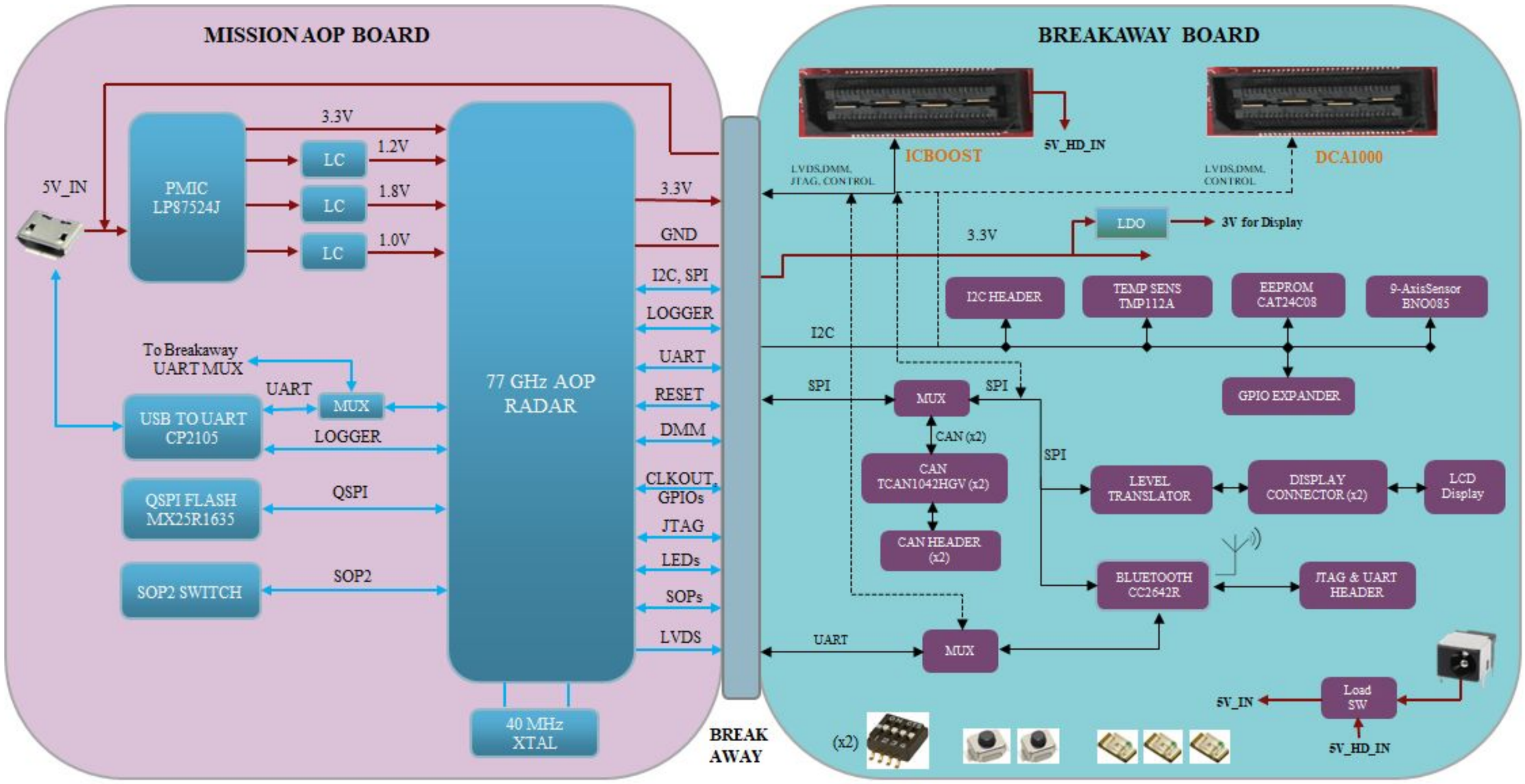
Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A

BLOCK DIAGRAM



Orderable: AWR1843AOPEVM		Designed for: Public Release	Mod. Date: 14-12-2020
TID #: N/A		Project Title: xWR1843AOPEVM	
Number: PROC106	Rev: A1	Sheet Title: BLOCK_DIAGRAM	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 1 of 12
Drawn By: Antony/Anand Ram		File: PROC106A1_BLOCK_DIAGRAM.SchDoc	Size: B
Engineer: Antony/Anand Ram		Contact: http://www.ti.com/support	

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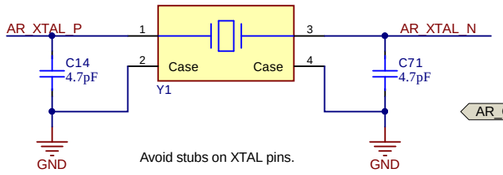
Number: PROC106 Rev: A1	Sheet Title: TABLE_OF_CONTENTS	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 2 of 12
Drawn By: Antony/Anand Ram	File: PROC106A1_TABLEOFCONTENTS.SchDoc	Size: B
Engineer: Antony/Anand Ram	Contact: http://www.ti.com/support	

