

SHIELD_XENSIV_A - XENSIV™ Sensor Shield

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Drawing Numbers

PCBA	121-60700-01
PCB	600-60700-01
FAB DRW	610-60700-01
ASSY DRW	620-60700-01
SCH DRW	630-60700-01

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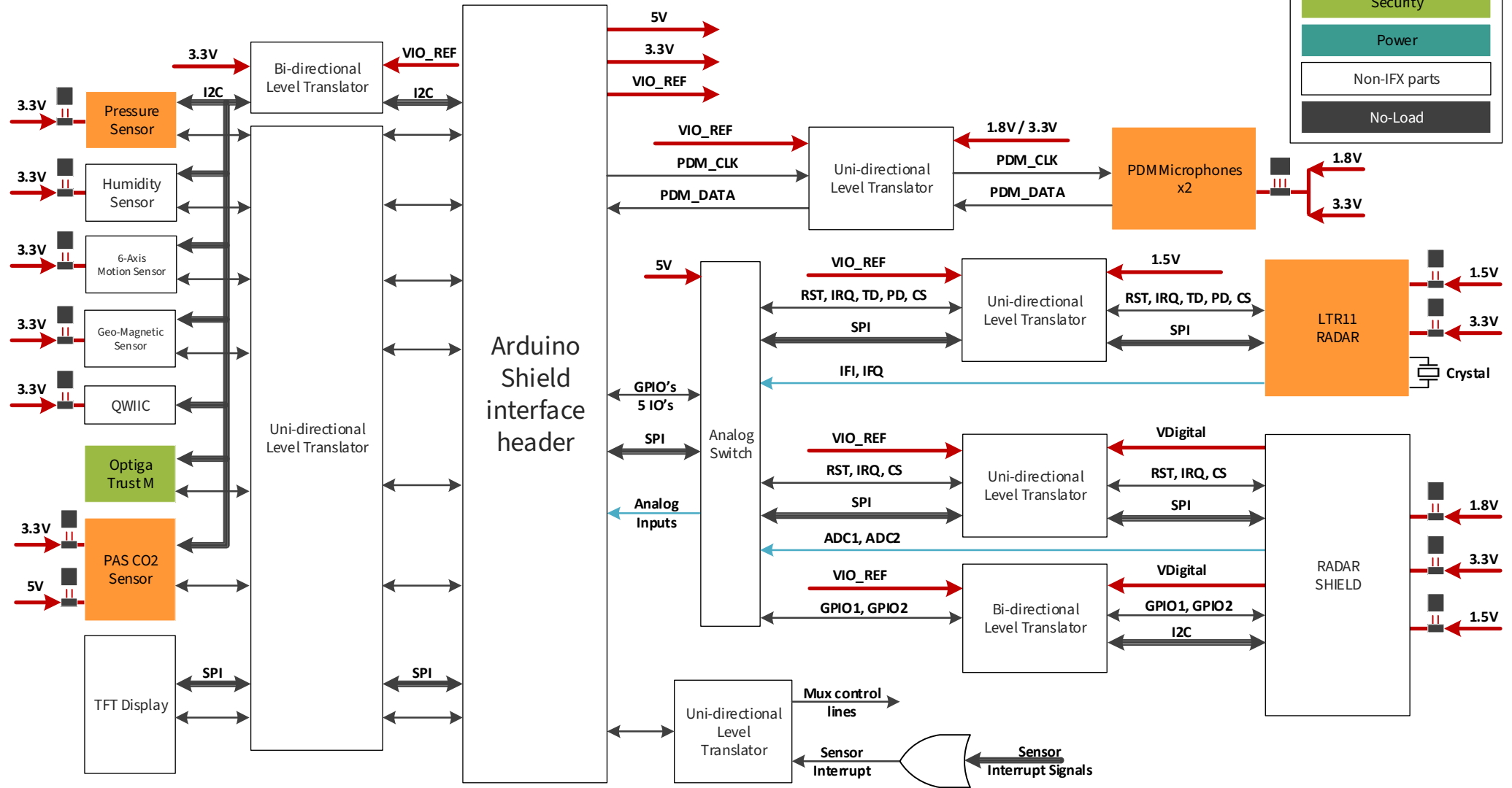


SCH Title : XENSIV™ Sensor Shield

Page Title: Title Page

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Functional Block Diagram



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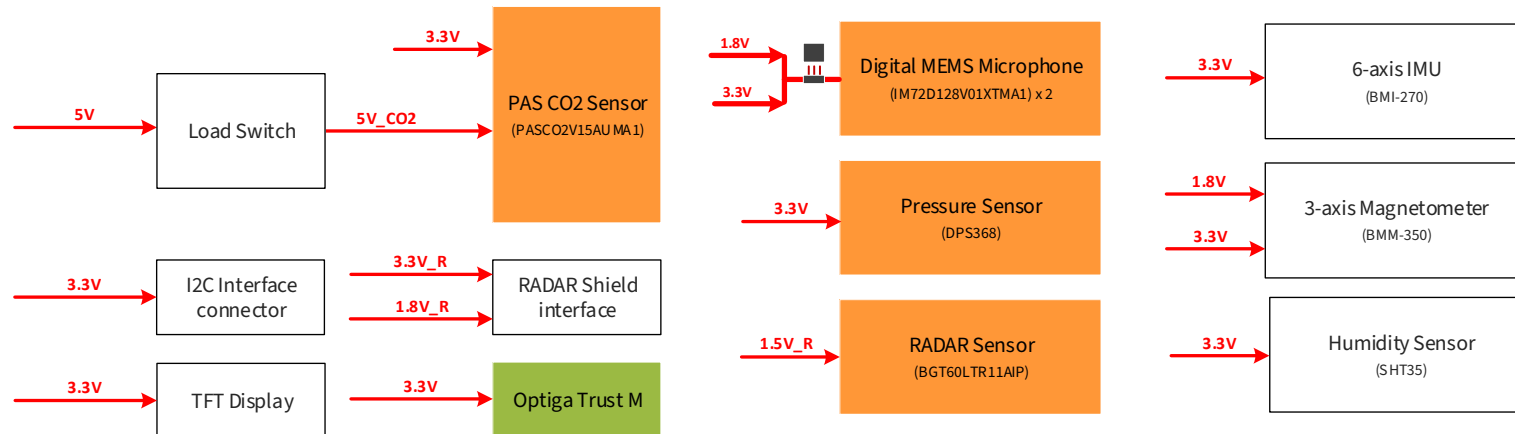
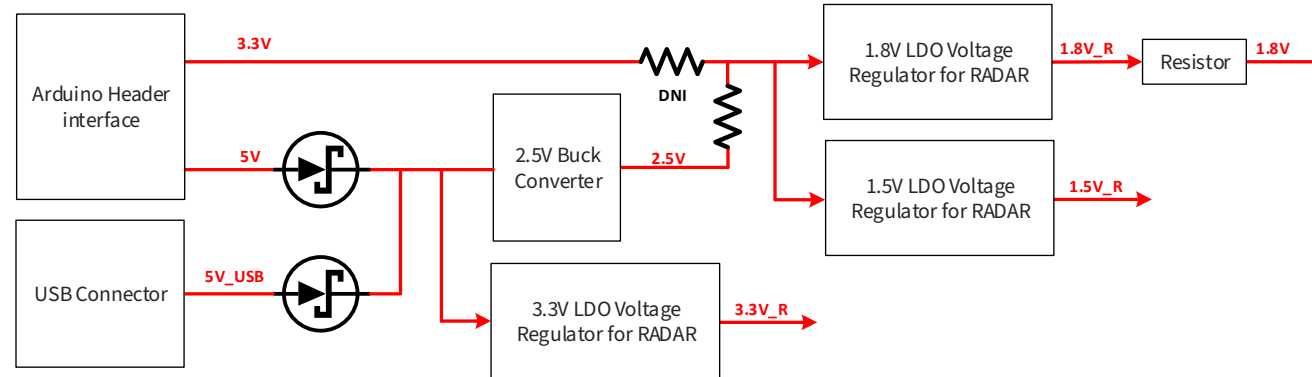


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Power Block Diagram



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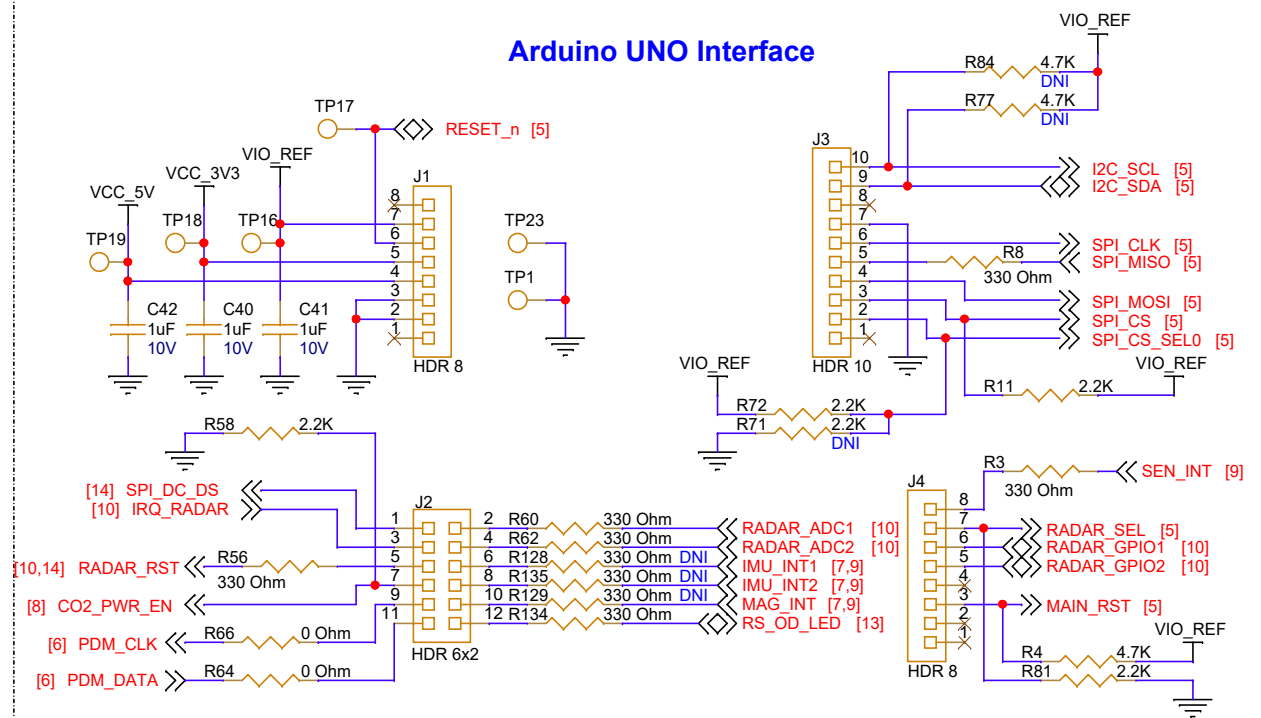


