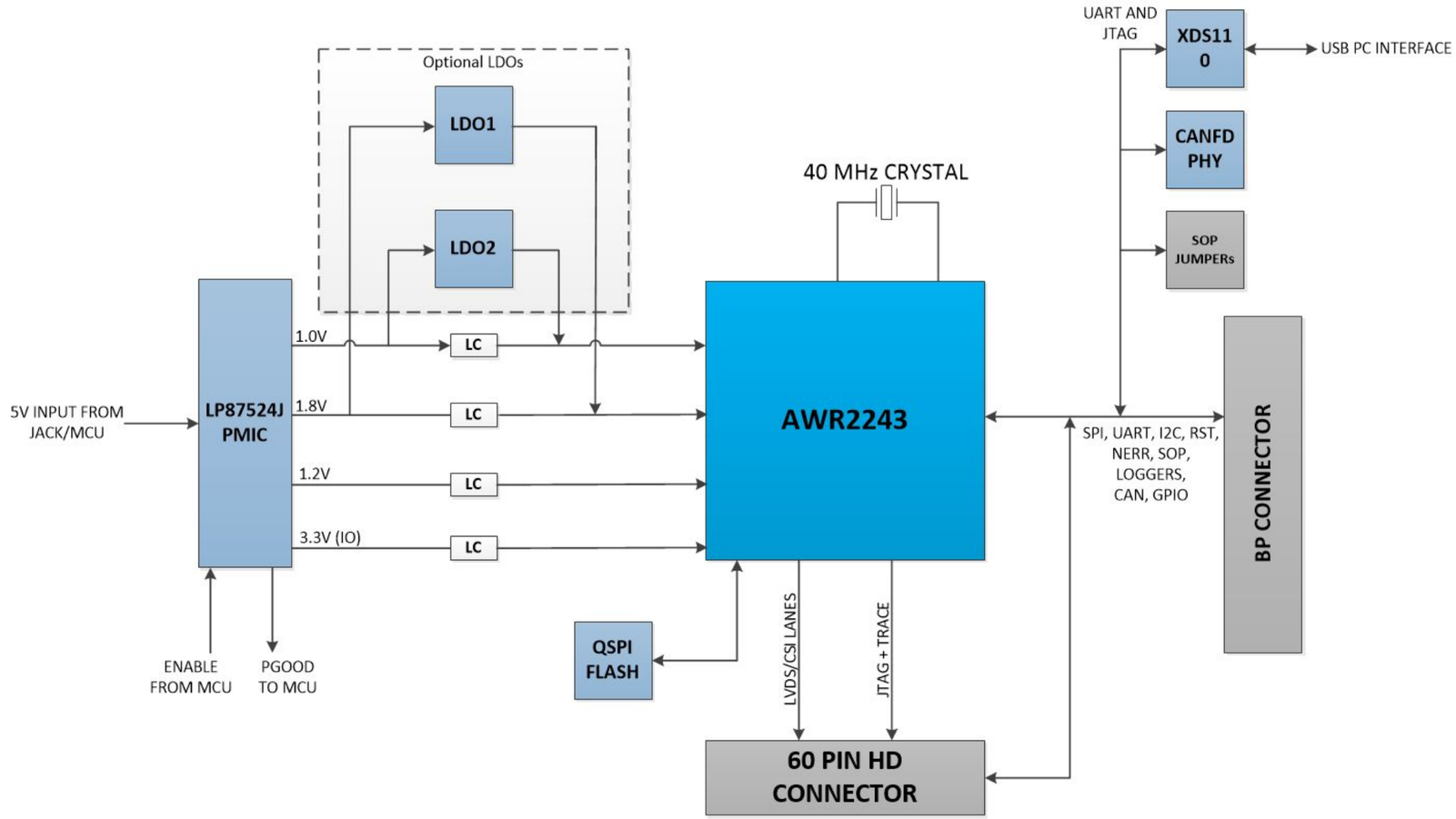

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TID #: N/A	Project Title: PROC099	
Number: PROC099 Rev: B	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 1 of 16
Drawn By: Adrian Ozer	File: PROC099B_CoverSheet.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

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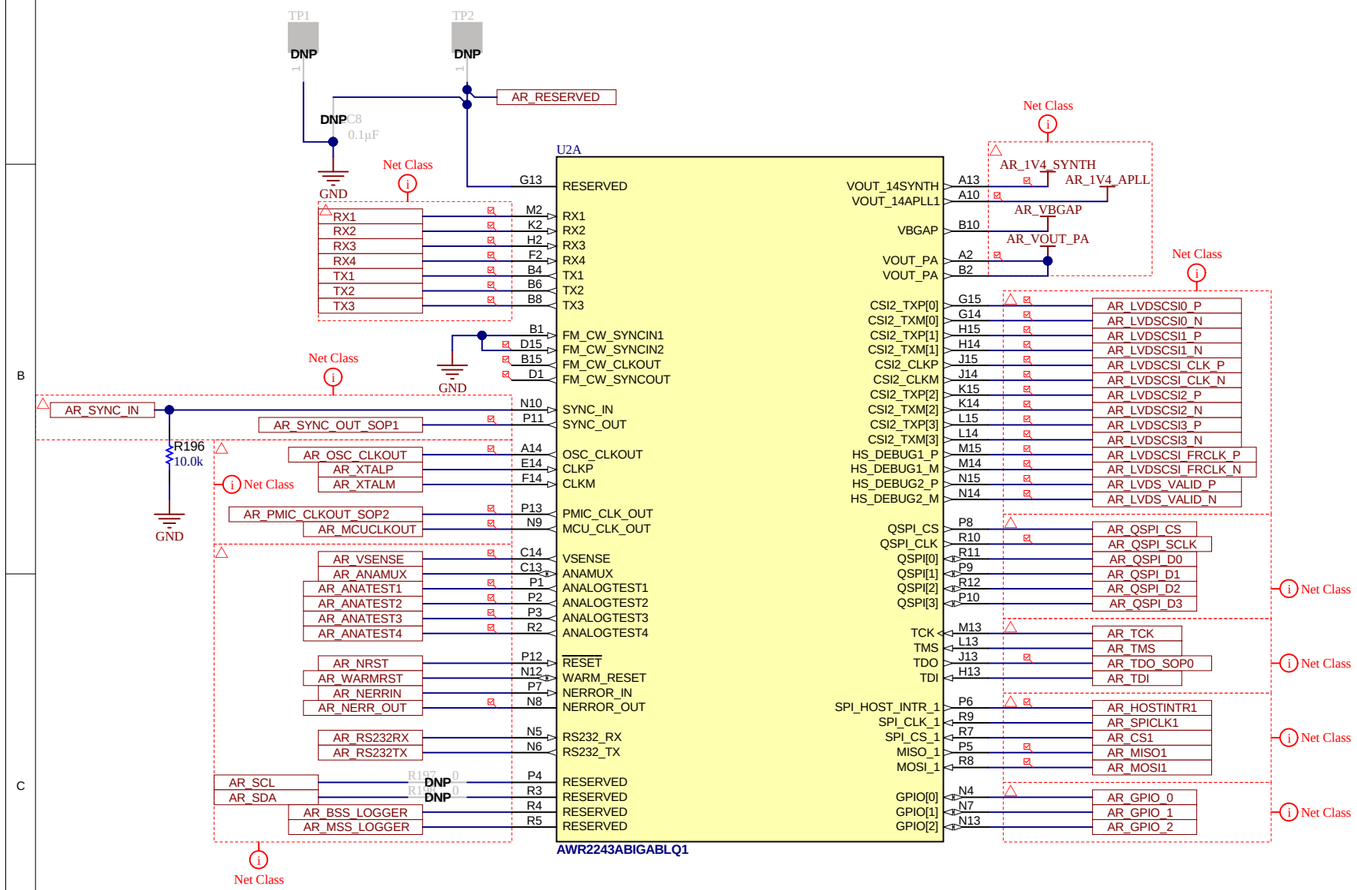
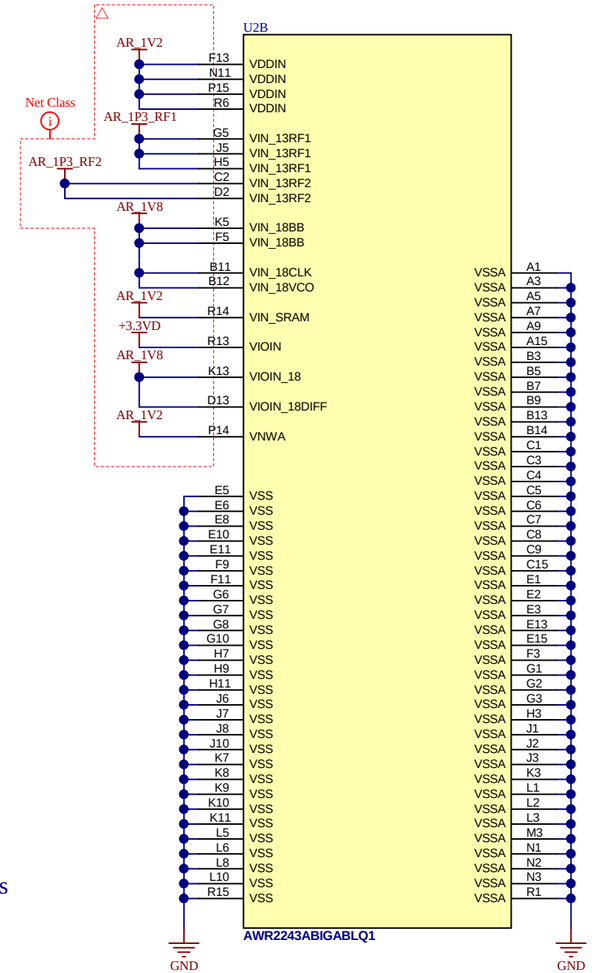
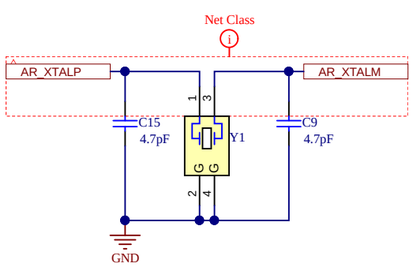
DUT REFERENCE

