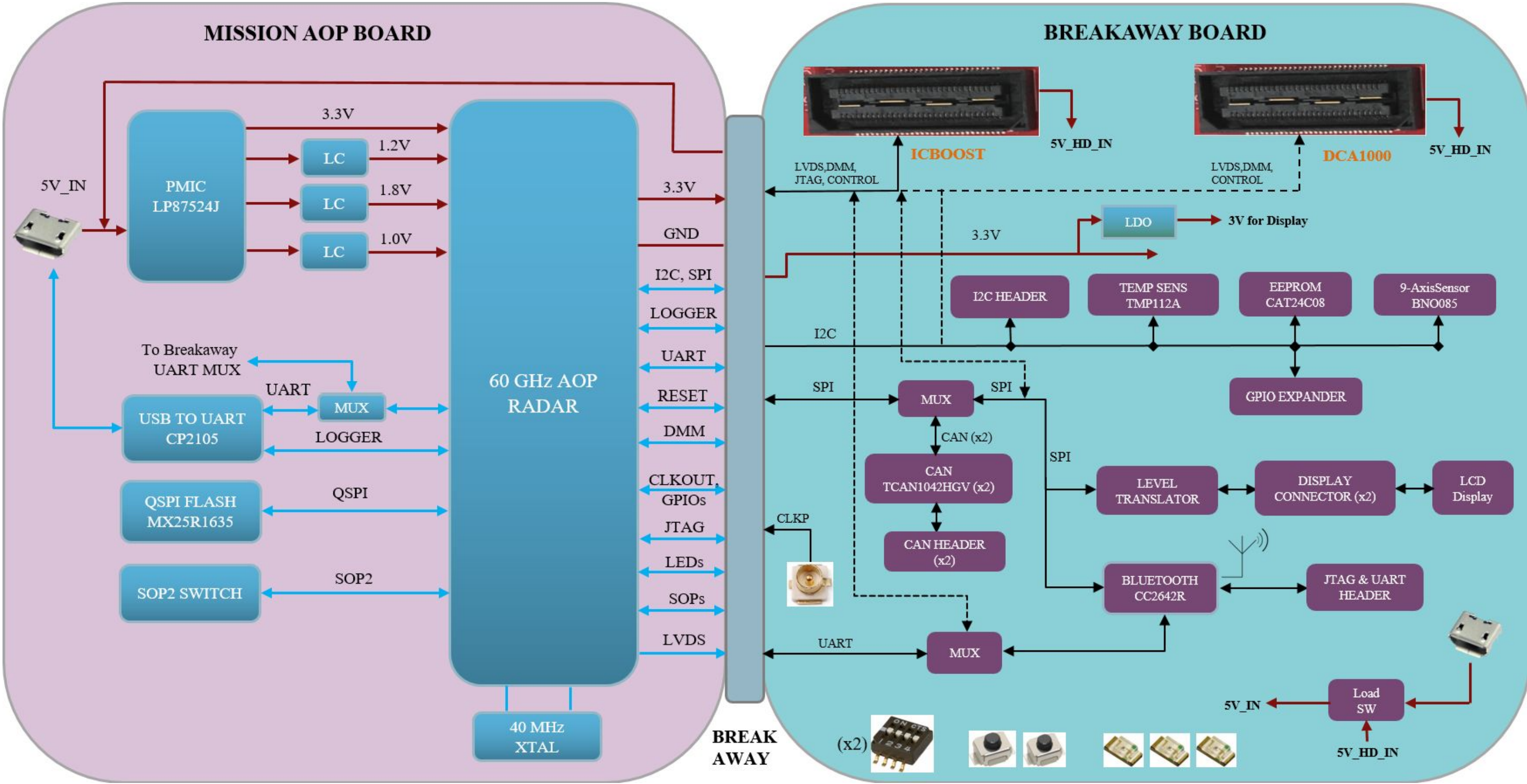


BLOCK DIAGRAM

Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
G	1	31/03/2021	Charles Oladimeji	Updated RF1, RF2, 1.2V & 1.8V supplies LC filers section with BLM18KG121TH1D, 2x CGA4J1X7T0J226M125AC(22uF) , GCM21BR71A106KE22L (10uF).
G	2	15/04/2021	Charles Oladimeji	Updated all 22uF caps on PMIC from 0402 to 0805 low ESL caps(CGA4J1X7T0J226M125AC).



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1	2	3	4	5	6
A					
B					
C					
D					

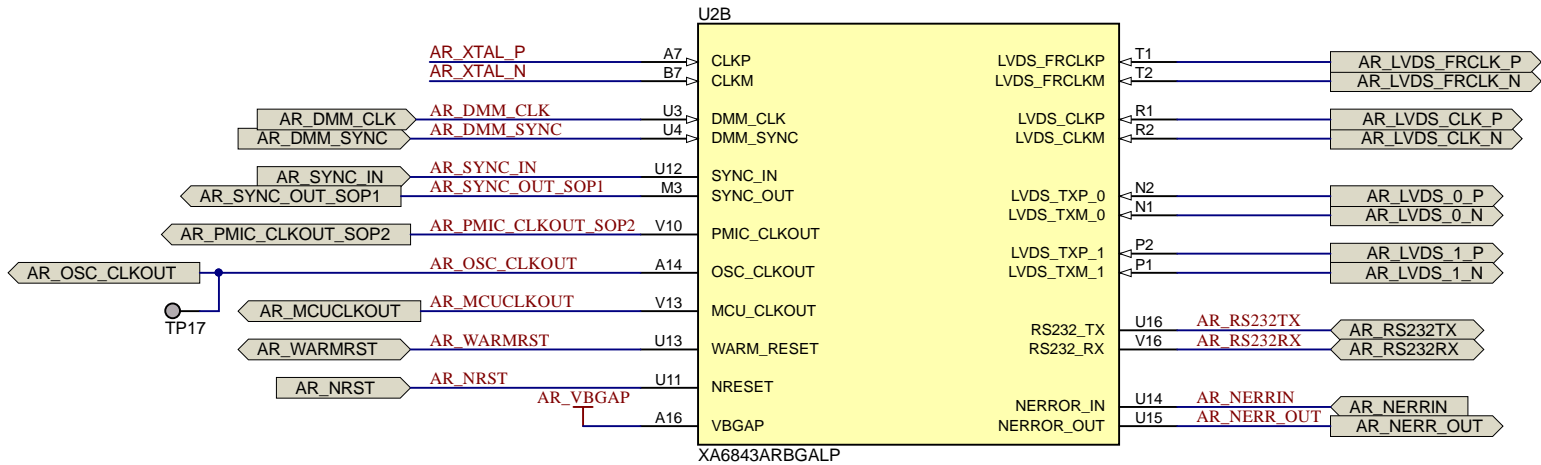
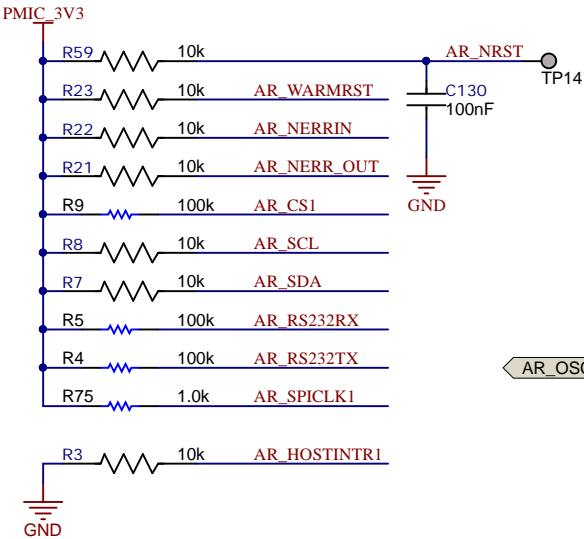
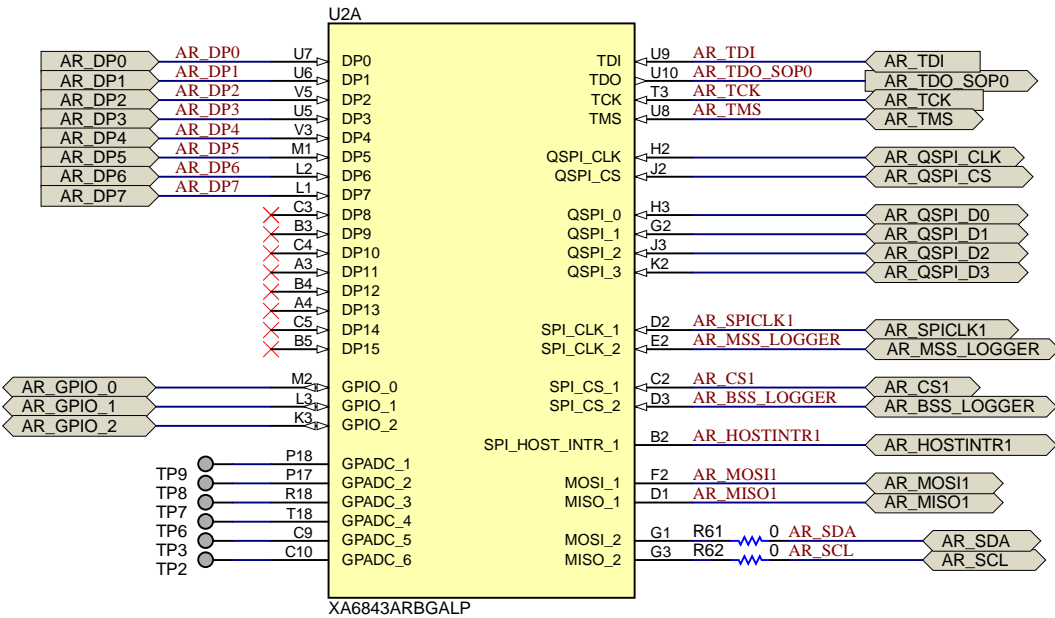
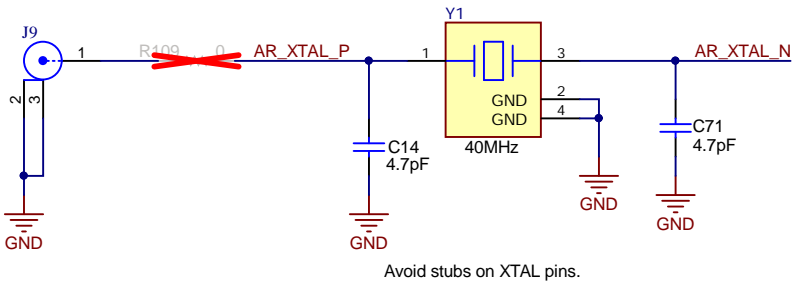
TABLE OF CONTENTS

