

# Memory Expansion Daughterboard Documentation

Memory Expansion Daughterboard Documentation SpaceLab, Universidade Federal de Santa Catarina, Florianópolis - Brazil

### **Memory Expansion Daughterboard Documentation**

June, 2020

#### **Project Chief:**

Eduardo Augusto Bezerra

#### **Authors:**

Yan Castro de Azeredo Author 2 Author 3

#### **Contributing Authors:**

Author 1 Author 2 Author 3

#### **Revision Control:**

Version	Author	Changes	Date
0.1	Yan Castro de Azeredo	Document creation	06/2020



© 2020 by Universidade Federal de Santa Catarina. Memory Expansion Daughterboard of OBDH 2.0. This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licesa/4.0/.

# List of Figures

1.1	3D view of the DB Memory PCB	1
3.1	Top 3D view of the DB Memory PCB	5
3.2	Bottom 3D view of the DB Memory PCB	6

# List of Tables

# Contents

Li	st of Figures	$\mathbf{v}$
Li	sta of Tables	vii
N	omenclature	vii
1	Introduction	1
2	System Overview 2.1 Block Diagram	<b>3</b>
3	Hardware	5
4	Firmware	7
5	Usage Instructions	9
R	eferences	9

## Introduction

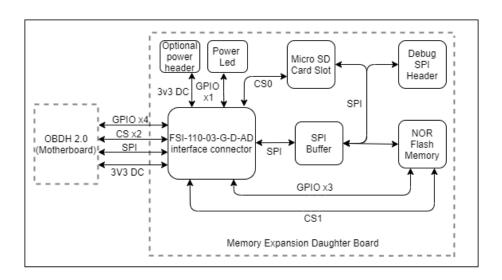
The Memory Expansion Daughterboard (DB Memory in short) is a expansion module for the On-Boad-Data-Handling (OBDH 2) of FloripaSat-2 2U CubeSat. The main purpose of DB Memory is to give more 1gb non-volatile flash memory though an integrated circuit (MT25QL01GBBB) and more if added a micro sd card. While the module is not intended to go for flight in GOLDS-UFSC mission, the project had the main purpose to design the first board using the stadar SpaceLab daughter and motherboard relation and to serve as a prototype and testing printed circuit boards (PCB) for new comers in SpaceLab laboratory.



Figure 1.1: 3D view of the DB Memory PCB.

# System Overview

# 2.1 Block Diagram



# Hardware

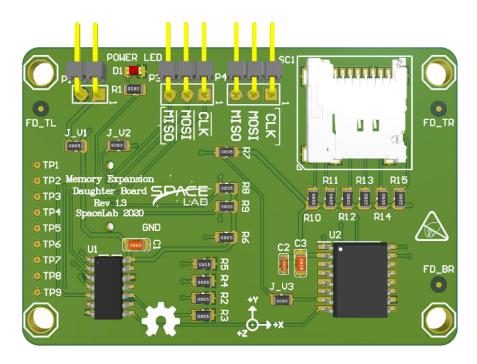


Figure 3.1: Top 3D view of the DB Memory PCB.

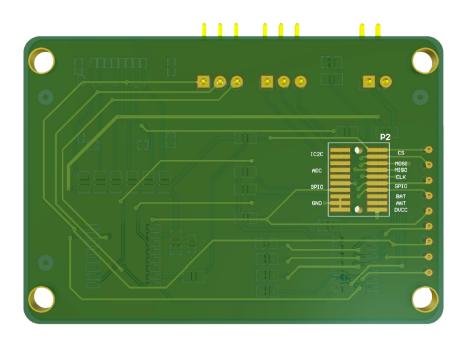


Figure 3.2: Bottom 3D view of the DB Memory PCB.

**Firmware** 

Usage Instructions