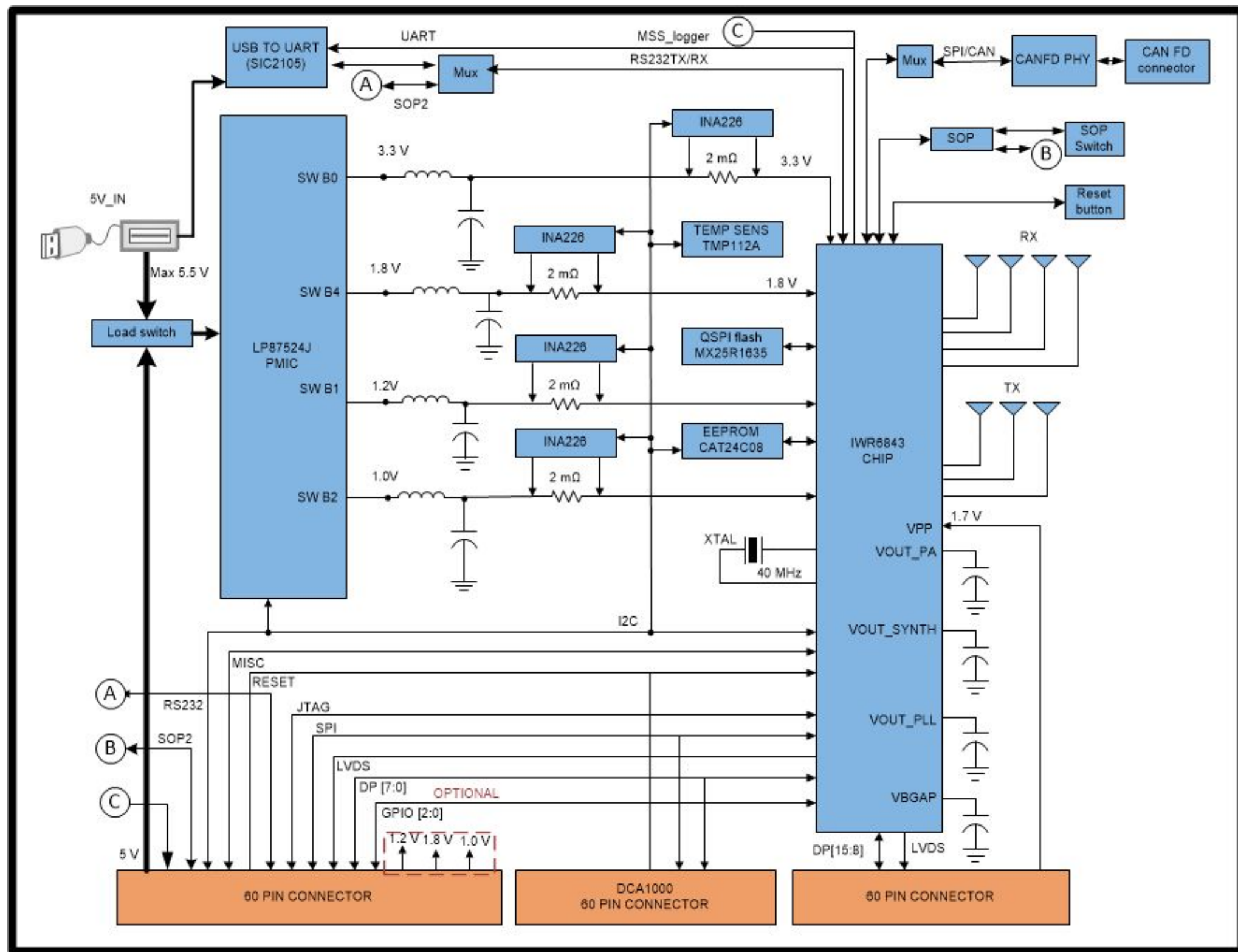


Revision History

Rev	ECN #	Approved Date	Approved by	Notes
B	1	3/2/2020	Charles Oladimeji	REV B

BLOCK DIAGRAM



S.No	DESCRIPTION	I2C ADDRESS
1	CURRENT SENSOR 3.3V	100 0100
2	CURRENT SENSOR 1.8V	100 0000
3	CURRENT SENSOR 1.2V	100 0001
4	CURRENT SENSOR 1.0V	100 0101
5	TEMPERATURE SENSOR1	100 1011
6	LP8770 PMIC	110 0000
7	EEPROM	1010 0XX

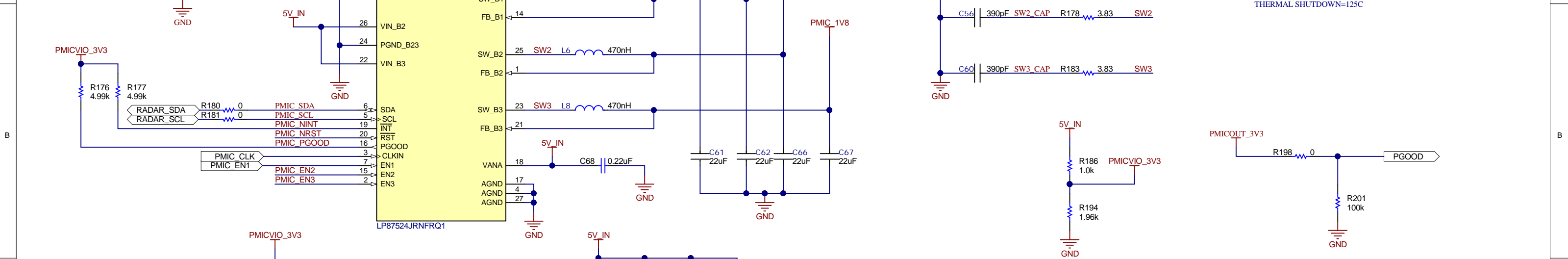
1	2	3	4	5	6
A					A
B					B
C					C
D					D

TABLE OF CONTENTS

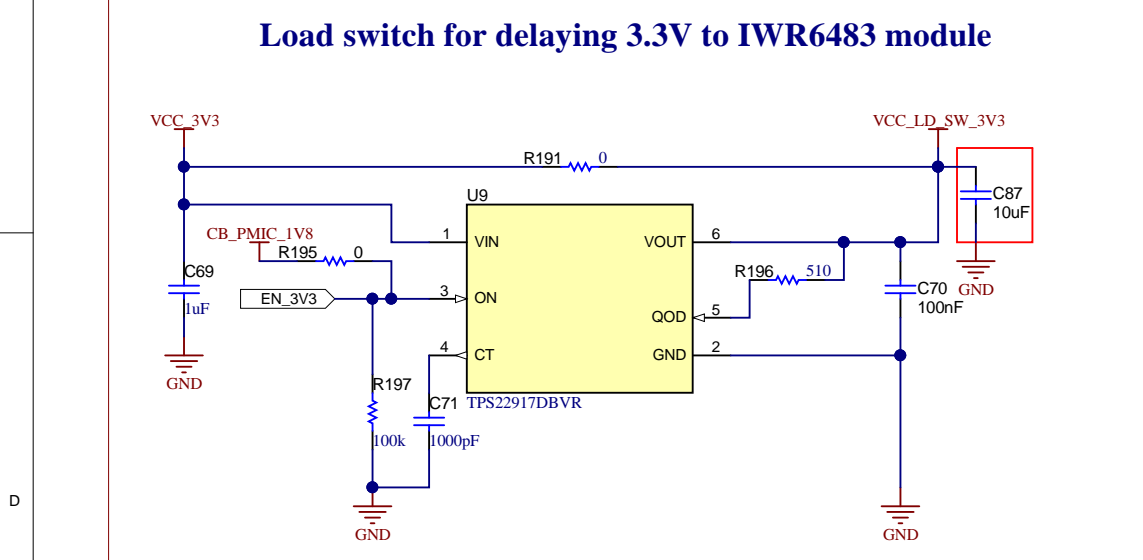
SHEET NO.	SHEET NAME
1	Block diagram
2	Table of Contents
3	PMIC
4	IWR6843 Chip
5	Decoupling caps_LC_Filters
6	QSPI Flash
7	60Pin HD Connector
8	Temp_Current_Sensor
9	USB to UART
10	DCA Connector
11	SOP Control
12	CAN Interface
13	Hardware

