

## PCB

Board size: 109.14x69.29 mm (4.3x2.73 inches)

- This is the size of the rectangle that contains the board
- Thickness: 1.6 mm (63 mils)
- Material: FR4
- Finish: ENIG
- Layers: 4
- Copper thickness: 35  $\mu$ m

Solder mask: TOP / BOTTOM

- Color: Green

Silk screen: TOP / BOTTOM

- Color: White

Stackup:

Name	Type	Color	Thickness	Material	Epsilon	Loss tangent
F.SilkS	Top Silk Screen	White				
F.Paste	Top Solder Paste					
F.Mask	Top Solder Mask	Green	10			
F.Cu	copper		35			
dielectric 1	core		480	FR4	4.5	0.020
In1.Cu	copper		35			
dielectric 2	prepreg		480	FR4	4.5	0.020
In2.Cu	copper		35			
dielectric 3	core		480	FR4	4.5	0.020
B.Cu	copper		35			
B.Mask	Bottom Solder Mask	Green	10			
B.Paste	Bottom Solder Paste					
B.SilkS	Bottom Silk Screen	White				

## Important sizes

Clearance: 0.13 mm (5 mils)

Track width: 0.13 mm (5 mils)

- By design rules: 0.09 mm (4 mils)

Drill: 0.35 mm (14 mils)

- Vias: 0.35 mm (14 mils) [Design: 0.3 mm (12 mils)]
- Pads: 1.1 mm (43 mils)
- The above values are real drill sizes, they add 0.1 mm (4 mils) to plated holes (PTH)

Via: 0.51/0.25 mm (20/10 mils)

- By design rules: 0.2/0.2 mm (8/8 mils)
- Micro via: yes [0.2/0.1 mm (8/4 mils)]
- Buried/blind via: yes
- Total: 44 (thru: 44 buried/blind: 0 micro: 0)

Outer Annular Ring: 0.08 mm (3 mils)

- By design rules: 0.05 mm (2 mils)

Eurocircuits class: 7D - Using min drill 0.25 mm for an OAR of 0.13 mm

## General stats

Components count: (SMD/THT)

- Top: 20/3 (SMD + THT)
- Bottom: 0/4 (THT)

Defined tracks:

- 0.13 mm (5 mils)
- 0.25 mm (10 mils)

Used tracks:

- 0.13 mm (5 mils) (24) defined: yes
- 0.25 mm (10 mils) (150) defined: yes

Defined vias:

- 0.41/0.2 mm (16/8 mils)
- 0.51/0.25 mm (20/10 mils)

Used vias:

- 0.51/0.25 mm (20/10 mils) (Count: 44, Aspect: 3.1 A) defined: yes

Holes (excluding vias):

- 0.99 mm (39 mils) (53)
- 3.05 mm (120 mils) (4)

Oval holes:

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

- 0.35 mm (14 mils) (44)
- 1.1 mm (43 mils) (53)
- 3.15 mm (124 mils) (4)