

# QM2000.NET laser/network controller

## Remotely control laser projectors via Ethernet

Many of today's laser shows use multiple projectors at widely scattered locations. This helps spread out the laser effects so an entire arena or stadium is filled with beams. But how do you control remotely located projectors?

The answer is with QM2000.NET. This system combines Pangolin's award-winning QM2000 laser controller card with a network adapter. Each remote laser projector is controlled by a QM2000.NET device; signals are sent via wired or wireless Ethernet.

### How the QM2000.NET works

Your laser light show has a master show computer, running Pangolin's LD2000 software. LD2000 lets you assign different tracks to your projectors. Signals are then sent over Ethernet to the remote laser projectors. You can use standard 10/100 Ethernet cables, or third-party wireless Ethernet systems. When using the QM2000.NET, each projector has its own QM2000.NET connected to it, or installed inside of it.

A key advantage of using QM2000.NET is that every projector has a full-power Pangolin system (e.g., QM2000 card). You don't have to worry about the main computer slowing down or losing sync, as additional remote projectors are added. Every QM2000.NET device runs at full speed no matter how many systems are connected.

### Run up to 30 projectors at once

Pangolin customers routinely do shows with 10 or more remote projectors, using QM2000.NET. In fact, you can control up to 30 projectors at a time.

### Get wired, or go wireless

QM2000.NET is typically deployed in a wired configuration, with 10/100 Ethernet cable connecting the master laser computer to the remotes. However, you can also use standard wireless Ethernet devices. Since these merely encode and transmit Ethernet signals, they work great in situations where projectors are very widely located.

### Run LD2000 on a notebook

Besides controlling multiple projectors, QM2000.NET is ideal for LD2000 users with notebook computers.

LD2000 requires a QM2000 card in order to run. On desktop computers, this fits in a PCI card slot inside the chassis.

For notebooks without card slots, you can use a third-party device such as the Magma PCI Expansion enclosure — or just use the "laptop-friendly" version of the QM2000.NET. It can communicate with the notebook over a direct Ethernet cable.



At the 2006 MTV Europe Awards, 17 laser projectors were connected by QM2000.NET, to fill the arena with beams for the band "Muse".



The "laptop-friendly" version of QM2000.NET is the best way to run Pangolin's LD2000 software on computers without card slots, such as notebooks.

### 3 different configurations

QM2000.NET combines Pangolin's QM2000 laser controller card plus a network adapter board. QM2000.NET is available in three configurations:

- **19" rack-mount.** This is ideal for locations such as cruise ships and theme parks, where rack-mount equipment is common. The rack-mount version is 1 unit high (1.75 in/4.5 cm) and includes the QM2000 card, network adapter board, and power supply.
- **Laptop-friendly box.** For portability, QM2000.NET is available in a small box (7.5 x 7.5 x 1.5 in/19 x 19 x 3.8 cm). The box contains the QM2000 card, network adapter board and power supply. Just plug in 110/220 VAC and the Ethernet connector.



- **OEM product.** The QM2000 card and network adapter board are available separately, for manufacturers wanting to build a QM2000.NET directly into their projectors. This increases reliability and convenience.

If you already own a QM2000 card, you can order a rack-mount, laptop-friendly, or OEM network adapter board — without a QM2000 card. Simply add a QM2000 card and you're set to go!



**Pangolin Laser Systems, Inc.** A world leader in software and systems for laser shows and displays

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