SHEET NO.	SHEET NAME
1	BLOCK DIAGRAM
2	TABLE OF CONTENTS
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

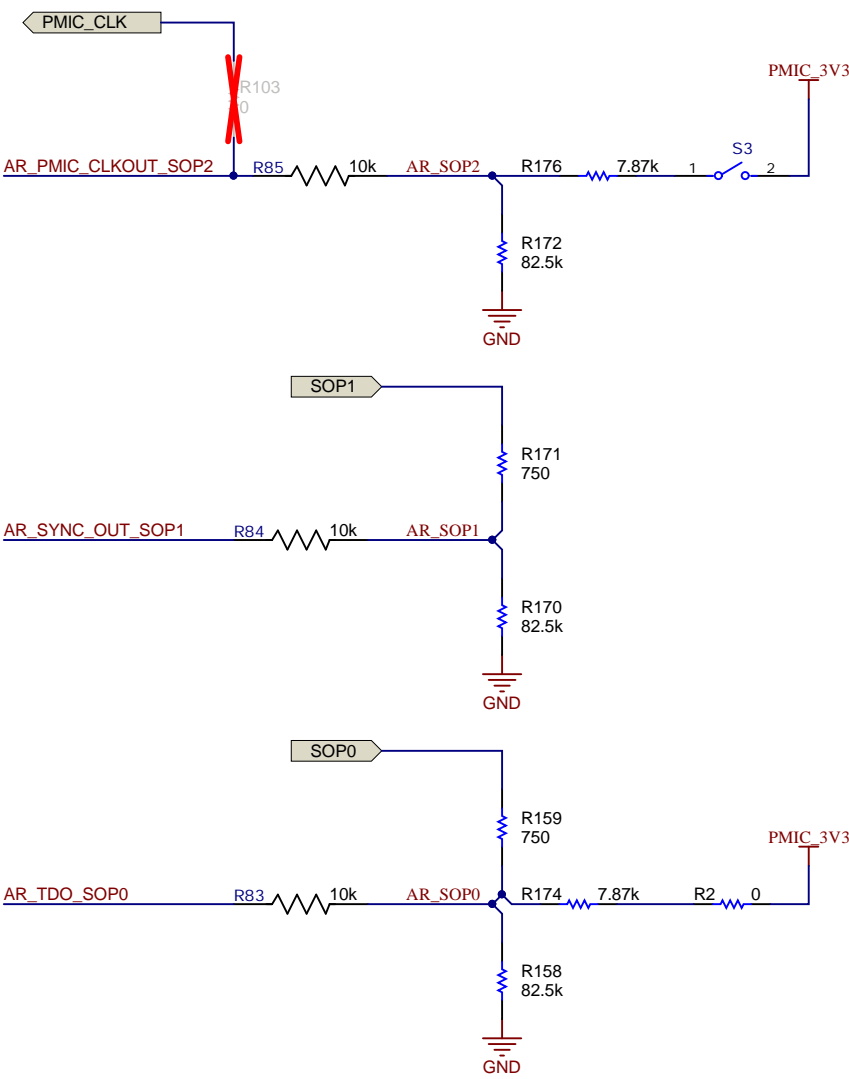
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AOP IO

