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	INTERFACE
5	ARDUINO SHIELDS

Revisions & Change Log			
Rev	Description	Date	Approved
X1	Initial Draft	Jan 27	Mario Guardado

# FREEDOM KV31F

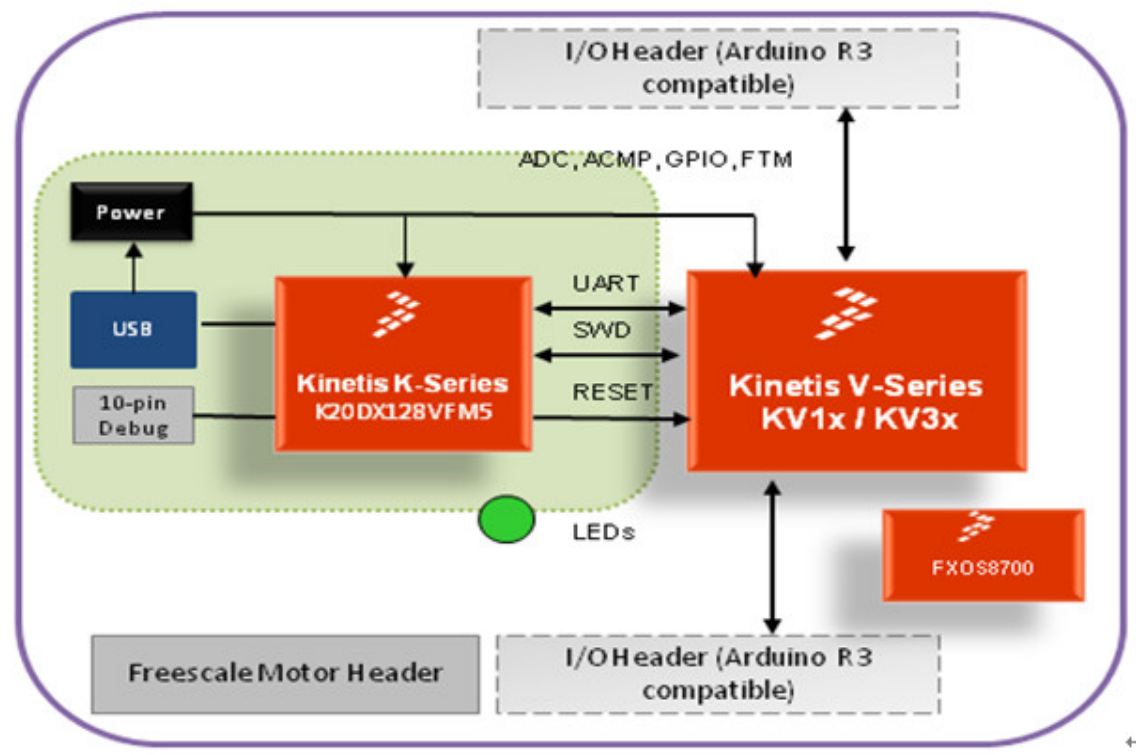
<b>COMPRESSED IMAGE</b>		<b>Automotive, Industrial &amp; Multi-Market Solutions Group</b> 6501 William Cannon Drive West Austin, TX 78735-8598	
ICAP Classification: FCP: FIJO: PUB: X			
Designer: Roy Yang	Drawing Title: <b>FRDM-KV31F</b>		
Drawn by: Roy Yang	Page Title: <b>TITLE PAGE</b>		
Approved: Mario Guardado	Size C	Document Number	Rev X1
Date: Wednesday, January 28, 2015		Sheet 1 of 5	



specified:  
 ohms, most are 1%, 1/10 Watt. Otherwise are 5%, 1/8 Watt.  
 1 uF, some are 10% or 20%

