

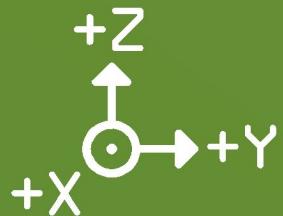
M1

SpaceLab UFSC 2021

M2

Interstage Interface Panel Board N.4 Rev 2.0 Camera Variant

Ready
for
launch



M3

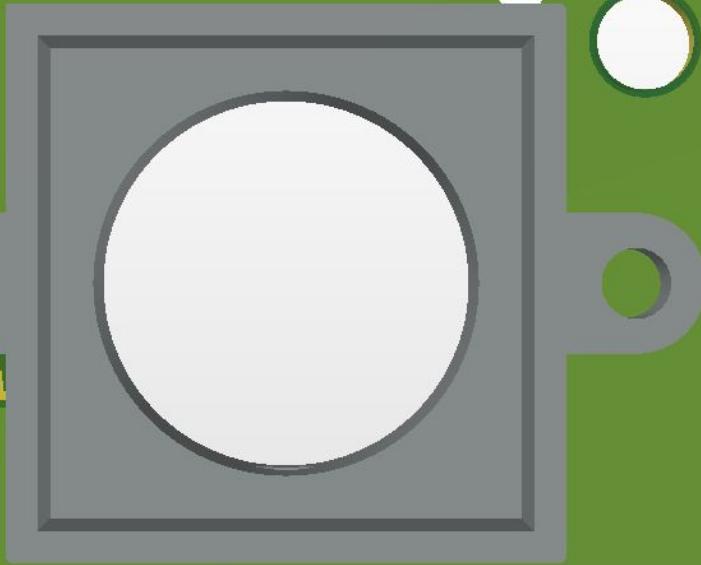
line limit
external connectors



structure contact
area

M4

From the ilha da magia to space.



Say cheese



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

A

A

B

B

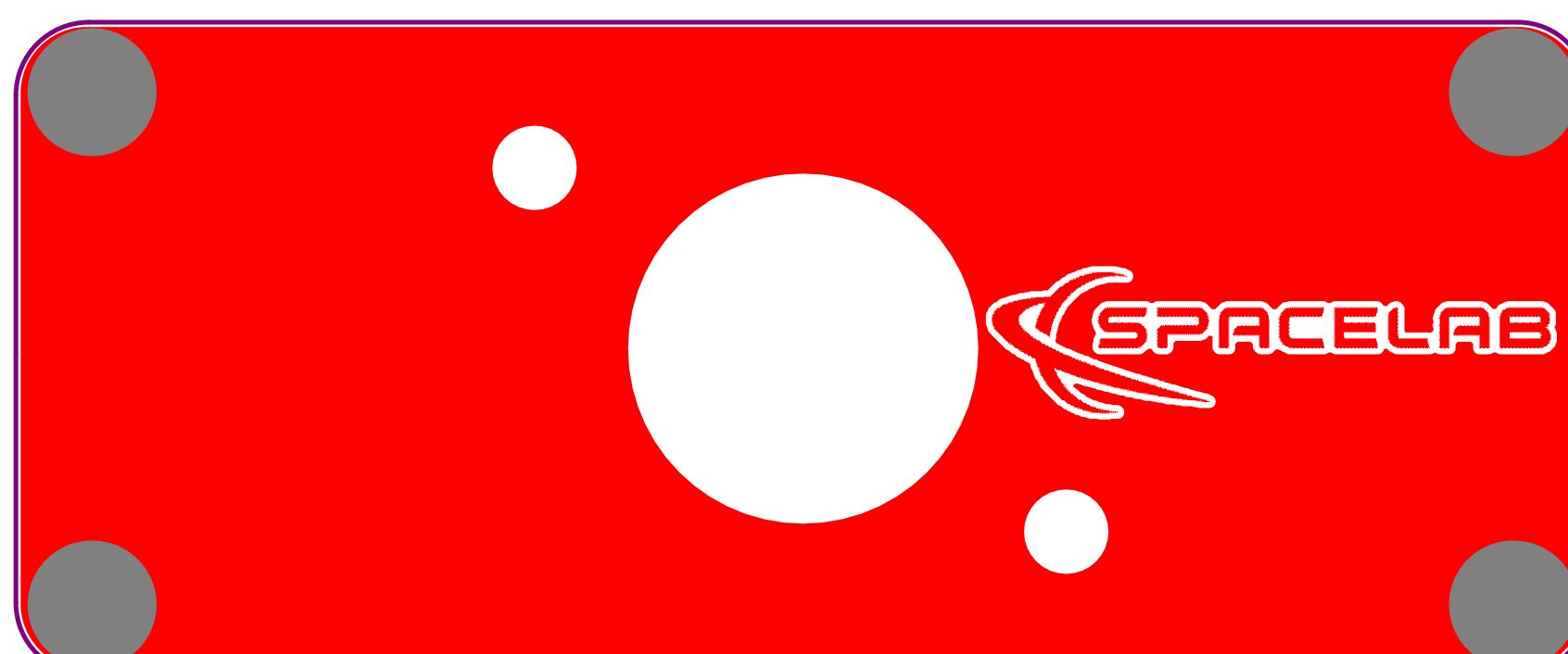
C

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

SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº4	
Layer: Top Layer Board Edge	
Designed by: Yan C. de Azeredo	Project Code: IIP4
Date: 7/4/2021	Version: v2.0
	Size: A4