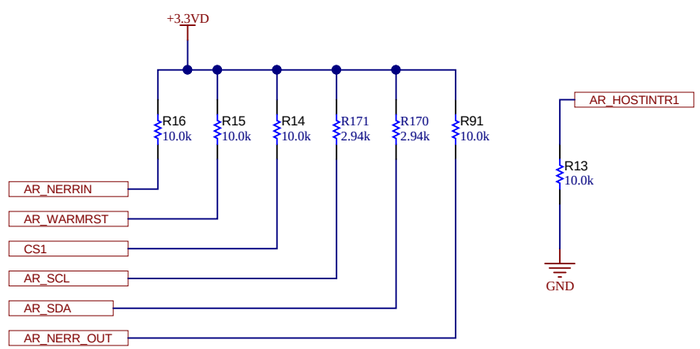




40MHz Crystal



Mandatory Pullups/Pulldowns



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TID #: N/A		Project Title: PROC099	
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SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 2 of 16
Drawn By: Adrian Ozer		File: PROC099B_DUT_Reference.SchDoc	Size: B
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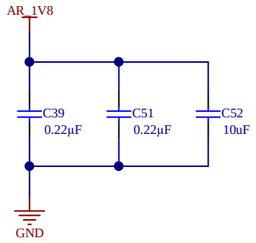
DECOUPLING CAPS REFERENCE

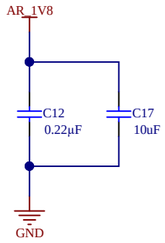
BB SUPPLY

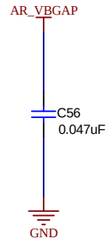


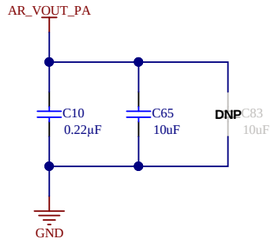
DIFF SUPPLY

1V8 IO SUPPLY

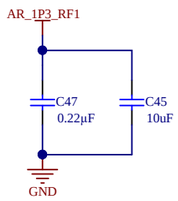
VCOLDO SUPPLY



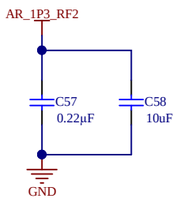




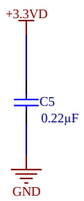
RF1 SUPPLY

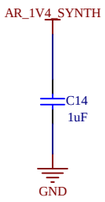


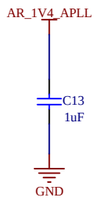
RF2 SUPPLY



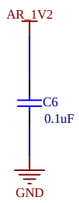
3V3 IO SUPPLY



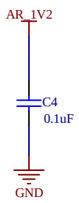




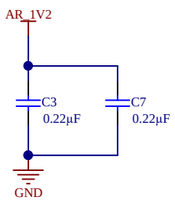
VNWA SUPPLY



SRAM SUPPLY



DIG SUPPLY



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Number: PROC099	Rev: B	Sheet Title:	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 3 of 16
Drawn By: Adrian Ozer		File: PROC099B_Decoupling_Caps_Reference.SchDoc	Size: B
Engineer: Adrian Ozer		Contact: http://www.ti.com/support	

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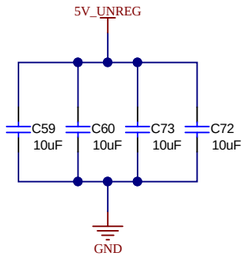
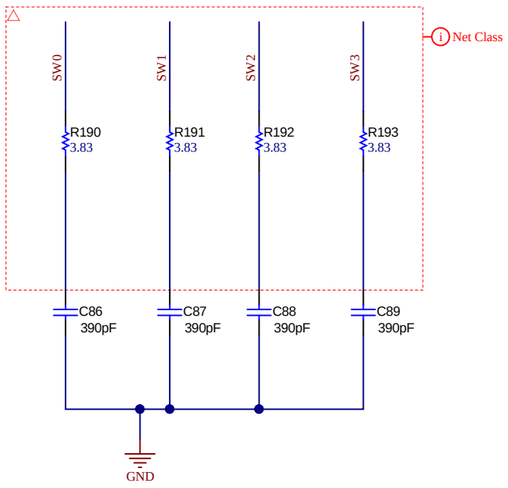
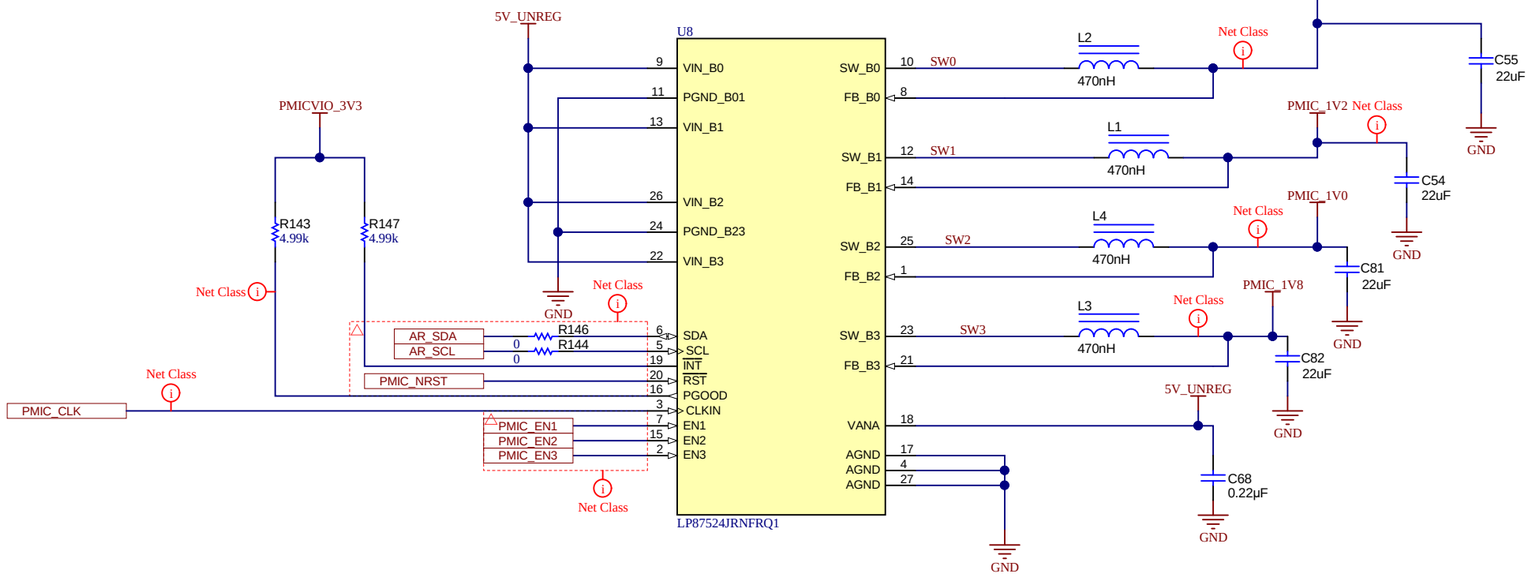
PMIC (3.3V, 1.2V, 1.8V,2.3V OUTPUTS) REFERENCE

