

Five win-win reasons for leaning out your PCBA and electronics assembly

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It's a good bet your electronic product requires more than a printed circuit board assembly (PCBA). Components such as wires, actuators, controls, displays, potting and even an enclosure likely need electronics assembly. Plus you may need product labelling, instruction manuals, shelf packaging and so on.

An ideal solution is to get your PCBA production and further electronics assembly from one source, an electronics contract manufacturer (ECM) that offers PCBA manufacturing plus final component or product assembly. Here are five reasons why:

1. Quality

Are you aware that every time a PCBA is handled, there's a risk of fatal damage due to electro-static discharge (ESD)? Does your final assembler know how to mitigate this risk? Do they have the proper training, tools and equipment for safe ESD implementation? Your full-service electronics contract manufacturer should have all the ESD controls and training

necessary to assure your boards are installed without damage. By completing the full electronics assembly of your product, a single-source ECM can perform final inspections and full functional tests to assure you're receiving tested, high-quality units ready for sale — saving you not just time and money, but possibly your company's reputation with its customers.

2. Flexibility

Do your products have some variations around a common functionality, such as large and small versions, with or without options, or even color choices? Configuration management is a key advantage a quality ECM can offer. Often, the PCBA and certain subassemblies are exactly the same for multiple product configurations; your contract manufacturer should be willing to produce these components in higher quantities and allow you to designate the final configurations on a make-to-order (MTO) basis. This reduces your risk of having the wrong configuration in inventory with a long lead-time to get what you really need.





3. Capacity

Does your PCBA manufacturer/ assembler have the physical space, trained staff, tools and equipment readily available to meet the fluctuating demand for your electronics assembly? Can you rapidly scale up as your product succeeds? Is your ideal electronics contract manufacturer prepared and capable to adjust to changing product configurations and quantity demands — without resorting to outsourcing? This can increase the risks related to extra handling. Using a single source with all the capacity you need also means direct responsibility for your specifications and your schedule.

4. Cost

Are you wasting time and money by trying to manage multiple purchase orders, multiple suppliers and product transfers from a PCBA manufacturer to an electronics assembler? By keeping your product under one roof, you don't pay for extra handling, extra packing /unpacking or unnecessary freight. With this "lean" operation, your lead-times can also be shorter.

5. Accountability

Have you ever received defective products and your different suppliers blame each other? Single-sourcing eliminates the finger-pointing that often occurs if multiple suppliers are involved with a defective final product. When you source your full electronics assembly and testing from your electronics PCBA manufacturer, the accountability for that product rests solely on their shoulders. Because your single source is in control during the entire process, they can provide full lot tracking, trouble-shoot issues during manufacture or assembly, and offer improvement suggestions for every production step, assuring quality control during the entire process. This arrangement is a proven win-win relationship.

As a full-service electronics assembly and contract manufacturer, Caltronics Design & Assembly offers all of the advantages of single sourcing listed above — and one more. The "Caltronics difference" promises you small-company service and attention, combined with big-company equipment, experience and expertise.

About Caltronics

Caltronics is more than a contract manufacturing company. We provide expert solutions in every facet of electronics design all the way to full production, and our systems are certified to ISO 9001:2008 for quality management.

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