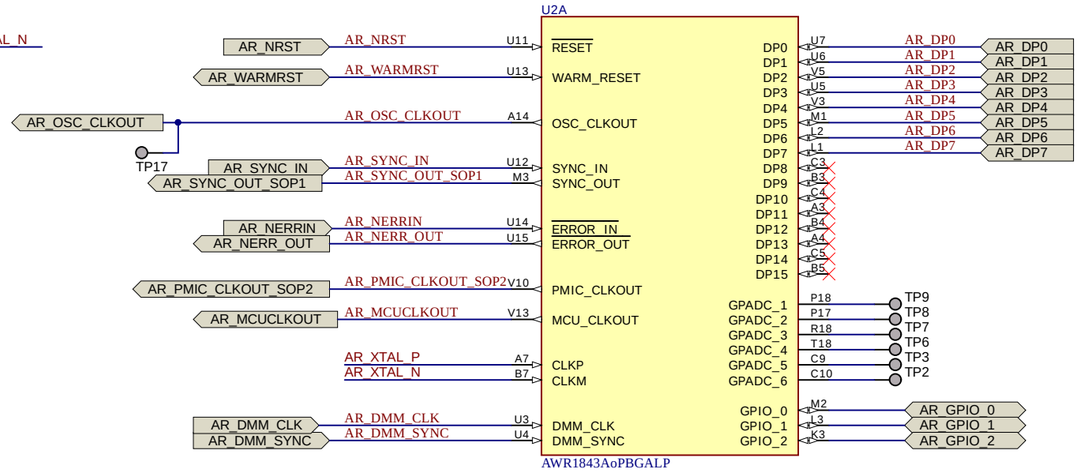
TEXAS INSTRUMENTS
http://www.ti.com

AOP IO

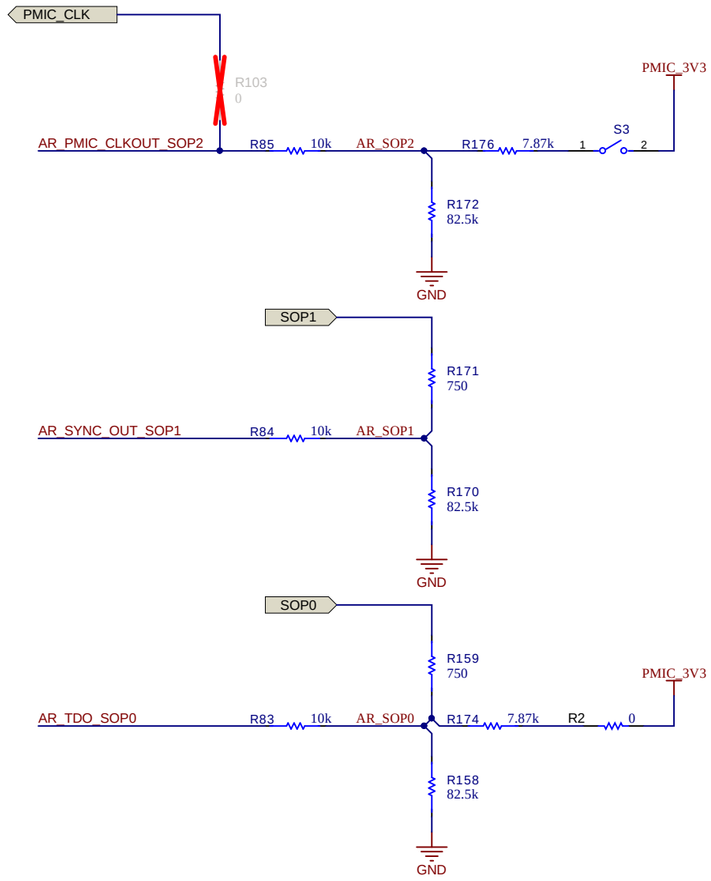
SOP_MODE2 - '011' - DEV/DEBUG
SOP_MODE4 - '001' - FUNCTIONAL MODE
SOP_MODE5 - '101' - FLASH MODE

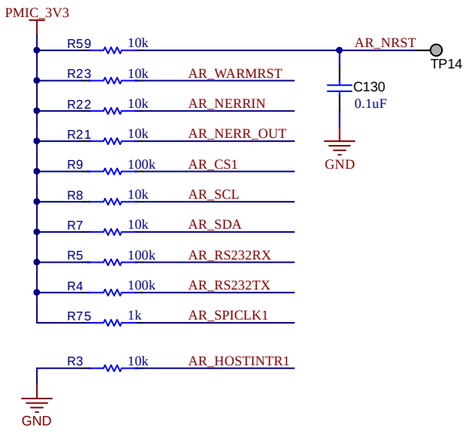
40MHz CRYSTAL

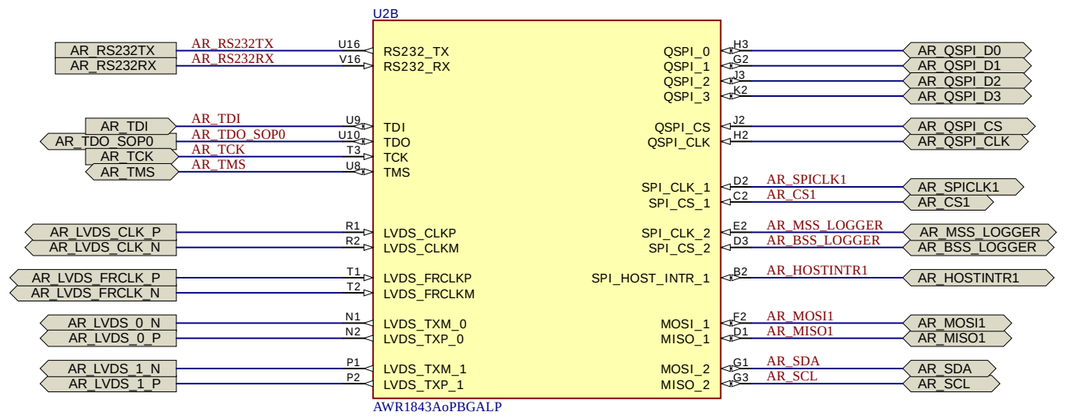




SOP OPTIONS







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Number: PROC106	Rev: A1	Sheet Title: AOP_IO	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 3 of 12
Drawn By: Antony/Anand Ram		File: PROC106A1_AOP_IO.SchDoc	Size: B
Engineer: Antony/Anand Ram		Contact: http://www.ti.com/support	

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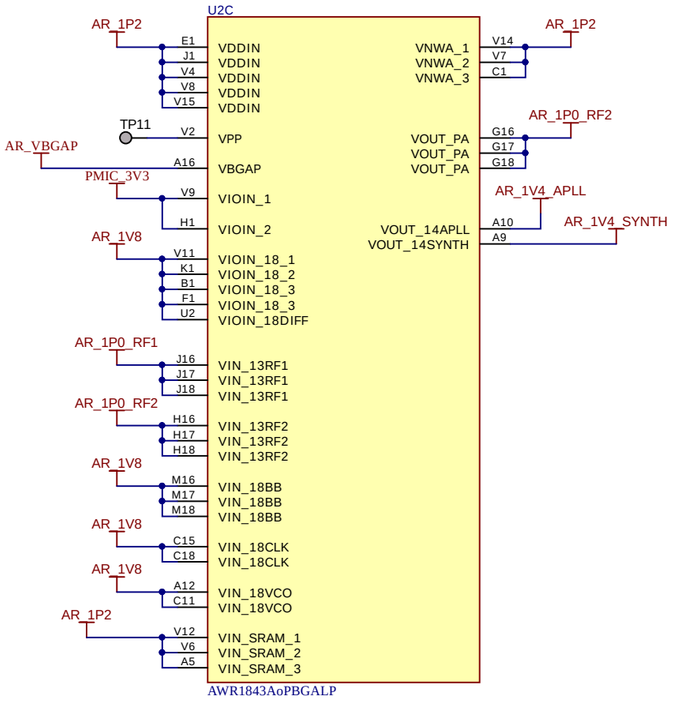
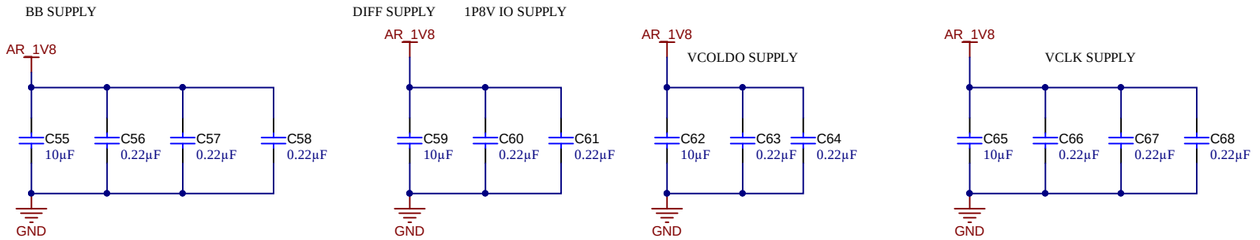
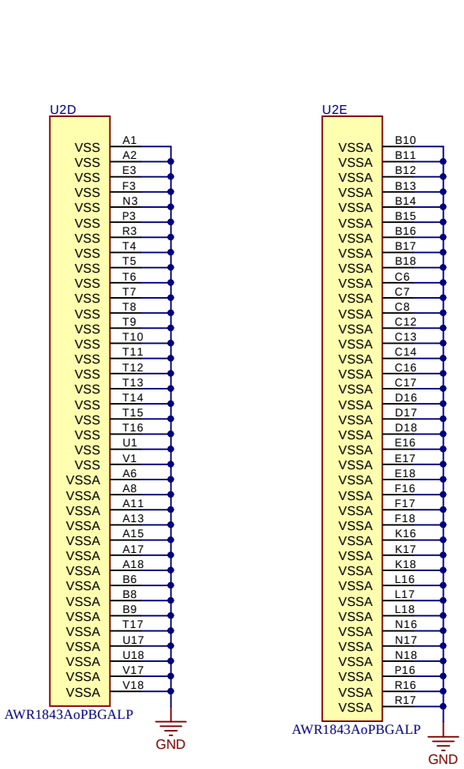
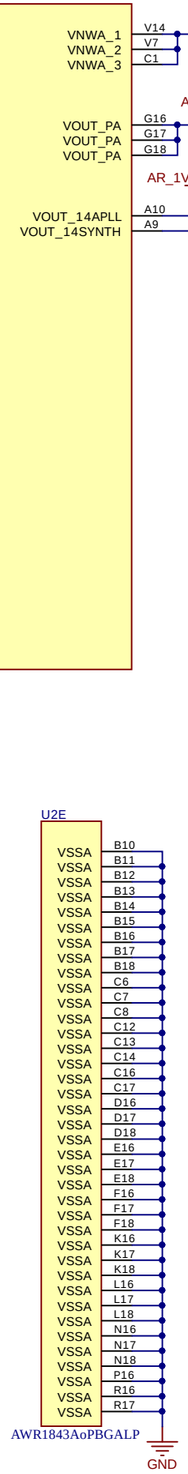
AOP POWER

