

M1 Interstage Interface Panel
Board N.4 Rev 2.0

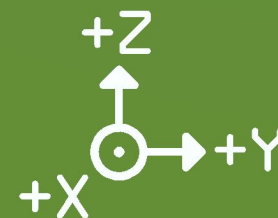
SpaceLab UFSC 2021

M2

Ready
for
launch



SPACELAB



M3

line limit
external
connectors



structure contact
area

M4

From the ilha da magia to space.




Space Technology Reserach Laboratory
of the Federal University of Santa Catarina, Florianopolis, Brazil.

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 Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Standard 2 layer 1.6mm thickness
- Special requirements: None

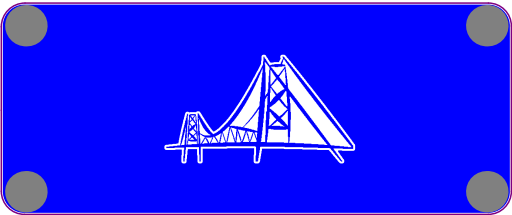



SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Top Layer Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4

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 Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Standard 2 layer 1.6mm thickness
- Special requirements: None

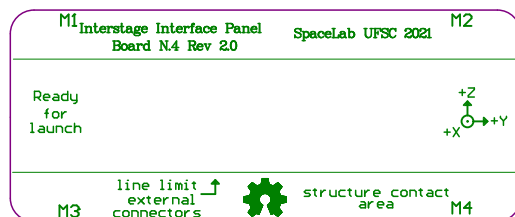



SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Bottom Layer Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4

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 Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Standard 2 layer 1.6mm thickness
- Special requirements: None



SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Top Overlay Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4

1

2

3

4

A

A

B

B

C

C

D

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	0.036mm		
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: Standard 2 layer 1.6mm thickness

– Special requirements: None

From the liba de magies to space

Space Technology Research Laboratory
of the Federal University of Santa Catarina, Florianópolis, Brazil.

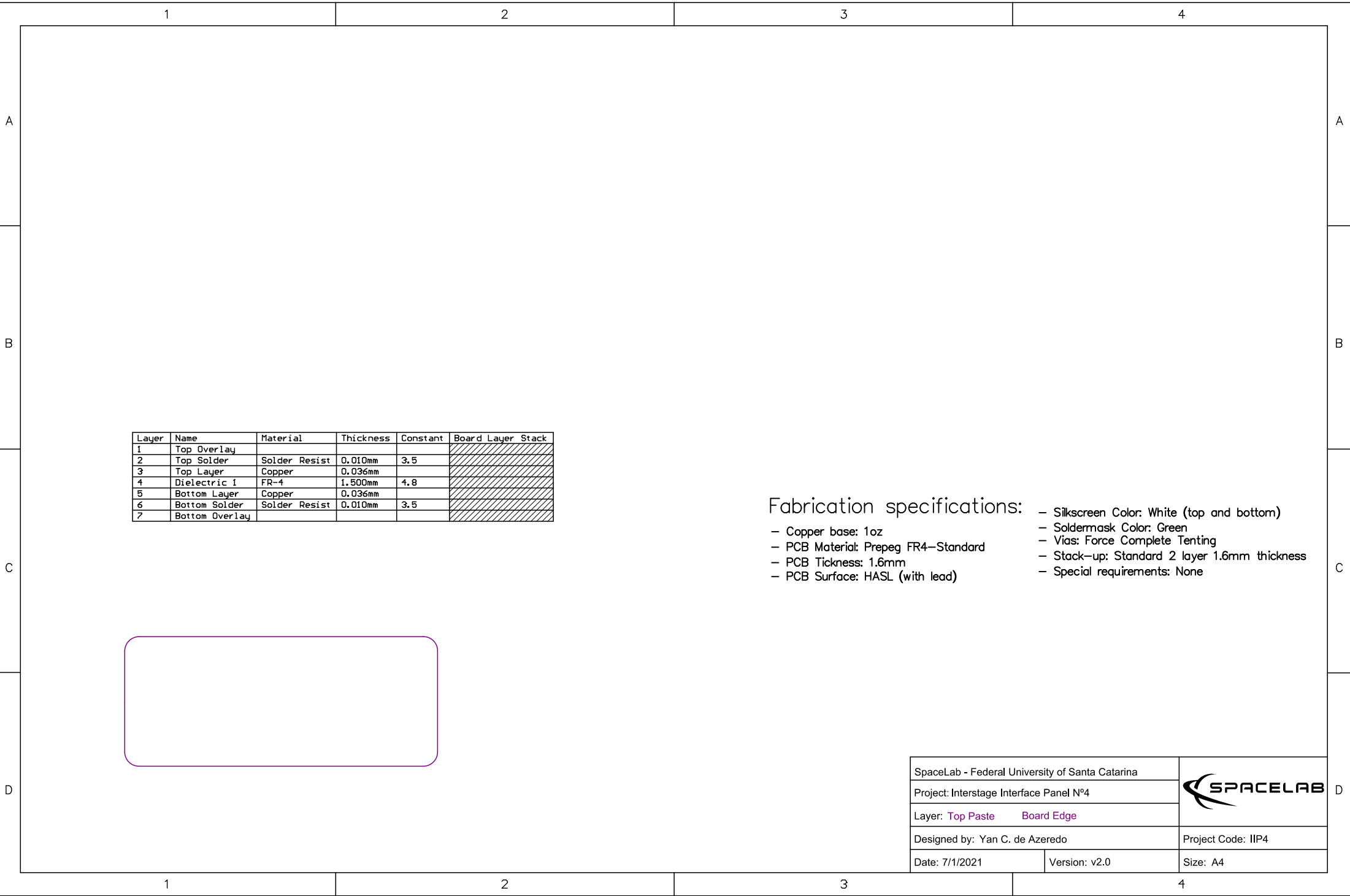
SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Bottom Overlay Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4

