

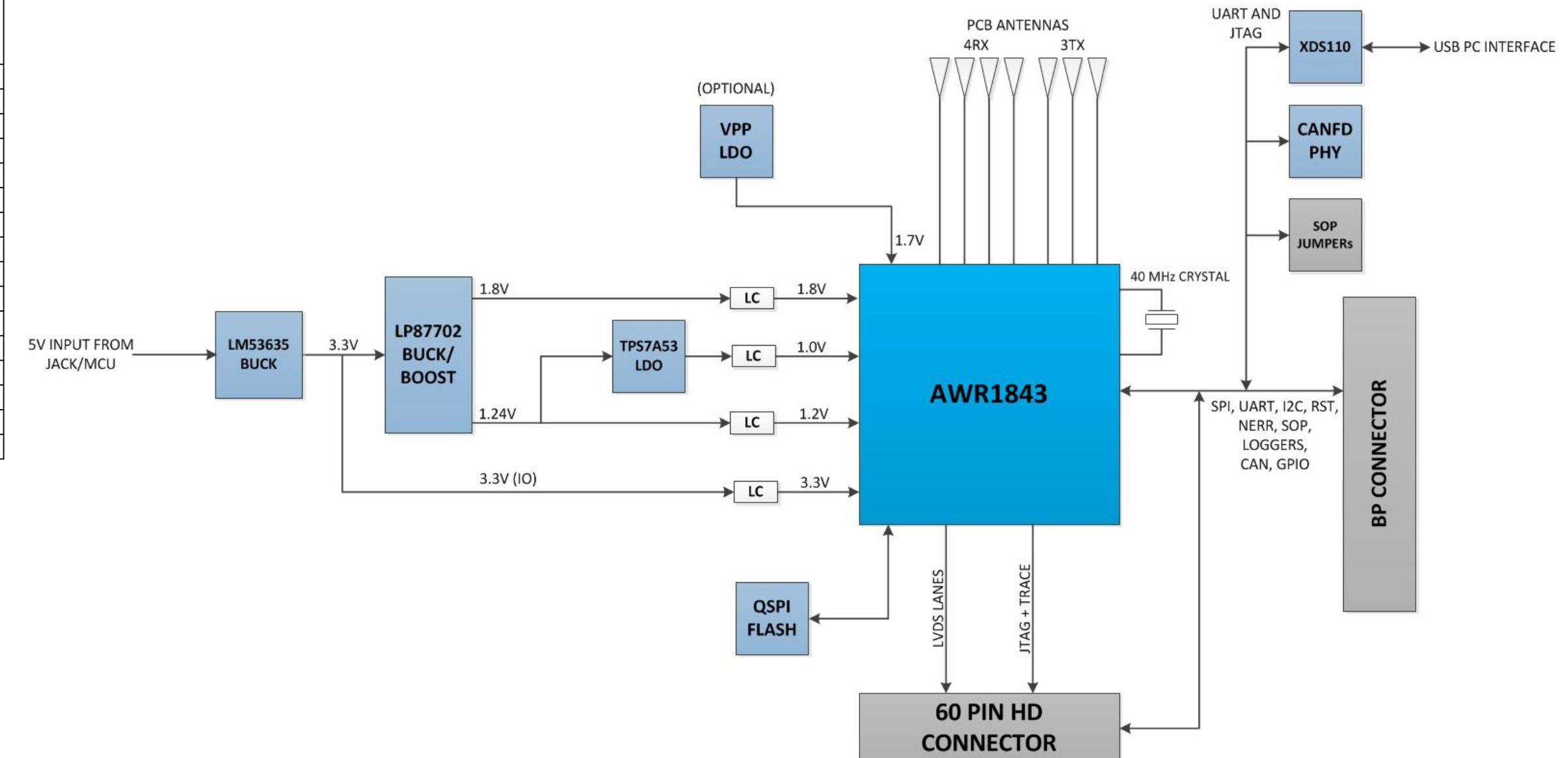
xWR1843BOOST COVER SHEET

Revision History

Rev	ECN #	Approved Date	Approved by	Notes
C	1	1/1/2019	Adrian Ozer	Increased LDO output cap to 47uF
C	2	1/1/2019	Adrian Ozer	Added two optional 10uF LDO output caps
C	3	1/1/2019	Adrian Ozer	Added 10uF cap to LDO input
C	4	1/1/2019	Adrian Ozer	Added test pad to LDO PG pin
C	5	1/1/2019	Adrian Ozer	Connected LDO DNC pads to GND for thermal performance
C	6	1/1/2019	Adrian Ozer	Added optional bleed resistor on LDO output
C	7	1/1/2019	Adrian Ozer	Changed 1V filtering to BLM18 inductor
C	8	1/1/2019	Adrian Ozer	Added 22uF caps to 1V, 1.24V, and 1.8V LC filters
C	9	1/1/2019	Adrian Ozer	Added 10uF caps to 3.3V and 1.24V LC filter
C	10	1/1/2019	Adrian Ozer	Added additional 10uF caps to 1V LC filter
C	11	1/31/2019	Adrian Ozer	Enabled 3.3V to BP header by default
D	1	5/28/2020	Adrian Ozer	Updated C56 from 0.22uF to 47nF

