

try it—you'll like it

Evaluation kits let customers uncover new markets for companies.

By Neil Savage

Got an idea for a new application of an existing technology? If you do, or think you might come up with one, evaluation kits might just be the ticket. Evaluation kits are targeted at getting researchers to either try out a new technology or experiment with an existing one. Customers can buy a package that may be more affordable or more flexible than the standard product. At the same time, manufacturers may find that customers are creating new markets for their product.

Texas Instruments (TI; Dallas, TX), for example, has two evaluation kits based on its Digital Light Processor (DLP) technology, which is widely used in digital projectors. One, the DMD Discovery Kit, allows product developers to use a digital micromirror device, the micro-electro-mechanical system on which DLP is based, to explore applications in areas such as holographic data storage, microlithography, and medical imaging. A second kit is optimized for delivering light into fiber-optic systems for those who want to apply DLP to signal processing in telecommunications.

spreading the wealth

"We don't really have the bandwidth for TI to develop all these applications in partnership with these customers," says Dana Dudley, new applications manager for DLP products at TI. Instead, the company has a new philosophy. "Let's let the inventors and the customers out there do that," she says.

The evaluation kit is a chipset similar to what TI sells for digital projectors. The projector setup, however, includes a data former that converts standard video formats into binary information for the DMD. It's a key component in a projection system, but in other applications it could be a hindrance. The evaluation kit replaces it with a DMD controller that users can program themselves. "These very precise algorithms just get in the way," explains Dudley. "You want the freedom to design your own

algorithms for how to introduce data into the DMD."

Other companies are trying a similar strategy. DuPont Displays (Research Triangle Park, NC) started shipping evaluation kits of its first generation of organic light-emitting diodes (OLEDs) at the end of December. According to DuPont, the idea was to hasten the commercialization of OLED technology and to encourage OEMs to incorporate it in applications such as display backlighting.

cheaper and more flexible

Del Mar Ventures (San Diego, CA), a venture capital company that also makes optoelectronics products, introduced a kit called FemtoStart to encourage researchers to explore applications for femtosecond lasers. It is available with different titanium-doped sapphire lasers offering output powers ranging from 3 to 10 W, with pulse durations from 100 to less than 20 fs. The idea is to provide more flexibility than a fixed femtosecond system.

"Many researchers who would like to have femtosecond pulses in their lab cannot afford a commercial turnkey femtosecond system

and are trying to build their own," says Del Mar's Sergey Egorov. "Our femtosecond kit is for those who do not want to spend a fortune to have a femtosecond laser source in the lab but who value their time and wish to spend it on research instead of spending it on the construction of another femtosecond system from scratch." Del Mar is targeting university labs, where students trained on their system may one day go on to develop applications or make purchasing decisions.

Bob Steele of Strategies Unlimited (Mountain View, CA) says that while his company doesn't track the use of evaluation kits, the concept seems to make sense. "It's a way to get something in potential customers' hands so they can easily try it out in their own labs," he says. **oe**



This femtosecond Ti:sapphire laser evaluation kit provides an economical, simple path to ultrafast pulse generation.

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