40MHz CRYSTAL

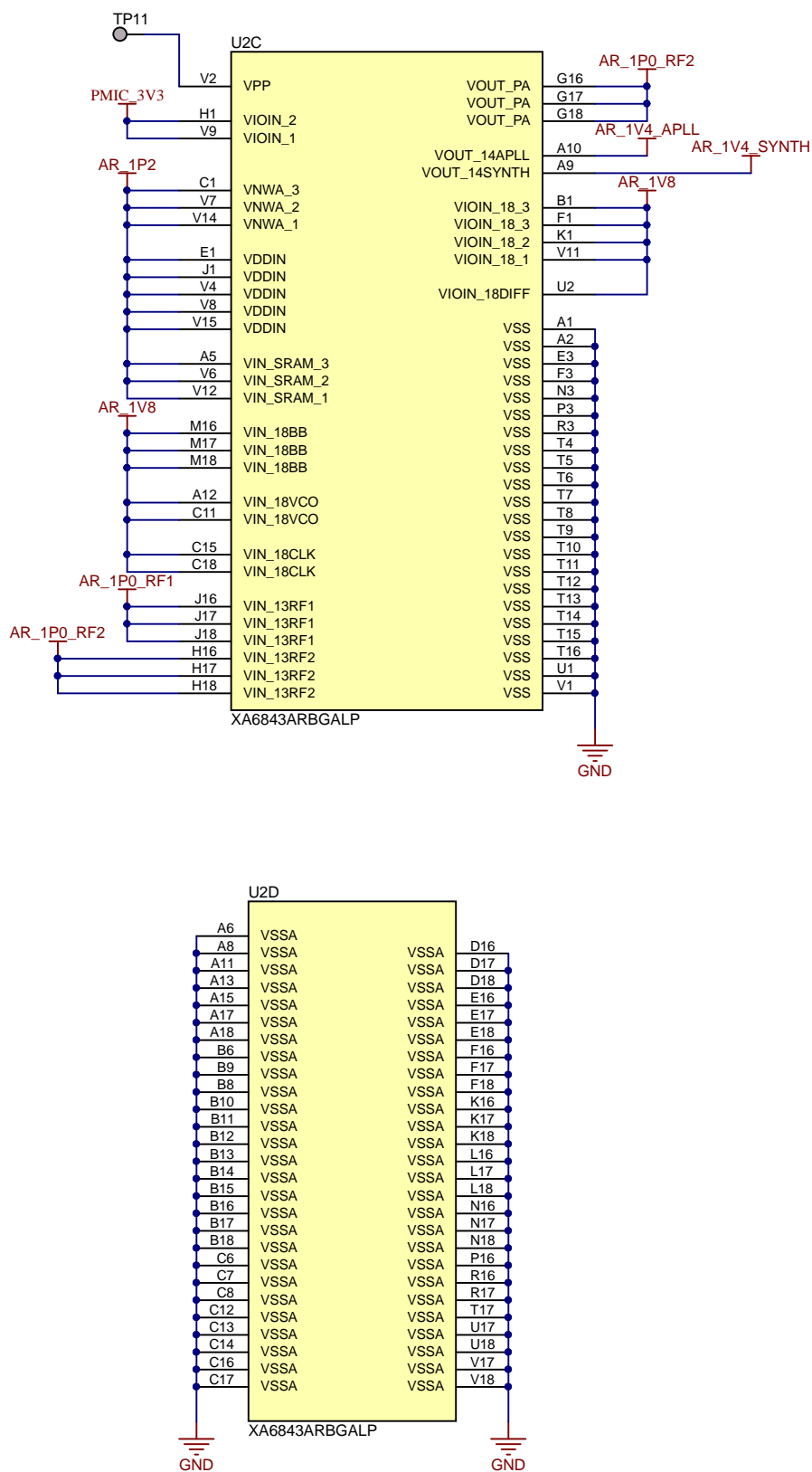


SOP OPTIONS

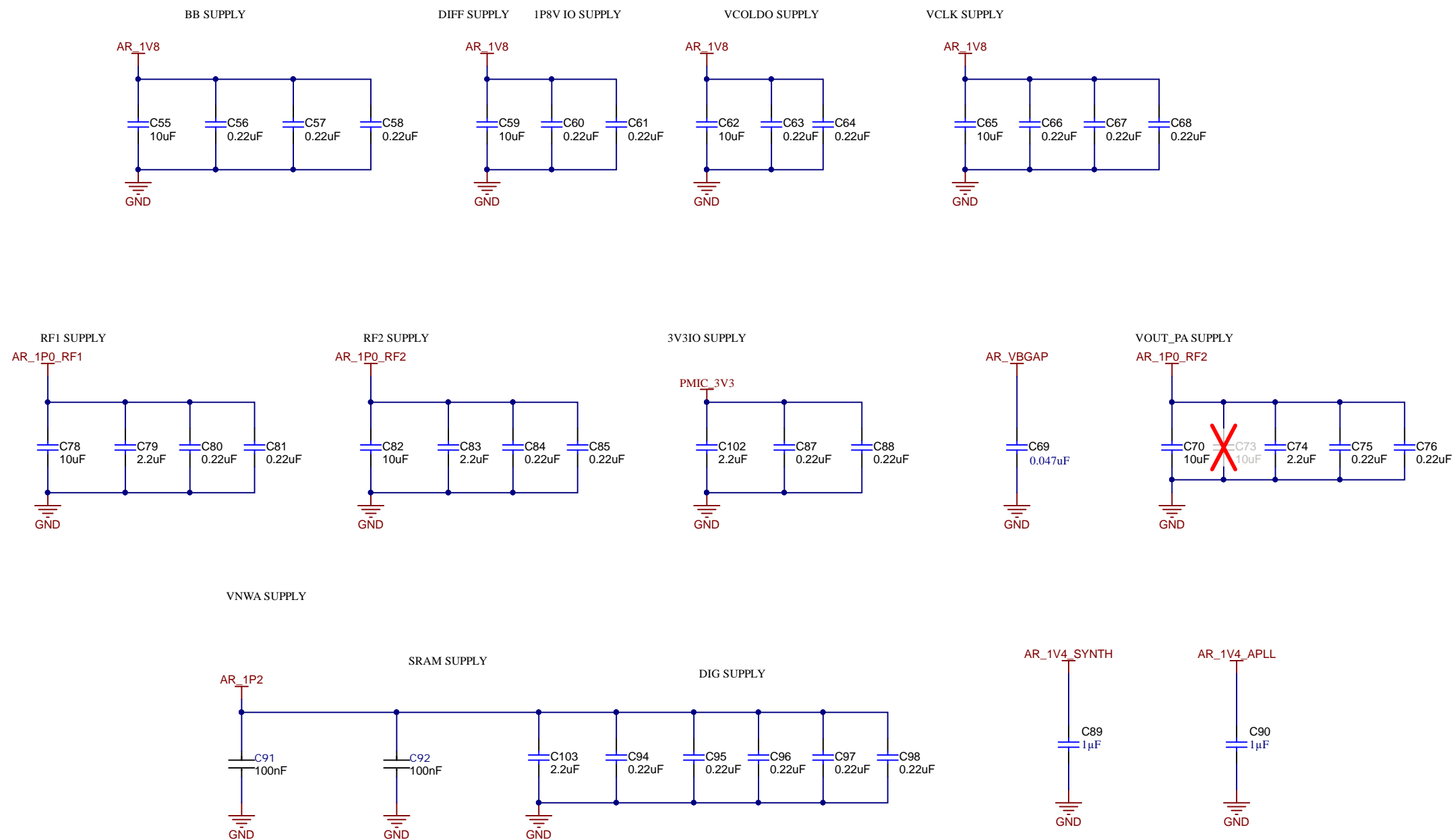



SOP_MODE2 - '011' - DEV/DEBUG
SOP_MODE4 - '001' - FUNCTIONAL MODE
SOP_MODE5 - '101' - FLASH MODE

AOP POWER



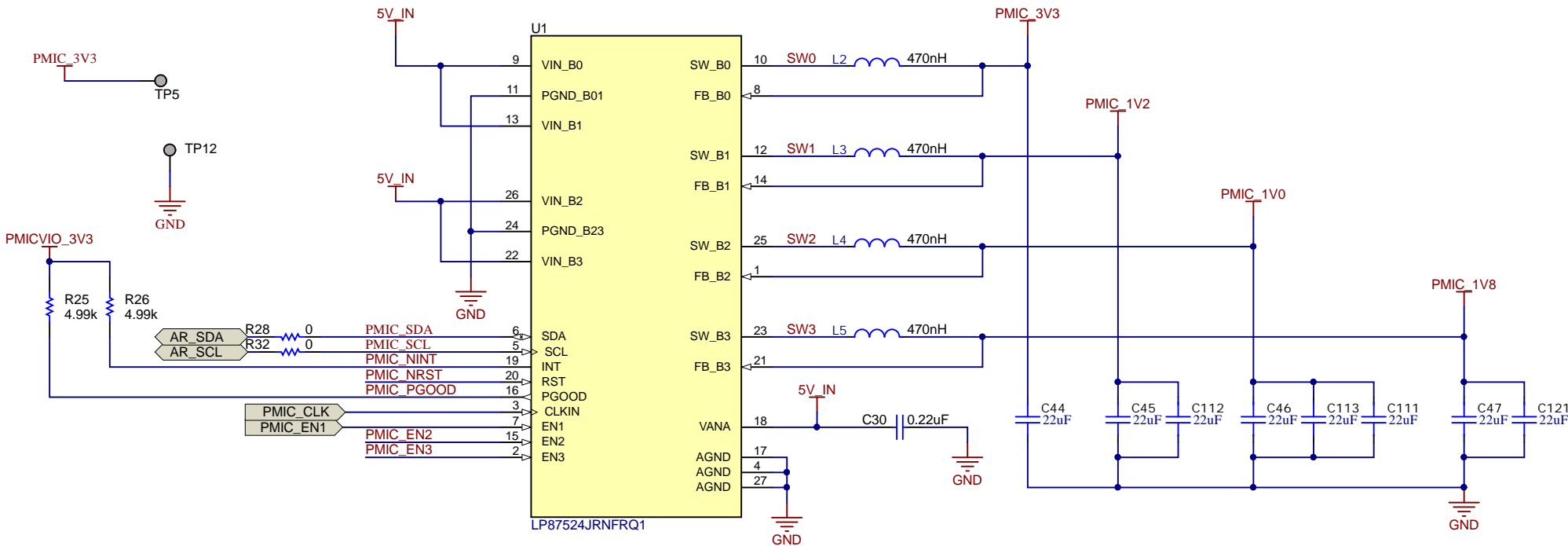
DECOUPLING CAPS



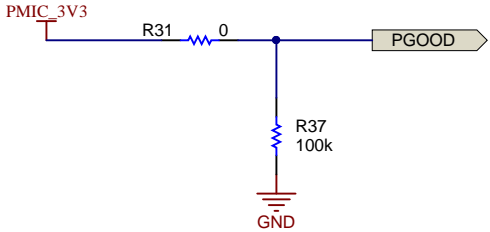
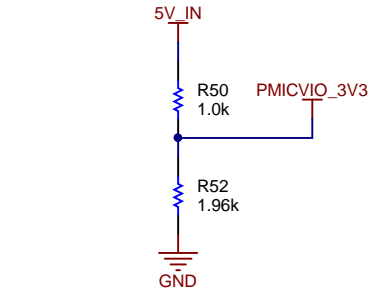
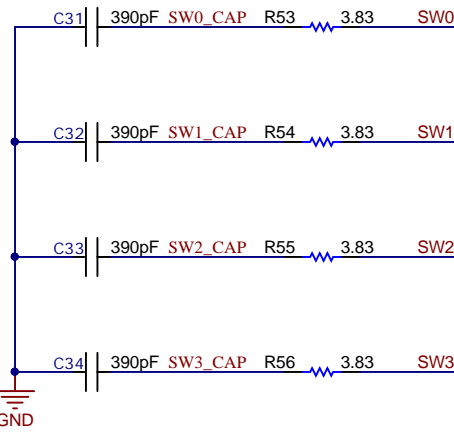
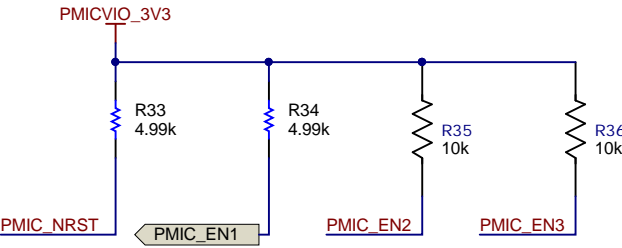
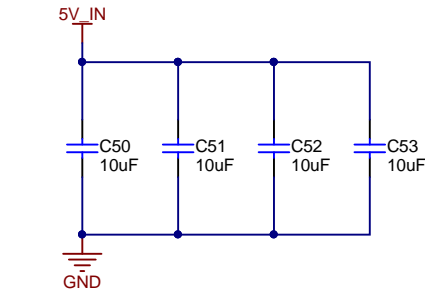
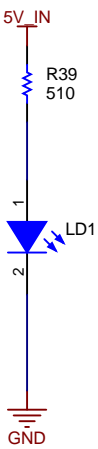
Orderable: AWR6843AOPEVM	Designed for: Public Release	Mod. Date: 31-08-2021	 http://www.ti.com © Texas Instruments 2019
TID #: N/A	Project Title: xWR6843AOPEVM		
Number: PROC091	Rev: G	Sheet Title: AOP_POWER	
SVN Rev: 1494	Assembly Variant: 002	Sheet: 4 of 12	
Drawn By: Antony/Bala	File: PROC091G_AOP_PWR.SchDoc	Size: B	
Engineer: Antony/Bala	Contact: http://www.ti.com/support		

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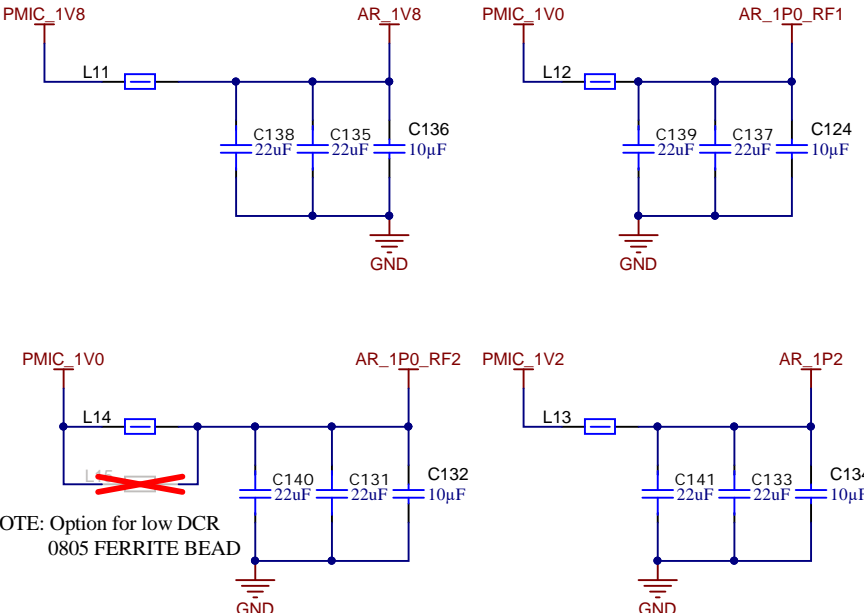
PMIC (3.3V, 1.2V, 1.0V, 1.8V OUTPUTS)



