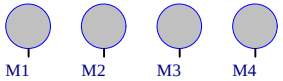
Rev	Description	Date (DD/MM/YY)	Author
1.0	Initial Release.	01/07/20	Yan C. de Azeredo
2.0	Adding fourth PCB "4_iip_closure" and "4_iip_camera" PCBs, updating mouting holes pads, block diagram, SpaceLab logo and layout of Nº3 IIP board.	28/06/21	Yan C. de Azeredo

Revision History

Fiducials

Mechanical Holes

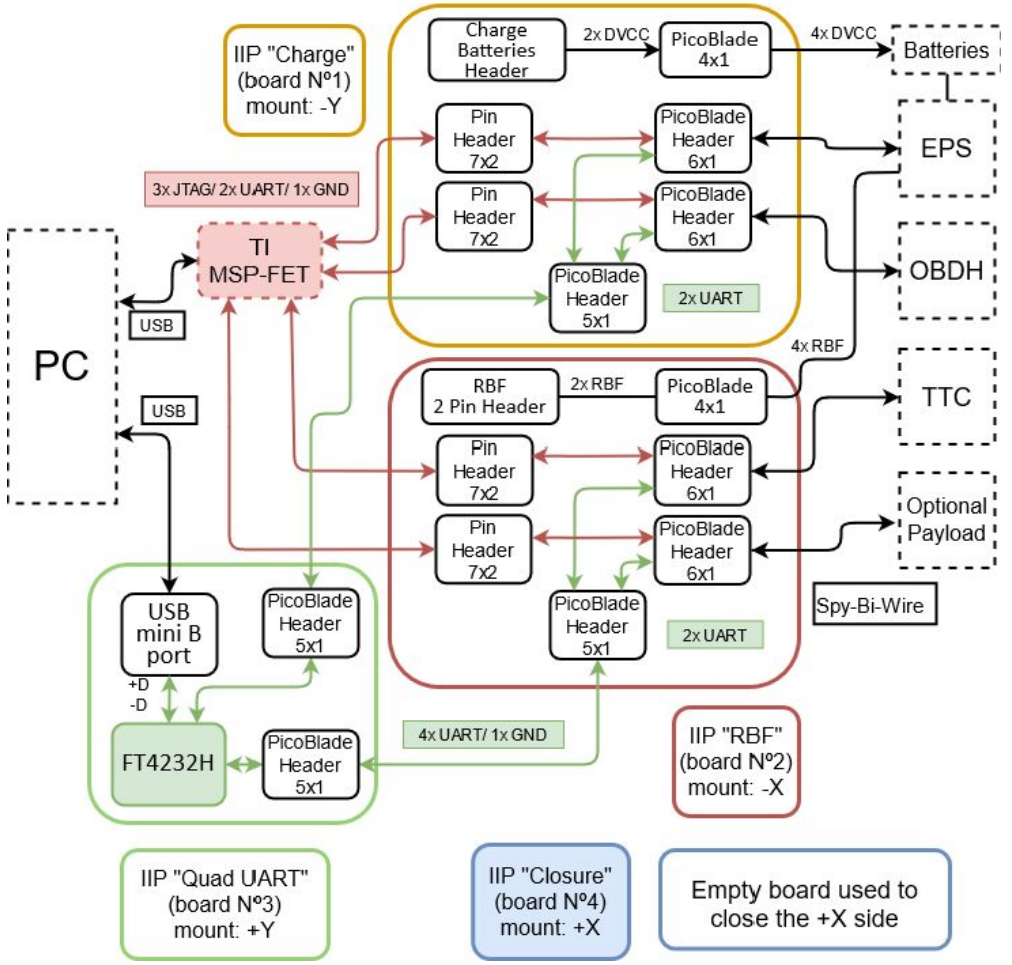


PCB Elements

- 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

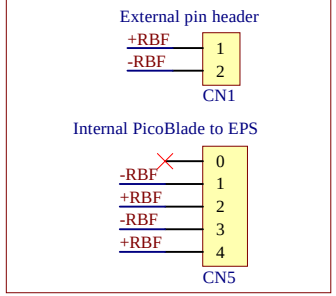
Interstage Interface Panels



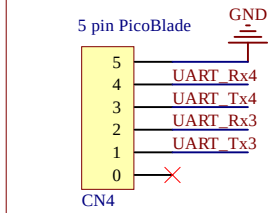
Full System Block Diagram

SpaceLab - Federal University of Santa Catarina			
Project: *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

