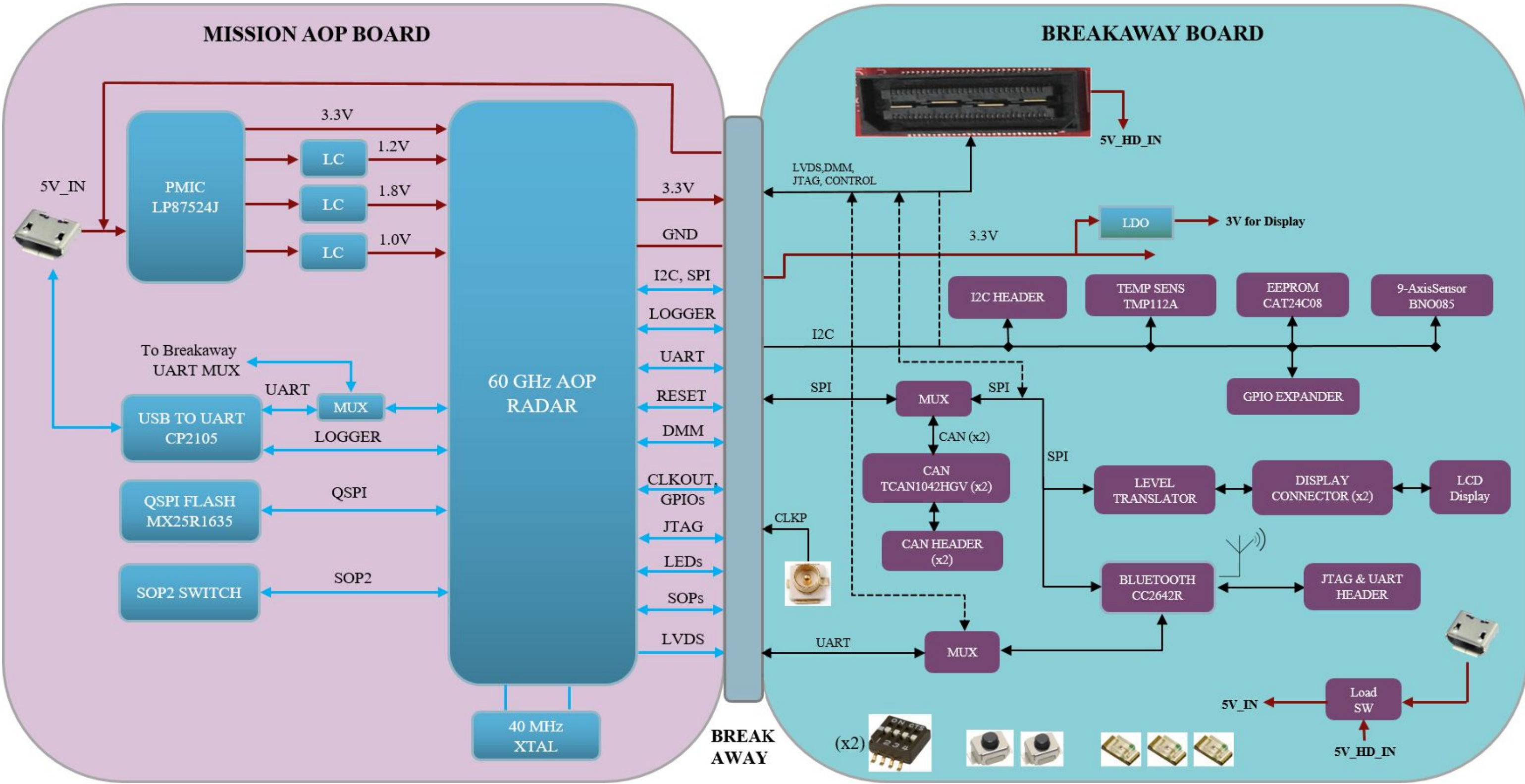


Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A

BLOCK DIAGRAM



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Orderable: AWR6843AOPEVM	Designed for: Public Release	Mod. Date: 06-11-2020
TID #: N/A	Project Title: xWR6843AOPEVM	
Number: PROC091	Rev: F	Sheet Title: BLOCK DIAGRAM
SVN Rev: Unknown revision	Assembly Variant: 002	Sheet 1 of 12
Drawn By: Antony/Bala	File: PROC091F_BLOCK_DIAGRAM.SchDoc	Size: B
Engineer: Antony/Bala	Contact: http://www.ti.com/support	

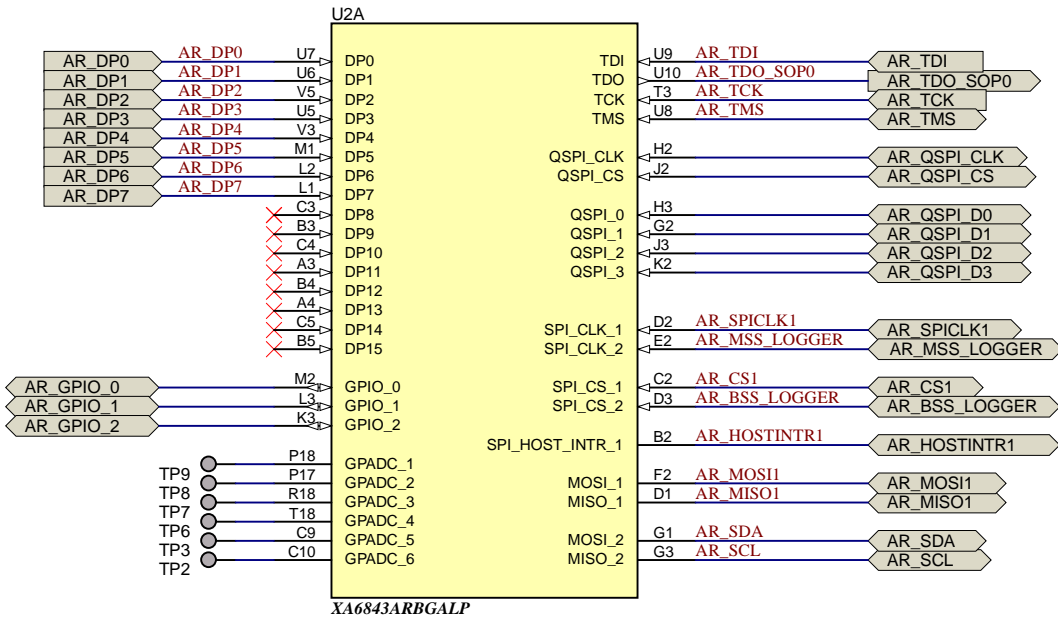
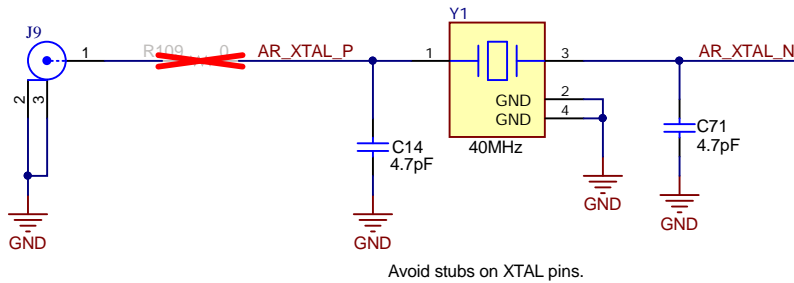
TEXAS INSTRUMENTS
<http://www.ti.com>
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TABLE OF CONTENTS

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1	BLOCK DIAGRAM
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3	AOP_IO
4	AOP_PWR
5	PMIC
6	QSPI FLASH & USB_TO_UART
7	BREAKAWAY 60PIN HD CONNECTOR
8	BREAKAWAY_SECTION2
9	BREAKAWAY_SECTION3
10	BREAKAWAY_SECTION4
11	BREAKAWAY_SECTION5
12	HARDWARE

