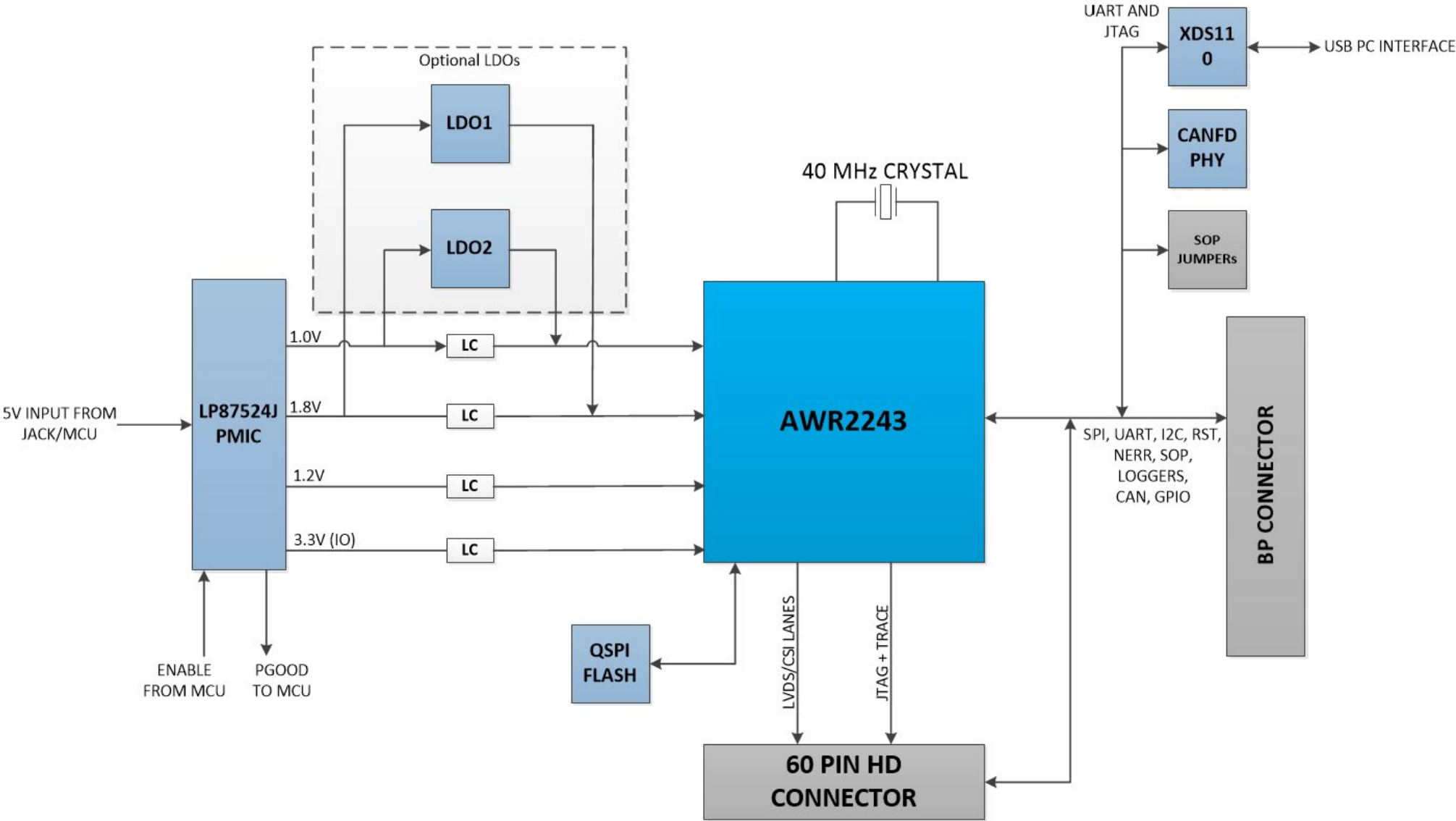


BLOCK DIAGRAM

Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
B	1	27/04/2018	Adrian Ozer	Added switch control to move between SPI and CAN interface
B	2	27/04/2018	Adrian Ozer	Enabled by default the 5V supply form the 60pin HD connector
B	3	27/04/2018	Adrian Ozer	Enabled by default the SYNC_IN signal connection to J6 connector
B	4	27/04/2018	Adrian Ozer	Serial flash part number updated to MX25V1635FZNQ
B	5	27/04/2018	Adrian Ozer	Added series resistors on I2C lines
B	6	27/04/2018	Adrian Ozer	Removed the series diode on the NRST signal
B	7	27/04/2018	Adrian Ozer	Enabled by default the LDO bypass option
B	8	27/04/2018	Adrian Ozer	Added variant 002 for AWR1443
B	9	27/04/2018	Adrian Ozer	Added vairant 003 for IWR1443

TABLE OF CONTENTS

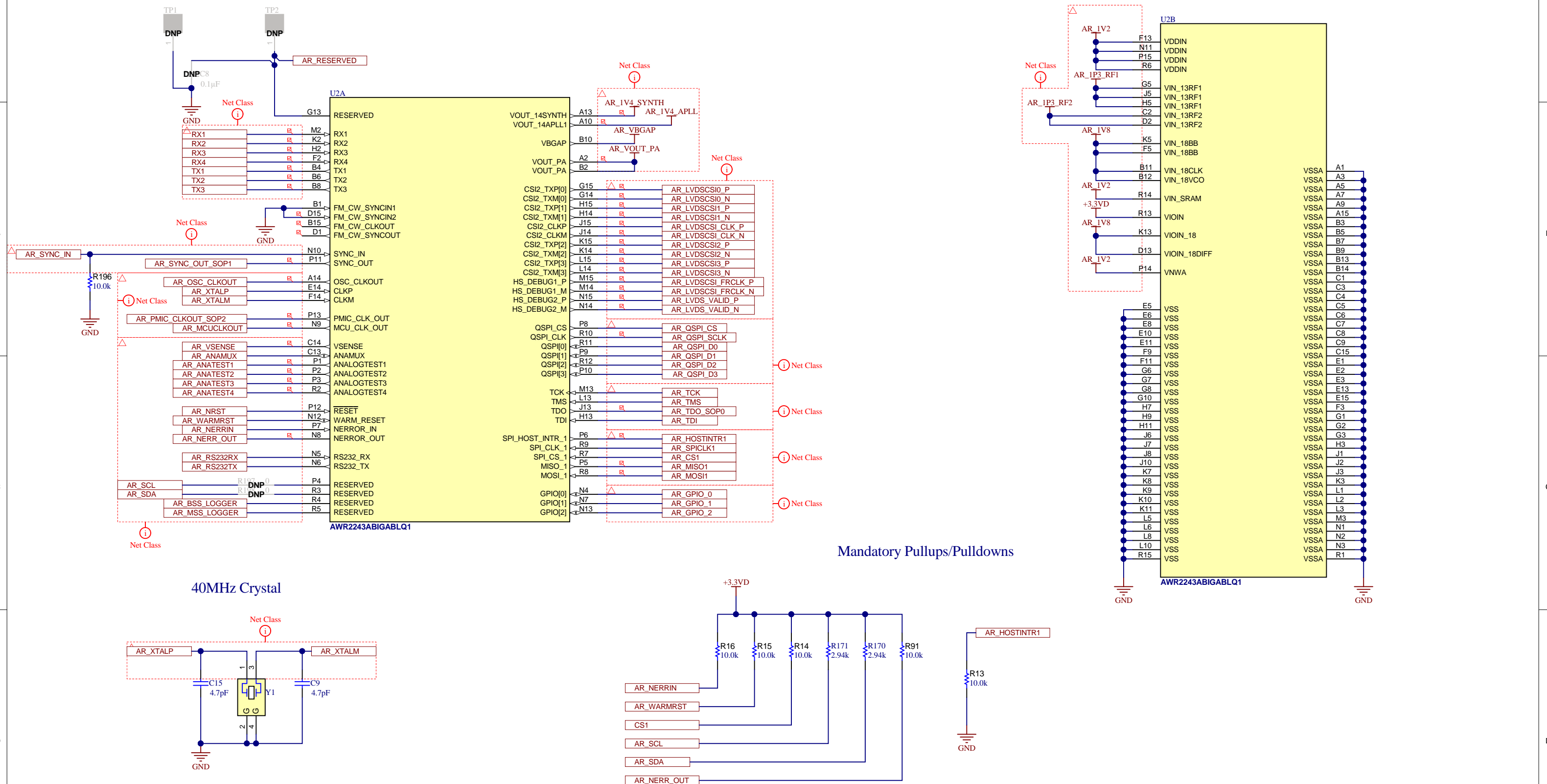
SHEET NO.	SHEET NAME
1	PROC099A_CoverSheet
2	PROC099A_DUT
3	PROC099A_DECOUPLING_CAPS
4	PROC099A_PMIC
5	PROC099A_LC_FILTERING
6	PROC099A_SOP_HEADERS
7	PROC099A_QSPI_Flash
8	PROC099A_Pwr_RST_LEDs
9	PROC099A_LDO
10	PROC099A_HD_Connector
11	PROC099A_LP_Connector
12	PROC099A_XDS110_Interface_1A
13	PROC099A_XDS110_Interface_1B
14	PROC099A_CAN_Interface
15	PROC099A_Tempsensor
16	PROC099A_Hardware




Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 12/16/2019
TID #: N/A	Project Title: PROC099	
Number: PROC099	Rev: A	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 1 of 16
Drawn By: Adrian Ozer	File: PROC099A_CoverSheet.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

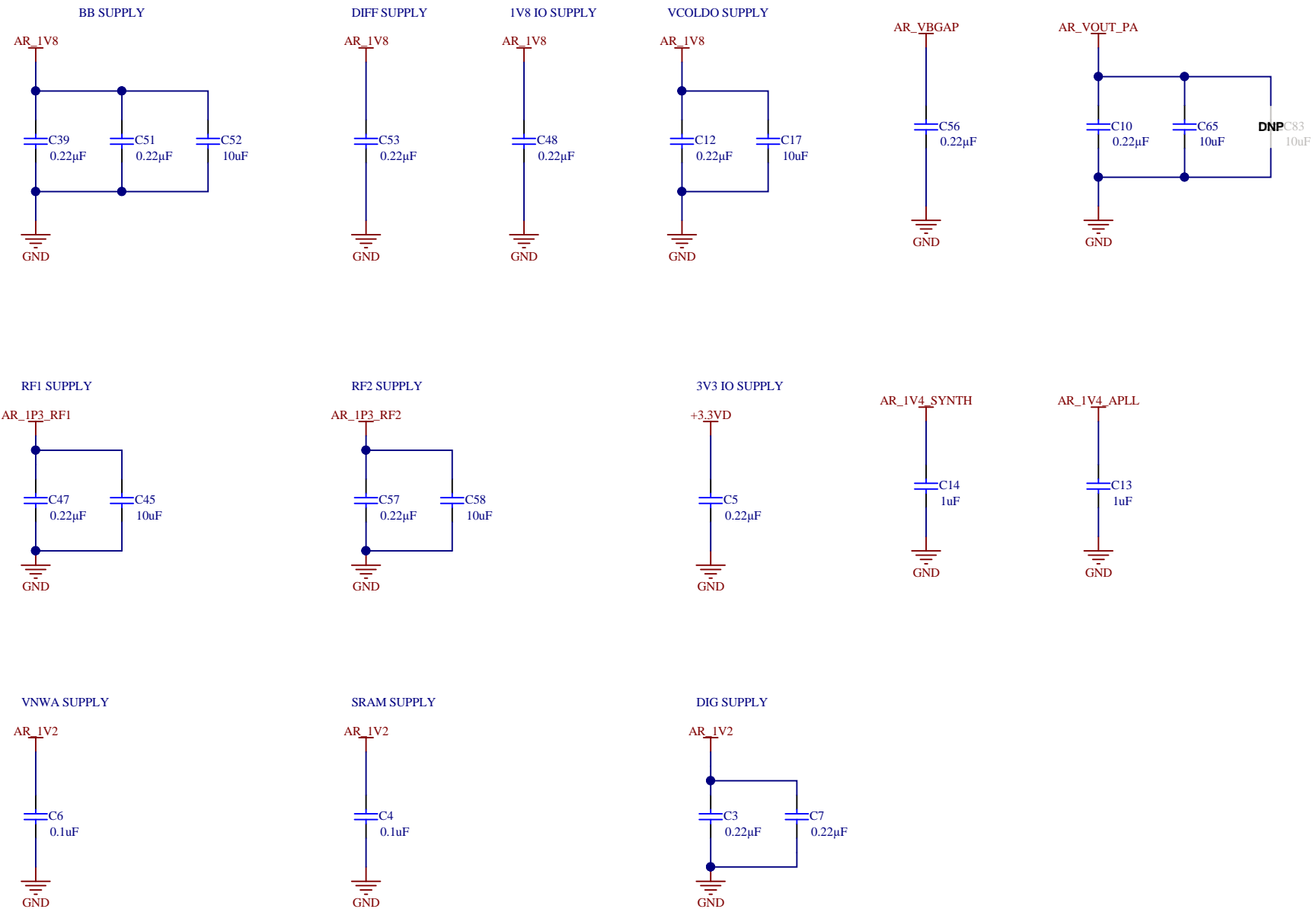
DUT REFERENCE




Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 11/21/2019	
TID #: N/A	Project Title: PROC099		
Number: PROC099	Rev: A	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 2 of 16	
Drawn By: Adrian Ozer	File: PROC099A_DUT_Reference.SchDoc	Size: B	
Engineer: Adrian Ozer	Contact: http://www.ti.com/support		http://www.ti.com © Texas Instruments 2018

Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

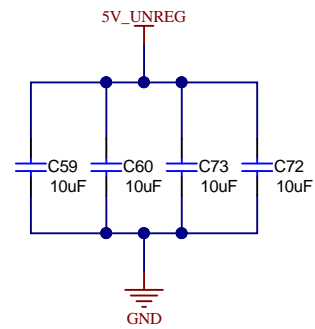
DECOUPLING CAPS REFERENCE



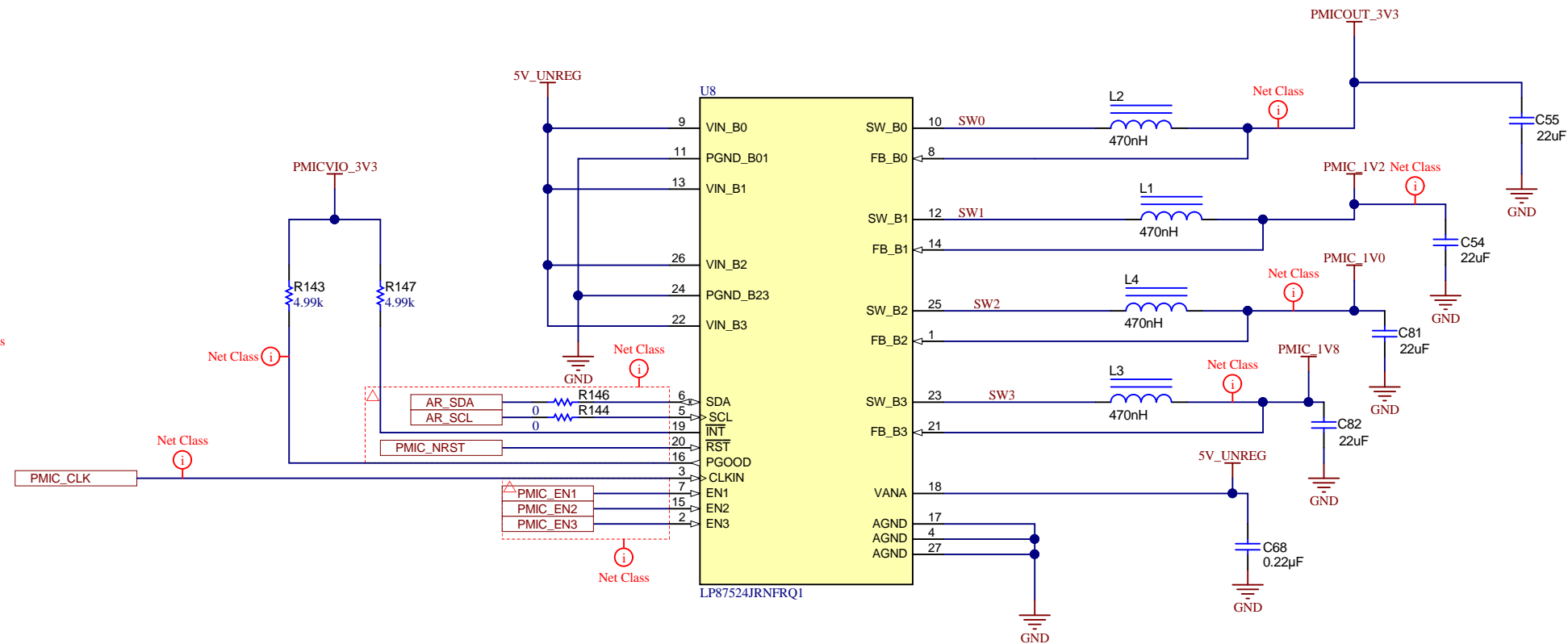
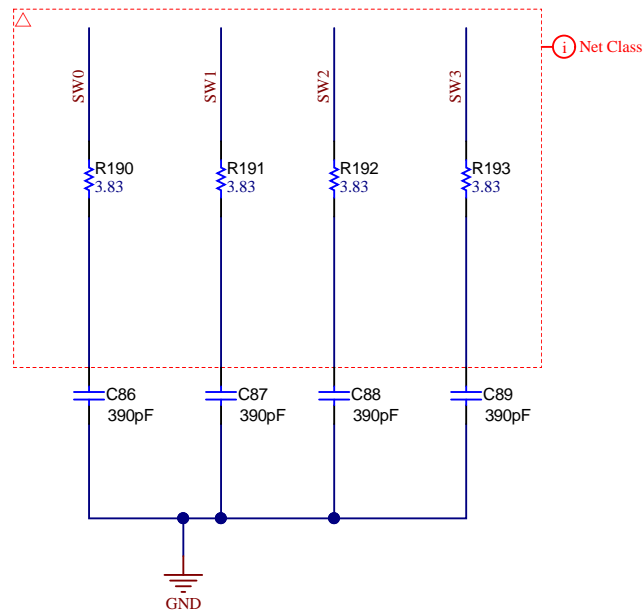
Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 10/1/2019	 TEXAS INSTRUMENTS http://www.ti.com © Texas Instruments 2018
TID #: N/A	Project Title: PROC099		
Number: PROC099	Rev: A	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 3 of 16	
Drawn By: Adrian Ozer	File: PROC099A_Decoupling_Caps_Reference.SchDoc	Size: B	
Engineer: Adrian Ozer	Contact: http://www.ti.com/support		

