

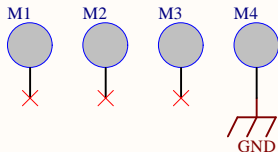
Rev	Description	Date	Author
1.0	Initial release.	26-Fev-2020	Yan C. de Azeredo
1.1	Changes to PCB layout, new sheet hierarchy and added first output, manufacture and BOM files to project.	21-Mar-2020	Yan C. de Azeredo

Revision History

FIDUTIALS

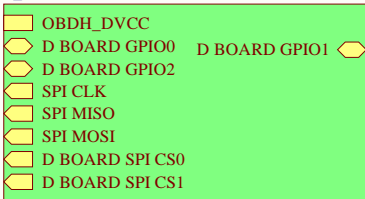


MECHANICAL HOLES



PCB Elements

OBDH 2.0 to DB\_Memory interface connector  
1\_Interface.SchDoc



Interface connector to motherboard (OBDH 2.0)

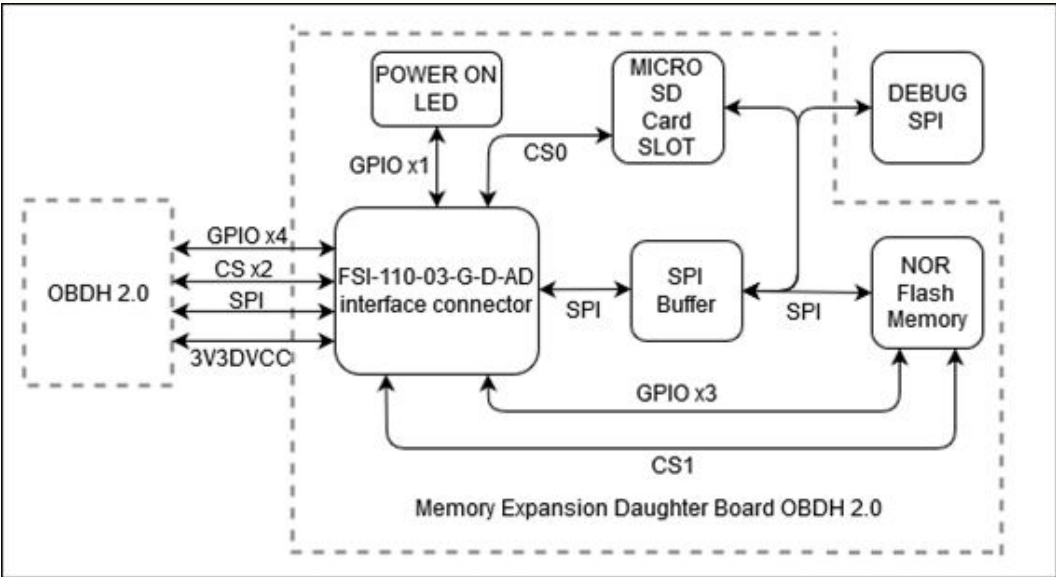
Memory Expansion Daughter Board (DB\_Memory) of OBDH 2.0 ALT Hardware