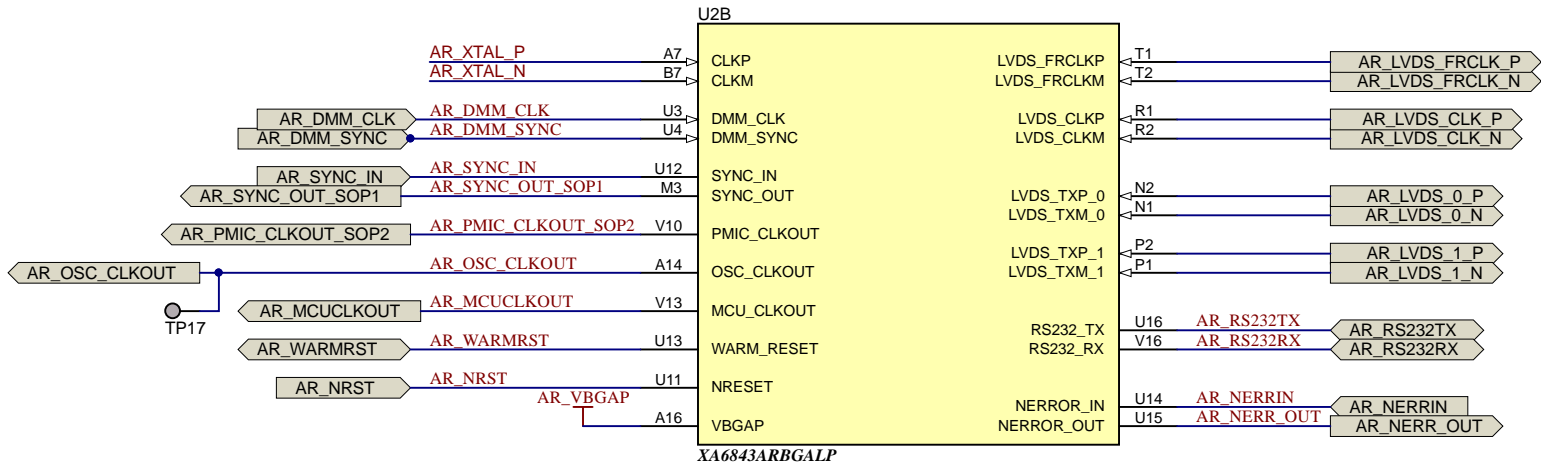
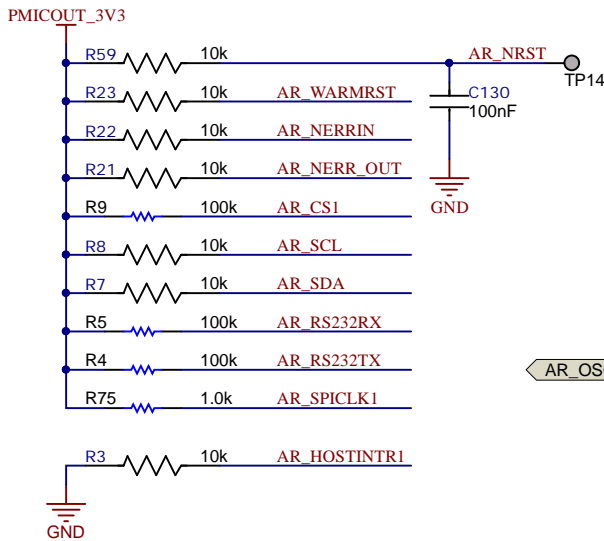
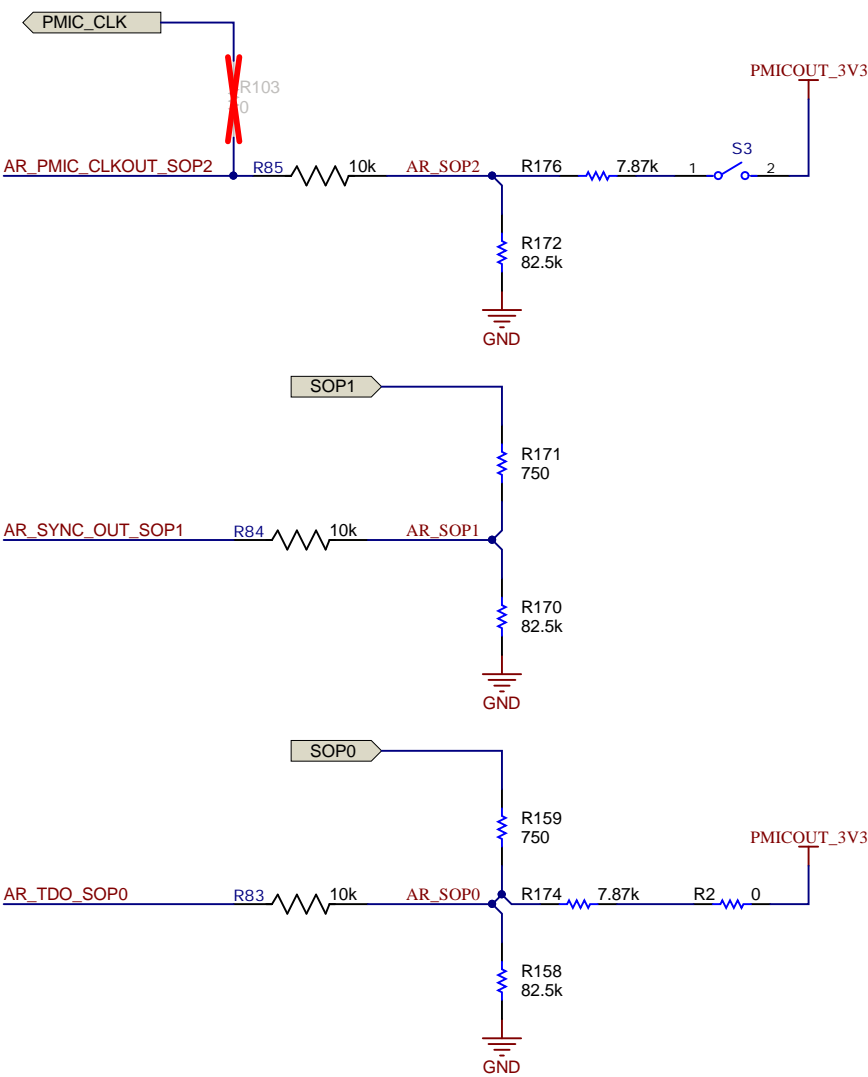
AOP IO

40MHz CRYSTAL



SOP_MODE2 - '011' - DEV/DEBUG
SOP_MODE4 - '001' - FUNCTIONAL MODE
SOP_MODE5 - '101' - FLASH MODE

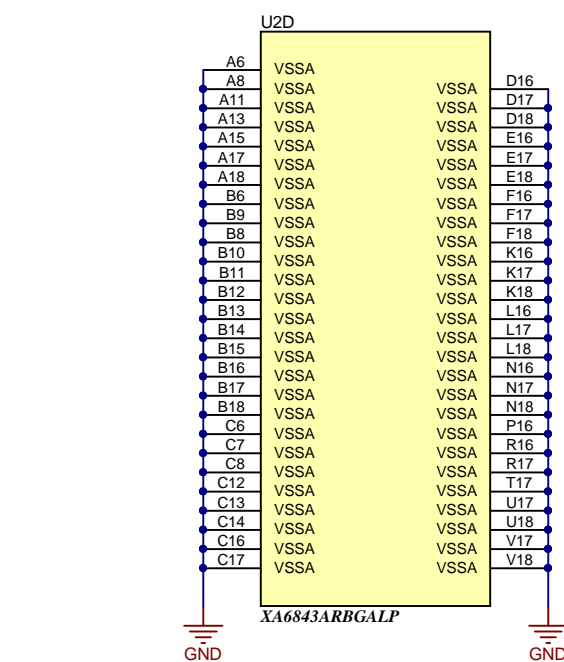
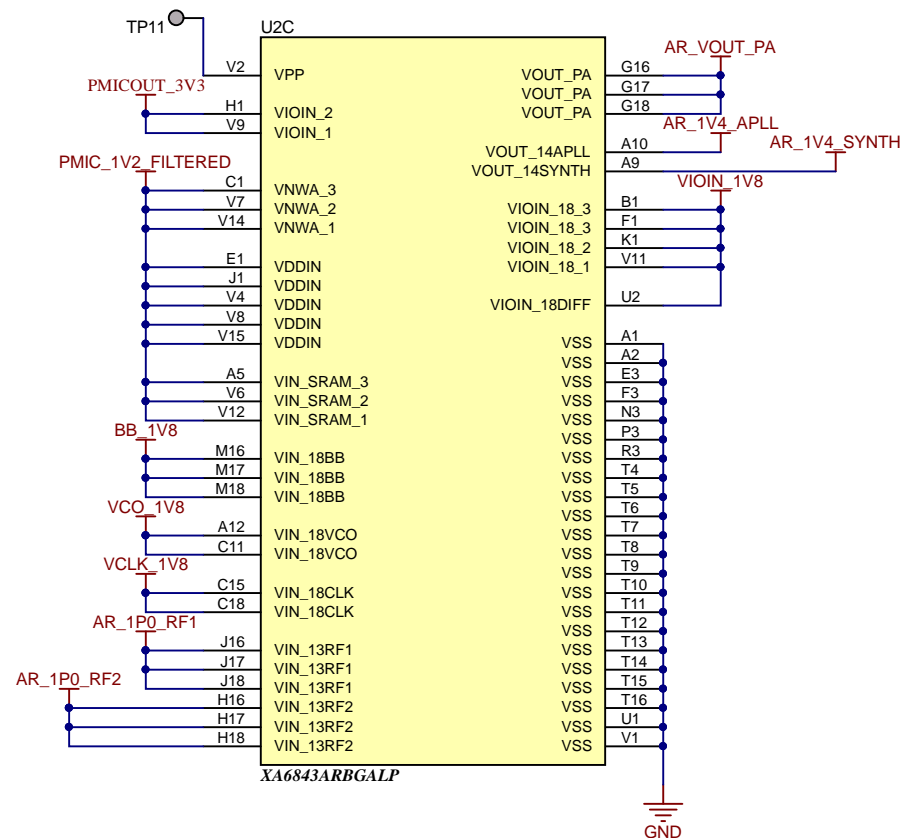
SOP OPTIONS