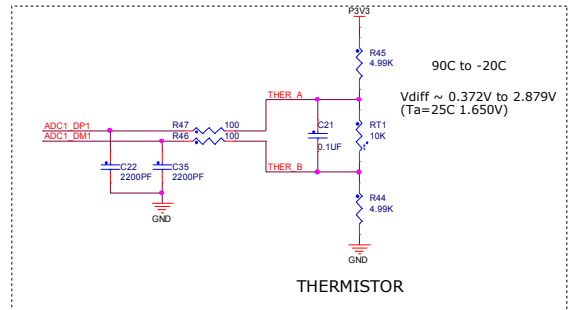
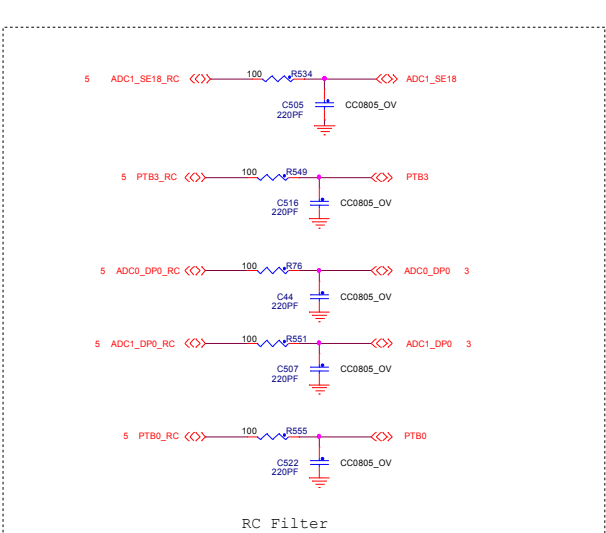
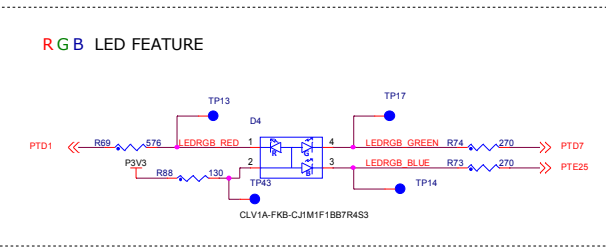
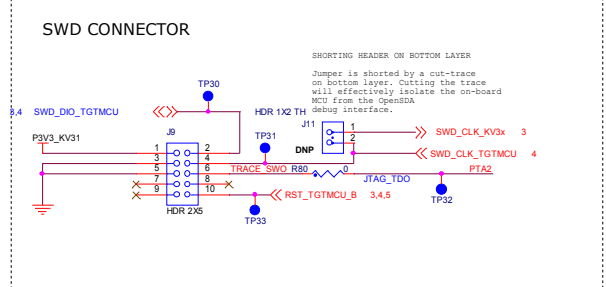
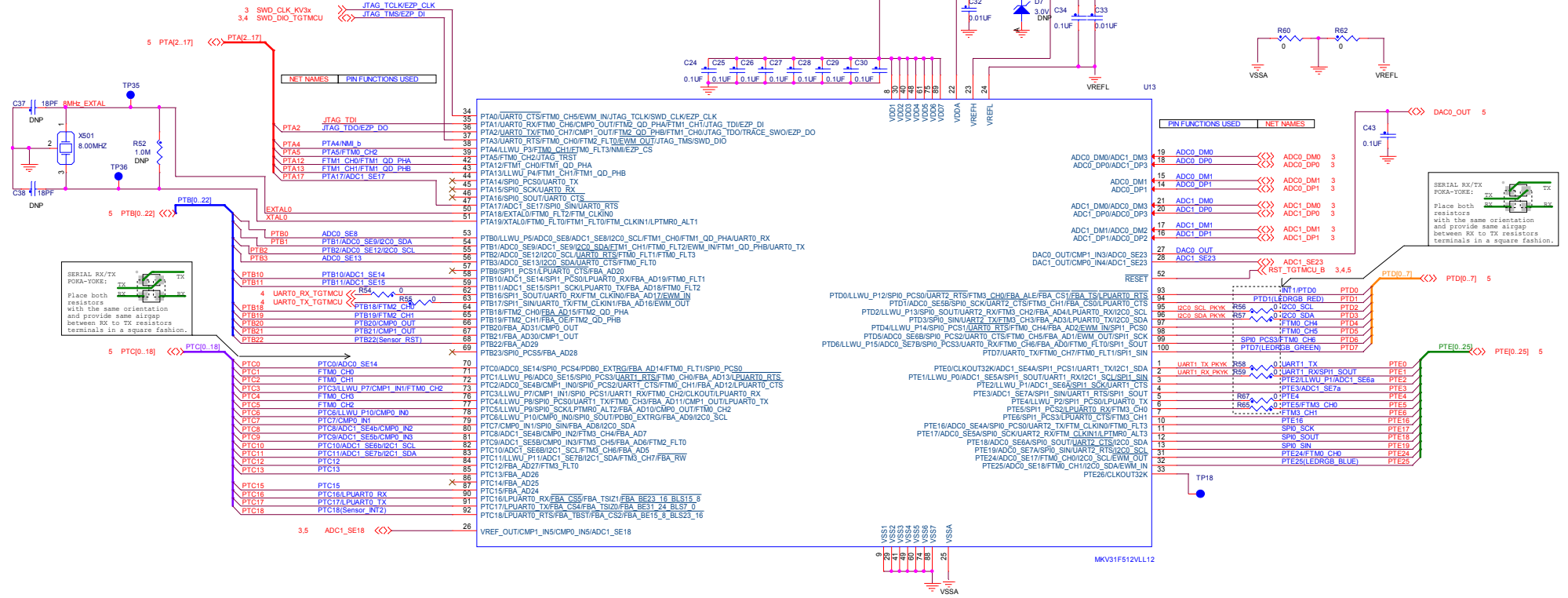
All polarized capacitors are tantalum

