



GOLDS-UFSC Documentation

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SpaceLab, Universidade Federal de Santa Catarina, Florianópolis - Brazil

GOLDS-UFSC Documentation
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Project Chief:
Eduardo Augusto Bezerra

Authors:
Gabriel Mariano Marcelino
André Martins Pio de Mattos
Eduardo Augusto Bezerra

Contributing Authors:

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List of Figures

4.1	Reference diagram of the PC-104 bus.	8
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List of Tables

4.1	PC-104 bus pinout.	9
4.2	PC-104 bus signal description.	10

Contents

List of Figures	v
Lista of Tables	vii
Nomenclature	vii
1 Introduction	1
1.1 Mission Description	1
1.2 Mission Objectives	1
2 Mission Requirements	3
3 Mission Schedule	5
4 Overall Description	7
4.1 General Diagrams	7
4.2 General Behaviour	7
4.3 Power Budget	7
4.4 Link Budget	7
4.5 PC-104 Bus	7
5 Subsystems	11
5.1 On-Board Data Handling	11
5.2 Telemetry, Tracking and Command Module	11
5.3 Electrical Power System	11
5.4 Attitude Determination and Control System	11
5.5 Mechanical Structure	11
5.6 Payloads	11
5.6.1 Environmental Data Collection	11
6 Ground Segment	13
7 Operation Planning	15
References	15

CHAPTER 1

Introduction

1.1 Mission Description

1.2 Mission Objectives

CHAPTER 2

Mission Requirements

CHAPTER 3

Mission Schedule

CHAPTER 4

Overall Description

4.1 General Diagrams

4.2 General Behaviour

4.3 Power Budget

4.4 Link Budget

4.5 PC-104 Bus

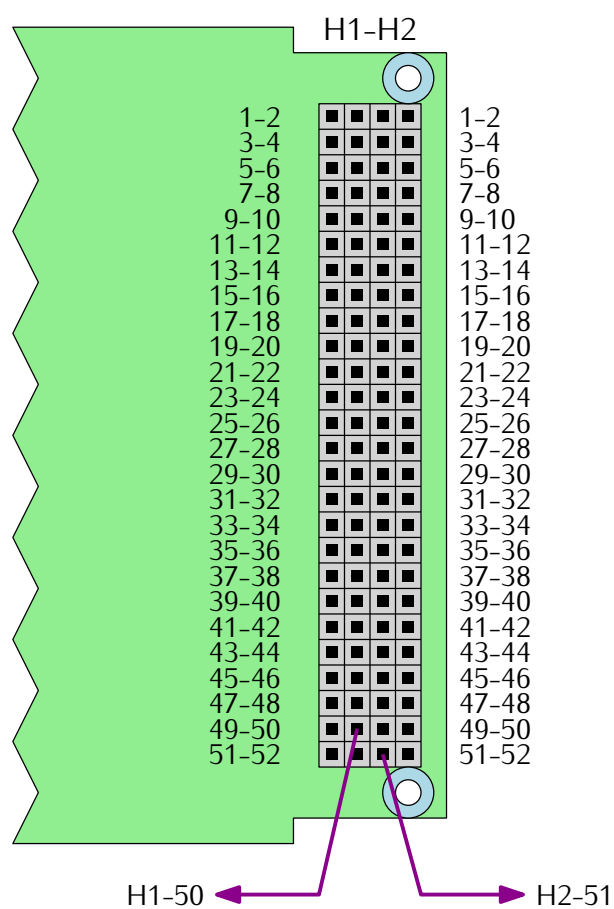


Figure 4.1: Reference diagram of the PC-104 bus.

Pin Row	H1 Odd	H1 Even	H2 Odd	H2 Even
1-2	-	-	-	-
3-4	-	-	-	-
5-6	-	-	-	-
7-8	-	-	-	-
9-10	-	-	-	-
11-12	-	-	BE_SPI_MOSI	BE_SPI_CLK
13-14	-	-	BE_SPI_CS	BE_SPI_MISO
15-16	-	-	-	-
17-18	-	-	-	-
19-20	-	-	-	-
21-22	-	-	-	-
23-24	-	-	-	-
25-26	-	-	-	-
27-28	-	-	-	-
29-30	GND	GND	GND	GND
31-32	GND	GND	GND	GND
33-34	-	-	-	-
35-36	RD_SPI_CLK	-	ANT_VCC	ANT_VCC
37-38	RD_SPI_MISO	-	-	-
39-40	RD_SPI_MOSI	RD_SPI_CS	-	-
41-42	PL_I2C_SDA	-	-	-
43-44	PL_I2C_SCL	-	-	-
45-46	OBDH_VCC	OBDH_VCC	BAT_VCC	BAT_VCC
47-48	-	-	-	-
49-50	-	-	-	-
51-52	-	-	-	-

Table 4.1: PC-104 bus pinout.

Signal	Pin(s)	Used By	Description
GND	H1-29, H1-30, H1-31, H1-32, H2-29, H2-30, H2-31, H2-32	All	Ground reference
BAT_VCC	H2-45, H2-46	EPS	Battery terminals (+)
ANT_VCC	H2-35, H2-36	EPS, ANT	Antenna power source (3.3 V)
OBDH_VCC	H1-45, H1-46	EPS, OBDH	OBDH power source (3.3 V)
RD_SPI_CLK	H1-35	OBDH, TTC	CLK signal of the main radio SPI bus
RD_SPI_MISO	H1-37	OBDH, TTC	MISO signal of the main radio SPI bus
RD_SPI_MOSI	H1-39	OBDH, TTC	MOS signal of the main radio SPI bus
RD_SPI_CS	H1-40	OBDH, TTC	CS signal of the main radio SPI bus
PL_I2C_SDA	H1-41	OBDH, Payload*	SDA signal of the Payload I2C bus
PL_I2C_SCL	H1-43	OBDH, Payload*	SCL signal of the Payload I2C bus

Table 4.2: PC-104 bus signal description.

CHAPTER 5

Subsystems

5.1 On-Board Data Handling

OBDAH

5.2 Telemetry, Tracking and Command Module

TTC

5.3 Electrical Power System

EPS

5.4 Attitude Determination and Control System

ADCS

5.5 Mechanical Structure

5.6 Payloads

5.6.1 Environmental Data Collection

EDC

CHAPTER 6

Ground Segment

CHAPTER 7

Operation Planning