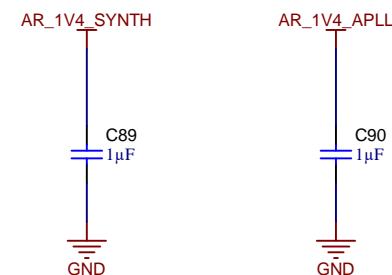
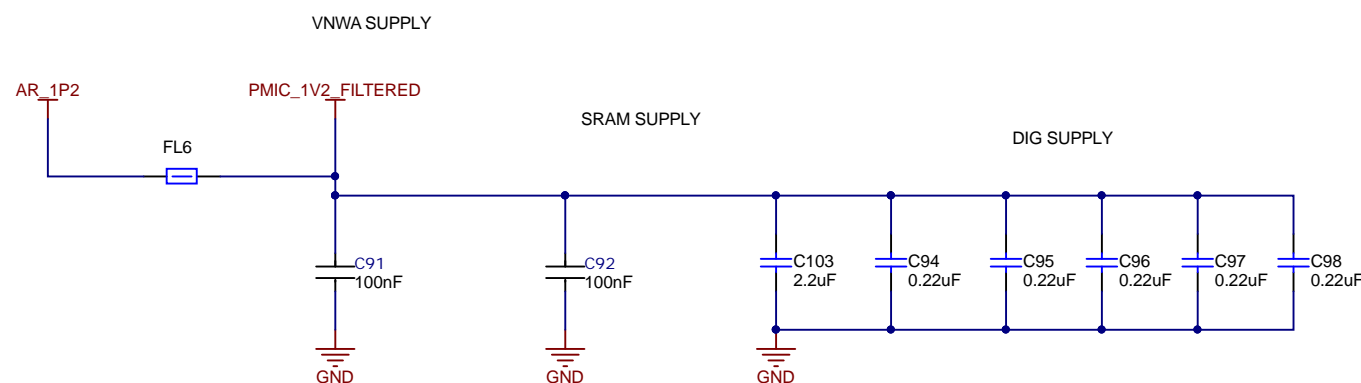
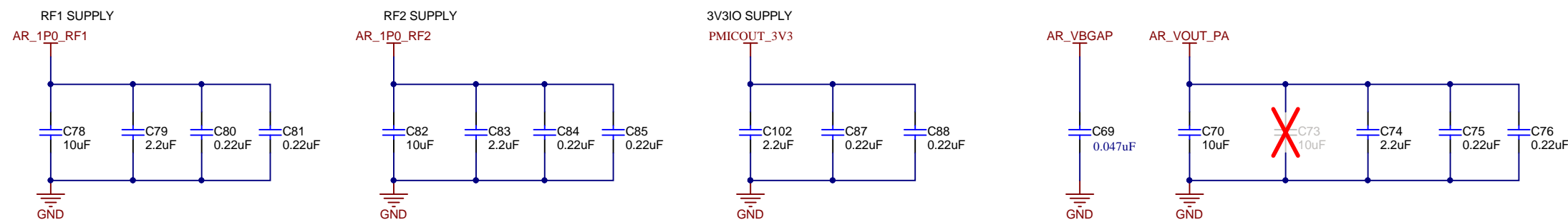
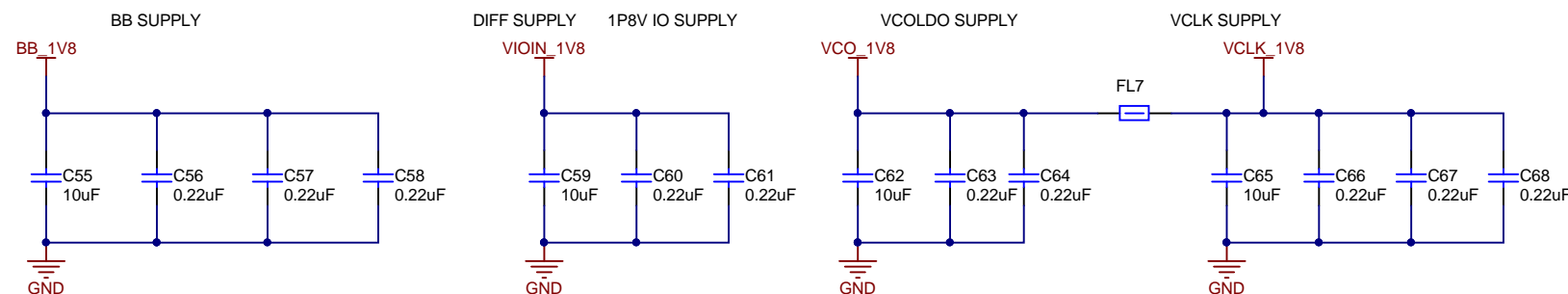
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Orderable: AWR6843AOPEVM	Designed for: Public Release	Mod. Date: 10-11-2020
TID #: N/A	Project Title: xWR6843AOPEVM	
Number: PROC091	Rev: F	Sheet Title: AOP_IO
SVN Rev: Unknown revision	Assembly Variant: 002	Sheet: 3 of 12
Drawn By: Antony/Bala	File: PROC091F_AOP_IO.SchDoc	Size: B
Engineer: Antony/Bala	Contact: http://www.ti.com/support	

AOP POWER



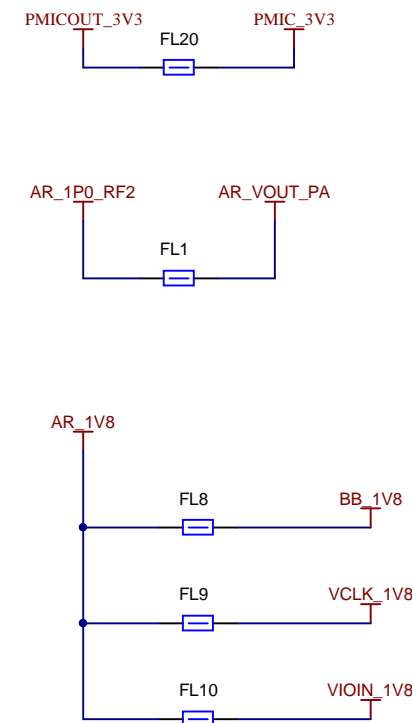
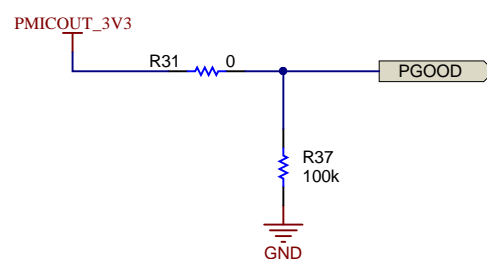
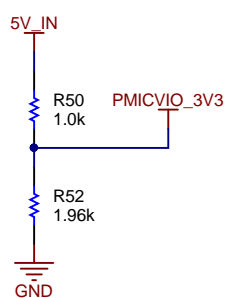
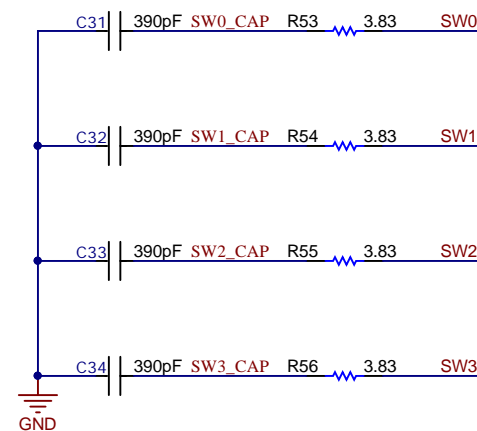
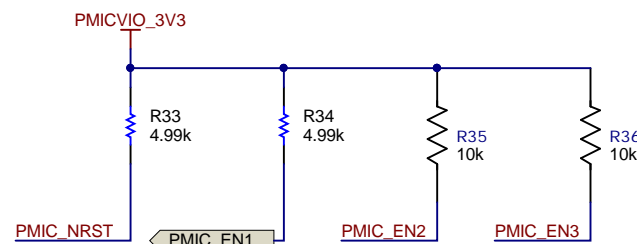
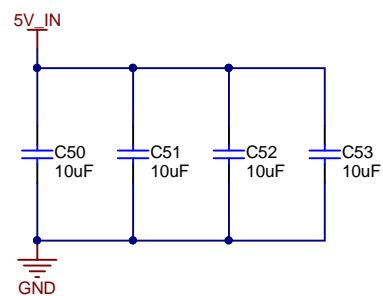
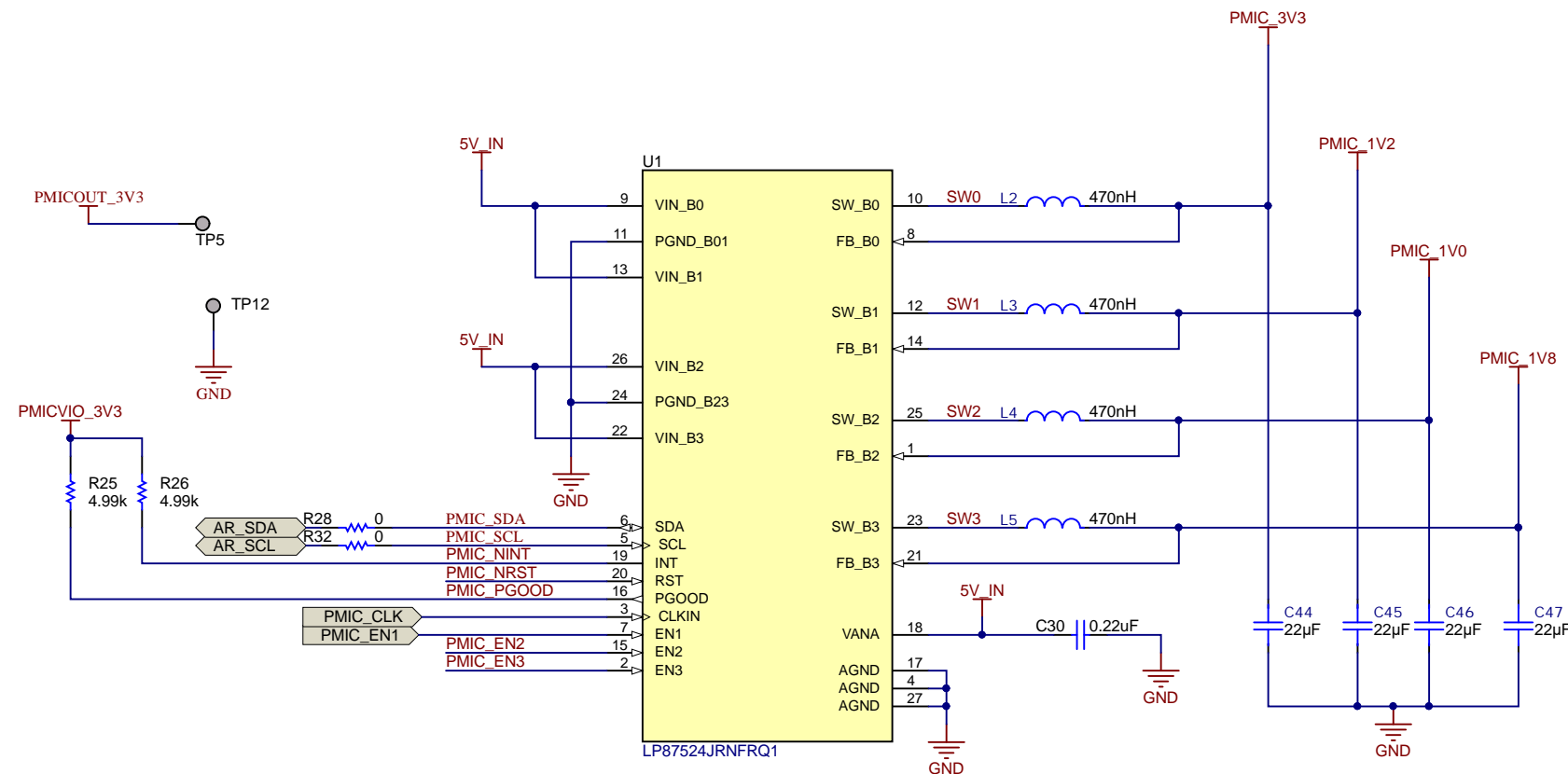
DECOUPLING CAPS



