

PCB SPECIFICATIONS

Specifications for manufacturing printed circuit boards (PCBs) contain information about the board design, materials, dimensions, layers, interconnects, and other essential parameters. In addition to the data sent as PCB assembly instructions (BOM, Gerber/ODB++), the following information should be included in the **PCB specification**:

Bare PCB

Material: Includes a list of board materials and individual layers used. It includes the laminate substrate, copper layers, masks, and solder mask.

Dimensions: Specifies the board's dimensions, including **length, width, and thickness**. It may also contain information about allowable tolerances.

Layers: Lists the number, description and sequence of individual layers on the board.

Stack-up: Layer composition of **multi-layer PCBs** (including copper thicknesses of individual cores and insulation layer thicknesses).

Solder Mask: Describes the use of an **isolation mask** to ensure correct component soldering. Mask colours can be green, blue, black, red, or white (matte/glossy). If the customer does not specify, we default to the standard green.

Surface treatment: Indicates the desired surface treatment of the board, such as HASL, ENIG, or chemical tin.

Copper thickness: Specifies whether this is the base copper thickness or the resulting thickness after annealing. If not specified, we automatically consider the resulting copper thickness.

Silk screen: Specifies the location (on the top/bottom side or both) and the colour of the silk screen print. If not specified, we automatically consider white as the print colour.

Hole diameter: It is necessary to indicate whether it is the **finished hole size** or the **drilled hole size**. Finished hole size refers to the hole after plating. If not specified, we automatically consider the **finished hole size**.

Non-standard specifications requiring prior notice:

- **Filled vias and type according IPC 4761** (if not specified, everything is produced in **IPC 4761 type VII**)
- **request COPPER FILLED VIA**
- **Peelable mas**
- **Blind/buried vias**
- **Beveled edge connectors**
- **Carbon paste**
- **Controlled impedance**
- **IPC class 3** (if not specified, everything is produced in **IPC class 2**)

