

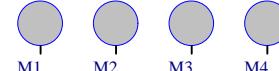
Rev	Description	Date (DD/MM/YY)	Author
1.0	Initial Release.	01/07/20	Yan C. de Azeredo
2.0	Adding fourth PCB "4_iip_closure" and "4_iip_camera" PCBs, updating mounting holes pads, block diagram, SpaceLab logo and layout of N°3 IIP board.	28/06/21	Yan C. de Azeredo

### Revision History

Fiducials



Mechanical Holes



### PCB Elements

Insterstage Interface Panels for a 2U or 3U CubeSat

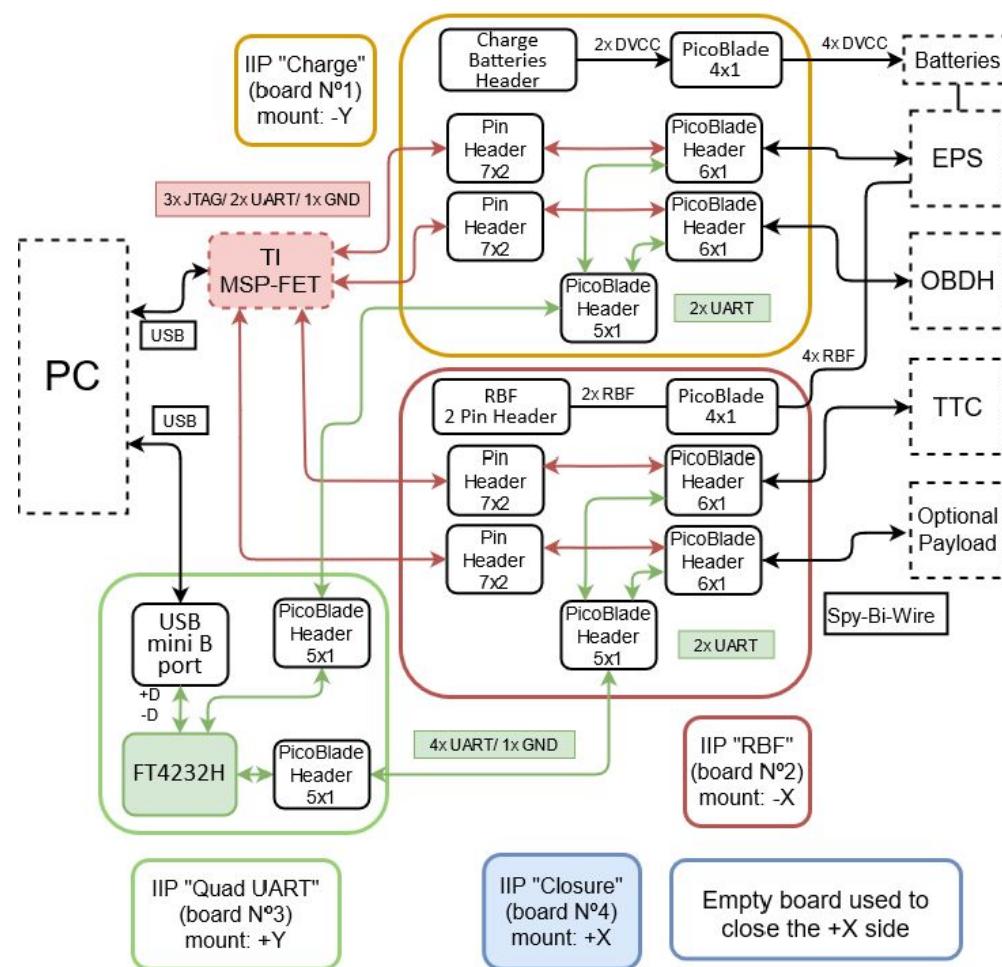
Copyright © 2021  
by Universidade Federal de Santa Catarina.

This work is licensed under the CERN-OHL-S Open Hardware License version 2.  
To view a copy of this license, visit  
<https://ohwr.org/project/cernohl/wikis/Documents/CERN-OHL-version-2>.

