CUSTOMER GUIDE

Technical documentation formats

Makes hardware less hard

With this documentation we can quote faster and build without surprises. If a file doesn't follow these formats, just tell us which one you use and we'll adapt.

What we need

To quote

- BOM
- Gerbers and stack-up
- Quantities and lead time

To build

- Pick & Place file
- TOP / BOT assembly drawing
- Board photos (if available)

If applicable

- Test, coating and final assembly
- Panel and stencil Gerbers, if you supply the PCB

BOM (bill of materials)

In XLS or similar, with these columns. For generic parts, please give a default manufacturer and part number.

QTY	DESIGNATOR	MANUFACTURER	MNF PN	ALTERNATIVE	MOUNT (SMD/THT)
...	...	...	...	...	...

Pick & Place file

Tab-separated TXT or CSV, with these columns:

DESIGNATOR	DESCRIPTION	MNF PN	LAYER	Center-X (mm)	Center-Y (mm)	ROTATION
...	...	...	...	...	...	...

Test, coating and final assembly

Test

Process, tools required and test times, if any

Coating

Material and thickness, if any

Final assembly

Process, materials you supply, labelling, laser marking…

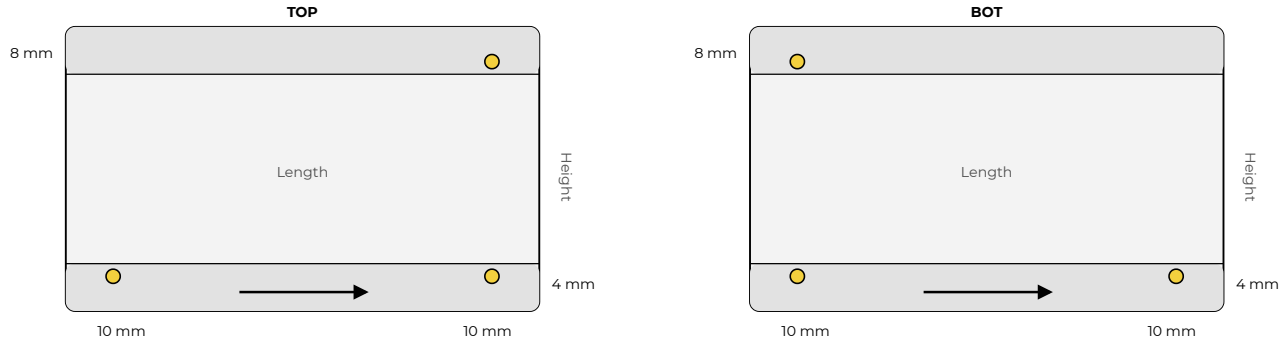
PCB manufacturing files

Gerbers	RS274-X or RS274 (4.4, Trailing Zeros, Absolute, mm)
Drills	NC Drill (4.4, Trailing, Absolute, mm)
Stack-up	Surface finish (ENIG, LF HASL, Immersion Silver…), core and prepreg thicknesses, material, copper thicknesses and final board thickness
Assembly drawing	PDF with TOP and BOT silkscreen views and mechanical dimensions
Photos	In colour, both sides of the board, if you already have a prototype

If you supply the PCB: recommended panel

For smooth processing on the line, we recommend rectangular panels, longer than they are high, with rails along both long sides. Please send the panel size and the panel stencil (solder paste) Gerbers.

- **3 circular fiducials** of **1 mm or 1.5 mm**
- Rails **8 mm** wide
- Fiducials **4 mm** from the outer edge of the rail and **10 mm** from the end
- Minimum panel size: **80 × 80 mm**
- Standard maximum length: **up to 295 mm** or **up to 395 mm**; the closer to these sizes, the better



These are the standard maximum sizes. Other options are possible depending on volume, with specific tooling. The SMT line accepts panels from 80 × 80 mm up to 400 × 460 mm.

Questions about a file?

Send us what you have and our engineering team will help you complete it.

info@dracosystems.net
+34 935 607 010
dracosystems.net