

## PCB

Board size: 75.0x50.0 mm (2.95x1.97 inches)

- This is the size of the rectangle that contains the board
- Thickness: 1.6 mm (63 mils)
- Material: FR4
- Finish: None
- 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_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                |       | 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  |       | 10        |          |           |              |
| B.Paste      | Bottom Solder Paste |       |           |          |           |              |
| B.SilkS      | Bottom Silk Screen  |       |           |          |           |              |

## Important sizes

Clearance: 0.2 mm (8 mils)

Track width: 0.25 mm (10 mils)

- By design rules: 0.2 mm (8 mils)

Drill: 0.5 mm (20 mils)

- Vias: 0.5 mm (20 mils) [Design: 0.3 mm (12 mils)]
- Pads: 0.9 mm (35 mils)

- The above values are real drill sizes, they add 0.1 mm (4 mils) to plated holes (PTH)

Via: 0.8/0.4 mm (31/16 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: 12 (thru: 12 buried/blind: 0 micro: 0)

Outer Annular Ring: 0.15 mm (6 mils)

- By design rules: 0.15 mm (6 mils)

Eurocircuits class: 4B - Using min drill 0.5 mm for an OAR of 0.15 mm

## General stats

Components count: (SMD/THT)

- Top: 32/4 (SMD + THT)
- Bottom: 0/0 (NONE)

Defined tracks:

Used tracks:

- 0.25 mm (10 mils) (117) defined: no
- 0.4 mm (16 mils) (55) defined: no

Defined vias:

Used vias:

- 0.8/0.4 mm (31/16 mils) (Count: 12, Aspect: 2.0 A) defined: no

Holes (excluding vias):

- 0.8 mm (31 mils) (38)
- 0.89 mm (35 mils) (12)
- 1.0 mm (39 mils) (4)
- 3.2 mm (126 mils) (4)
- 3.45 mm (136 mils) (4)

Oval holes:

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

- 0.5 mm (20 mils) (12)
- 0.9 mm (35 mils) (38)
- 1.0 mm (39 mils) (12)
- 1.1 mm (43 mils) (4)
- 3.3 mm (130 mils) (4)

- 3.45 mm (136 mils) (4)