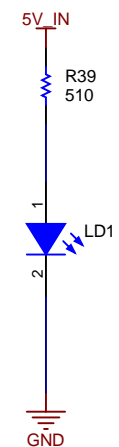
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TID #: N/A	Project Title: xWR6843AOPEVM		
Number: PROC091	Rev: F	Sheet Title: AOP_POWER	
SVN Rev: Unknown revision	Assembly Variant: 002	Sheet: 4 of 12	
Drawn By: Antony/Bala	File: PROC091F_AOP_PWR.SchDoc	Size: B	
Engineer: Antony/Bala	Contact: http://www.ti.com/support		http://www.ti.com © Texas Instruments 2019

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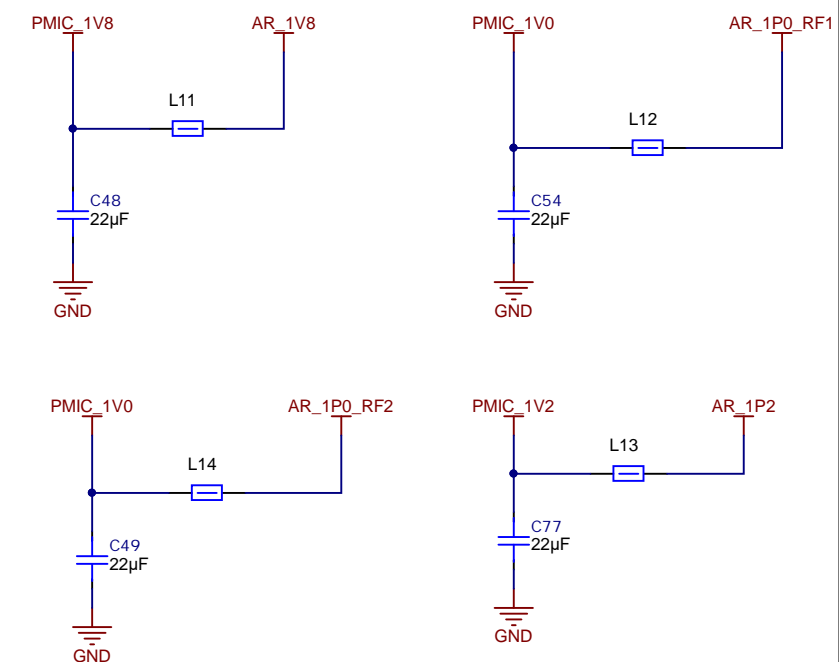
PMIC (3.3V, 1.2V, 1.0V, 1.8V OUTPUTS)



5V LED INDICATION



LDO BYPASS

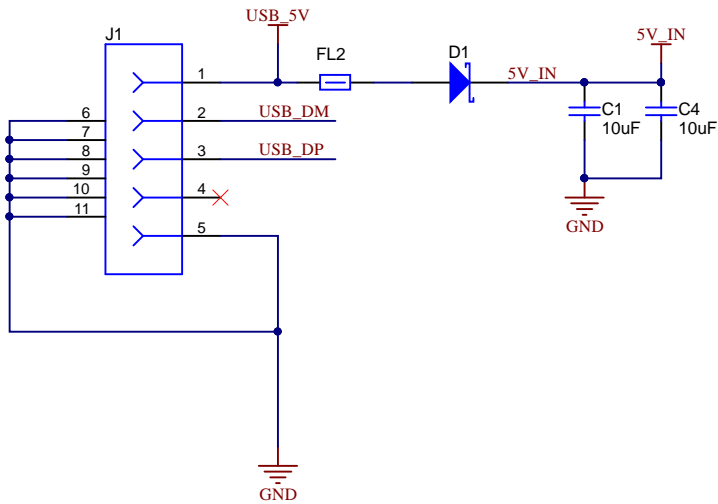


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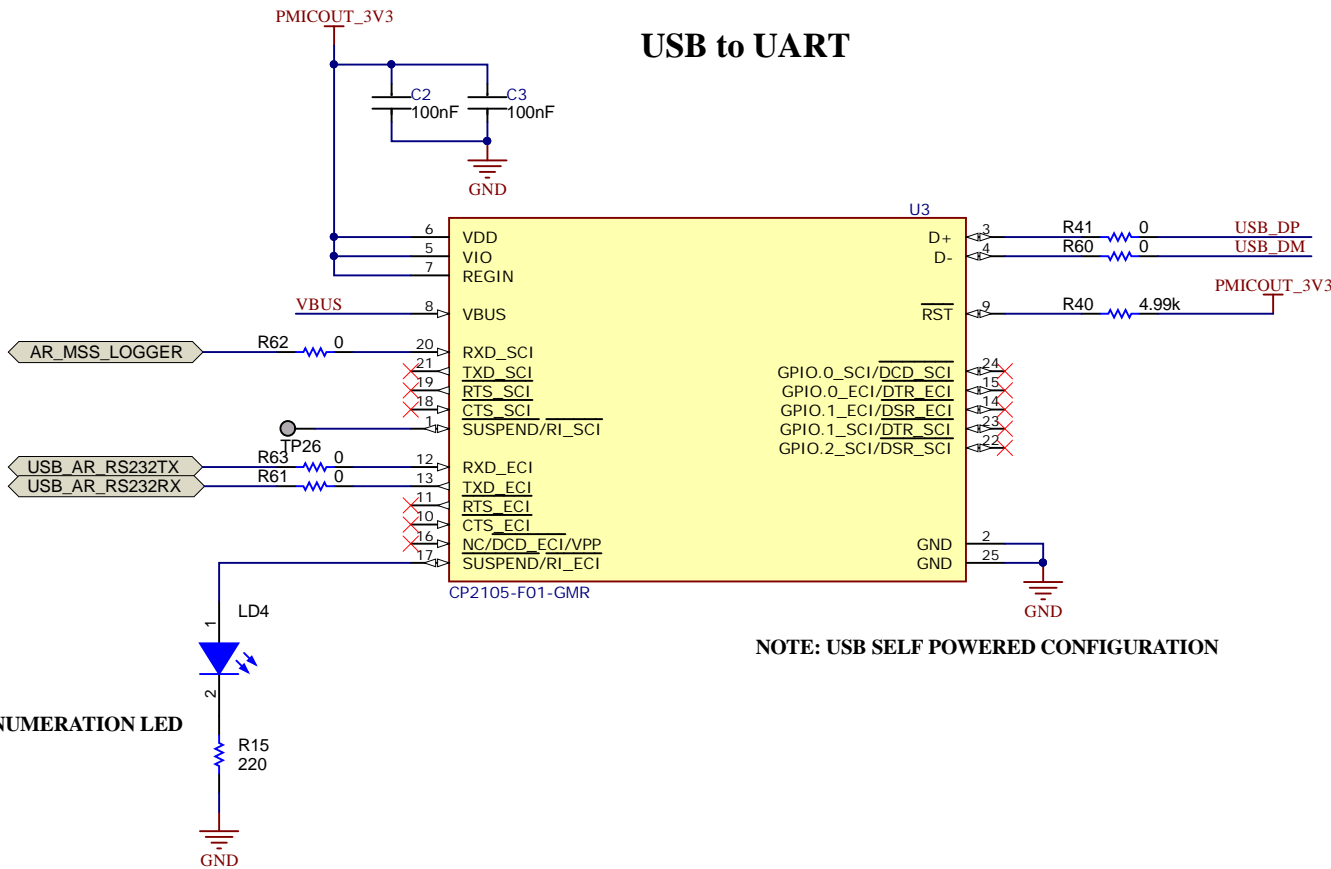
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TID #: N/A	Project Title: xWR6843AOPEVM	
Number: PROC091	Rev: F	Sheet Title: PMIC
SVN Rev: Unknown revision	Assembly Variant: 002	Sheet: 5 of 12
Drawn By: Antony/Bala	File: PROC091F_PMIC.SchDoc	Size: B
Engineer: Antony/Bala	Contact: http://www.ti.com/support	