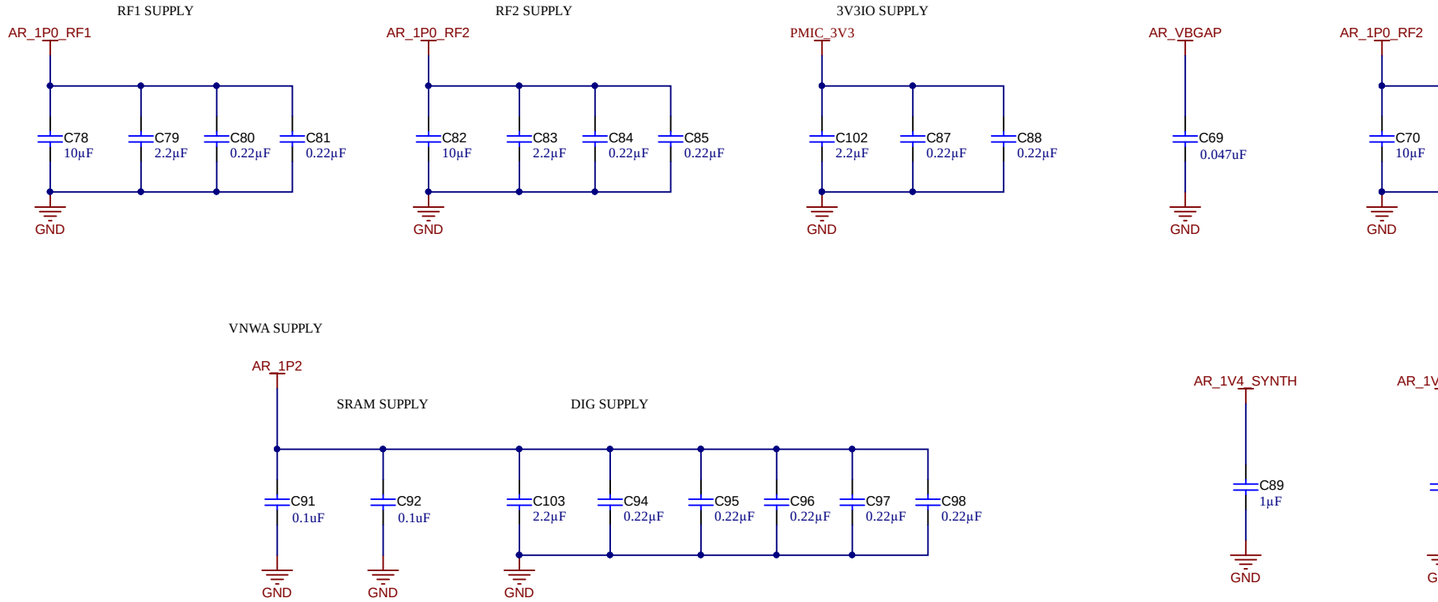
DECOUPLING CAPS











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Number: PROC106 Rev: A1	Sheet Title: AOP_POWER	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 4 of 12
Drawn By: Antony/Anand Ram	File: PROC106A1_AOP_PWR.SchDoc	Size: B
Engineer: Antony/Anand Ram	Contact: http://www.ti.com/support	

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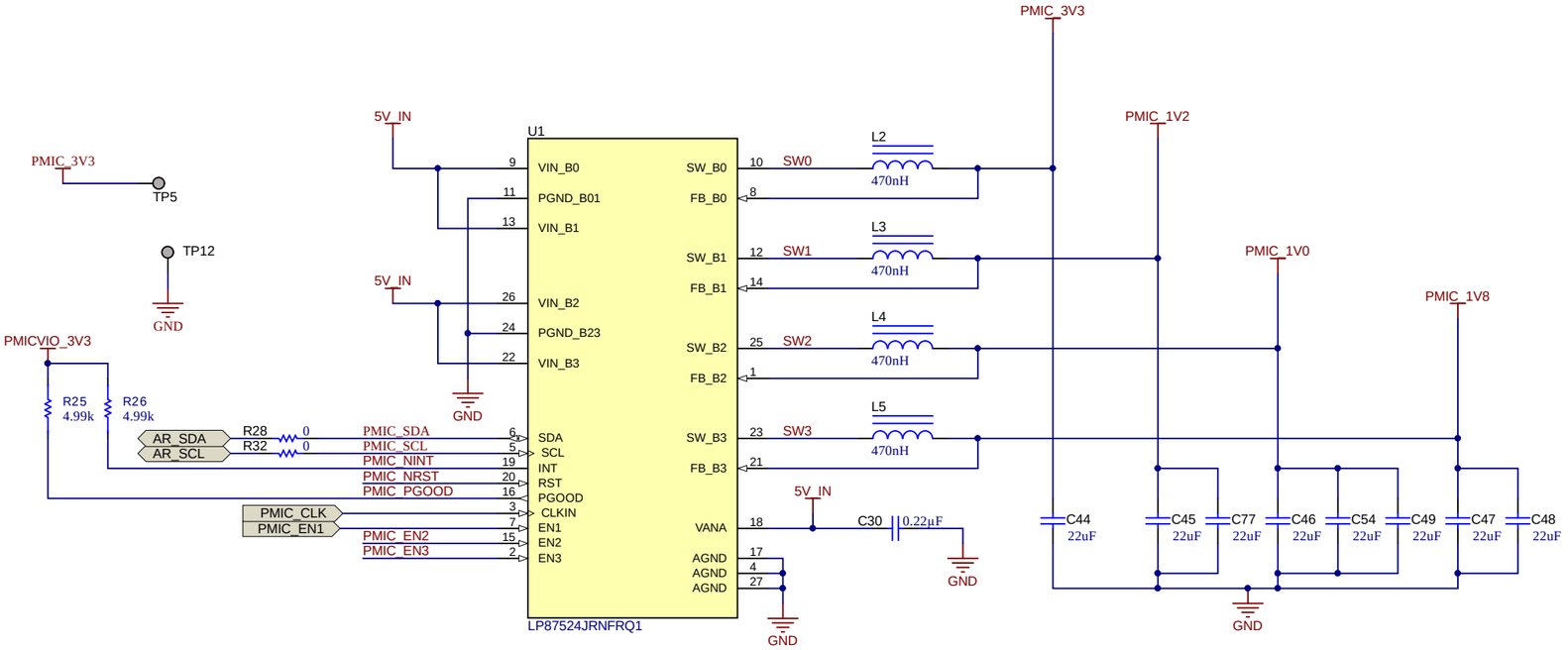
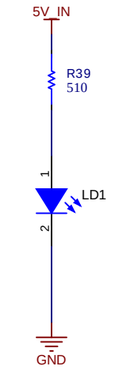
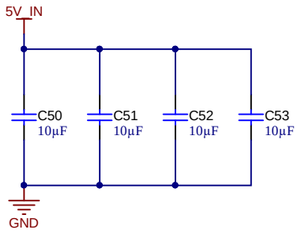
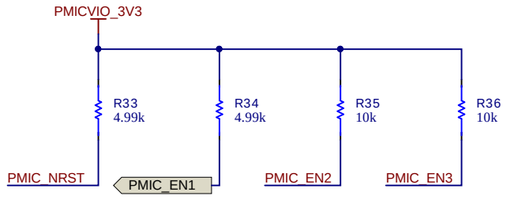
PMIC (3.3V, 1.2V, 1.0V, 1.8V OUTPUTS)