5V LED INDICATION



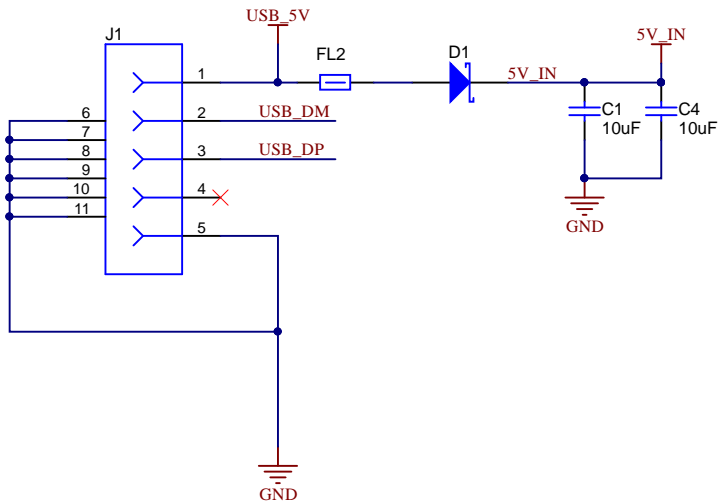
LDO BYPASS



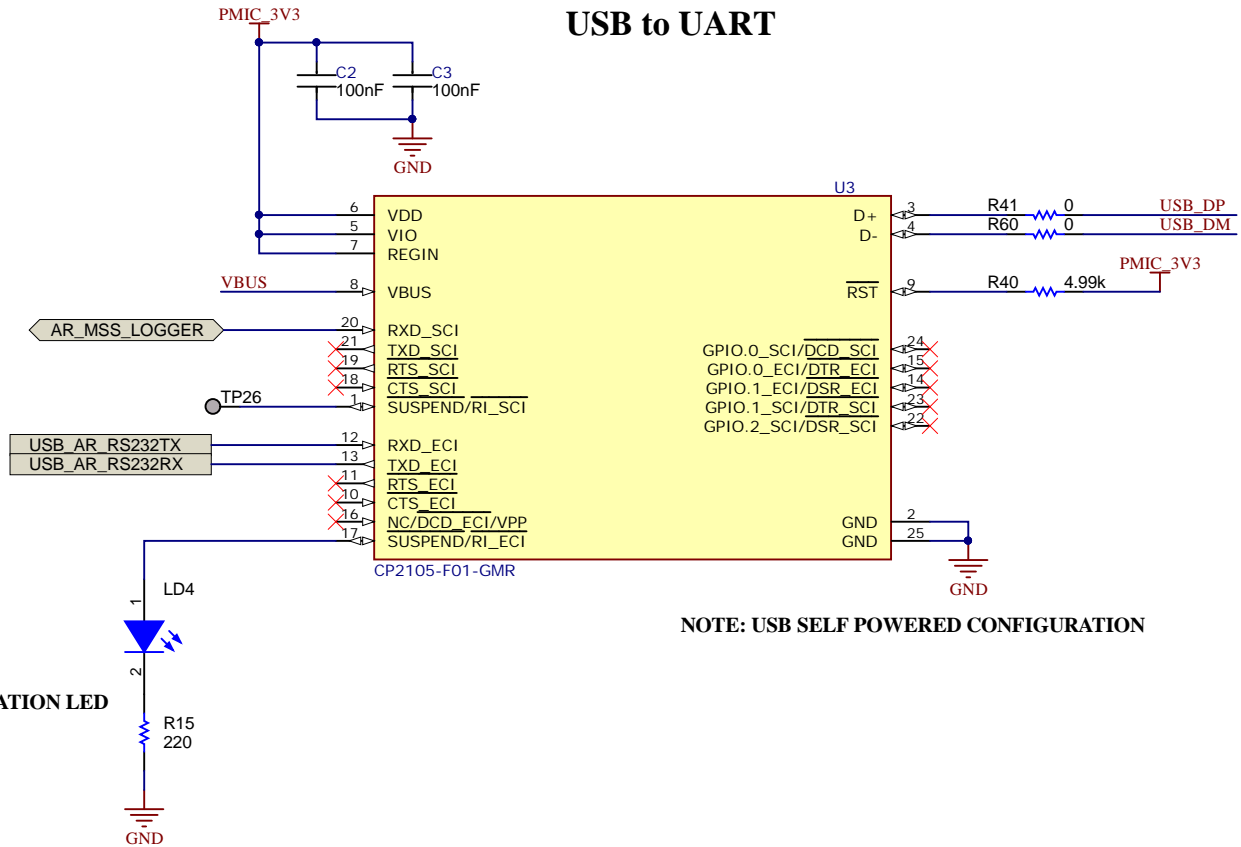
DESIGN NOTE: Option for low DCR 0805 FERRITE BEAD