1

2

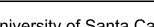
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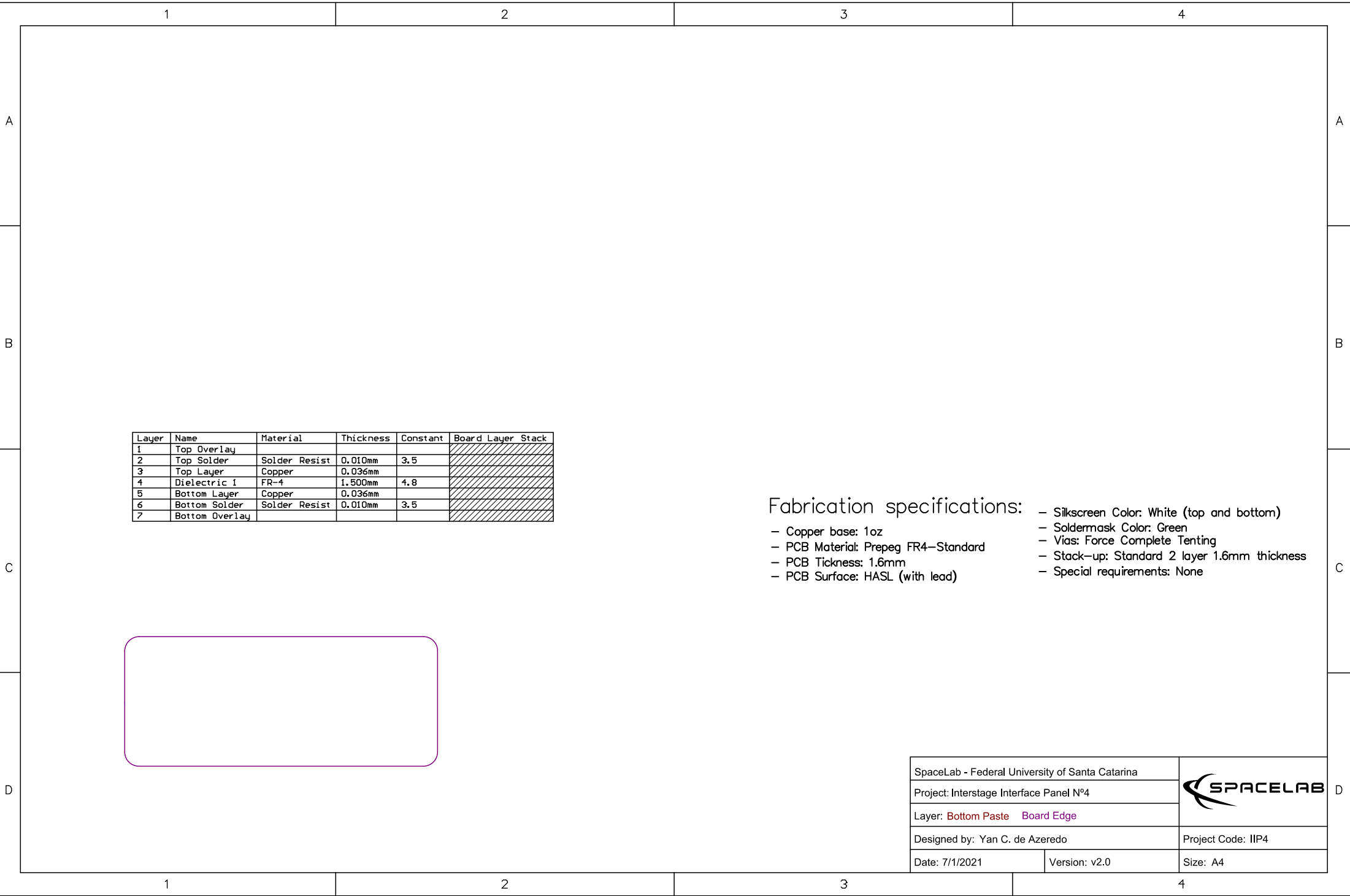
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Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.036mm		
4	Dielectric 1	FR-4	1.500mm	4.8	
5	Bottom Layer	Copper	0.036mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5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