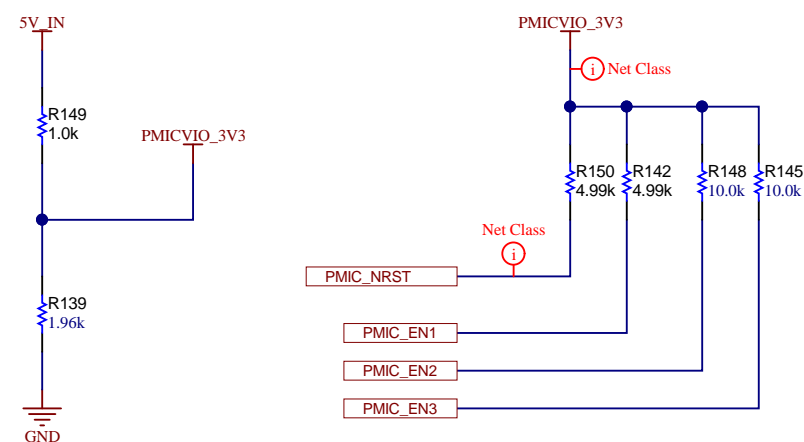
PMIC (3.3V, 1.2V, 1.8V,2.3V OUTPUTS) REFERENCE



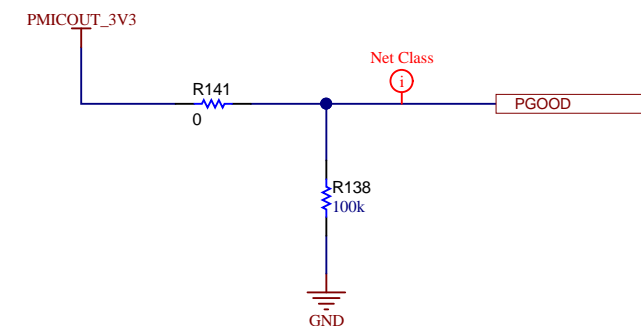
SNUBBER ON SWITCHING NODES



CONTROLS FOR THE PMIC



THE 3V3 OUTPUT FROM PMIC IS USED AS PGOOD.



A

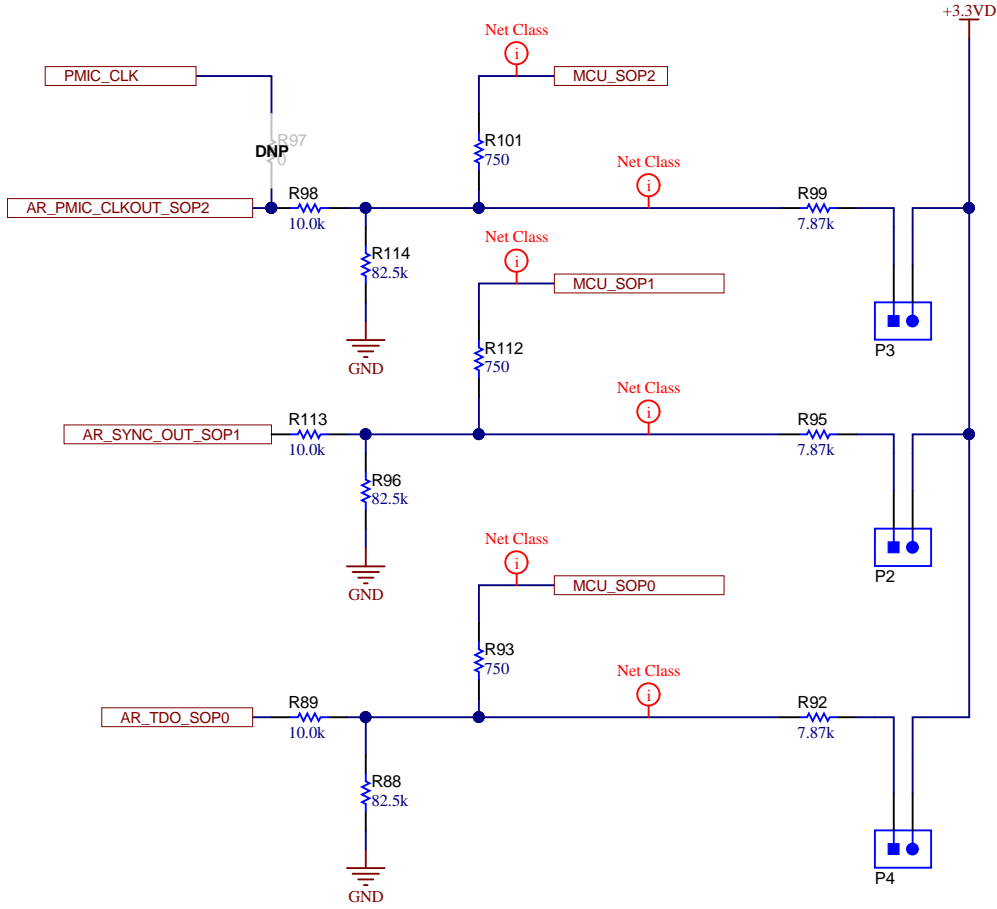


C

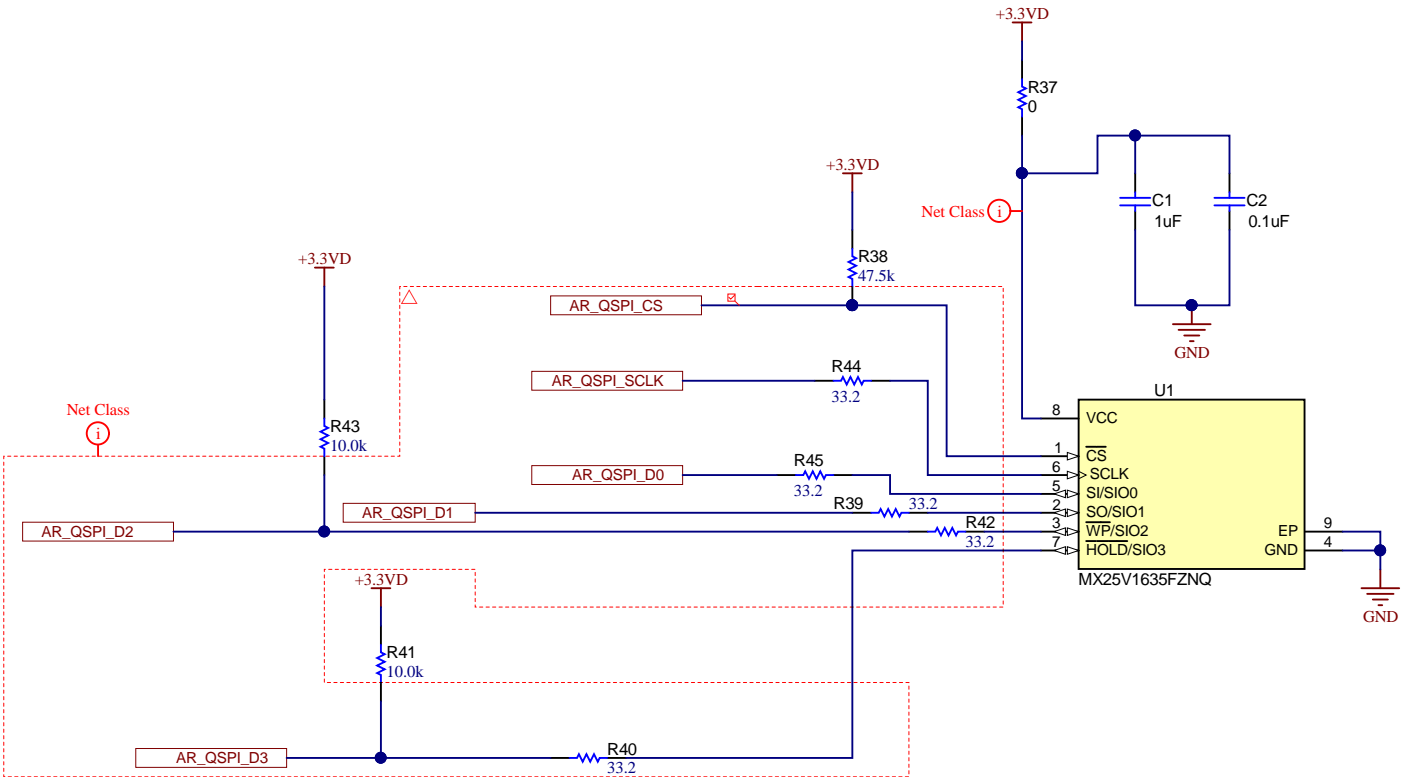
Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

