

To build or not to build?

...That is the question on many OEMs lips when a change in strategy or a review of resource suggests that relinquishing the final assembly might be the best route

To date, many OEMs already have PCBAs (printed circuit board assemblies) sourced by local or off-shore sub-contractors. Some OEMs undertake the final assembly in-house, while other OEMs choose to allow the sub-contractor to build the complete unit, and may even have the product shipped directly to the end customer.

There are generally two schools of thought. The first is to keep control of all aspects, requiring building in-house, or because of quality control issues, the use of specific testing or finishes. This may also be the case if there are no sub-contractors locally able to deliver the desired results.

The other school of thought supports outsourcing as much as possible, leaving the OEM to focus on what it does best; designing, marketing and sales. This leaves another party to source, build, test and ship, and even, in some cases, to service legacy products.

Areas to consider

When taking a decision to outsource the final assembly, commercial considerations have to be taken into account and justified. There also has to be a sub-contractor already in place for PCBAs; as well as being suitable for the task, they will need to carry the necessary accreditation and meet the requirements of manufacturing

I
It is important that the company has relevant knowledge and expertise

II
Assess whether the sub-contractor has the required skill set

III
Hand assembly production line at Wilson Process Systems

the end product. Such sub-contractors may be local, but if, on the other hand you need to look further afield what should you be looking for?

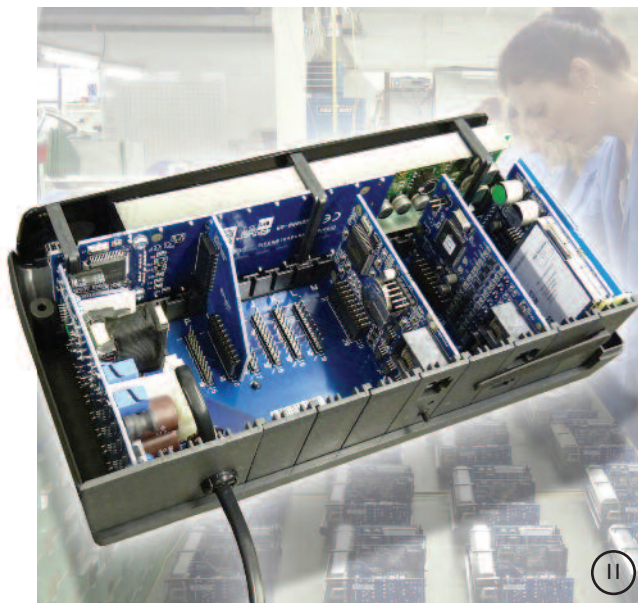
The following factors are key in making the right choice.

Relationship and trust: a sub-contractor needs to understand a business and the importance of taking on a complete box build and delivering on time. Having PCBAs built by a sub-contractor is one thing, but having the complete units fully tested and assembled takes this to another level and should be seen as a true partnership arrangement.

Credit rating and financial standing are often overlooked. The lack of investigation at the outset, or the assumption that a company is financially stable can be damaging. A relationship with a sub-contractor that struggles to finance procurement of materials, or even worse, one that ceases trading while building assemblies for your business, could cripple your supply chain.

Skill set is another important factor when assessing any sub-contractor. It is important to make sure the company has the knowledge and expertise across the relevant departments. Without these, it is highly unlikely that the company will deliver the desired results without a high level of support from you. A management team that shows a willingness to offer solutions and be proactive, while being fully informative are further desirable attributes for a sub-contractor.

Capability and equipment needs are dependent on what is required to build the product to a given level. Many, if not all, sub-contractors need to employ third parties for specialist processes, such as plastics, machined parts and packaging. One should not assume any one supplier is solely sufficient. Check that the sub-contractor has the necessary goods-in procedures to ensure third party suppliers adhere to your specific standards. Make sure





actions, such as final test, are compliant, all data and test results are recorded, together with a check of traceability and labelling requirements. Providing that the necessary equipment or processes meet, or exceed, your own in-house capabilities, check that the sub-contractor's skill set and experience meet your expectations.

Capacity is an issue with all sub-contractors at PCBA and

box build level, whether it is the degree of automation which restricts the throughput, or the available skilled/semi-skilled staff to satisfy demand. The amount of available resource can be a constant, or it can be improved with investment. The demands on a sub-contractor continually fluctuate, depending on customer demand, and they must be able to demonstrate the ability to cater for this. If

your current sub-contractor supplies PCBAs, could they supply the finished unit? Does it have the resource and the physical space to manage the full box build - assuming it meets the previous criteria? Where would your business sit within the sub-contractor's customer hierarchy? Too small and you run the risk of being overlooked for larger contracts, which could lead to poor service. Alternatively, too large,

and there could be concerns about being too reliant on a single supplier.

These five basic areas should be borne in mind when choosing a sub-contractor, advises Wilson Process Systems. If a company satisfies all areas, it should be more than capable of supplying built products that meet your own in-house standards - delivered where and when needed.

www.wps.co.uk