

ExpressBox 16 Smart

Multi-Host 16 Slot PCI Express® Expansion



Express I/O Manager

Makes server setup and slot management a breeze!



Partition one expansion chassis to multiple servers with Express I/O Manager™

- Partition expansion slots among four individual servers
- Add any combinations of x1, x4, x8 and x16 PCIe cards
- x8 or x16 interconnect options - speeds up to 80Gbps
- 850W, 1700W or 850W redundant power supply
- Remote monitoring with SNMP and Web Interface

PCI EXPRESS®

Smart PCI Express® Expansion for HPC Environments

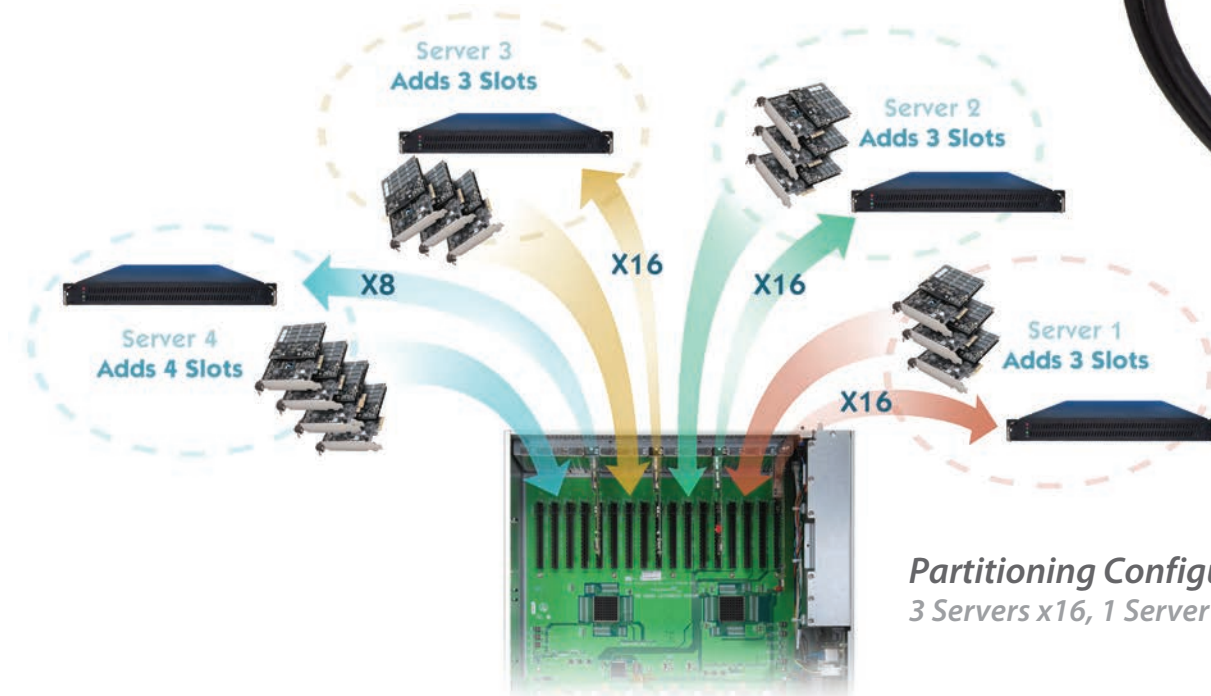
Remotely Manage Sixteen I/O Cards Attached to Multiple Servers

Smart, Manageable, Multi-Host Expansion

PCI Express connectivity has matured well beyond the early days of PCI into a fully capable “outside the box” high-speed interconnect for the most demanding mission critical applications in HPC and IT infrastructures. As cloud computing and remote services become standard, offering a flexible, manageable, and cost effective expansion solution is demanded for high-speed Ethernet, HBAs, fibre channel SAN controllers, GPUs, video accelerators, and more.

