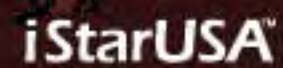




iStarUSA™

2008-2009

Storage Product Catalog



iStarUSA™

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About iStarUSA

iStarUSA established in 1989, iStarUSA Computer Inc. has over fifteen years of experience in designing and manufacturing Industrial Switching Power Supply, Rackmount Chassis and Server Cabinet. From the standard switching power supply to high-end redundant power supply, iStarUSA has grown to be one of major provider in IPC power supply industry. In recent years, we have also expanded our products to include 1U to 8U rackmount chassis and 6U to 42U server cabinets. Our goal is always to provide our customer with the best products and superior customer services. In the beginning, iStarUSA focused on providing our customers the combinations of cutting-edge technologies, high quality manufacturing, and superior customer services. It has been a proving record that these principles earned a strong partnership for iStarUSA in today's competitive market.

iStarUSA builds its strength upon its experience, technology, and strong partnership. We have been working closely with major computer components manufactures and system integrators for years to ensure that our products have high compatibility and solid stability. We also adopt new industrial standards to improve our design. Our ability to design according to customer's requirement also wins us a high reputation in the industry.

Our experienced design and project engineers complete an OEM project within the deadline and meet the product requirements. We believe that being a leader of innovative technology means able to integrate it into our products which is the key to be successful for us as well as for our customers. iStarUSA has a global ISO 9001 certification which means a consistency of delivering products that meets customer requirement and continue improvement for our product and services. We are proudly to provide cost effective solutions, responsive services and the best delivery time for our customers.

Our Core Value

- **Innovation** – We provide not only the technology to our customer we also develop our products to accompany modern life.
- **Customization** – Our design is tailored specifically to fit our customer needs. We help our customer to build their branded enterprise.
- **Satisfaction** – The goal of our products and services is to help our customer succeed in today's ever changing market.



Award-Winning

By keeping developing innovative external storage solutions, iStarUSA's 3U-16 bay PCI-Express to SAS/SATA series rackmount storage, NA332A (On Page 27) received "the Best Choice of COMPUTEX TAIPEI 2008 Award for the reasons of outstanding ICT products based on technological development, innovativeness and have the potential to become one of most essential products in the global marketing.



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vAGE220 Mini-Dual Series

USB2.0 / FireWireB / eSATA / Ethernet to 2 bay SATA Storage



Small, compact size and light weight

Built-in microprocessor for hardware RAID 0,1 (selectable)

Stylish aluminum housing benefits for cooling and durability

Backplane design for two removable SATA drive trays

Overview

iStarUSA Mini-Dual 3.5 external SATA RAID box supports 2 bay SATAI/SATAII 3.5-inch Hard Drives and it is designed for the application of real time data backup, data

sharing and audio/video editing. This small and cute box can be installed the capacity up to 1TB of each drive.

Hardware Raid

With the built-in Microprocessor, Mini-Dual 3.5 provides hardware Raid 1 protection without occupying any host's CPU resource to keep your PC or Mac working smoothly as normal during the hardware Raid back-up or Data rebuilding. Equipped with a dip switch on the rear panel

for ease of adjusting the function between Riad 0, 1 or JBOD (some models only supports Raid 0,1) and design the power turn-off and than turn-on again for making a Raid changing confirmation to avoid mis-changing the Raid function.

Multi-Interface

By proving the single or combo host interface options from the most popular interfaces of USB2.0, FireWire800, eSATA and Ethernet and no driver requested, Users can

choose any suitable model to work on their desktop or laptop for Windows or Mac OS.