- 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

### Project Information

## Interstage Interface Panels



## Full System Block Diagram

SpaceLab - Federal University of Santa Catarina	
Project: <a href="#">I_iip_charge.PrjPCB / [No Variations]</a>	
Title: <a href="#">IIP Hardware Architecture</a>	
Designed by: Yan Castro de Azeredo	

Date: 6/29/2021 Revision:v2.0 Sheet 1 of 2 Size: A4

A

A

B

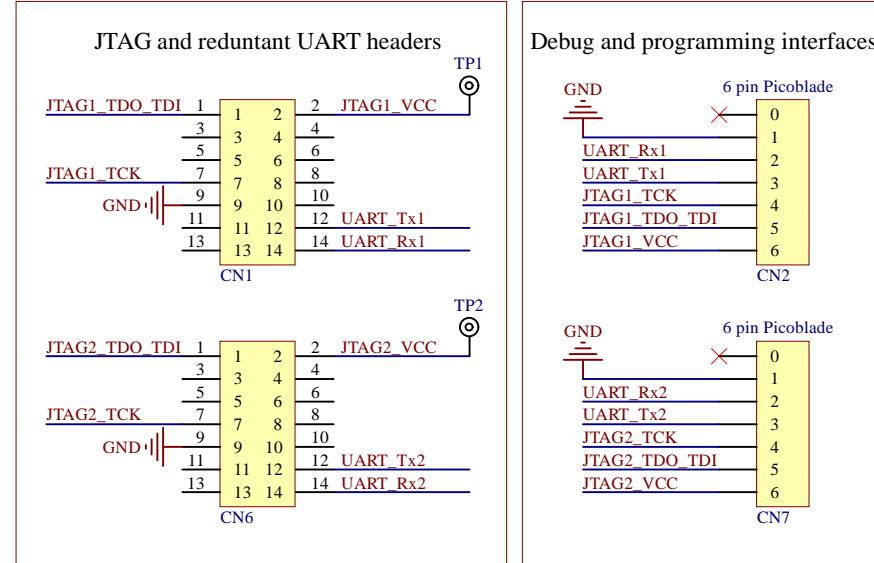
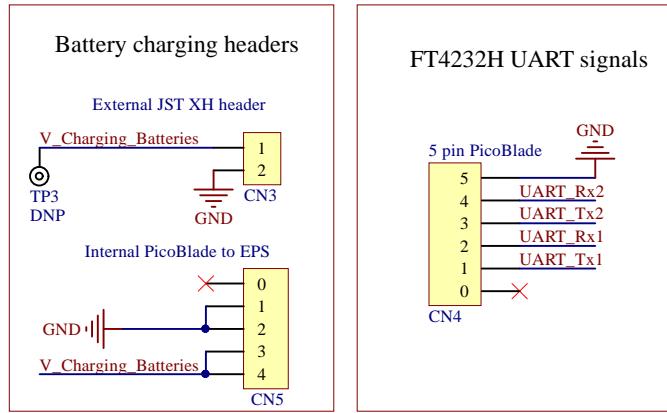
B

C

C

D

D



A

B

C

D

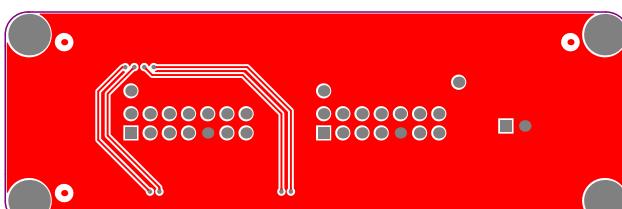
A

B

C

D

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.035mm		
4	Dielectric 1	FR-4	1.500mm	4.2	
5	Bottom Layer	Copper	0.035mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
7	Bottom Overlay				



### Fabrication specifications:

- Copper base: 1oz
- PCB Material: Prepeg FR4—Standard
- PCB Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

### Assembly specifications:

- Solder composition: Include lead
- Fiducials: 3 top and 3 bottom available

SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº1	
Layer: Top Layer      Board Edge	
Designed by: Yan C. de Azeredo	
Date: 6/29/2021	Project Code: IIP1
Version: v2.0	Size: A4

A

B

C

D

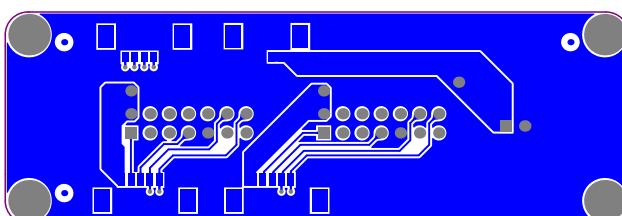
A

B

C

D

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.035mm		
4	Dielectric 1	FR-4	1.500mm	4.2	
5	Bottom Layer	Copper	0.035mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
7	Bottom Overlay				