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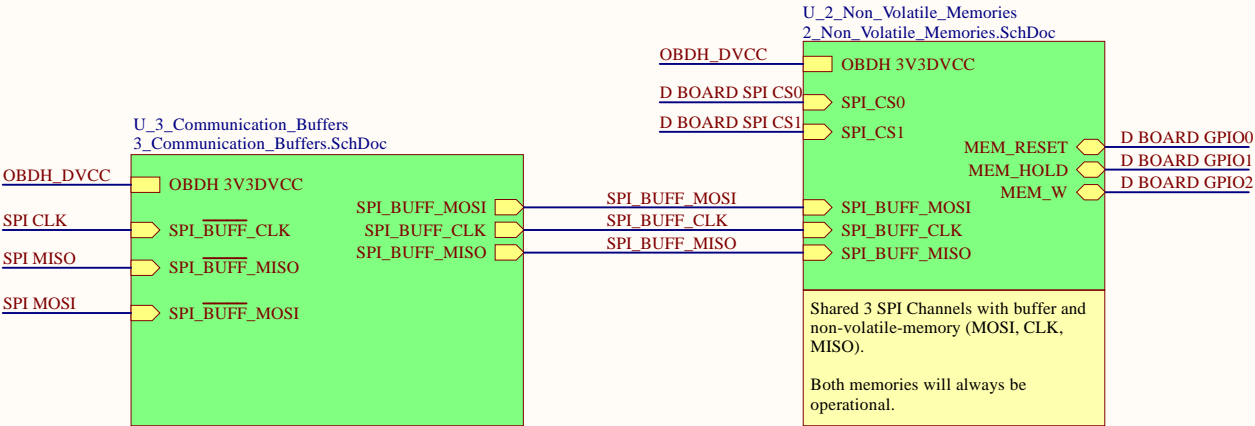
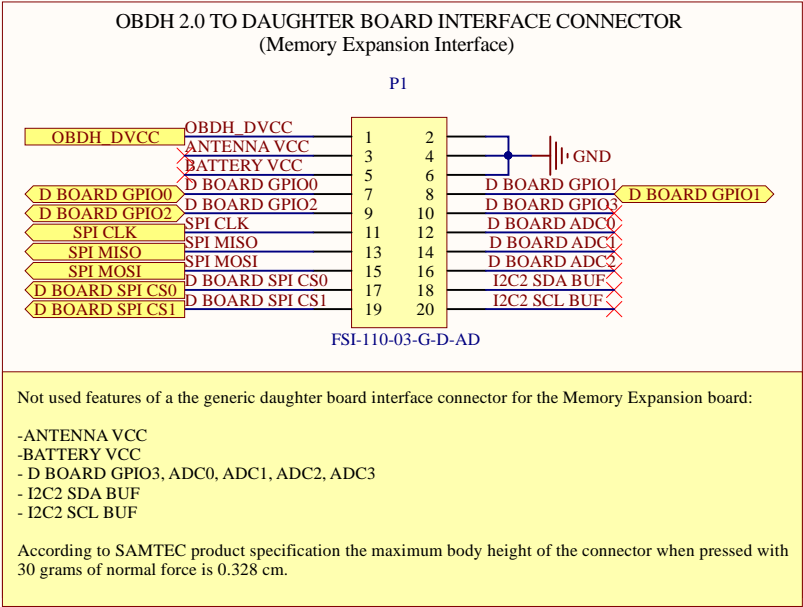
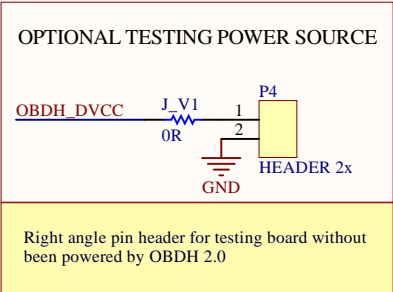
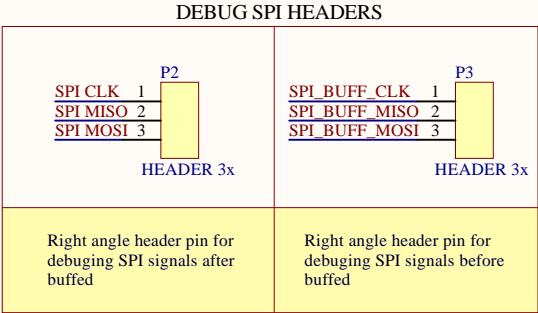
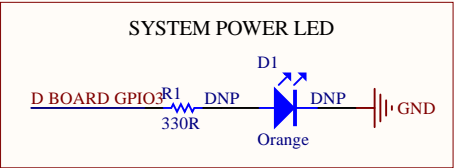
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- Drawn by: Yan Castro de Azeredo.  
- Reviewers: André Martins Pio de Mattos and Gabriel Mariano Marcelino.  
- Based on OBDH 2.0 designed by: André Martins Pio de Mattos.  
- Support: Kleber Reis Gouveia Júnior.

Project Information



Block Diagram



A

A

B

B

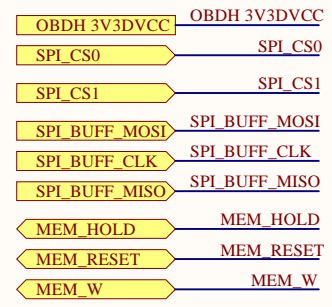
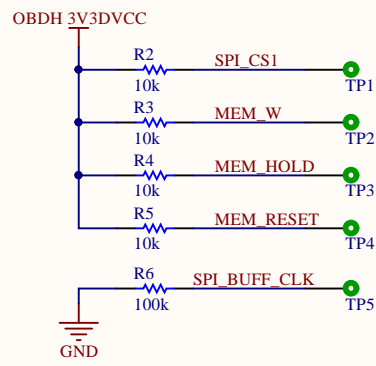
C