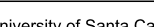
- Fabrication specifications:
- Copper base: 1oz
 - PCB Material: Prepeg FR4—Standard
 - PCB Thickness: 1.6mm
 - PCB Surface: HASL (with lead)
 - Silkscreen Color: White (top and bottom)
 - Soldermask Color: Green
 - Vias: Force Complete Tenting
 - Stack-up: Standard 2 layer 1.6mm thickness
 - Special requirements: None

SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Top Paste Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	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: Standard 2 layer 1.6mm thickness
 - Special requirements: None


SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Bottom Paste Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	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 Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Standard 2 layer 1.6mm thickness
- Special requirements: None

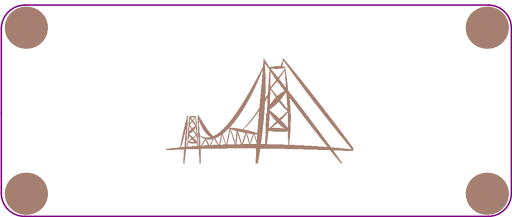



SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Top Solder Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4

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 Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Standard 2 layer 1.6mm thickness
- Special requirements: None

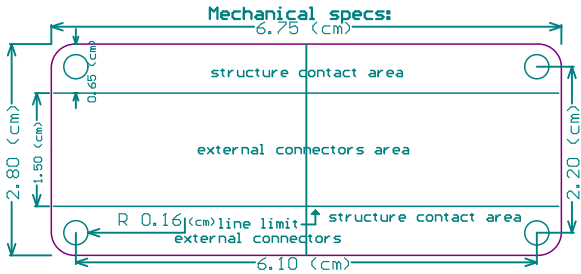



SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel Nº4		
Layer: Bottom Solder Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4

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: Standard 2 layer 1.6mm thickness
 - Special requirements: None



SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Dimensions Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4

1

2

3

4

A

A

B

B

C

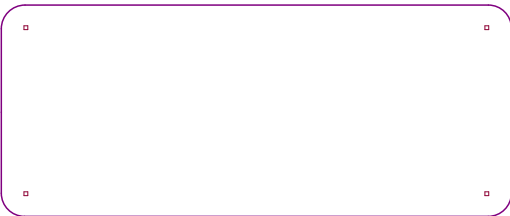
C

D

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	0.036mm		
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				

Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Via/Pad	Pad Shape	Template
□	4	3.200mm (125.98mil)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c550h320
	4 Total							



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: Standard 2 layer 1.6mm thickness
- Special requirements: None