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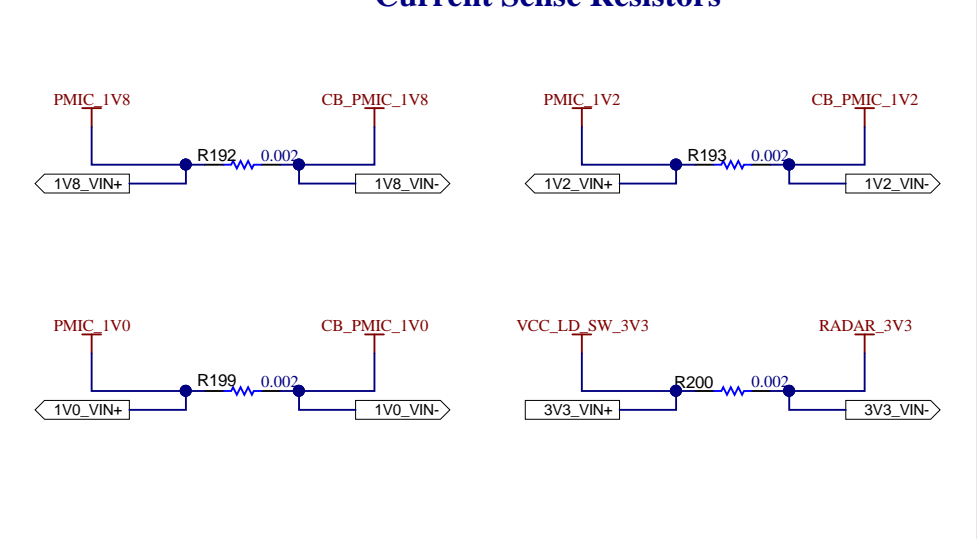
Orderable: IWR6843ISK-ODS	Designed for: Public Release	Mod. Date: 4/13/2020
TID #: N/A	Project Title: IWR6843ISK-ODS	
Number: PROC075	Rev: C	Sheet Title: TABLE OF CONTENTS
SVN Rev: Not in version control	Assembly Variant: 001_IWR	Sheet: 2 of 13
Drawn By: Charles F. Oladimeji	File: PROC075C_Table_Of_Contents.SchDoc	Size: B
Engineer: Charles F. Oladimeji	Contact: http://www.ti.com/support	



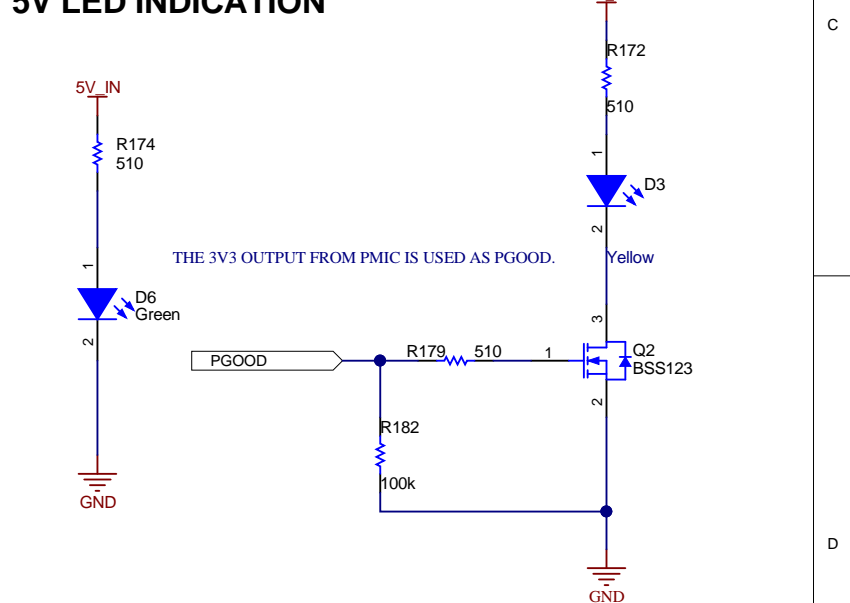
C




Current Sense Resistors



5V 1 LED INDICATION VCC_3V3



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TID #: N/A	Project Title: IWR6843ISK-ODS		
Number: PROC075	Rev: C	Sheet Title: PMIC	
SVN Rev: Not in version control	Assembly Variant: 001_IWR	Sheet: 3 of 13	
Drawn By: Charles F. Oladimeji	File: PROC075C_PMIC.SchDoc	Size: B	
Engineer: Charles F. Oladimeji	Contact: http://www.ti.com/support		

