

## PCB

Board size: 71.12x71.12 mm (2.8x2.8 inches)

- This is the size of the rectangle that contains the board
- Thickness: 1.6 mm (63 mils)
- Material: FR4
- Finish: None
- Layers: 2
- Copper thickness: 35  $\mu\text{m}$

Solder mask: TOP / BOTTOM

- Color: Green

Silk screen: TOP / BOTTOM

- Color: White

Stackup:

Name	Type	Color	Thickness	Material	Epsilon_r	Loss tangent
F.SilkS	Top Silk Screen					
F.Paste	Top Solder Paste					
F.Mask	Top Solder Mask		10			
F.Cu	copper		35			
dielectric 1	core		1510	FR4	4.5	0.020
B.Cu	copper		35			
B.Mask	Bottom Solder Mask		10			
B.Paste	Bottom Solder Paste					
B.SilkS	Bottom Silk Screen					

## Important sizes

Clearance: 0.13 mm (5 mils)

Track width: 0.2 mm (8 mils)

- By design rules: 0.2 mm (8 mils)

Drill: 0.3 mm (12 mils)

- Vias: 0.3 mm (12 mils) [Design: 0.25 mm (10 mils)]
- Pads: 0.4 mm (16 mils)
- The above values are real drill sizes, they add 0.1 mm (4 mils) to plated holes (PTH)

Via: 0.35/0.2 mm (14/8 mils)

- By design rules: 0.25/0.15 mm (10/6 mils)
- Micro via: no [0.2/0.1 mm (8/4 mils)]
- Buried/blind via: no
- Total: 262 (thru: 262 buried/blind: 0 micro: 0)

Outer Annular Ring: 0.03 mm (1 mils)

- By design rules: 0.0 mm (0 mils)

Eurocircuits class: 10F - Using min drill 0.1 mm for an OAR of 0.05 mm

## General stats

Components count: (SMD/THT)

- Top: 140/8 (SMD + THT)
- Bottom: 0/0 (NONE)

Defined tracks:

- 0.2 mm (8 mils)
- 0.25 mm (10 mils)
- 0.4 mm (16 mils)
- 0.8 mm (31 mils)

Used tracks:

- 0.2 mm (8 mils) (470) defined: yes
- 0.25 mm (10 mils) (1086) defined: yes
- 0.4 mm (16 mils) (396) defined: yes
- 0.8 mm (31 mils) (121) defined: yes

Defined vias:

- 0.25/0.15 mm (10/6 mils)
- 0.35/0.2 mm (14/8 mils)
- 0.5/0.3 mm (20/12 mils)
- 0.8/0.4 mm (31/16 mils)
- 1.0/0.8 mm (39/31 mils)

Used vias:

- 0.35/0.2 mm (14/8 mils) (Count: 119, Aspect: 4.6 A) defined: yes

- 0.5/0.3 mm (20/12 mils) (Count: 71, Aspect: 3.2 A) defined: yes
- 0.8/0.4 mm (31/16 mils) (Count: 72, Aspect: 2.0 A) defined: yes

Holes (excluding vias):

- 0.3 mm (12 mils) (65)
- 0.4 mm (16 mils) (24)
- 0.65 mm (26 mils) (2)
- 1.0 mm (39 mils) (20)
- 1.01 mm (40 mils) (2)
- 1.15 mm (45 mils) (3)
- 1.2 mm (47 mils) (26)
- 2.2 mm (87 mils) (3)

Oval holes:

- 0.6x1.2 mm (24x47 mils) (2)
- 0.6x1.7 mm (24x67 mils) (2)

Drill tools (including vias and computing adjusts and rounding):

- 0.3 mm (12 mils) (119)
- 0.4 mm (16 mils) (136)
- 0.5 mm (20 mils) (96)
- 0.65 mm (26 mils) (2)
- 0.7 mm (28 mils) (4)
- 1.1 mm (43 mils) (22)
- 1.15 mm (45 mils) (3)
- 1.3 mm (51 mils) (26)
- 2.3 mm (91 mils) (3)

