Greg Papandrew

Going Offshore for Bare Boards

It's 10 p.m.: Do you know where your boards are?

Your company has decided to provide your manufacturing operation with an offshore solution to your printed circuit board needs. Going offshore for bare boards has its rewards – and problems. Careful planning and the ability to honestly assess your company's PCB requirements on a per-part-number basis will help ensure success.

Where do you start planning? First, take a critical look at your business. Determine which jobs make up the bulk of your product and which make up the majority of your profit. Do these jobs have potential for offshore manufacture? To determine the answer, ask these questions:

• **Are forecasts available?** Forecasting provides an enhanced opportunity to meet customer demand and may even dictate better pricing opportunities. If your customer cannot provide accurate forecasts, offshore may not be the way to go. Alternatively, you may want to consider both domestic and offshore production to meet customer spikes in demand. Realize that some jobs will always be produced onshore, while others are better suited to run with an offshore partner.

• **What are the quality history and challenges of this board?** The tougher the quality requirements, the longer the learning curve for your potential offshore supplier. Keep in mind that you will have to clearly communicate all manufacturing needs, including the particular nuances of each customer's board requirements, to a supplier whose native language is not English.

If, after careful consideration, you decide that offshore manufacturing makes sense for a particular PCB, there are two established methods to procure offshore PCBs. Each has its advantages and disadvantages. The crucial factor in deciding which method to use depends on whether you intend to use overseas vendors for only some or for a majority of your PCB requirements. You can either:

• **Buy from a broker.** Brokers are easy to find. A good one will search the world to find the right match for your product needs, and will alleviate the communication and administrative headaches that inevitably arise when dealing with offshore companies. Administrative work on your part would be light. There is literally no upfront exposure, and payment terms are better than those available directly from an overseas supplier. A good broker will be quality-oriented and customer-service oriented, and will allow you to seamlessly begin offshore manufacture. However, an unreliable broker will create quality and delivery problems for your company. Consider this: *It is 10 p.m. Do you know where your order is being built?* Choose an established, dependable broker who has laid the groundwork overseas and has solid, ongoing relationships with offshore vendors.

• **Establish a direct relationship with an overseas supplier.** This option may give your company the advantage of being able to offer your customers better pricing. It will, however, take plenty of time and effort (including frequent visits by your senior personnel to the host country) to establish a strong relationship. A *good* inside contact is needed, one who understands the requirements of your operation. Also, consider whether this partner will be able to meet your future needs. You may have to establish a relationship with more than one offshore supplier. You will incur administrative costs with this method and will not have direct control over the supplier's operation, unless you become a major customer.

• **Do both.** A broker will be able to handle jobs with certain quantities and technologies better than if you went direct to an offshore vendor. At other times, a direct relationship with a vendor will be more profitable. You can use both options and allow them to complement each other. However, the pros and cons of each would still apply.

Also, numerous questions have to be asked and answered before selecting offshore vendors, such as: What if the boards are late? What if the quality is poor? What if boards are defective and have to be replaced? Will your new vendor replace them, or will you – at domestic prices?

The volume of business you will move offshore should greatly influence the method to pursue. Determine whether you are a whale or a minnow in the eyes of overseas vendors, and don't confuse dollars with volume of business. A million dollars' worth of business comprised of just two part numbers is totally different than the same amount of spend divvied up into 50 part numbers. A vendor who has to produce just two part numbers to earn that $1 million, or a smaller vendor for whom you are a major customer, is far more likely to accommodate you. Being a big fish in a small pond can be a rewarding position. ■

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