

Instituto de Física Corpuscular (University of Valencia - CSIC)



**CSIC**



VNIVERSITAT  
ID VALÈNCIA



## PCB Fabrication specifications

### Designation

Name: TileACBB

Date: 3/3/25

Version: 2.3

Designer: Alberto Valero

Contact: alberto.valero@cern.ch

### Mechanical specifications

External dimensions (mm): 208 x 322.25 mm

Thickness (mm): 2.42

Layers: 14

Panel: No

### Copper Thickness

External Layers ( $\mu\text{m}$ ): 42

Internal Layers (Signal) ( $\mu\text{m}$ ): 35

Internal Layers (Planes) ( $\mu\text{m}$ ): 35

### Board Finish requirements

Silkscreen TOP: Yes

Silkscreen BOTTOM: Yes

Silkscreen color: White

Soldermask TOP: Yes

Soldermask BOTTOM: Yes

Soldermask color: Black

Surface Finish: ENIG - Electroless Nickel/Immersion Gold according to IPC-4552

### Additional Information

Dielectric Material: Panasonic Megtron-6 Halogen Free

Minimum Track Width ( $\mu\text{m}$ ): 100

Blind vias: No

Minimum Hole Diameter ( $\mu\text{m}$ ): 150

Filled and Caped vias: Yes (see page 7)

Minimum track/pad clearance ( $\mu\text{m}$ ): 100

Card Edge Connector: No

Press-fit through holes: Yes (see page 3)

Test Coupons Required: Yes

Electrical Test: Yes

Buried vias: No

Controlled Impedance: Layers 3 and 12

Impedance unipolar: 50  $\Omega$

Impedance edge couple offset striplines: 100  $\Omega$

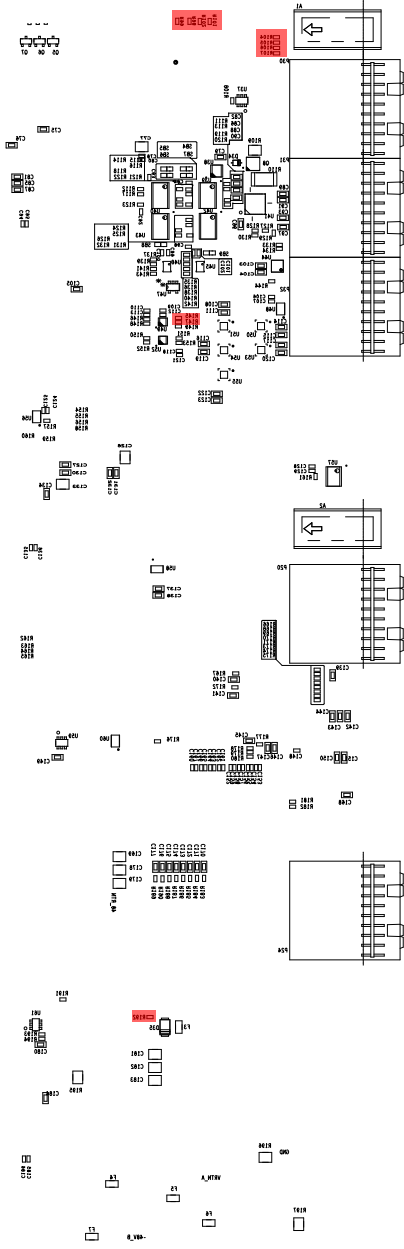
Stackup TileACBBv2.3					
		Thickness (µm)			
Signal	Top	42	Copper		
	Prepeg	80	Megtron-6		
GND	Layer 2	35	Copper		
	Core	125	Megtron-6		
Signal HS	Layer 3	35	Copper	Controlled Impedance	
	Prepeg	160	Megtron-6		
GND	Layer 4	35	Copper		
	Core	125	Megtron-6		
Signal HS	Layer 5	35	Copper		
	Prepeg	160	Megtron-6		
GND	Layer 6	35	Copper		
	Core	250	Megtron-6		
POWER	Layer 7	35	Copper		
	Prepeg	110	Megtron-6		
POWER	Layer 8	35	Copper		
	Core	250	Megtron-6		
GND	Layer 9	35	Copper		
	Prepeg	160	Megtron-6		
Signal HS	Layer 10	35	Copper		
	Core	125	Megtron-6		
GND	Layer 11	35	Copper		
	Prepeg	160	Megtron-6		
Signal HS	Layer 12	35	Copper		Controlled Impedance
	Core	125	Megtron-6		
GND	Layer 13	35	Copper		
	Prepeg	80	Megtron-6		
Signal	Bottom	42	Copper		
TOTAL THICKNESS=		2414			







Do not mount components BOTTOM





# Drills summary

Num	Size (mm)	+Tolerance (mm)	-Tolerance (mm)	Plating	Quantity
1	0.15	0.0762	0.0762	PLATED	32
2	0.22	0.0762	0.0762	PLATED	199
3	254	0.0762	0.0762	PLATED	795
4	0.3	0.0	0.0	PLATED	931
5	0.6096	0.0	0.0	PLATED	600
6	0.65	0.05	0.05	PLATED	680
7	889	0.0	0.0	PLATED	10
8	1.0	0.09	0.06	PLATED	26
9	1.016	0.0	0.0	PLATED	20
10	1.016	0.0762	0.0762	PLATED	3
11	1.02	76	76	PLATED	12
12	11.938	0.0	0.0	PLATED	24
13	13.462	0.0	0.0	PLATED	1
14	1.6	0.05	0.05	PLATED	8
15	16.002	0.0	0.0	PLATED	6
16	1.7	0.0	0.0	PLATED	2
17	18.034	0.0	0.0	PLATED	6
18	28.001	0.0	0.0	PLATED	2
19	1.016	0.0508	0.0508	NON_PLATED	2
20	1.1	0.0	0.0	NON_PLATED	3
21	1.4	0.0	0.0	NON_PLATED	1
22	1.5	0.0	0.0	NON_PLATED	1
23	1.6	0.0	0.0	NON_PLATED	2
24	2.7	0.0	0.0	NON_PLATED	9
25	2.8	0.0	0.0	NON_PLATED	8
26	7.0	0.0	0.0	NON_PLATED	88