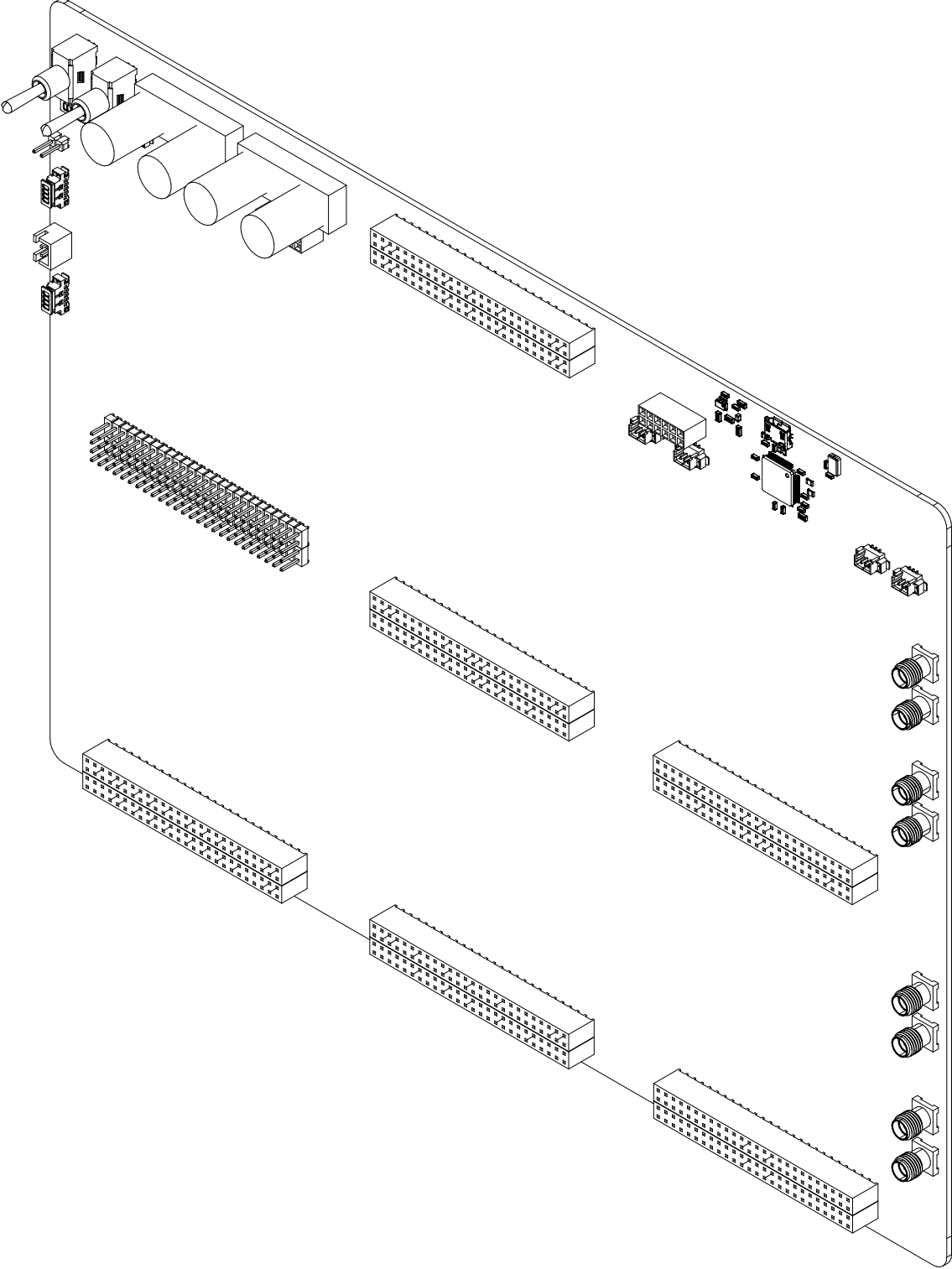