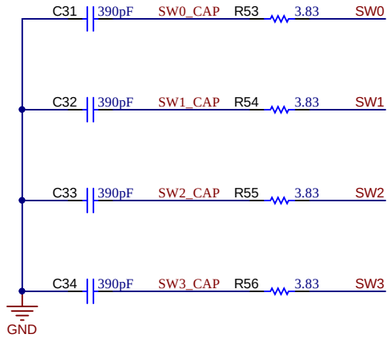


5V LED INDICATION

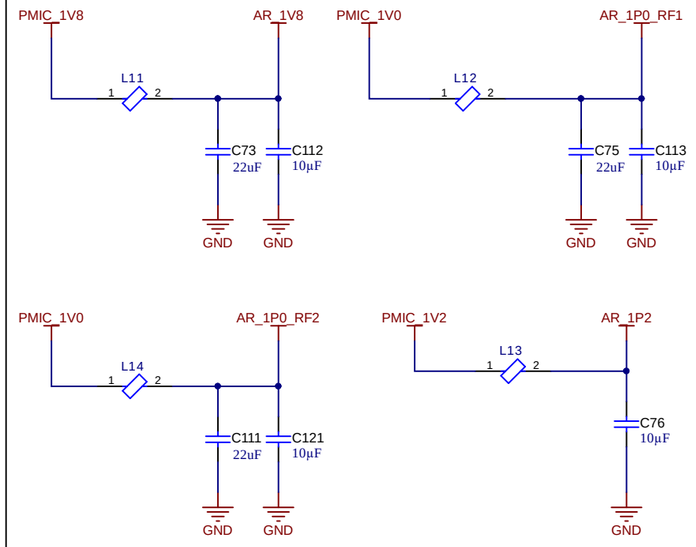


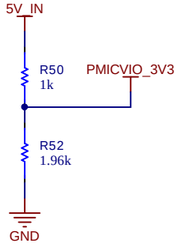


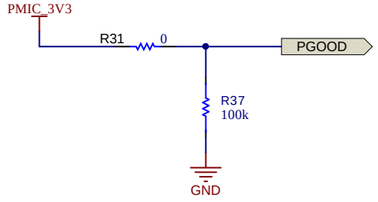




LDO BYPASS







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Number: PROC106	Rev: A1	Sheet Title: PMIC	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 5 of 12
Drawn By: Antony/Anand Ram		File: PROC106A1_PMIC.SchDoc	Size: B
Engineer: Antony/Anand Ram		Contact: http://www.ti.com/support	

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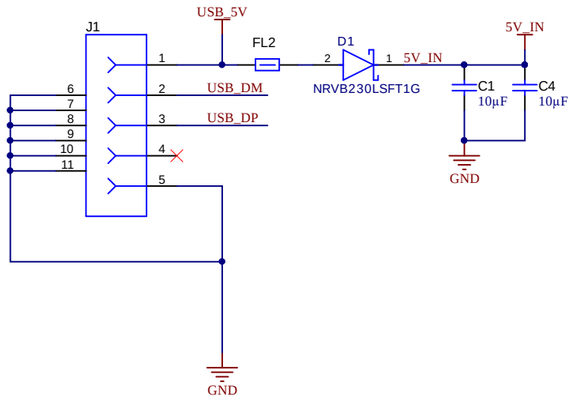
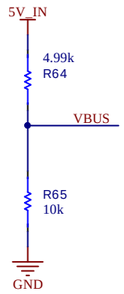
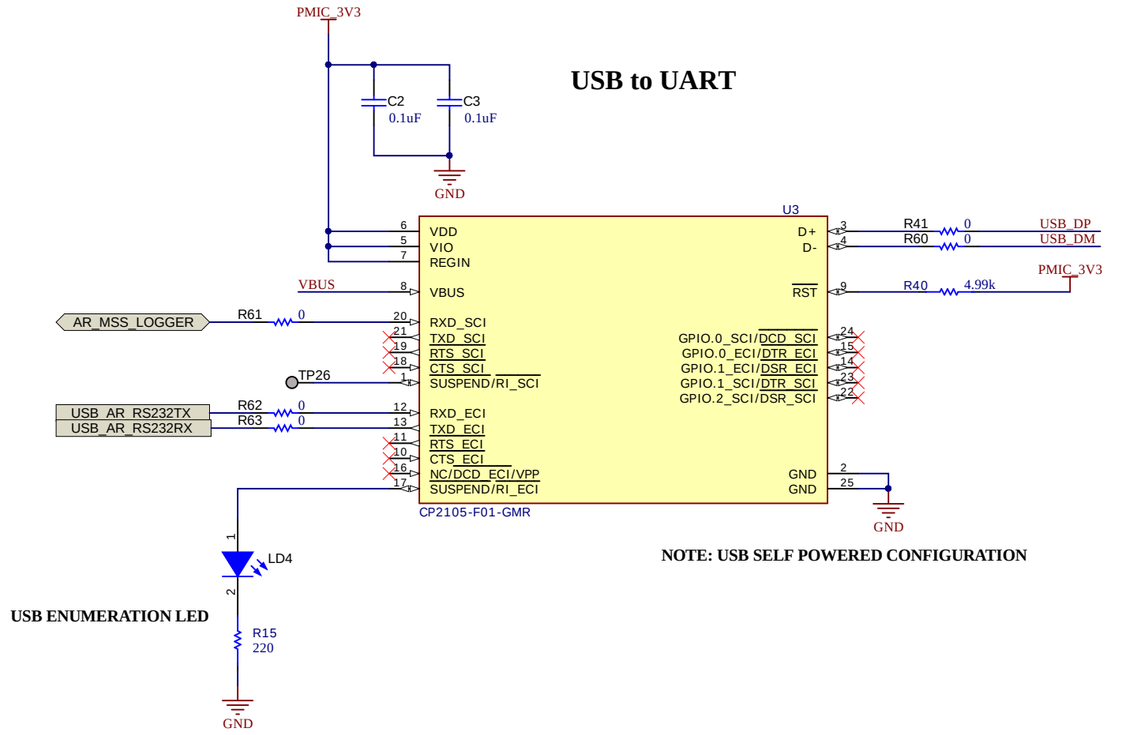
USB CONNECTOR



