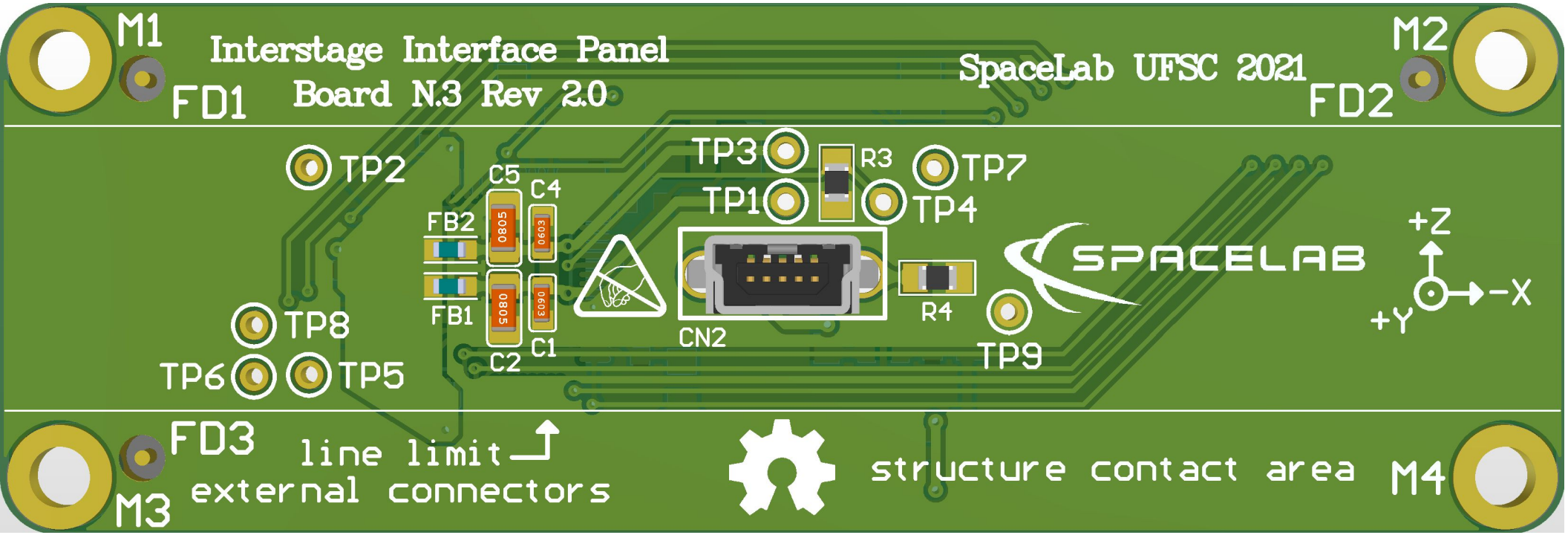
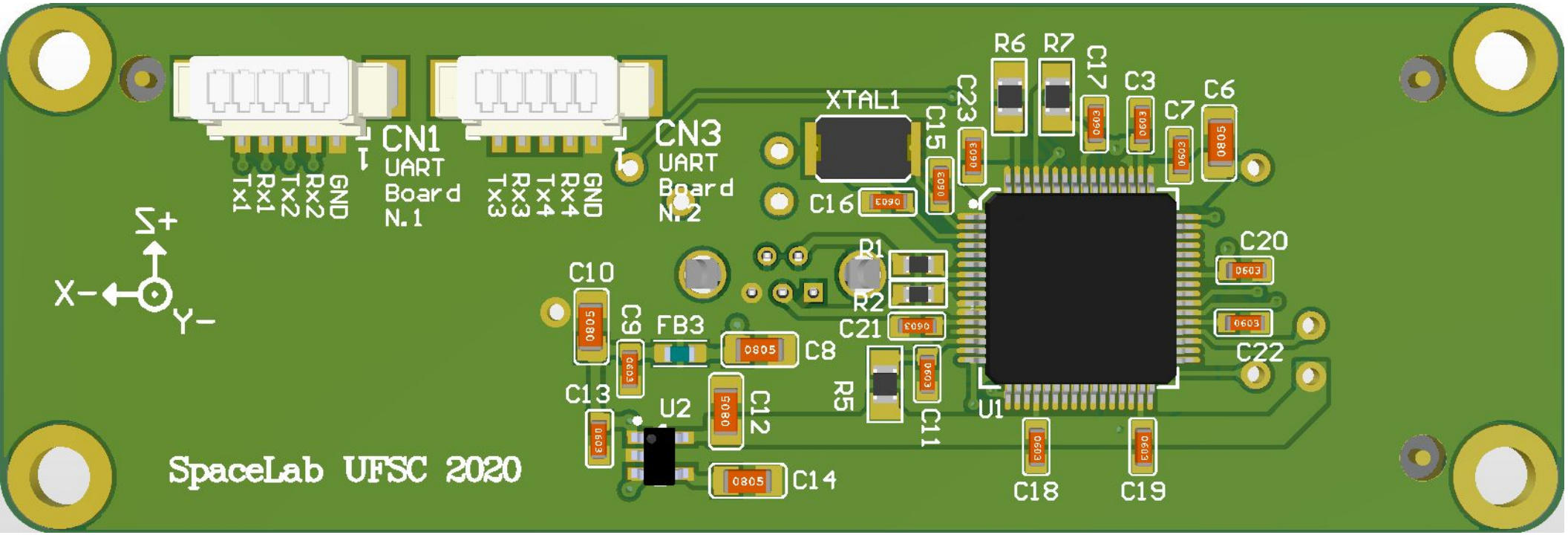
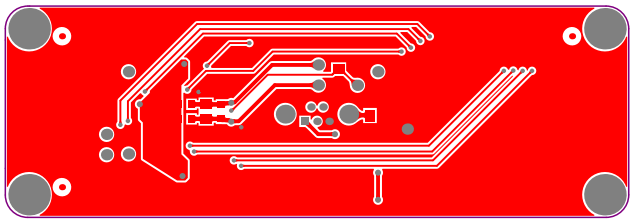