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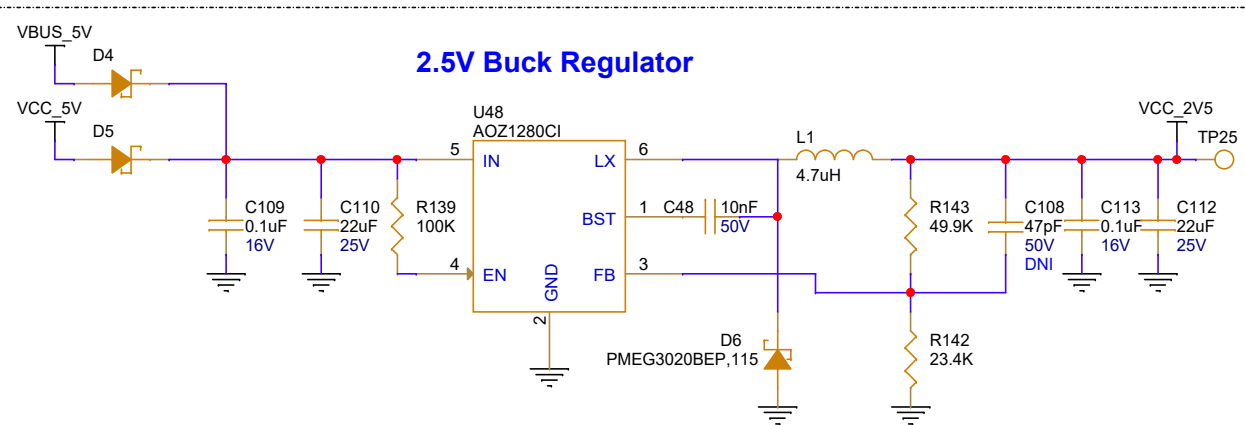
Page Title: Power Block Diagram

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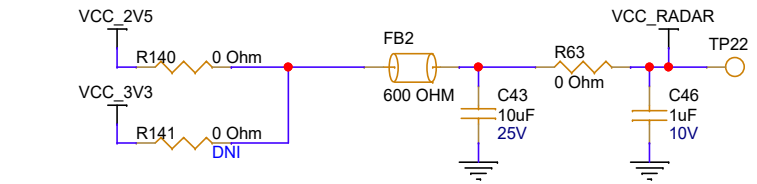
Arduino UNO Interface



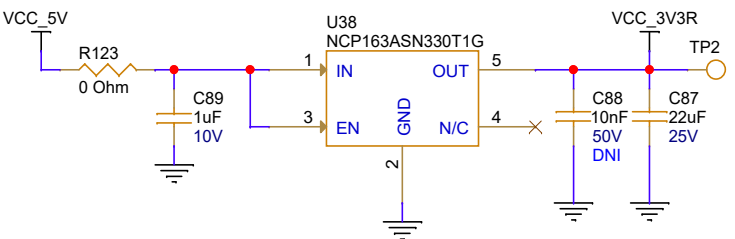
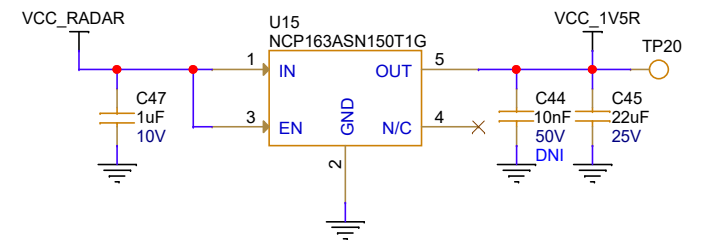
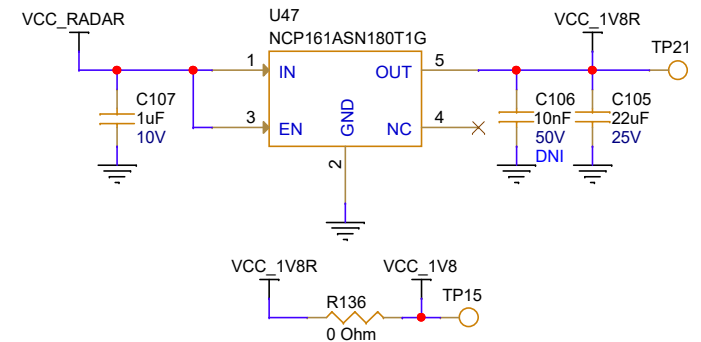
2.5V Buck Regulator



RADAR Power supplies



3 PAD



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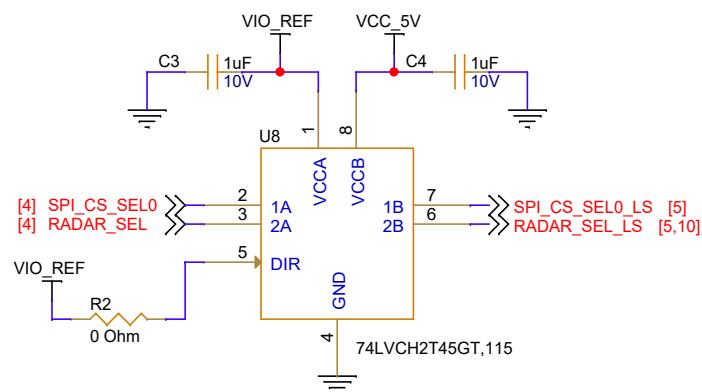


SCH Title : XENSIV™ Sensor Shield

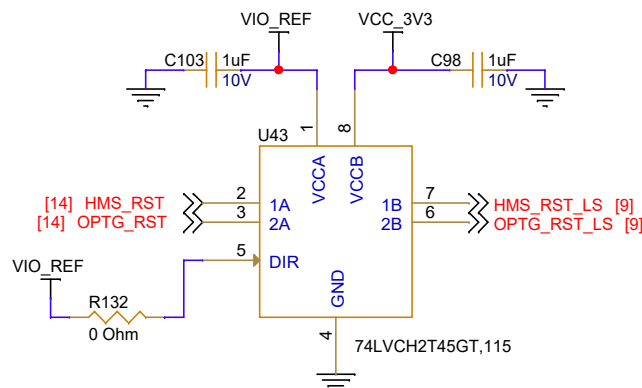
Page Title : Arduino Interface and Power Supplies

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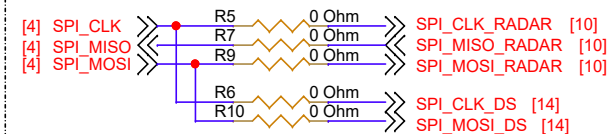
Analog Multiplexer Select Signal Level Translators