IWR6843 Chip

A

B

C

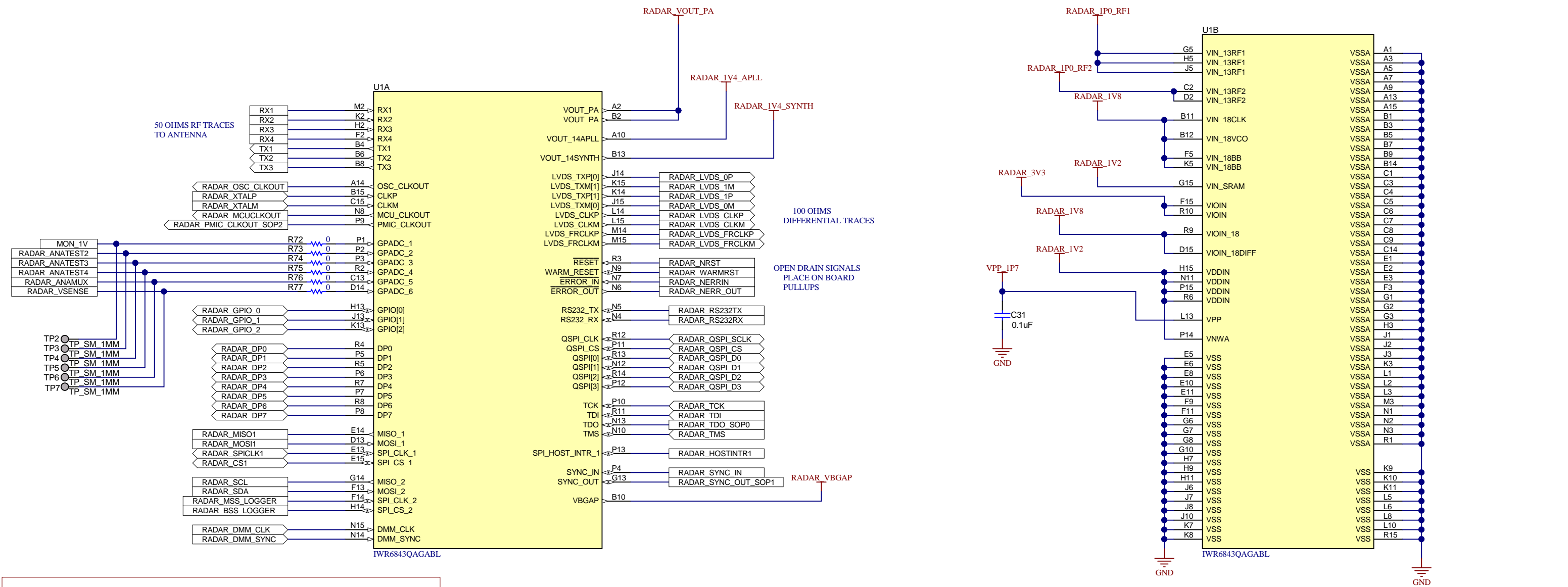
D

A

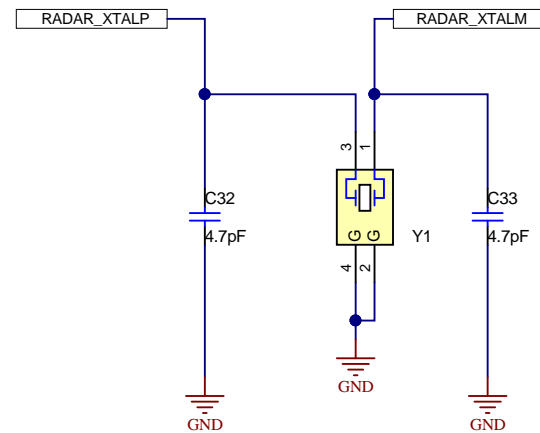
B

C

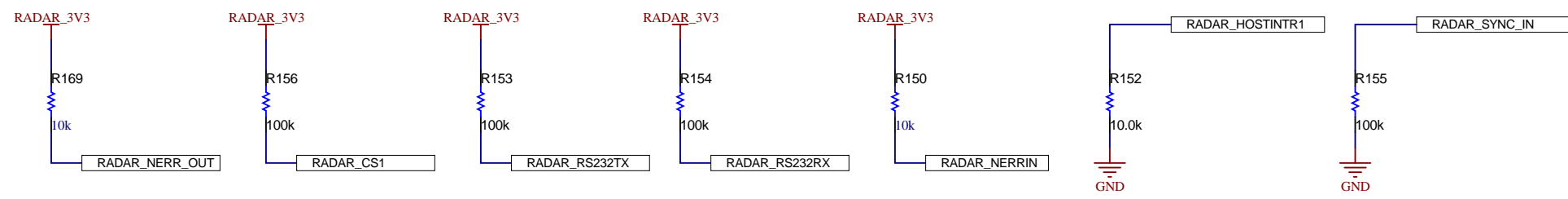
D



Crystal Oscillator
40MHz



PULL UPS/DOWNS FOR SPI CS1, NERRIN, RS232, SYNC_IN & HOST_INTRn



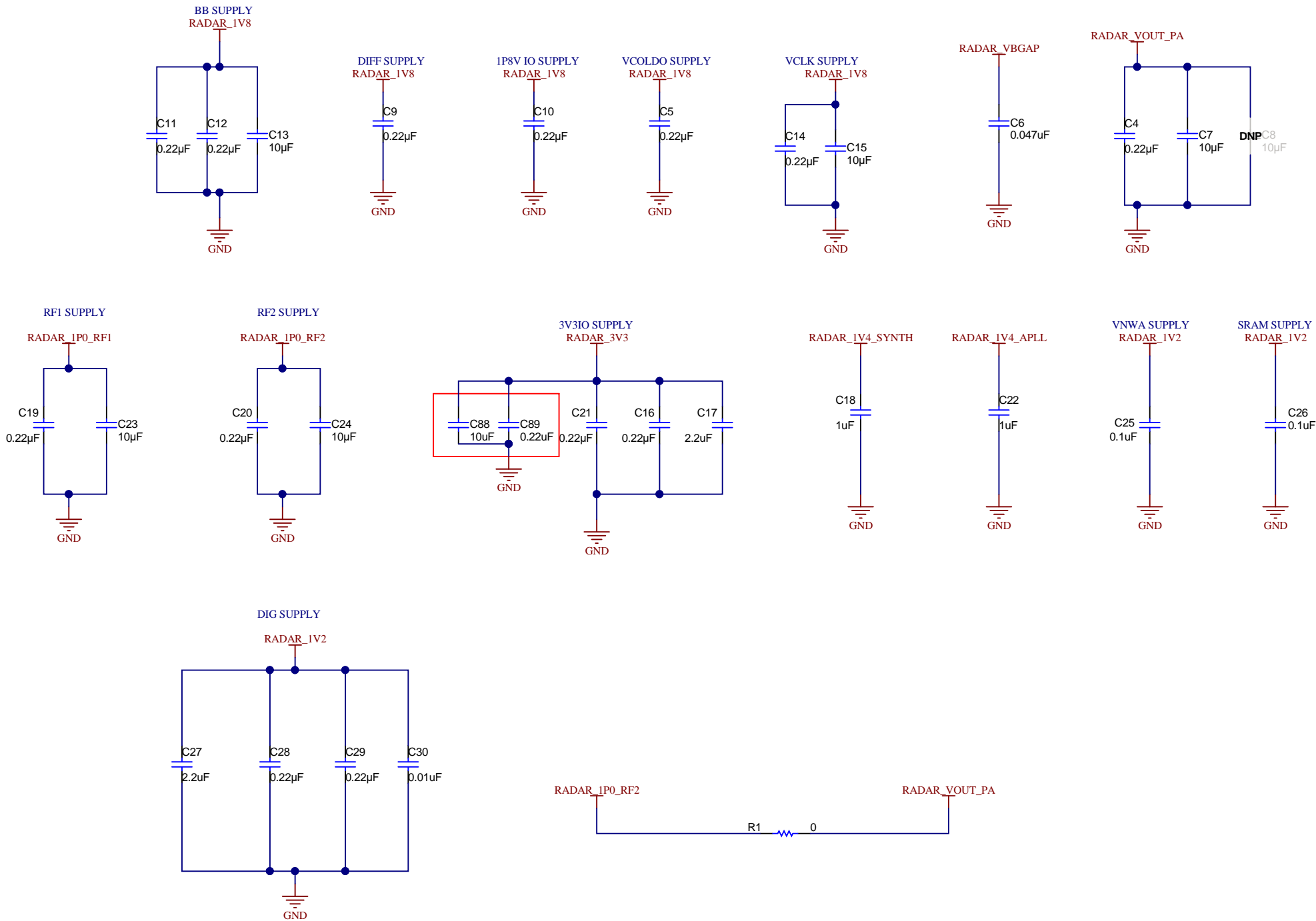
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Orderable: IWR6843ISK-ODS	Designed for: Public Release	Mod. Date: 4/13/2020
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Number: PROC075	Rev: C	Sheet Title: IWR6843_CHIP
SVN Rev: Not in version control	Assembly Variant: 001_IWR	Sheet: 4 of 13
Drawn By: Charles F. Oladimeji	File: PROC075C_IWR6843_Chip_SchDoc	Size: B
Engineer: Charles F. Oladimeji	Contact: http://www.ti.com/support	