## Schematic

Schematic in SVG format

## PCB Layers

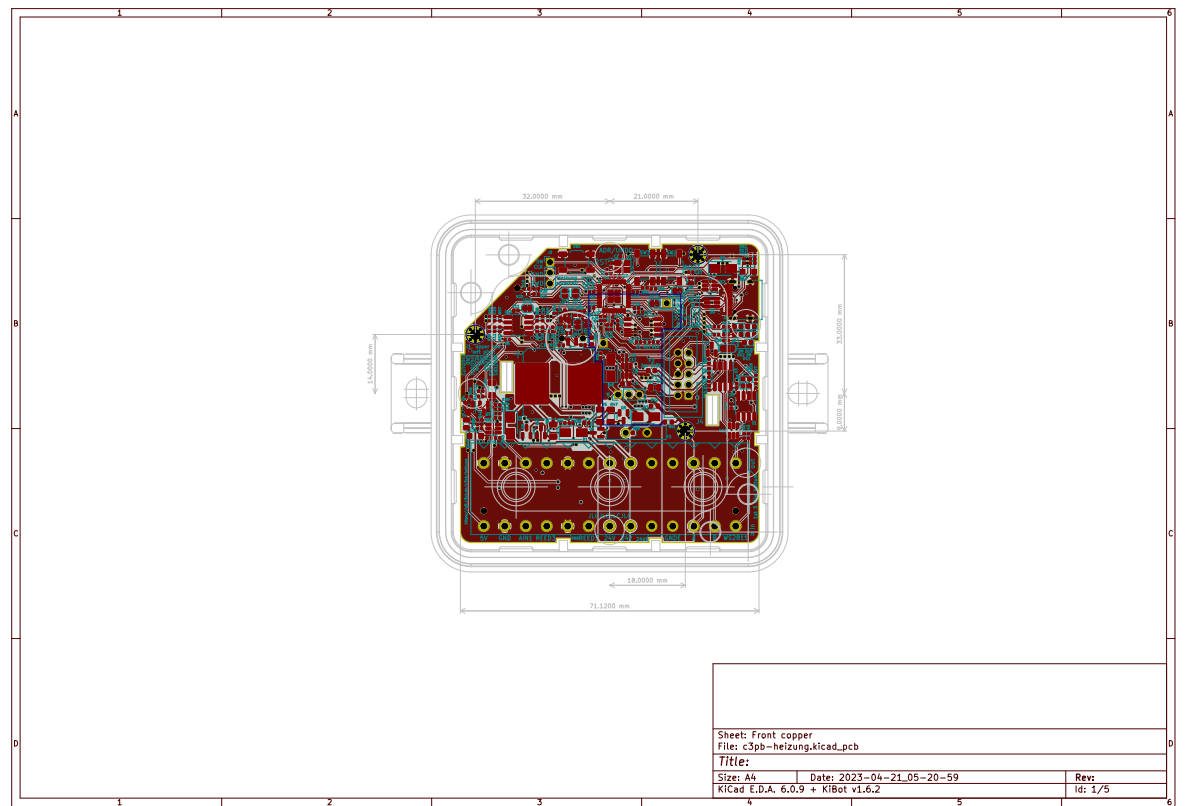


Figure 1: PCB Front copper