M1
Interstage Interface Panel
Board N.3 Rev 2.0
SpaceLab UFSC 2021
M2
FD1
FD2
TP2
C5
C4
TP3
R3
TP7
TP1
TP4
FB2
0805
0603
SPACELAB
+Z
FB1
0805
0603
R4
CN2
TP8
TP6
TP5
C2
C1
TP9
+Y
-X
FD3
line limit
external connectors
structure contact area
M4
M3


CN1
UART
Board
N.1
Tx1
Rx1
Tx2
Rx2
GND
CN3
UART
Board
N.2
Tx3
Rx3
Tx4
Rx4
GND
XTAL1
C16
C15
C23
R6
R7
C17
C3
C7
C6
C20
C22
R1
R2
C21
R5
C11
U1
C10
C9
FB3
C8
C13
U2
C12
C14
C18
C19
Z+
X-
Y-
SpaceLab UFSC 2020

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

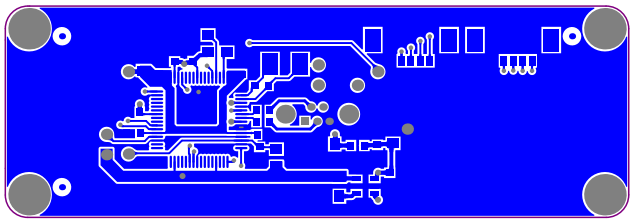
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Top Layer Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

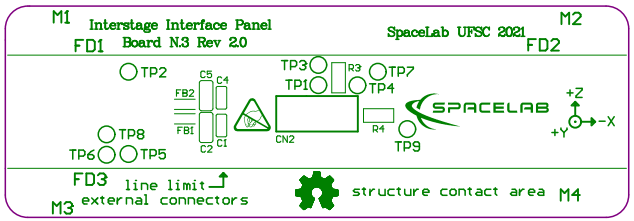
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Bottom Layer Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

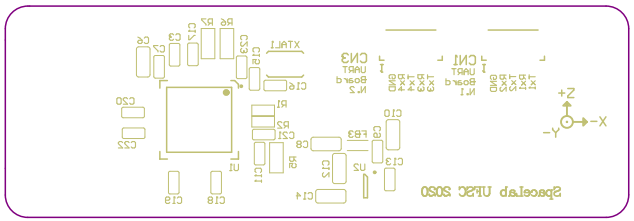
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Top Overlay Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

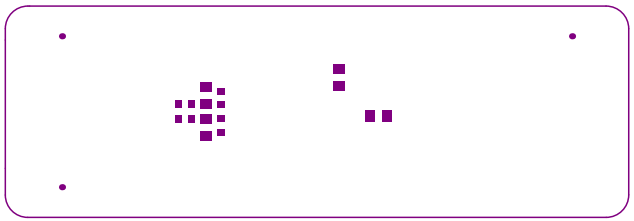
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Bottom Overlay Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