Specifications

Model	vAGE220-SA	vAGE220-UF	vAGE220-ES
Host Interface	SATA II	USB2.0 FireWire B	SATA II
HDD Interface	SATA I / SATA II		
No. of Disk(s)	2	2	2
Raid Function	N/A	Raid 0/1, JBOD	Raid 0/1, JBOD
Hot-Swap	Both on Host and Device		
LED Display	Green- Power ON indicator Blue- Busy (HDD Accessing) indicator		
Dimension LxWxH cm	23.5 x 6.5 x 12		
Material	Plastic and Aluminum alloy		
Power Supply	External 60W Power Adapter (AC Input: 100-240V, 50~60Hz)		
Cooling	4 x 4 x 1 cm Cooling Fan with thermo speed control		
O.S. Support	OS Independent		
Data Transfer Rate	SATA 1.5/3 Gbps	USB2.0 480Mbps IEEE 1394B 800Mbps	SATA 1.5/3 Gbps





RAID 5



Supports host interface of USB2.0/1394B/eSATA

Supports Hardware Raid 0, 0+1, 5

Quick Raid setup with LCD operation

High quality aluminum material construction provides best ventilation

Built-in security key lock in each HDD tray

Overview

The iAGE420UFE RAID subsystem is a cost-effective solution for the demands on external storage of high performance and large capacity with a very small footprint. Directly connecting to the host computer by the

triple interfaces of eSATA, USB2.0 or 1394B requiring no add-on cards or drivers, the iAGE420UFE can be easily attached to any standard PC or MAC platforms.

Hardware Raid Controller

With built-in the Hardware-accelerated RAID processing, iAGE420UFE supports multiple and easy adjusting RAID levels of Raid 0, 1 and Raid 5 functions for the storage of a variety of applications, like disk-based backup or archival, workgroup file server, or small office web servers on

data protection and performance enhancement. Designed with a simple dialing Raid changing switch on the rear panel and an easy operation LCD module on the front panel, provide no efforts on any Raid level changes.

iAGE420UFE

Desktop 4 bay SATA Raid Subsystem

Specifications

Model	iAGE420UFE
Host Interface	eSATA / FireWireB/ USB2.0
HDD Interface	SATA I / SATA II
No. of Disk(s)	Up to 4
Raid Function	<ul style="list-style-type: none">▪ HardWare-accelerated RAID with data buffering▪ Raid 0, 10, 5 and 5S (5+ Spare) by switch setting▪ Automatically online fast disk data rebuilding▪ Automatic disk failure detection▪ Online bad sector recovery and reallocation▪ Bad sector alert Hot-Swappable disks
Hot-Swap	Both on Host and Device
LED Display	Green- Power ON indicator Blue- Busy (HDD Accessing) indicator
Dimension LxWxH cm	23.15(D) x 15.68(W) x 20.97(H) cm
Material	Plastic and Aluminum alloy
Power Supply	Single 150W (IPC-Grade) (AC Input: 100-140V, 50~60Hz)
Cooling	One 7 x7 x1.5 cm
O.S. Support	No driver requested on Host side
Data Transfer Rate	SATA 1.5/3 Gbps USB2.0 480Mbps IEEE 1394B 800Mbps
Burst Transfer Rate	eSATA: up to 80MB/s FireWire: up to 70MB/s USB2.0: up tp 26MB/s (Note: All above testing are base on Raid 0 with HD_Speed & IOMeter transfer rate testing program)

Multi-Lane

iAGE 420 / 440 ML

Desktop 4 bay Multi-Lane to SAS/SATAJBOD Enclosure



Aluminum housing, anodized surface, benefits for cooling and durability

Backplane design compatible for SAS/SATA II drives

Built-in fans for self-contained ventilation

Individual Key lock of each HDD tray for physical security

LED indicators for power and activity on each tray

Temperature and Fan failure LEDs and mutable buzzer alarm

Overview

iStarUSA iAGE series is a stylish 4-bay, hot-swappable, SAS/SATA compatible external enclosure. The housing made from an elegant aluminum with anodized surface for maximum cooling and the structure made from heavy duty material for solid protecting on drives. The 750 series is

built-in directly SAS/SATA backplane design with no internal cable for best performance and superior airflow and the host connection is designed with the new interface technology of Multi-lane (SFF8470) in up to 10Gbps bandwidth for 4-disks in single connectivity.

Application-Friendly

Each hot-swappable tray of iAGE420ML-5 series provides power and activity LED indicators for each single Hard Disk and enclosure is built-in ultra-quiet cooling and

environment detecting features with LEDs and mutable buzzer alarm for fan-fail and over temperature for user friendly.