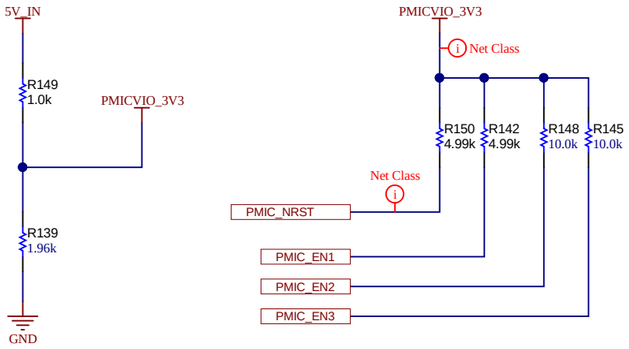


SNUBBER ON SWITCHING NODES

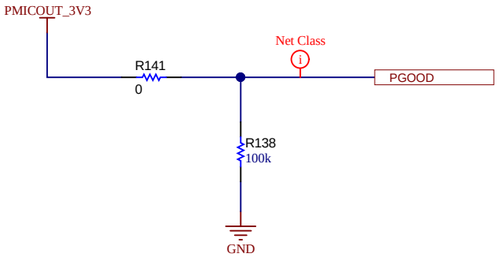




CONTROLS FOR THE PMIC



THE 3V3 OUTPUT FROM PMIC IS USED AS PGOOD.



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TID #: N/A	Project Title: PROC099	
Number: PROC099 Rev: B	Sheet Title: PMIC	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 4 of 16
Drawn By: Adrian Ozer	File: PROC099B_PMIC_Reference.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

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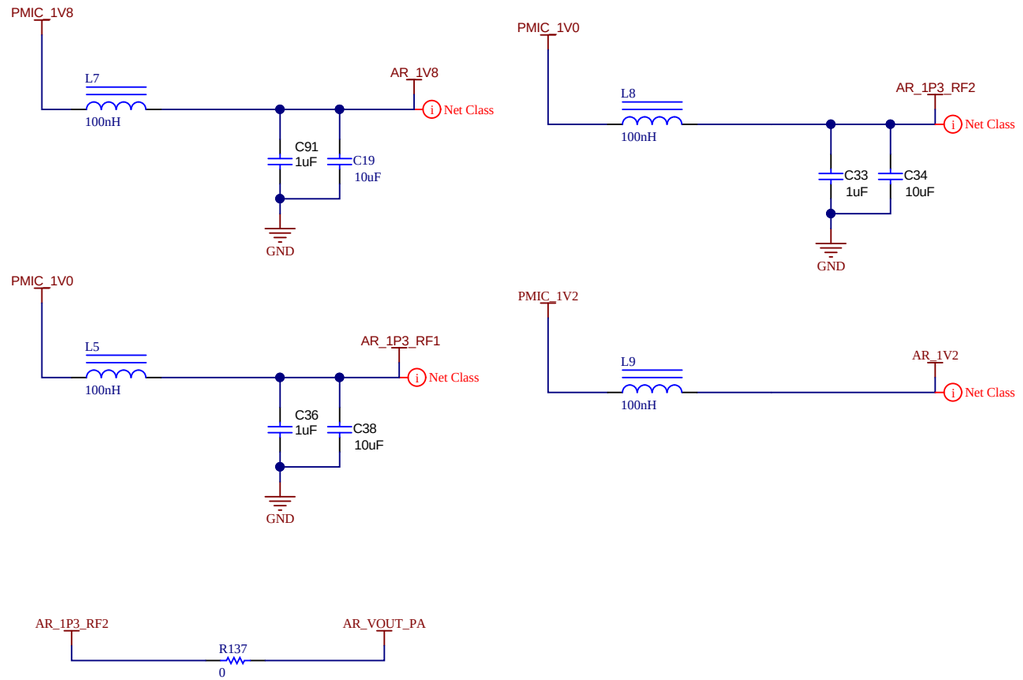
LC FILTERING REFERENCE



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TID #: N/A	Project Title: PROC099	
Number: PROC099 Rev: B	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 5 of 16
Drawn By: Adrian Ozer	File: PROC099B_LC_Filtering_Reference.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

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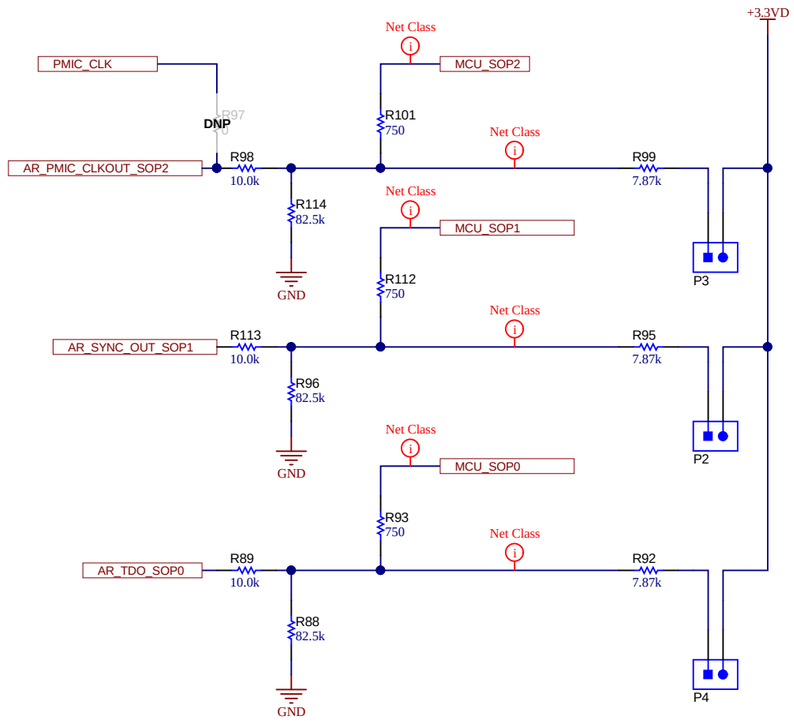
SOP HEADERS REFERENCE

SOP_MODE1	"010"	SCAN/ATPG
SOP_MODE2	"011"	DEV/FLED/ORBIT
SOP_MODE3	"000"	TBD
SOP_MODE4	"001"	FUNC - > DEFAULT VALUE FOR OUTPUTS
SOP_MODE5	"101"	DEV MANAGEMENT -> FOR FLASHING



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TID #: N/A		Project Title: PROC099	
Number: PROC099	Rev: B	Sheet Title:	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 6 of 16
Drawn By: Adrian Ozer		File: PROC099B_SOP_Headers_Reference.SchDoc	Size: B
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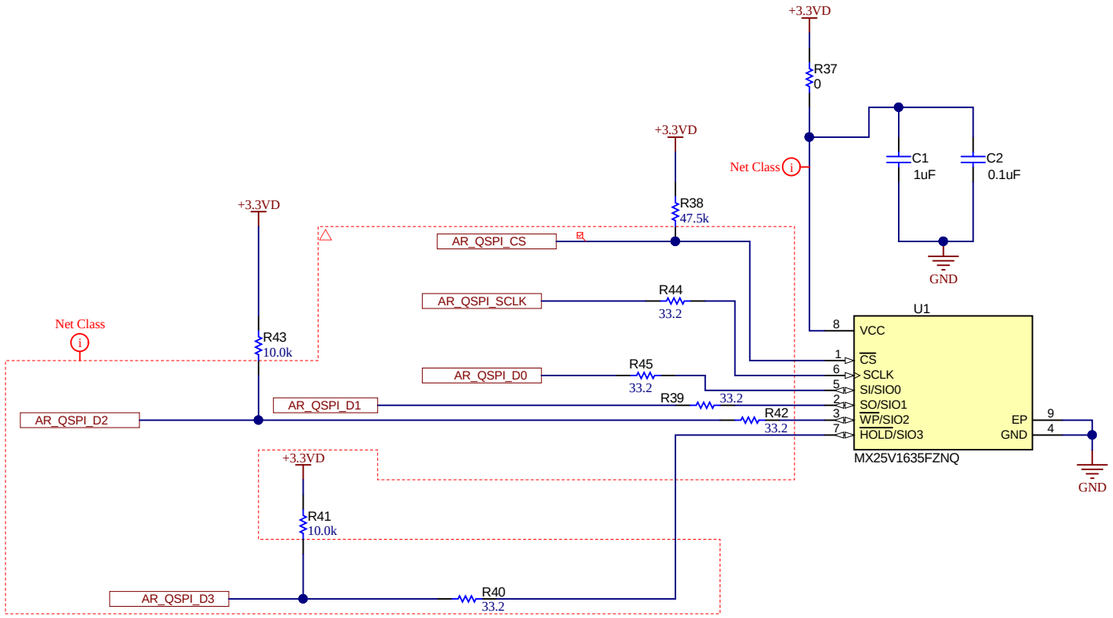
QSPI FLASH REFERENCE