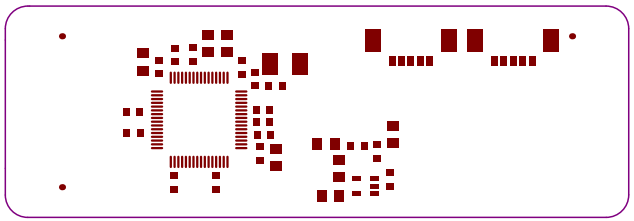
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Top Paste Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

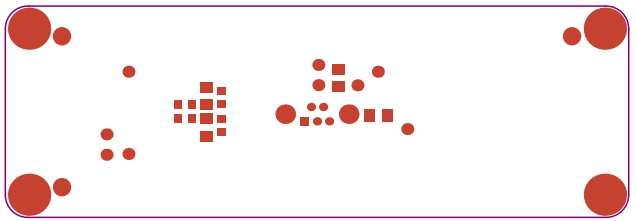
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Bottom Paste Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

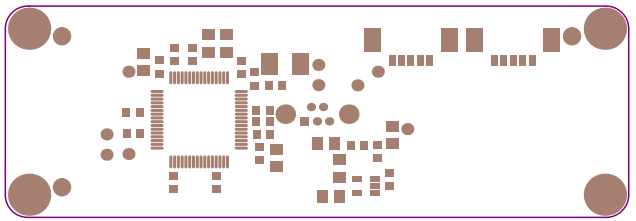
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Top Solder Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

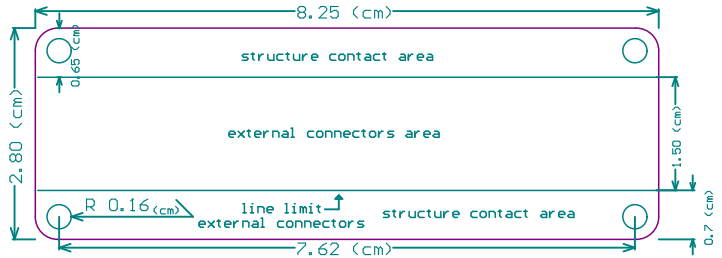
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Bottom Solder Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
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

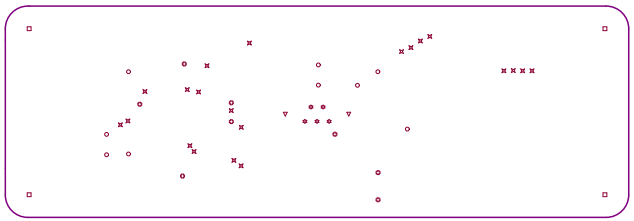
Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Dimensions Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
Date: 7/1/2021	Version: v2.0	Size: A4

Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Via/Pad	Pad Shape	Template
⌑	21	0.300mm (11.81mil)	PTH	Round	Top Layer - Bottom Layer	Via	Rounded	(Mixed)
✪	8	0.400mm (15.75mil)	PTH	Round	Top Layer - Bottom Layer	Via	Rounded	v80h40m0mx0
✡	5	0.600mm (23.62mil)	PTH	Round	Top Layer - Bottom Layer	Pad	(Mixed)	(Mixed)
○	9	0.900mm (35.43mil)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c150h90
▽	2	2.000mm (78.74mil)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c250h200
□	4	3.200mm (125.98mil)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c550h320
	49 Total							

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
7	Bottom Overlay				



Fabrication specifications:

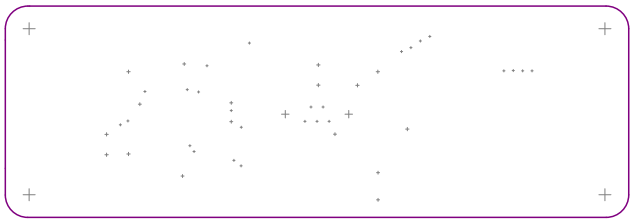
- Copper base: 1oz
- PCB Material: Prepeg FR4-Standard
- PCB Tickness: 1.6mm
- PCB Surface: HASL (with lead)
- Silkscreen Color: White (top and bottom)
- Soldermask Color: Green
- Vias: Force Complete Tenting
- Stack-up: Table herein included
- Special requirements: None

Assembly specifications:

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

SpaceLab - Federal University of Santa Catarina		SPACELAB
Project: Interstage Interface Panel Nº3		
Layer: Drill Drawing Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
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	0.40mil	3.8	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	59.06mil	4.5	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.8	
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 Nº3		
Layer: Drill Guide Board edge		
Designed by: Yan C. de Azeredo		Project Code: IIP3
Date: 7/1/2021	Version: v2.0	Size: A4