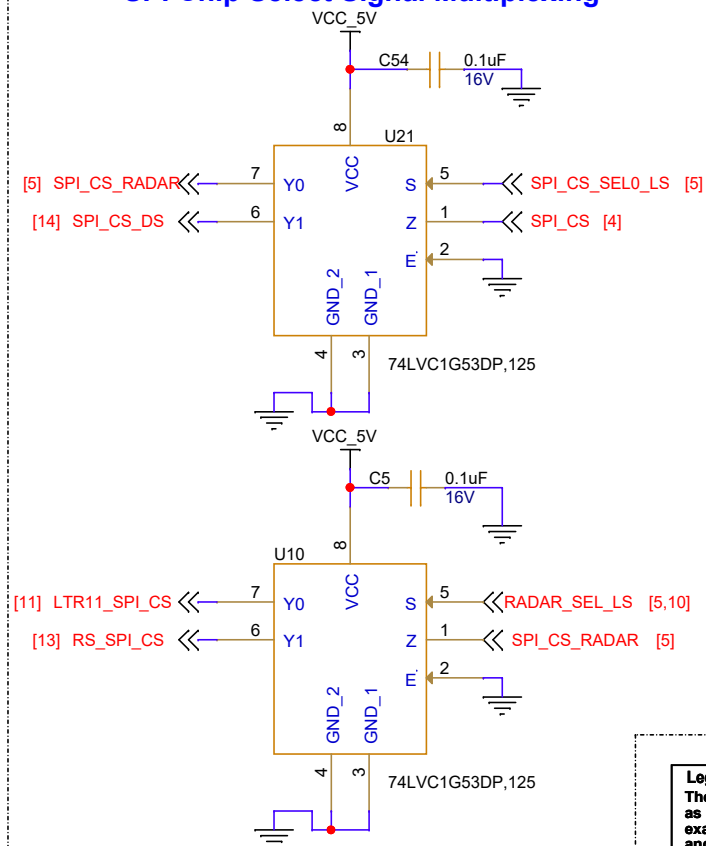
RESET signal Level Translator



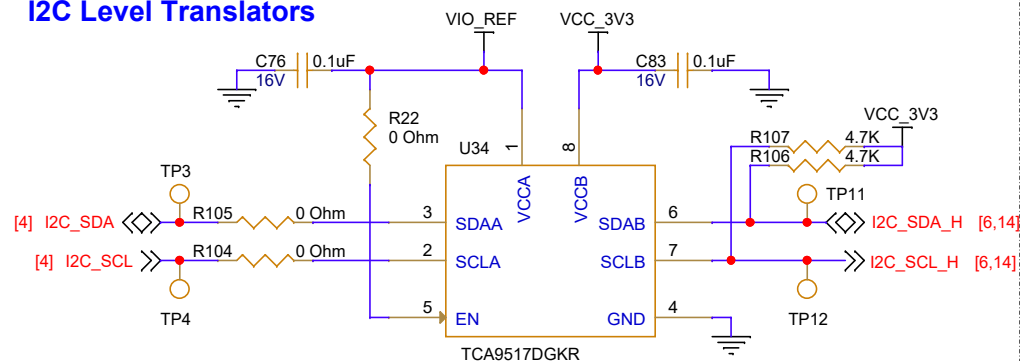
SPI Signals Multiplexing



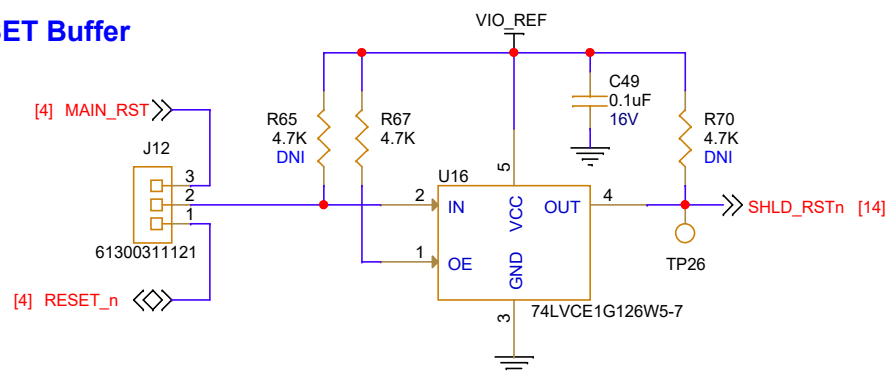
SPI Chip Select Signal Multiplexing



I2C Level Translators



RESET Buffer



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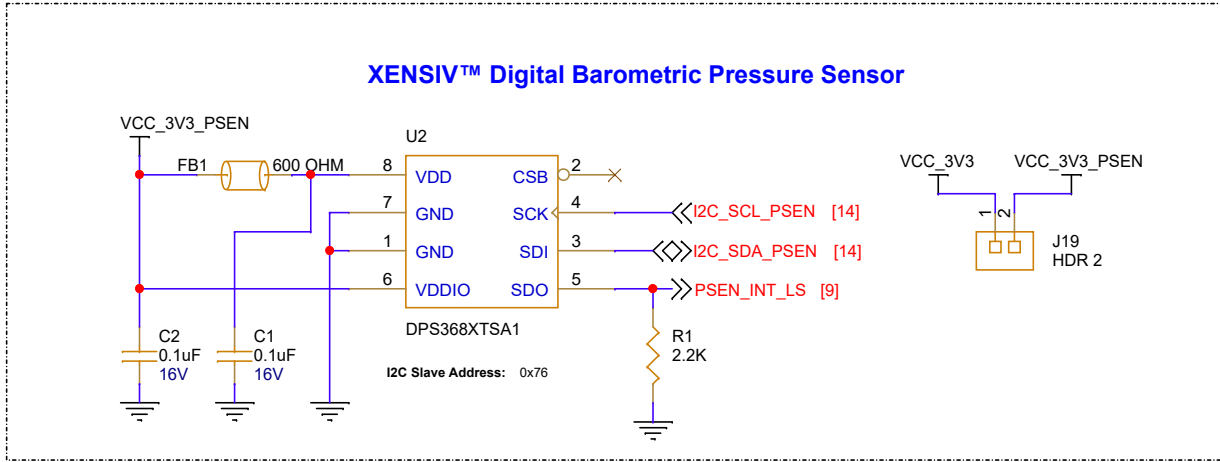
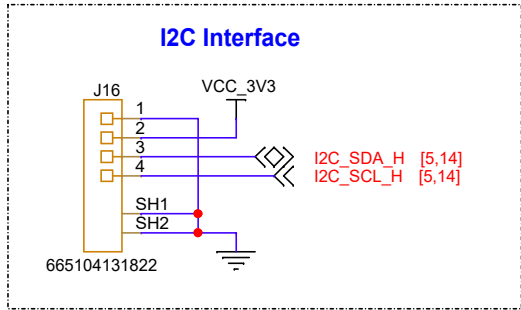
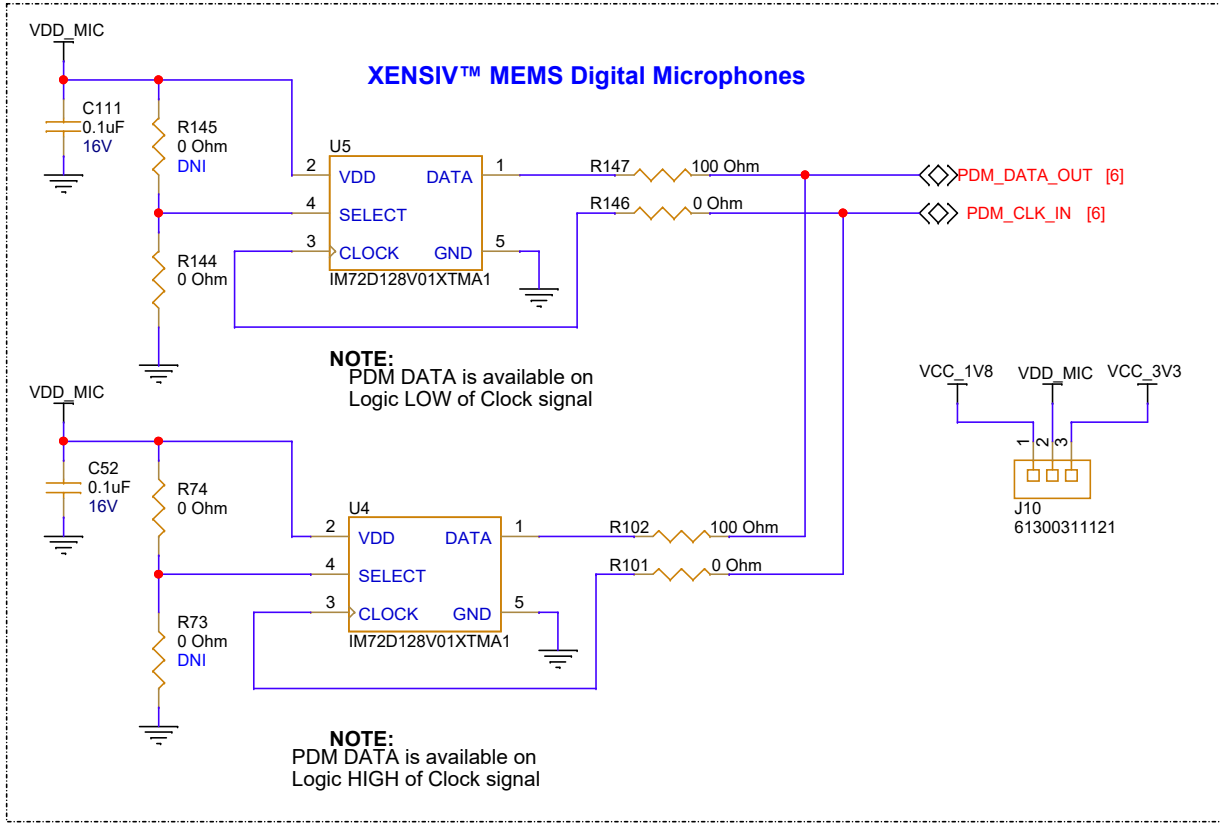
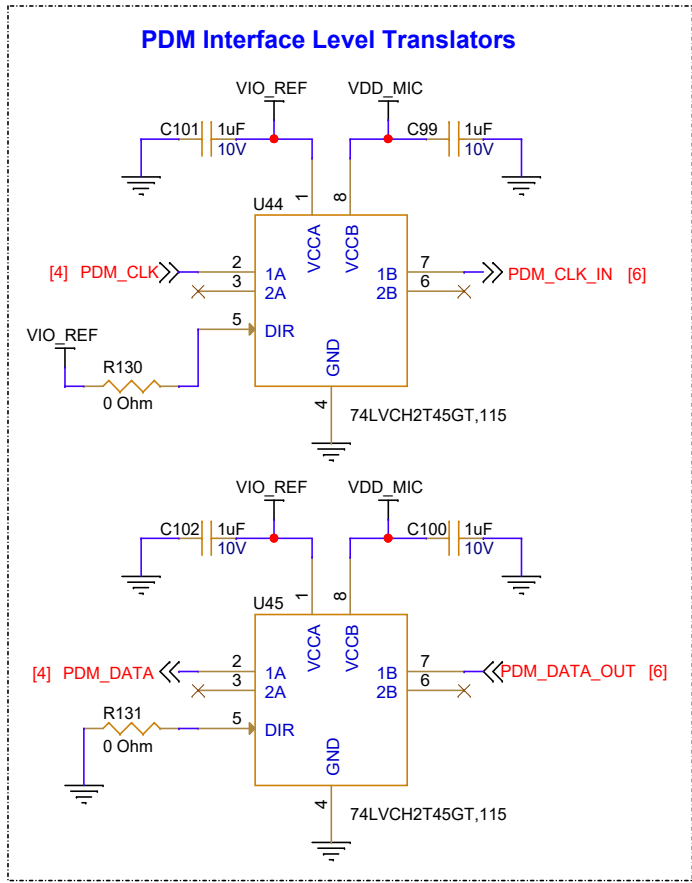
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Page Title : MUX Switch for reset & I2C level translator

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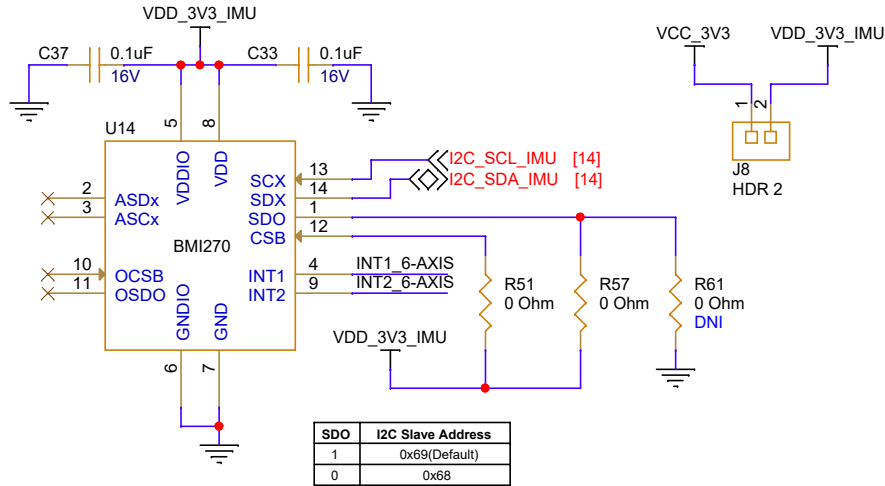