2. Interrupted lines coded with the same letter or letter combinations are electrically connected.
3. Device type number is for reference only. The number varies with the manufacturer.
4. Special signal usage:  
 \_B Denotes - Active-Low Signal  
 <> or [] Denotes - Vectored Signals
5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.





# KV31 - 100LQFP



ICAP Classification: FCP: \_\_\_\_\_ FLUC: \_\_\_\_\_ PUBX: X

Drawing Title: **FRDM-KV31F**

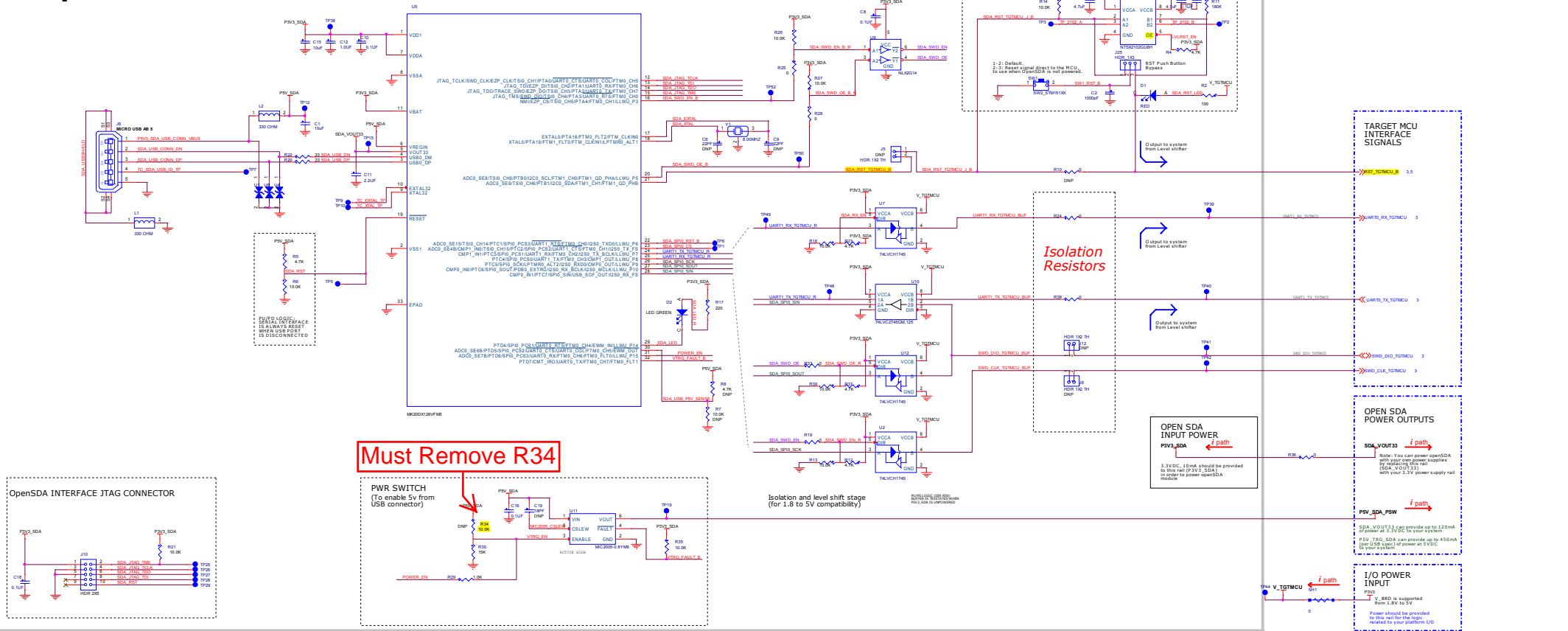
Page Title: **KV31F MCU**

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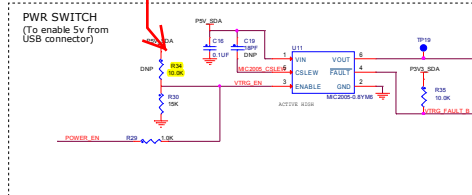