A

A

B

B

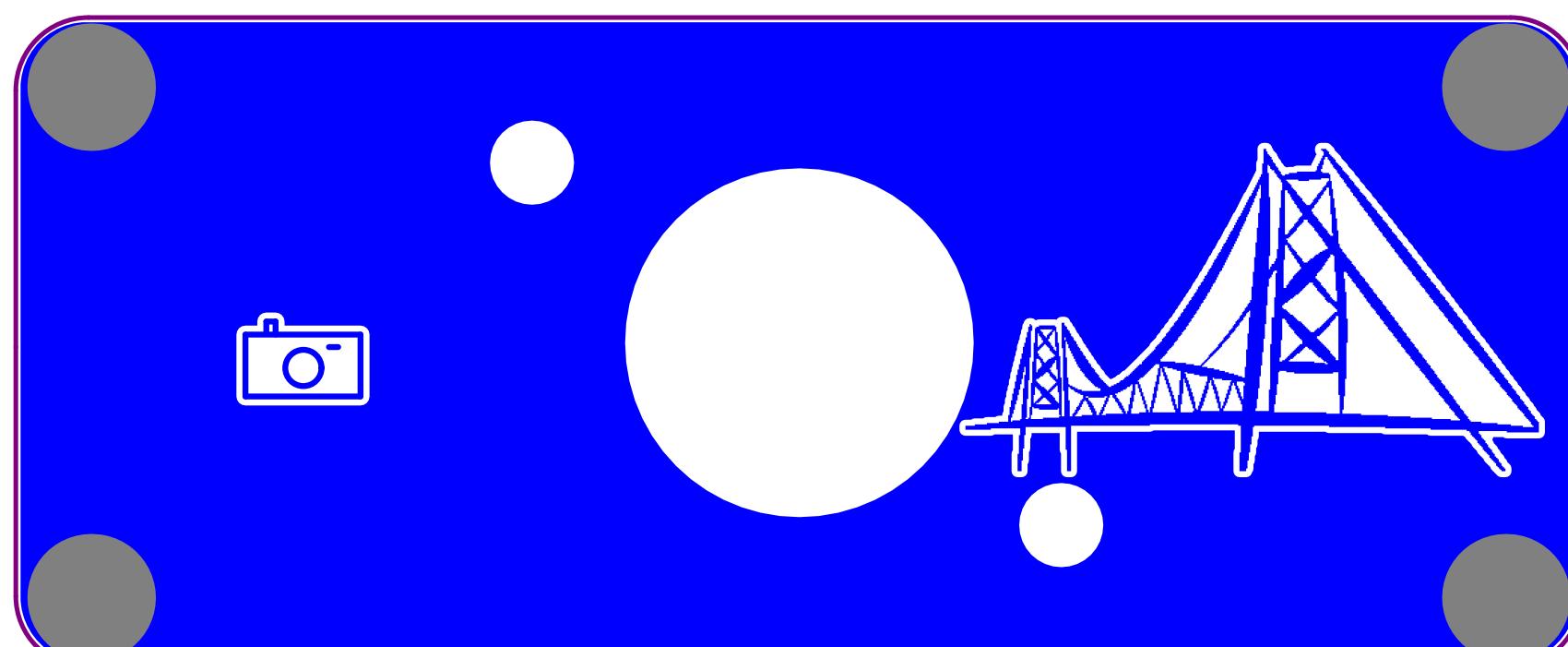
C

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 Thickness: 1.6mm
- PCB Surface: HASL (with lead)

- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- 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	
Date: 7/4/2021	Project Code: IIP4
Version: v2.0	Size: A4