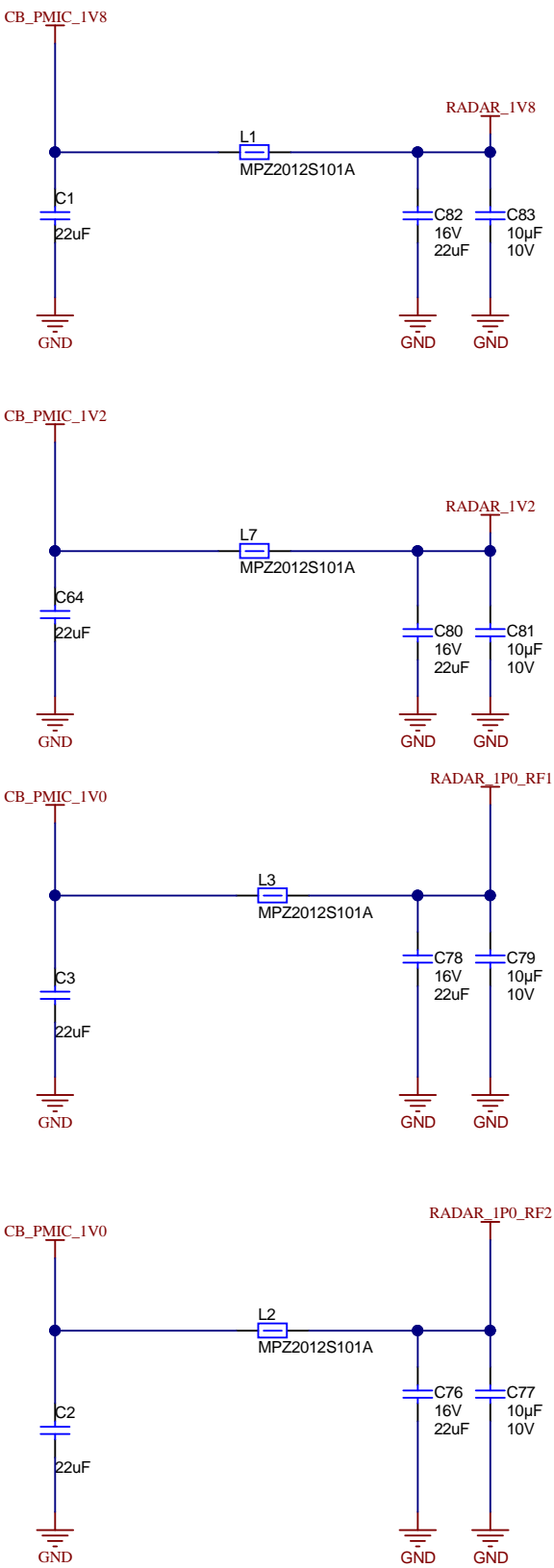


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SUPPLY_DECOUPLING_CAPS



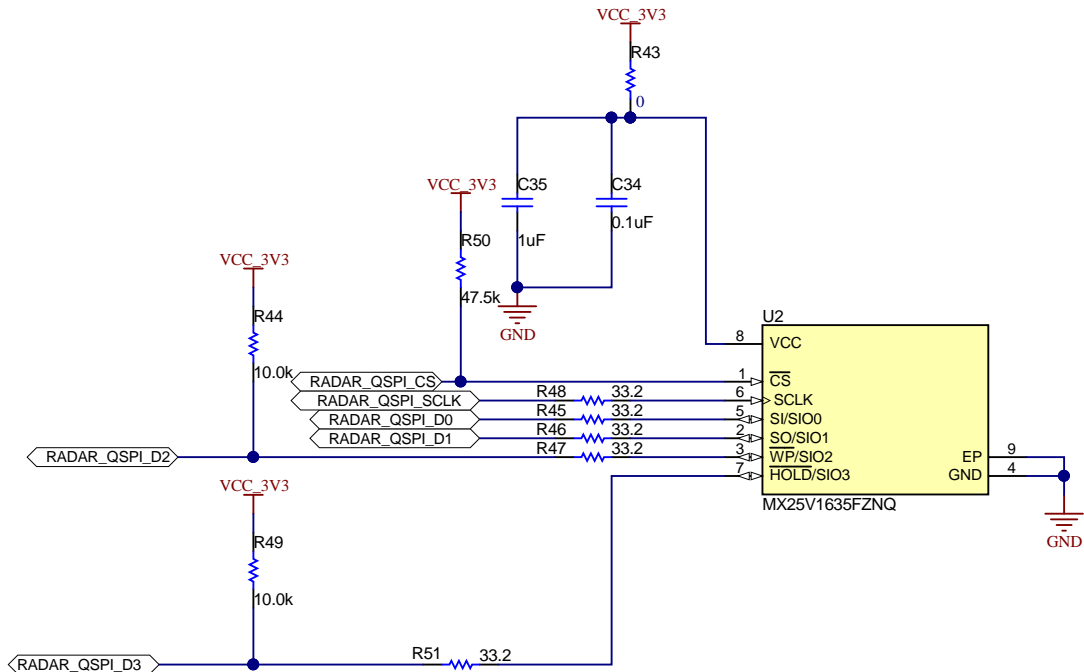
PMIC LC Filters



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Orderable: IWR6843ISK-ODS	Designed for: Public Release	Mod. Date: 7/17/2020
TID #: N/A	Project Title: IWR6843ISK-ODS	
Number: PROC075	Rev: C	Sheet Title: Decoupling Caps
SVN Rev: Not in version control	Assembly Variant: 001_IWR	Sheet: 5 of 13
Drawn By: Charles F. Oladimeji	File: PROC075C_Decoupling_caps.SchDoc	Size: B
Engineer: Charles F. Oladimeji	Contact: http://www.ti.com/support	

