



Board Level Shields

In addition to a shielding of the electronic housing it may be useful or even necessary to shield the interference source directly on the **Printed Circuit Board (PCB)**. This is often required

- to comply with current EMC laws relating to outgoing and incoming radiation
- to guarantee the safe function of the assembly

Board Level Shields can be made of a range of materials, for example tin plated steel, stainless steel, German silver and copper beryllium.

Optionally the user can choose between the following **delivery forms**:

- **one-piece shields**
- **two-piece shields (frame and cover)**
- **SMD-compatible shielding clips and separate covers**

One-piece shields are a metallic shielding consisting of five sides. The sixth side is determined by the connection to the electric grounding path on the PCB.

Two-piece shields are divided into the so-called fence (frame) and the cover. The advantage of this is that the cover can be belatedly fitted (e. g. after the alignment of a component).

These shielding housings are mounted on the PCB using either **THT or SMD technology**.

Besides **standard Board Level Shields**, ABC can also supply EMC shielding housings which are **specially designed to your specifications**. Whether they are for prototypes or for mass production, in small or large quantities, shielding covers are a **low cost way** of providing a direct shield for your printed circuit board to prevent EMC radiation.

SMD-compatible shielding clips offer the advantage that they can be installed individually on the PCB and thus establish a "fitting" for the shielding cover. Depending on the size of the area to shield the usage of one or more clips per side is recommended. Shielding clips are made of **tin plated steel** and are **supplied on belt**.

Typical applications of Board Level Shields

Board Level Shields have a high **shielding effectiveness** and are used for example in the measurement technique for the construction of test equipment, in NF technology or in the construction of senders and receivers. They are useful to shield

- analog circuit parts on mixed analog/digital circuit boards
- sensitive analog circuit parts
- Digital circuit parts used for clock generation or clock distribution
- strongly radiant digital circuit parts
- sensitive digital circuit parts or
- E/A circuit parts



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