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TID #: N/A		Project Title: PROC099	
Number: PROC099	Rev: B	Sheet Title: QSPI flash section	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 7 of 16
Drawn By: Adrian Ozer		File: PROC099B_QSPI_Flash_Reference.SchDoc	Size: B
Engineer: Adrian Ozer		Contact: http://www.ti.com/support	

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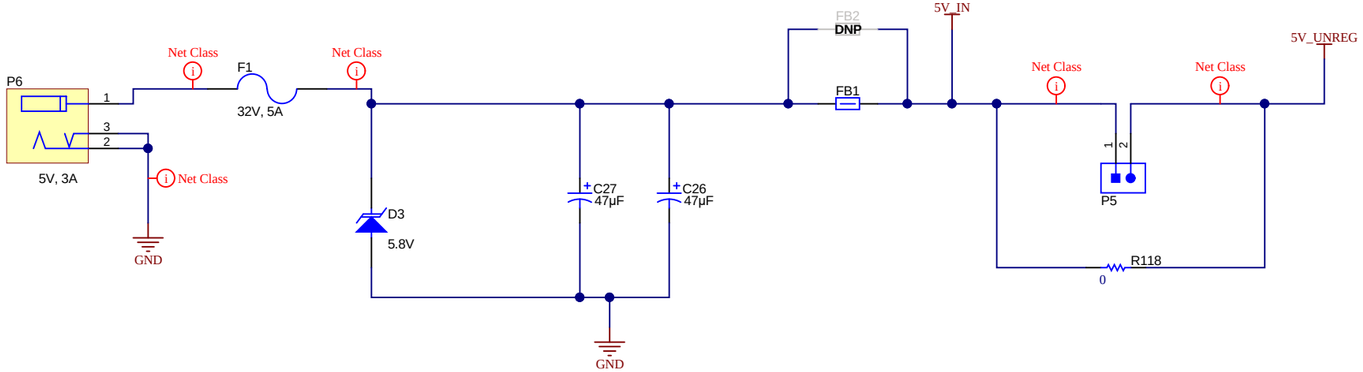
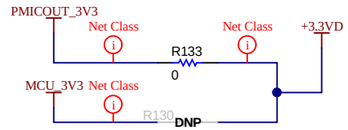
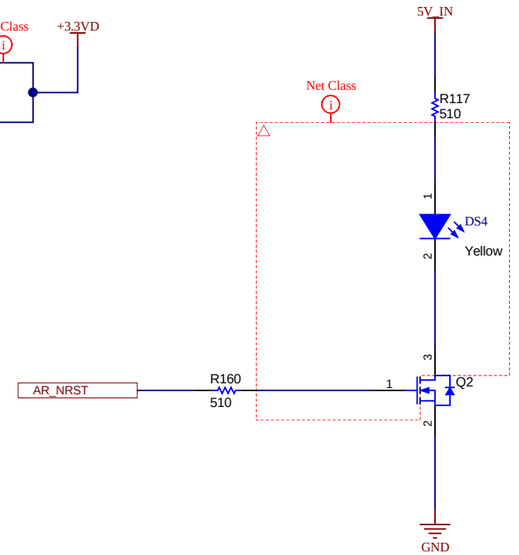
POWER SUPPLY CONNECTOR



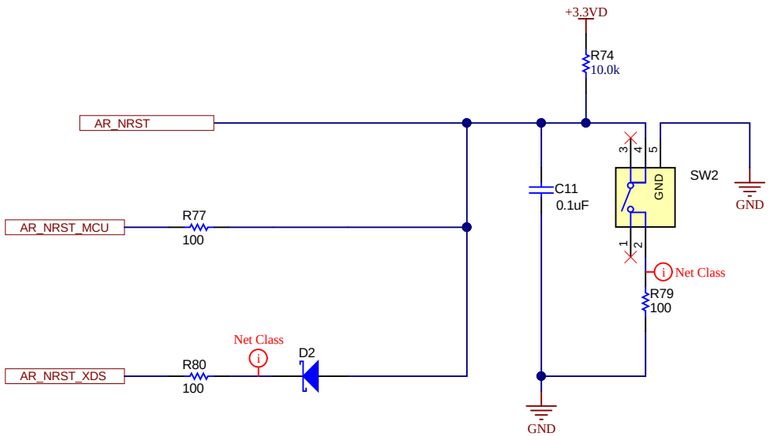
3P3 SUPPLY FROM PMIC OR FROM THE MCU



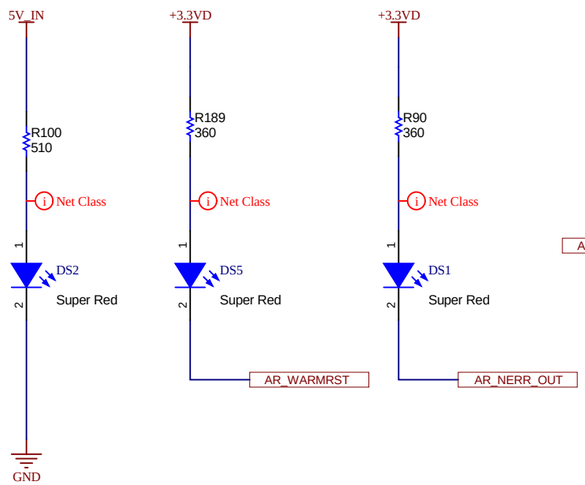


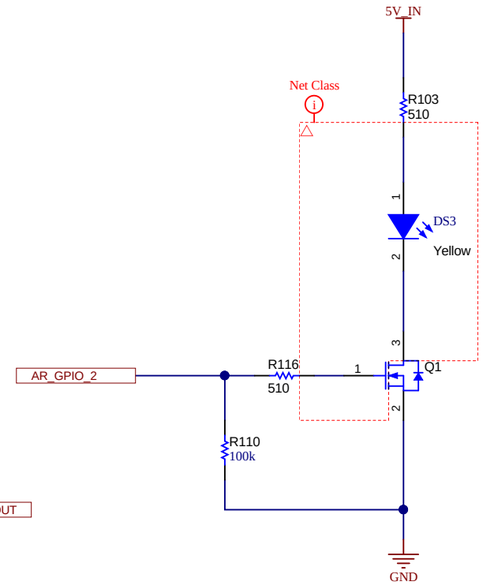
RESET AND LEDS

RESET

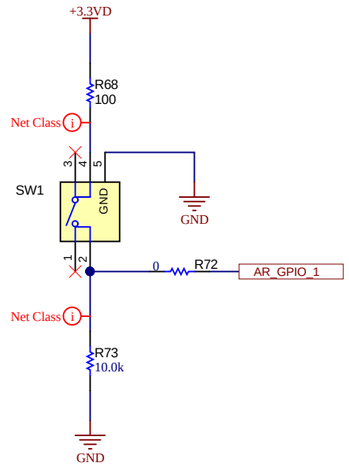


INDICATION LEDS





TRIGGER GPIO



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TID #: N/A		Project Title: PROC099	
Number: PROC099	Rev: B	Sheet Title: Pwr_RST_LEDs	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 8 of 16
Drawn By: Adrian Ozer		File: PROC099B_Pwr_RST_LEDs.SchDoc	Size: B
Engineer: Adrian Ozer		Contact: http://www.ti.com/support	