TABLE OF CONTENTS

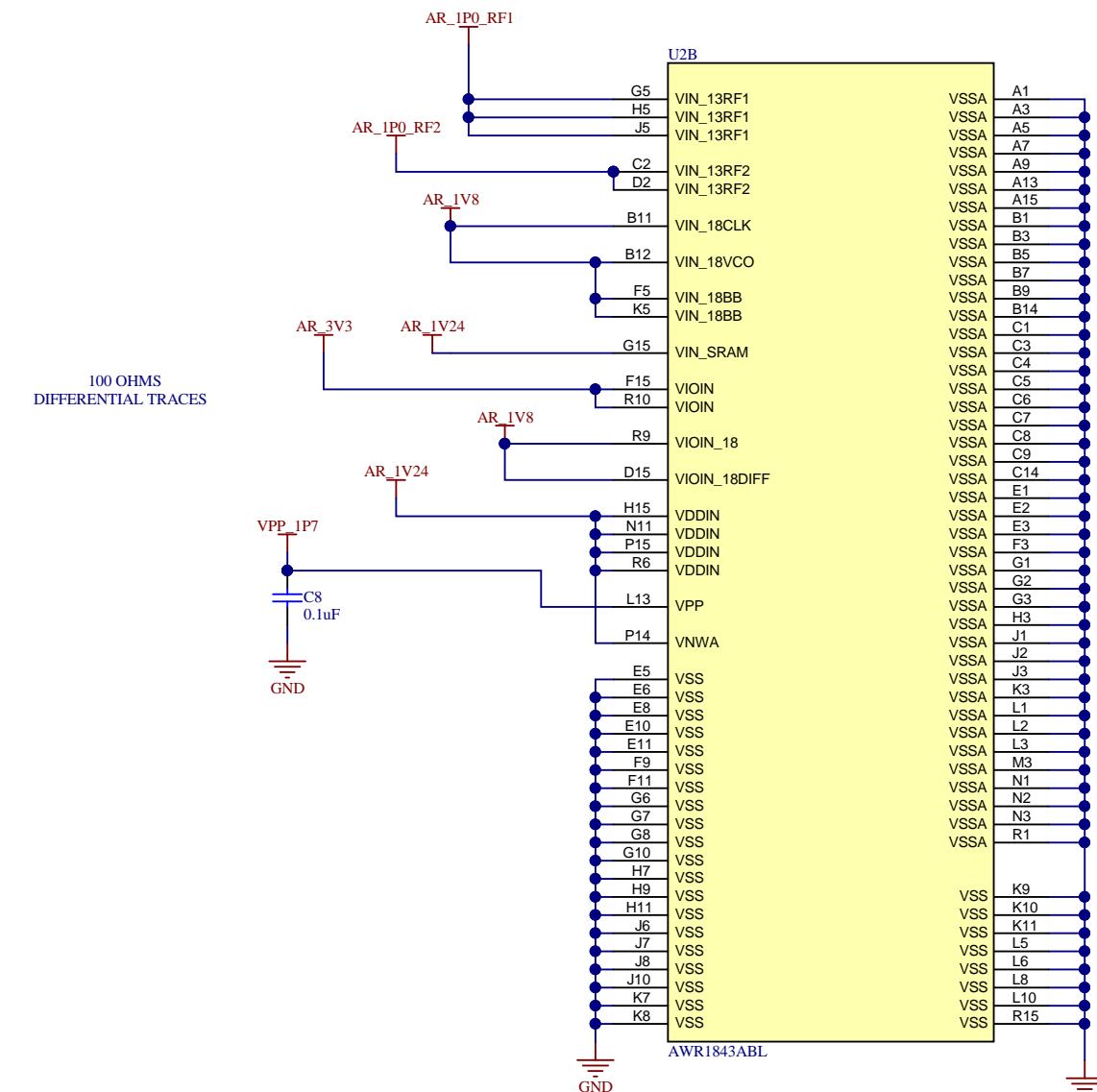
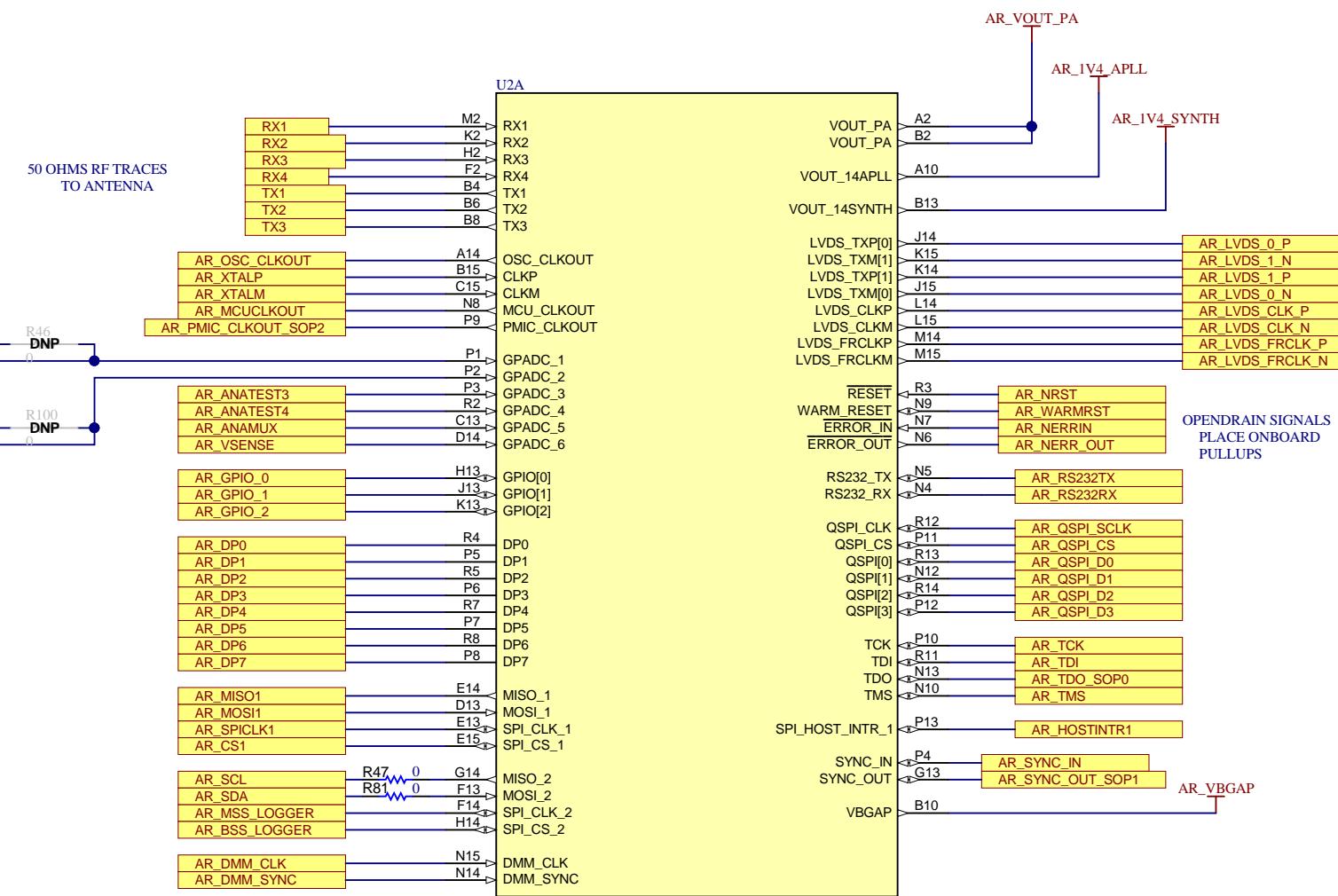
SHEET NO.	SHEET NAME
1	Cover Sheet
2	DUT_Reference
3	Decoupling_Caps_Reference
4	PWR_In_Reference
5	LC_Filtering_Reference
6	QSPI_Flash_Reference
7	SOP_Headers_Reference
8	RST_LEDs
9	VPP_Supply
10	HD_Connector
11	LP_Connector
12	XDS110_Interface_1A
13	XDS110_Interface_1B
14	CAN_Interface
15	Tempsensor
16	Hardware



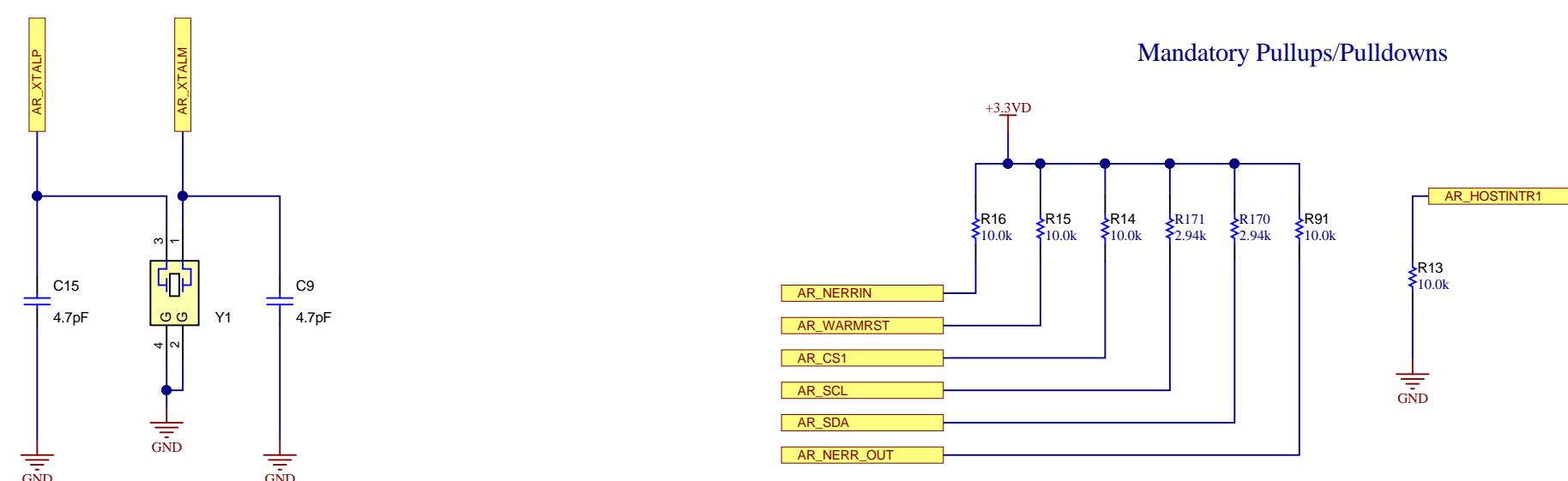
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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A	Project Title: xWR1843EVM	
Number: PROC051	Rev: D	Sheet Title: Contents
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 1 of 16
Drawn By:	File: PROC051D_Cover_Sheet.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	© Texas Instruments 2018