External Enclosure Management

The model of iAGE420ML-5 is built-in I2C function for HDD fail report and displaying the red of tray-LED exact on the faulty drive to prevent the user from swapping wrong drive causing the potential data lose. This model

particular supports Areca's HBA of ARC-1110ML, ARC-1120ML, ARC-1210ML and ARC-1220ML for the user who is critical looking for high performance and data safety.

Specifications

Model	iAGE420ML-5	iAGE440ML
Host Interface	Multilane Screw (Infiniband / SFF8470)	Multilane Screw (Infiniband/SFF8470)
HDD Interface	SATA/II	SAS/SATA (3Gbps)
No. of Disk(s)	Up to 4	Up to 4
Raid Function	JBOD	JBOD
Hot-Swap	Both on Host and Device	
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator	
LED Display for Enclosure	Power-On LED - White , FAN Normal –Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red	
Material	Aluminum Housing and Plastic Front Panel	
Power Supply	150W (High reliability IPC-grade) 100-240V AC, 50/60Hz Universal	
Cooling	Two 6 x 6 x 1.5 cm Cooling Fans	
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs	
External Enclosure Management	I2C (Supports Areca's HBA of ARC-1110ML, ARC-1120ML and ARC-1210ML, ARC-1220ML)	N/A (Supports all SAS/SATA HBA)
Dimension	23.15(D) x 15.68(W) x 20.97(H) cm	
O.S Support	OS Independent	

Port Multiplier



iAGE520ES-PM iAGE1020ES-PM

Desktop 5 bay External SATA Port Multiplier Enclosure



Aluminum housing, anodized surface, benefits for cooling and durability

Backplane design for 5 / 10 SATA I/II drives

Built-in fans for self-contained ventilation

Individual Key lock of each HDD tray for physical security

LED indicators for power and activity on each tray

Temperature and Fan failure LEDs and mutable buzzer alarm

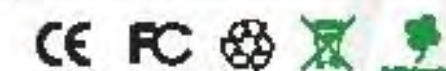
Overview

iStarUSA is a five bay hot-swappable SATA Port Multiplier enclosure. It's built-in a Silicon Image's SiI3726 with Port Multiplier function connection in single eSATA cable for 5-drives. This enclosure provide a high quality, IPC-grade, universal power supply with a quiet cooling fan and features the direct backplane design with no internal cabling for the best airflow. The iAGE520ES-PM delivers transfer rate up to 220MB/sec is the most popular simple external storage solution for today's digital content and editing require in high-performance and low cost.



Specifications

Model	iAGE520ES-PM	iAGE1020ES-PM
Host Interface	Single port eSATA	Single port eSATA
HDD Interface	SATA/II (1.5/3 Gbps)	SATA/II (1.5/3 Gbps)
No. of Disk(s)	Up to 5	Up to 10
Raid Function	Raid 0, 1, 10 or JBOD (Built-in SiI3726)	
Hot-Swap	Both on Host and Device	
LED Display for each Tray	White - Power ON indicator , Blue - Busy (HDD Accessing) indicator	
LED Display for Enclosure	Power-On LED - White , FAN Normal - Green ; FAN Fail - Red TEMP. Normal - Green ; TEMP. over 55°C - Red	
Material	Aluminum Housing and Plastic Front Panel	
Power Supply	150W (High reliability IPC-grade) 100-240V AC, 50/60Hz Universal	300W (High reliability IPC-grade)
Cooling	Two 6 x 6 x 1.5 cm Cooling Fans	Four 6 x 6 x 1.5 cm Cooling Fans
Alarm	Buzzer Beeping for Fan-fail or over temperature (over 55°C) occurs	
Dimension	23.15(D) x 15.68(W) x 20.97(H) cm	23.15(D) x 15.68(W) x 36.5(H) cm
System Requirement	Host system requires to support Port Multiplier function as well	
O.S. Support	O.S. Independent	O.S. Independent



Multi-Lane



iAGE820ML2-5 iAGE840ML2

Desktop 8 bay SAS/SATA JBOD Enclosure



Aluminum housing, anodized surface, benefits for cooling and durability

Backplane design compatible up to eight(8) SAS/SATA 3Gbps drives

Built-in fans for self-contained ventilation

Individual Key lock of each HDD tray for physical security

LED indicators for power and activity on each tray

Temperature and Fan failure LEDs and mutable buzzer alarm

Overview

The World best 8-bay SAS/SATA storage solution of iStarUSA iAGE series is targeted at the need of faster data transfer rates with maximum capacity for the Video Editing and Content Creation Professionals. The 760

series is designed with up to 8 hot-swappable trays and direct contact backplane for both 3Gbps disks of SAS or SATA and the enclosure is integrated a 300W high reliability of IPC-grade power supply.

