

Five Ways to Avoid the Risks of Using Electronic Manufacturing Services (EMS)

Using electronic manufacturing services (EMS) or outsourcing is commonplace these days for most original equipment manufacturers (OEMs). Outsourcing subassemblies and turnkey assemblies makes good business sense with the number of specialized pieces of equipment, decisions and processes involved in these two operations.

However, outsourcing and turning control over to outside entities, like contract manufacturers can be risky and sometimes cause cost overruns or scheduling delays.

Consider these five common risks for OEMs and the factors that can be addressed prior to outsourcing assemblies.

1. Lack of communication

Every EMS provider is different. Ask up front about their ability to address your assembly requirements or how fast they can accommodate sudden requirements; otherwise, you may encounter delays or even be unable to assemble the boards to your specifications.

The flow of communication between OEMs and the EMS vendor is imperative, including ongoing design direction, prototyping and testing feedback. Details can easily get lost in translation when working with overseas manufacturers and the time difference can affect timely issues. Stay vigilant and communicate often.

2. Poor revision management processes

Imperative to a good process flow is communicating changes. If a good change management process is not in place, it can lead to the receipt of a wrong part or too many right parts, excess or obsolete inventories, shipping delays, lost revenue, defective parts or loss of customers. Know your EMS provider's process for handling reviews of incoming changes that have supporting documents. With correct identification and verification of changes, you have less chance of poor execution and errors.

3. Inconsistent product quality

Quality and attention signify the two pillars of good production management. High volume PCB assemblies require highly technical and specialized work outputs. Be wary—lots will most likely vary if the contract manufacturer uses cheap materials. As a result, products may be unreliable and you'll earn a poor reputation in the electronics sector.

4. You get what you pay for

If you only seek EMS providers offering low-costs and quotes promising fast turnaround times, think twice. Many times you get what you pay for, i.e. providers who lack engineering knowledge, make process substitutions or skip steps leading to poor quality.

You don't want to end up having to check every component and test every board. Understand—the savings on the front end can come back to bite you on the backend and cause production delays, product redesigns and failures. Partner with EMS providers who have subject matter experts or highly trained technical advisors on board capable of identifying design problems in the beginning stages and who can make process enhancements understandable.

5. High worker turnover and injury means bad business

How your EMS provider treats their workers can impact the quality of your finished product and delivery times, as well as lead to potential law suits. Make sure the company does not use out-of-date equipment, adheres to safety protocols and that the worker environment is professional. Providers who do not follow the Electronic Industry Code of Conduct should be avoided; however, most EMS providers comply and provide environmentally responsible business operations and treat workers with respect.