A

A

B

B

C

C

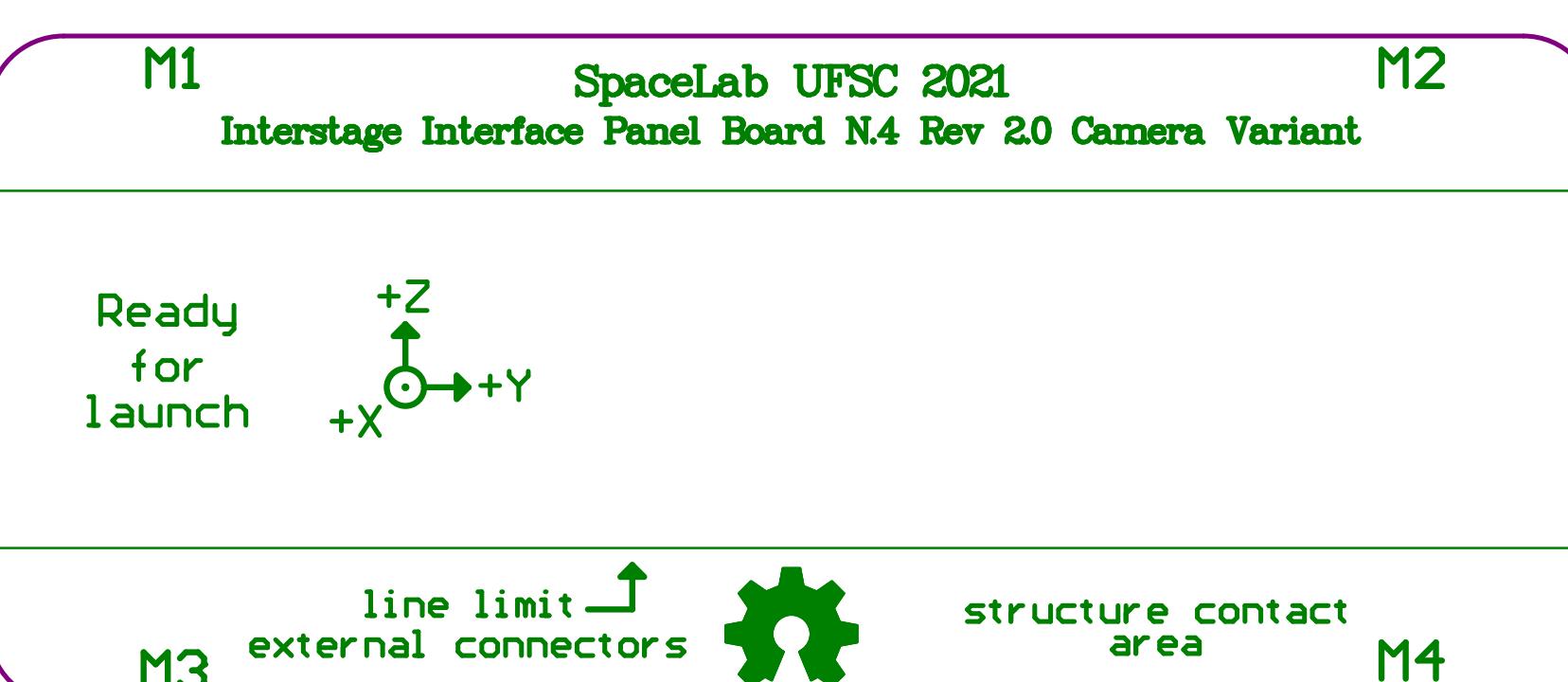
D

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 Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- 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: 7/4/2021	Version: v2.0
	Size: A4

A

A

B

B

C

C

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

From the top to bottom:

Sea cheese

SpaceLab - Federal University of Santa Catarina
Project: Interstage Interface Panel Nº4
Layer: Bottom Overlay Board Edge
Designed by: Yan C. de Azeredo
Date: 7/4/2021 Version: v2.0 Size: A4