Application-Friendly

Each hot-swappable tray of iAGE series provides power and activity LED indicators for each single Hard Disk and enclosure is built-in 4 sets of hot-swappable ultra-quiet cooling module and environment detecting features with

LEDs and mutable buzzer alarm for fan-fail and over temperature for user friendly.

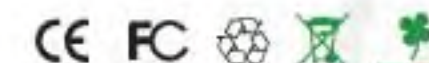
External Enclosure Management (iAGE840ML2)

The model of iAGE840ML2 is built-in i2C function for HDD fail report and displaying the red of tray-LED exact on the faulty drive to prevent the user from swapping wrong drive causing the potential data loss. This model particular supports Areca's HBA of ARC-1120ML and ARC-1220ML for the user who is critical looking for high performance and data safety.



Specifications

Model	iAGE820ML2-5	iAGE840ML2
Host Interface	Multilane Screw (Infiniband / SFF8470)	Multilane Screw (Infiniband/SFF8470)
HDD Interface	SATA/II	SAS/SATA (3Gbps)
No. of Disk(s)	Up to 8	Up to 8
Raid Function	JBOD	JBOD
Hot-Swap	Both on Host and Device	
LED Display for each Tray	Green- Power ON Indicator , Blue- Busy (HDD Accessing) Indicator	
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red	
Material	Aluminum Housing and Plastic Front Panel	
Power Supply	Single 300W (IPC-grade) 100-240V AC, 50/60Hz Universal	
Cooling	Four 6 x 6 x 1.5 cm Cooling Fans	Four 6 x 6 x 1.5 cm Cooling Fans
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs	
External Enclosure Management	i2C (Supports Areca's HBA of ARC-1120ML or ARC-1220ML)	N/A (Supports all SAS/SATA HBA)
Dimension	23.15(D) x 15.88(W) x 31(H) cm	
O.S Support	OS Independent	





iSCSI GbE

IP Storage



Backplane design supports eight(8) SATA II 3Gbps drives

Front-end Dual Gigabit Ethernet TCP/IP offload device

Hardware RAID Intel IOP 331 64-bit processor

Supports Raid levels 0, 1, 0+1, 5, 6, 50, 60 & JBOD

Built-in LCD control & easy operation

Online volume expansion & migration

Overview

The iAGE820-iSCSI is a world-class stylish desktop 8 bay iSCSI-to-SATA IP Raid storage with the elegant anodized aluminum appearance and solid material structure inside that keep drives protection and good-looking in same

enclosure. It features a fashion-blue color LCD for easy control and operation, a server-grade 300W universal power supply for running reliability and dual Gigabit iSCSI ports for high speed data transfer rate and sharing.

Hardware Raid Integrated

iStarUSA's iAGE820-iSCSI uses Intel 331, 64-bit Xscale processor to be core engine that can deliver the performance in 180MB/s while running by dual GbE channel

and supports the hardware Raid levels from Raid 0, 1, 0+1, 3, 5, 6, & JBOD in wide range Raid function selection for data protection.

iAGE820-iSCSI

Desktop 8 bay iSCSI GbE to SATA Raid Storage

More Features

- Dual GbE ports support MC/S
- Supports MPIO in Windows2000 & Windows 2003 Server system
- N-way mirror and Offline array roaming support
- Online volume expansion & migration
- Event notification via Email, SNMP trap, Windows & browser
- Smart fault sector relocation and hard drive S.M.A.R.T. enable