C

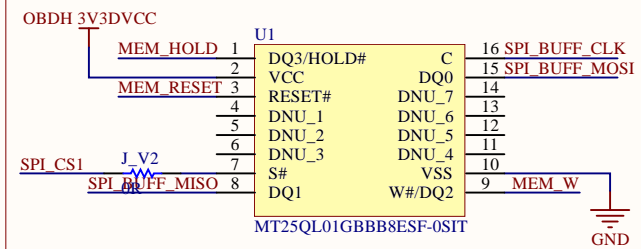
D

D

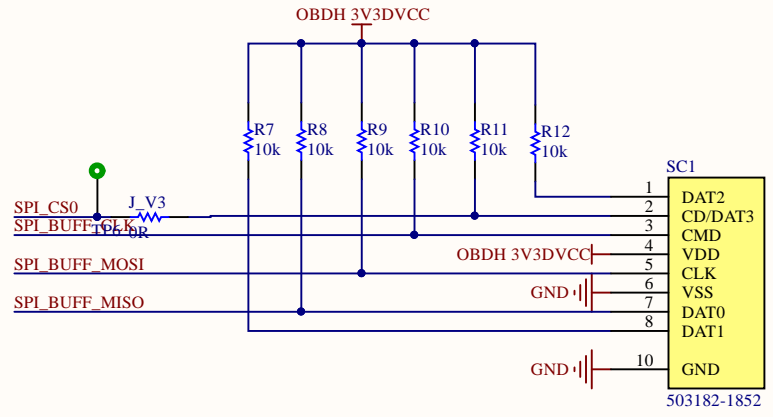
PULL UP AND PULL DOWN RESISTORS



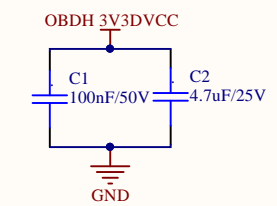
NON-VOLATILE MEMORY

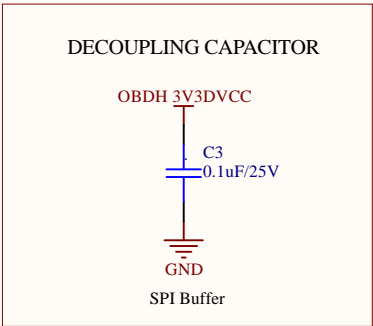
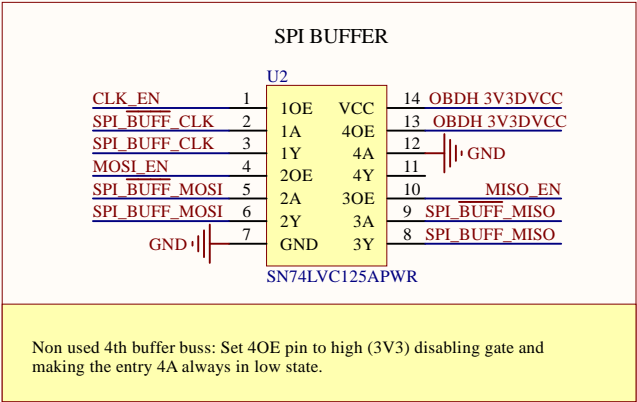
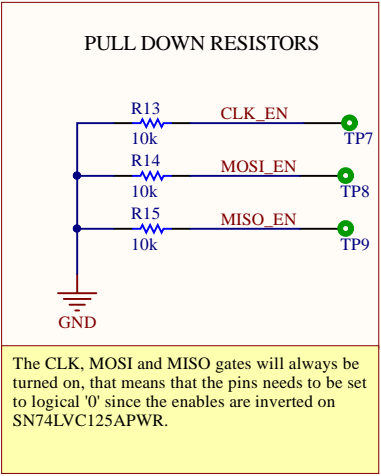
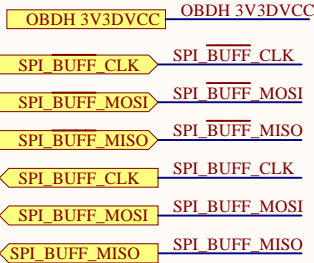