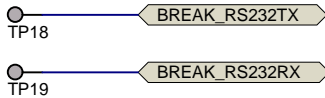
USB CONNECTOR



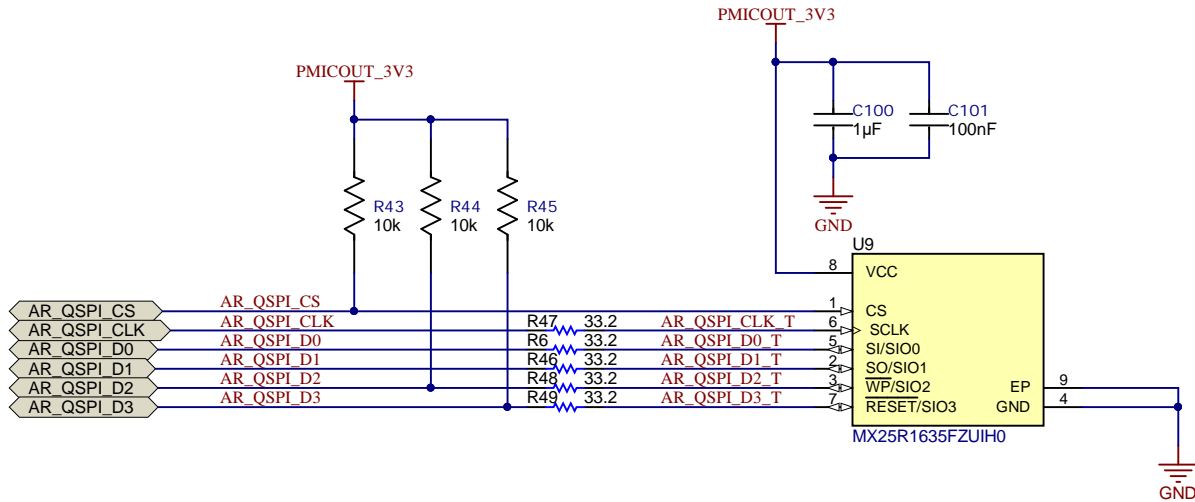
USB to UART



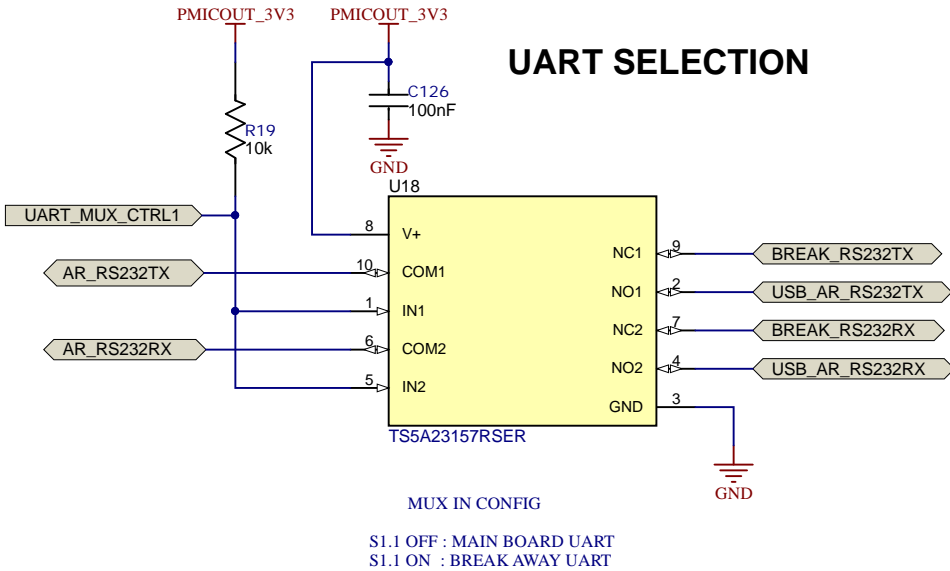
NOTE: USB SELF POWERED CONFIGURATION



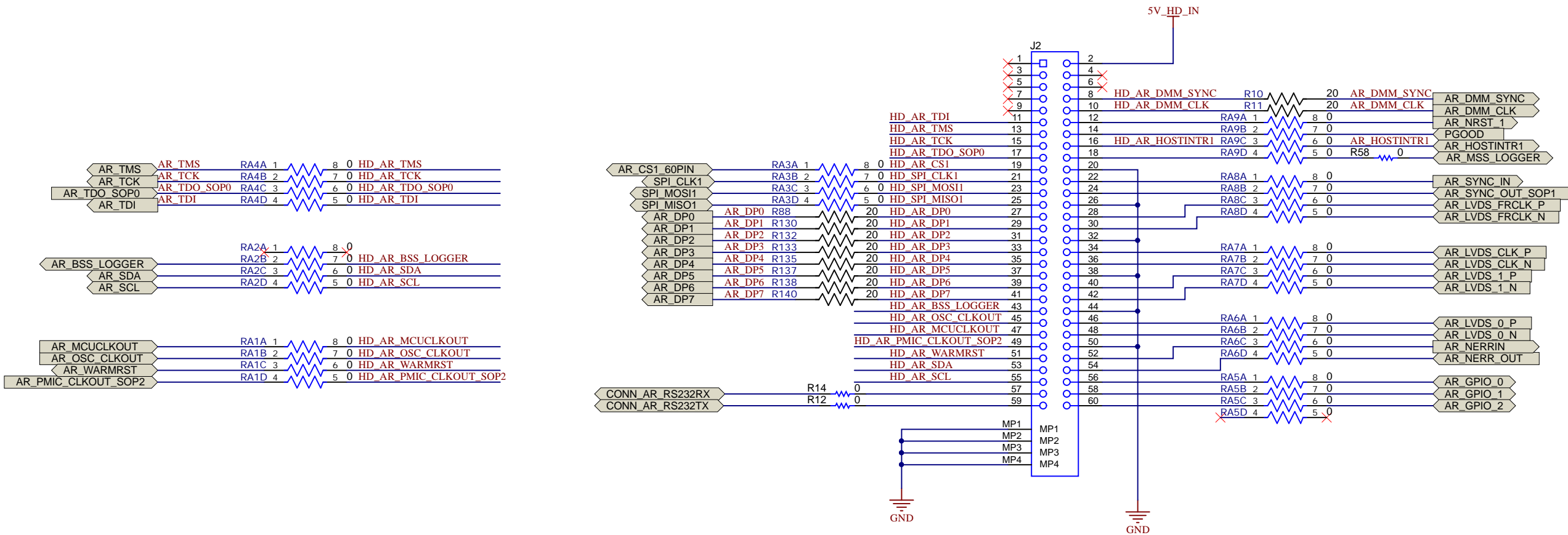
QSPI FLASH



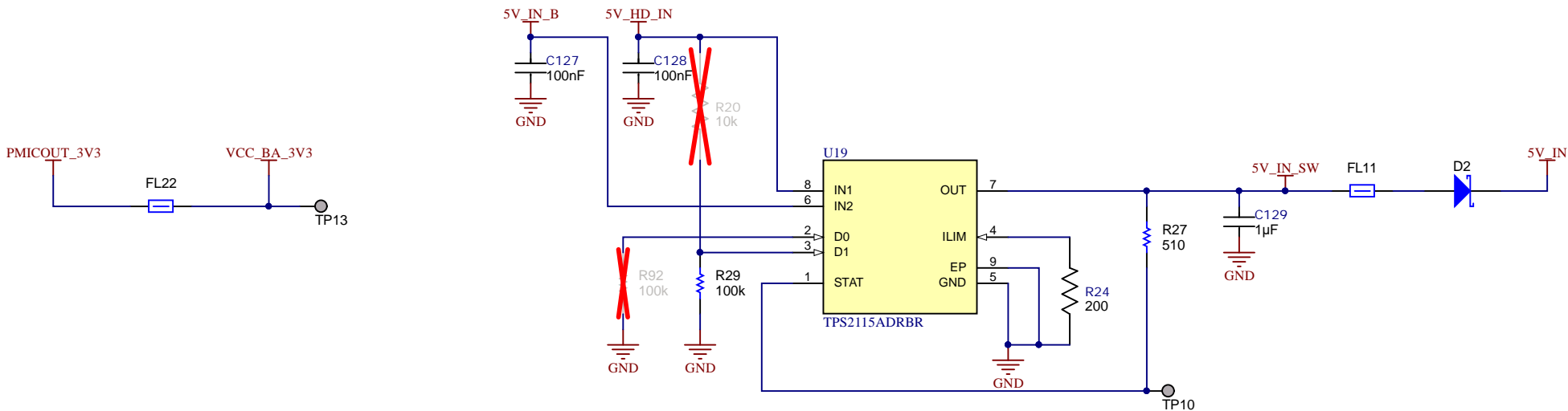
UART SELECTION



BREAKAWAY _ 60-PIN HD CONNECTOR



CONNECTOR PWR / USB PWR LOAD SWITCH



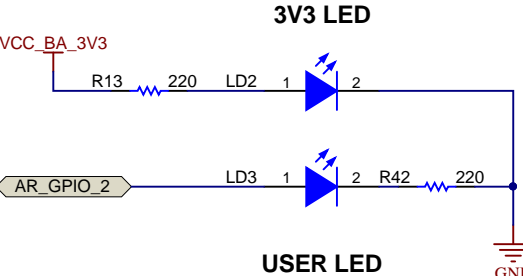
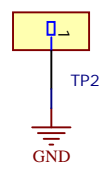
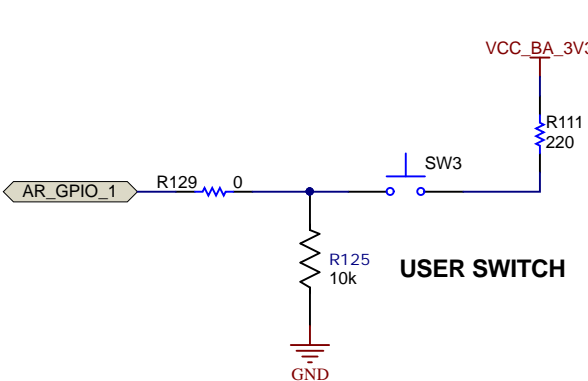
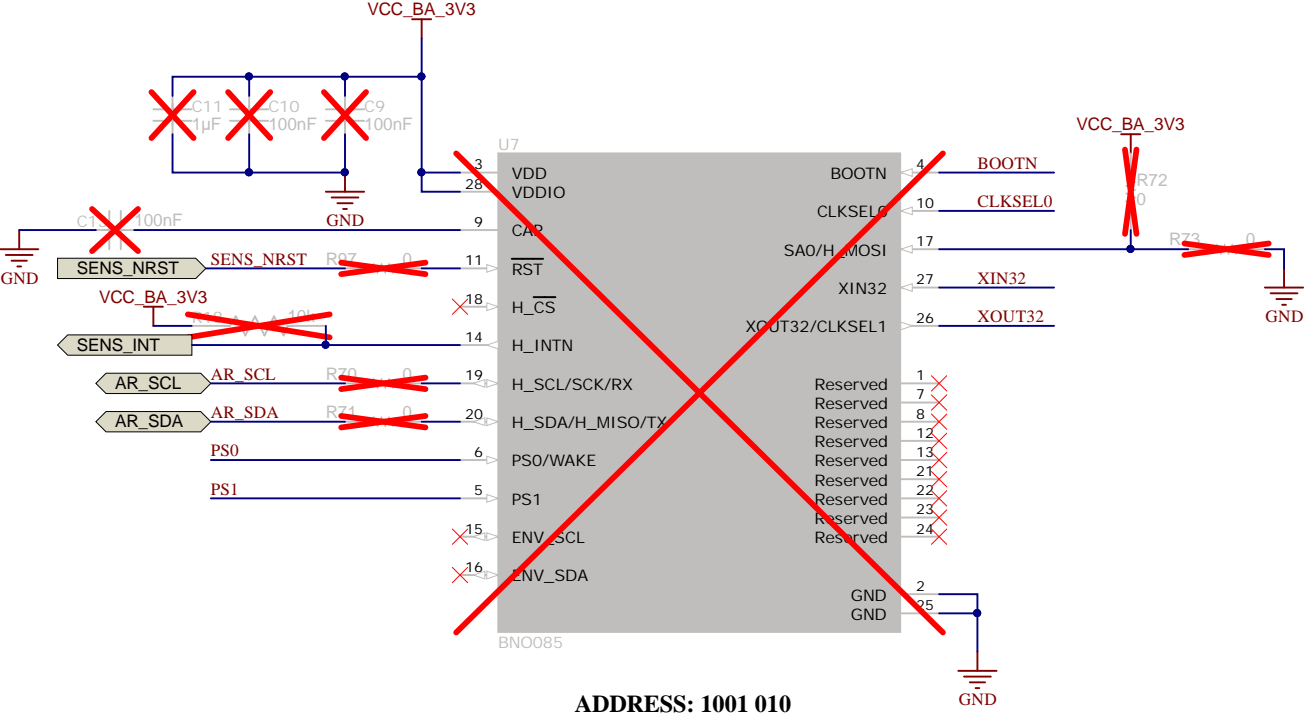
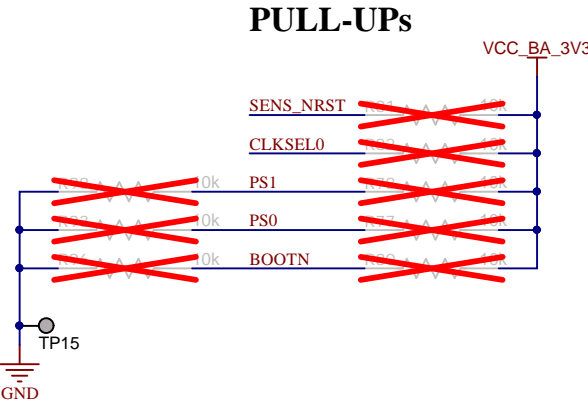
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Orderable: AWR6843AOPEVM	Designed for: Public Release	Mod. Date: 06-11-2020
TID #: N/A	Project Title: xWR6843AOPEVM	
Number: PROC091	Rev: F	Sheet 7 of 12
SVN Rev: Unknown revision	Assembly Variant: 002	Size: B
Drawn By: Antony/Bala	File: PROC091F_HD_CONN_PWR_SW.SchDoc	
Engineer: Antony/Bala	Contact: http://www.ti.com/support	