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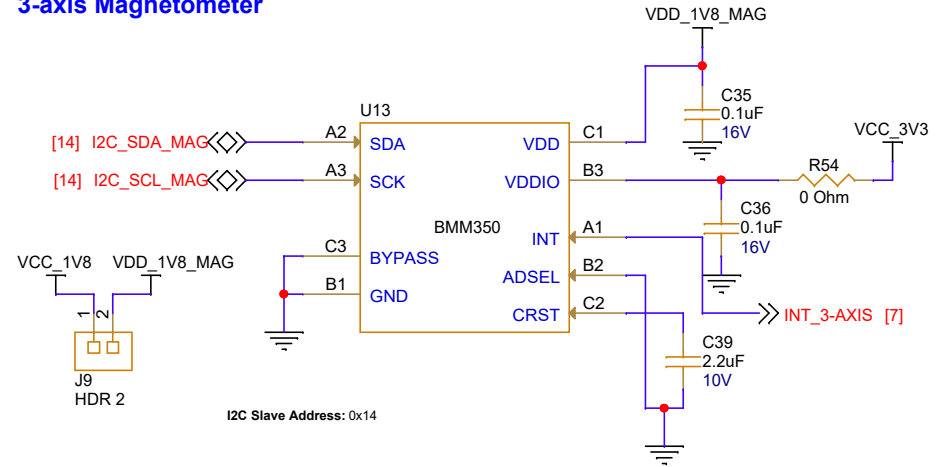
Page Title : Arudino Interface & PDM Mic

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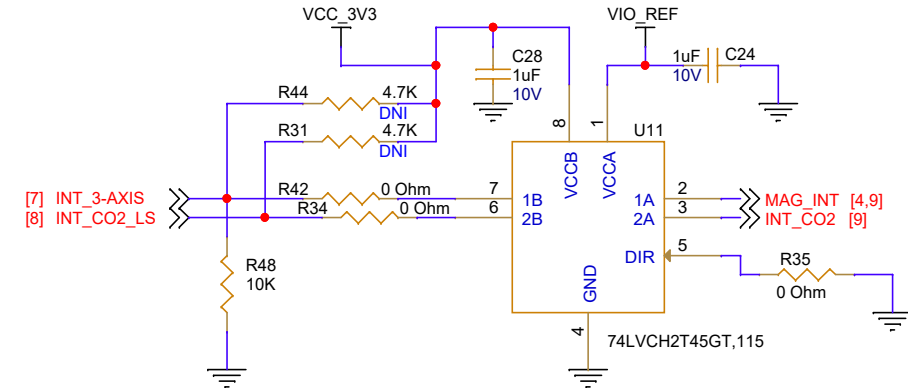
6-axis IMU (Accelerometer + Gyroscope)



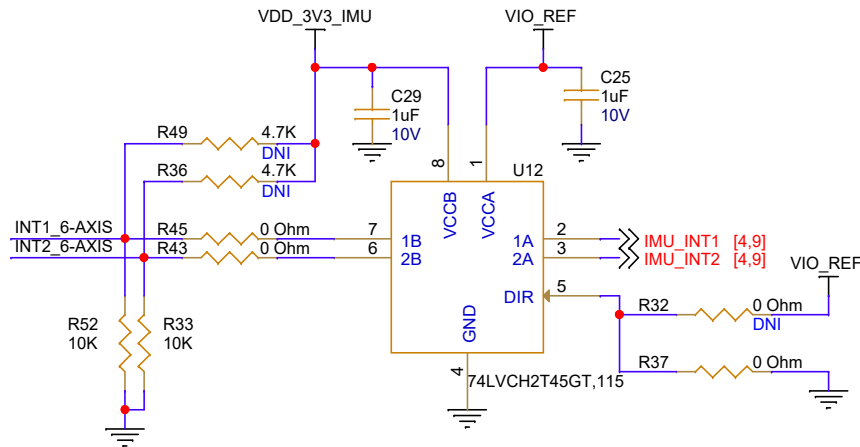
3-axis Magnetometer



3-axis Magnetometer and PAS CO2 Sensor Interrupt Signal Level Translator



6-axis IMU Interrupt Signal Level Translator



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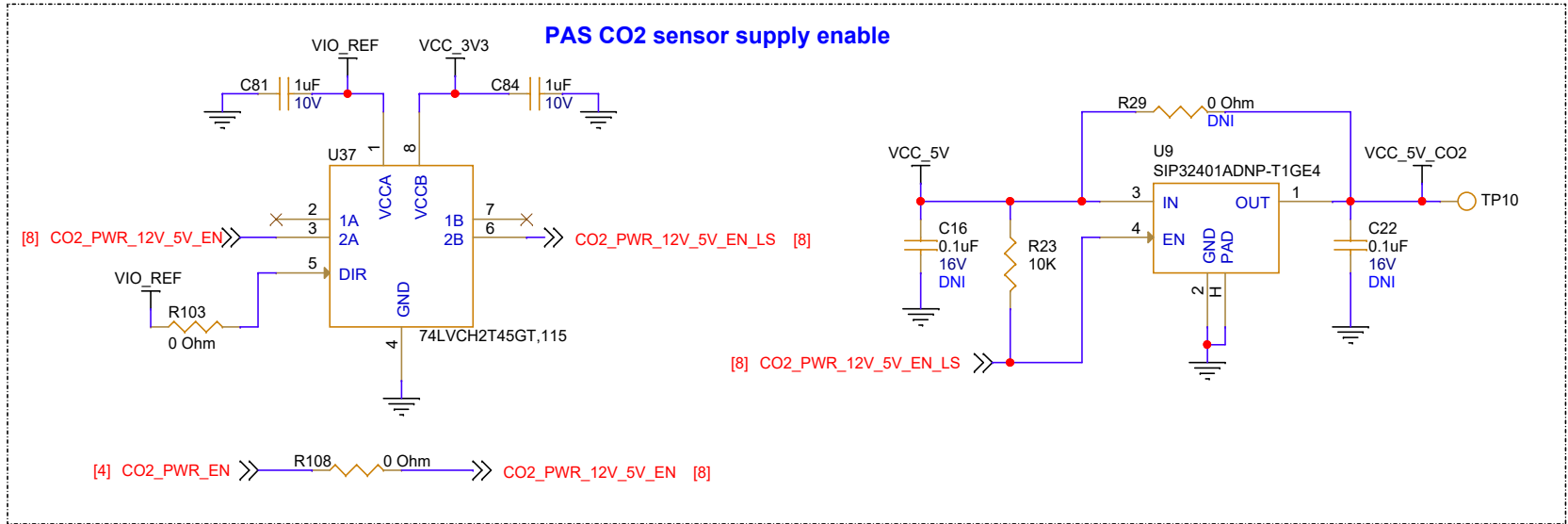
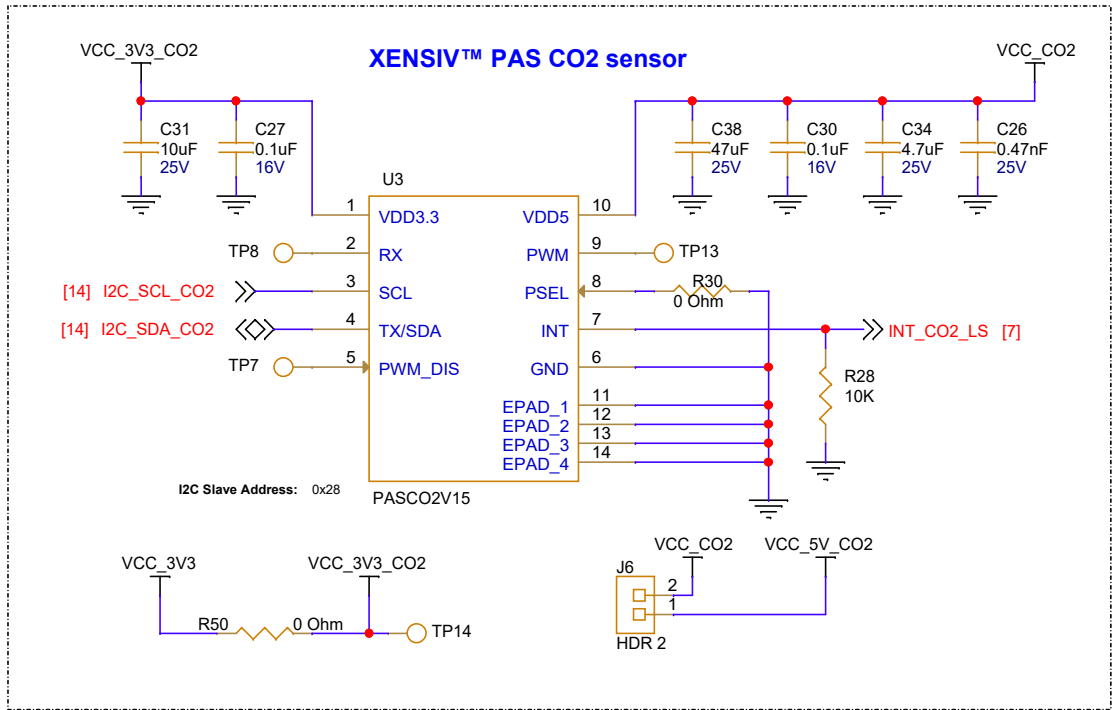
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Page Title : IMU and Magnetometer Interface