uSDCard

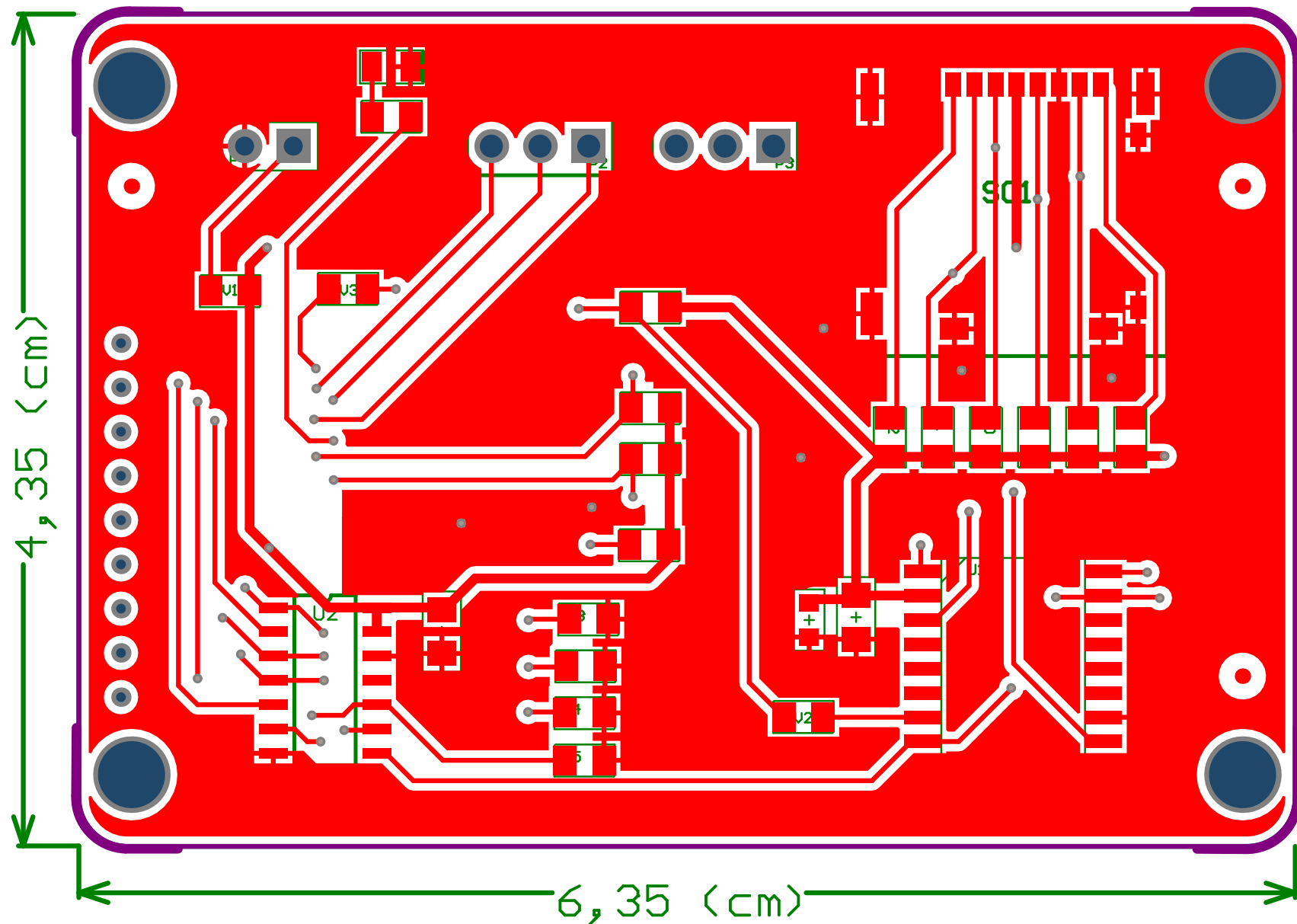


DECOUPLING CAPACITOR



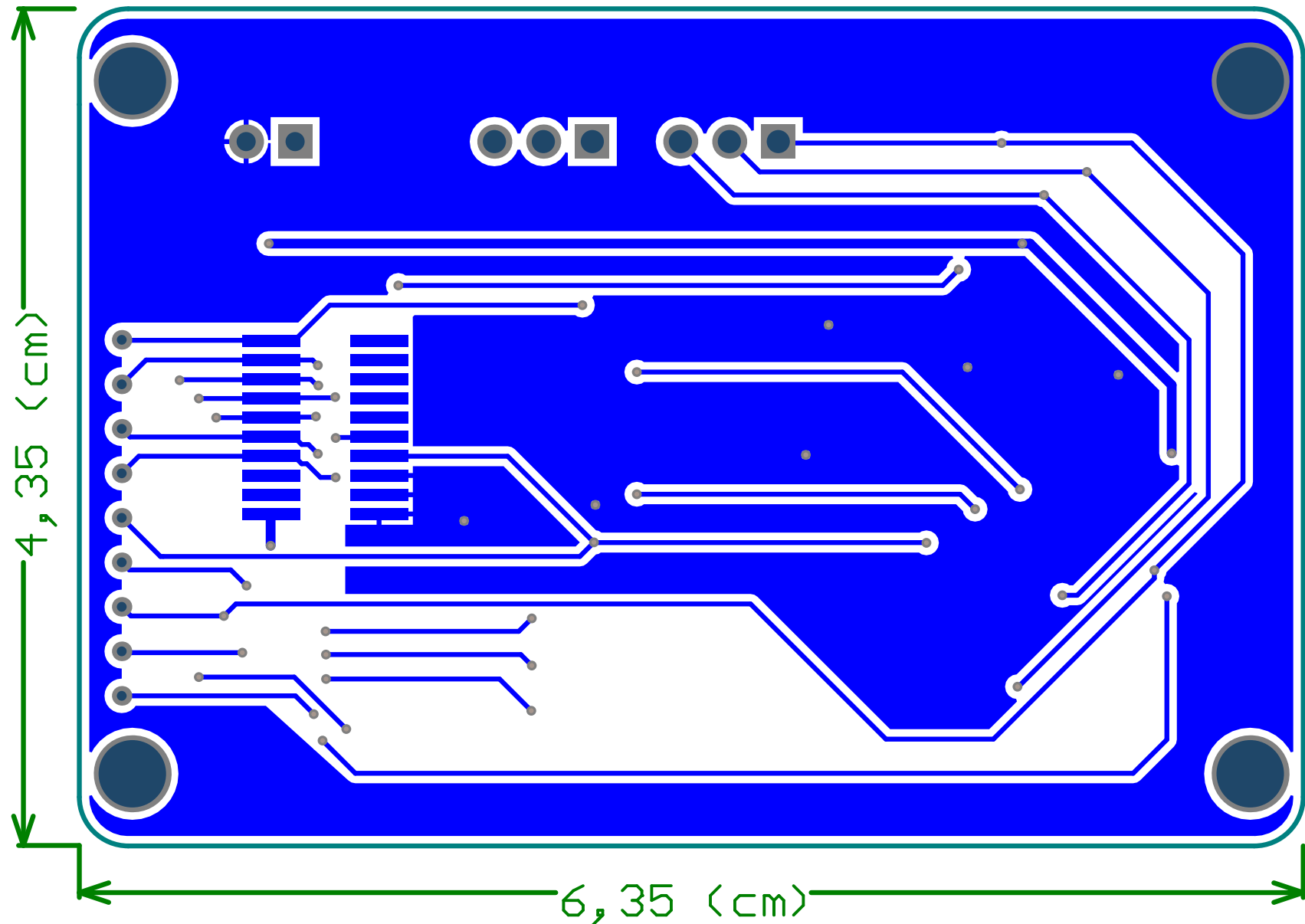


Layer	Name	Material	Thickness	Constant	Board Layer Stack	Board Layer Stack	Board Layer Stack	Board Layer Stack	Board Layer Stack	Board Layer Stack	Board Layer Stack	Board Layer Stack
1	Top Overlay											
2	Top Solder	Solder Resist	0,010mm	3,5								
3	Top Layer	Copper	0,036mm									
4	Dielectric 1	FR-4	1,600mm	4,8								
5	Bottom Layer	Copper	0,036mm									
6	Bottom Solder	Solder Resist	0,010mm	3,5								
7	Bottom Overlay											



<b>TITLE: OBDH 2.0 DAUGHTERBOARD</b>		<b>VARIANT:</b> DB_Memory	
<b>MATERIAL:</b> FR4	<b>Silkscreen color:</b> yellow	<b>REV.</b> 1.1	<b>DATE:</b> 21/03/2020
<b>Board Thickness:</b> 1.69mm	<b>Layers:</b> 02	<b>Project: FloripaSat-2</b>	
<b>PCB Surface:</b> ENIG	<b>Drawing:</b> Yan C. de Azeredo	Space Technology Research Laboratory Federal University of Santa Catarina <b>SpaceLab UFSC</b>	