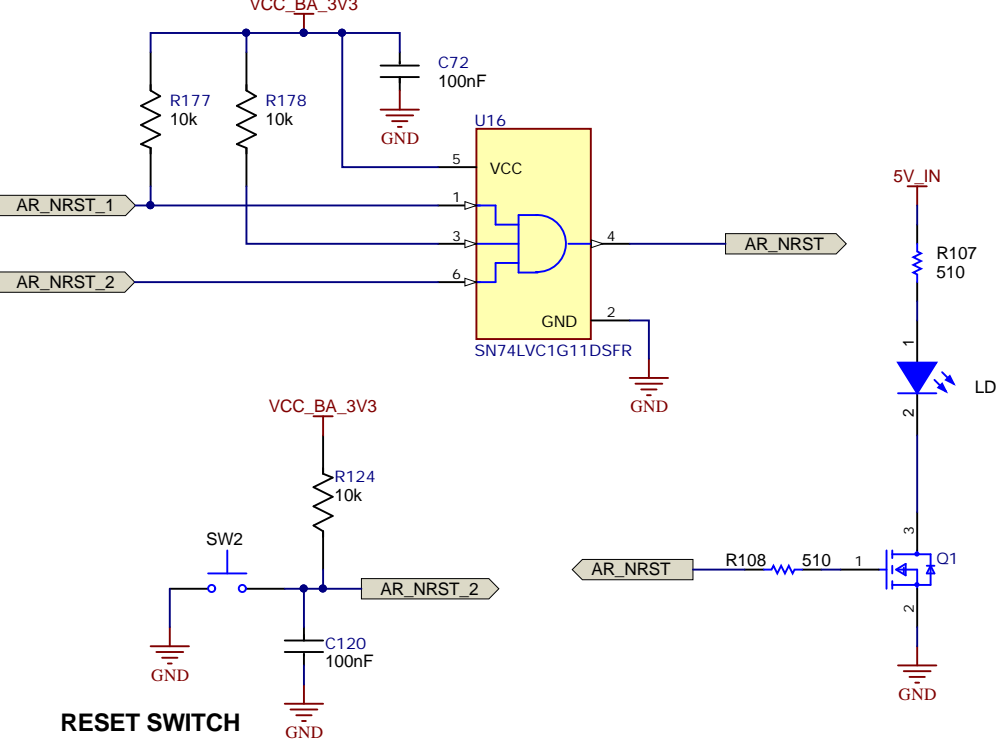
BREAKAWAY_SECTION_2

9 - AXIS SENSOR

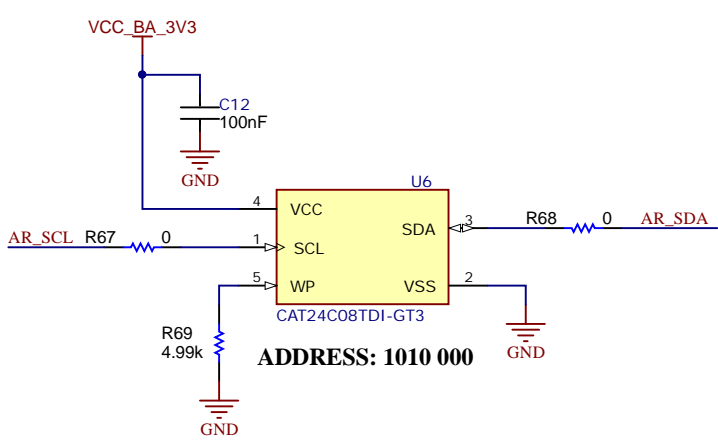
PULL-UPS



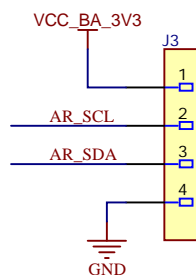
AOP RESET



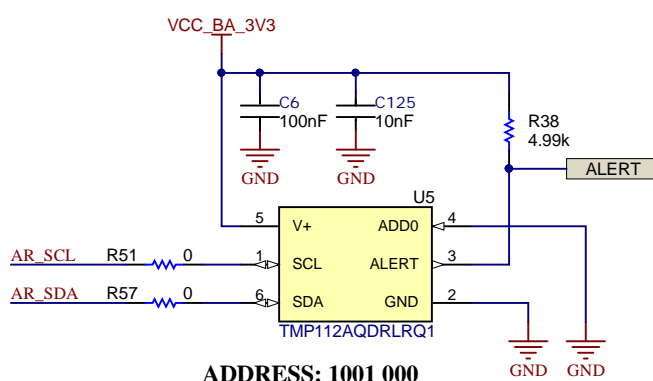
EEPROM



I2C HEADER



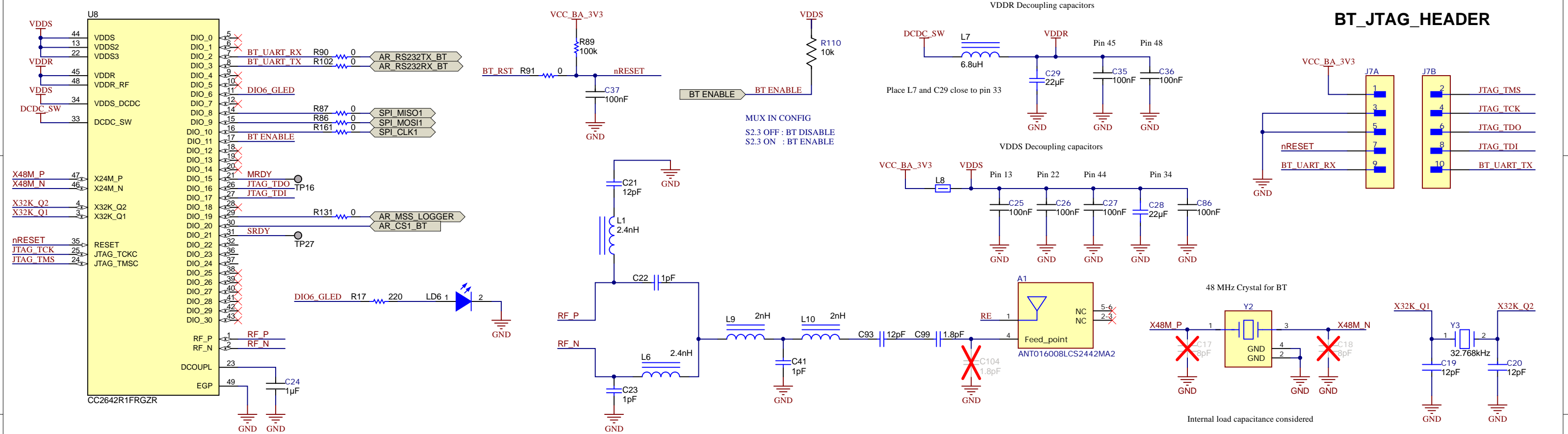
TEMPERATURE SENSOR



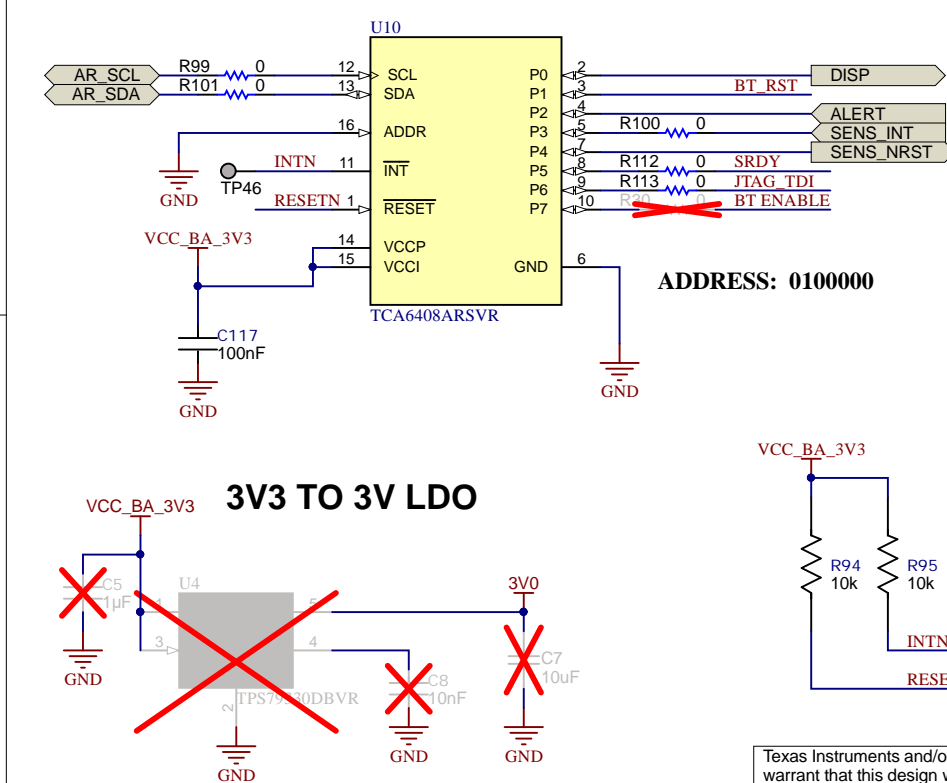
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BREAKAWAY_SECTION_3

