Revision History

Rev	Description	Date (DD/MM/YY)	Author
1.0	Initial Release.	01/07/20	Yan C. de Azeredo
2.0	Adding fourth PCB "4_iip_closure" and "4_iip_camera" PCBs, updating mouting holes pads, block diagram, SpaceLab logo and layout of Nº3 IIP board.	28/06/21	Yan C. de Azeredo

PCB Elements

Fiducials

Mechanical Holes

M1 M2 M3 M4

Project Information
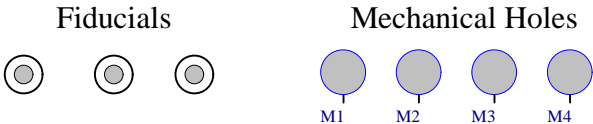
Insterstage Interface Panels for a 2U or 3U CubeSat

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- Designed by: Yan Castro de Azeredo
- Reviewers: Gabriel M. Marcelino and André M. P. Mattos
- Support: Gabriel M. Marcelino, André M. P. Mattos and Kleber Gouveia
- Mechanical validation: Edemar M. Filho and Caique S. M. Gomes

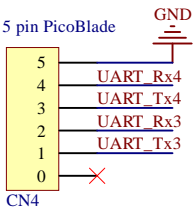## Interstage Interface Panels
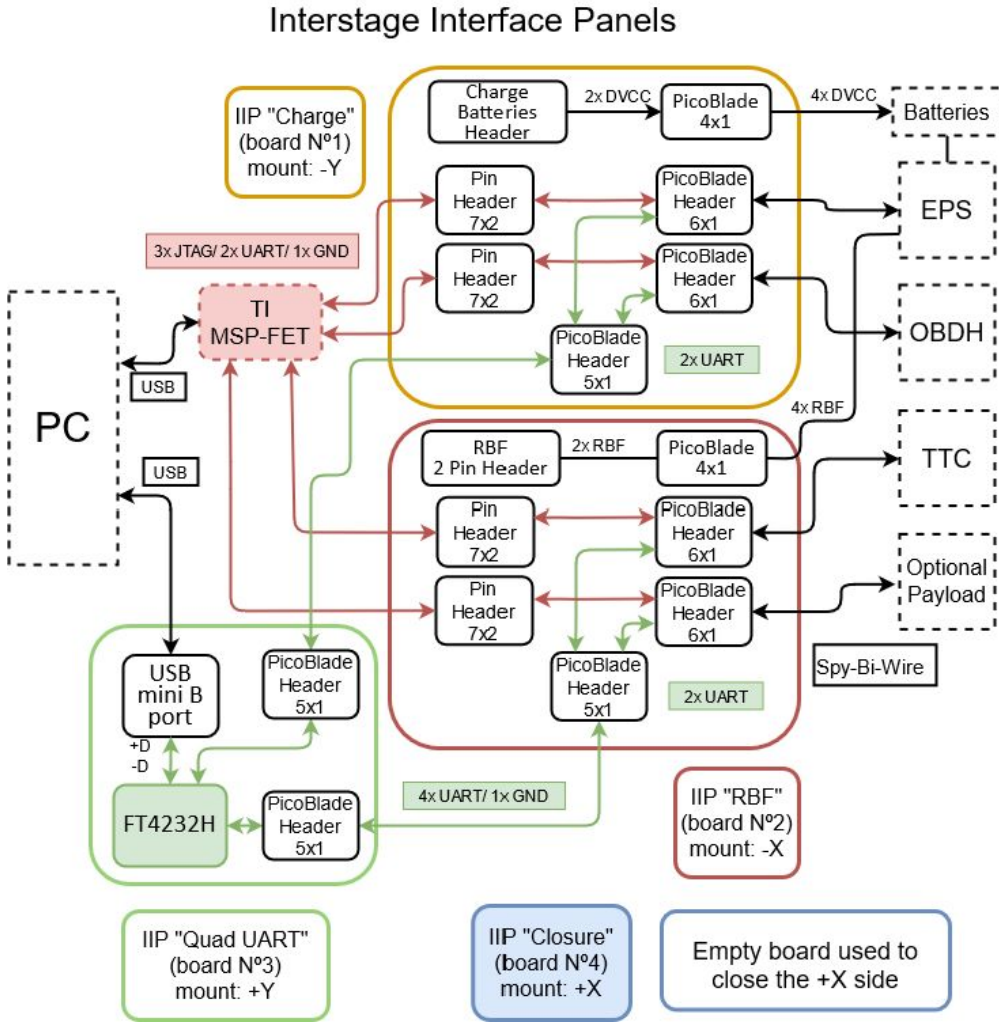
Full System Block Diagram