DUT REFERENCE



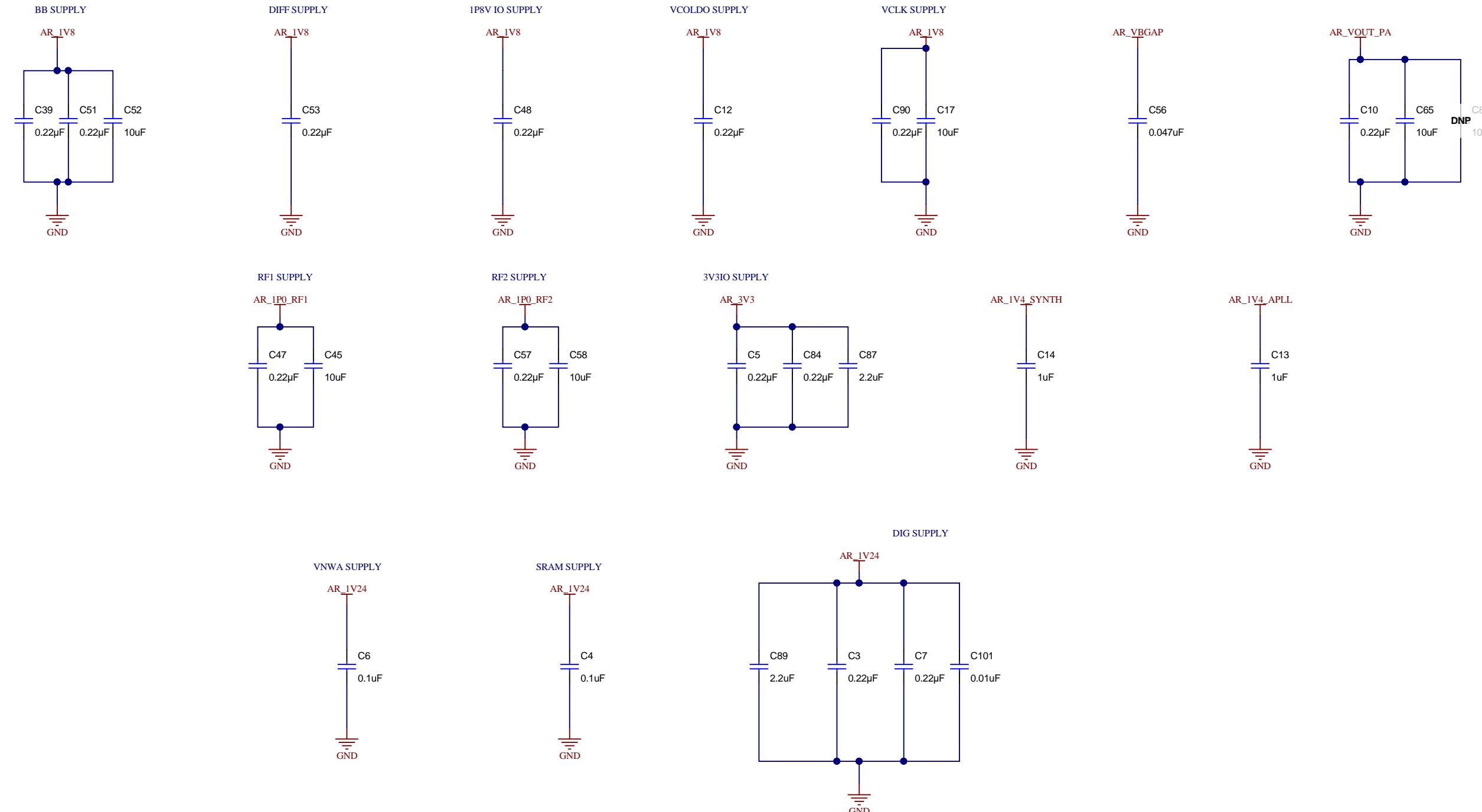
Mandatory Pullups/Pulldowns



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TID #: N/A	Project Title: xWR1843EVM	
Number: PROC051	Rev: D	Sheet Title: DUT
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 2 of 16
Drawn By:	File: PROC051D_DUT_Reference.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	http://www.ti.com

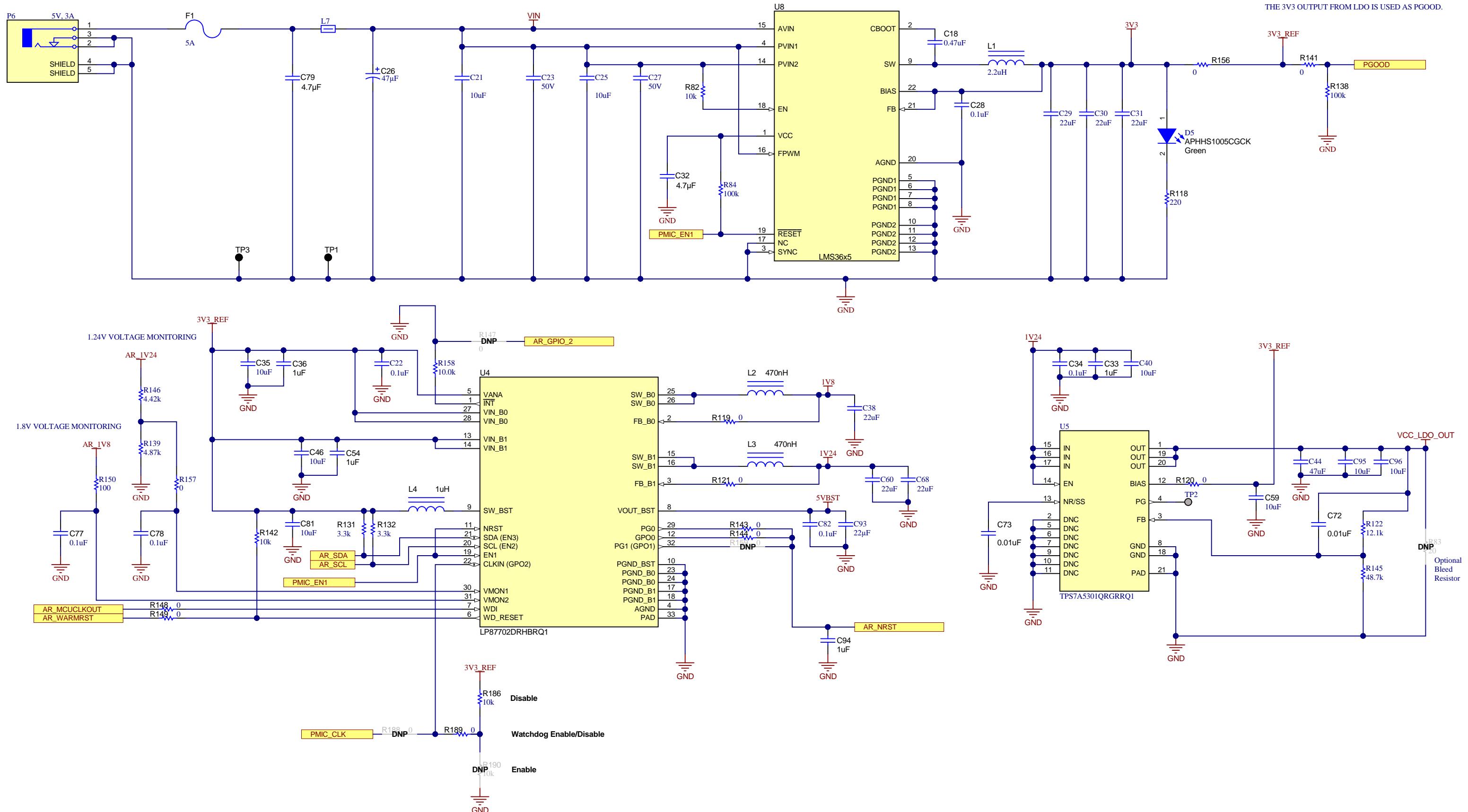
DECOUPLING CAPS REFERENCE



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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/12/2020
TID #:	N/A	Project Title: xWR1843EVM
Number: PROC051	Rev: D	Sheet Title: Decoupling caps
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 3 of 16
Drawn By:	File: PROC051D_Decoupling_Caps_Reference.SchDp	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

POWER INPUT REFERENCE



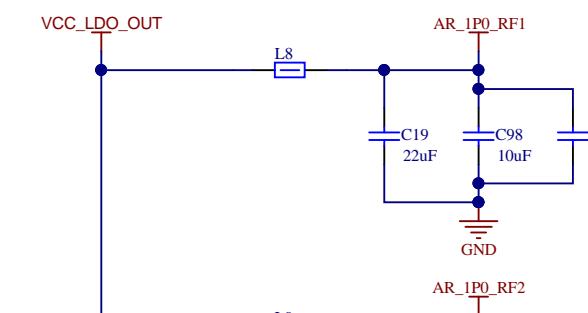
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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A	Project Title: xWR1843EVM	
Number: PROC051	Rev: D	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 4 of 16
Drawn By:	File: PROC051D_PWR_In_Reference.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	 TEXAS INSTRUMENTS http://www.ti.com

