

# Changing times ahead for large-area LED display manufacturers

Small manufacturers of large-area LED displays should form a consortium and develop a Common Module Approach, says **PETER PIHOS**, partner of **EDG RESEARCH & CONSULTING**.

Ten years ago there were over 350 companies worldwide that manufactured large-area displays. These companies produced a variety of different technologies for specific applications. The industry demographics showed most were small, with 85% having sales less than \$15 million annually. Many existed by finding a niche for their technology, such as split-flap technology for use in railway stations, or electromechanical flip-disc for the road transportation market. They also benefited from a certain degree of national protectionism.

Now that LED technology has replaced other technologies, with 95% of the manufacturers selling LED technology, it is becoming more difficult to differentiate one product from the next. As a result, competing on price is becoming more prevalent. And the pricing spread between what is manufactured in China and elsewhere is substantial.

As an example, the price for a 20mm pitch, full-color system is \$5200 per square meter, compared with \$1800 for a similar system manufactured in China. The gap that separates manufacturers, both in performance and quality, is narrowing and in time it will be increasing more difficult to justify paying for the more expensive product.

In the past several years the majority of manufacturers have turned from actually manufacturing the total system—i.e. buying their own LEDs and populating the boards and constructing the total system in house—to relying on an OEM supplier in Asia to build to their specifications or just purchase existing OEM's designs.

Already we are hearing some negative stories about some of the product coming from these small OEMs. Most simply do not have the resources to properly support their product. With the recent downturn in the economy I suspect these problems will only continue to increase.

Over the years my clients have shared with me their concerns about product development costs and component buying power. They simply do not have the economies of scale afforded to them like those that may be enjoyed by industry leader Daktronics with sales approaching \$600 million.

So what is the small manufacturer to do as pricing continues to fall further, affecting margins and reducing profitability, which in turn reduces monies available for product development?

One solution would be to turn to an idea I initially discussed at my presentation at the Strategies in Light conference over a year ago. The idea was referred to as the "Common Module Approach" (CMA). The CMA is basically a formation of like-minded companies into a consortium that would share the benefits of economies of scale through volume purchasing power. It would also reduce or eliminate recurrent product development costs by standardizing to product designs and most important, offer customers a level of comfort when it comes to service and warranty issues. Additionally, it would allow the next generation of LED technology to be

available to considerably more companies, rather than being the exclusive domain of current market leaders. It would level the playing field, so to speak.

It would also be beneficial for industry suppliers, especially the ones making LEDs, to have the opportunity to develop new products that are more specific to our industry, and to be able to easily reach the "long tail" which is considerable in our industry. A consortium is just the vehicle needed to exploit the opportunities that may exist.

In our most recent industry report, we discuss in more detail this concept and the rationale for companies to consider the CMA. Since the report was released in March 2009, the concept has received considerable traction and is moving forward.

I think maybe it is an idea whose time has come. It may also offer a lifeline to many of the smaller manufacturers struggling to stay in business. The key to making this work is to find a company that has the technical capabilities to develop the Common Module, the resources to assure to the consortium members that they are strong enough financially to stand behind their product and to bring superior technology to market at a competitive price.

The end game would be for the consortium to be able to offer a truly differentiated product that benefits members and their customers alike. ◀

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