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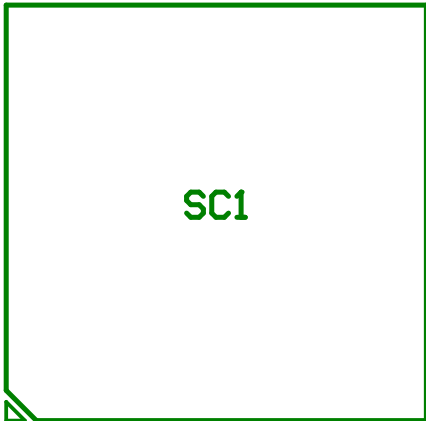
P4

D1

R1

P2

P3



J\_V1

J\_V3

R2

R3

R5

R4

R12

R11

R10

R9

R8

R7

U2

C3  
+

R13

R6

R14

R15

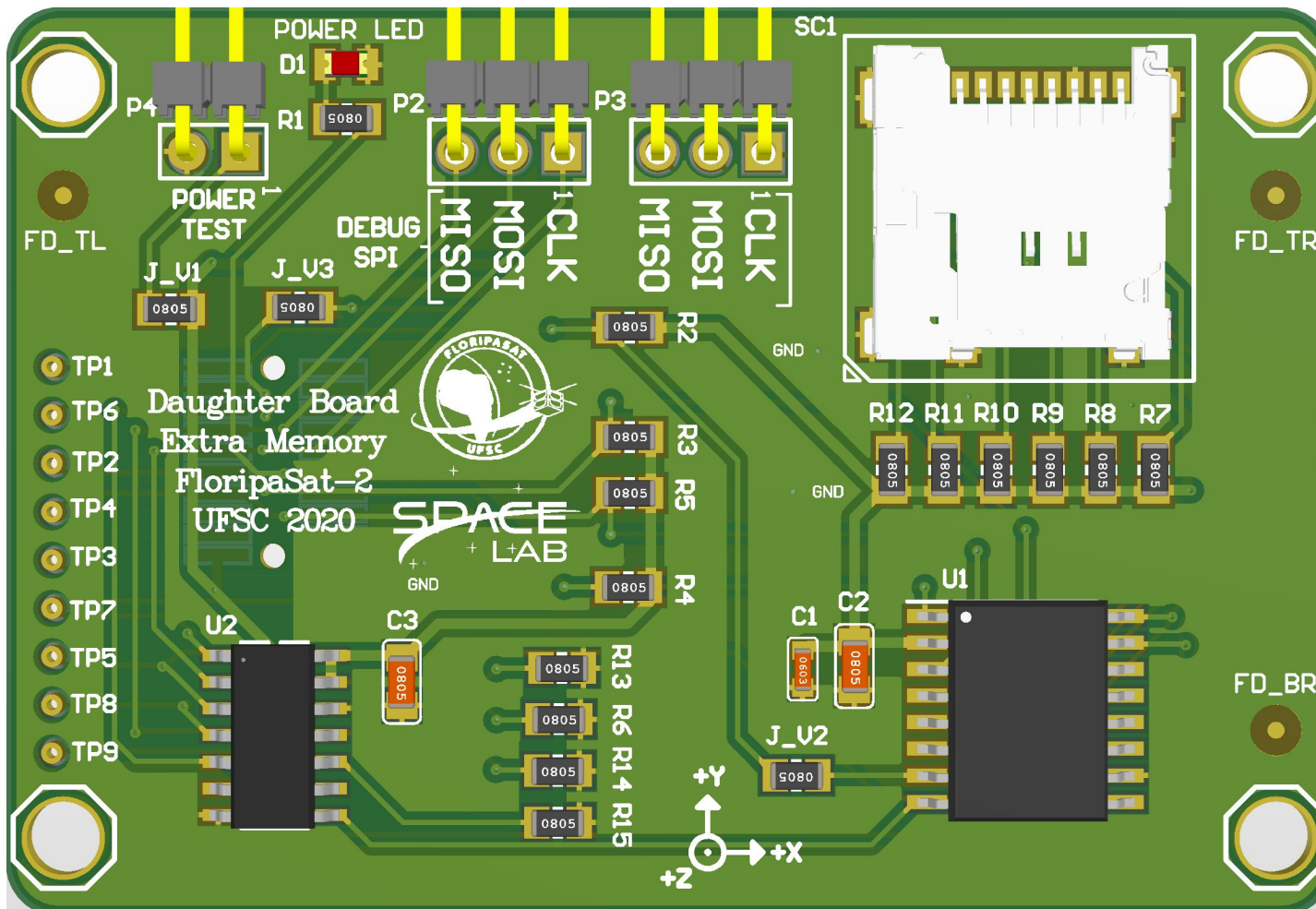
C1  
+

C2  
+

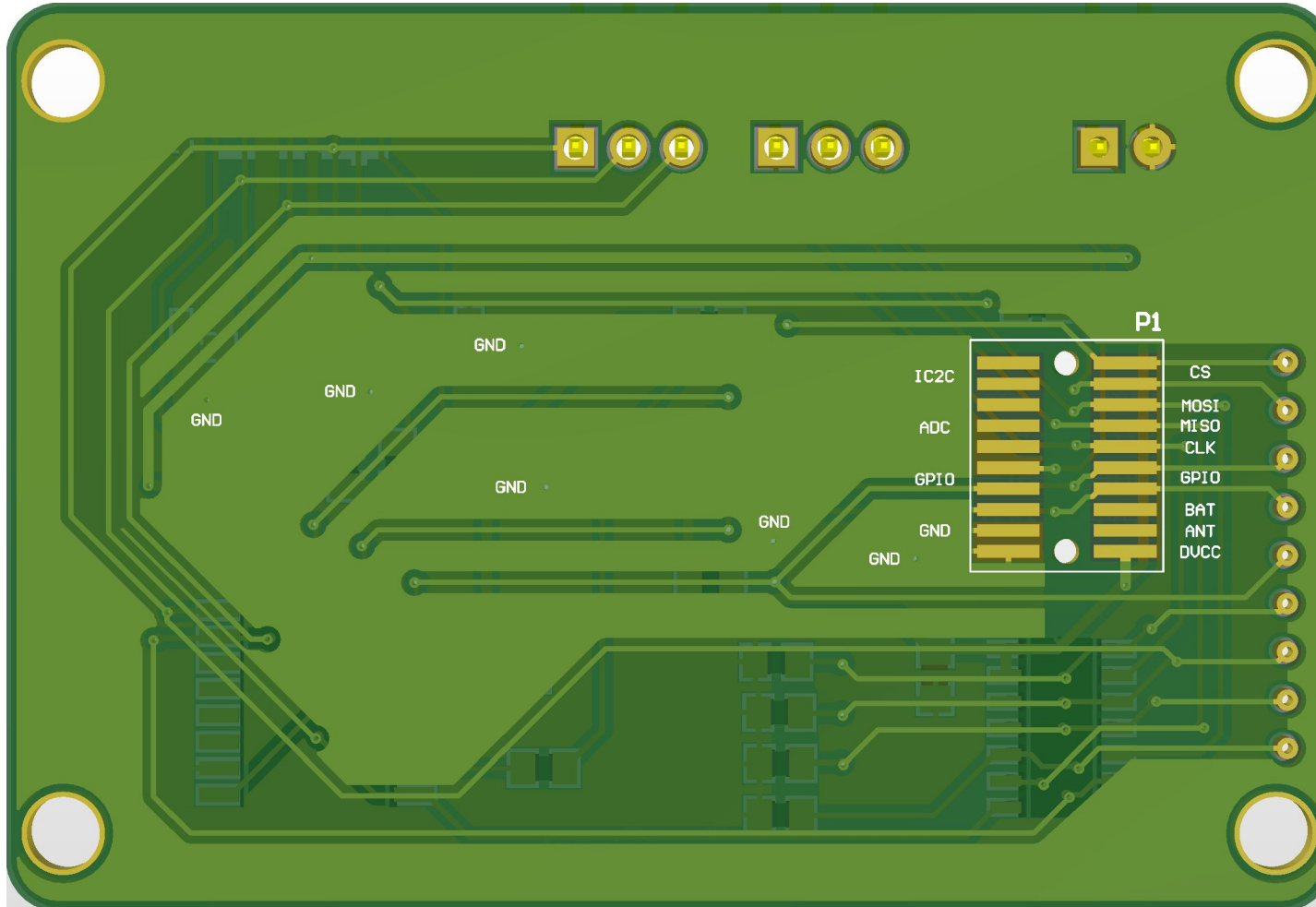
J\_V2













## Bill of Materials

Source Data From: DB\_Memory.PrjPCB

Project: DB\_Memory.PrjPCB

Variant: None

Project Code: <Parameter ProductCode not found>

Report Date: 24/03/2020

11:21:07

Print Date: 24/03/2020

11:21:23

#	Supplier 1	Supplier Part Number 1	Supplier 2	Supplier Part Number 2	Manufacturer	Comment	Description	Quantity	Designator	Item Name Error	Notes
1	Digi-Key	<a href="#">541-10.0KCCT-ND</a>	Mouser	<a href="#">71-CRCW0805-10K-E3</a>	Vishay	10k	RES 10K OHM 1/8W 1% 0805	13	R2, R3, R4, R5, R7, R8, R9, R10, R11, R12, R13, R14, R15		
2						DB Mechanical Hole	Mechanical Hole for DB board variants	4	M1, M2, M3, M4		
3						Fiducial	Fiducial for DB board variants	3	FD1, FD2, FD3		