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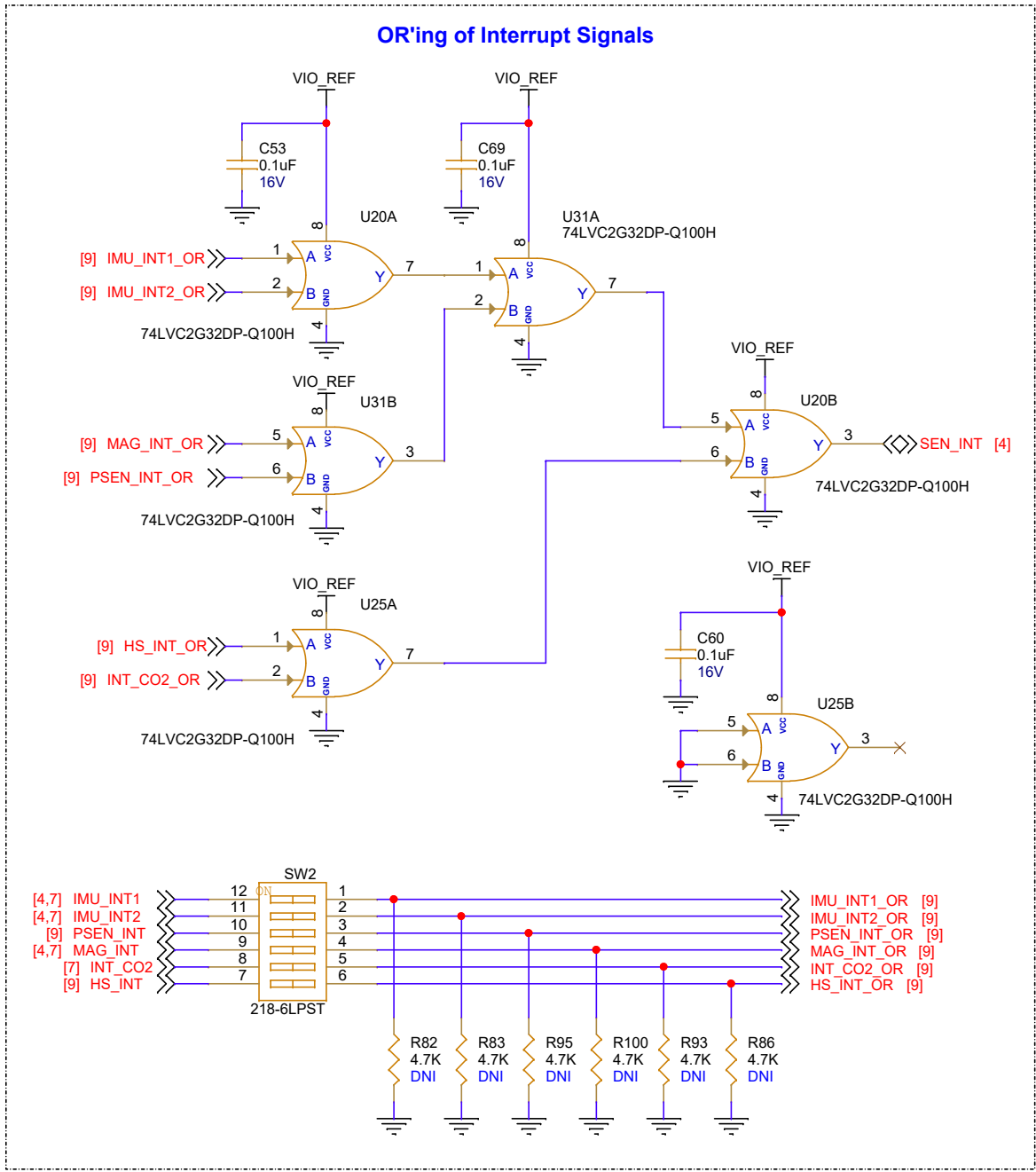
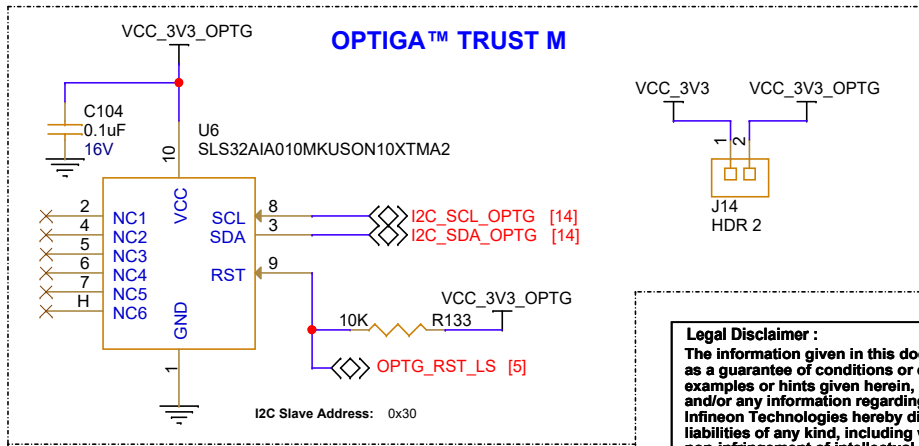
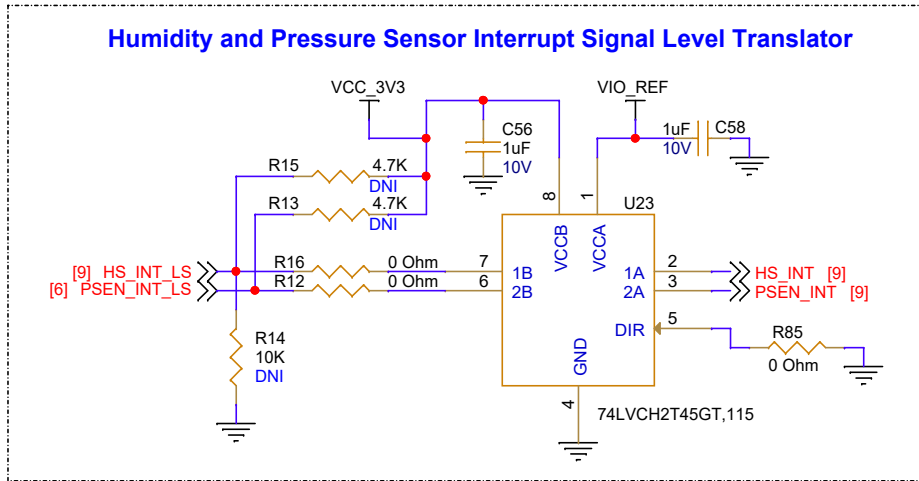
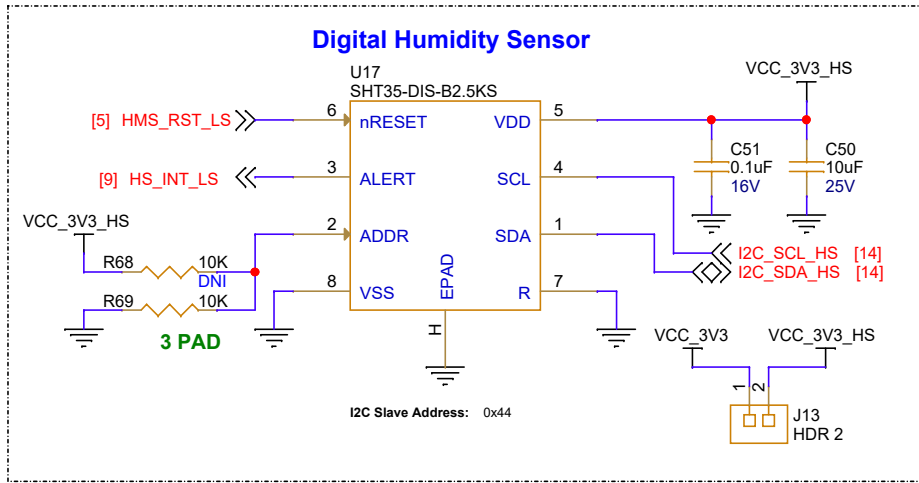
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Page Title : XENSIV™ PAS CO2 Sensor Interface

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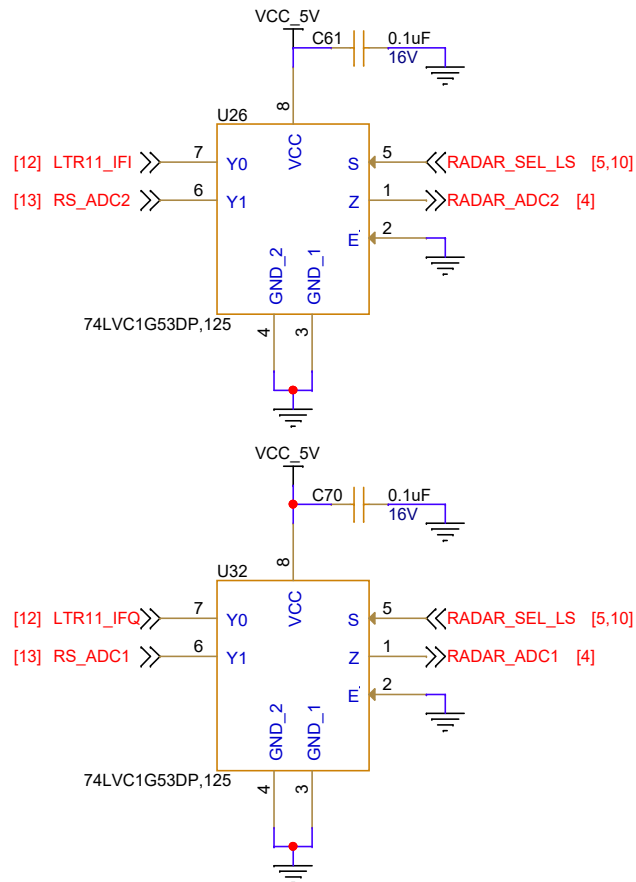


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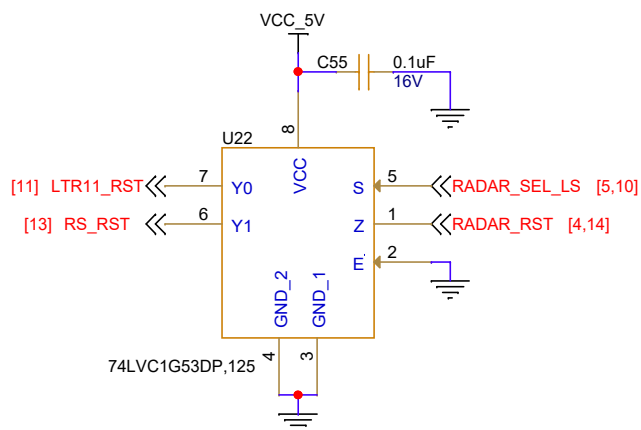