A

A

B

B

C

C

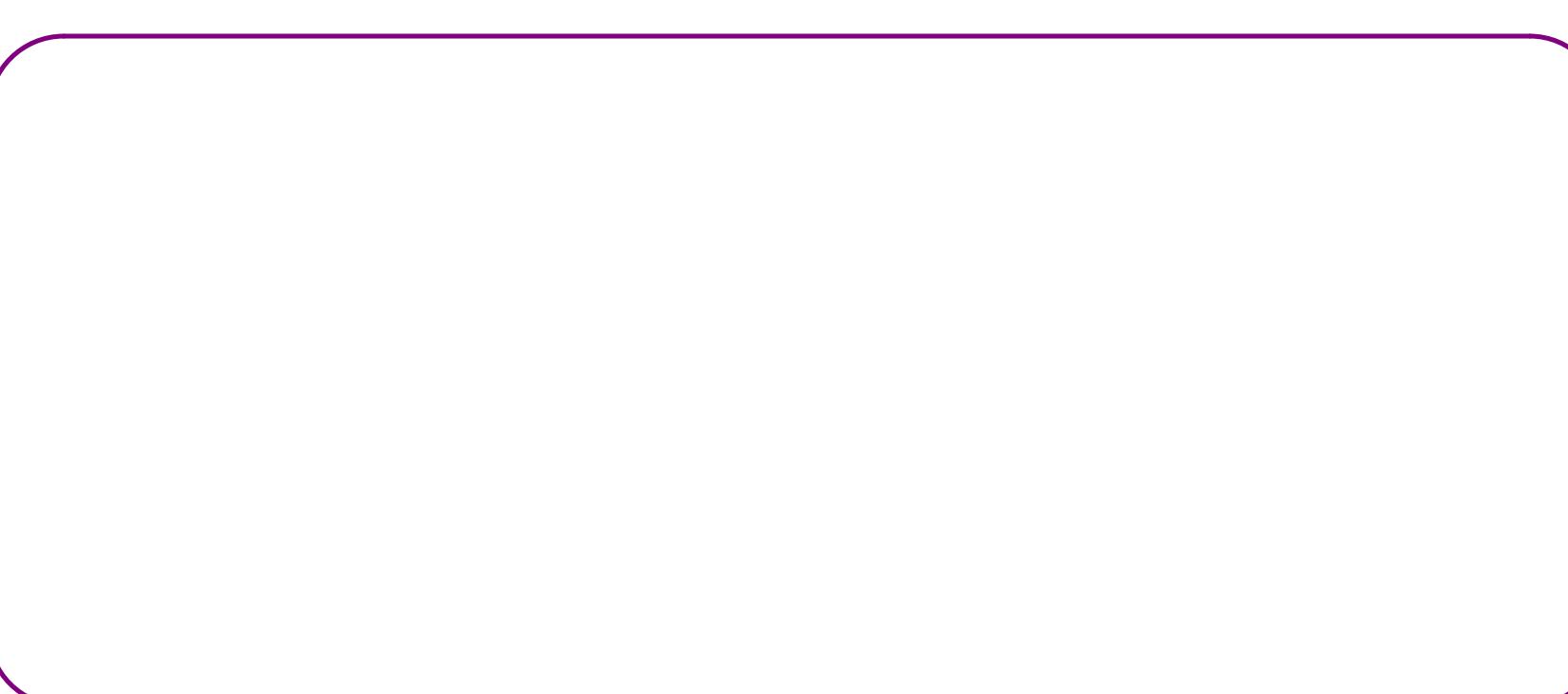
D

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



SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº4	
Layer: Top Paste Board Edge	
Designed by: Yan C. de Azeredo	Project Code: IIP4
Date: 7/4/2021	Version: v2.0
	Size: A4

A

A

B

B

C

C

D

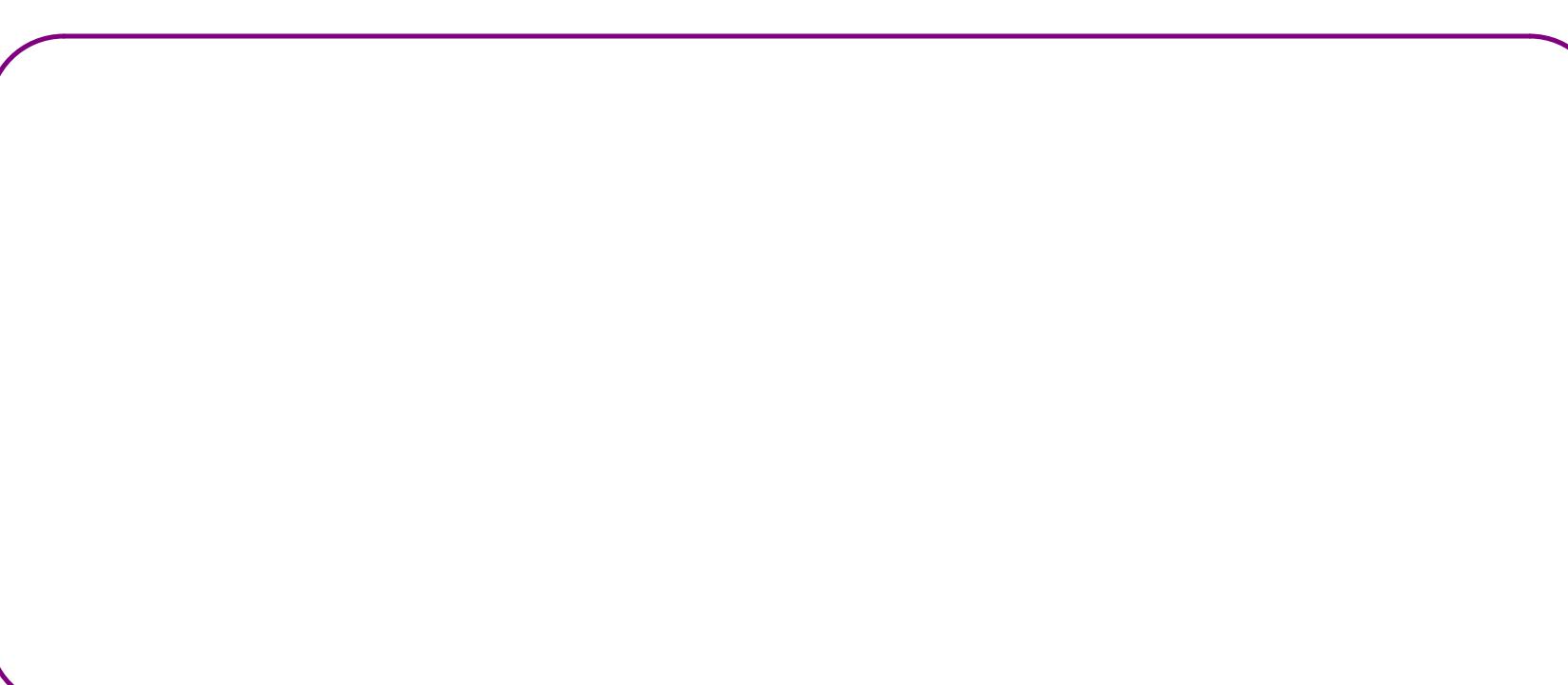
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Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.036mm		
4	Dielectric 1	FR-4	1.500mm	4.8	
5	Bottom Layer	Copper	0.036mm		
6	Bottom Solder	Solder Resist	0.010mm	3.5	
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
- Stack-up: Standard 2 layer 1.6mm thickness
- Special requirements: None



SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº4	
Layer: Bottom Paste Board Edge	
Designed by: Yan C. de Azeredo	
Date: 7/4/2021	Project Code: IIP4
Version: v2.0	Size: A4

A

A

B

B

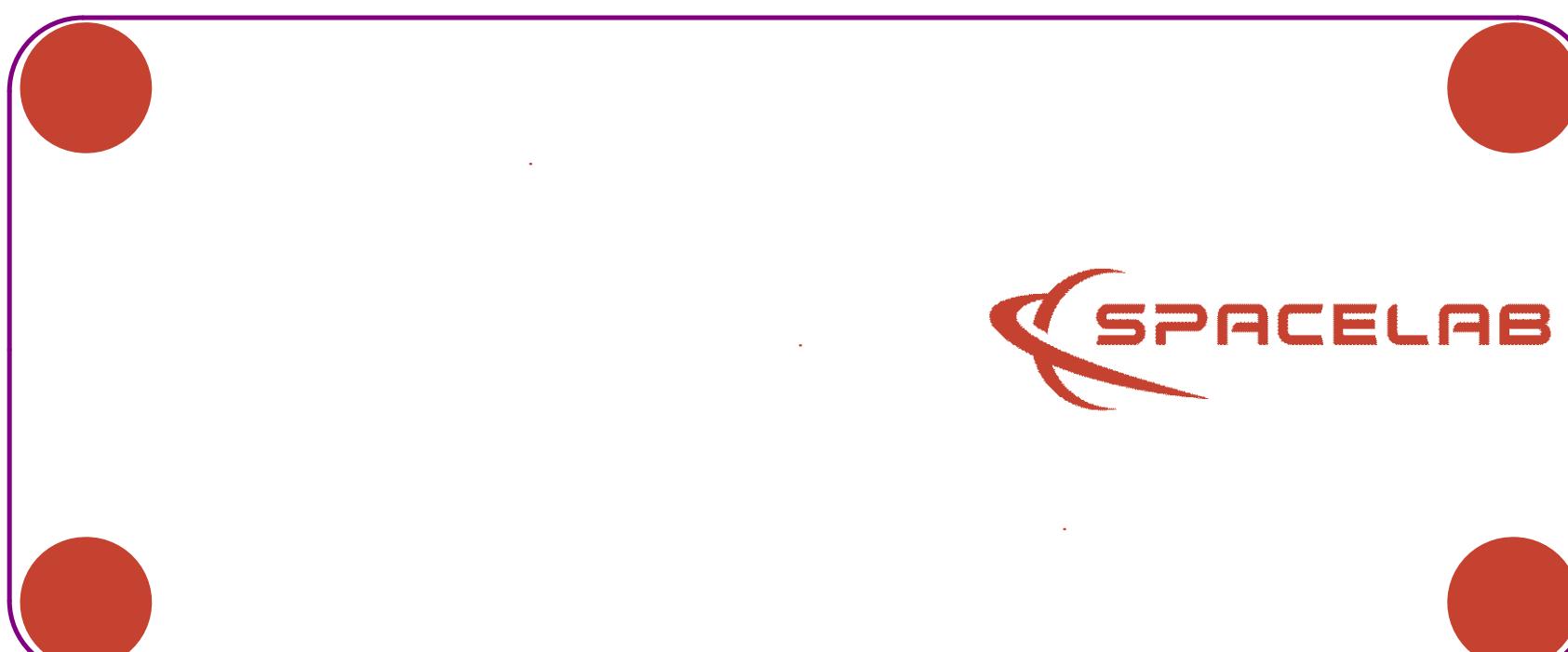
C

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

SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº4	
Layer: Top Solder Board Edge	
Designed by: Yan C. de Azeredo	Project Code: IIP4
Date: 7/4/2021	Version: v2.0
	Size: A4