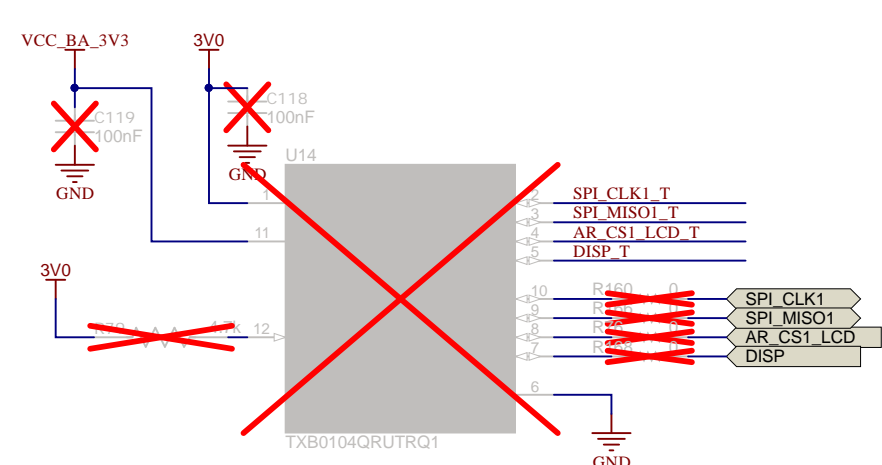
BLUETOOTH



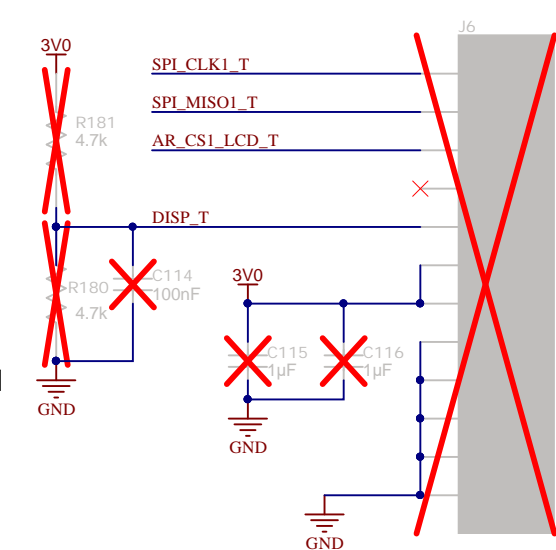
GPIO EXPANDER



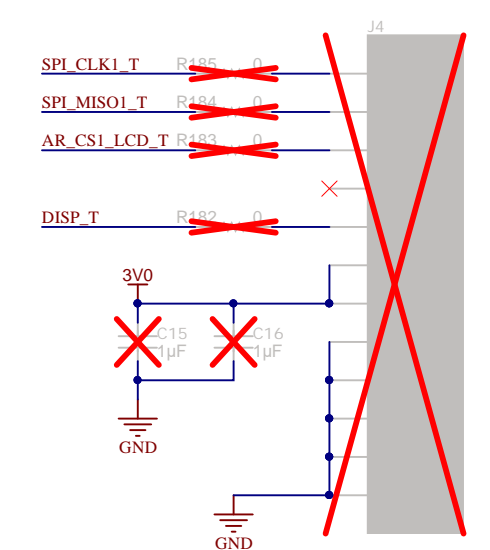
LEVEL TRANSLATOR FOR DISPLAY



LCD DISPLAY CONNECTOR-1



LCD DISPLAY CONNECTOR-2



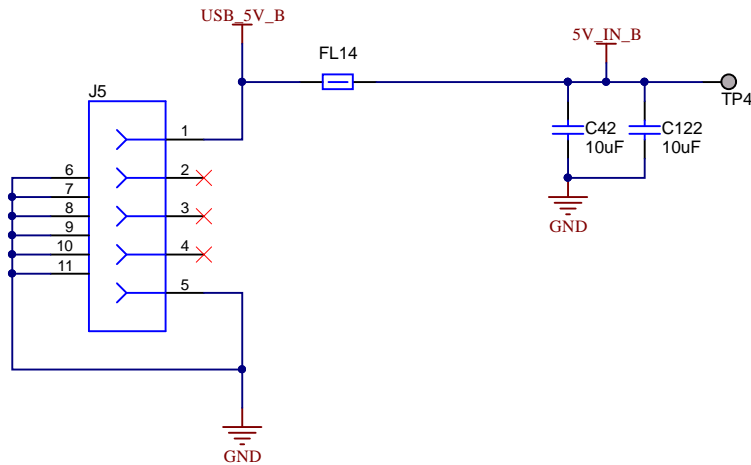
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Orderable: AWR6843AOPEVM	Designed for: Public Release	Mod. Date: 21-07-2020
TID #: N/A	Project Title: xWR6843AOPEVM	
Number: PROC091	Rev: F	Sheet Title: BREAKAWAY_SECTION3
SVN Rev: Unknown revision	Assembly Variant: 002	Sheet: 9 of 12
Drawn By: Antony/Bala	File: PROC091F_BT_DISPLAY.SchDoc	Size: B
Engineer: Antony/Bala	Contact: http://www.ti.com/support	

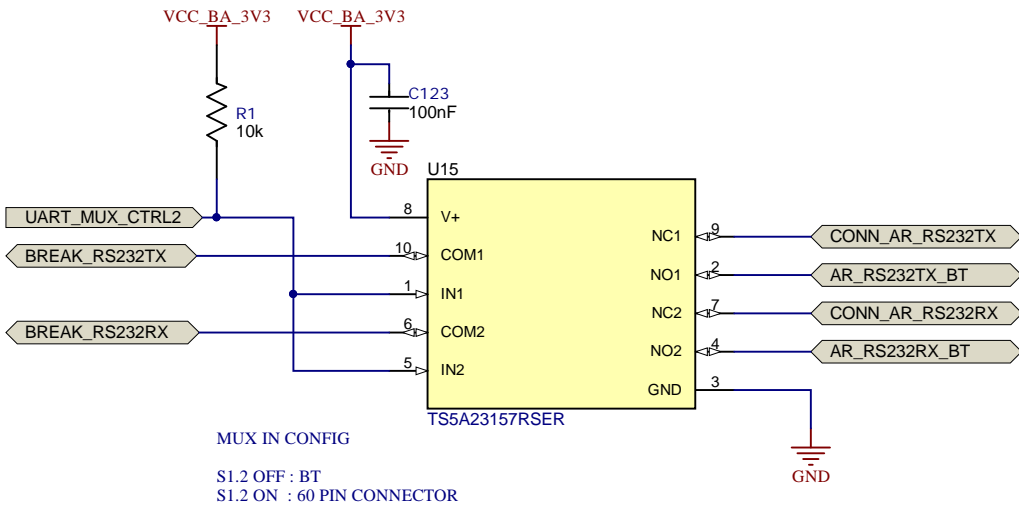


BREAKAWAY_SECTION_4

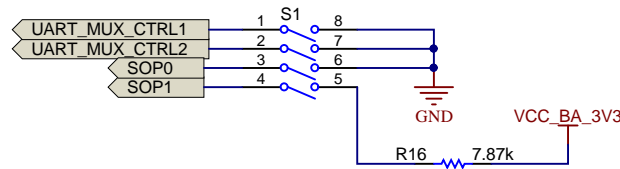
USB CONNECTOR



ANALOG MUX SELECTION FOR UART



SWITCH CONTROL MUX SELECTION, SOPs, BT CONTROL



SOP CONFIGURATION

Mode	SOP0 (S1.3)	SOP1 (S1.4)	SOP2 (S3)
Functional Mode	OFF	OFF	OFF
Flash Mode	OFF	OFF	ON
MMWAVEICEBOOST mode (DCA1000, JTAG, and so forth)	OFF	ON	OFF

PIN MUX SETTINGS

Designator	Switch ON	Switch OFF
S1.1	Breakaway UART	CP2105UART
S1.2	60 Pin UART	BT UART
S2.1	CAN	SPI
S2.2	60 Pin CS	BT/LCD CS
S2.3	BT Enable	BT Disable