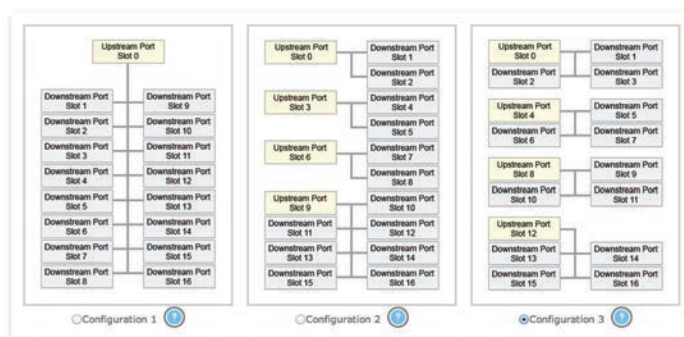
ExpressBox 16 expands one host PCIe® slot to sixteen slots by extending PCI Express signals over a high-bandwidth x8 or x16 connection to an external Magma enclosure. When combined with Magma’s software utility, Express I/O Manager, technology managers have the flexibility to partition slots inside the expansion chassis to up to four separate servers. **Express I/O Manager** also provides access to monitor the most critical components like power temperature, fans and PCI Express links through an Ethernet connection. The software tool can be integrated with any SNMP agent in the IT network.

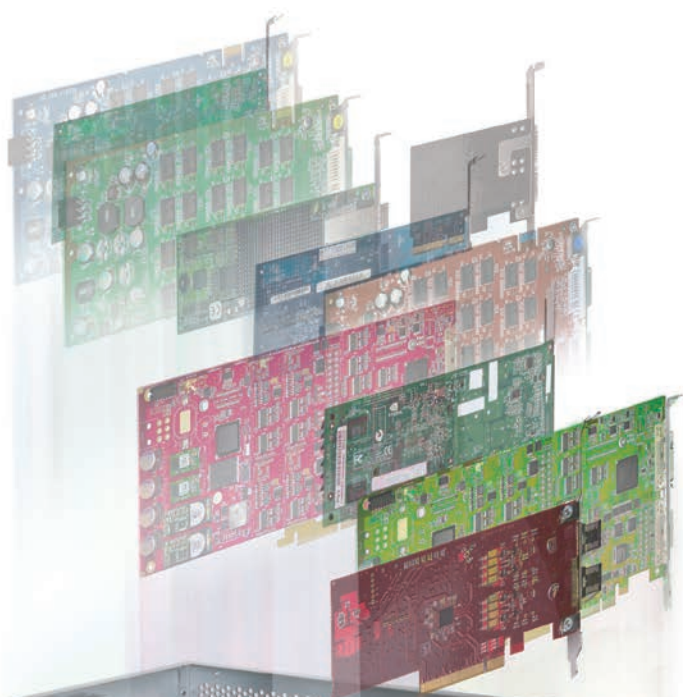
ExpressBox 16 consists of a pair of interface cards (x8 or x16), an iPass cable and a 4U rack-mount expansion chassis. The Magma expansion chassis is automatically configured by the System BIOS, with the expansion slots appearing transparently on the host computer.



Expansion Partitioning Between Multiple Servers

A unique feature of the Express Box 16 Smart allows the PCIe expansion slots to be partitioned and between 4 different servers. Using the Express IO Manager, 3 different partitioning configurations can be selected. In the default configuration, all 16 expansion slots are accessed by one host computer. Configurations 2 and 3 provides up to 3 expansion cards per server at x16 speeds, and up to seven expansion cards for a fourth server at x8 speeds. A separate host adapter is required for each server.





Express I/O Manager Makes server setup and management a breeze!

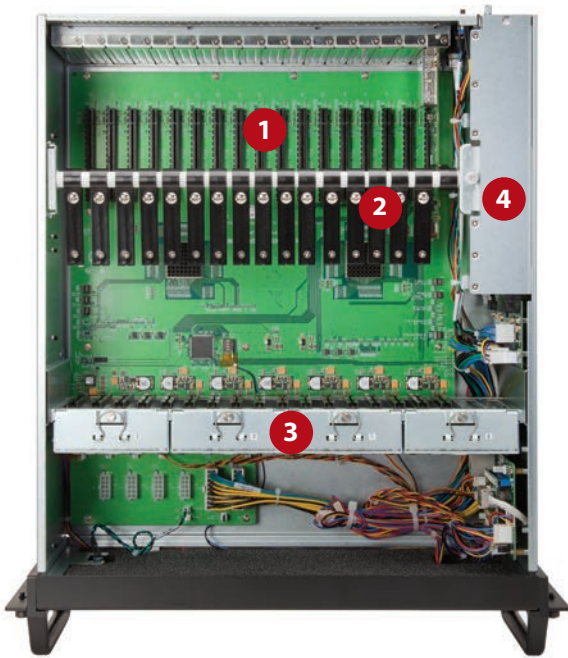


Benefits:

- Mission critical solution for adding (16) PCI Express slots to one or more computers
- Provides ability to partition PCIe slots among up to four servers
- Offers flexibility in configuration and allocation of scarce or expensive I/O resources
- Keep the PCIe I/O configuration consistent from server to server
- Protect investment of expensive I/O cards during server migrations and upgrades
- Express I/O Manager provides an enhancement to existing SNMP protocol
- Notifications of failures by SNMP trap, audible alarm, and email
- Minimize downtime by servicing problems immediately
- Reduce power and space requirements

Features:

- Low profile PCIe host card can be installed in any server
- High-speed x8 or x16 interconnection
- Automatic power-up control by computer
- 4U rack-mount enclosure with superior EMI control, vibration, shock and moisture resistance
- All slots support full-length cards and card hold down bar keeps PCIe cards secure
- LEDs on backplane indicate active link, speed (Gen 1 or Gen 2), partial or complete lane training
- Supports peer-to-peer transfers between cards in the expansion chassis to provide full-bandwidth potential among I/O cards
- Four hot-swappable cooling fans
- Multiple power supply options with auxiliary power connectors to support high-wattage cards



EB16 – Top View

1. Sixteen PCI Express slots
2. Card Retainers
3. Backplane cooling fan assembly
4. Power Supply



EB16 – Rear View

5. PCI Express card slot openings
6. iPass connector to Host Computer
7. Power cord socket(s)
8. Power Switch
9. Locate Switch and LED
10. RJ45 Ethernet connection for SNMP monitoring

Hardware Included



11. 3m iPass cable
12. PCI Express Host Card (x8 or x16)



Configurations:

All Magma products can be purchased online at www.magma.com or through a reseller.	Base Models:	Power Supply Options:
	- EB16-BX8: ExpressBox 16 - (14) x8 and (2) x16 PCIe slots	- Standard 850 Watt - Standard 1700 Watt - Redundant 850 Watt
	Interconnect Options:	
	- X8 connection to computer - X16 connection to computer	

Specifications:

Technology	System Cooling	Regulatory Compliance
PCI Express Bus Specification Revision 2.0 PCI Local Bus Specification Revision 2.3 PCI Bridge Architecture Revision 1.2	Four 77CFM Backplane Fans - hot-swappable Power Supply Fan(s)	FCC Class A Verified RoHS Compliant 
Backplane	Host Connections and Power Consumption	Supported Operating Systems
14 slots, x8 PCIe 2 slots, x16 PCIe 1 slot x16 PCIe, dedicated for interconnect car	Low profile x8 PCIe: 1.25A @ +3.3V maximum x16 PCIe: 1.5A @ +3.3V maximum	Windows MacOS X Linux Solaris
Cable	Chassis Power Supply	Warranty
3-meter iPass	850 Watt, 1700 Watt or 850 Watt Redundant 100-240 VAC, 47-63 Hz Power Input 12V @ 60 Amps 3.3V @ 33 Amps	Money back guarantee 1 year return to factory
Interconnect Bandwidth	Environmental	 <p>9918 Via Pasar, San Diego California 92126 Toll Free: 1.800.285.8990 Telephone: 1.858.530.2511 Fax: 1.858.530.2733 E-mail: sales@magma.com</p> <p>www.magma.com</p> <p>©2012 Magma. Magma, ExpressBox and Express I/O Manager are trademarks of Mission Technology Group, Inc. All trademarks are the property of the respective trademark owners.</p> <p>Specifications are subject to change without notice.</p>
40Gbps (PCIe x8 Gen 2) 80Gbps (PCIe x16 Gen 2)	Ambient Temperature 0° to 50° C Storage Temperature -55° to 125° C Relative Humidity: 0% to 90% non-condensing	
Enclosure	MTBF	
4U Rack-mount 19" W x 7" H x 20" D Removable/cleanable air filter 28 lbs or 13Kg	850W standard power supply - 185,600 hrs 1700W dual standard power supply - 106,600 hrs 850W redundant power supply - 720,000 hrs	
Rack Installation		
Optional Chassis Trak® rack slide kit		