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



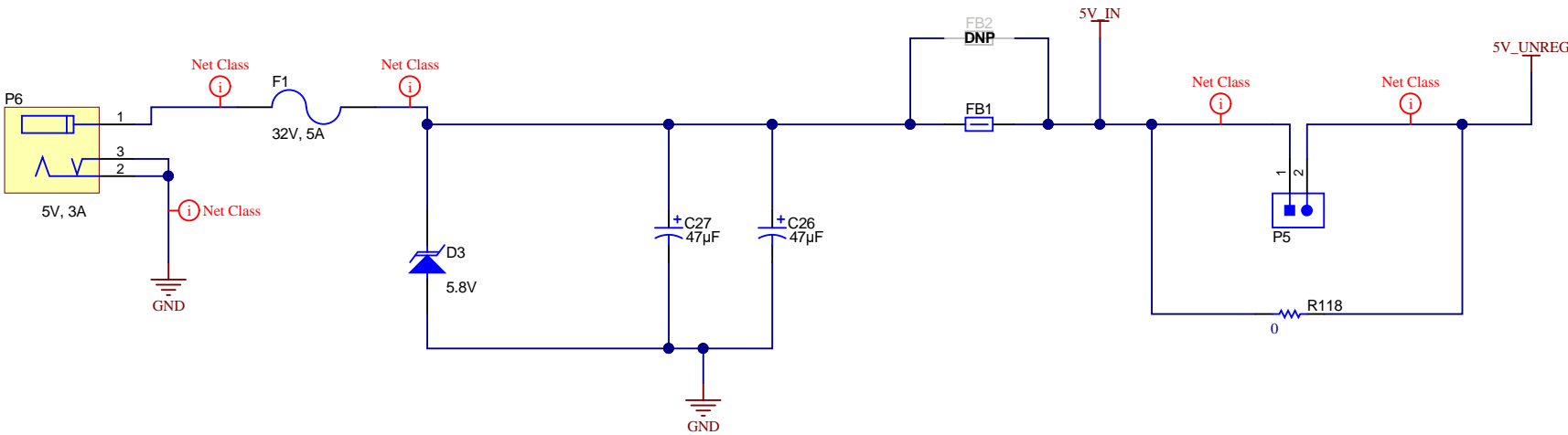
QSPI FLASH REFERENCE



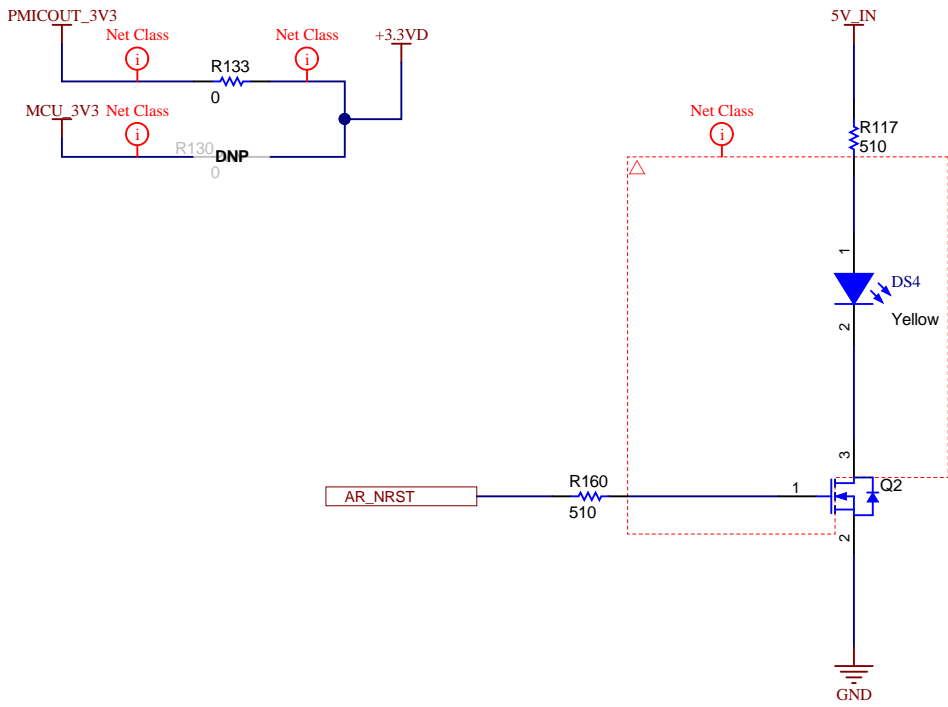
Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 10/7/2019
TID #: N/A	Project Title: PROC099	
Number: PROC099	Rev: A	Sheet Title: QSPI flash section
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 7 of 16
Drawn By: Adrian Ozer	File: PROC099A_QSPI_Flash_Reference.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

POWER SUPPLY CONNECTOR

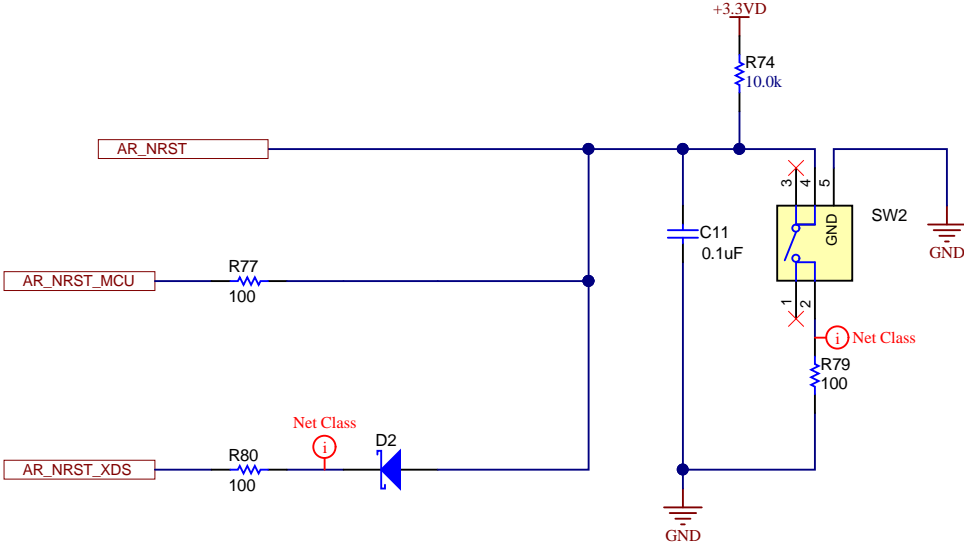


3P3 SUPPLY FROM PMIC OR FROM THE MCU

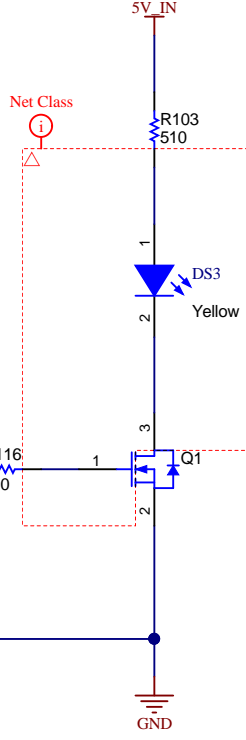
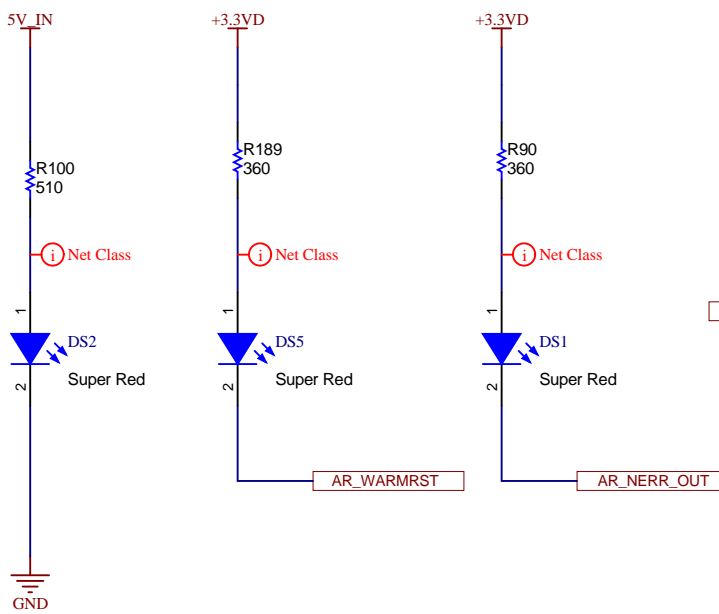