LC FILTERING REFERENCE

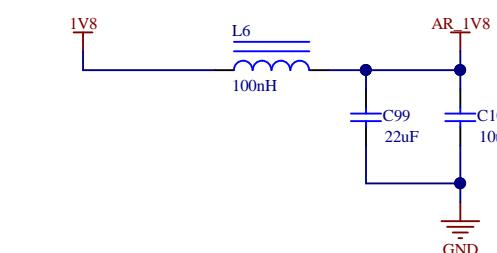
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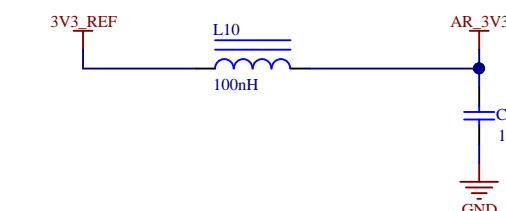
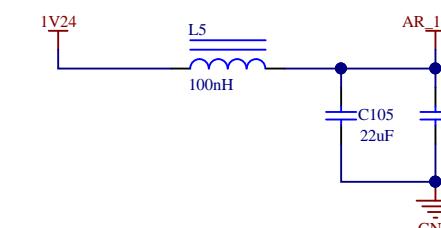
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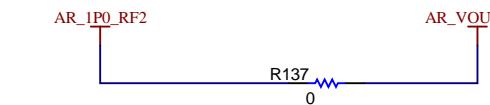
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D

D



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Number: PROC051	Rev: D	Sheet Title:
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Engineer: Adrian Ozer	Contact: http://www.ti.com/support	© Texas Instruments 2018

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QSPI FLASH REFERENCE

A

A

B

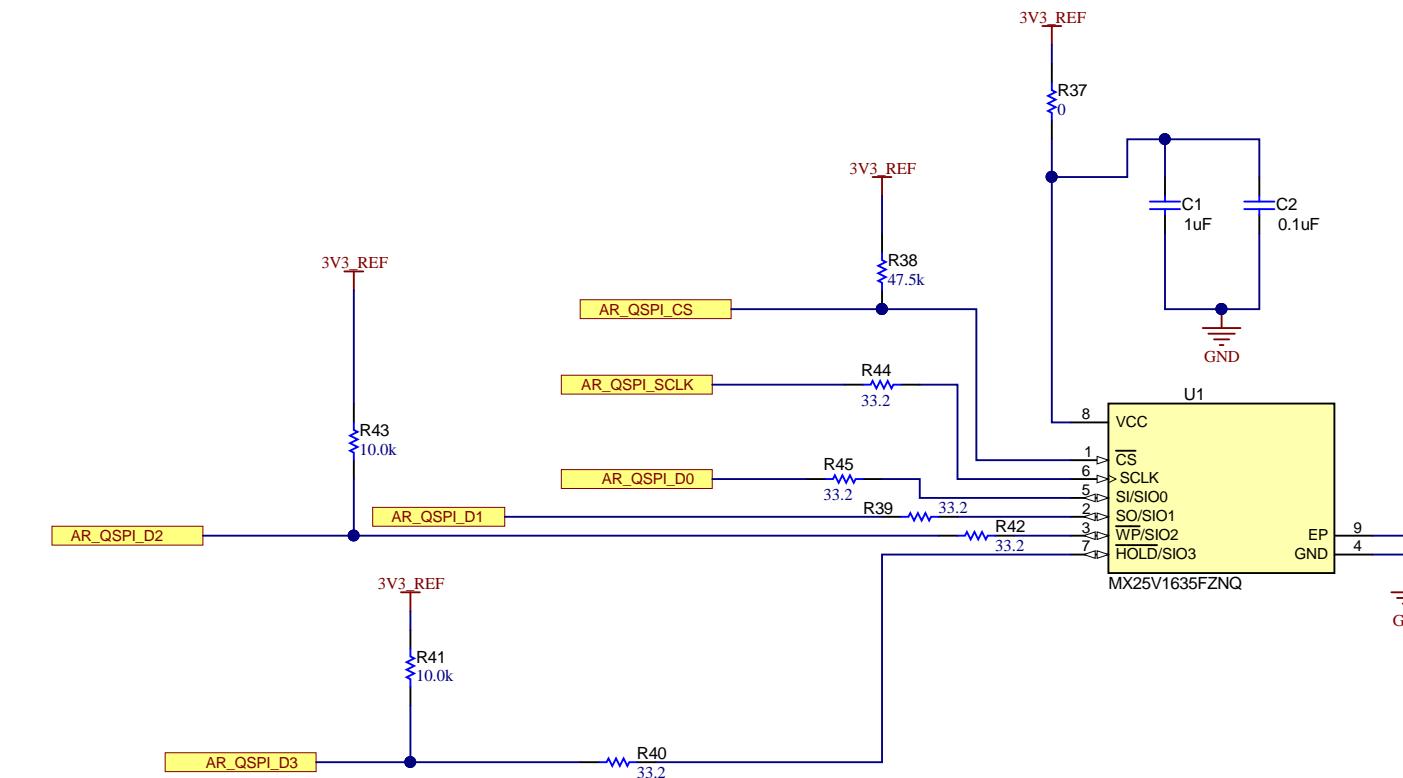
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C

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D

D



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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A	Project Title: xWR1843EVM	
Number: PROC051	Rev: D	Sheet Title: QSPI flash section
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 6 of 16
Drawn By:	File: PROC051D_QSPI_Flash_Reference.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	http://www.ti.com

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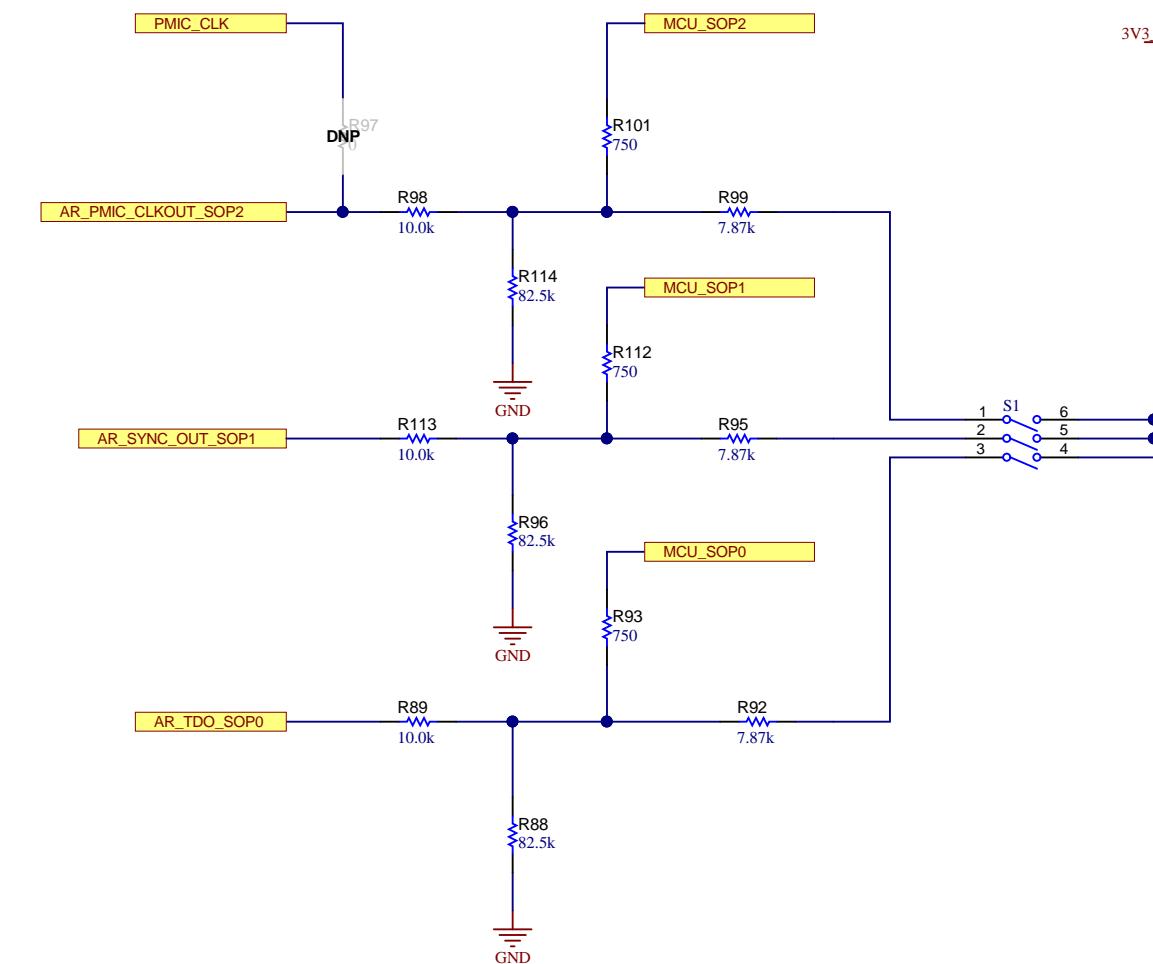
SOP HEADERS REFERENCE