4	Digi-Key	<a href="#">311-0.0ARCT-ND</a>	Mouser	<a href="#">603-RC0805JR-070RL</a>	Yageo	0R	RES 0R OHM 1/8W JUMPER 0805	3	J_V1, J_V2, J_V3		
5	Mouser	<a href="#">200-TSW10308GSRA</a>	Digi-Key	<a href="#">SAM1039-03-ND</a>	Samtec	HEADER 3x	Conn Unshrouded Header HDR 3 POS 2.54mm Solder RA Thru-Hole Automotive Bulk	2	P2, P3		
6	Digi-Key	<a href="#">160-1413-1-ND</a>	Mouser	<a href="#">859-LTST-C170KFKT</a>	Vishay Lite-On	Orange	SMD Orange LED	1	D1		
7	Digi-Key	<a href="#">296-1222-1-ND</a>	Mouser	<a href="#">595-SN74LVC125APWR</a>	Texas Instruments	SN74LVC125APWR	IC BUF NON-INVERT 3.6V 14TSSOP	1	U2		
8	Digi-Key	<a href="#">311-100KCRCCT-ND</a>	Mouser	<a href="#">603-RC0805FR-07100KL</a>	Yageo	100k	RES 100K OHM 1/8W 1% 0805	1	R6		
9	Digi-Key	<a href="#">311-1141-1-ND</a>	Mouser	<a href="#">603-CC805KRX7R8BB104</a>	Yageo	0.1uF/25V	CAP CER 0.1UF 25V 10% X7R 0805	1	C3		
10	Digi-Key	<a href="#">311-1401-1-ND</a>	Mouser	<a href="#">603-CC201KRX7R9BB101</a>	Yageo	100nF/50V	CAP CER 100nF 50V 0603 10%	1	C1		