RESET AND LEDS

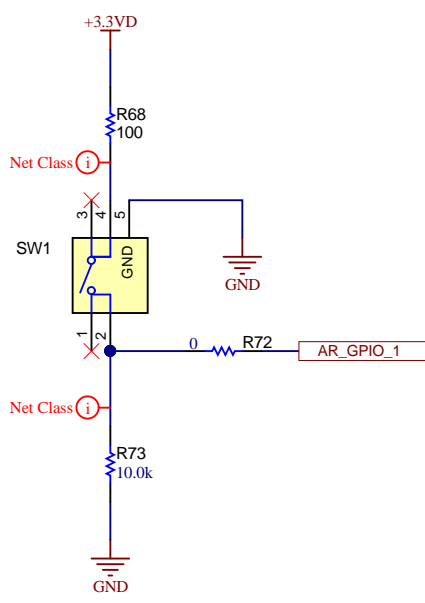
RESET



INDICATION LEDS



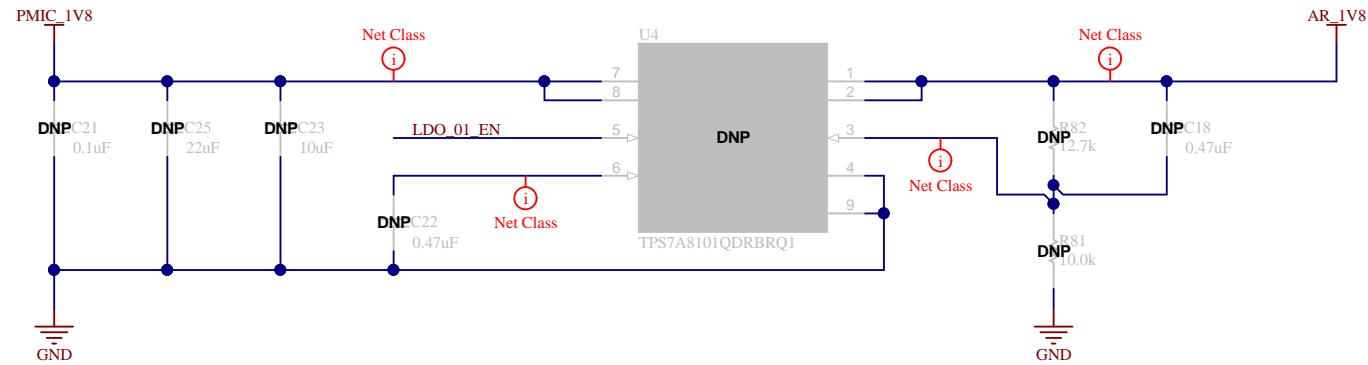
TRIGGER GPIO



Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

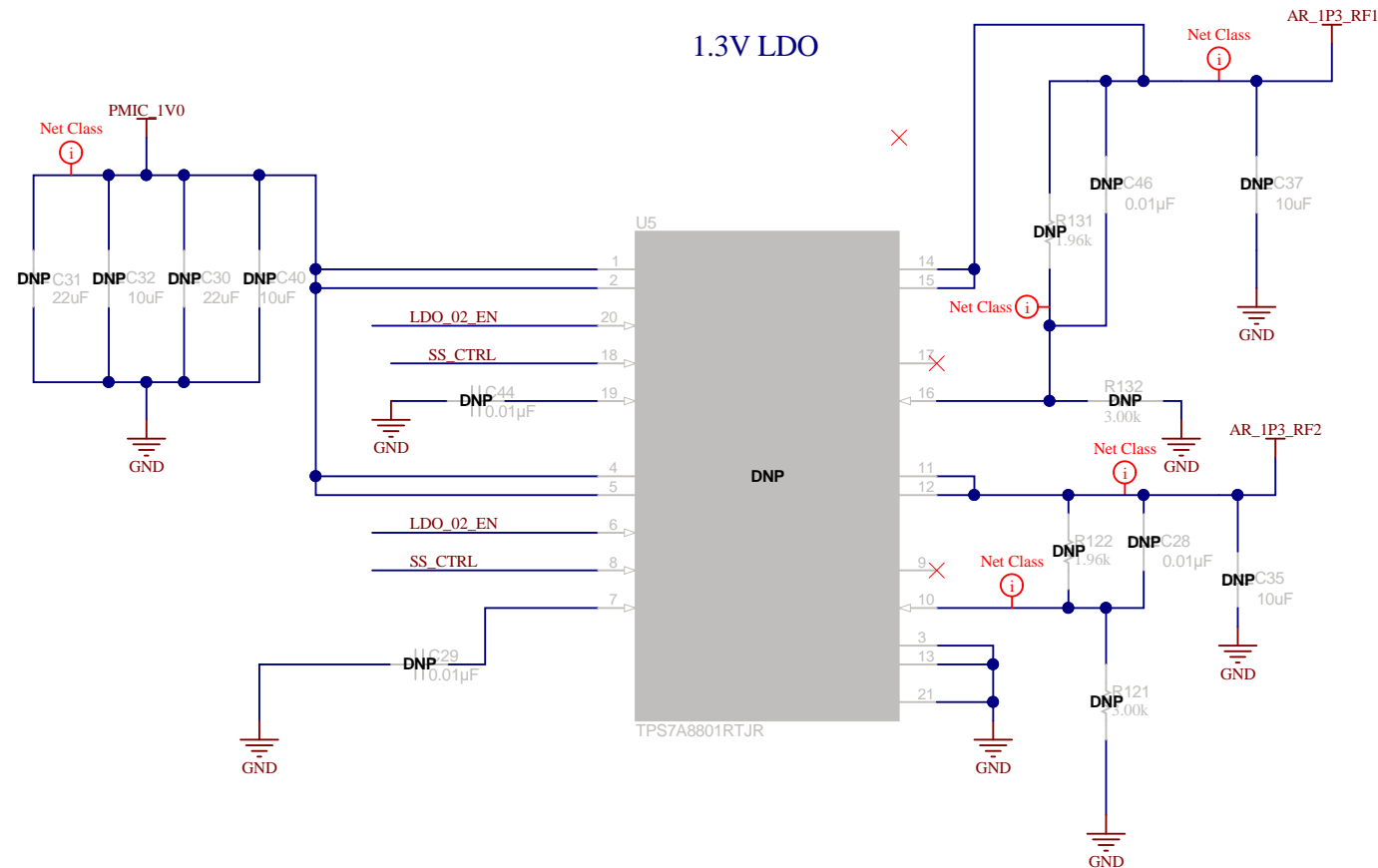
LDO

1.8V LDO

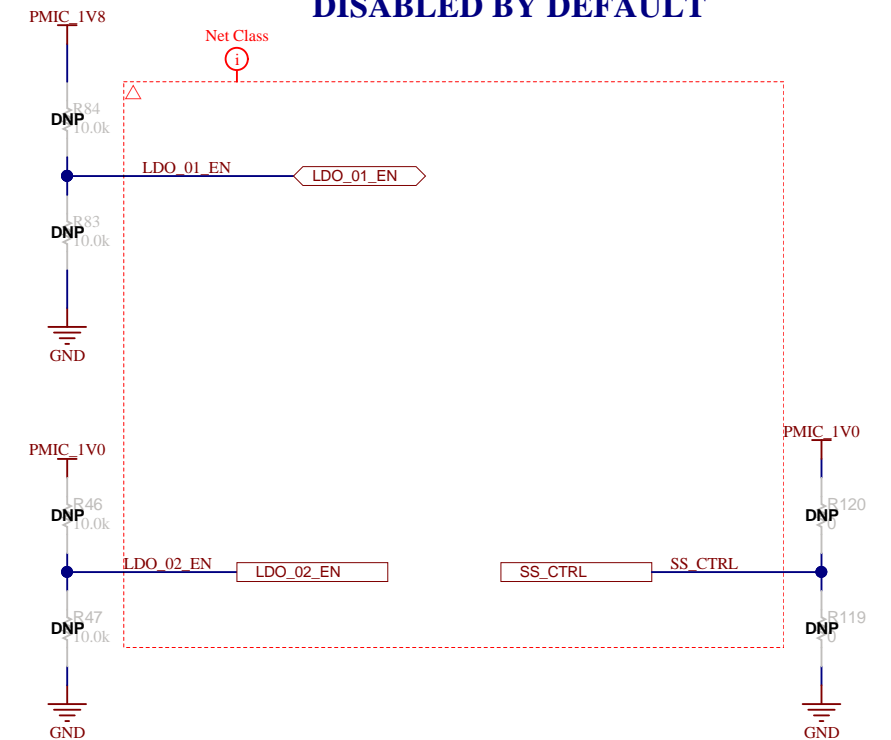


LDOs ARE FOR DEBUG PURPOSES ONLY
DURING LDO OPERATION PMIC_1V8 IS 2.3V AND PMIC_1V0 IS 1.8V


1.3V LDO



DISABLED BY DEFAULT



Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 11/21/2019	 TEXAS INSTRUMENTS http://www.ti.com © Texas Instruments 2018
TID #: N/A	Project Title: PROC099		
Number: PROC099	Rev: A	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 9 of 16	
Drawn By: Adrian Ozer	File: PROC099A_LDO_SchDoc	Size: B	
Engineer: Adrian Ozer	Contact: http://www.ti.com/support		