A

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

A

B



B

C

C

D

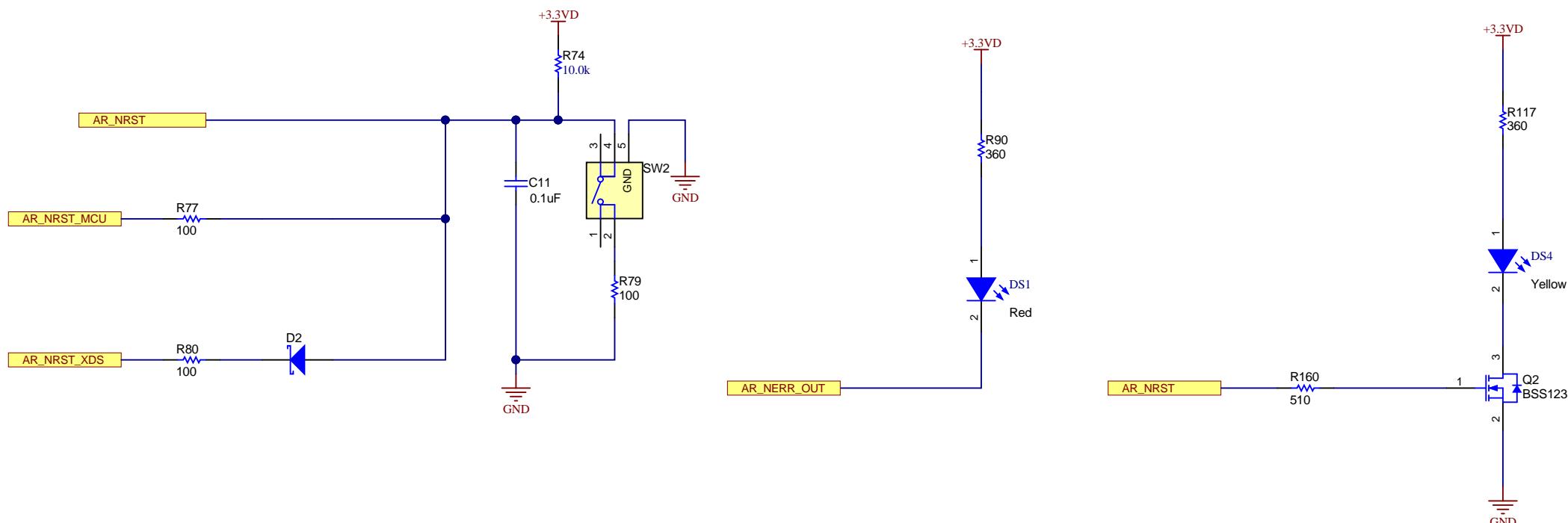
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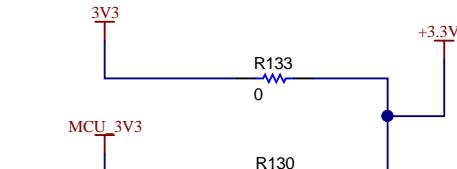
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Number: PROC051	Rev: D	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 7 of 16
Drawn By:	File: PROC051D_SOP_Headers_Reference.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	http://www.ti.com

RESET AND LEDS

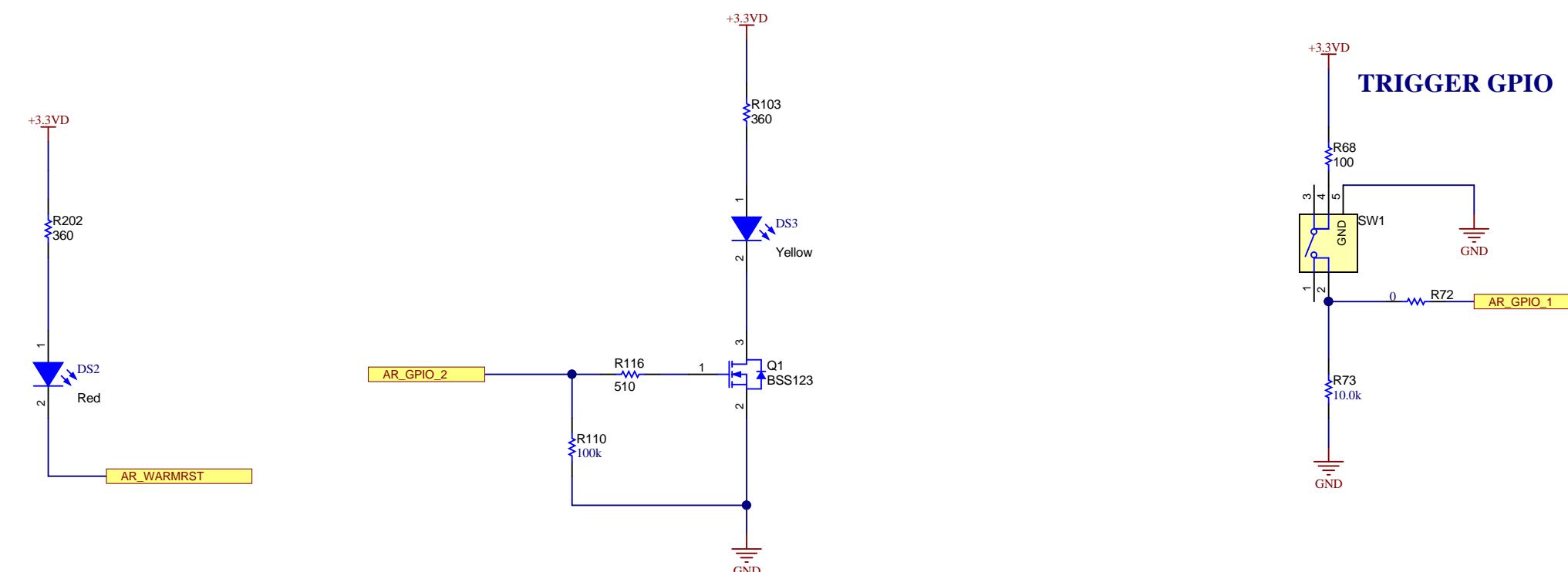
INDICATION LEDs



3V3 PERIPHERAL SUPPLY FROM LDO OR FROM THE MCU



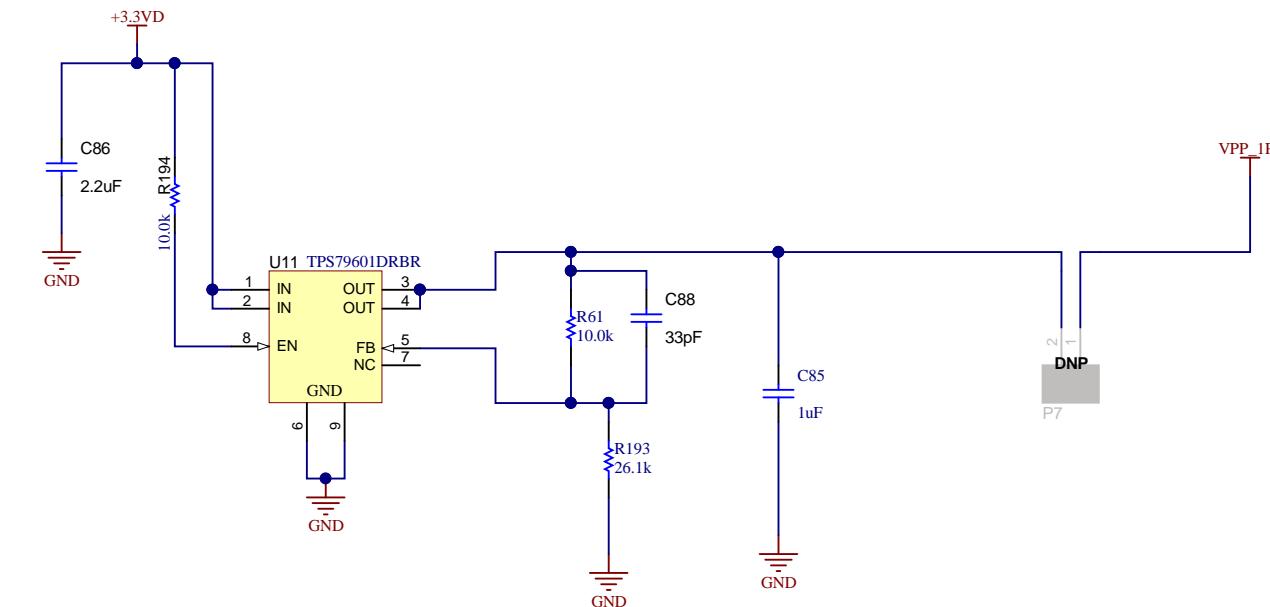
TRIGGER GPIO



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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #:	N/A	Project Title: xWR1843EVM
Number: PROC051	Rev: D	Sheet Title: Pwr_RST_LEDs
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 8 of 16
Drawn By:	File: PROC051D_RST_LEDs.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	© Texas Instruments 2018