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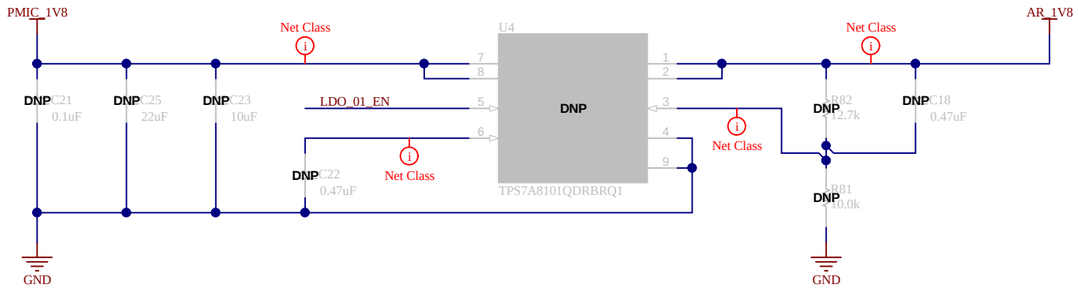
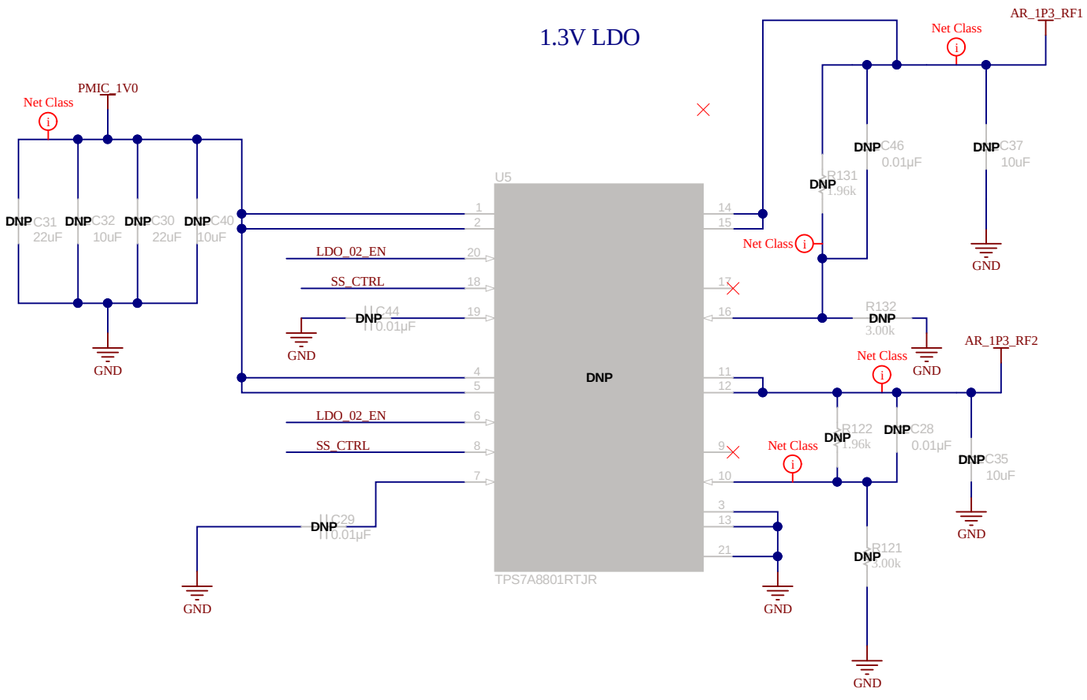
LDO

1.8V LDO



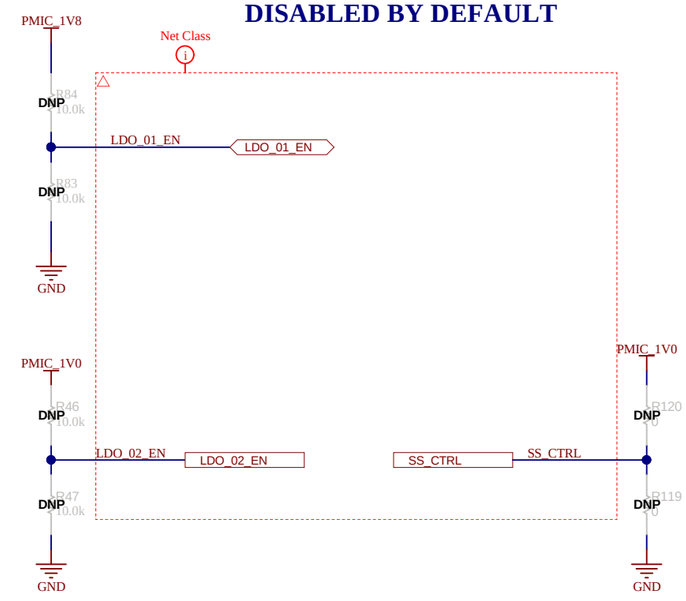
1.3V LDO



LDOs ARE FOR DEBUG PURPOSES ONLY

DURING LDO OPERATION PMIC_1V8 IS 2.3V AND PMIC_1V0 IS 1.8V

DISABLED BY DEFAULT



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Drawn By: Adrian Ozer		File: PROC099B_LDO.SchDoc	Size: B
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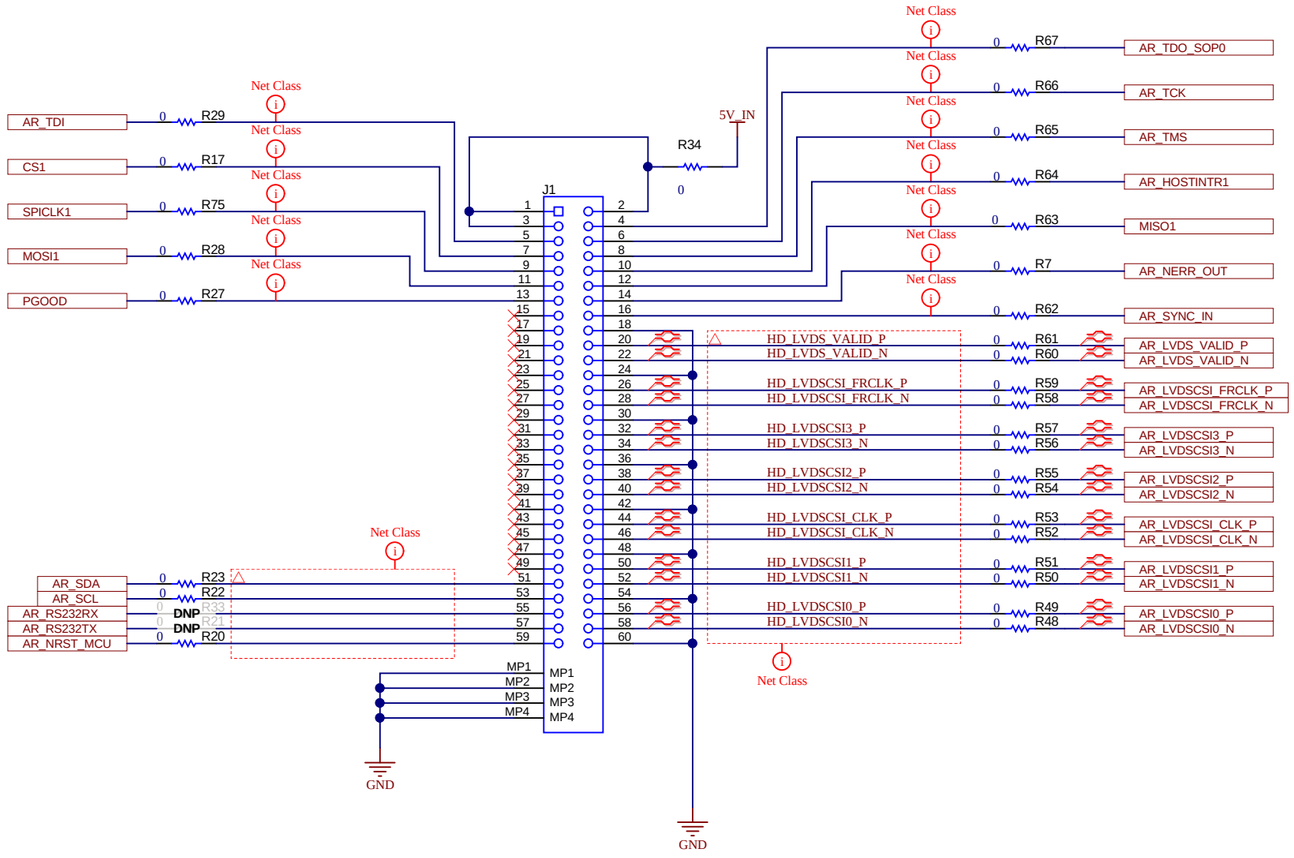
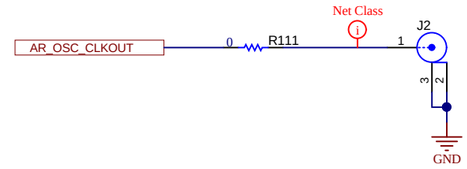
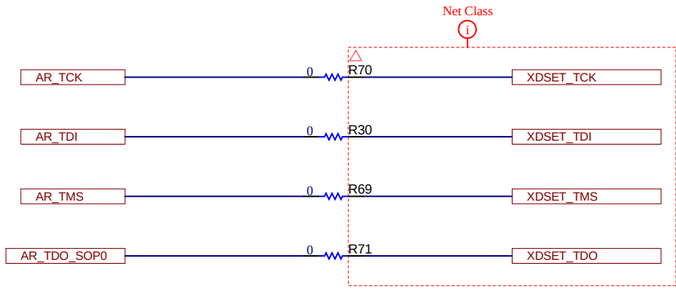
HD CONNECTOR FOR LVDS/CSI AND JTAG