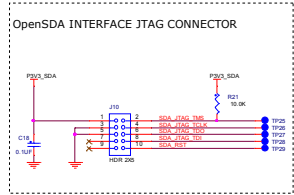
Date: Tuesday, January 27, 2015



# OpenSDA Interface



**Must Remove R34**



Isolation and level shift stage (for 1.8 to 5V compatibility)

**OPEN SDA INPUT POWER**

P3V3\_SDA

3.3V DC, 12mA, 1.5V<sub>OL</sub> is provided to SWD pin (P3V3\_SDA) of the target MCU to power OpenSDA.

**OPEN SDA POWER OUTPUTS**

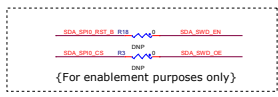
SDA\_VOUT33

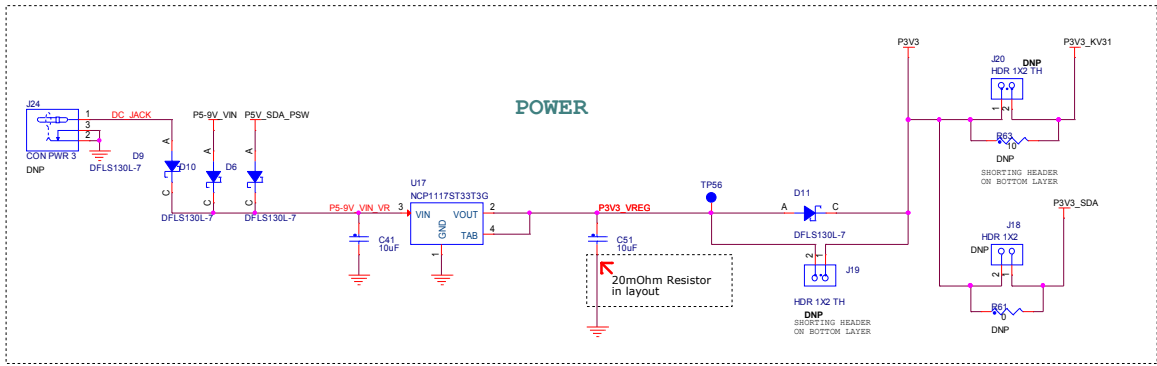
Note: You can power OpenSDA with 3.3V DC, 12mA, 1.5V<sub>OL</sub> to power the target MCU. The target MCU must be powered by 3.3V.