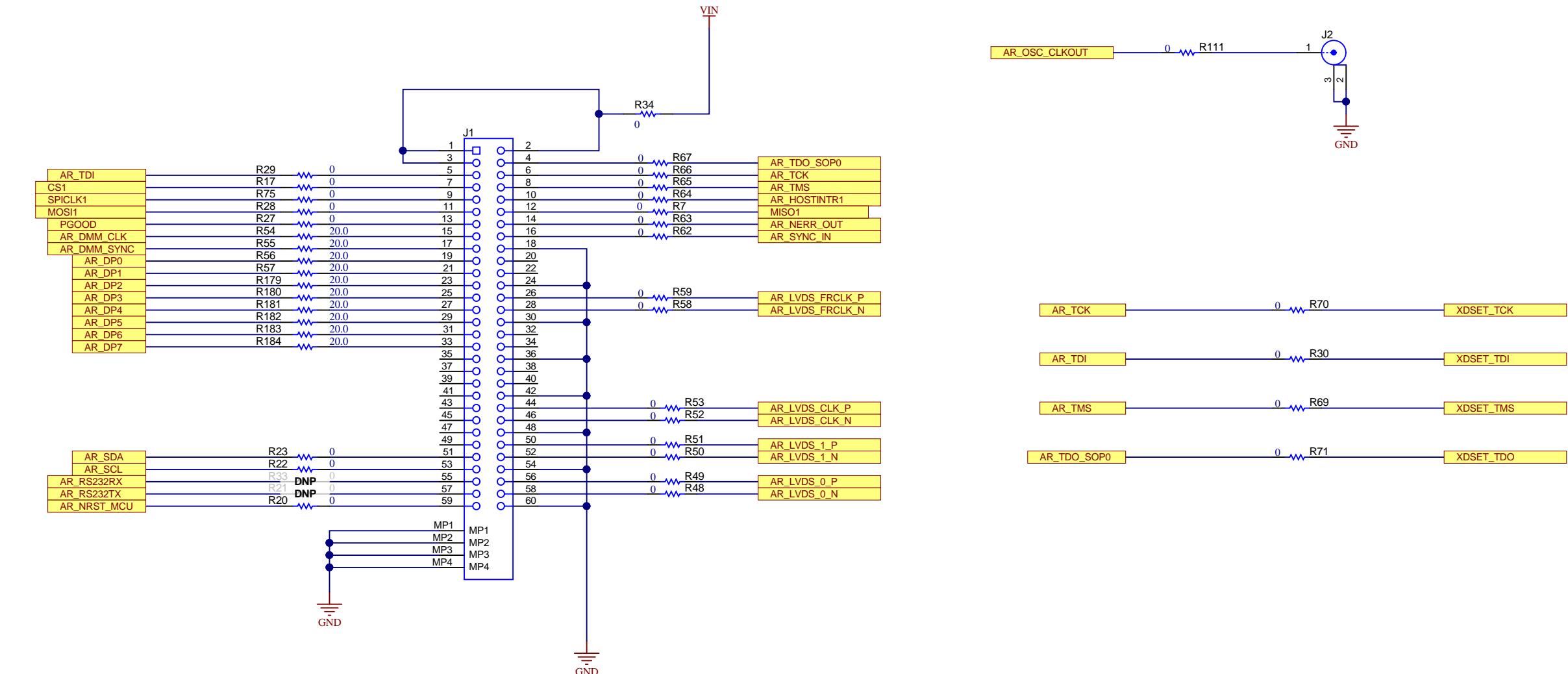
VPP SUPPLY LDO



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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A	Project Title: xWR1843EVM	
Number: PROC051	Rev: D	Sheet Title: VPP_Supply
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 9 of 16
Drawn By:	File: PROC051D_VPP_Supply.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

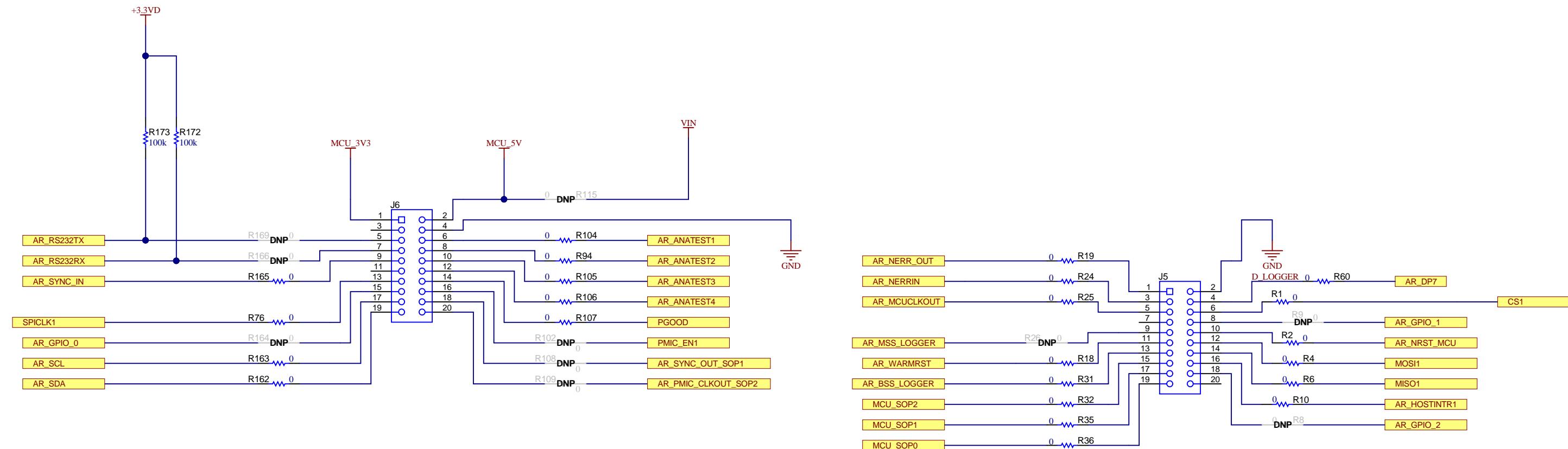
HD CONNECTOR FOR LVDS/CSI AND JTAG



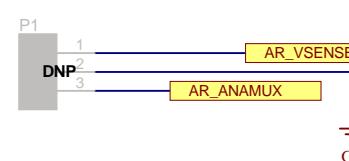
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Number: PROC051	Rev: D	Sheet Title: HD Connector
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 10 of 16
Drawn By:	File: PROC051D_HD Connector.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	http://www.ti.com

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BP/LP CONNECTOR



ANALOG SIGNALS



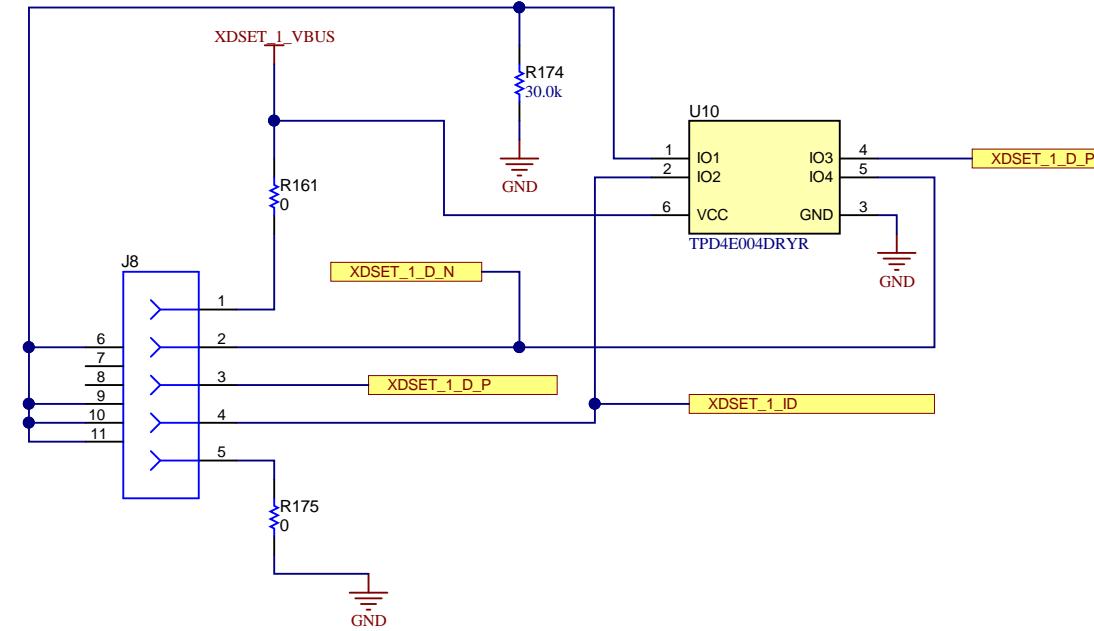
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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #:	N/A	Project Title: xWR1843EVM
Number: PROC051	Rev: D	Sheet Title: LP Connector
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 11 of 16
Drawn By:	File: PROC051D_LP Connector.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	http://www.ti.com