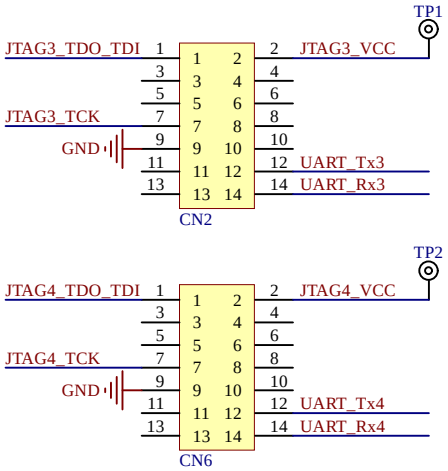
Remove Before Flight (RBF)



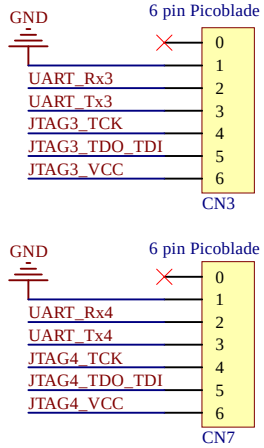
FT4232H UART signals



JTAG and redundant UART headers

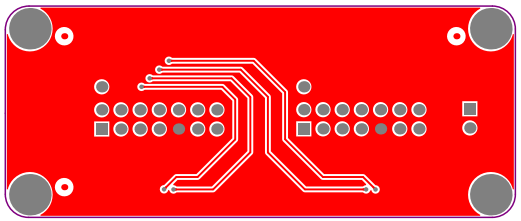


Debug and programming interfaces



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

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.036mm		
4	Dielectric 1	FR-4	1.500mm	4.8	
5	Bottom Layer	Copper	0.036mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
7	Bottom Overlay				



Fabrication specifications:

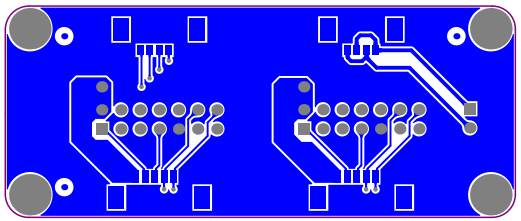
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº2		
Layer: Top Layer Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP2
Date: 6/30/2021	Version: v2.0	Size: A4

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.036mm		
4	Dielectric 1	FR-4	1.500mm	4.8	
5	Bottom Layer	Copper	0.036mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
7	Bottom Overlay				



Fabrication specifications:

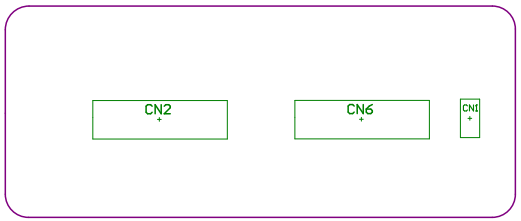
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº2		
Layer: Bottom Layer Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP2
Date: 6/30/2021	Version: v2.0	Size: A4

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.036mm		
4	Dielectric 1	FR-4	1.500mm	4.8	
5	Bottom Layer	Copper	0.036mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
7	Bottom Overlay				



Fabrication specifications:

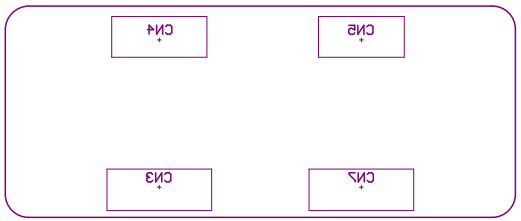
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº2		
Layer: TOP ASM Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP2
Date: 6/30/2021	Version: v2.0	Size: A4

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.036mm		
4	Dielectric 1	FR-4	1.500mm	4.8	
5	Bottom Layer	Copper	0.036mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
7	Bottom Overlay				



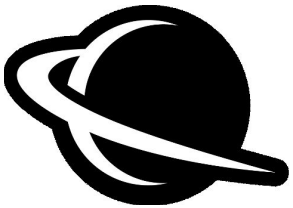
Fabrication specifications:

- Copper base: 1oz
- PCB Material: Prepeg FR4–Standard
- PCB Tickness: 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 avaliable

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº2		
Layer: BOTTOM ASM Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP2
Date: 6/30/2021	Version: v2.0	Size: A4



Bill of Materials

Source Data From:	2_iip_rbf.PrjPCB	
Project:	2_iip_rbf.PrjPCB	
Variant:	None	
Project Code:	IIPN2	
Report Date:	6/30/2021	11:51:15 PM
Print Date:	30/06/2021	23:51:21

#	Designator	Quantity	mn Name Error:Manufac	Manufacturer Part Number	#Column Name Error:Partnumber	Description	olumn Name Error:Pa	olumn Name Error:Foo	lumn Name Error	Fitted
1	CN3, CN7	2		53398-0671		1.25mm Pitch PicoBlade™ Header, Surface Mount, Vertical, 6 Circuits				Fitted
2	CN2, CN6	2		M20-9980745		Headers & Wire Housings 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	CN1	1		M20-9990245		M20 HDR, PIN, SIL, VERT, 2W				Fitted