**I/O POWER INPUT**

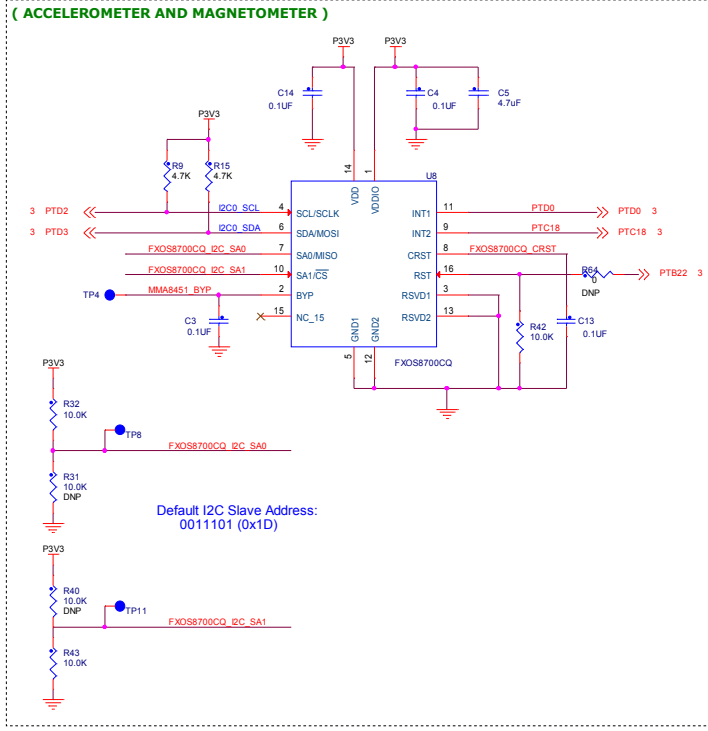
V\_BSD

Power should be provided to this rail for the target MCU. V\_BSD is supported from 1.8V to 5V.

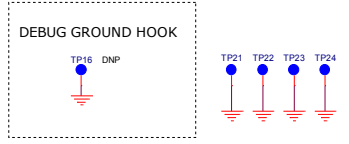
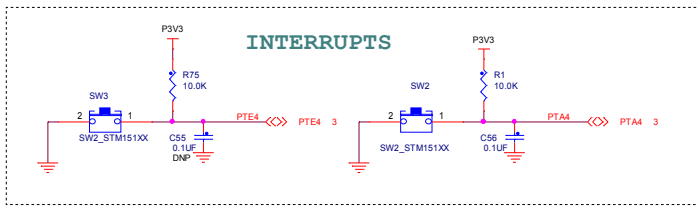
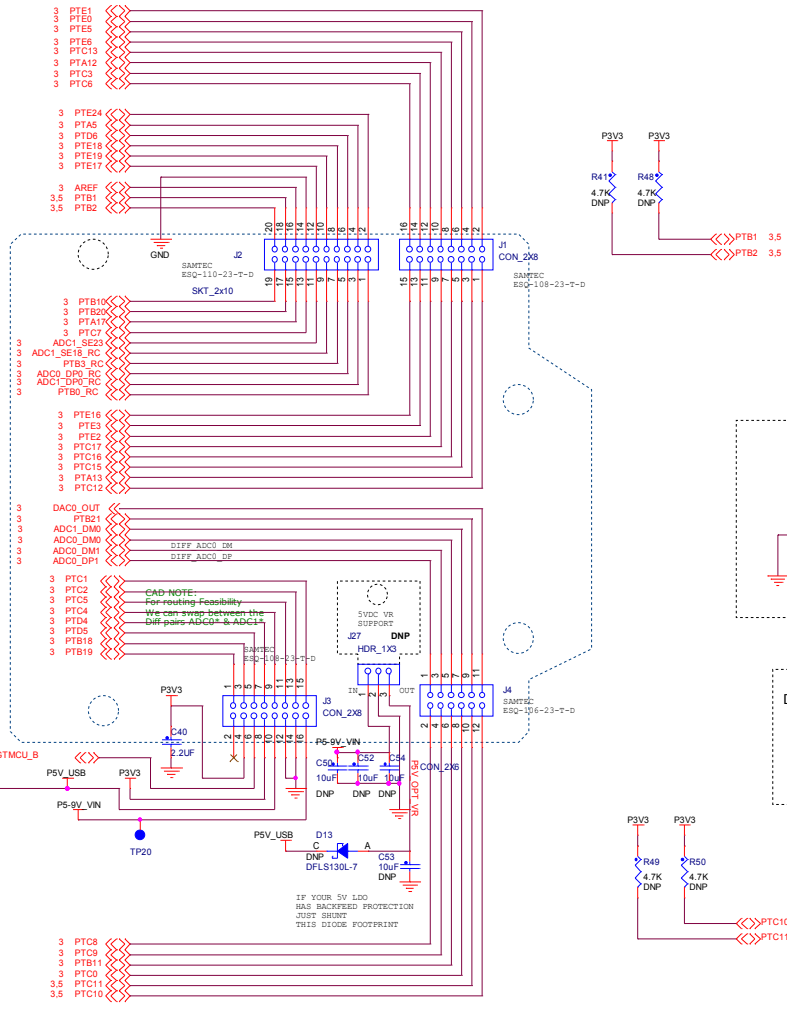




### I2C INERTIAL SENSOR



### ARDUINO COMPATIBLE HEADERS



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