Specifications

Model	iAGE820-iSCSI
Host Interface	Dual port iSCSI Gigabit Ethernet
HDD Interface	SATA II (3Gbps)
No. of Disk(s)	Up to 8
CPU & Memory	Intel IOP 331 & 512MB DDR1
Raid Function	RAID 0, 1, 0+1, 3, 5, 6, 50, 60 & JBOD
Hot-Swap	Both on Host and Device
LED Display for each Tray	Green- Power ON Indicator , Blue- Busy (HDD Accessing) indicator
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red
Material	Aluminum Housing and Plastic Front Panel
Power Supply	Single 300W (IPC-grade) (Available in optional 300 Redundant)
Cooling	Two 8 x 8 x 2.5 cm Cooling Fans
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs
External Enclosure Management	Fast Ethernet Port for Web-based management, Event Notification via Email, SNMP trap, Windows & browser
Dimension	23.15(D) x 15.68(W) x 36.5(H) cm
O.S Support	OS Independent, Compatible with Windows, Linux & Mac system



mAGE104U20-ML-5 mAGE104U40-MS

1U-4bay SAS/SATA JBOD Storage Chassis



miniSAS(SFF-8088)



Supports SAS/SATA 3Gbps disks

Host connectivity by high speed 10Gbps miniSAS (SFF8470 / SFF8088)

Backplane design for four (4) removable drive trays

Two (2) quiet hot-swappable blowers for self-contained ventilation

Individual Key lock of each HDD tray for physical security

Temperature and Fan failure LEDs and mutable buzzer alarm

Overview

iStarUSA's 1U 4 Bay, hot-swappable, SAS/SATA rackmount chassis is design for direct single connection to host with the high bandwidth of miniSAS (SFF8470/8088)

cable for 4 disks. This high-performance and cost-effective 1U solution is most popular for Disks expansion or Raid configuration from Host SAS or SATA HBA.

Application-Friendly

The 1U-4 bay series provide 4 removable drive trays and each tray built-in power and activity LED indicators for each single Hard Disk; moreover, the enclosure is

Integrated ultra-quiet cooling and environment detecting features with LEDs and mutable buzzer alarm for fan-fail and over temperature for user friendly.

External Enclosure Management (mAGE104U20-ML-5)

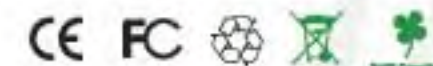
The model of mAGE104U20-ML-5 is built-in I2C function for HDD fail report and displaying the red of tray-LED exact on the faulty drive to prevent the user from swapping wrong drive causing the potential data lose. This

model particular supports Areca's HBA of ARC-1110ML, ARC-1120ML, ARC-1210ML and ARC-1220ML for the user who is critical looking for high performance and data safety.



Specifications

Model	mAGE104U20-ML-5	mAGE104U40-MS
Host Interface	miniSAS (SFF-8470)	miniSAS (SFF-8088)
HDD Interface	SATA (3Gbps)	SAS/SATA (3Gbps)
No. of Disk(s)	Up to 4	Up to 4
Raid Function	JBOD	JBOD
Hot-Swap	Both on Host and Device	
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator	
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP, Normal-Green ; TEMP. over 55°C - Red	
Material	Heavy-duty cold-rolled steel	
Power Supply	150W (High reliability IPC-grade) 100-240V AC, 50/60Hz Universal	
Cooling	Two 7.5 x 7.5 x 2.8 cm Blowers	
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs	
External Enclosure Management	I2C (Supports Areca's HBA of ARC-1110ML,ARC-1120ML and ARC-1210ML,ARC-1220ML)	N/A (Supports all SAS/SATA HBA)
Dimension	45.3(D) x 48.2(W) x 4.4(H) cm	
O.S Support	OS Independent	





miniSAS(SFF-8088)



Supports SAS/SATA 3Gbps disks

Host connectivity by dual port high speed 10Gbps miniSAS (SFF8088)

Backplane design for eight (8) removable drive trays

Two (2) quiet hot-swappable fan cooling for self-contained ventilation

Individual Key lock of each HDD tray for physical security

Temperature and Fan failure LEDs and mutable buzzer alarm

Overview

iStarUSA's 2U 8 Bay, hot-swappable, SAS/SATA rackmount chassis is design for direct connection to host HBA with two high bandwidth of miniSAS (SFF8088)

cables for 8 disks. This high-performance and cost-effective 2U solution is most popular for Disks expansion or Raid configuration from Host SAS or SATA HBA.