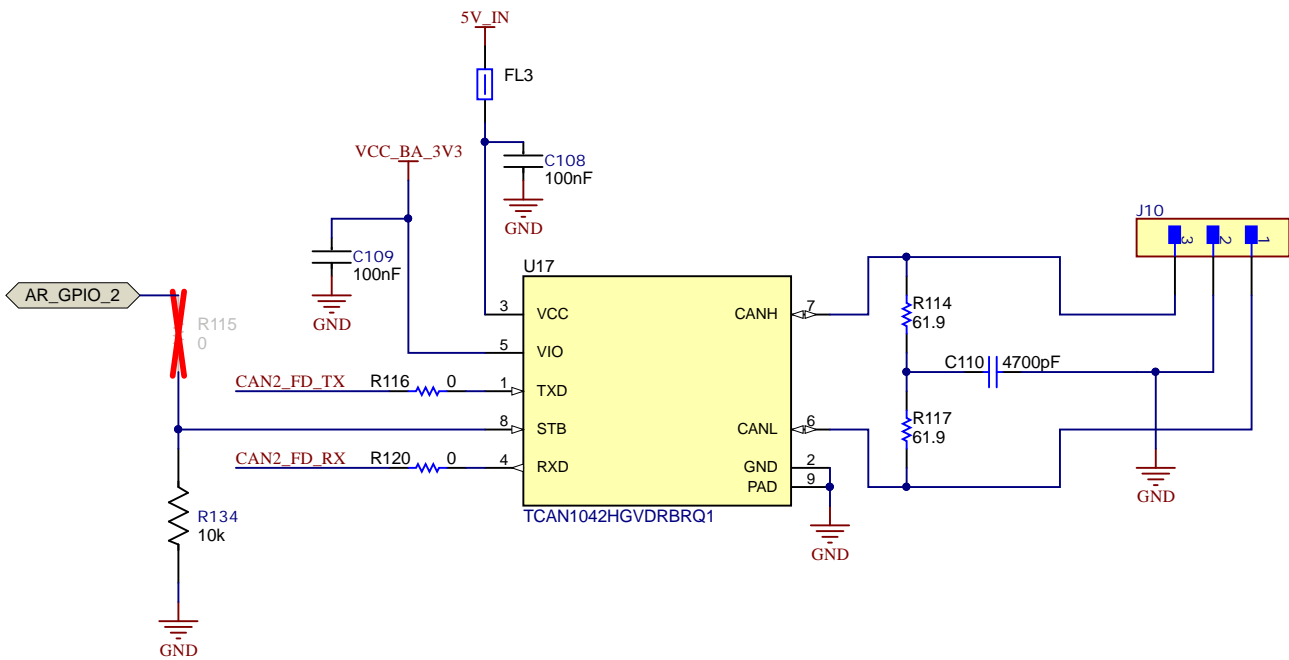
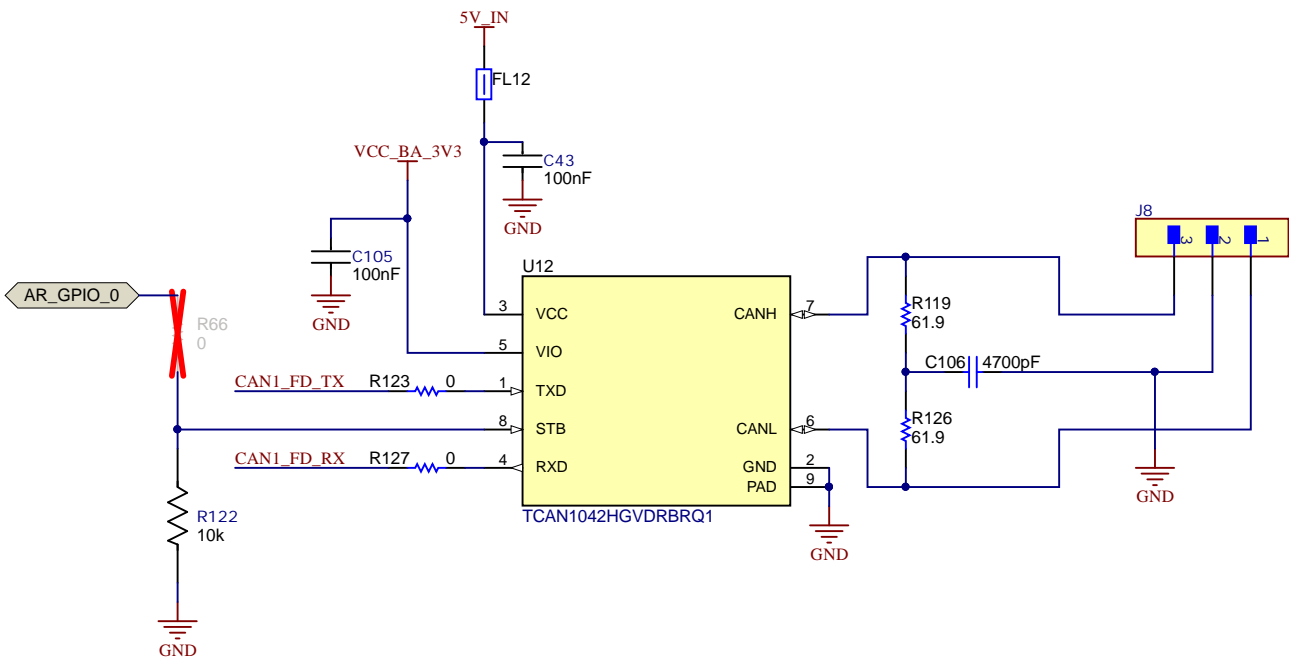
PIN MUX SETTINGS

	S1.1	S1.2	S2.1	S2.2	S2.3
Stand alone Mode	OFF	N/A	N/A	N/A	N/A
MMWAVEICEBOOST	ON	ON	OFF	OFF	N/A

BREAKAWAY_SECTION_5

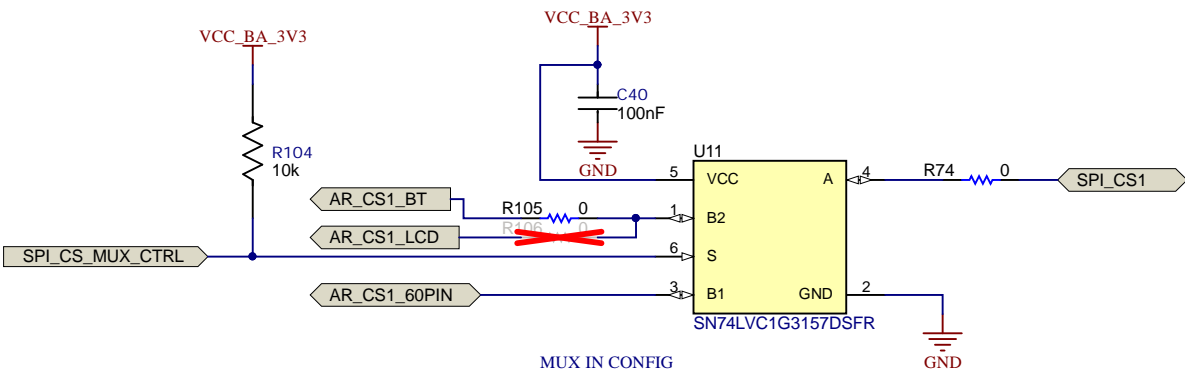
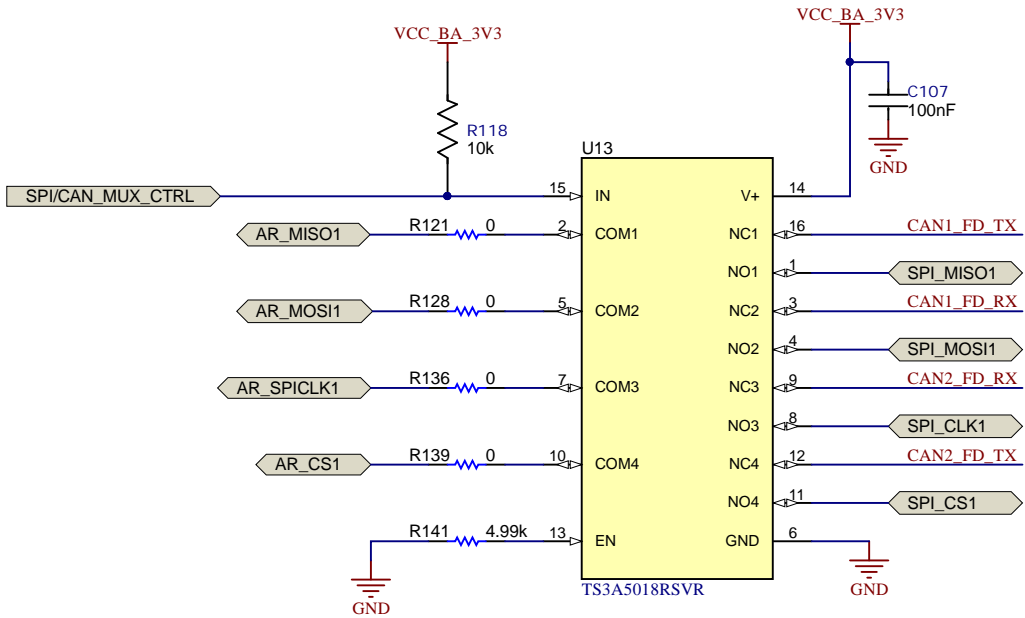
CAN1 INTERFACE

CAN2 INTERFACE



ANALOG MUX SELECTION FOR SPI/CAN

ANALOG MUX SELECTION FOR SPI CHIP SELECT



MUX IN CONFIG
S2.1 OFF : SPI
S2.1 ON : CAN

Orderable: AWR6843AOPEVM	Designed for: Public Release	Mod. Date: 21-07-2020
TID #: N/A	Project Title: xWR6843AOPEVM	
Number: PROC091	Rev: F	Sheet Title: BREAKAWAY_SECTION5
SVN Rev: Unknown revision	Assembly Variant: 002	Sheet: 11 of 12
Drawn By: Antony/Bala	File: PROC091F_CAN_INTERFACE.SchDoc	Size: B
Engineer: Antony/Bala	Contact: http://www.ti.com/support	

HARDWARE



PCB Number: PROC091
PCB Rev: F

PCB
LOGO
Texas Instruments



PCB
LOGO
FCC disclaimer

PCB
LOGO
WEEE logo

PCB
LOGO
ESD Susceptible



H1
MECH

H2
MECH

LBL1
PCB Label
THT-14-423-10
Size: 0.65" x 0.20 "

LBL2
PCB Label
THT-14-423-10
Size: 0.65" x 0.20 "

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.

ZZ5.1
Assembly Note
Cut the thermal pad(Part Number#GPVOUS-0.125-AC-0816) for the shape and size of the inner surface of the heatsink(Part Number#MCH054) and paste it on the inner surface of the heatsink;

ZZ5.2
Assembly Note
Bring the heatsink onto the PCB bottom side (Opposite side of AOP device). Match the teeth in the heatsink with break-away area in the PCB and press the heatsink onto the PCB slightly so as thermal pad is spread all over the area

Variant/Label Table	
Variant	Label Text
001	IWR6843AOPEVM
002	AWR6843AOPEVM

Orderable: AWR6843AOPEVM		Designed for: Public Release		Mod. Date: 06-11-2020
TID #: N/A		Project Title: xWR6843AOPEVM		
Number: PROC091	Rev: F	Sheet Title: HARDWARE		
SVN Rev: Unknown revision		Assembly Variant: 002	Sheet: 12 of 12	
Drawn By: Antony/Bala		File: PROC091F_Hardware.schdoc	Size: B	
Engineer: Antony/Bala		Contact: http://www.ti.com/support		