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USB CONNECTOR



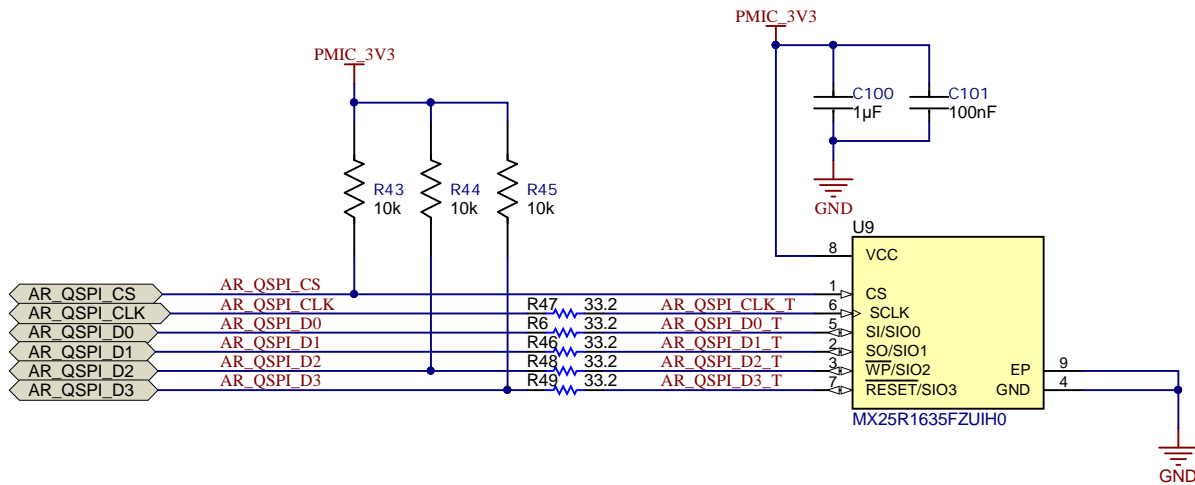
USB to UART



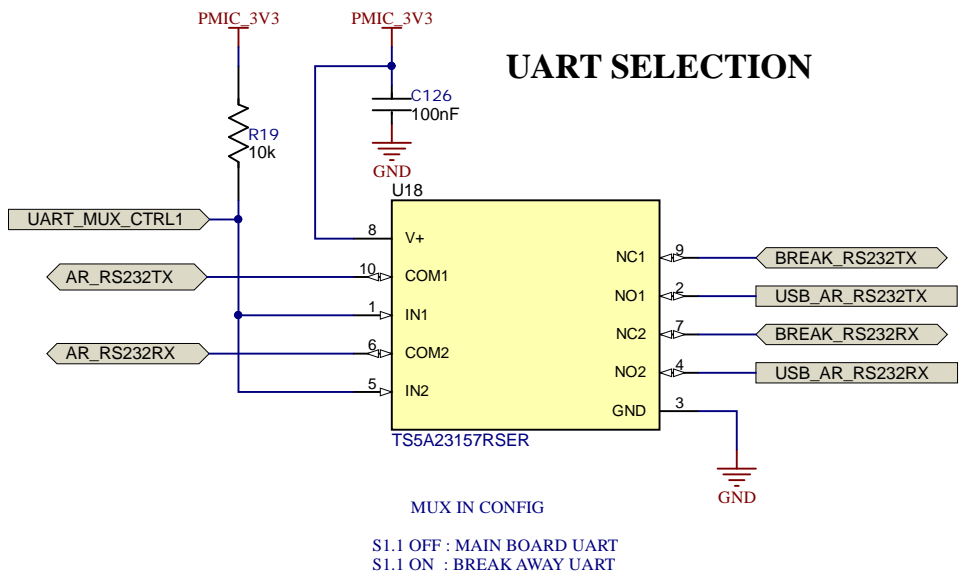
NOTE: USB SELF POWERED CONFIGURATION

USB ENUMERATION LED

QSPI FLASH



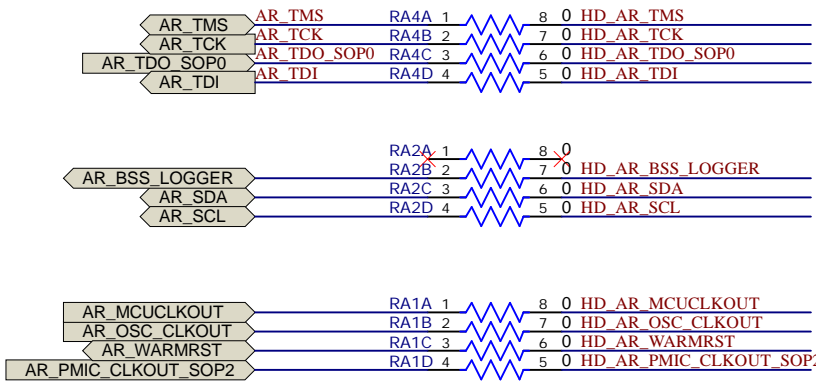
UART SELECTION



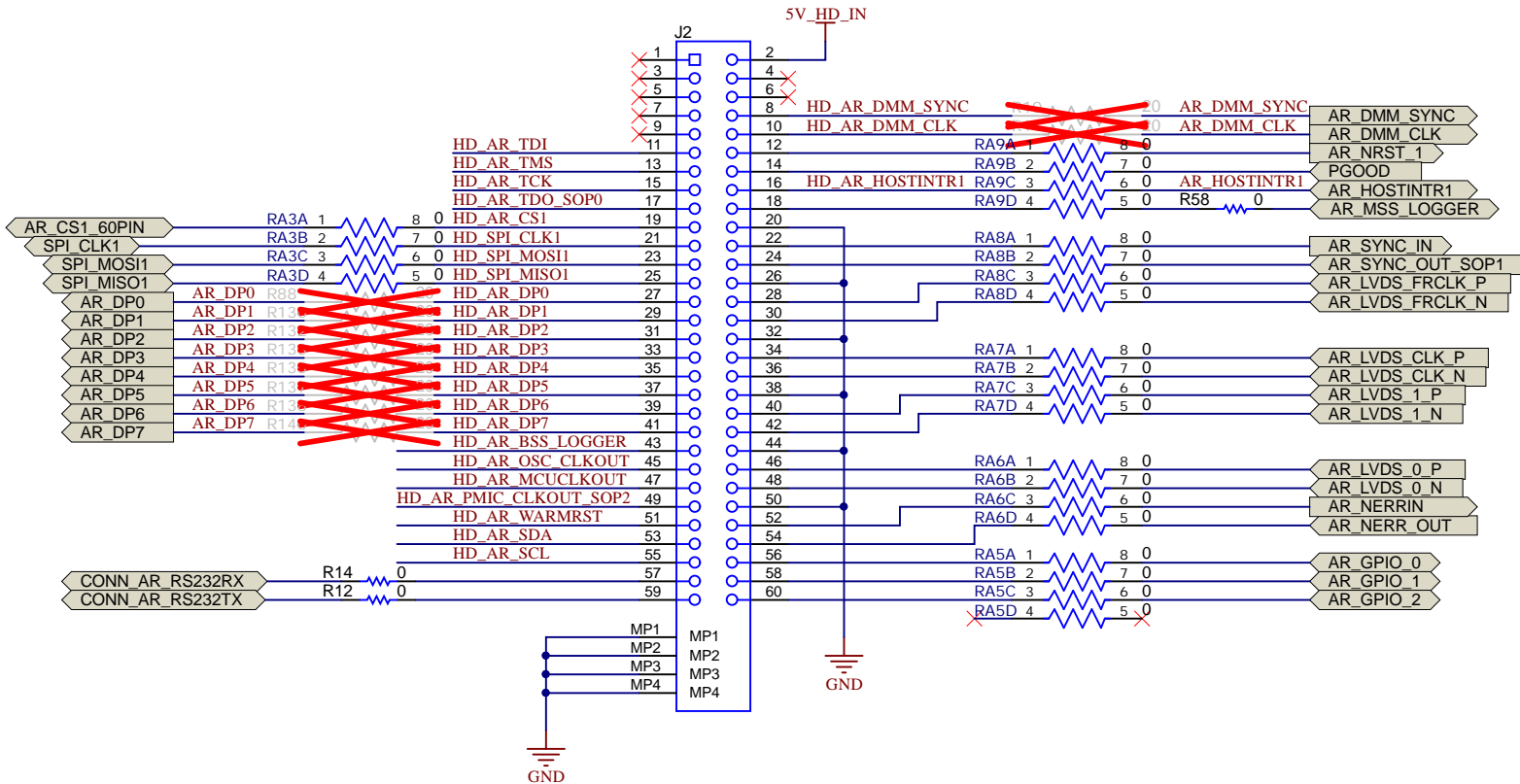
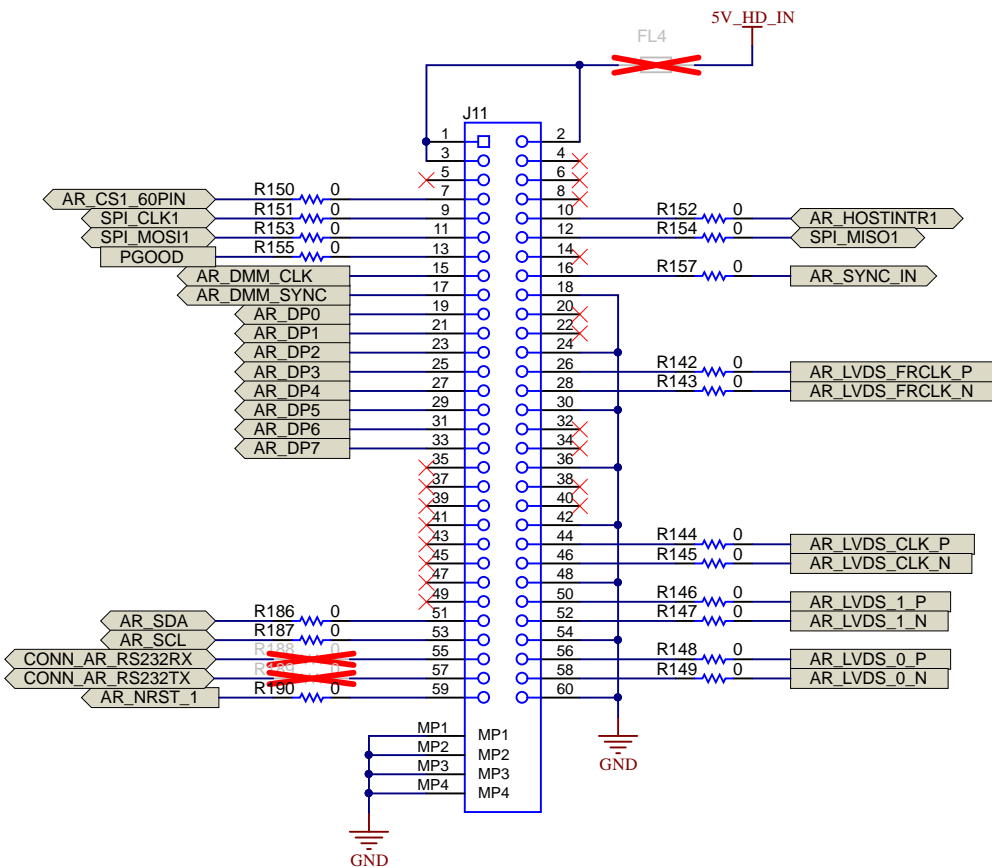
MUX IN CONFIG