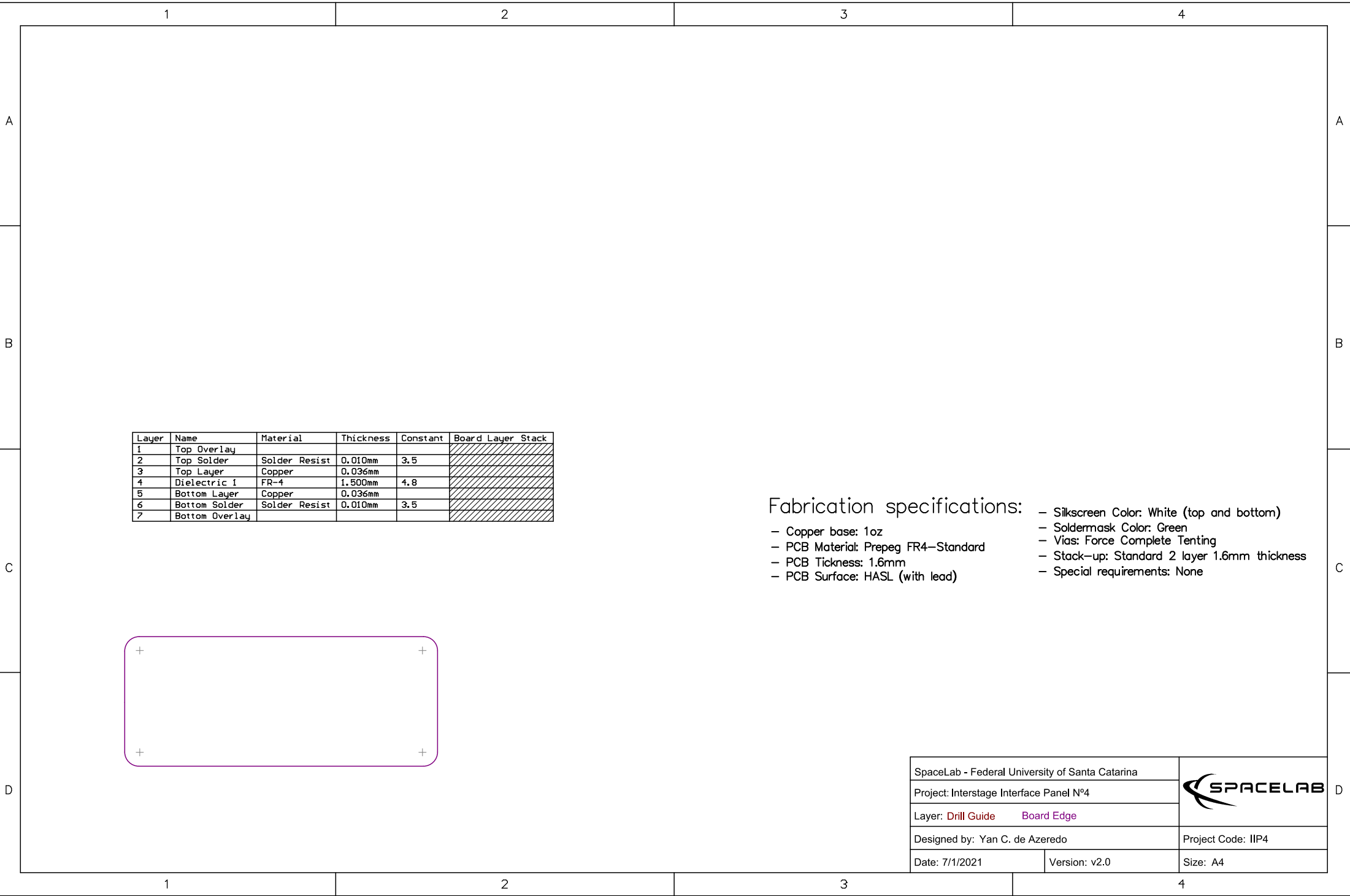
SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Drill Drawing Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4

1

2


3

4



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: Standard 2 layer 1.6mm thickness
 - Special requirements: None

SpaceLab - Federal University of Santa Catarina		
Project: Interstage Interface Panel N°4		
Layer: Drill Guide Board Edge		
Designed by: Yan C. de Azeredo		Project Code: IIP4
Date: 7/1/2021	Version: v2.0	Size: A4