### Fabrication specifications:

- Copper base: 1oz
- PCB Material: Prepeg FR4—Standard
- PCB Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

### Assembly specifications:

- Solder composition: Include lead
- Fiducials: 3 top and 3 bottom available

SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº1	
Layer: Bottom Layer Board Edge	
Designed by: Yan C. de Azeredo	
Date: 6/29/2021	Project Code: IIP1
Version: v2.0	Size: A4

A

A

B

B

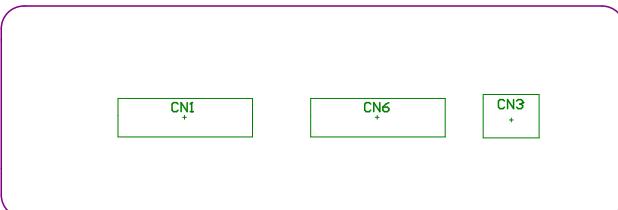
C

C

D

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.035mm		
4	Dielectric 1	FR-4	1.500mm	4.2	
5	Bottom Layer	Copper	0.035mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
7	Bottom Overlay				

CNI      CN6      CN3



### Fabrication specifications:

- Copper base: 1oz
- PCB Material: Prepeg FR4—Standard
- PCB Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

### Assembly specifications:

- Solder composition: Include lead
- Fiducials: 3 top and 3 bottom available

SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº1	
Layer: TOP ASM      Board Edge	
Designed by: Yan C. de Azeredo	
Date: 6/29/2021	Project Code: IIP1
Version: v2.0	Size: A4

A

B

C

D

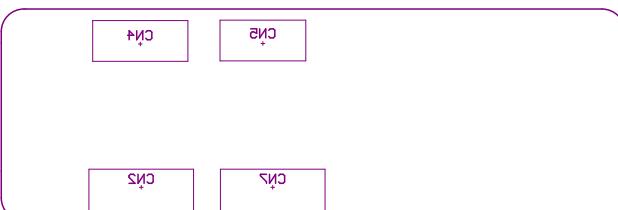
A

B

C

D

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.035mm		
4	Dielectric 1	FR-4	1.500mm	4.2	
5	Bottom Layer	Copper	0.035mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
7	Bottom Overlay				



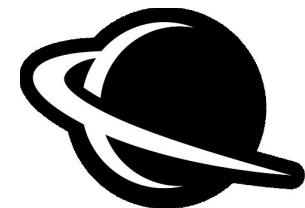
### Fabrication specifications:

- Copper base: 1oz
- PCB Material: Prepeg FR4—Standard
- PCB Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

### Assembly specifications:

- Solder composition: Include lead
- Fiducials: 3 top and 3 bottom available

SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº1	
Layer: BOTTOM ASM Board Edge	
Designed by: Yan C. de Azeredo	
Date: 6/29/2021	Project Code: IIP1
Version: v2.0	Size: A4



## Bill of Materials

Source Data From: 1\_ljp\_charge.PrjPCB

Project: 1\_ljp\_charge.PrjPCB

Variant: None

Project Code: IIPN1

Report Date: 6/29/2021 12:37:04 AM

Print Date: 29/06/2021 00:37:12

#	Designator	Quantity	mn Name Error:Manufacturer	Manufacturer Part Number	#Column Name Error:Partnumber	Description	Column Name Error:Partnumber	Column Name Error:Footprint	Column Name Error:Notes	Fitted
1	CN2, CN7	2		53398-0671		1.25mm Pitch PicoBlade™ Header, Surface Mount, Vertical, 6 Circuits				Fitted
2	CN1, CN6	2		M20-9980745		Headers & Wire Housing 07+07 DIL VERTICAL PIN HEADER GOLD HT				Fitted
3	CN5	1		53398-0471		Connector Header Surface Mount 4 position 0.049" (1.25mm)				Fitted
4	CN4	1		53398-0571		Wire-To-Board Connector, Vertical, PicoBlade 53398 Series, Surface Mount, Header, 5, 1.25 mm				Fitted
5	CN3	1		B2B-XH-A-M(LF)(SN)		CONN HEADER TOP 2POS 2.5MM GRN				Fitted