XDS110(1/2)

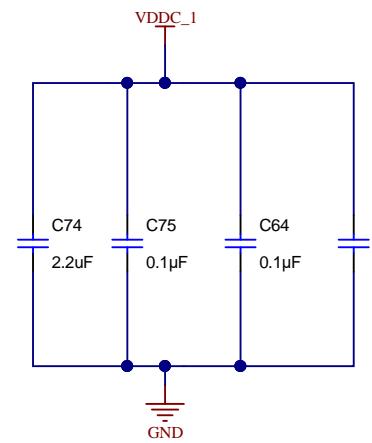
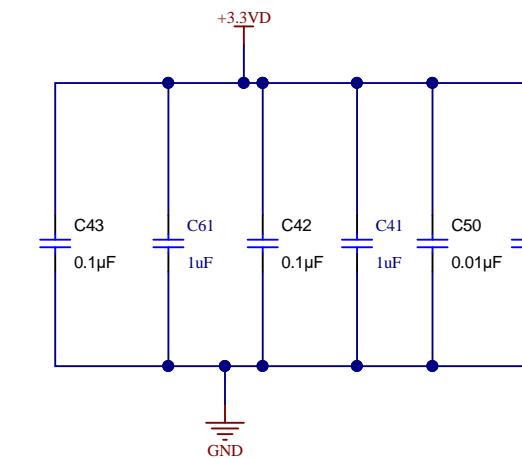
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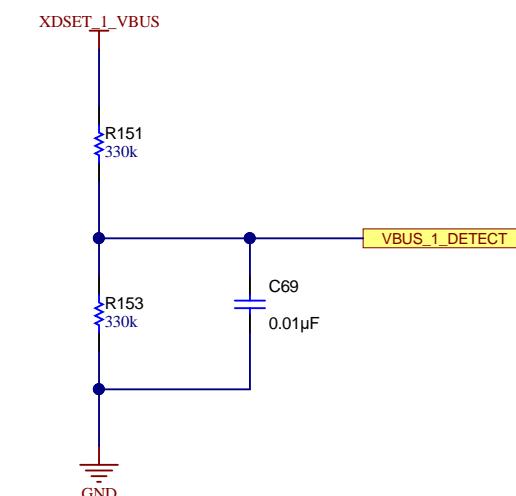
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C

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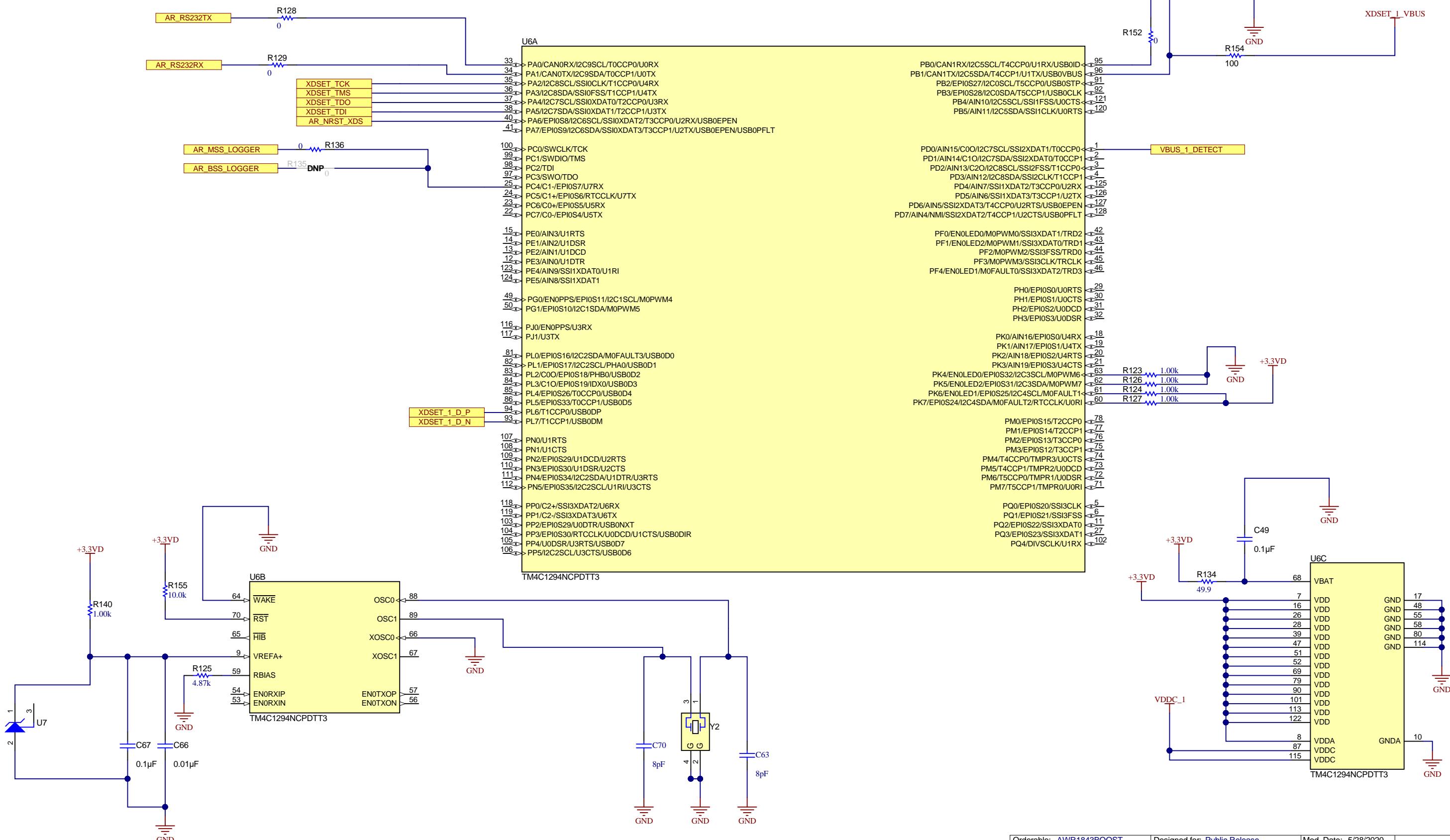
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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A	Project Title: xWR1843EVM	
Number: PROC051	Rev: D	Sheet Title: XDS110 Interface_1A
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 12 of 16
Drawn By:	File: PROC051D_XDS110 Interface_1A.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	

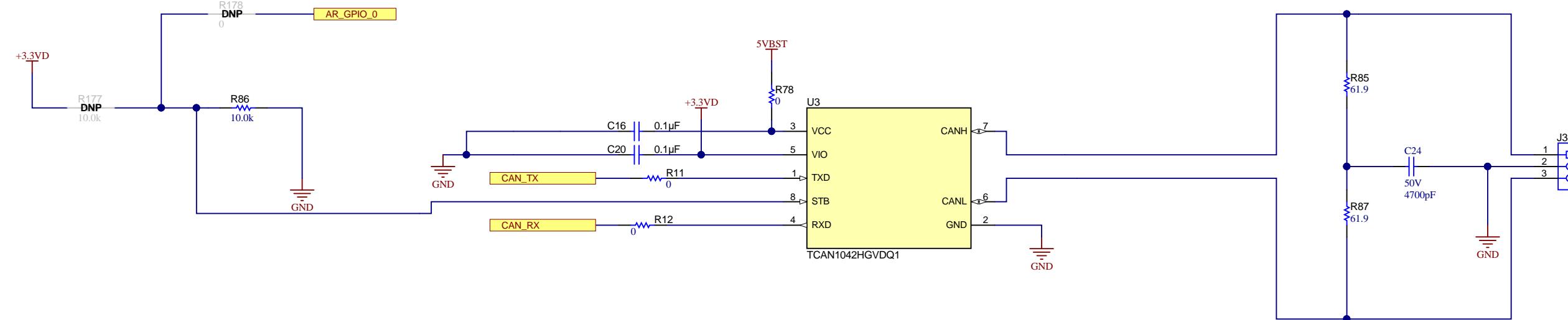
XDS110(2/2)