SCH Title : XENSIV™ Sensor Shield				
Page Title : Digital Humidity Sensor and TRUST M interface				
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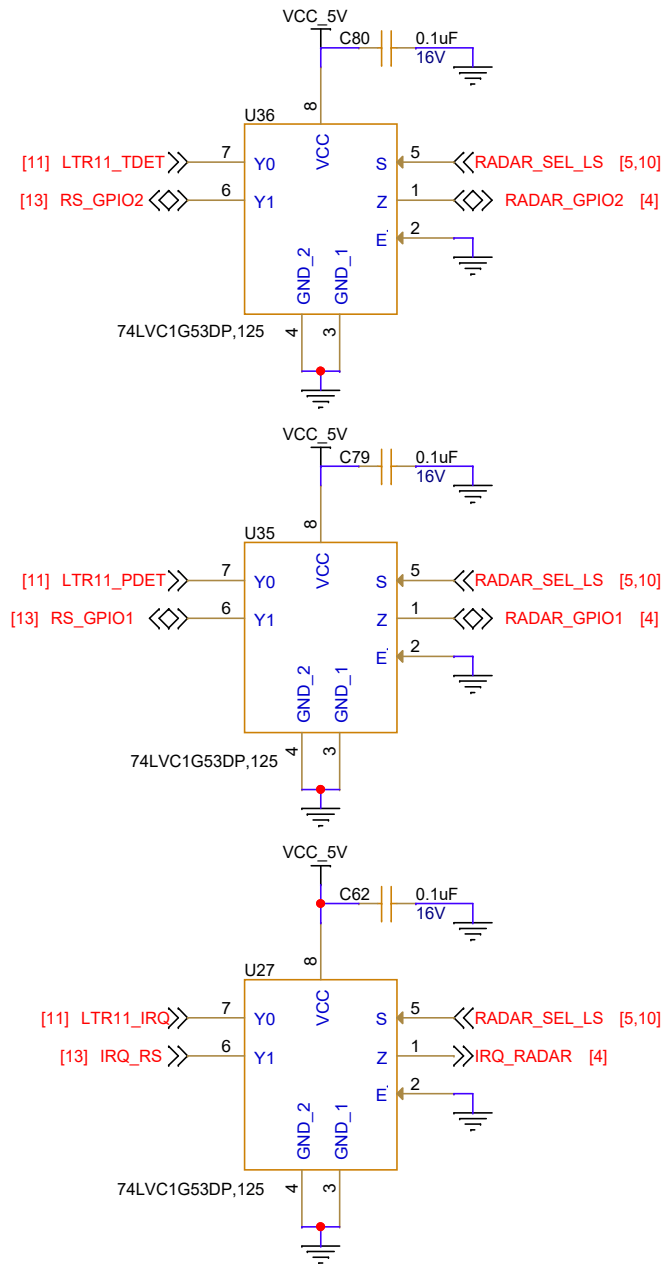
RADAR Analog output Multiplexing



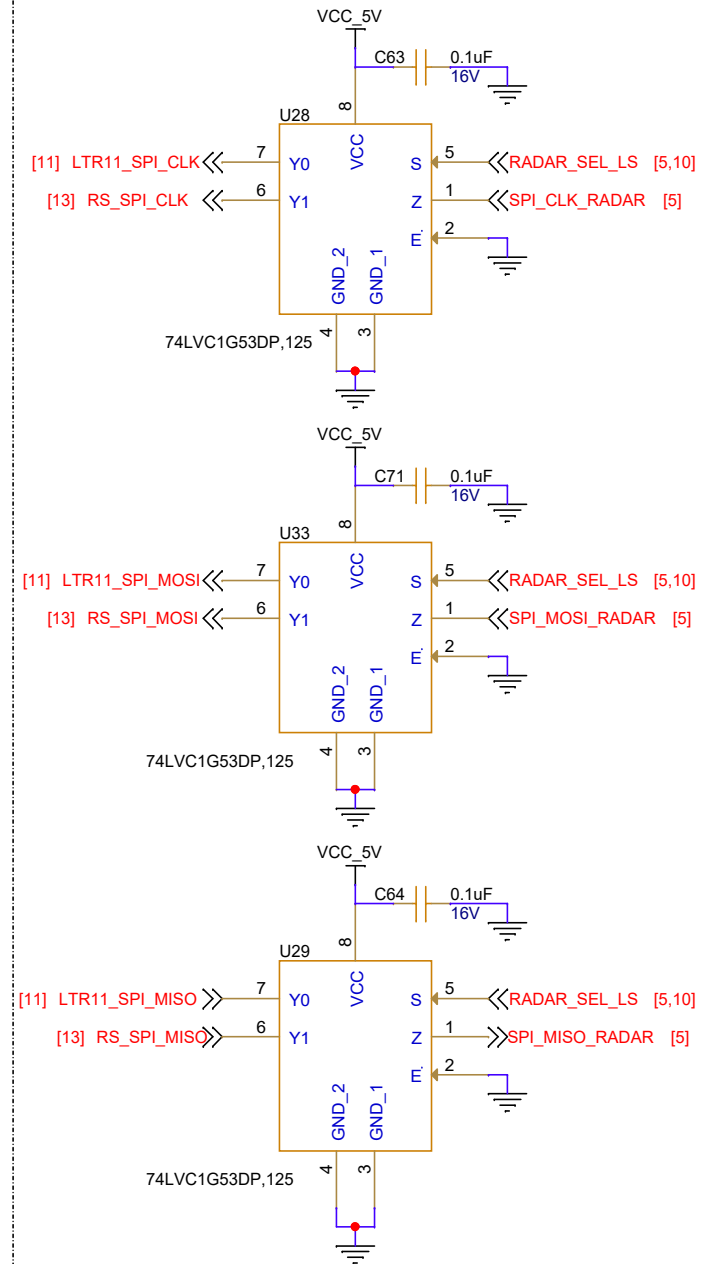
RADAR RESET Signal Multiplexing



RADAR GPIO Multiplexing



RADAR SPI Multiplexing



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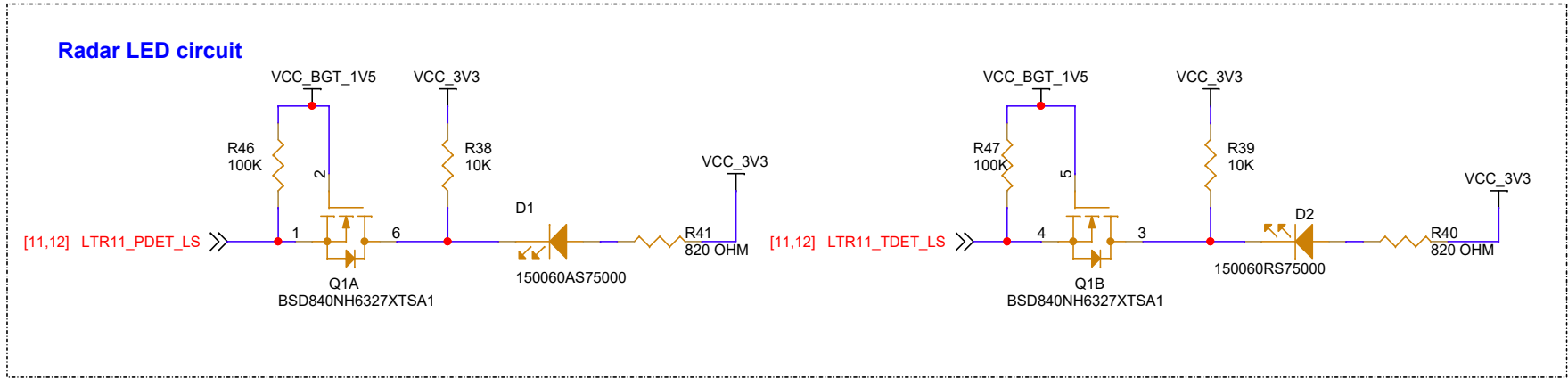
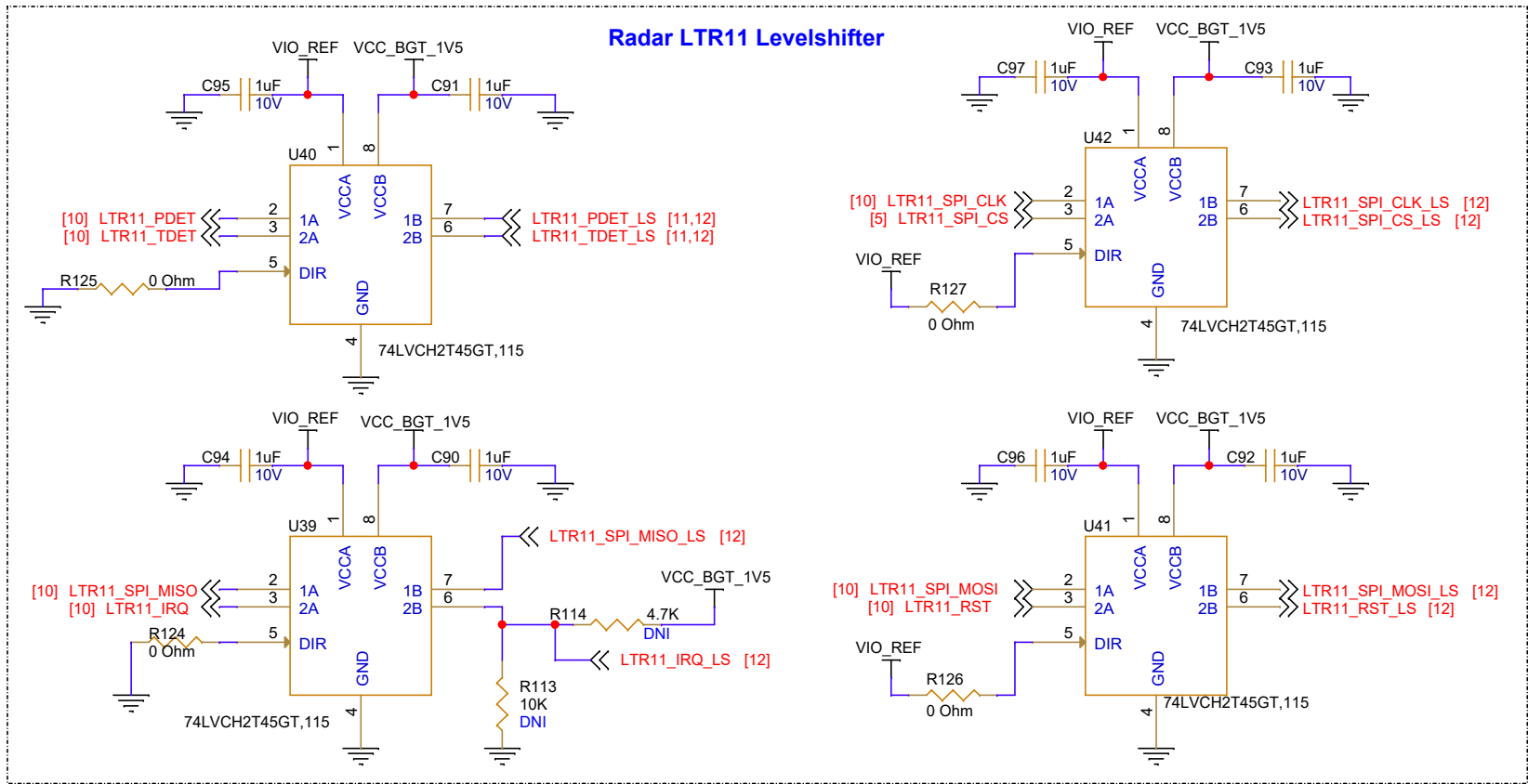


