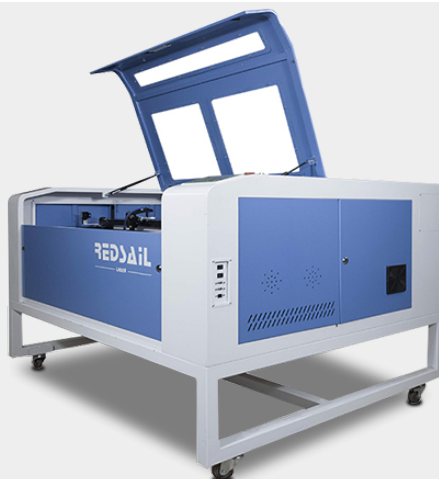
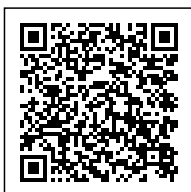


HOW TO PROCESS FPC WITH LASER CUTTING MACHINE TO IMPROVE PROCESSING SPEED

Posted on 2023-06-29 by redsail



Category: [Uncategorized](#)



In production, the processing speed is an important index to measure the benefit of the enterprise, and the response speed is an important weight for the survival of the enterprise. Especially in the field of electronics, the update rate is fast, and consumer demand for electronic products is high. A popular product needs to be launched quickly in a short period of time to seize the market. Production speed is extremely important and places extremely high demands on the production of individual components of electronic products. The first requirement is speed. Therefore, higher requirements are put forward for the processing speed of the FPC cable board, which is indispensable in electronic components, and it is required to complete the production in a very short time under the premise of ensuring quality. So how to increase the production speed? This requires working hard on the process.

The most effective method for FPC processing is the die, which can be quickly formed. However, it also has certain defects, such as stress damage in cutting, long mold opening cycle, and high cost, especially for FPC processing manufacturers. There are thousands of FPC cable boards, and each specification is molded once, and the cost and cycle are relatively different. cost-effective. Therefore, the FPC cable board processing factory has found laser cutting as a new solution. This kind of laser belongs to the cold light source ultraviolet laser cutting machine, which can effectively balance the relationship between processing speed, cost and quality.

However, with the continuous improvement of market demand, the processing speed requirements for FPC cable boards are getting higher and higher. How to process FPC with a [laser cutting machine](#) to increase the processing speed puts forward higher technical requirements for laser cutting equipment. Through technical research and development, Redsail Laser provides a variety of solutions to improve the processing speed of laser-cut FPC cable boards.

1. Multi-head UV laser cutting machine:

Through the multi-head [UV laser cutting machine](#), one system controls multiple sets of laser optical systems at the same time, and can process two FPC wiring boards at the same time, which effectively improves the processing efficiency. But the disadvantage is that the equipment cost is higher.

2. Automatic UV laser cutting machine:

Through the way of jig and robotic arm feeding, it can be connected to the production flow, solve the problem of labor cost, and save the time of manual loading and unloading. At the same time, the combination of multi-head UV laser cutting machine and automatic loading and unloading function can solve the problem of processing efficiency, which is also the trend of the FPC laser cutting market in the future.

3. Increase the power of FPC laser cutting machine:

We know that FPC laser cutting machines generally use 10/12W power. In the early days, due to cost issues, some customers used 7W power to process FPC. However, with the decrease of laser price, more and more customers start to use 15W/18W FPC laser cutting machine, which can improve the processing efficiency to a certain extent. However, the greater the UV power used by the FPC laser cutting machine, the more expensive the price, and the higher the increased cost.

Another way to increase the power is to use a high-power laser above 50W to process the FPC cable board, which can double the efficiency of the original 10W UV laser cutting machine. However, the processing effect is not as good as that of UV laser cutting machines. Customers need to balance whether they can meet the requirements of processing quality and speed.

The future trend is that the laser cutting machine FPC wiring board is fast and the equipment is highly automated. In the future, the requirements for the quality of the FPC wiring board are getting higher and higher, and the requirements for laser equipment are also getting higher and higher. In order to improve the processing effect of picosecond ultraviolet laser, etc., it is necessary to use ultrashort pulse laser to improve the processing effect. However, judging from the current market share, the cost of ultrashort pulse laser equipment is relatively high, and the efforts of colleagues in the laser industry are still needed.