

Double-sided FPC and multi-layer FPCB board—FPC structure - Hitech Circuits



With more and more electronic product design functions, the products are getting smaller and smaller, so more and more product designs have begun to use **double-sided flexible boards** (Double sides FPCB) or even **multi-layer flexible boards** (Multi-Layer FPCB). Recently, products with a combination of hard and soft boards have appeared.

The most common way to make this kind of double-sided flexible board is to use a substrate with double-sided copper skin, and then make a double-sided through hole (Plating Through Hole).) production, the biggest difference is the thickness and material of the substrate, in addition, the PCB does not need to press the surface cover layer (cover film).

The production of through holes is usually first drilled on the substrate with copper skin, and then metallized with chemical copper or other conduction techniques, and then the hole wall is thickened to the required thickness by electroplating. The copper is thick, and then the image

transfer and etching procedures are carried out to make the circuit, and finally the cover film is applied by hot pressing. tin.

Multi-layer Flexible Circuit Board:

Multi-layer flex boards are rarely used in the general industry, but as the size of the products shrinks, flex boards can also be welded with SMT parts, and some high-end products begin to try to use such flex boards. The advantage of the board is that it is not limited to a flat circuit board design, and the circuit can be appropriately turned with the curve of the product. The production process of flexible multi-layer boards generally starts with the soft substrate as tool positioning holes, and then relies on the tool positioning holes to combine the combination of each layer of circuits and the cover layer. Since the material of the multi-layer flexible board is relatively soft, it is not easy to locate it during production, so it is generally produced in a single piece to improve the accuracy of its alignment, but in this way, the unit price is relatively increased.

In addition, there are also multi-layer boards made of single-layer board + double-layer board or double-layer board + double-layer board. This kind of flexible board must be perforated on the single-layer board or double-layer board in advance, and then glued Make through holes after bonding.

If you have any need for double sided FPC board or multilayer FPC board, feel free to contact me sales7@hitechpcb.com.