QSPI FLASH

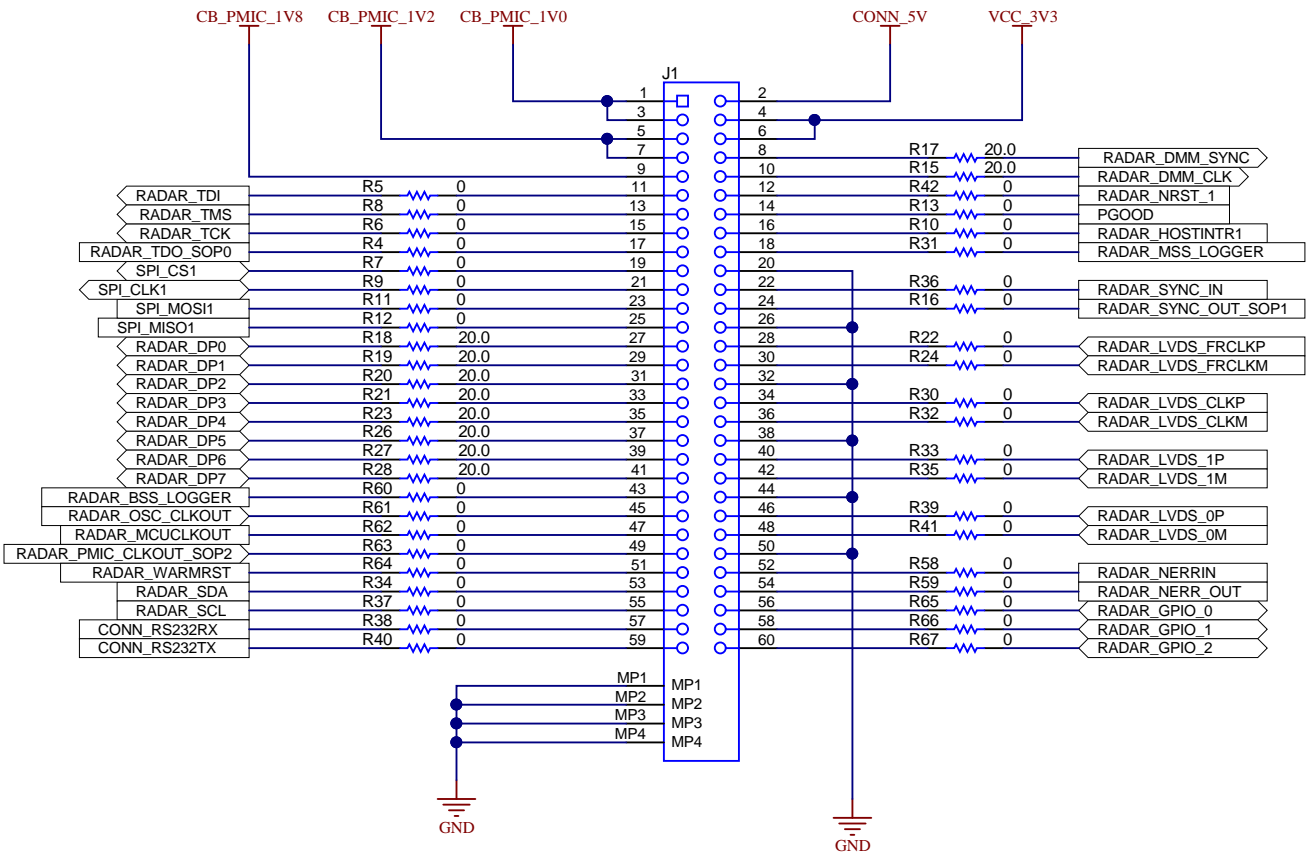


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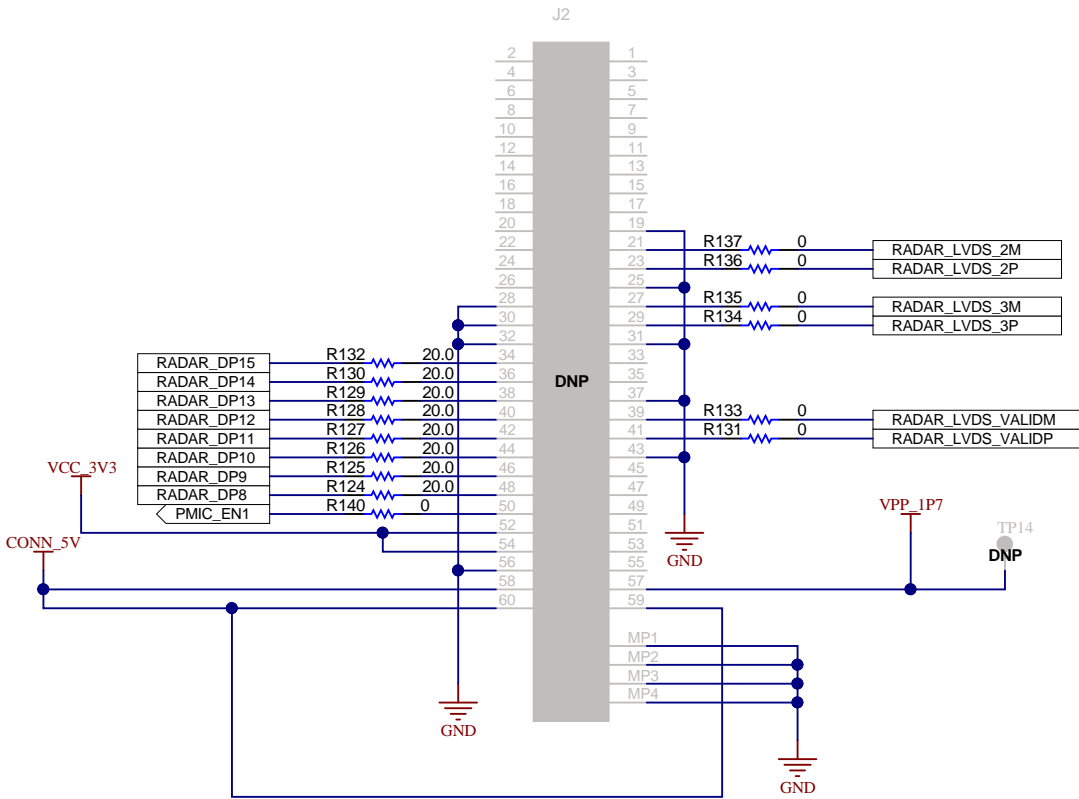
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TID #: N/A	Project Title: IWR6843ISK-ODS	
Number: PROC075	Rev: C	Sheet Title: QSPI Flash
SVN Rev: Not in version control	Assembly Variant: 001_IWR	Sheet: 6 of 13
Drawn By: Charles F. Oladimeji	File: PROC075C_QSPI_Flash_section.SchDoc	Size: B
Engineer: Charles F. Oladimeji	Contact: http://www.ti.com/support	

CONNECTORS

60 PIN HD CONNECTOR



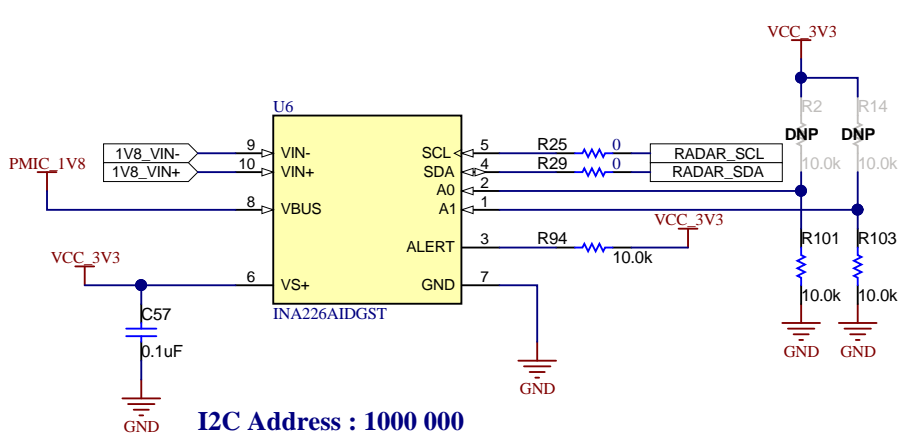
60 PIN HD CONNECTOR FOR xWRxxxx DEVICES COMPATABILITY



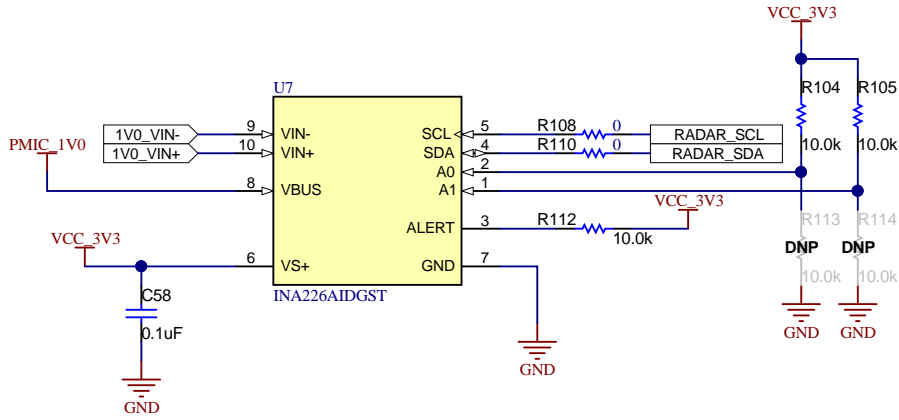
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TID #: N/A	Project Title: IWR6843ISK-ODS	
Number: PROC075	Rev: C	Sheet Title: HD Connector
SVN Rev: Not in version control	Assembly Variant: 001_IWR	Sheet: 7 of 13
Drawn By: Charles F. Oladimeji	File: PROC075C_HD_Connector_60Pin.SchDoc	Size: B
Engineer: Charles F. Oladimeji	Contact: http://www.ti.com/support	