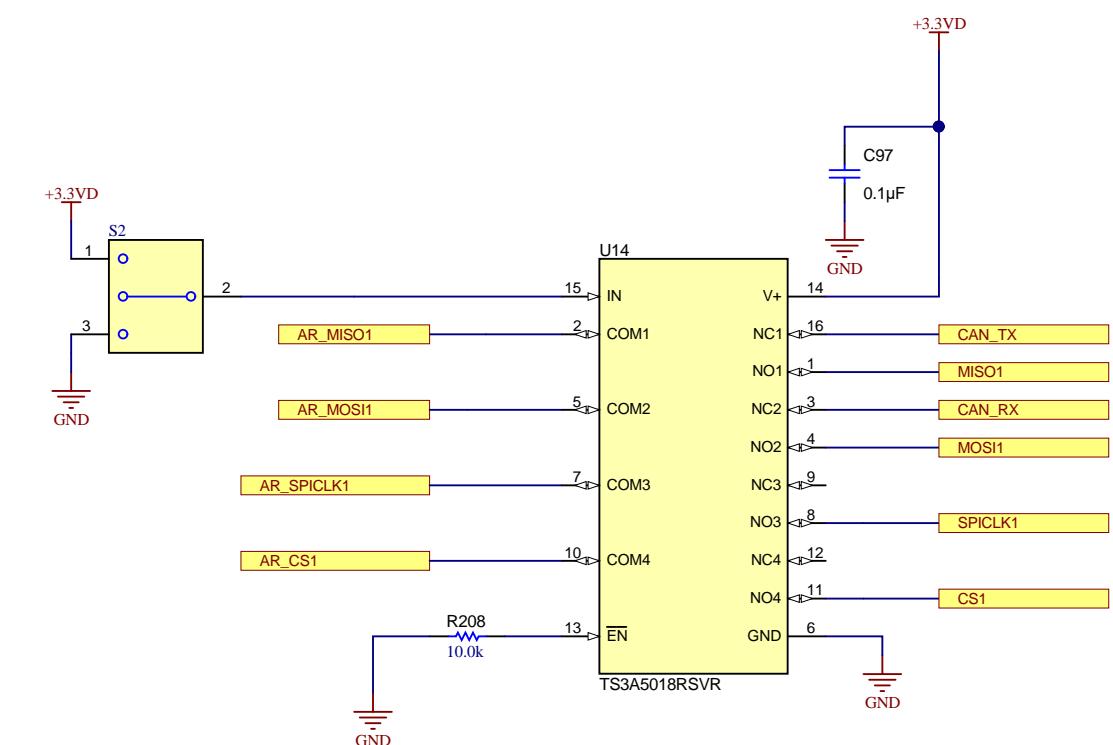
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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #:	N/A	Project Title: xWR1843EVM
Number: PROC051	Rev: D	Sheet Title: XDS110 Interface_1B
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 13 of 16
Drawn By:	File: PROC051_XDS110_Interface_1B.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	© Texas Instruments 2018

CAN INTERFACE



MUX BETWEEN SPI AND CAN INTERFACE

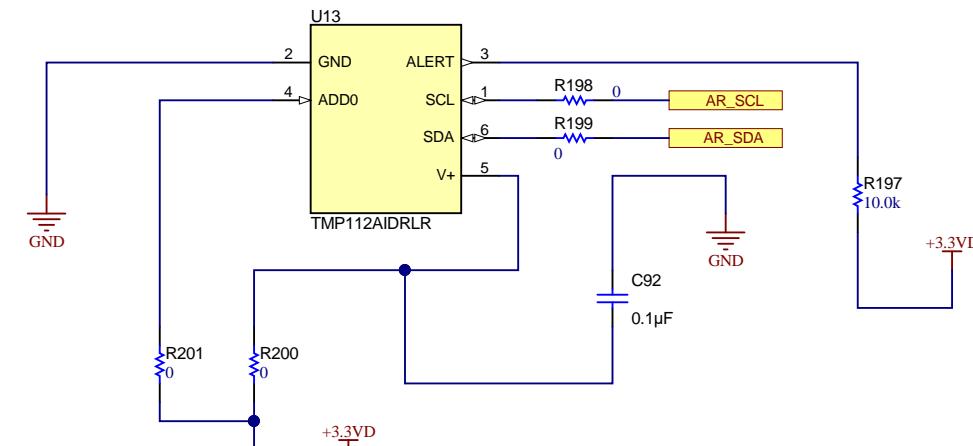


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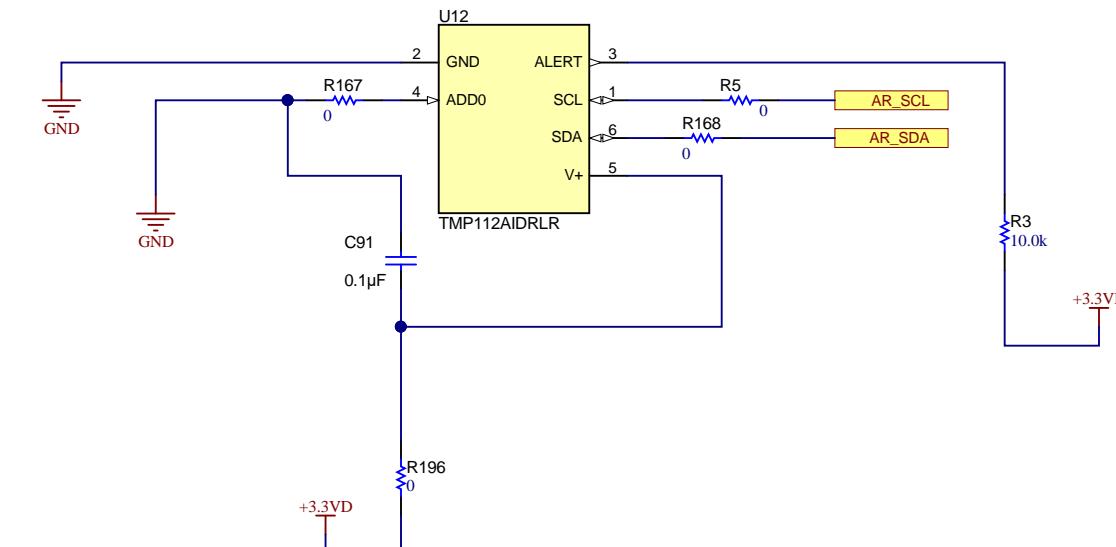
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TID #:	N/A	Project Title: xWR1843EVM
Number: PROC051	Rev: D	Sheet Title: CAN Interface
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 14 of 16
Drawn By:	File: PROC051D_CAN_Interface.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	http://www.ti.com

ONBOARD TEMP SENSORS

**DEFAULT I2C ADDRESS 0X49
AND MMWAVE DEVICE
TEMP SENSOR AWAY FROM PMIC**



**DEFAULT I2C ADDRESS 0X48
TEMP SENSOR CLOSE TO PMIC**



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Orderable: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A	Project Title: xWR1843EVM	
Number: PROC051	Rev: D	Sheet Title: Tempsensor
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 15 of 16
Drawn By:	File: PROC051D_Tempsensor.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	http://www.ti.com



PCB
LOGO
Texas Instruments

PCB
LOGO
ESD Susceptible

PCB
LOGO
FCC disclaimer

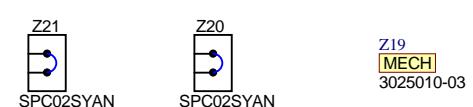
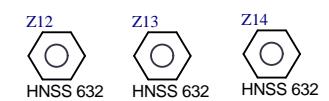
Works With TI LaunchPad Logo
PCB
LOGO
Works With TI LaunchPad Logo



CAUTION HOT SURFACE



LBL1
PCB Label
Label



PCB Number: PROC051
PCB Rev: C

Variant/Label Table

Variant	Label Text
001	AWR1843BOOST
002	IWR1843BOOST

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: AWR1843BOOST	Designed for: Public Release	Mod. Date: 5/28/2020
TID #: N/A	Project Title: xWR1843EVM	
Number: PROC051	Rev: D	Sheet Title: Hardware
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 16 of 16
Drawn By:	File: PROC051D_Hardware.SchDoc	Size: B
Engineer: Adrian Ozer	Contact: http://www.ti.com/support	http://www.ti.com