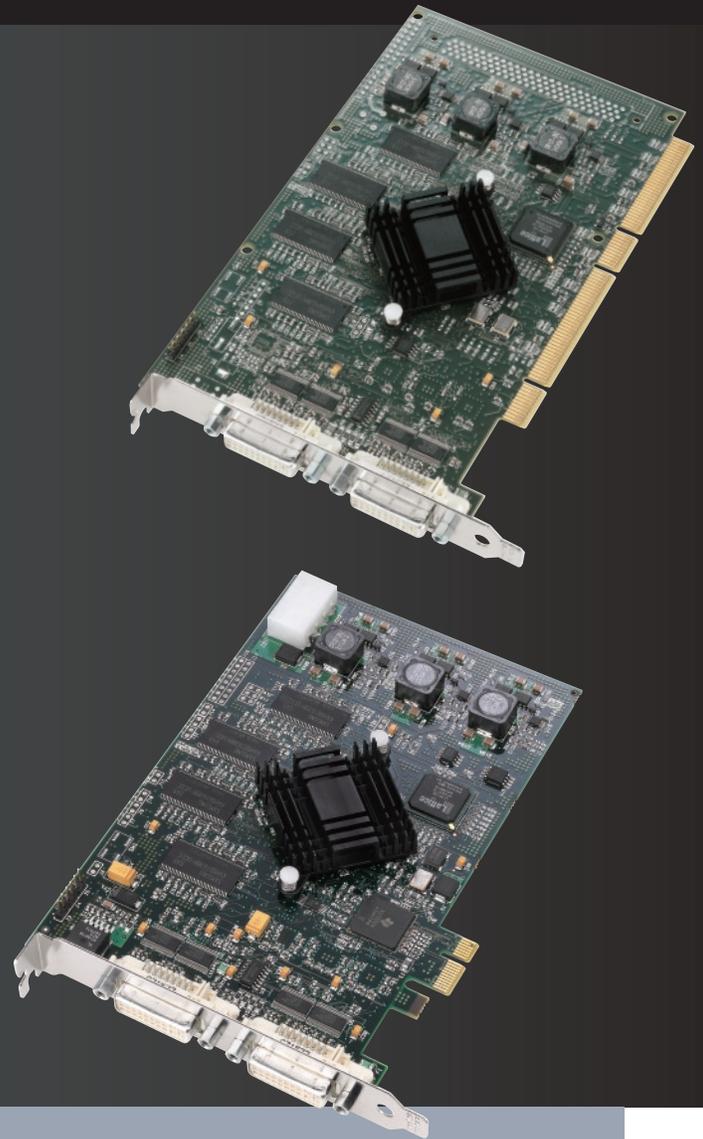


*The Raptor 4000-LR and 4000e-LR graphics boards were entirely designed in-house specifically for ATC tower, military, vessel traffic control and other command and control applications. They offer highly configurable multi-mode standard resolutions where 2K × 2K displays are not required.*

- 128 MB frame buffer
- Multi-mode resolution support and layering via 8+8, 8 bit, 24 bit, 8+24 & MOX Modes
- DVI-D (digital) and DVI-I (digital/analog) outputs
- PCI/PCI-X (Raptor 4000-LR) and PCI Express (Raptor 4000e-LR) short form boards
- Comprehensive customer care including long-term technical support
- Support for Linux, Solaris, Tru64 & HP-UX



## FEATURES

### Multi-Monitor and Multi Resolution Support

The Raptor 4000-LR and 4000e-LR support up to two monitors with two DVI outputs. Both heads support digital monitors and the outer head also drives analog monitors. The maximum resolution is 1920 × 1200 on either head. The cards support DDC/EDID and either head automatically configures to the native resolution of DDC compatible monitors. Resolutions can also be set through simple software configuration changes. The drivers are easy to install and the product is readily adapted to your changing needs.

### Maximum Performance and Flexibility

With 128 MB of on-board memory and an efficient memory manager, the boards offer excellent drawing performance and optimal pixmap management with minimum host CPU usage. These products offer

maximum flexibility supporting more video modes than any other graphics boards currently on the market. Layering is available through several methods including an 8+8 video mode and MOX (Multiple Overlay eXtension) modes. In addition, traditional video modes such as 8 bit, 24 bit and 8+24 are available and selection is easily achieved through software configuration.

### Longest Product Life in its Class

While most vendors' products are only available for one or two years, Tech Source guarantees Raptor 4000-LR and 4000e-LR availability for at least five years, and support for at least ten years. For system integrators, OEMs and ATC centers, this means significant savings on development costs by reducing the frequency of configuration re-testing that is necessary when replacing old cards with new ones.

# Raptor™ 4000-LR Raptor™ 4000e-LR

## Graphics Boards

### Wide-Ranging Driver Support

The drivers for these graphics boards were developed in-house, have been extensively field tested, and are easily installed in many UNIX platforms. Because they are loadable, these drivers can be used with graphics boards from other vendors in a multi-screen environment. In-house development of drivers allows Tech Source to be responsive to customer needs, and, in the unlikely event of a problem, customers may talk directly with an engineer.

### Backward Compatibility

The Raptor 4000-LR and 4000e-LR offer backward compatibility with their predecessors such as the Raptor 1100T and Raptor 1000. This allows customers to seamlessly upgrade their graphics boards and maintain the same functionality without having to modify applications.

### Innovative Cooling System

Graphics board GPUs must be sufficiently cooled at all times not only to ensure optimum performance, but more importantly, to protect them from failure. To meet these demands, the Raptor 4000-LR and 4000e-LR employ an innovative passive heatsink (i.e. no fan). This increases reliability while eliminating downtime and expense required for fan inspections.

### Long-Term Customer Care

Just as important as the initial hardware investment is the promise and delivery of personalized attention in long-term, high quality, customer care. Tech Source is unrivaled in after-sales support offering full customer care solutions in technical troubleshooting, general queries, software updates and service.

### About Tech Source

Tech Source, Inc. has provided computer graphics hardware solutions to the ATC and military markets for over 20 years. In 2007, Tech Source became a subsidiary of Eizo Nanao Corporation, a leading global manufacturer of high-end display monitors. Both companies have combined their mutual expertise and complementary product lines to provide the ATC market with a wide range of visual display solutions.

### Specifications

	Raptor 4000-LR	Raptor 4000e-LR
Frame Buffer Size	128 MB	
MOX Hardware	Tech Source MOX Functionality; 32 layer management	
Color Lookup Table	2048 entries from a palette of 16.7 million colors + 2 AUX 256	
Graphics Modes	8 bit, 24 bit, 8+8, 8+24, MOX 16, MOX 24, MOX 32 (software configurable)	
Dynamic Color Plane Groups	32	
Interface	33/66 MHz 32/64-bit Revision 2.2	PCI Express 1x, Compliant with PCI Express Base Spec
Video Connectors	DVI-D × 1, DVI-I × 1	
Maximum Supported Resolutions	Digital: 1920 × 1200 Analog 1920 × 1200 for second connector only	
Temperature Rating	10° to 50° C (operating) -10° to 70° C (non-operating)	
Humidity Rating	10% to 90% (non-condensing)	
Power Rating	Less than 25 watts	
Dimensions (L × W)	174.6 mm × 106.7 mm	167.7 mm × 111 mm
Software Environments*	<ul style="list-style-type: none"><li>• Sun Microsystems Solaris</li><li>• Solaris x86</li><li>• HP-UX</li><li>• Linux Red Hat</li></ul>	

\* Please contact for further details or additional environments.

## Tech Source

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Specifications are subject to change without notice.