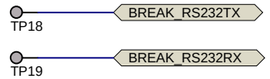


USB to UART

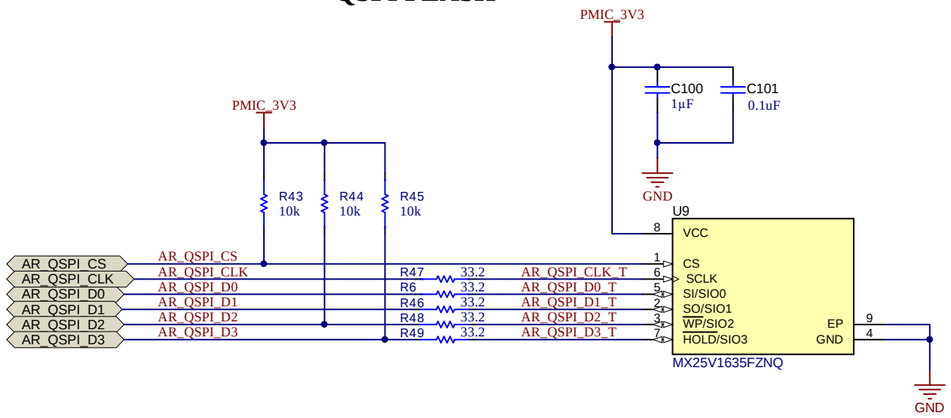


USB ENUMERATION LED

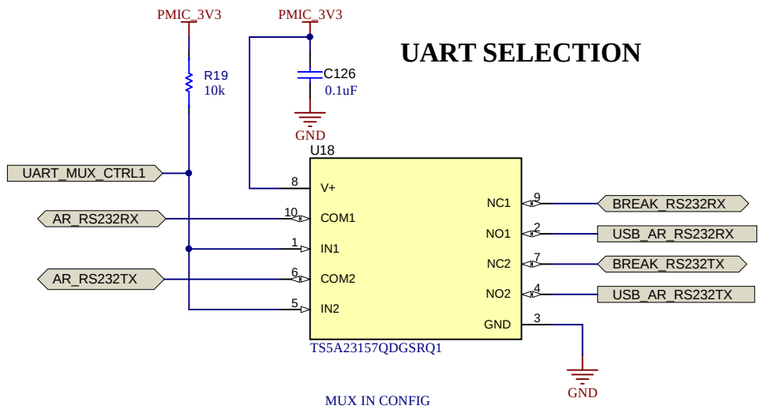
NOTE: USB SELF POWERED CONFIGURATION



QSPI FLASH



UART SELECTION



MUX IN CONFIG

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

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SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 6 of 12
Drawn By: Antony/Anand Ram		File: PROC106A1_FLASH_USB_TO_UART.SchDoc	Size: B
Engineer: Antony/Anand Ram		Contact: http://www.ti.com/support	

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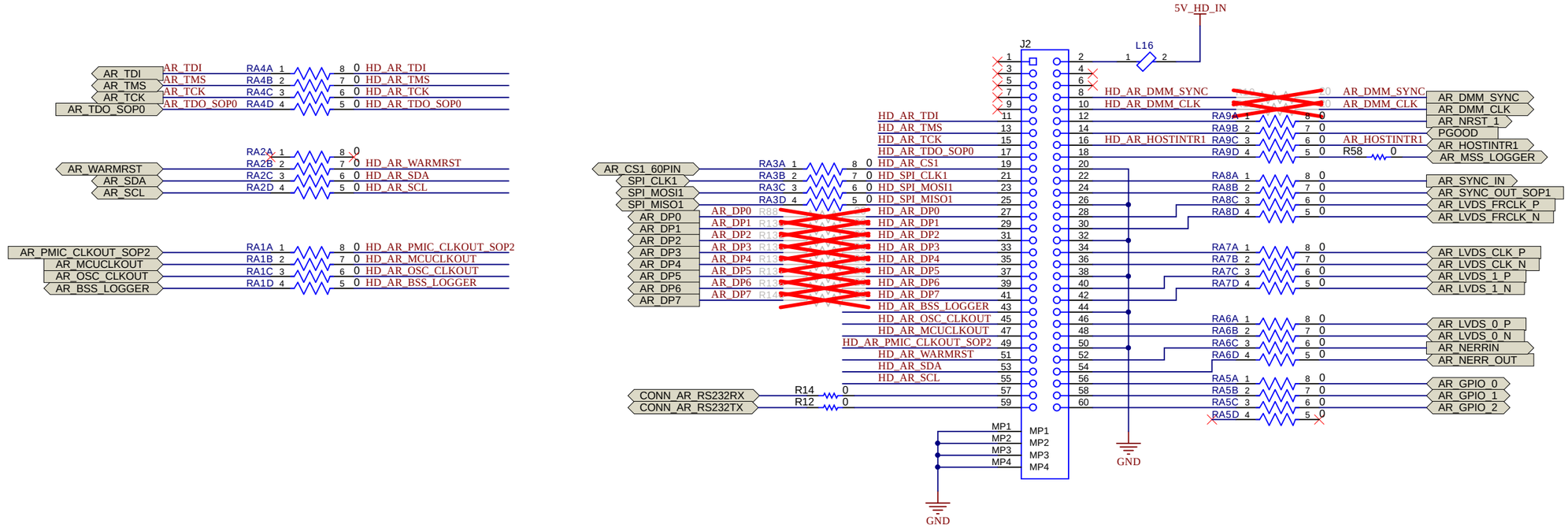
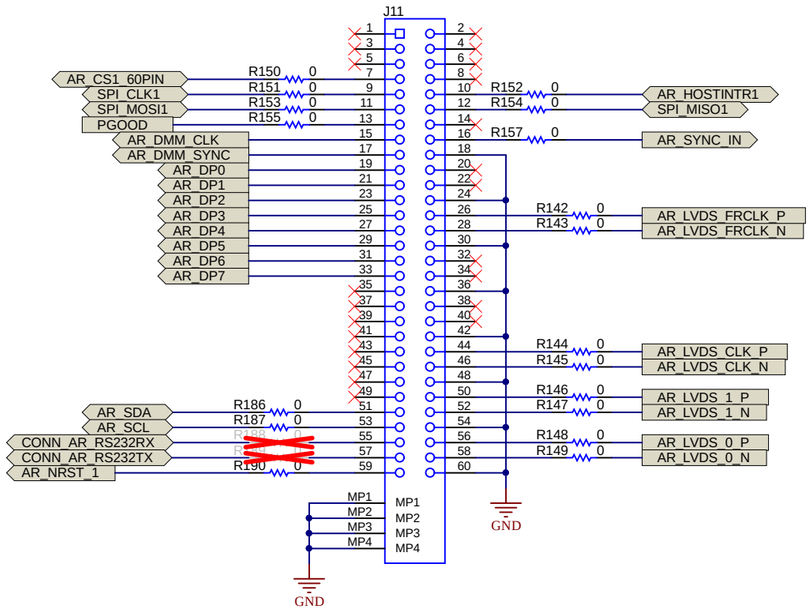
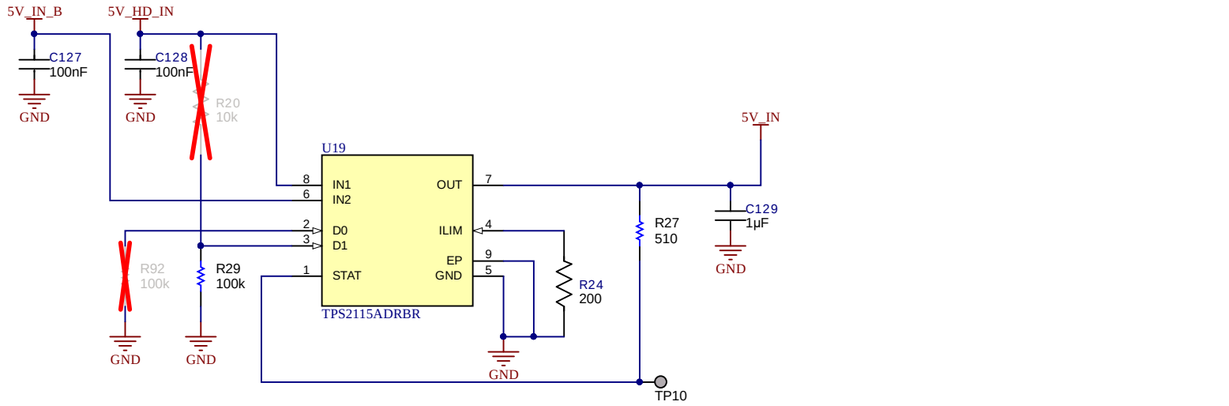
60PIN HD CONNECTOR FOR MMWAVEICBOOST

