Flashback 3 *laser controller*

Add this small board to your projector, for full laser control

The *Flashback 3* is the smallest, easiest and most economical way to add high-quality graphics and beams to a standalone laser projector. This credit card-sized wonder plays laser graphics, beams and even complete Pangolin-quality shows. No extra computer hardware is needed -- the tiny *Flashback 3* board has everything you need to control your laser projector.

Creating the shows

To create *Flashback 3* laser images, use Pangolin's best-selling *Lasershow Designer 2000*, or the *LiveQUICK* software included free with the *Flashback 3* Evaluation Kit. Or, you can use any other system that creates ILDA-format laser files.

Set up to 432 cues; each cue can be a word, logo, graphic, animation, beam effect or even a complete show. The images and cue data are then stored on a removable Smart Media or XD Picture Card memory. A 128MB card holds over 20 minute's worth of laser graphics, animations and beams. Of course, because it's solid state, there's nothing to wear out, break or get jammed.

Playback and control

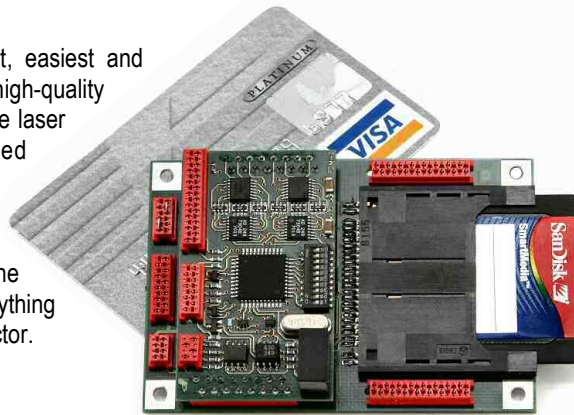There are many different ways to play shows and control cues with *Flashback 3*.

- **DMX control:** Frames or animations are loaded into memory, where they can be played on demand using the DMX-512 lighting standard. DMX can select the frame/animation, plus also control the image size, position, rotation angle, playback speed, scan rate, brightness, color and write/erase effect.
- **RS-232 serial:** Instead of using DMX, you can use RS-232 for similar control.
- **TTL:** *Flashback 3* provides several options to control the playing, pausing and stopping of a select number of cues via TTL. (Note that this can only be used if USB is not being used at the same time.)
- **USB:** Pangolin's *LiveQUICK* software was designed especially for *Flashback 3*. You can create and edit frames and animations, upload files to the memory card, add geometric correction if needed, then perform shows live if needed.
- **Automatic playback:** Using *LiveQUICK*, specify a cue or sequence of cues to start playing automatically upon power-up.

Economical and expandable

The *Flashback 3* board has two optional daughterboards which fit on top. One adds DMX capabilities; the other is for USB. These daughterboards can be purchased separately to reduce costs, for applications that do not require these features (e.g., a projector with automatic playing when turned on).

Customize for your needs

For special applications, Pangolin can provide additional functionality through client-specific firmware (for special features), or even custom-designed add-on daughterboards.

Technical data

Flashback 3 laser images look the same as those from other full-fledged Pangolin systems. You get two 12-bit channels for X and Y scanner signals, and four 8-bit color/intensity channels, for red, green, blue and intensity signals.

Power requirements

Flashback 3 requires only a single +5V power supply, and consumes only 100-300 mA of current. It can be easily integrated into a laser projector with minimal cost or engineering hassle.

Flashback 3 Evaluation Kit

We've made it easy for you to try *Flashback 3* on your own. Order a specially-priced Evaluation Kit which includes everything you need: *Flashback 3* board, DMX daughterboard, USB version 2.0 daughterboard, 128MB memory card with sample frames and shows, and *LiveQUICK* utility software for downloading, triggering and

Flashback 3 has been honored as the 2006 "Hardware Product of the Year" from the International Laser Display Association.