SpaceLab - Federal University of Santa Catarina	
Project: *2_iip_rbf.PrjPCB / [No Variations]*	
Title: *IIP Hardware Architecture*	
Designed by: *Yan Castro de Azeredo*	Project Code: *IIP*

| Date: 6/30/2021 | Revision: 2.0 | Sheet 1 of 2 | Size: A4 |

Remove Before Flight (RBF)

External pin header

+RBF   1
-RBF   2

CN1

Internal PicoBlade to EPS

-RBF   0
+RBF   1
-RBF   2
    3
+RBF   4

CN5

FT4232H UART signals

5 pin PicoBlade   GND

5
4   UART_Rx4
3   UART_Tx4
2   UART_Rx3
1   UART_Tx3
0

CN4
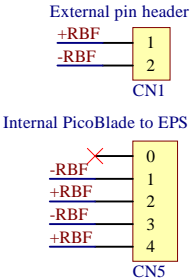
JTAG and redundant UART headers

TP1

JTAG3_TDO_TDI   1 | 1   2 | 2   JTAG3_VCC
3 | 3   4 | 4
5 | 5   6 | 6
JTAG3_TCK   7 | 7   8 | 8
GND   9 | 9   10 | 10
11 | 11   12 | 12   UART_Tx3
13 | 13   14 | 14   UART_Rx3

CN2

TP2

JTAG4_TDO_TDI   1 | 1   2 | 2   JTAG4_VCC
3 | 3   4 | 4
5 | 5   6 | 6
JTAG4_TCK   7 | 7   8 | 8
GND   9 | 9   10 | 10
11 | 11   12 | 12   UART_Tx4
13 | 13   14 | 14   UART_Rx4

CN6
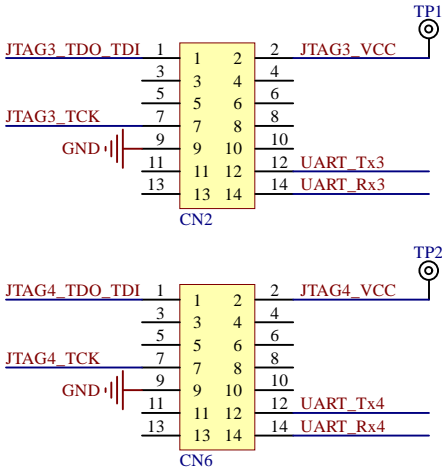
Debug and programming interfaces

GND   **6 pin Picoblade**

0
1
UART_Rx3   2
UART_Tx3   3
JTAG3_TCK   4
JTAG3_TDO_TDI   5
JTAG3_VCC   6

CN3

GND   **6 pin Picoblade**

0
1
UART_Rx4   2
UART_Tx4   3
JTAG4_TCK   4
JTAG4_TDO_TDI   5
JTAG4_VCC   6

CN7

SpaceLab - Federal University of Santa Catarina

Project: *2_iip_rbf.PrjPCB / [No Variations]*

Title: *IIP N2 RBF Interfaces*

Designed by: *Yan Castro de Azeredo*   Project Code: *IIPN2*

Date: 6/30/2021 | Revision: 2.0 | Sheet 2 of 2 | Size: A4