

Info sheet about required PCB-data and their use by sas-electronics:

1.) Language

All texts in the documents must be in English.

Information in other languages will not be considered.

2.) Manufacturing Data

Please provide all necessary files for the production of the printed circuit board (PCB) in the following formats:

- Extended Gerber Format RS274-X
- ODB++
- Formats for drilling programs: Excellon (2) / Sieb & Meyer (1000 or 3000)

Other formats can not be used by our online shop.

The order of layers for multilayer PCBs must be clearly marked.

The top and bottom of the PCB must be clearly marked to prevent mirror-inverted production of the PCB.

The purpose and the assignment of the individual files must be defined.

3.) Other additional information about the PCB

All relevant PCB specification data can be entered into our calculation form in the online shop and these data will be used as PCB-specification.

If additional documents for PCB manufacturing are required, such as panel-drawing, layer-stack-up, impedance specifications, etc. please provide these documents in English.

4.) Providing the documents

Please "zip" all the required documents together in a compressed folder and upload this compressed folder later in the ordering process on our server.

Make sure that all required files are in the compressed folder and the files are named usefully.

Please remove all other files, as well as auxiliary files that are not needed for the production in order to avoid misunderstandings or unnecessary questions.

Here is an example based on a checklist for naming Gerber data - in brackets you can see possible internationally known file extensions:

PCB contour (.gko) / Top layer (.gtl) / Inner layers (.l2-.l6) / Bottom layer (.gbl) / Solder mask Top + Bottom (.gts + .gbs) / Paste data Top + Bottom (.gtp + .gpb) / drilling program (s) (.drl / .npth / .pth) / information on scribing (.v-cut) / milling program (.rou)

If it is not possible for you to provide the files as requested, please contact us and send us your request by e-mail to contact@sas-electronics.de. We will send you an individual offer as soon as possible.

5.) Use and preparation of the data

The provided files will be used exclusively for the production of printed circuit boards. Therefore, we need to forward the data to the manufacturer.

In case of different or contradictory information in the data or to your inputs in our web form, we reserve the right to decide to the best of our knowledge and belief, which statement makes more sense and implement this without further inquiry.

The data are processed by the manufacturer according to the respective production parameters. In order to meet the required production parameters of the manufacturer and to enable the production of the PCB, the data can be adjusted by the manufacturer without any further query.

6.) Significance of the information / data

In general, the following order of adherence to the information applies, but this can be changed by us at any time, if this makes sense:

- Information for calculation of the printed circuit board on our web form.
- printed circuit board specification, drawings, notes of change
- Gerber data
- Our business terms and -conditions
- generally international standards for PCB production (e.g. IPC A-600 in the currently valid version)