S1.1 OFF : MAIN BOARD UART
S1.1 ON : BREAK AWAY UART

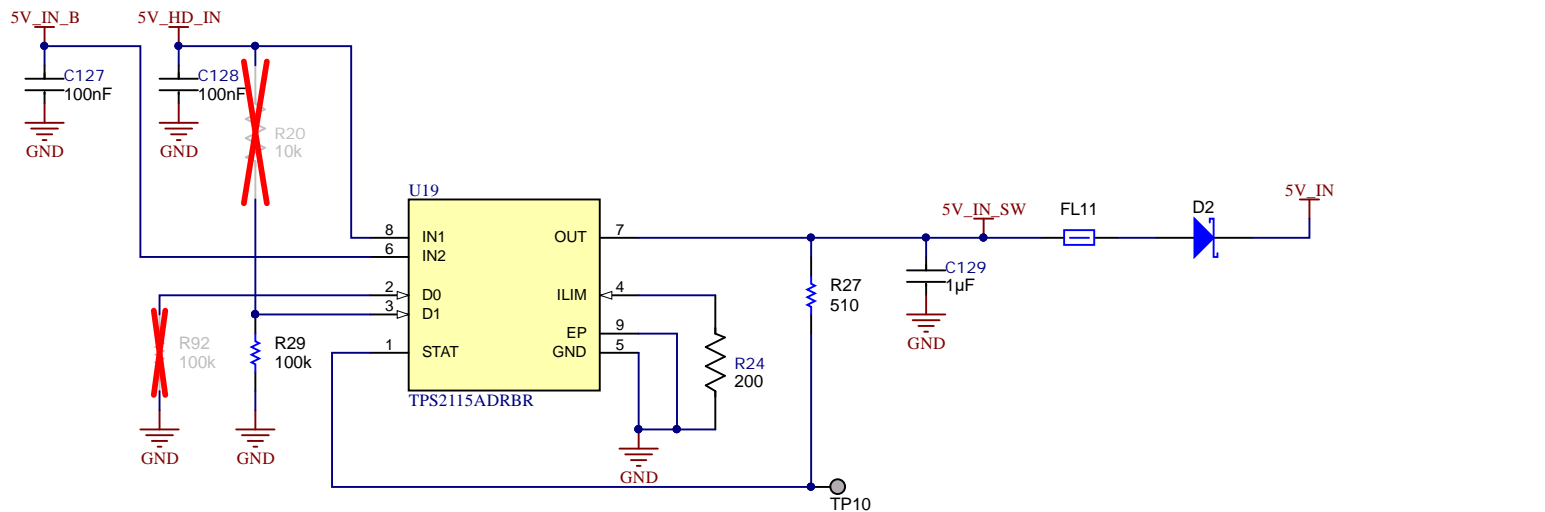
60PIN HD CONNECTOR FOR MMWAVEICBOOST



60PIN HD CONNECTOR FOR DCA1000



CONNECTOR PWR / USB PWR LOAD SWITCH



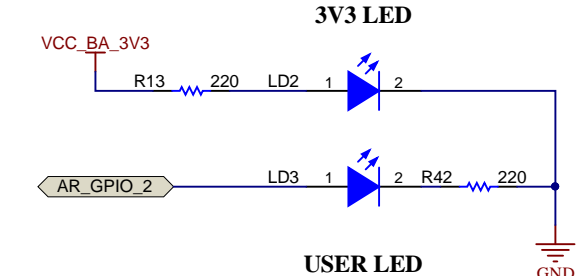
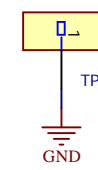
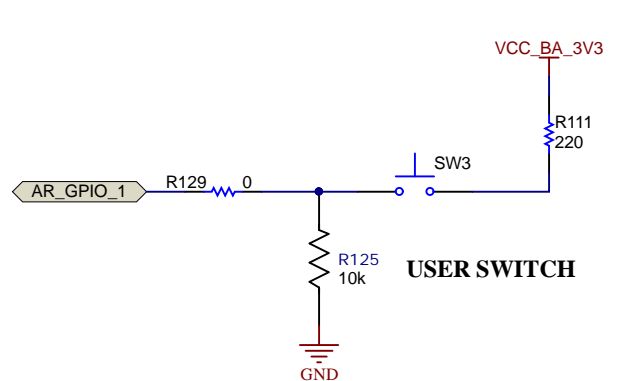
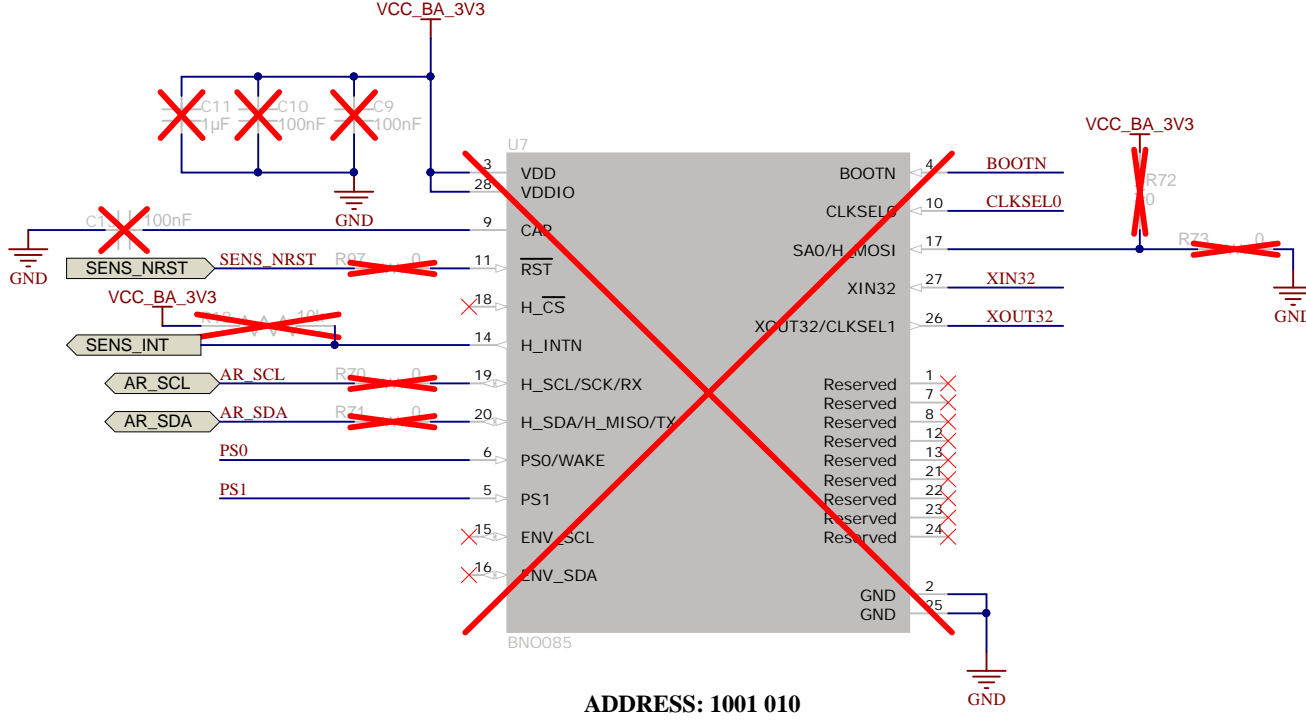
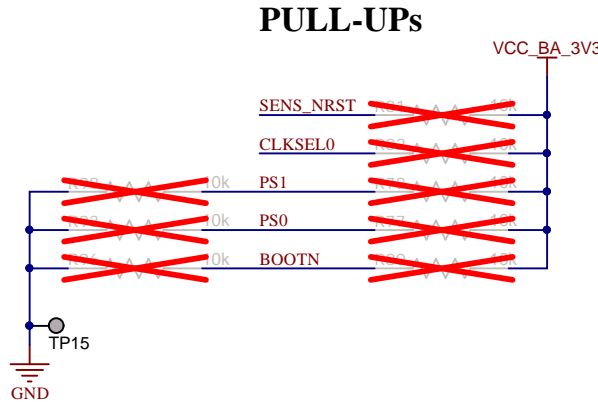
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Orderable: AWR6843AOPEVM	Designed for: Public Release	Mod. Date: 31-08-2021
TID #: N/A	Project Title: xWR6843AOPEVM	
Number: PROC091	Rev: G	Sheet: 7 of 12
SVN Rev: 1494	Assembly Variant: 002	Size: B
Drawn By: Antony/Bala	File: PROC091G_HD_CONN_PWR_SW.SchDoc	http://www.ti.com
Engineer: Antony/Bala	Contact: http://www.ti.com/support	© Texas Instruments 2019