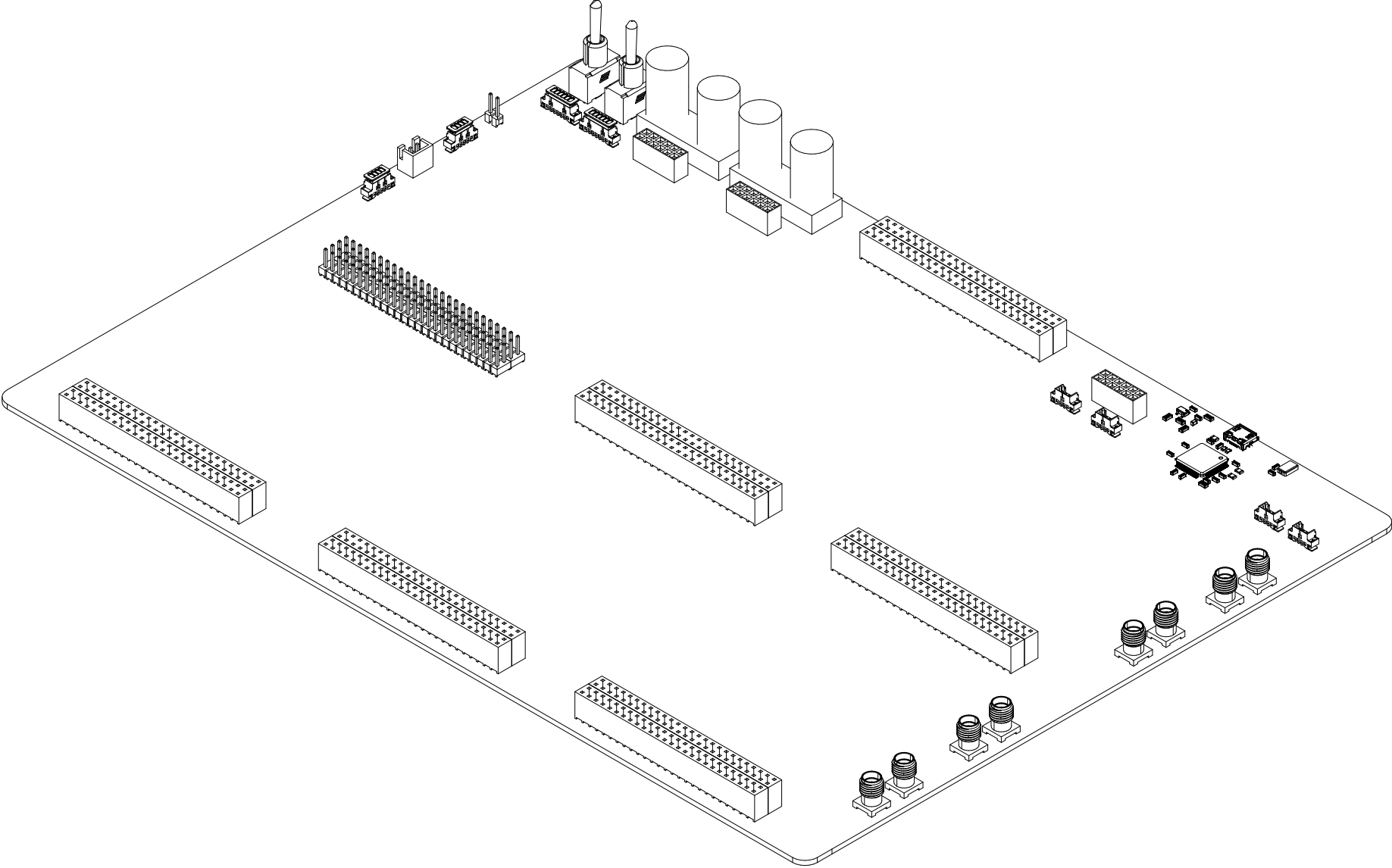View from Top side (Scale 2:3)