11	Digi-Key	<a href="#">587-2990-6-ND</a>	Mouser	<a href="#">963-TMK212AB7475KG-T</a>	Taiyo Yuden	4.7uF/25V	CAP CER 4.7UF 25V 10% X7R 0805	1	C2		
12	Digi-Key	<a href="#">2019-RK73H2ATTD3300FCT-ND</a>	Mouser	<a href="#">660-RK73H2ATTD3300F</a>	KOA Speer	330R	RES 330R OHM 1/4W 1% 0805	1	R1		
13	Mouser	<a href="#">200-FSI11003GDAD</a>	Digi-Key	<a href="#">SAM9412-ND</a>	Samtec	FSI-110-03-G-D-AD	CONN STACKING 20POS SMD GOLD	1	P1		
14	Mouser	<a href="#">200-TSW10208GSRA</a>	Digi-Key	<a href="#">SAM1039-02-ND</a>	Samtec	HEADER 2x	Conn Unshrouded Header HDR 2 POS 2.54mm Solder RA Thru-Hole Automotive Bulk	1	P4		
15	Mouser	<a href="#">340-278808-TRAY</a>	Digi-Key	<a href="#">557-1789-ND</a>	Micron Technology	MT25QL01G8BB8ESF-OSIT	NOR Flash Serial-SPI 3V 1Gbit 1024M/512M/256M x 1bit/2bit/4bit 6ns 16-Pin SOP-II	1	U1		
16	Mouser	<a href="#">538-503182-1852</a>	Digi-Key	<a href="#">WM12834CT-ND</a>	Molex	MicroSD Card Connector	MOLEX - 503182-1852 - Micro SD Normal UltraLowPro8CktEmbsTpPkg RoHS Compliant: Yes	1	SC1		