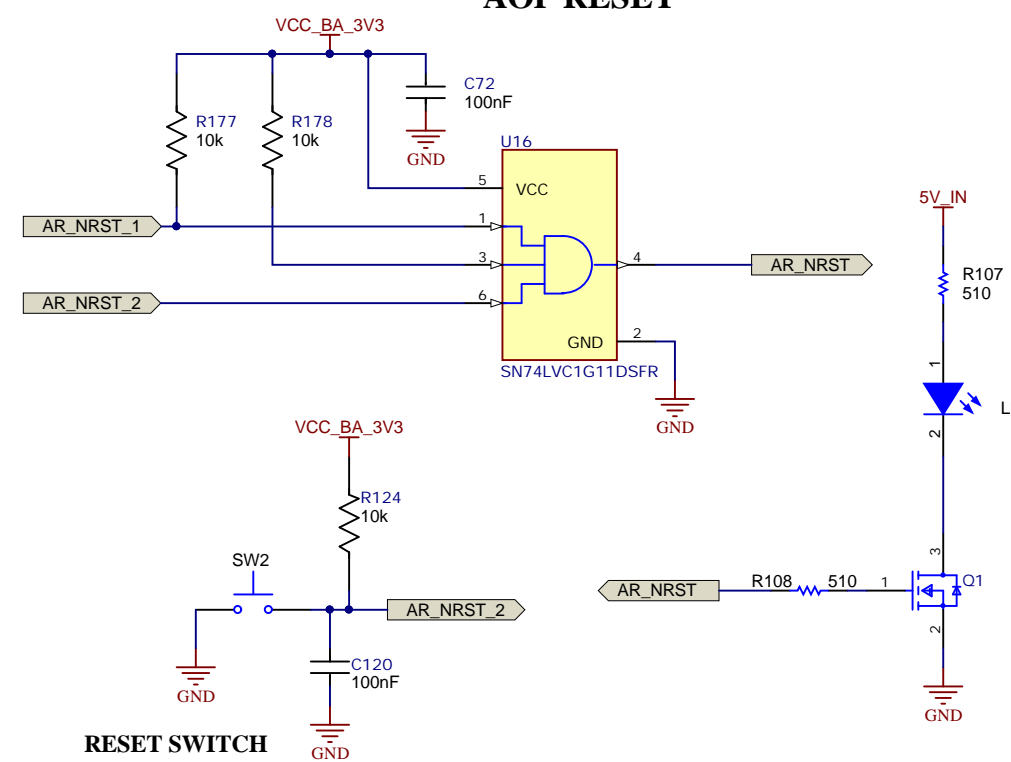
BREAKAWAY_SECTION_2

9 - AXIS SENSOR

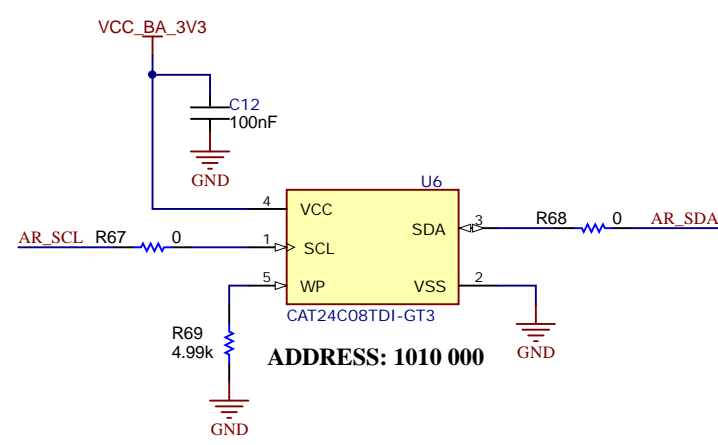
PULL-UPS



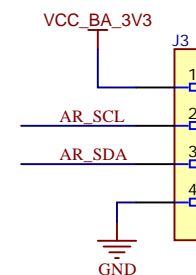
AOP RESET



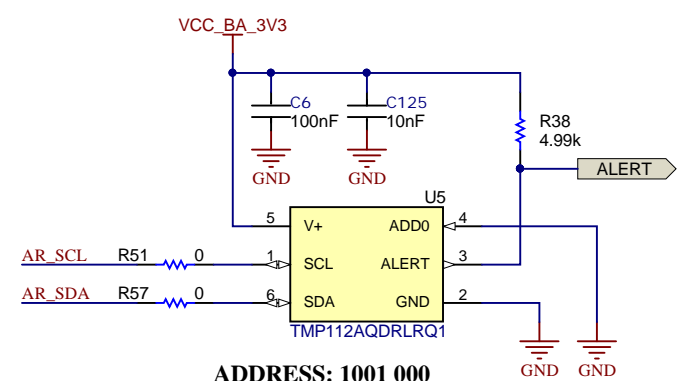
EEPROM



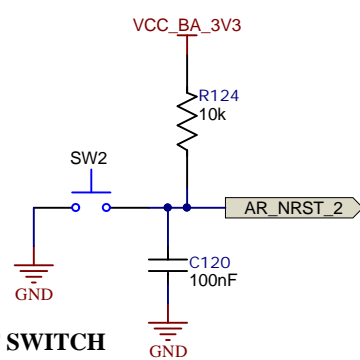
I2C HEADER



TEMPERATURE SENSOR



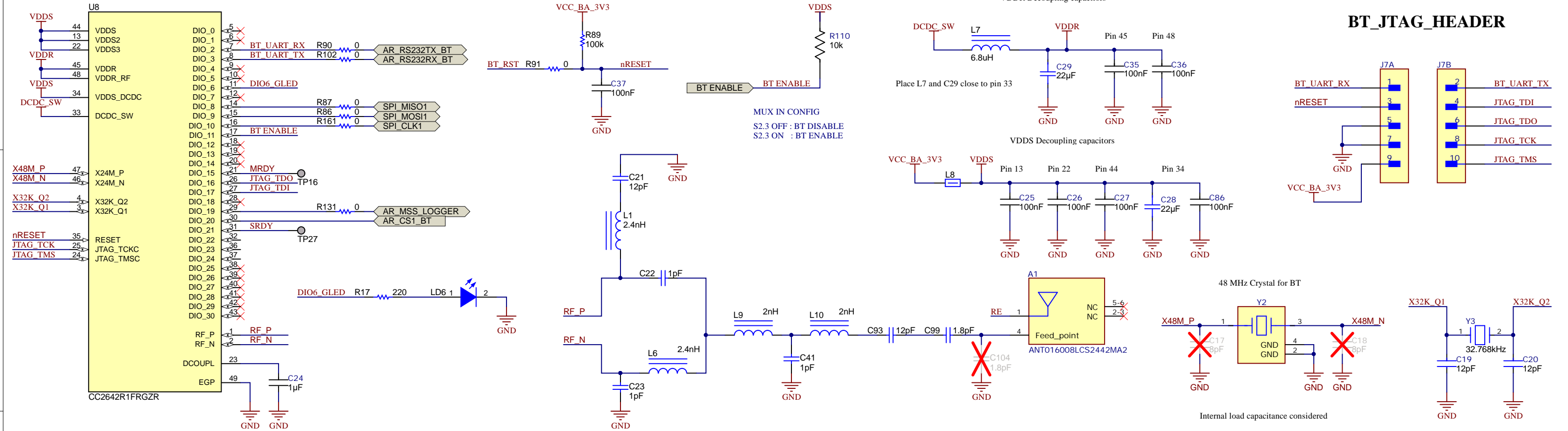
RESET SWITCH



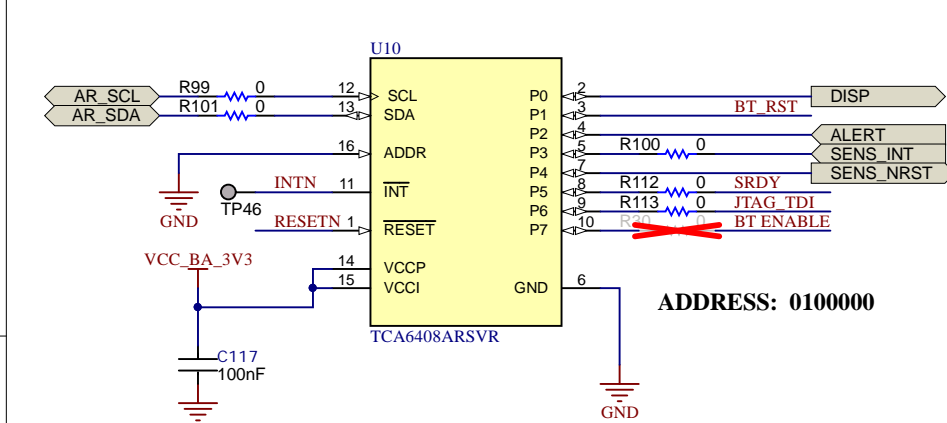
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BREAKAWAY_SECTION_3