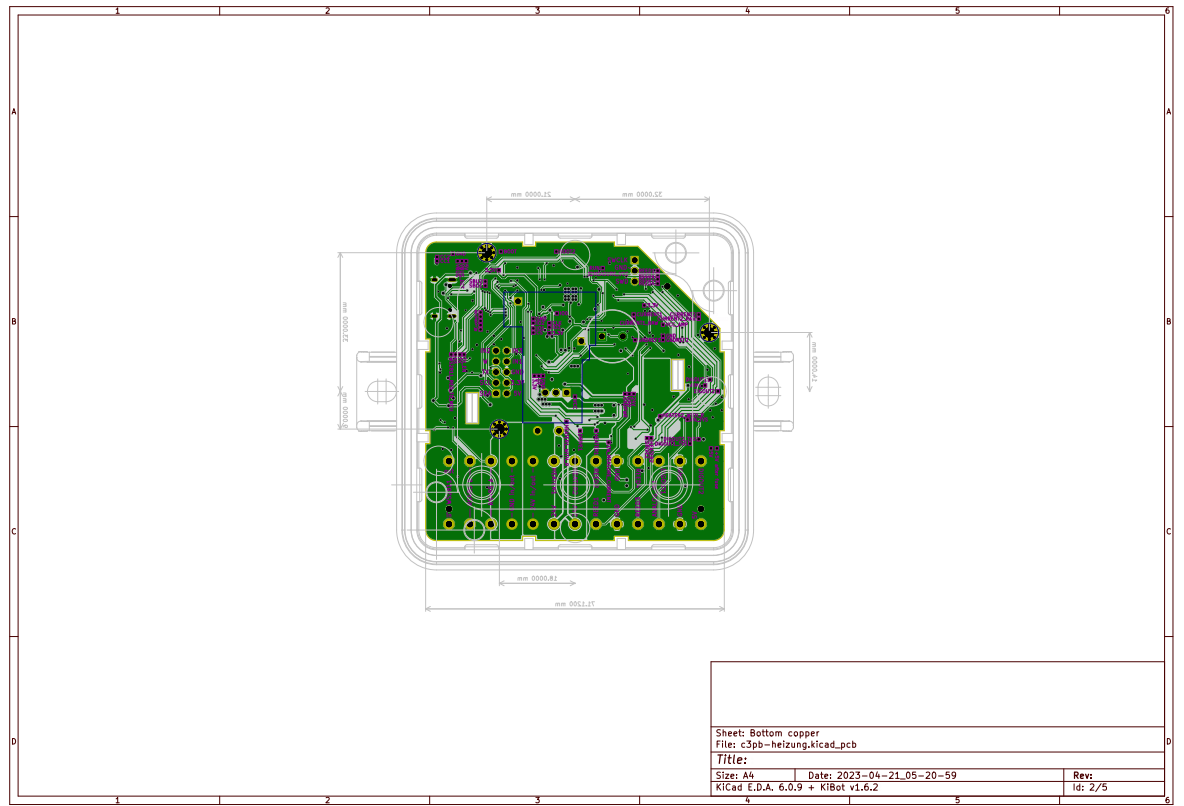


Figure 2: PCB Bottom copper

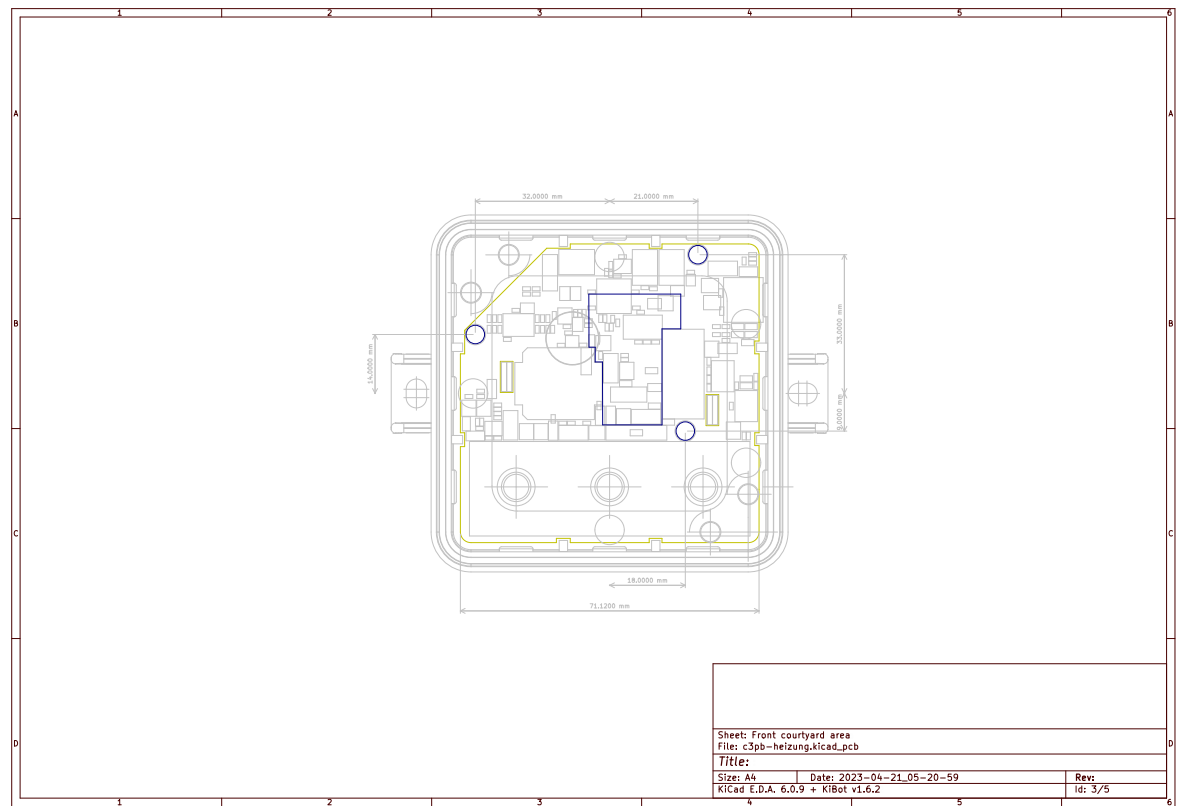