SCH Title : XENSIV™ Sensor Shield

Page Title: RADAR Interface Signals Multiplexing

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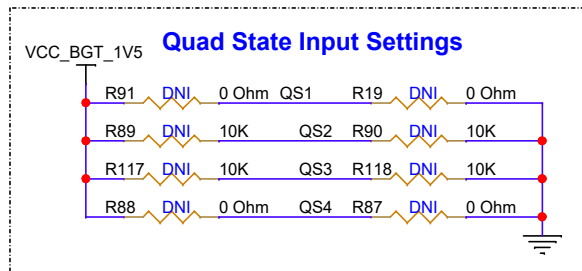
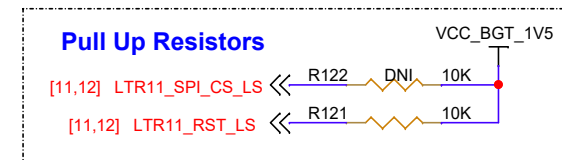
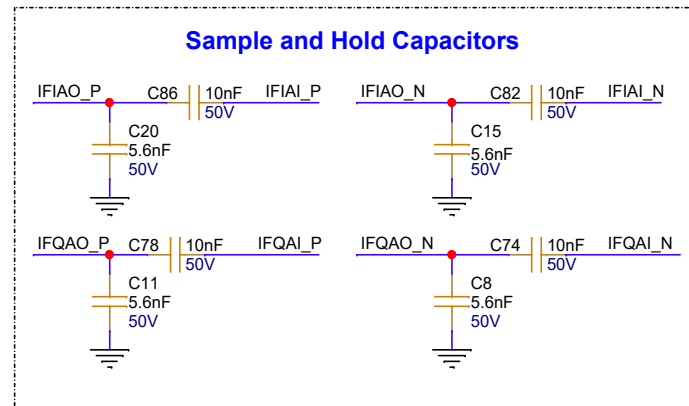
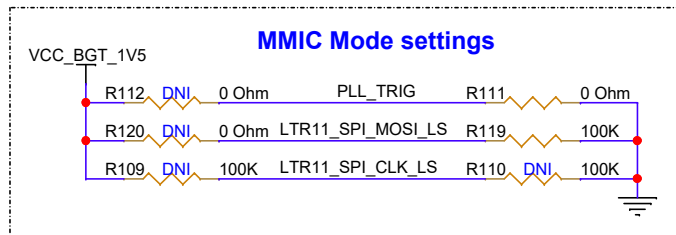
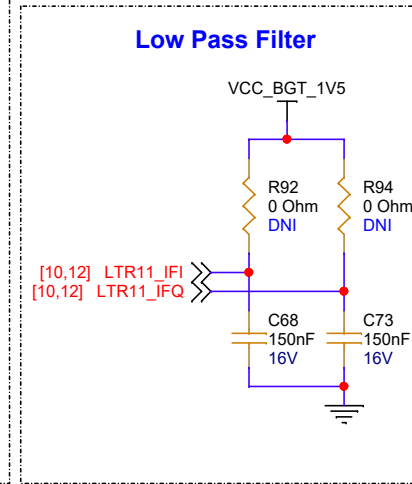
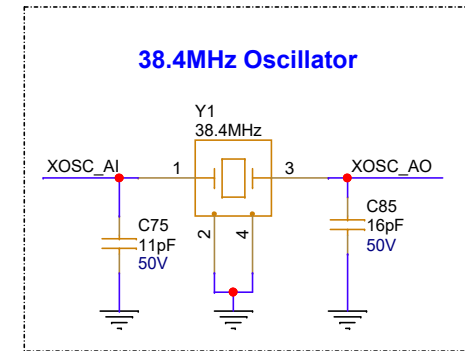
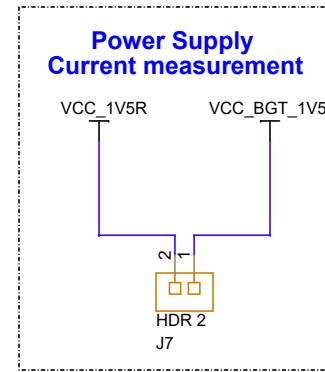
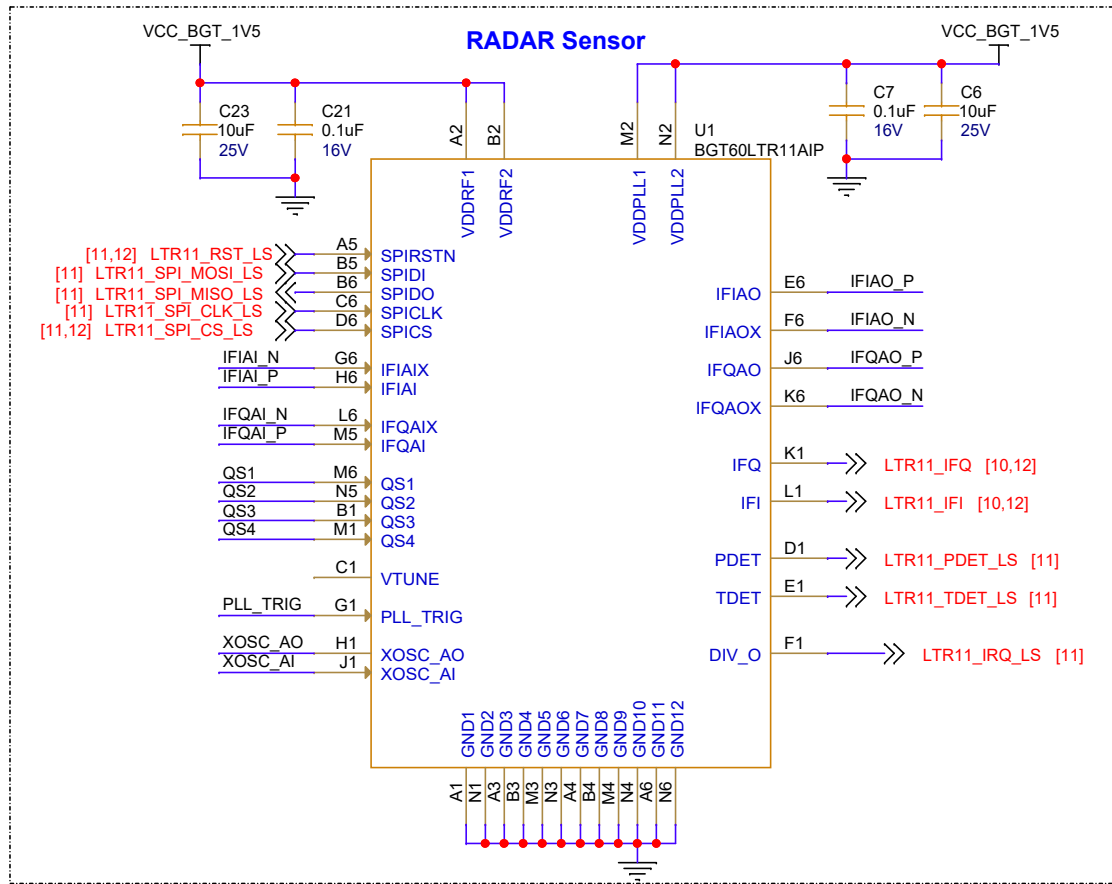
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Page Title: LTR11 level shifter and DAC for RADAR shield

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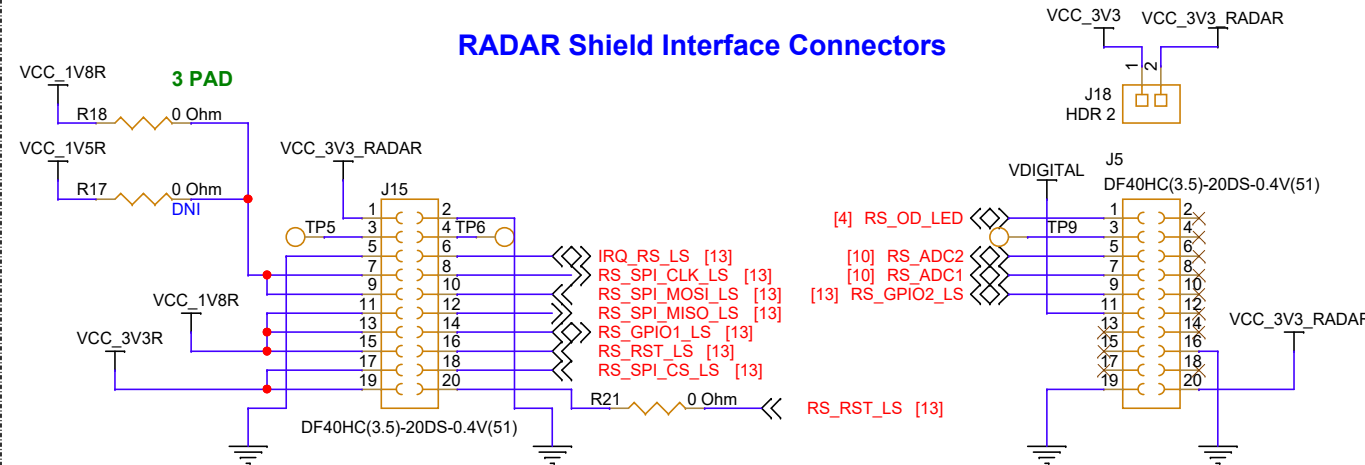


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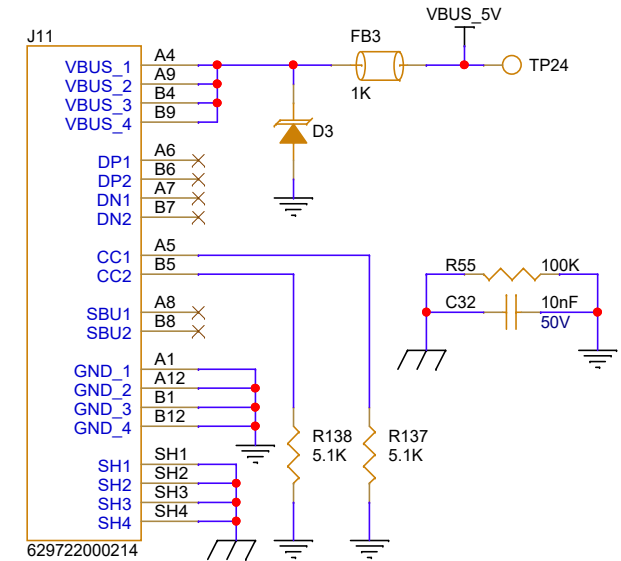