BLUETOOTH

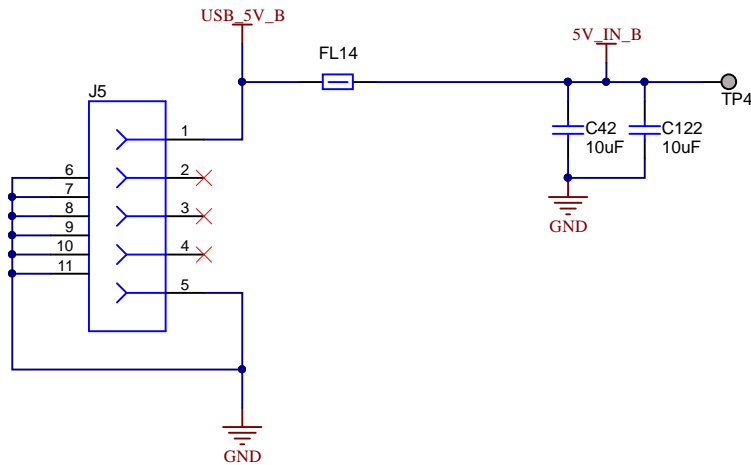


GPIO EXPANDER

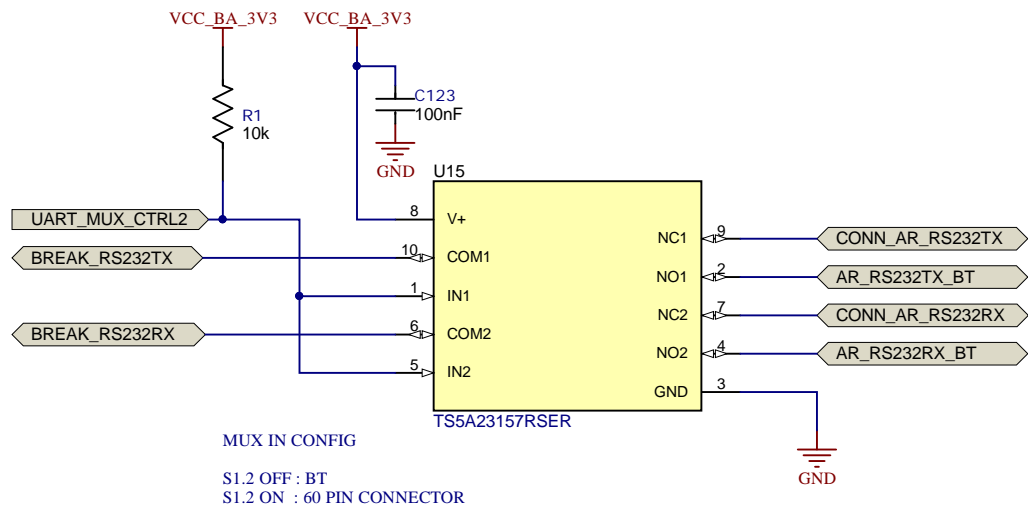


BREAKAWAY_SECTION_4

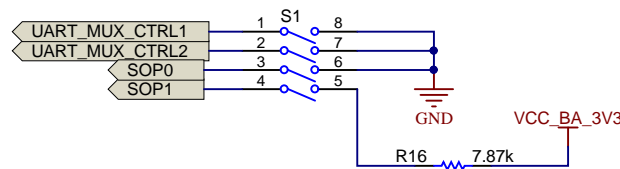
USB CONNECTOR



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

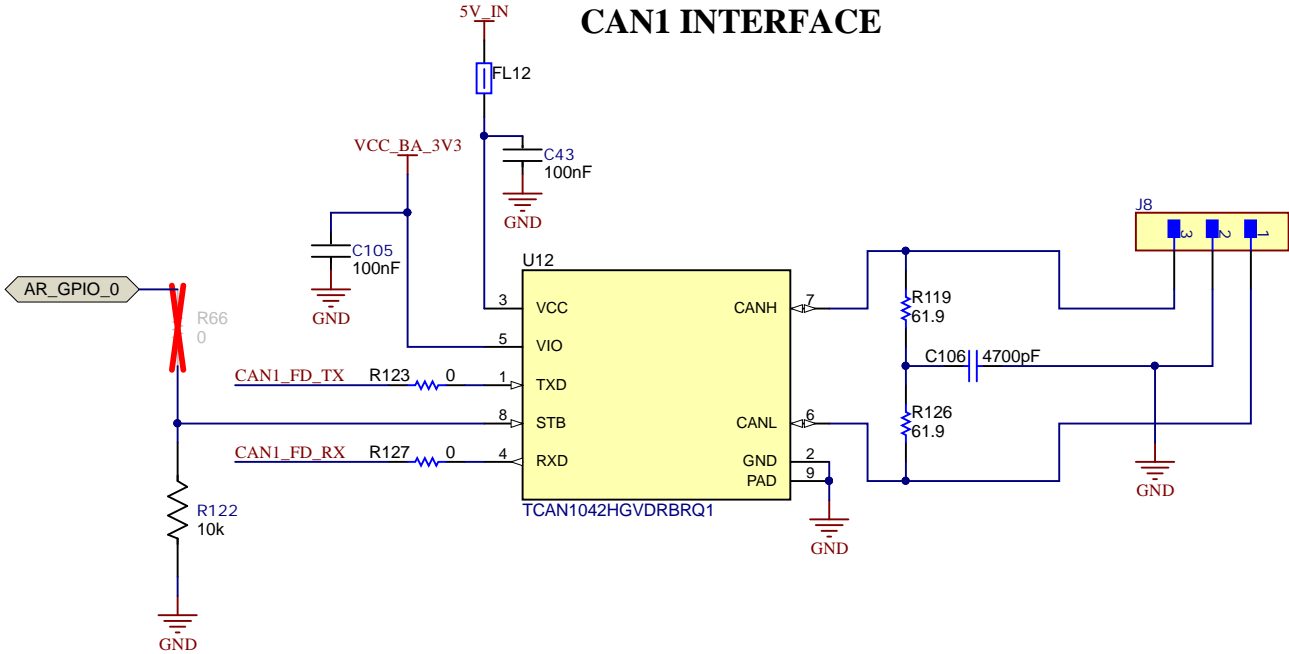
Designator	Switch ON	Switch OFF
S1.1	Breakaway UART	CP2105UART
S1.2	60 Pin UART	BT UART
S2.1	CAN	SPI
S2.2	60 Pin CS	BT/LCD CS
S2.3	BT Enable	BT Disable

PIN MUX SETTINGS

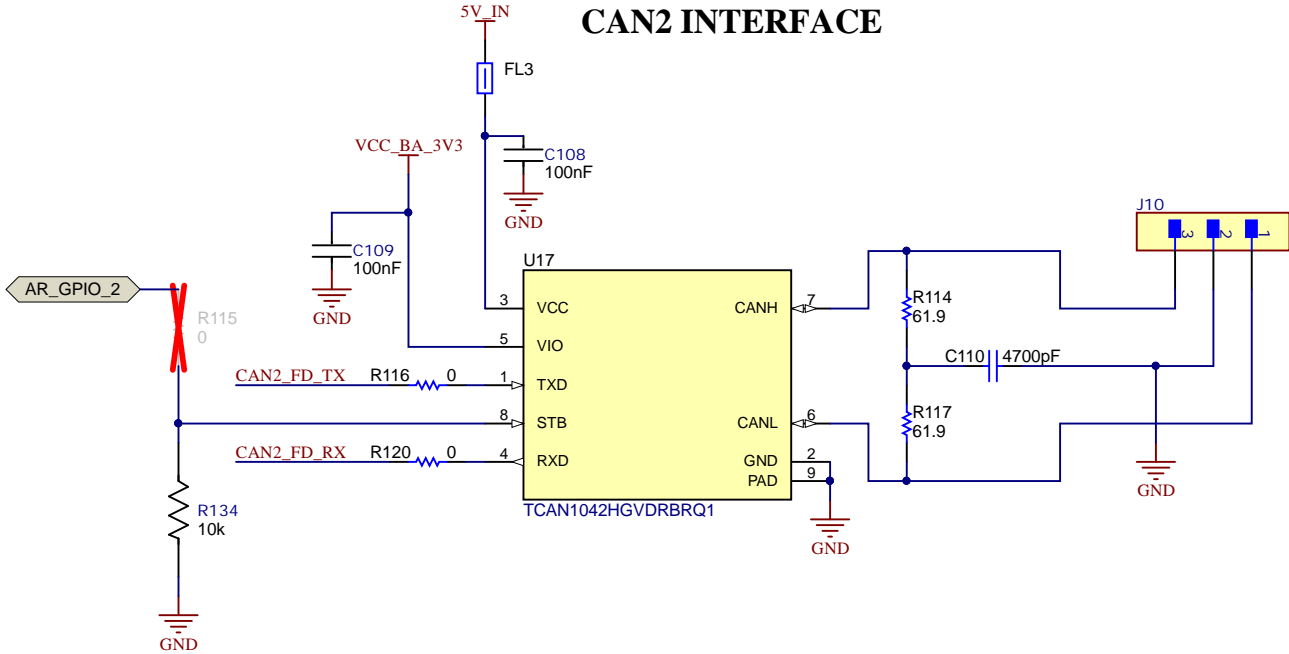
	S1.1	S1.2	S2.1	S2.2	S2.3
Stand alone Mode	OFF	N/A	N/A	N/A	N/A
MMWAVEICEBOOST	ON	ON	OFF	OFF	N/A

BREAKAWAY_SECTION_5

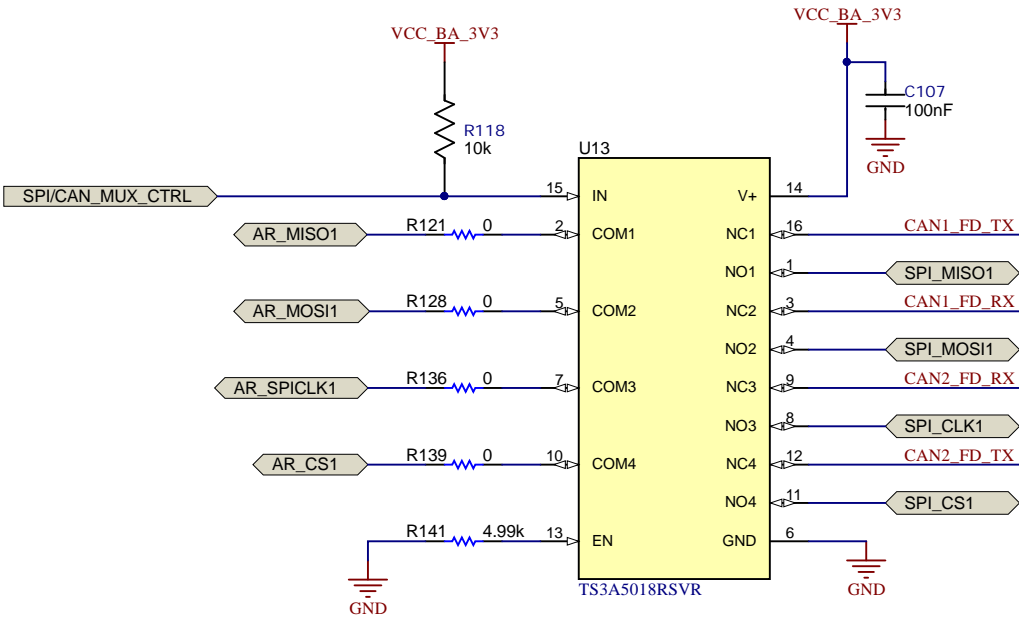
CAN1 INTERFACE



CAN2 INTERFACE

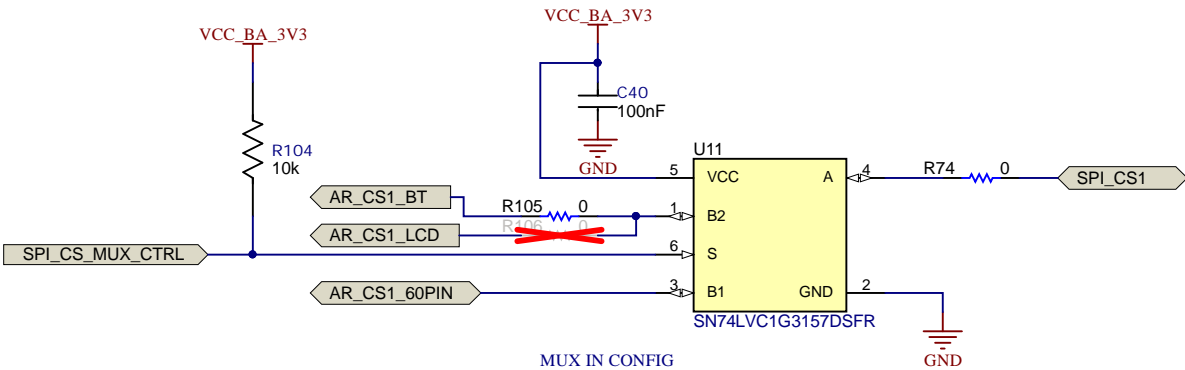


ANALOG MUX SELECTION FOR SPI/CAN



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

ANALOG MUX SELECTION FOR SPI CHIP SELECT



MUX IN CONFIG
S2.2 OFF : BT/LCD
S2.2 ON : 60PIN CONNECTOR

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Orderable: AWR6843AOPEVM	Designed for: Public Release	Mod. Date: 31-08-2021
TID #: N/A	Project Title: xWR6843AOPEVM	
Number: PROC091	Rev: G	Sheet Title: BREAKAWAY_SECTION5
SVN Rev: 1494	Assembly Variant: 002	Sheet: 11 of 12
Drawn By: Antony/Bala	File: PROC091G_CAN_INTERFACE.SchDoc	Size: B
Engineer: Antony/Bala	Contact: http://www.ti.com/support	

HARDWARE



PCB Number: PROC091
PCB Rev: G

PCB
LOGO
Texas Instruments



PCB
LOGO
FCC disclaimer

PCB
LOGO
WEEE logo

PCB
LOGO
ESD Susceptible



H1
MECH

H2
MECH

H3
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

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TID #: N/A		Project Title: xWR6843AOPEVM			
Number: PROC091		Rev: G	Sheet Title: HARDWARE		
SVN Rev: 1607		Assembly Variant: 002			Sheet: 12 of 12
Drawn By: Antony/Bala		File: PROC091G_Hardware.schdoc			Size: B
Engineer: Antony/Bala		Contact: http://www.ti.com/support			