Figure 3: PCB Front courtyard area



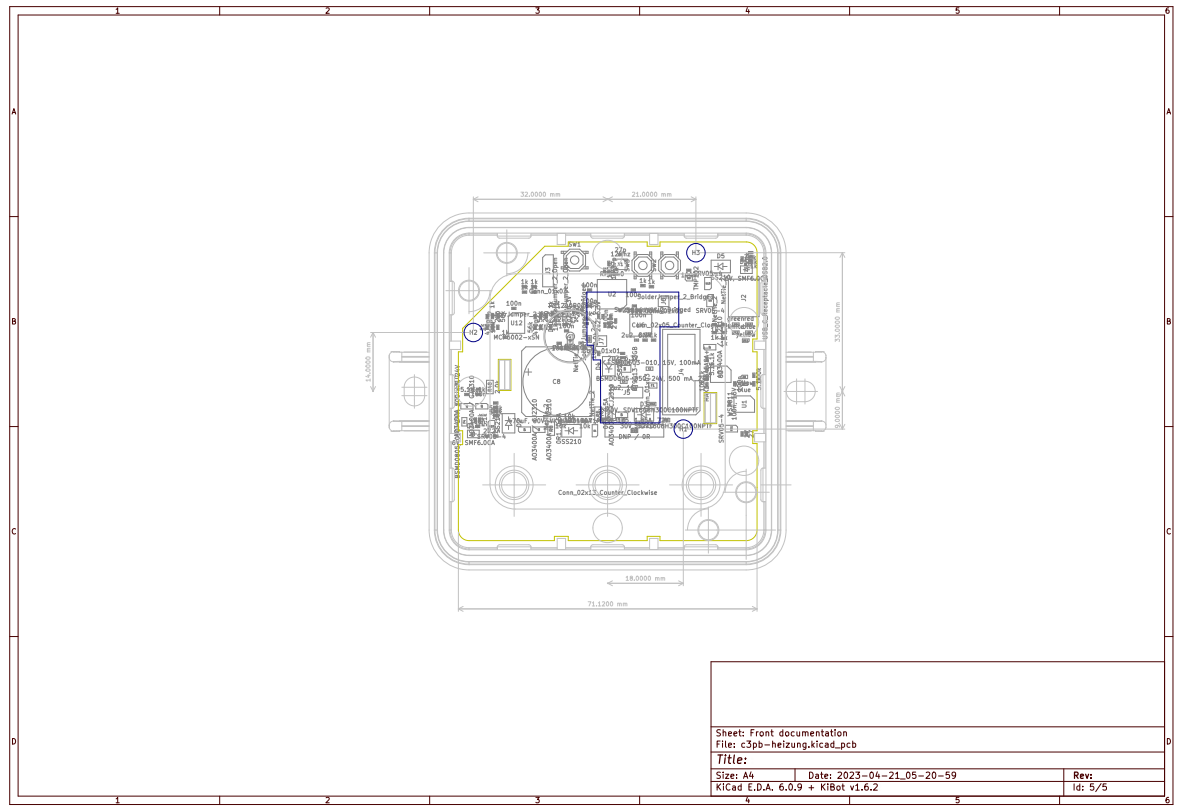


Figure 5: PCB Front documentation