JTAG



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Orderable: AWR2243BOOST		Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A		Project Title: PROC099	
Number: PROC099	Rev: B	Sheet Title: HD Connector	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 10 of 16
Drawn By: Adrian Ozer		File: PROC099B_HD Connector.SchDoc	Size: B
Engineer: Adrian Ozer		Contact: http://www.ti.com/support	

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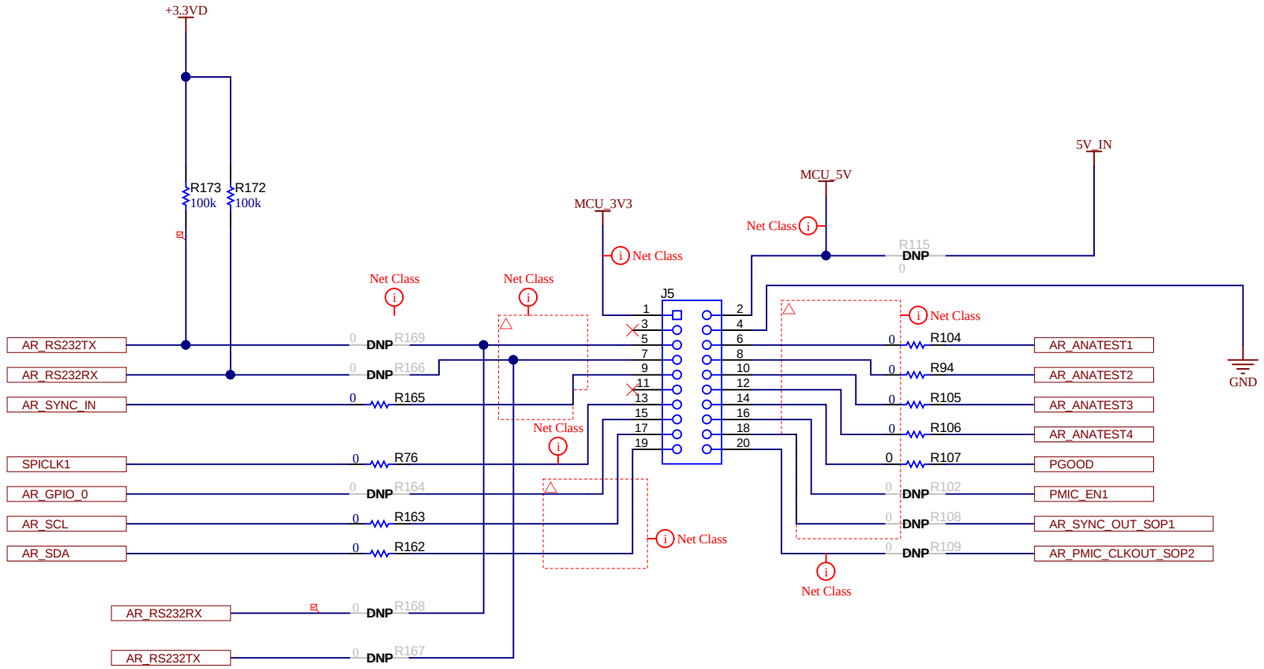
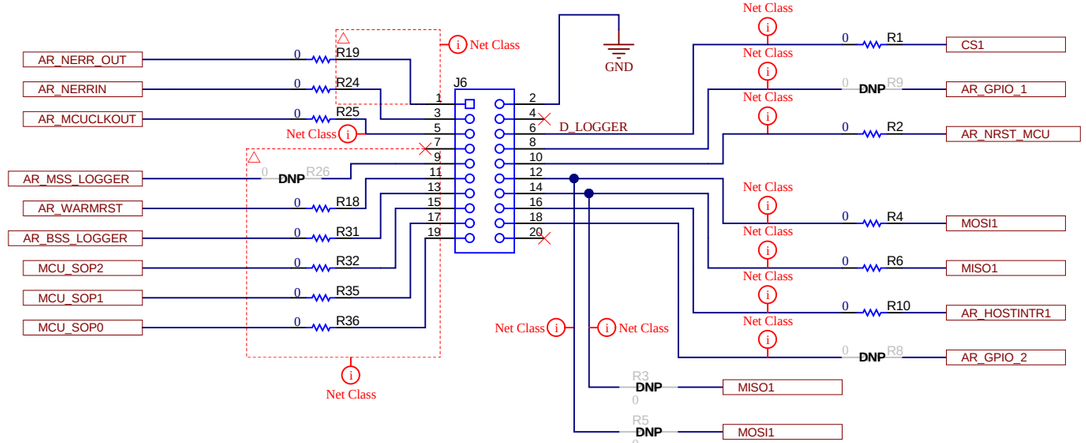
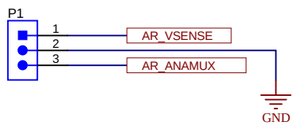
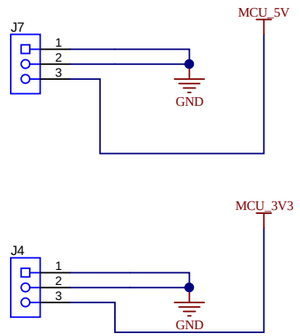
BP/LP CONNECTOR





ANALOG SIGNALS





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Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 5/28/2020	
TID #: N/A	Project Title: PROC099		
Number: PROC099 Rev: B	Sheet Title: LP Connector		
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 11 of 16	
Drawn By: Adrian Ozer	File: PROC099B_LP Connector.SchDoc	Size: B	
Engineer: Adrian Ozer	Contact: http://www.ti.com/support		

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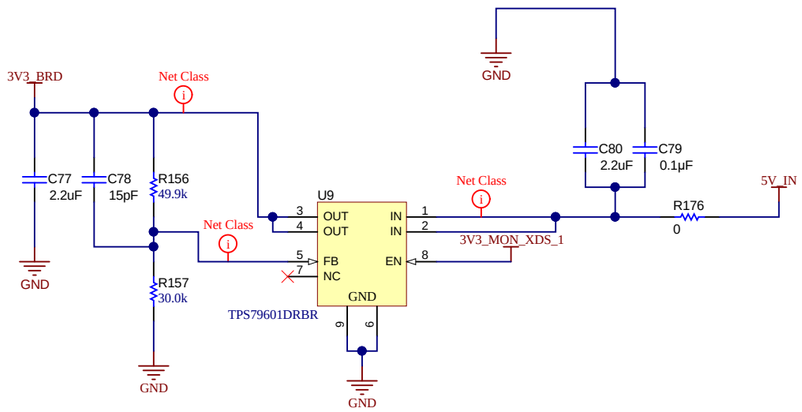
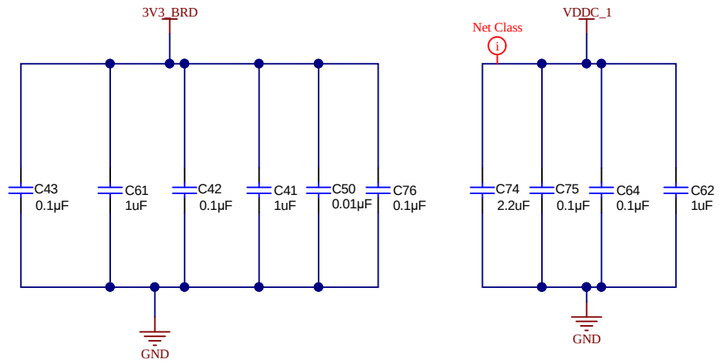
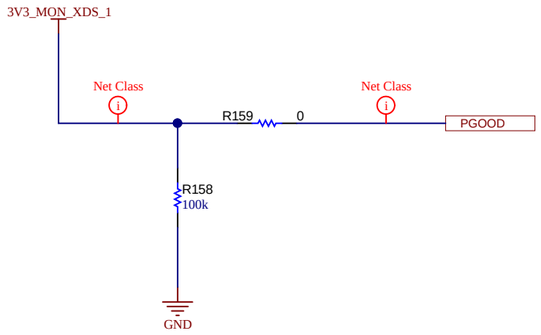
XDS110(1/2)