View from Front side (Scale 2:3)

SpaceLab FlatSat Platform Hardware:

- Designed by: Yan C. de Azeredo.
- Reviewers: Gabriel M. Marcelino and André M. P. Mattos.

Copyright @ 2020 by Universidade Federal de Santa Catarina.

This hardware project is licensed under CERN Open Hardware License, version 2.

Github repository: https://github.com/spacelab-ufsc/flatsat-platform/

More info about SpaceLab: https://spacelab.ufsc.br/

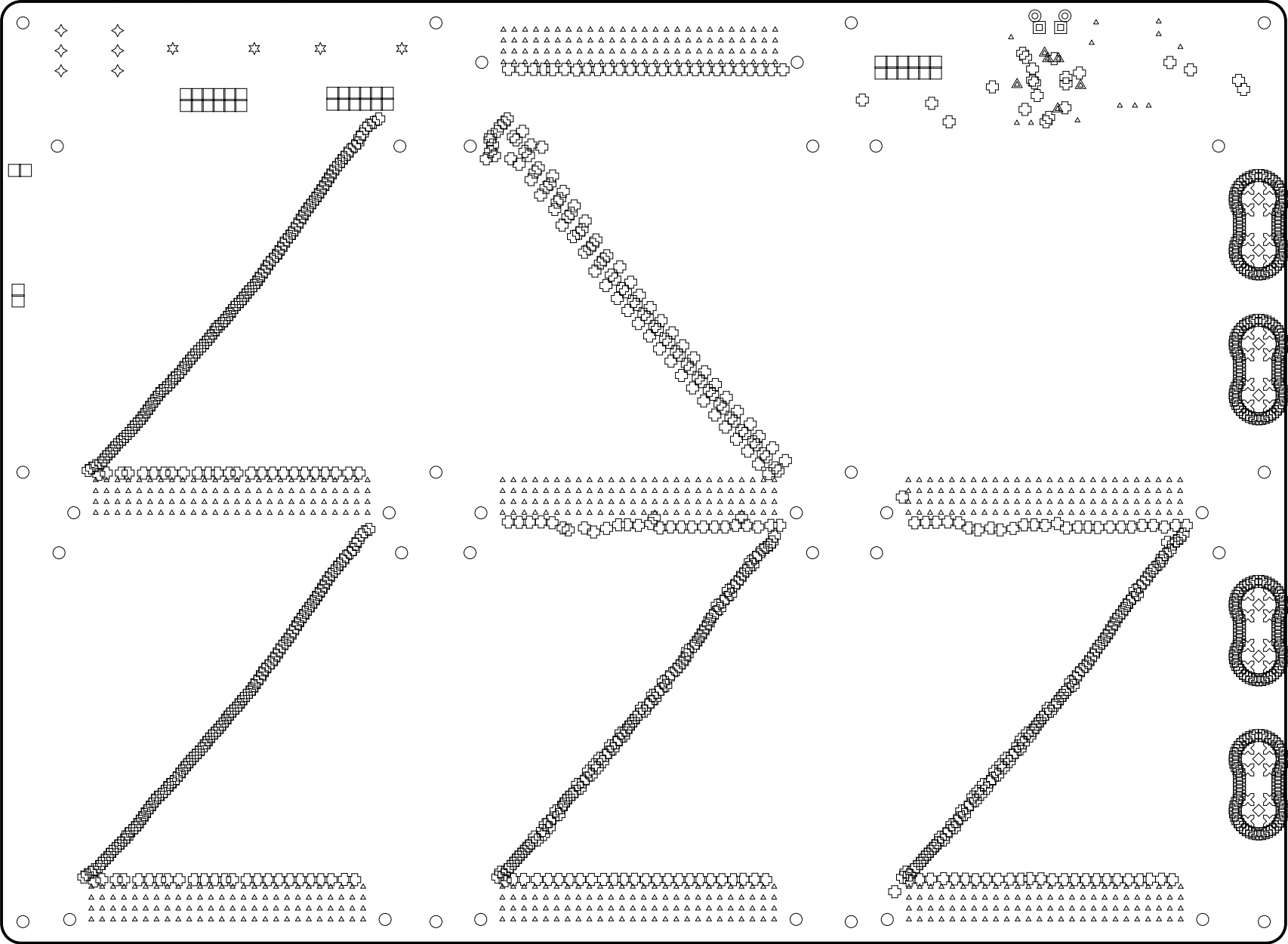|	
SpaceLab - Federal University of Santa Catarina	
Project: flatsat_platform.PrjPcb	SPACE LAB
Title: Project info and board isometric views	
Designed by: Yan Castro de Azeredo	Project code: FLATSAT1
Date: 1/4/2021	Version: 0.1	Sheet 1 of 3	Sheet size: A3