A



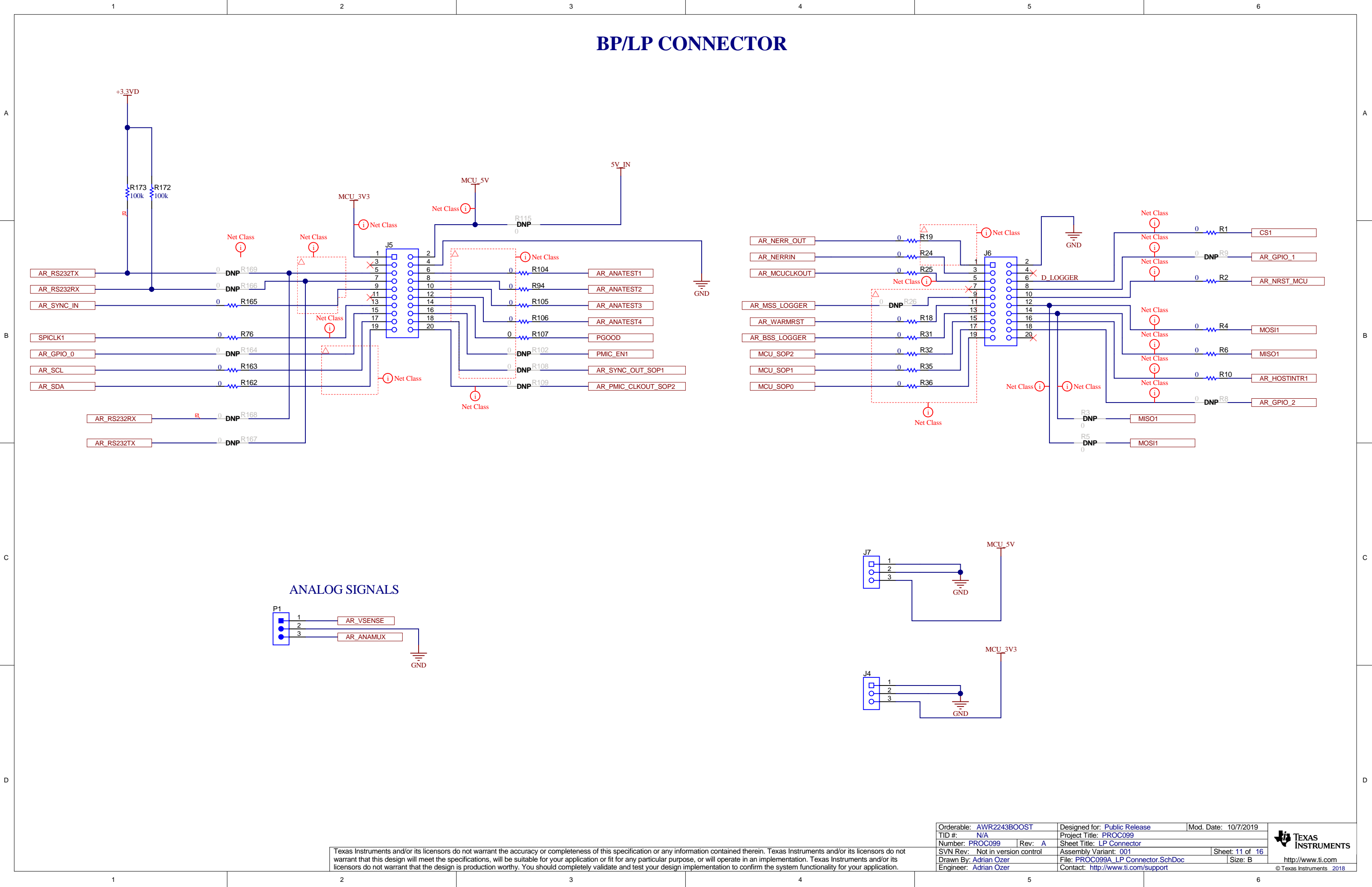
B



D

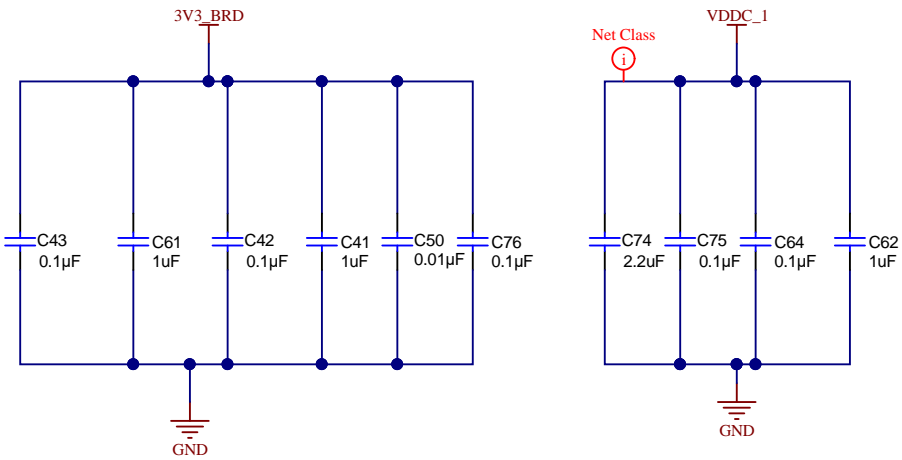
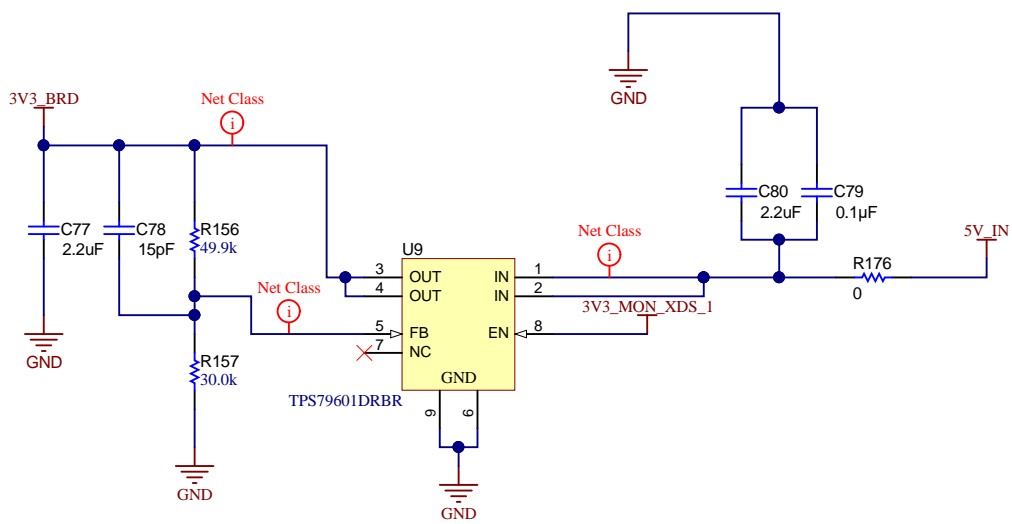
D