A

A

B

B

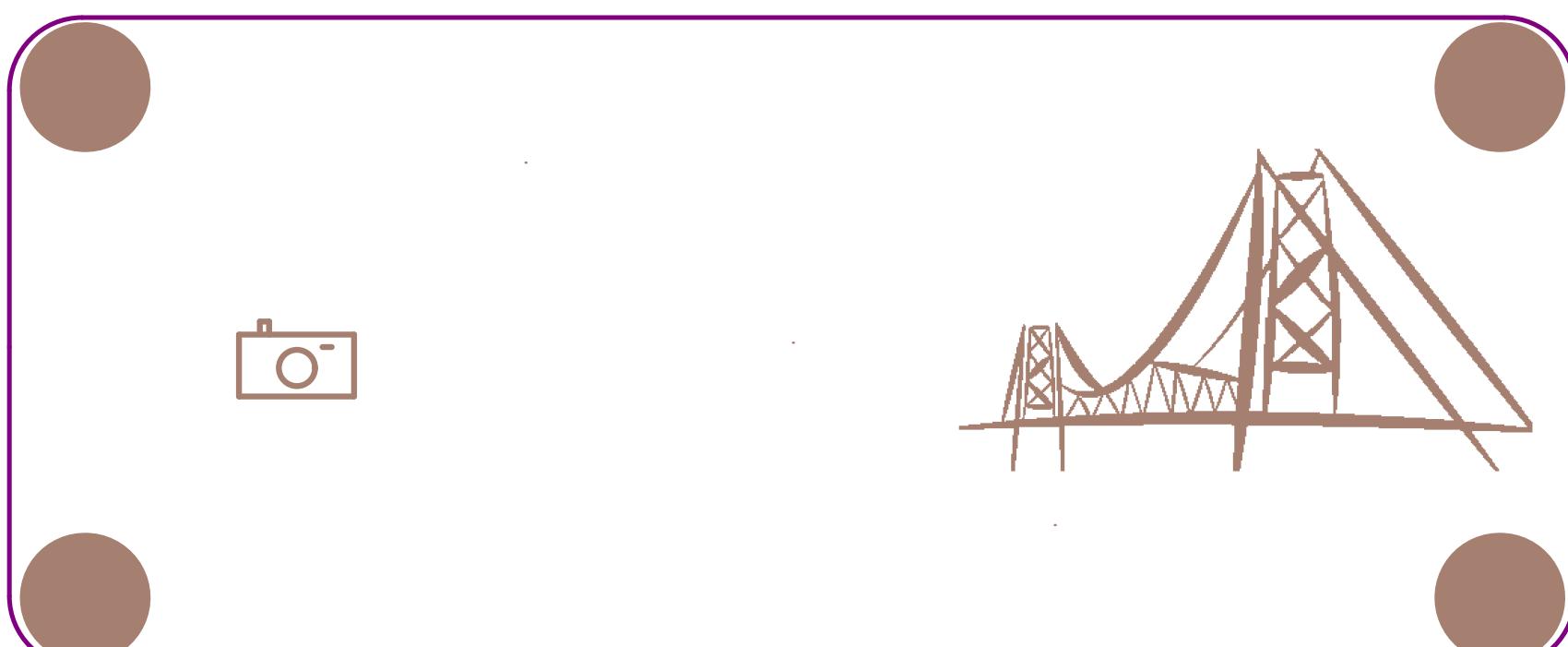
C

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 Thickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- 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 Solder Board Edge	
Designed by: Yan C. de Azeredo	Project Code: IIP4
Date: 7/4/2021	Version: v2.0
	Size: A4