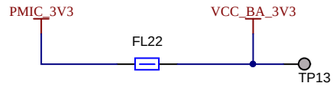


60PIN HD CONNECTOR FOR DCA1000



CONNECTOR PWR / USB PWR LOAD SWITCH





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Number: PROC106 Rev: A1	Sheet Title: BREAKAWAY_60PIN_CONN	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 7 of 12
Drawn By: Antony/Anand Ram	File: PROC106A1_HD_CONN_PWR_SW.SchDoc	Size: B
Engineer: Antony/Anand Ram	Contact: http://www.ti.com/support	

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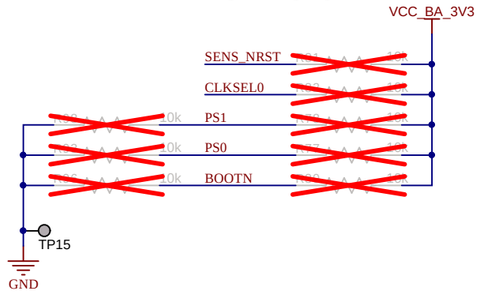
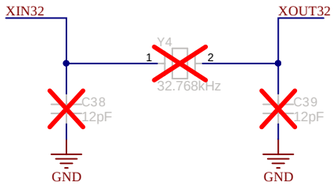
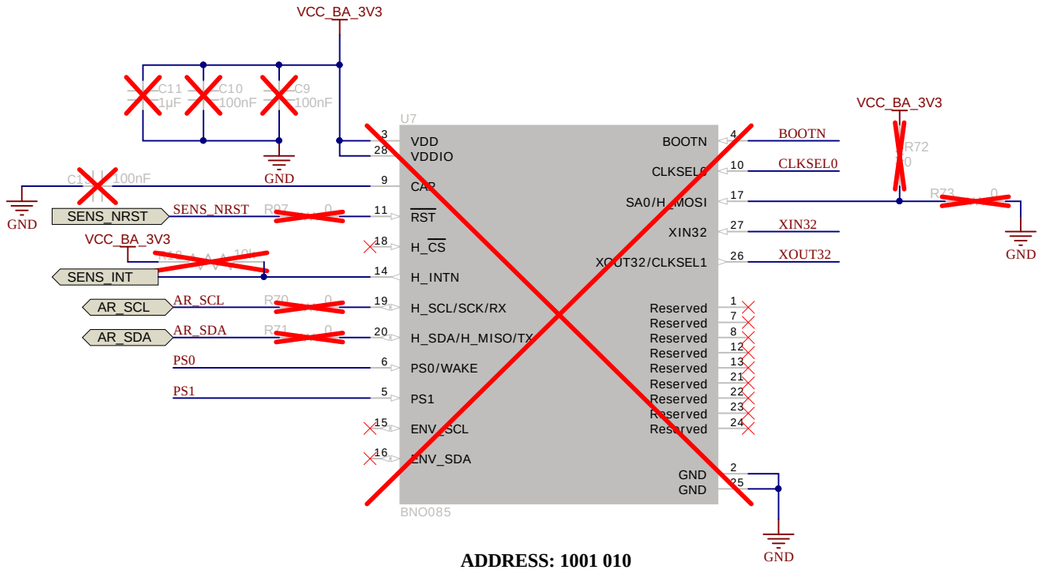
BREAKAWAY_SECTION_2