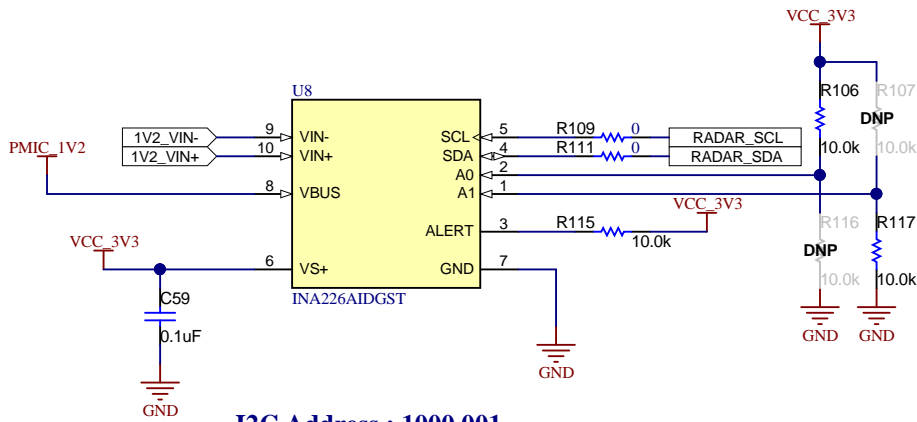
CURRENT SENSOR



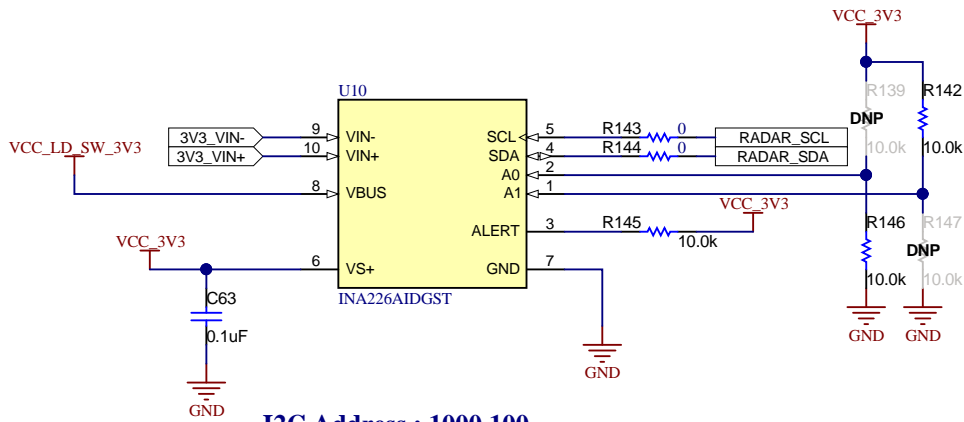
I2C Address : 1000 000



I2C Address : 1000 101

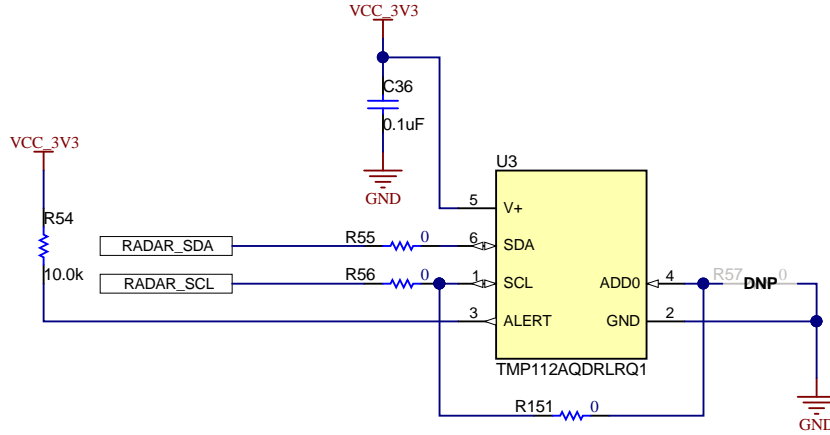


I2C Address : 1000 001



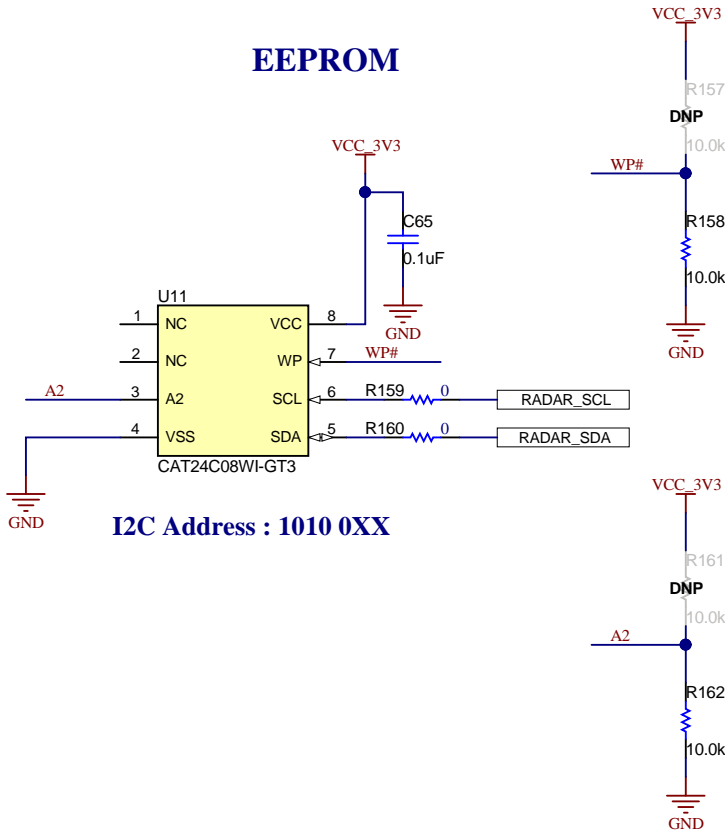
I2C Address : 1000 100

TEMPERATURE SENSOR



I2C Address : 1001 011

EEPROM



I2C Address : 1010 0XX

[illegible]

USB to UART

NOTE: USB SELF POWERED CONFIGURATION

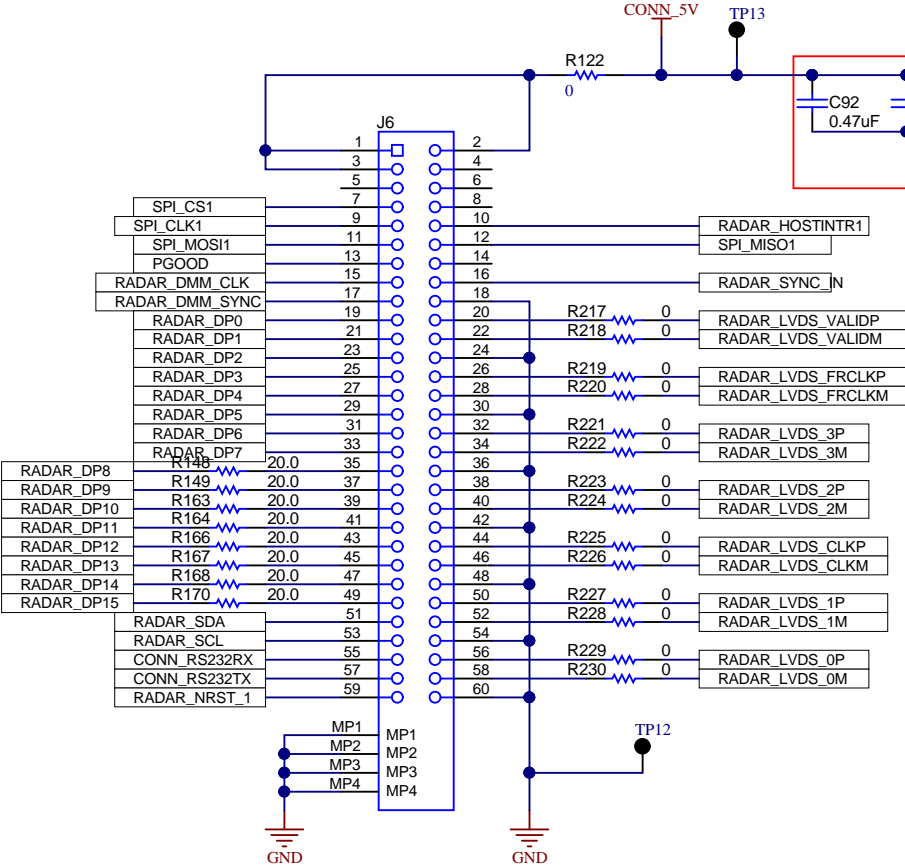
The schematic shows a TS5A23157RSER multiplexer (U15) used for selecting between two UART sources. The V+ pin (pin 8) is connected to PMICOUT_3V3 through a 10k resistor (R100). The COM1 pin (pin 10) is connected to MUX_IN_2. The IN1 pin (pin 1) is connected to RADAR_RS232TX. The COM2 pin (pin 6) is connected to RADAR_RS232RX. The IN2 pin (pin 5) is also connected to RADAR_RS232RX. The output pins are NC1 (pin 9), NO1 (pin 2), NC2 (pin 7), NO2 (pin 4), and GND (pin 3). The GND pin is connected to ground. A capacitor C48 (100nF) is connected between PMICOUT_3V3 and ground.