A

A

B

B

C

C

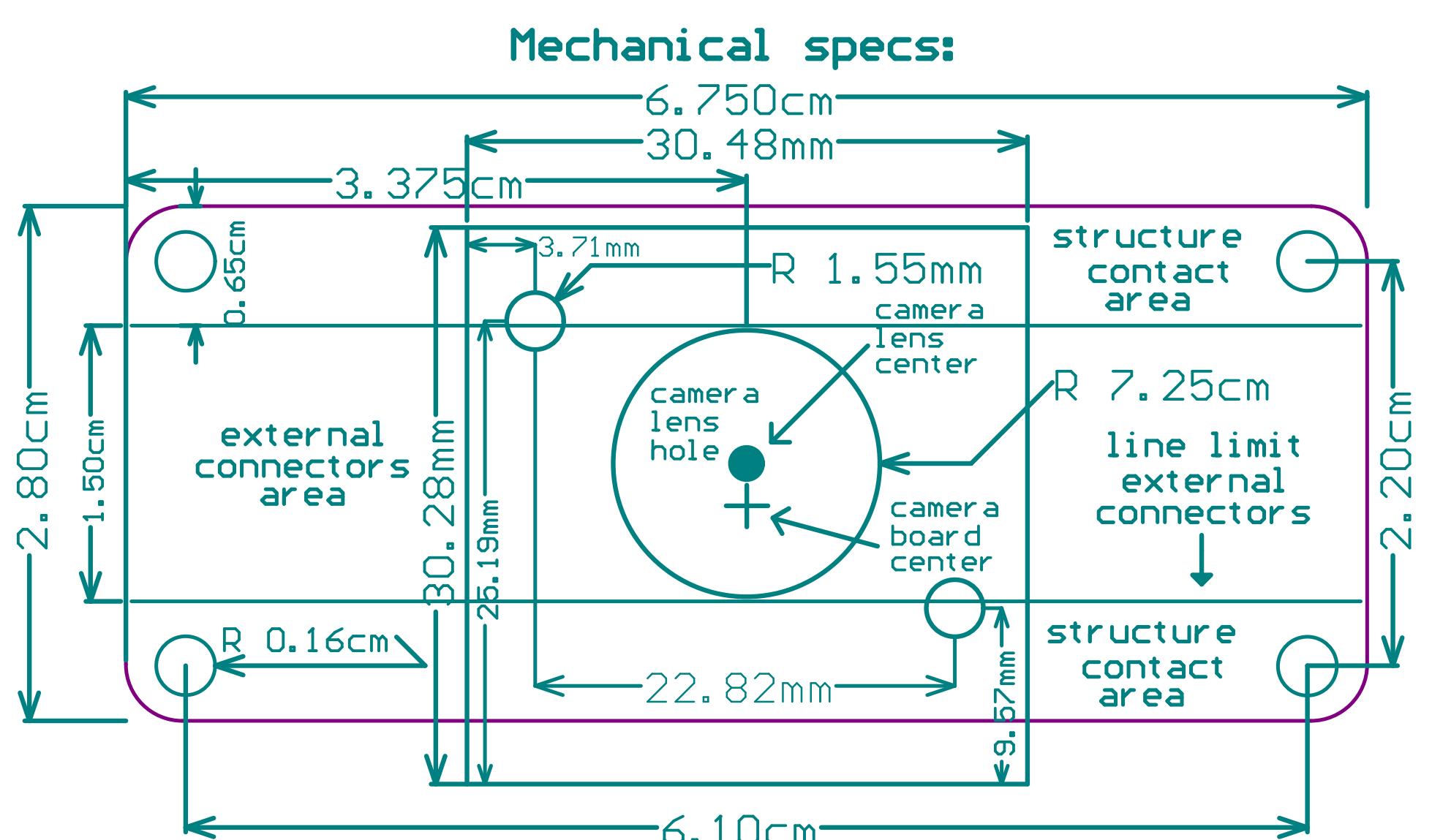
D

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



SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº4	
Layer: Dimensions Board Edge	
Designed by: Yan C. de Azeredo	Project Code: IIP4
Date: 7/4/2021	Version: v2.0
	Size: A4

A

A

B

B

C

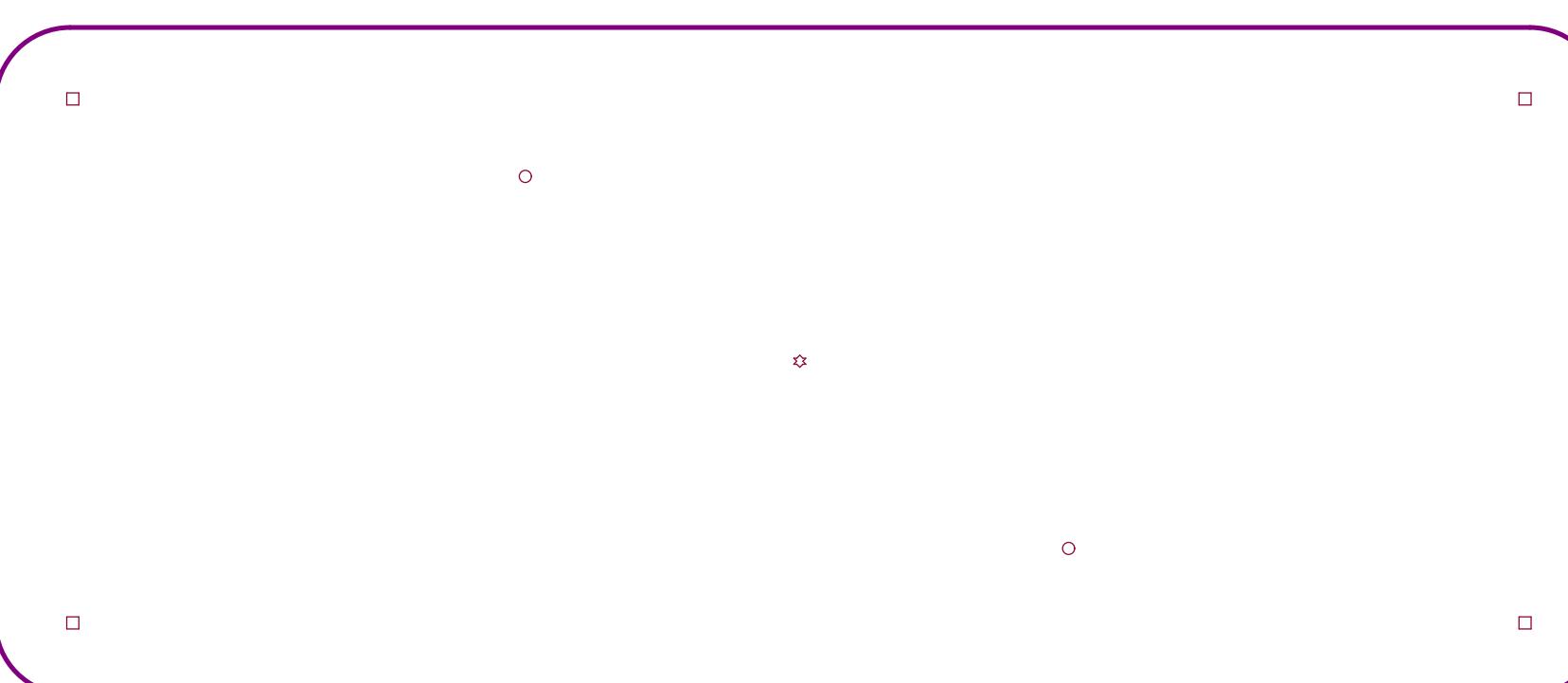
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D