9 - AXIS SENSOR

PULL-UPs

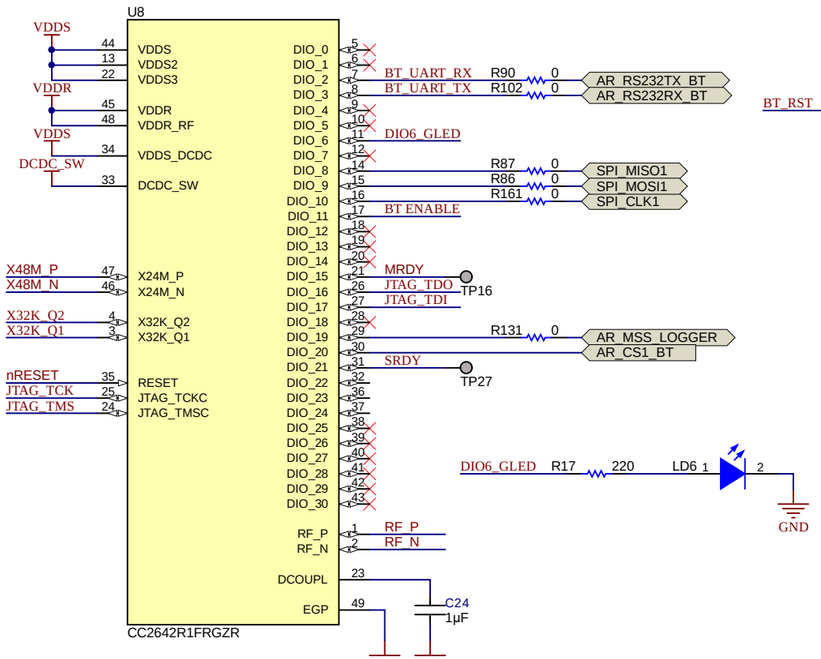


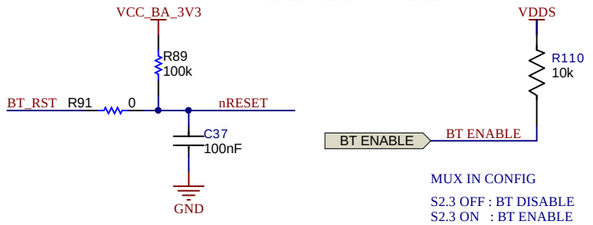


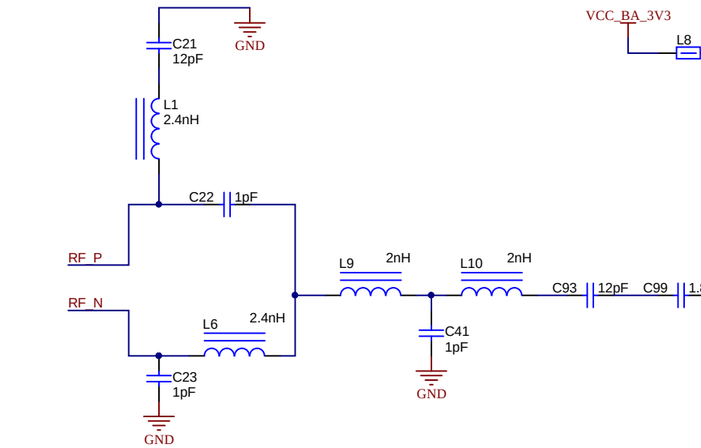


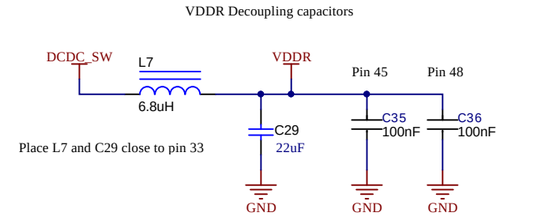
BREAKAWAY_SECTION_3

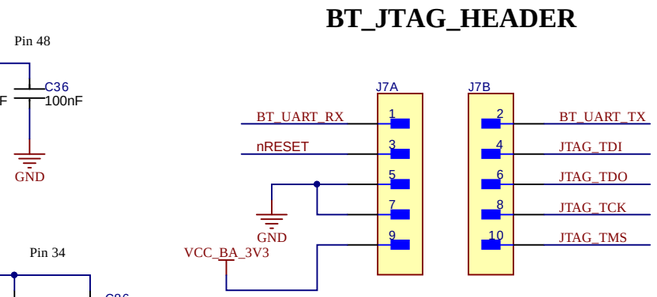
BLUETOOTH

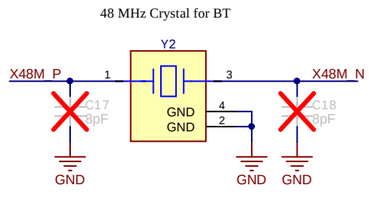


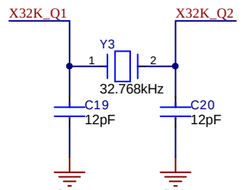




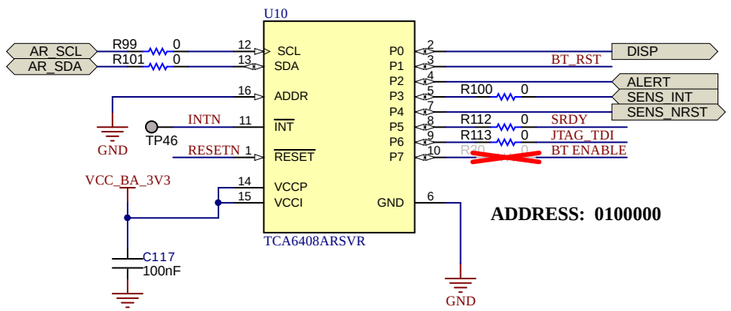




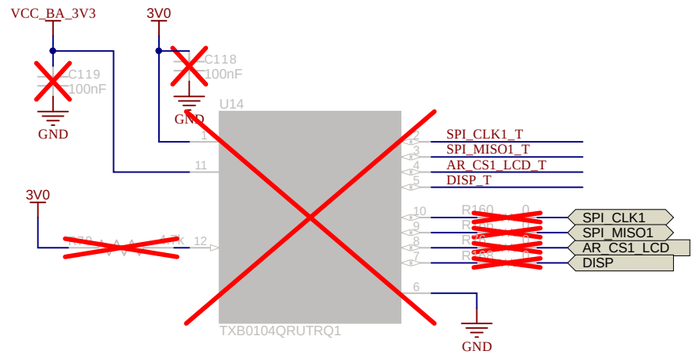




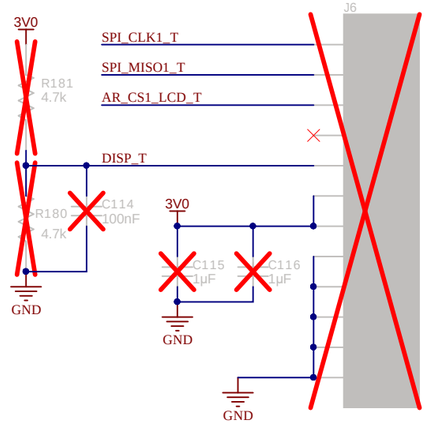
GPIO EXPANDER



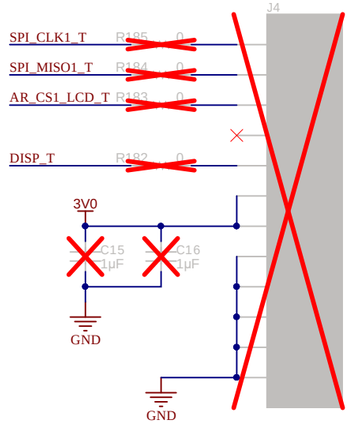
LEVEL TRANSLATOR FOR DISPLAY



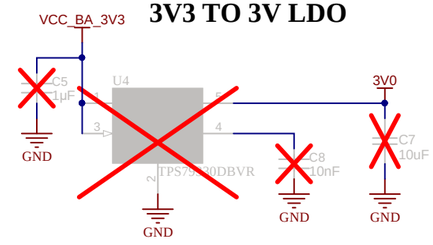
LCD DISPLAY CONNECTOR-1

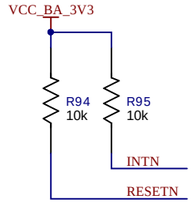


LCD DISPLAY CONNECTOR-2



3V3 TO 3V LDO





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Number: PROC106	Rev: A1	Sheet Title: BREAKAWAY_SECTION3	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 9 of 12
Drawn By: Antony/Anand Ram		File: PROC106A1_BT_DISPLAY.SchDoc	Size: B
Engineer: Antony/Anand Ram		Contact: http://www.ti.com/support	

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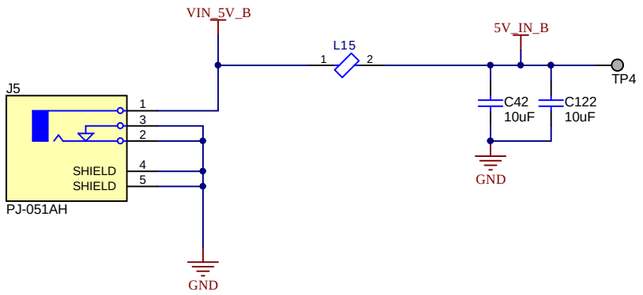
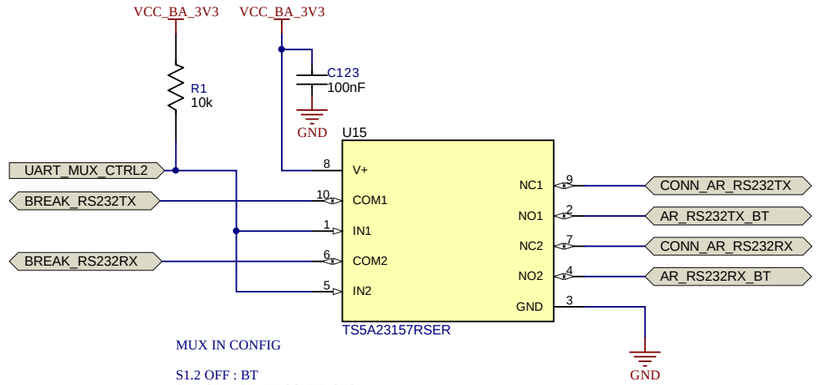
BREAKAWAY_SECTION_4

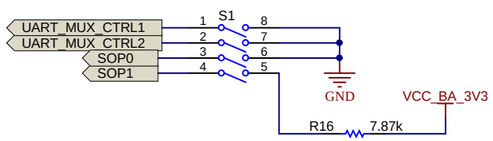
DC JACK

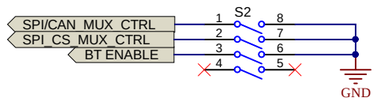


ANALOG MUX SELECTION FOR UART



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

Orderable: AWR1843AOPEVM		Designed for: Public Release	Mod. Date: 14-12-2020
TID #: N/A		Project Title: xWR1843AOPEVM	
Number: PROC106	Rev: A1	Sheet Title: BREAKAWAY_SECTION4	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 10 of 12
Drawn By: Antony/Anand Ram		File: PROC106A1_ANALOG_MUX.SchDoc	Size: B
Engineer: Antony/Anand Ram		Contact: http://www.ti.com/support	