UART SELECTION

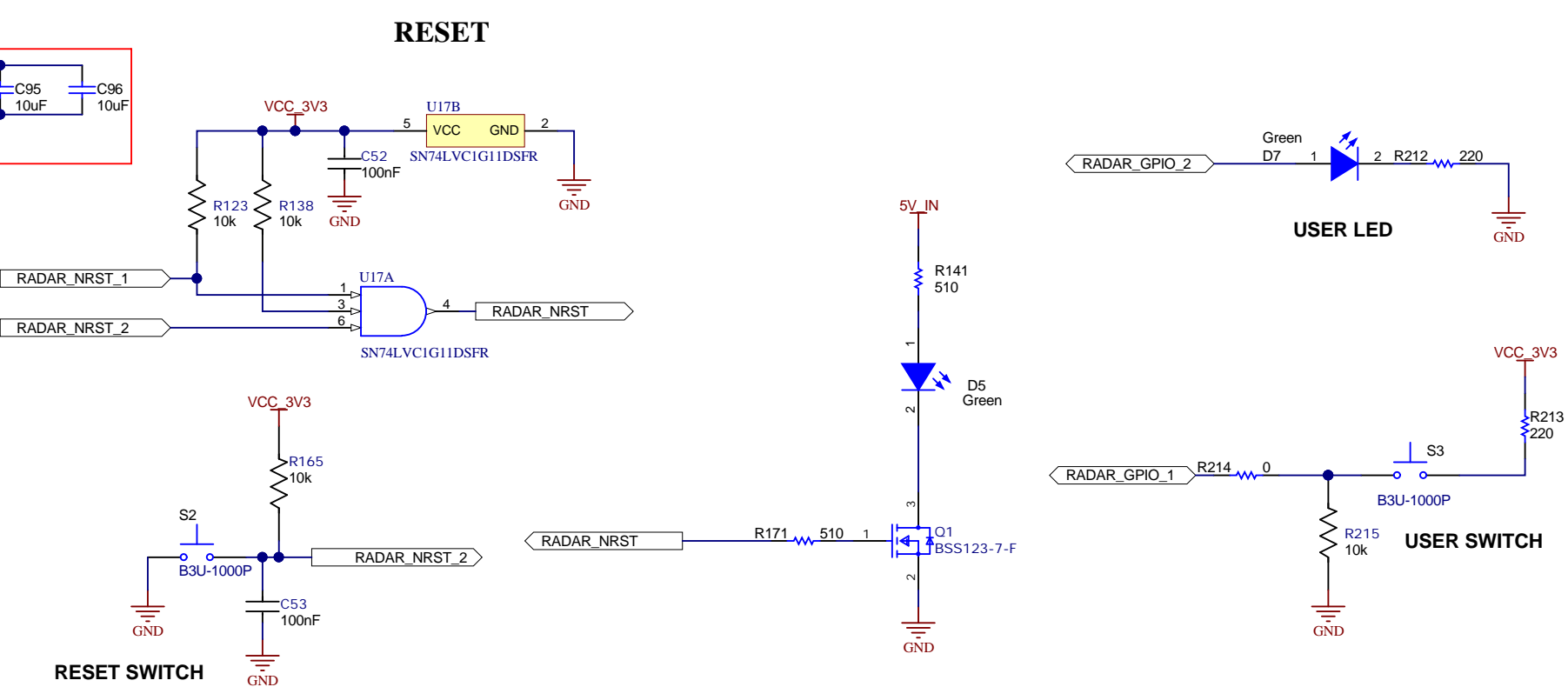
MUX IN CONFIG

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

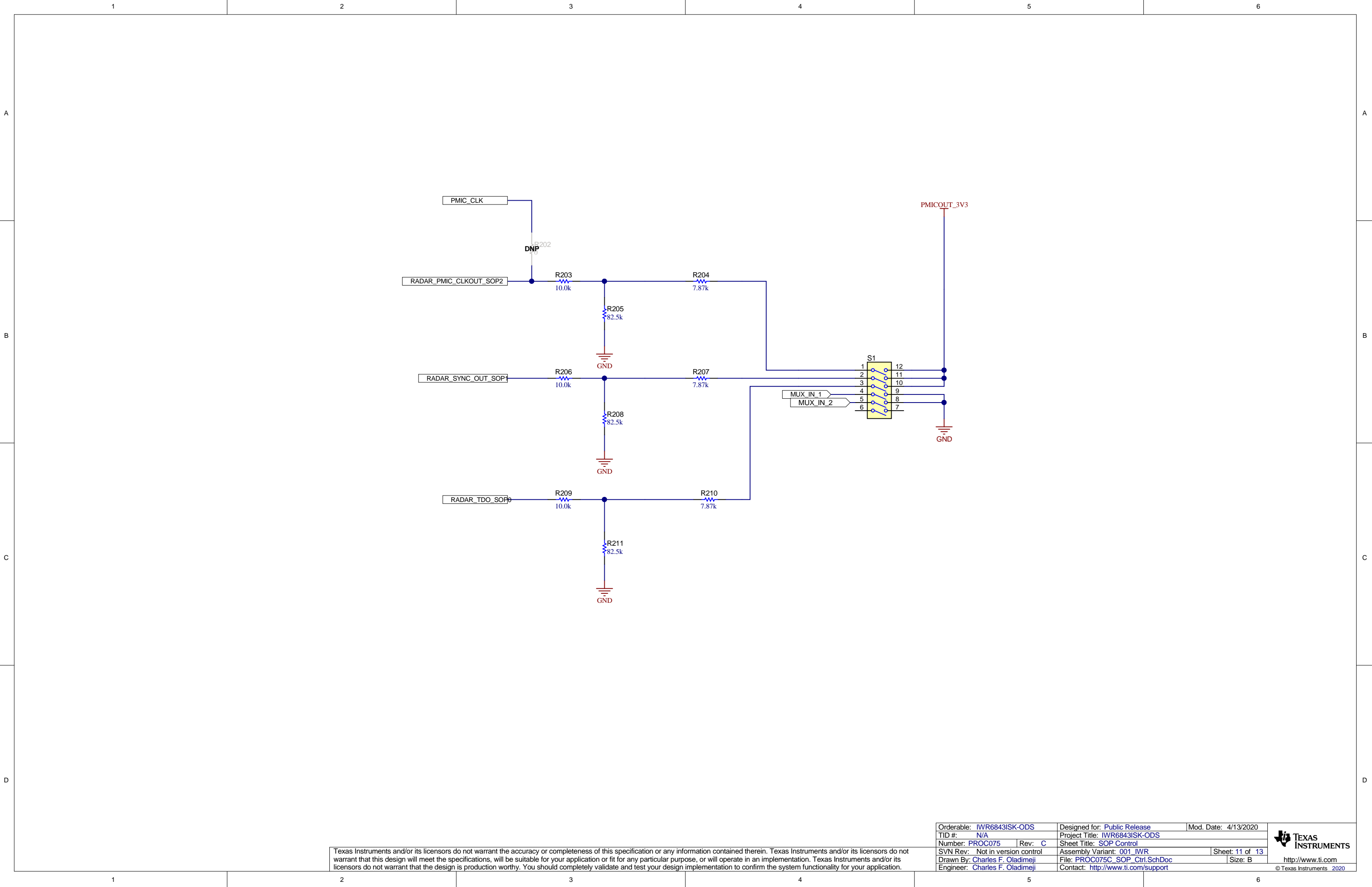
60PIN HD CONNECTOR FOR DCA1000



RESET, USER LED and SWITCHES



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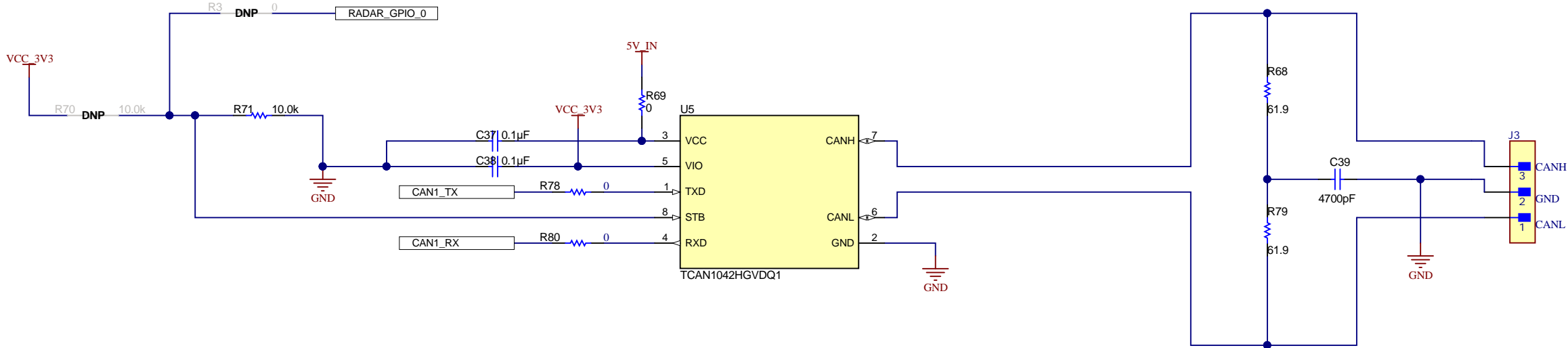
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TID #: N/A	Project Title: IWR6843ISK-ODS	
Number: PROC075	Rev: C	Sheet Title: SOP Control
SVN Rev: Not in version control	Assembly Variant: 001_IWR	Sheet: 11 of 13
Drawn By: Charles F. Oladimeji	File: PROC075C_SOP_Ctrl.SchDoc	Size: B