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
○	2	3.100mm (122.05mil)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c0h310
□	4	3.200mm (125.98mil)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c550h320
❖	1	14.500mm (570.87mil)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c0h1450
	7 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
- Stack-up: Standard 2 layer 1.6mm thickness
- Special requirements: None

SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº4	
Layer: Drill Drawing Board Edge	
Designed by: Yan C. de Azeredo	
Date: 7/4/2021	Project Code: IIP4
Version: v2.0	Size: A4

A

A

B

B

C

C

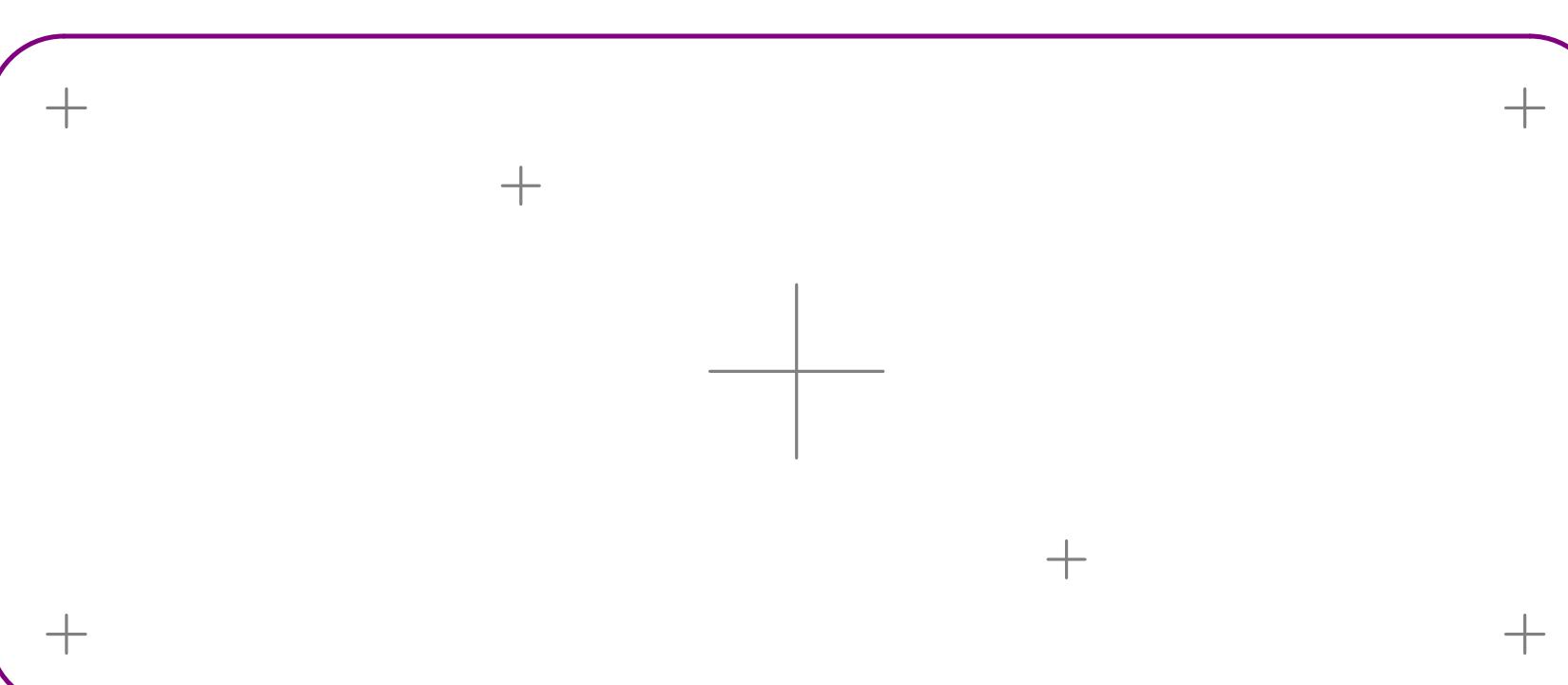
D

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



SpaceLab - Federal University of Santa Catarina	
Project: Interstage Interface Panel Nº4	
Layer: Drill Guide Board Edge	
Designed by: Yan C. de Azeredo	Project Code: IIP4
Date: 7/4/2021	Version: v2.0
	Size: A4