3.3V LDO FOR PERIPHERALS

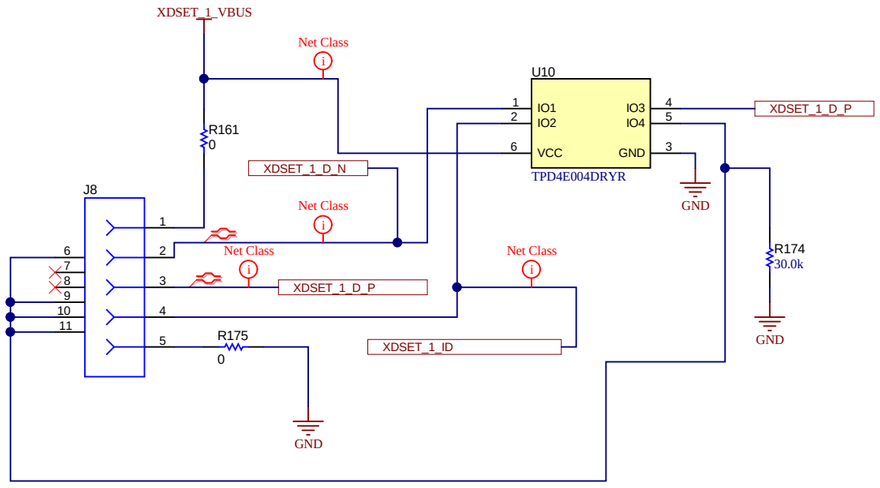


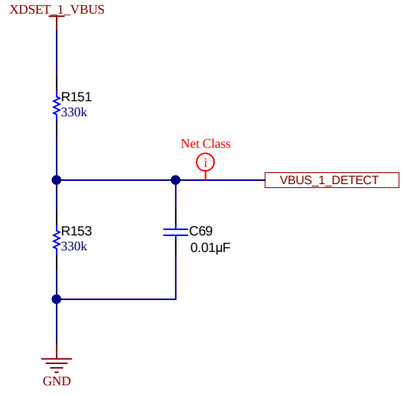


BY DEFAULT THE XDS SUPPLY IS DISABLED..
GETS ENABLED ONLY ONCE THE PMIC IS POWERED UP.



USB PORT AND ESD





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Orderable: AWR2243BOOST		Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A		Project Title: PROC099	
Number: PROC099	Rev: B	Sheet Title: XDS110 Interface_1A	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 12 of 16
Drawn By: Adrian Ozer		File: PROC099B_XDS110 Interface_1A.SchDoc	Size: B
Engineer: Adrian Ozer		Contact: http://www.ti.com/support	

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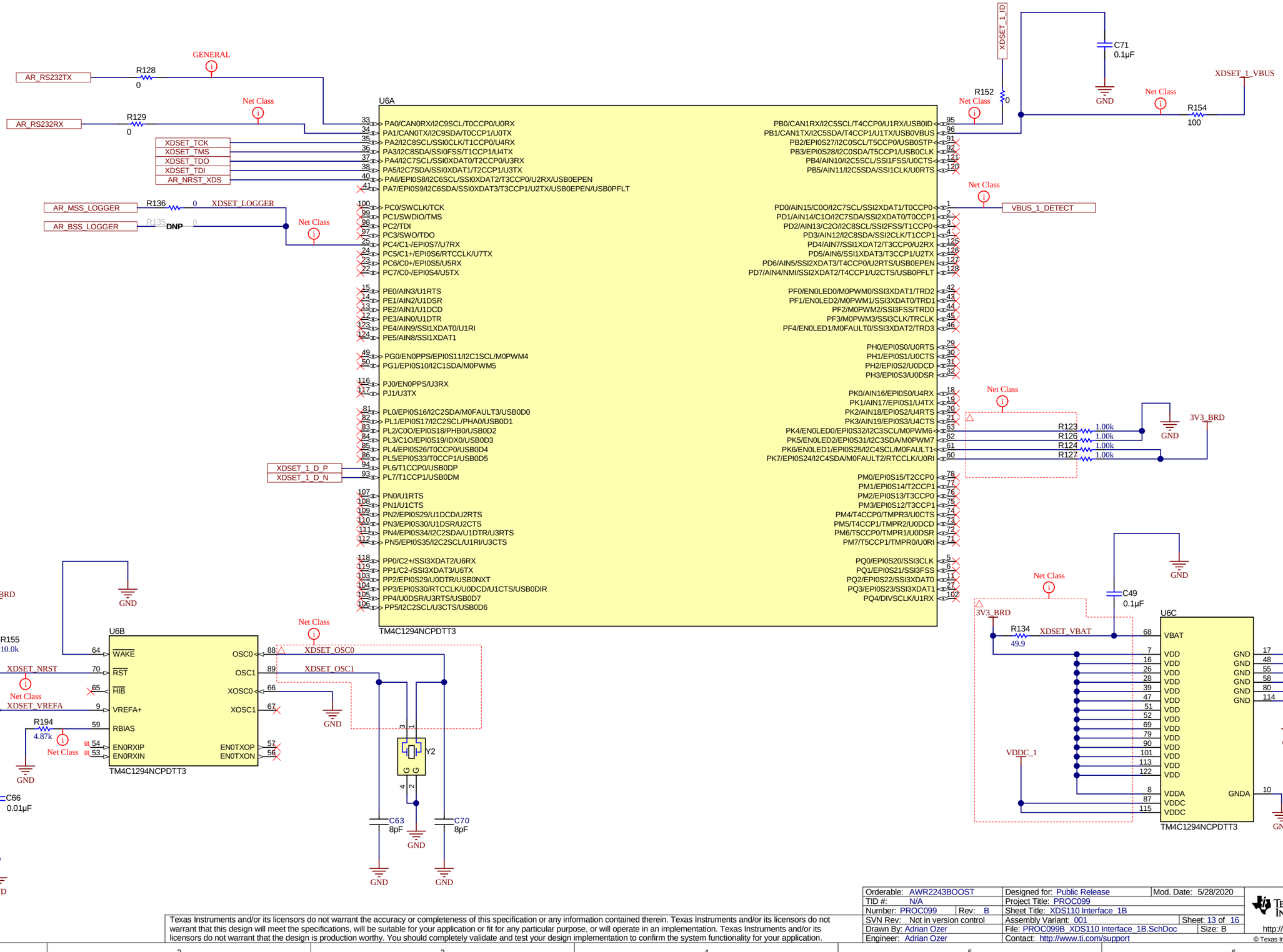
XDS110(2/2)



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Orderable: AWR2243BOOST		Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A		Project Title: PROC099	
Number: PROC099	Rev: B	Sheet Title: XDS110 Interface_1B	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 13 of 16
Drawn By: Adrian Ozer		File: PROC099B_XDS110 Interface_1B.SchDoc	Size: B
Engineer: Adrian Ozer		Contact: http://www.ti.com/support	