BP/LP CONNECTOR



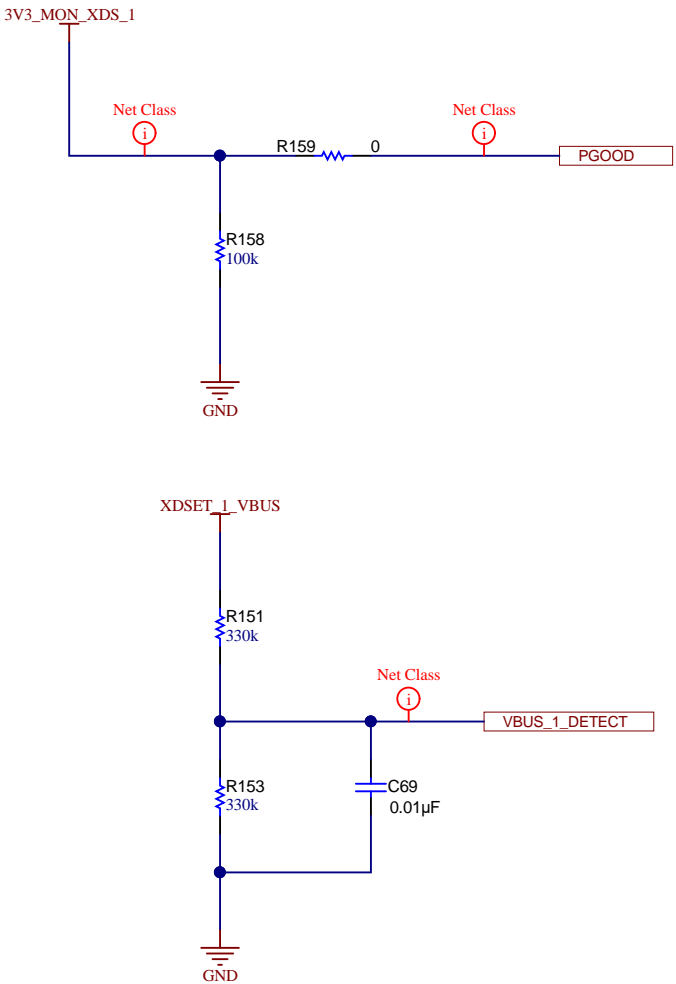
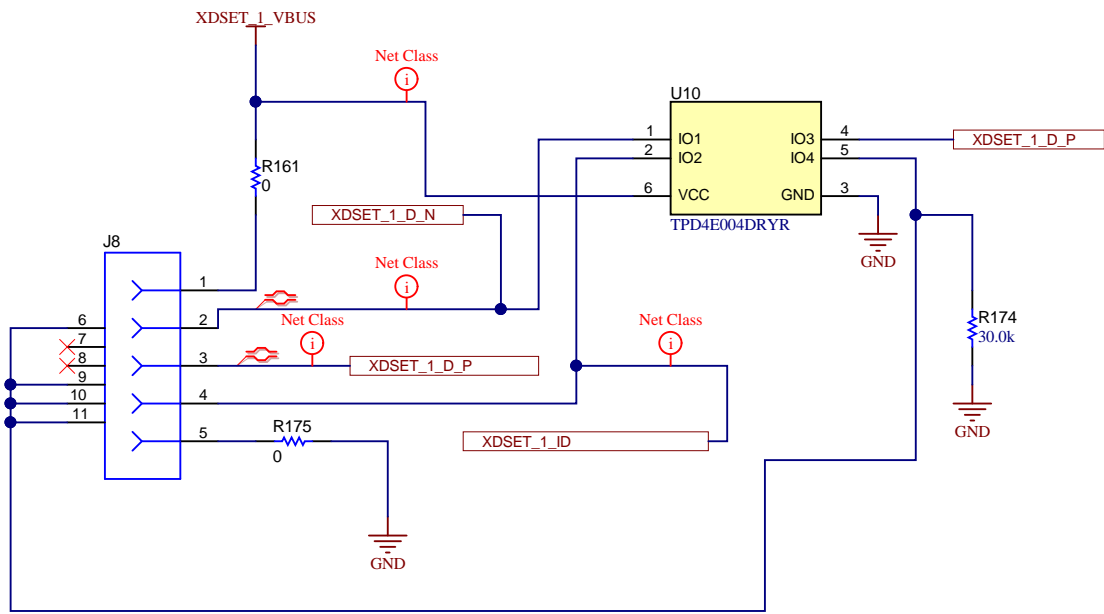
XDS110(1/2)

3.3V LDO FOR PERIPHERALS



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

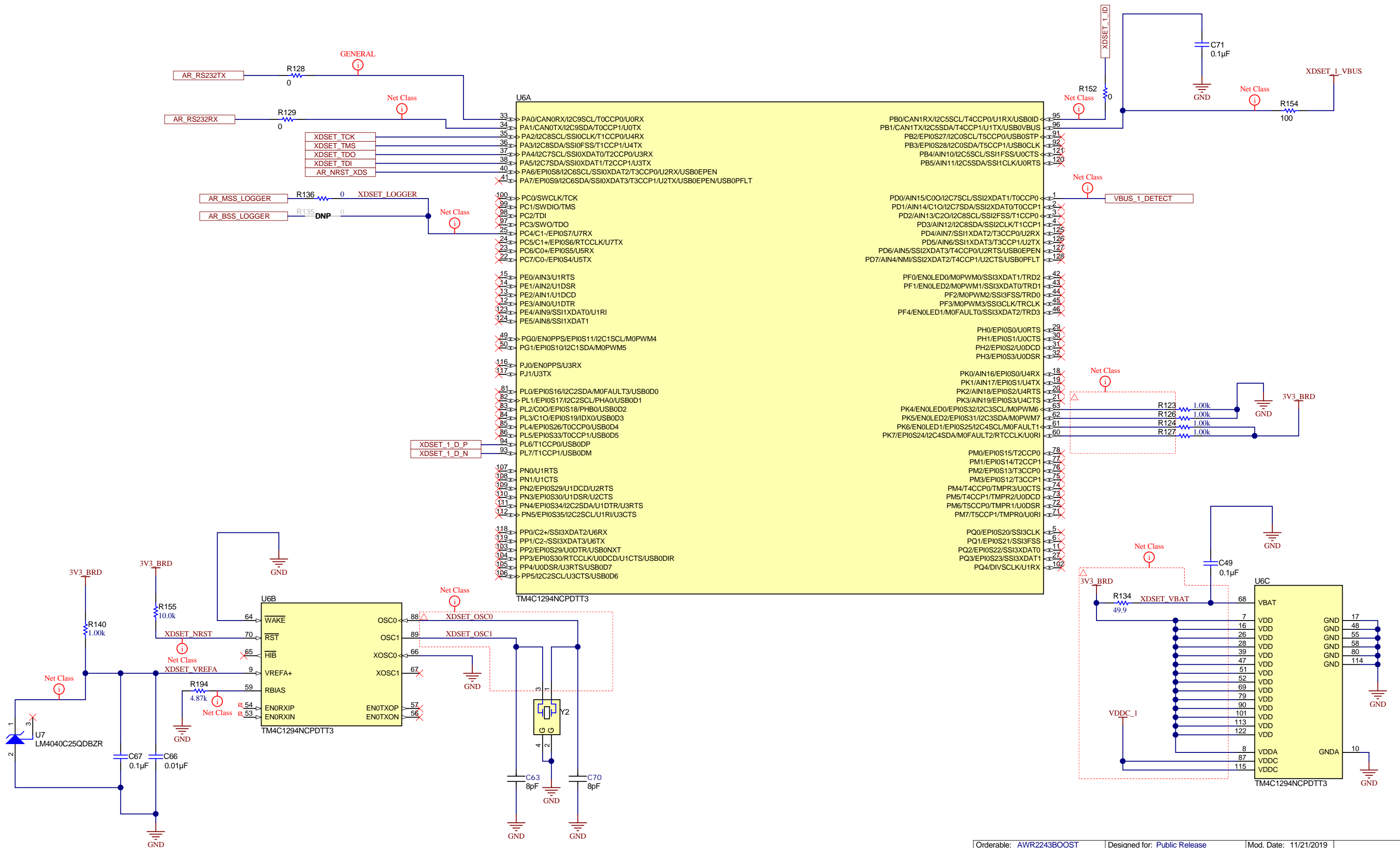
USB PORT AND ESD




Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 11/21/2019
TID #: N/A	Project Title: PROC099	
Number: PROC099	Rev: A	Sheet Title: XDS110 Interface_1A
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 12 of 16
Drawn By: Adrian Ozer	File: PROC099A_XDS110 Interface_1A.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