Engineer: Charles F. Oladimeji	Contact: http://www.ti.com/support	

A

A

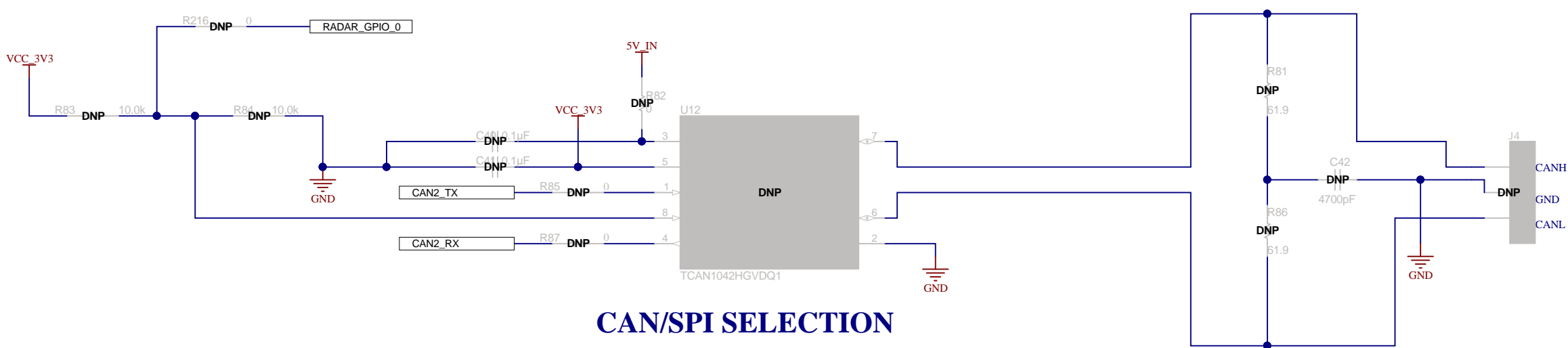
CAN_FD TRANSCEIVER



B

B

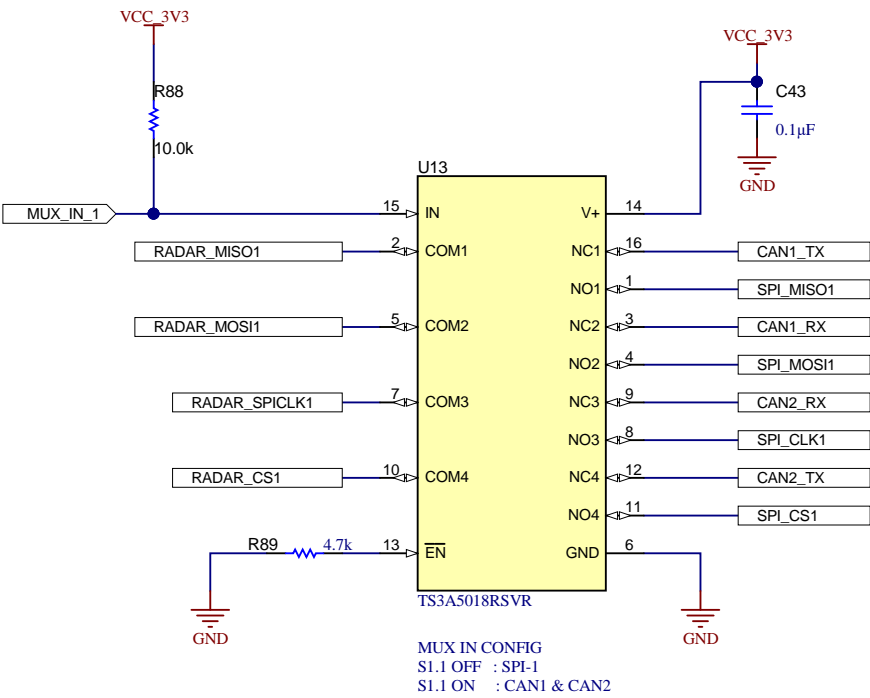
CAN_FD TRANSCEIVER



C

C

CAN/SPI SELECTION



D

D

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Orderable: IWR6843ISK-ODS	Designed for: Public Release	Mod. Date: 4/13/2020
TID #: N/A	Project Title: IWR6843ISK-ODS	
Number: PROC075	Rev: C	Sheet Title: CAN Interface
SVN Rev: Not in version control	Assembly Variant: 001_IWR	Sheet: 12 of 13
Drawn By: Charles F. Oladimeji	File: PROC075C_Can_Interface.SchDoc	Size: B
Engineer: Charles F. Oladimeji	Contact: http://www.ti.com/support	