View from Top side (Scale 0.75)

3.46mm 96.50mm 3.74mm 5.31mm 97.00mm 96.50mm

SW1 SW2 CN10 + − CN4 −
MEC11 NO Ø4.50mm MEC12
CM External interface
NC CN2
FD3 CN1 CN8 PC104
Kill-Switches CN3 H2

External Ø3.20mm
CNI2 power CN6
pins

MEC1 FlatSat Platform V01 SpaceLab UFSC 2020 CN26
CN30 TP1 TP3 TP12
CN29 CN28 CN25 CN27
UART4 UART3 TP5 TP2 UART1 UART2
MEC2 FD4

ANT1
ANT2
105.00mm

12.98mm

RBF
CN5
CN9
CHARGE
CN7
CN11

ANT3
ANT4
FD5
MEC3

85.66mm 220.00mm 2.50mm 85.67mm

3.84mm 96.50mm 97.00mm 96.50mm

Slot 1 Ø3.20mm FD8 Slot 3
FD2 WARNING: Inverted PC104 pinout FD7 Slot 2 MEC8 CN18 PC104
MEC10 CN13 PC104 MEC7 CN16 PC104 MEC3
CN14 CN17 H2 CN15 H2
73.68mm 21.44mm 21.12mm

15.99mm 14.95mm

ANT5
ANT6
105.00mm

ANT7
ANT8

96.50mm 97.00mm 96.50mm

Slot 4 Slot 5 Slot 6
FD1 CN20 PC104 CN21 PC104 CN23 PC104
MEC9 CN19 H2 MEC6 CN22 H2 MEC5 CN24 H2 MEC4

4.39mm 22.34mm 300.00mm 21.30mm

View from Front side (Scale 0.6)

8.52mm 1.63mm
19.46mm 29.47mm 28.38mm 23.00mm

View from Back side (Scale 0.6)

20.74mm
8.41mm

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.04mm		Signal	GTL
Prepreg		*0.13mm*	*FR-4*	*Dielectric*	
CF-004	Signal Layer 1	0.04mm		Signal	G1
Core		*1.20mm*	*FR-4*	*Dielectric*	
Copper	Signal Layer 2	0.04mm		Signal	G2
Prepreg		*0.13mm*	*FR-4*	*Dielectric*	
Copper	Bottom Layer	0.04mm		Signal	GBL
Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO

Total thickness: 1.63mm

Drill Drawing View (Scale 0.75)

Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
⊕	1002	0.30mm	Plated	
⬛	6	0.40mm	Plated	
◎	2	0.50mm	Plated	
▣	2	0.55mm	Plated	
▵	740	0.90mm	Plated	
□	40	1.00mm	Plated	
◇	8	1.70mm	Plated	
⋈	32	1.80mm	Plated	
✧	6	1.90mm	Plated	
○	38	3.20mm	Plated	
✩	4	4.50mm	Plated	
	1880 Total			

SpaceLab - Federal University of Santa Catarina

Project: flatsat_platform.PrjPcb

Title: Layer stack and drill tables

Designed by: Yan Castro de Azeredo

Date: 1/4/2021 | Version: 0.1 | Sheet 3 of 3

SPACE L+AB

Project code: FLATSAT1

Sheet size: A3