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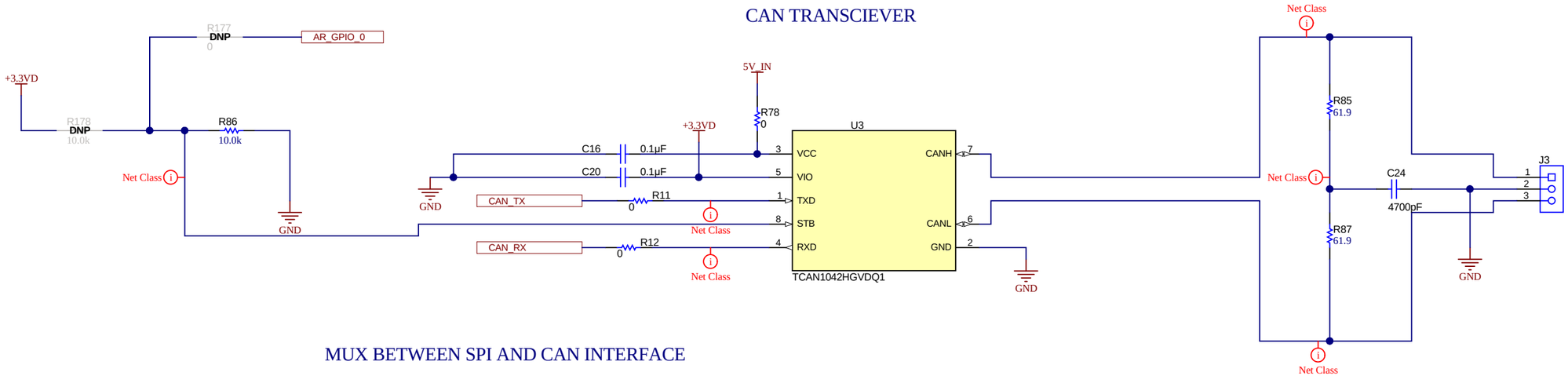
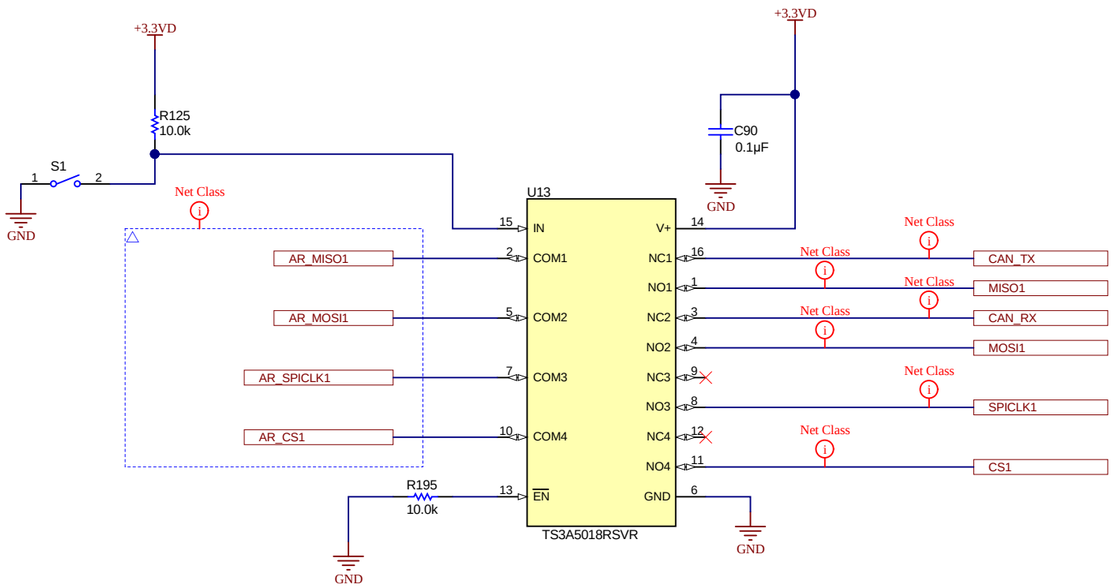
CAN INTERFACE

CAN TRANSCIEVER



MUX BETWEEN SPI AND CAN INTERFACE



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Orderable: AWR2243BOOST		Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A		Project Title: PROC099	
Number: PROC099	Rev: B	Sheet Title: CAN Interface	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 14 of 16
Drawn By: Adrian Ozer		File: PROC099B_CAN Interface.SchDoc	Size: B
Engineer: Adrian Ozer		Contact: http://www.ti.com/support	

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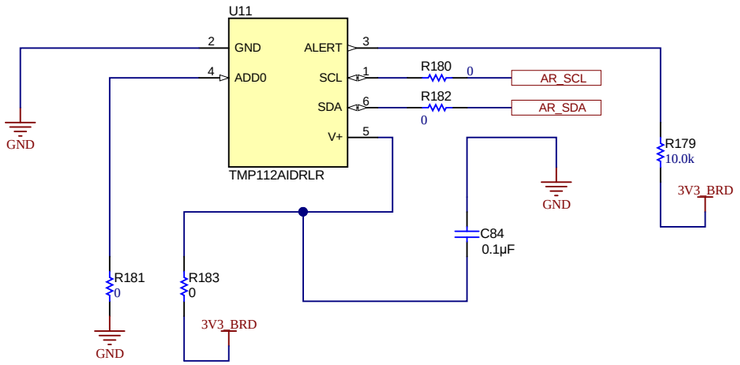
ONBOARD TEMP SENSORS

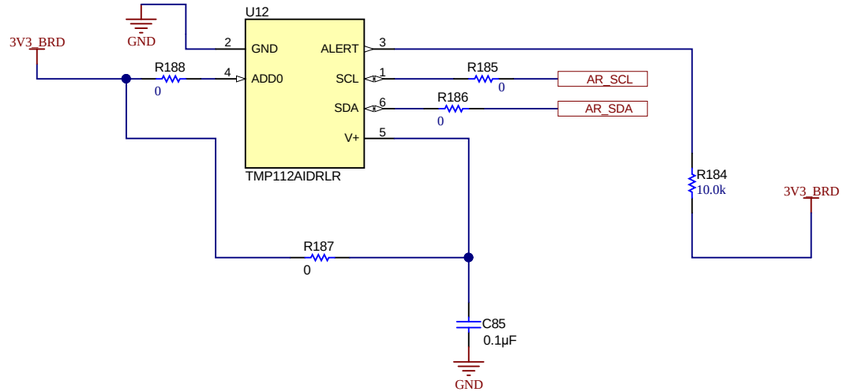
DEFAULT I2C ADDRESS 0X48

TEMP SENSOR CLOSE TO PMIC



DEFAULT I2C ADDRESS 0X49

TEMP SENSOR AWAY FROM PMIC



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Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A	Project Title: PROC099	
Number: PROC099 Rev: B	Sheet Title: Tempsensor	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 15 of 16
Drawn By: Adrian Ozer	File: PROC099B_Tempsensor.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

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DNP FID1

DNP FID2

DNP FID3

DNP FID4

DNP FID5

DNP FID6

DNP FID7

CAUTION HOT SURFACE

PCB
LOGO
Texas Instruments

PCB
LOGO
ESD Susceptible

PCB
LOGO
FCC disclaimer

Works With TI LaunchPad Logo1
PCB
LOGO
Works With TI LaunchPad Logo

Logo3
PCB
LOGO
WEEE logo

LOGO4

LBL1
PCB Label
Label

Z1 PMSSS 632 0038 PH

Z2 PMSSS 632 0038 PH

Z3 PMSSS 632 0038 PH

Z4 Bumpon

Z5 Bumpon

Z6 Bumpon

Z7 Bumpon

Z8 Bumpon

Z9 Bumpon

Z10 Bumpon

Z11 Bumpon

Z12 HNSS 632

Z13 HNSS 632

Z14 HNSS 632

Z15 MECH 625

Z16 MECH 625

Z17 MECH 625

Z18 MECH 625

Z19 SPC02SYAN

Z21 SPC02SYAN

Z20 MECH 3025010-03

Variant/Label Table	
Variant	Label Text
001	AWR2243BOOST

PCB Number: PROC099
PCB Rev: A

ZZ1
Label Assembly Note
This Assembly Note is for PCB labels only

ZZ2
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

ZZ5
Assembly Note
Micro USB cable, Brackets, Screws, Nuts, Jumpers and Bump on need to be placed in a plastic bag

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Orderable: AWR2243BOOST		Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A		Project Title: PROC099	
Number: PROC099	Rev: B	Sheet Title: Hardware	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 16 of 16
Drawn By: Adrian Ozer		File: PROC099B_Hardware.SchDoc	Size: B
Engineer: Adrian Ozer		Contact: http://www.ti.com/support	

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