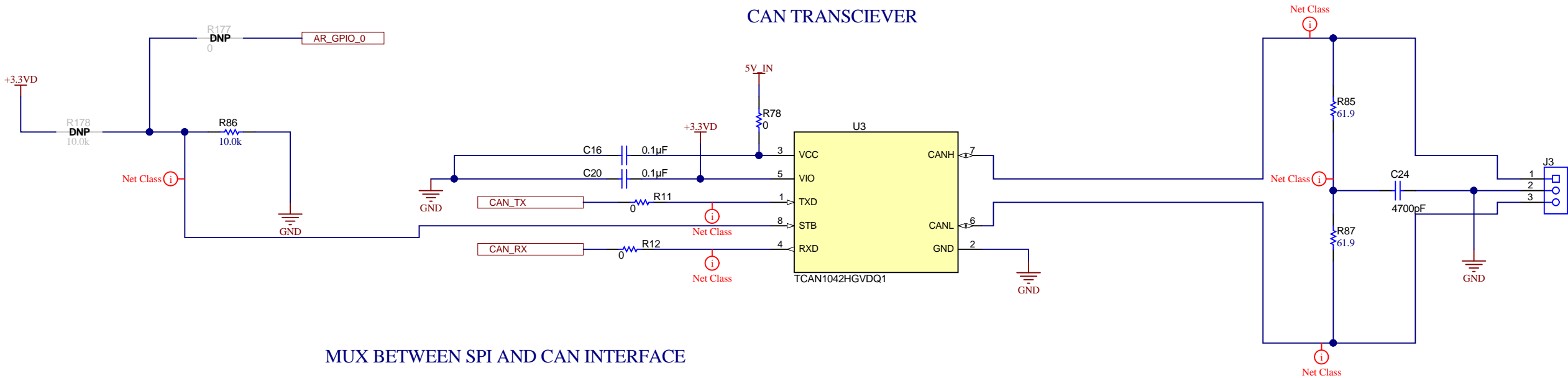
XDS110(2/2)



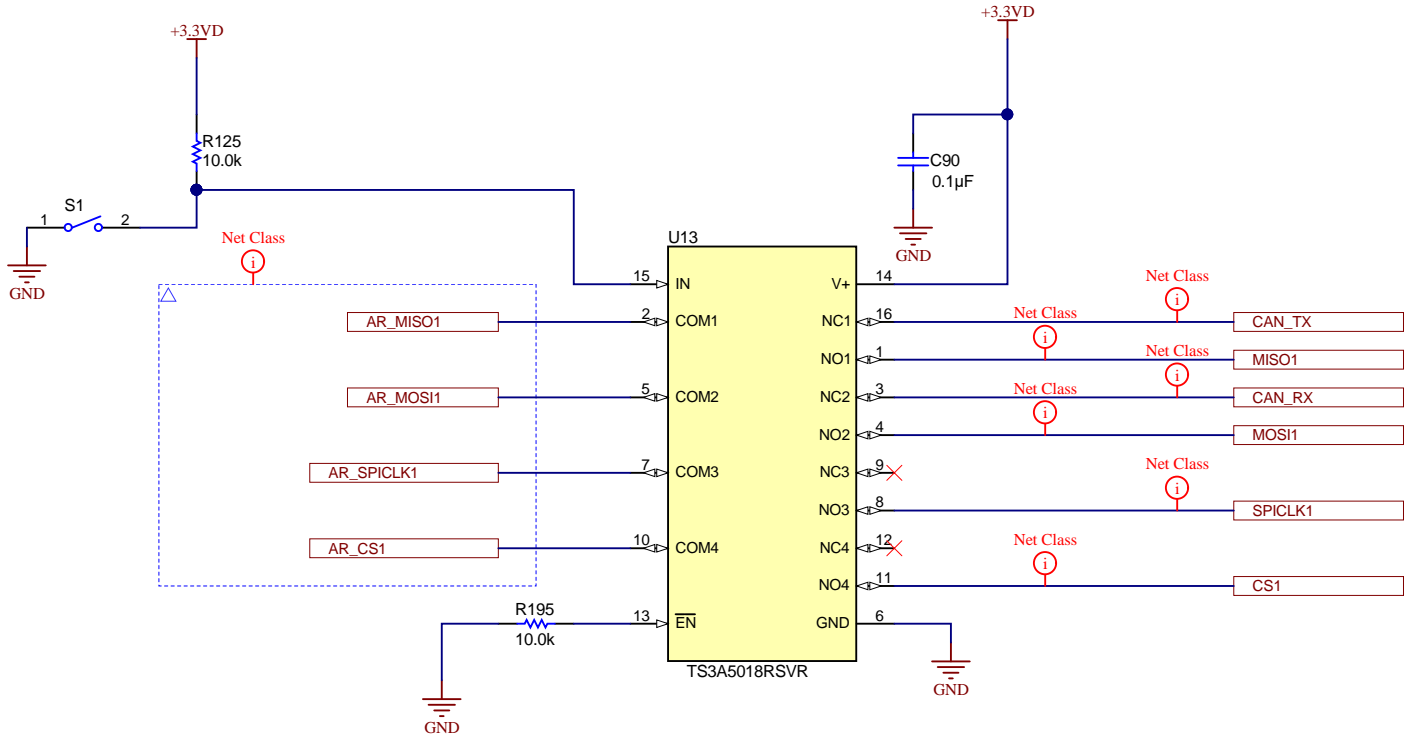
Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 11/21/2019	 TEXAS INSTRUMENTS http://www.ti.com © Texas Instruments 2018
TID #: N/A	Project Title: PROC099		
Number: PROC099	Rev: A	Sheet Title: XDS110 Interface_1B	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 13 of 16	
Drawn By: Adrian Ozer	File: PROC099A_XDS110 Interface_1B.SchDoc	Size: B	
Engineer: Adrian Ozer	Contact: http://www.ti.com/support		

CAN INTERFACE

CAN TRASCIEVER



MUX BETWEEN SPI AND CAN INTERFACE

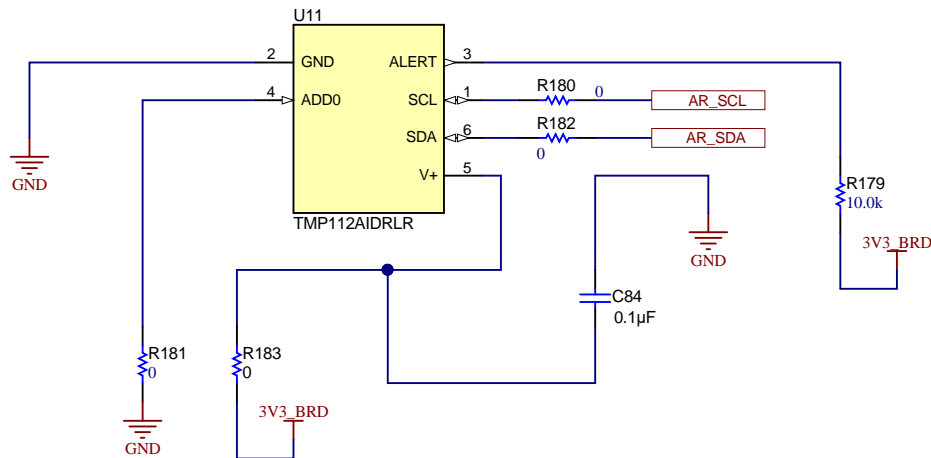


Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

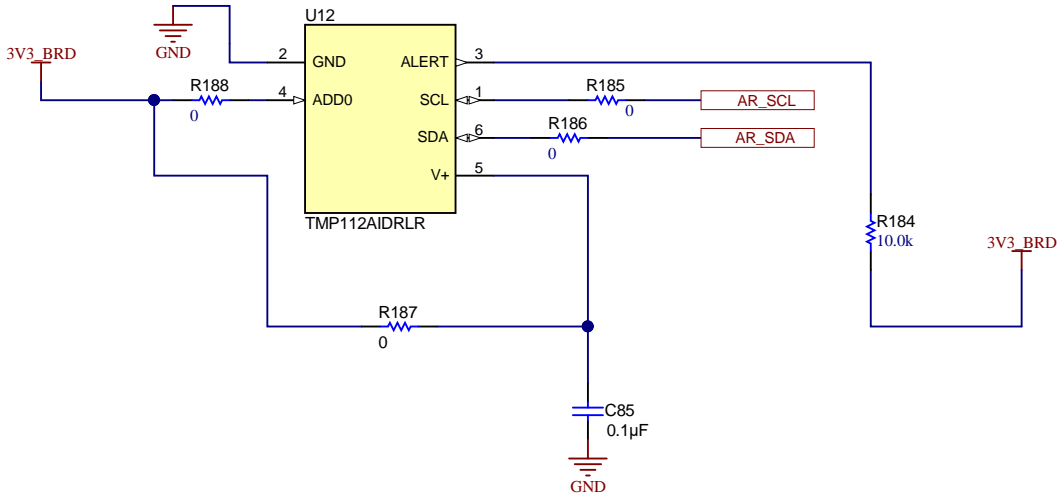
Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 11/21/2019
TID #: N/A	Project Title: PROC099	
Number: PROC099	Rev: A	Sheet Title: CAN Interface
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 14 of 16
Drawn By: Adrian Ozer	File: PROC099A_CAN Interface.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

ONBOARD TEMP SENSORS

DEFAULT I2C ADDRESS 0X48
TEMP SENSOR CLOSE TO PMIC



DEFAULT I2C ADDRESS 0X49
TEMP SENSOR AWAY FROM PMIC



Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: AWR2243BOOST	Designed for: Public Release	Mod. Date: 10/7/2019
TID #: N/A	Project Title: PROC099	
Number: PROC099	Rev: A	Sheet Title: Tempsensor
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 15 of 16
Drawn By: Adrian Ozer	File: PROC099A_Tempsensor.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

