

Application Note

I. Examples of how to mount a solar module in a product case;

Example 1.

When mounting a solar module in a flat product case;
The product case has two open holes at the +/- electrode positions where wires are soldered to the electrodes.
Then the open holes are sealed with epoxy. Double sided 3M tape can be applied in between to fix the solar module and the product case.



Outside image



Inside image

Example 2.

When stacking a solar module on a customer's motherboard;
Design a motherboard with two open holes at the +/- electrode locations on the solar module, just like example 1 above. Here the motherboard acts like a plastic case. Then the wires are soldered to the electrodes and the open holes are sealed with epoxy. Double sided 3M tape can be applied in between to fix the solar module and the motherboard. A thicker tape can be used when buffer space is needed in between the solar module and the mainboard.

Example 3.

When the plastic case covers the perimeter of the solar module;
When the plastic case covers the edges of the solar module, care must be taken not to cover the active silicone area of the solar module. Covering will reduce the solar module efficiency. However, be aware that most high-efficiency solar modules have limited edge space to maximize the power density of the solar module. In some cases, 3M tape can be used to attach the product to the windshield surface.



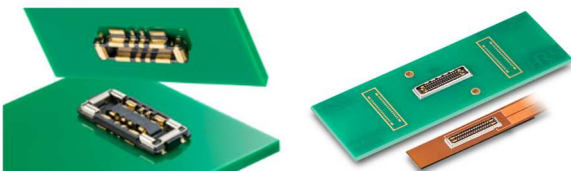
Sample image 1



Sample image 2

Example 4.

Solder-free mechanical contacts;
Pogo pins, spring loaded connectors, FPC-to-Board Connectors, etc.



II. Caution to coating or overmolding a solar panel:

Coating or molding solar panels is not recommended due to possible delamination issues.

Customers try to coat or mold solar panels with transparent materials, but often observe delamination at the interface between the coating or molding material and the solar panel after thermal cycling testing or after prolonged outdoor use due to UV rays. Therefore, we do not recommend coating or molding on our products. If customers need to protect the solar panel from mechanical damage, it is recommended to use a protective cover such as a transparent PC or glass-like protective cover over the solar panel as a protective cover. If you really want to coat or overmold our solar panels, please contact our sales representative.

III. Cleaning procedures and precautions for solar module surfaces:

1. Cleaning procedure

- Gently wash the sheet with a solution of mild soap and lukewarm water, using a soft, grid free cloth or sponge to loosen any dirt or grime.
- Thoroughly rinse with clean water to remove any cleaner residue and dry the surface with a soft cloth to prevent water spotting.

2. Other precautions

- Never use aromatic or halogenated solvents like toluene, benzene, gasoline, acetone or carbon tetrachloride on LEXAN polycarbonate materials.
- Contact with harsh solvents such as methyl ethyl ketone (MEK) or hydrochloric acid can result in surface degradation and possible crazing of LEXAN sheet.
- Cleaners and solvents generally recommended for use on polycarbonate are not necessarily compatible with the UV protected surfaces of LEXAN polycarbonate sheet materials.
- Do not use alcohol on the UV protected surfaces of LEXAN sheets.
- Do not clean LEXAN polycarbonate sheets in direct sunlight or at high temperatures as this can lead to staining.

3. Details of chemical compatibility of polycarbonate (PC) and PC film cleaning instructions.

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