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Page Title : RADAR LTR11 Sensor Interface				
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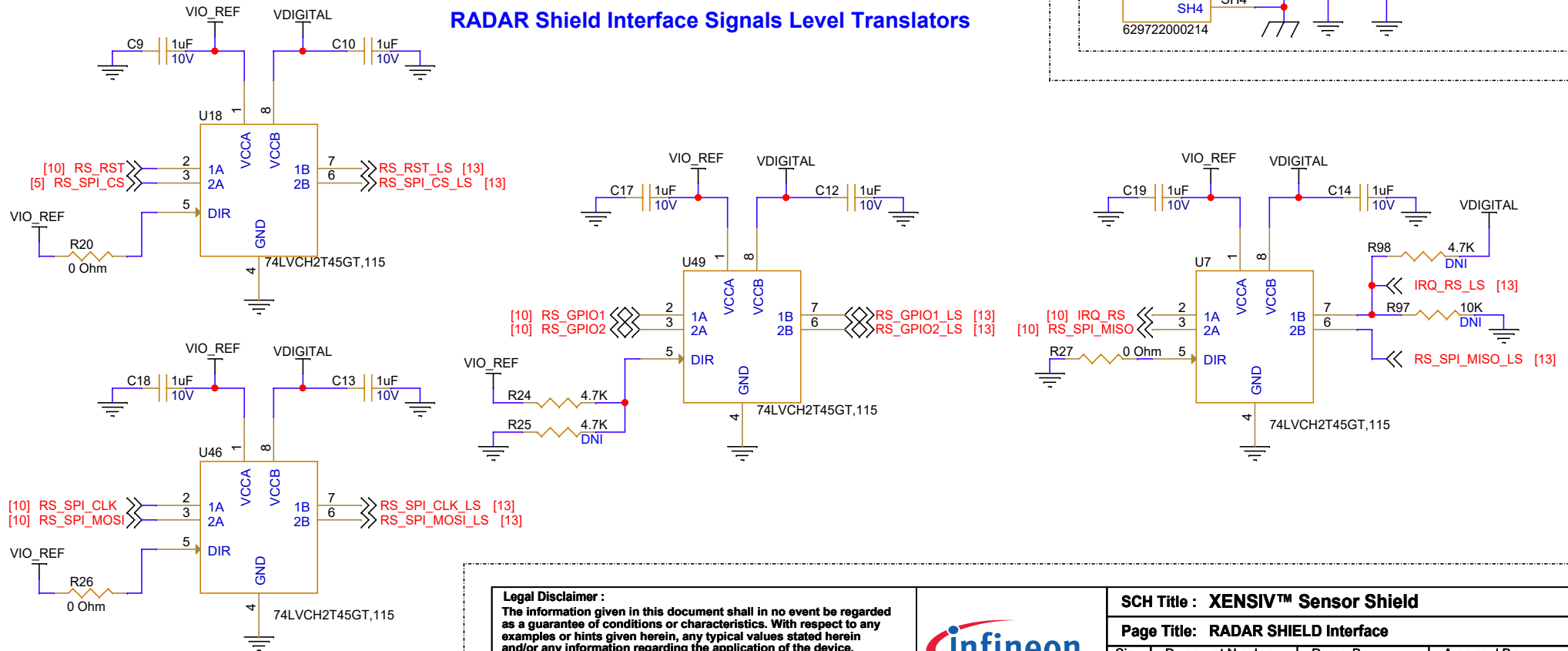
RADAR Shield Interface Connectors



USB Power Supply and Interface



RADAR Shield Interface Signals Level Translators



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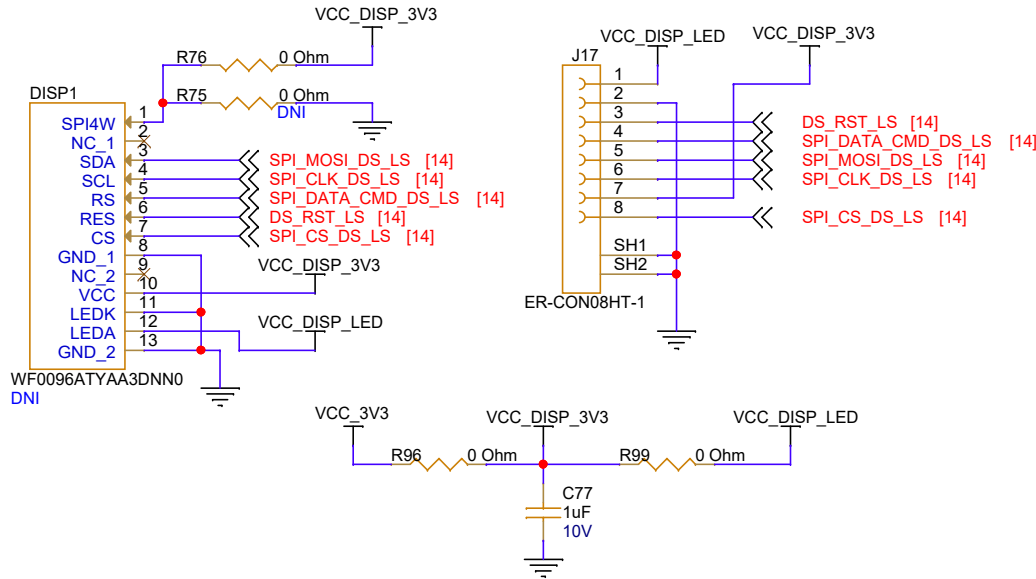


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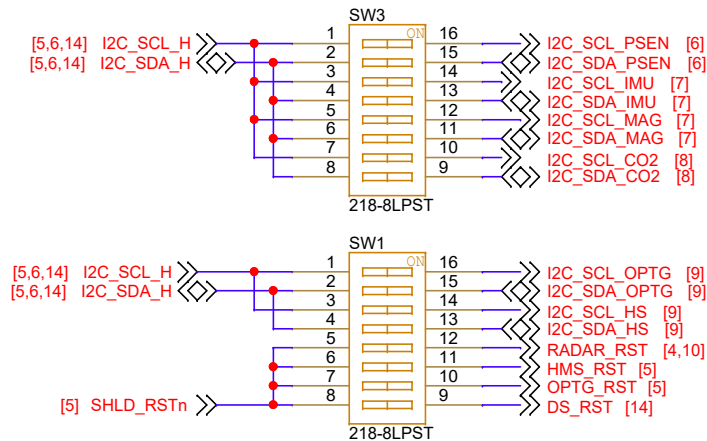
Page Title : RADAR SHIELD Interface

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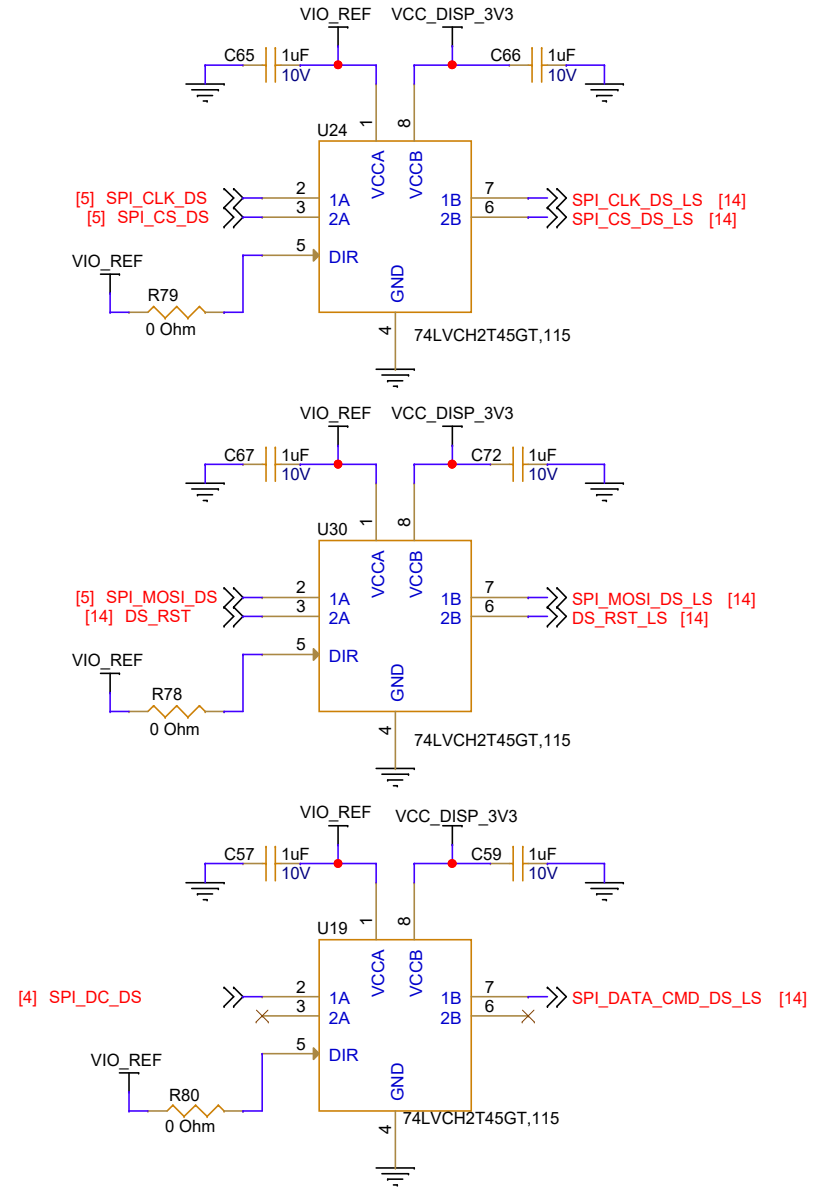
TFT Display Interface Provisions



I2C and RESET Multiplexing Switch



Display Interface Level Translators



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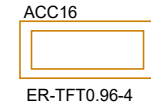
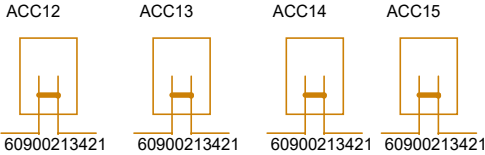
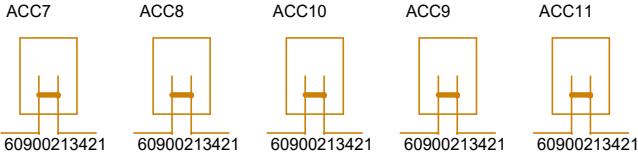


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Page Title : TFT Display Interface and I2C/RST Selection Switch

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ACCESSORIES



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Page Title: DAC & TFT Interface				
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REVISION HISTORY		
REV	DESCRIPTION OF CHANGE	DATE
01	Initial release	02-02-2024
02	REV02 release	26-03-2024
2.21	add USB and oring circuit for RADAR auxilary supply	8-07-2024
03	REV03 release	24-07-2024

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