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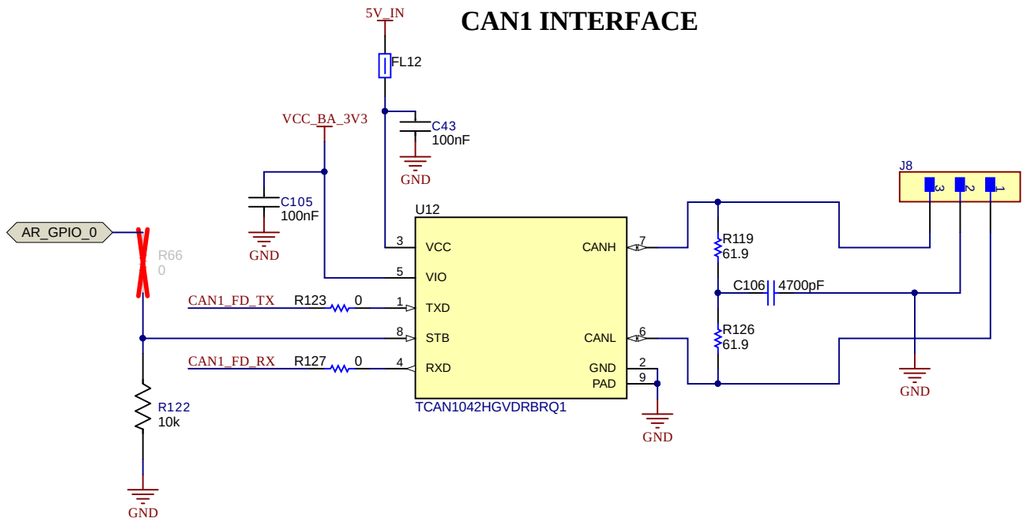
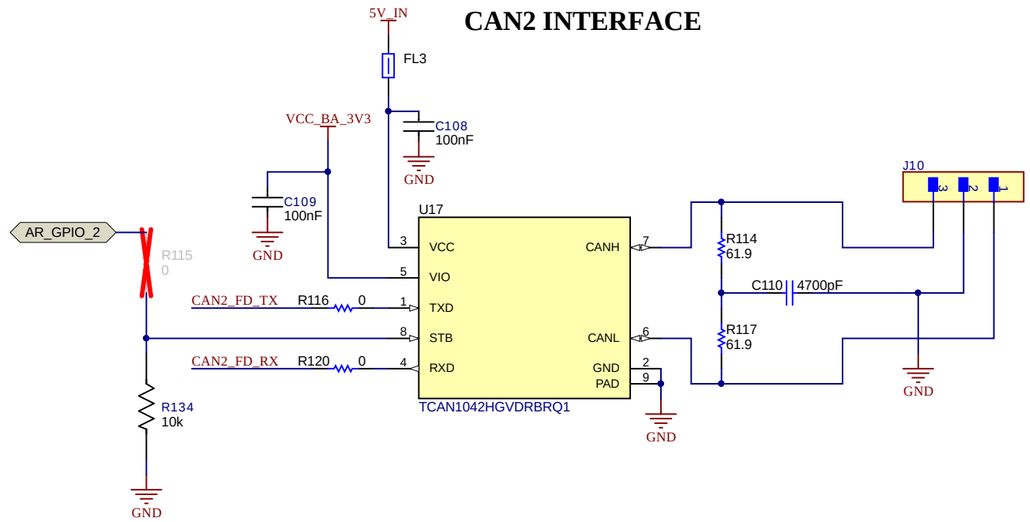
BREAKAWAY_SECTION_5

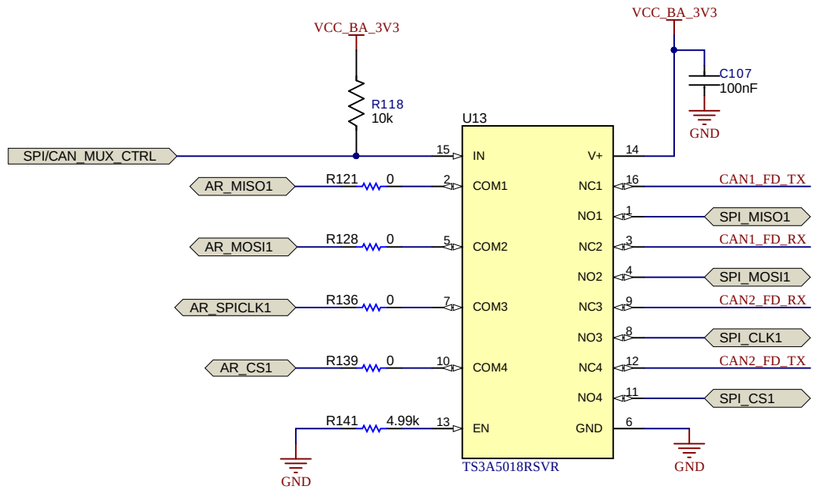
CAN1 INTERFACE



CAN2 INTERFACE



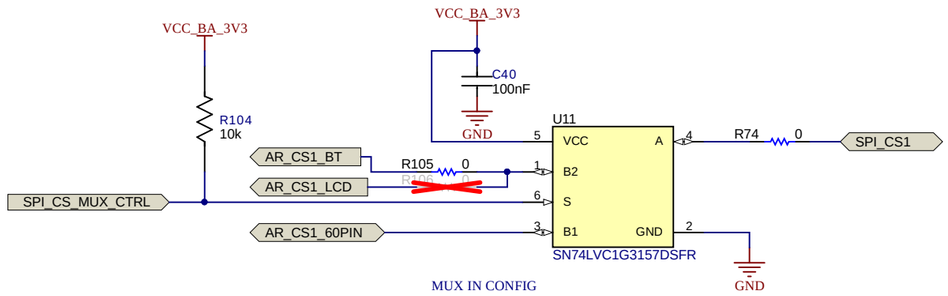
ANALOG MUX SELECTION FOR SPI/CAN



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

Orderable: AWR1843AOPEVM		Designed for: Public Release	Mod. Date: 14-12-2020
TID #: N/A		Project Title: xWR1843AOPEVM	
Number: PROC106	Rev: A1	Sheet Title: BREAKAWAY_SECTION5	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 11 of 12
Drawn By: Antony/Anand Ram		File: PROC106A1_CAN_INTERFACE.SchDoc	Size: B
Engineer: Antony/Anand Ram		Contact: http://www.ti.com/support	

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HARDWARE

FID1 FID2 FID3 FID4 FID5 FID6

PCB Number: PROC106
PCB Rev: A1

PCB LOGO
Texas Instruments

CE Mark

PCB LOGO
FCC disclaimer

PCB LOGO
WEEE logo

PCB LOGO
ESD Susceptible

CAUTION HOT SURFACE

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

Variant/Label Table	
Variant	Label Text
001	AWR1843AOPEVM

H1 MECH

H2 MECH

H3 MECH

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#MCH065) 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

Orderable: AWR1843AOPEVM	Designed for: Public Release	Mod. Date: 02-03-2021
TID #: N/A	Project Title: xWR1843AOPEVM	
Number: PROC106 Rev: A1	Sheet Title: HARDWARE	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 12 of 12
Drawn By: Antony/Anand Ram	File: PROC106A1_Hardware.schdoc	Size: B
Engineer: Antony/Anand Ram	Contact: http://www.ti.com/support	

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