Application-Friendly

The 2U-8 bay series provide 8 removable drive trays and each tray built-in power and activity LED indicators for each single Hard Disk; moreover, the enclosure is

integrated hot-swappable cooling modules and environment detecting features with LEDs and mutable buzzer alarm for fan-fail and over temperature for user friendly.

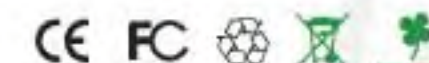
mAGE208U40-2MS

2U-8 bay mini-SAS to SAS/SATA JBOD Rackmount Chassis



Specifications

Model	mAGE208O40-2MS
Host Interface	Dual port miniSAS (SFF-8088)
HDD Interface	SAS/SATA (3Gbps)
No. of Disk(s)	Up to 8
Raid Function	JBOD
Hot-Swap	Both on Host and Device
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red
Material	Heavy-duty cold-rolled steel Housing
Power Supply	Single 300W (High reliability IPC-grade) 100-240V AC, 50/60Hz Universal
Cooling	Two 6 x 6 x 2.5 cm Fan modules
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs
External Enclosure Management	N/A (Supports all SAS/SATA HBA)
Dimension	45.6(D) x 48.2(W) x 8.85(H) cm
O.S Support	OS Independent



iSCSI



Gigabit Ethernet



Backplane design supports eight(8) SATA II 3Gbps drives

Front-end Dual Gigabit Ethernet TCP/IP offload device

Hardware RAID Intel IOP 331 64-bit processor

Supports Raid levels 0, 1, 0+1, 5, 6, 50, 60 & JBOD

Built-in LCD control & easy operation

Online volume expansion & migration

Overview

iStarUSA's mAGE208U20-iSCSI is a cost-effective 2U-8 bay iSCSI-to-SATA IP Raid storage built-in dual Gigabit Ethernet ports for convenient connectivity and fast data transfer by networking infrastructures and it provides a simple to use GUI and a fashion-blue color LCD for ease-

of-control and operation in setting, a server-grade 300W universal power supply for running reliability and dual Gigabit iSCSI ports for high speed data transfer rate and sharing.

Hardware Raid Integrated

iStarUSA's mAGE208U20-iSCSI uses Intel 331, 64-bit Xscale processor to be core engine that can deliver the performance in 180MB/s while running by dual GbE channel and supports

the hardware Raid levels from Raid 0, 1, 0+1, 3, 5, 6, & JBOD in wide rage Raid function selection for data protection.

More Features

- Dual GbE ports support MC/S
- Supports MPIO in Windows2000 & Windows 2003 Server system
- N-way mirror and Offline array roaming support
- Online volume expansion & migration
- Event notification via Email, SNMP trap, Windows & browser
- Smart fault sector relocation and hard drive S.M.A.R.T. enable

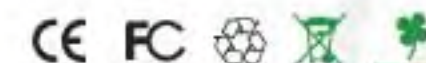
mAGE208U20-iSCSI

2U-8 bay iSCSI GbE to SATA Raid Storage



Specifications

Model	mAGE208U20-iSCSI
Host Interface	Dual port iSCSI Gigabit Ethernet
HDD Interface	SATA II (3Gbps)
No. of Disk(s)	Up to 8
CPU & Memory	Intel IOP 331 & 512MB DDR1
Raid Function	RAID 0, 1, 0+1, 3, 5, 6, 50, 60 & JBOD
Hot-Swap	Both on Host and Device
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red
Material	Aluminum Housing and Plastic Front Panel
Power Supply	Single 300W (IPC-grade) (Available in optional 300 Redundant)
Cooling	Two 7.5 x 7.5 x 2.8 cm Blowers
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs
External Enclosure Management	Fast Ethernet Port for Web-based management, Event Notification via Email, SNMP trap, Windows & browser
Dimension	55.9(D) x 48.2(W) x 8.85(H) cm
O.S Support	OS Independent, Compatible with Windows, Linux & Mac system



mAGE212U40-3MS mAGE212U40-EXP

2U-12 bay SAS/SATA JBOD Rackmount Chassis



Supports SAS/SATA 3Gbps disks

Host connectivity by high speed 10Gbps miniSAS (SFF8088)

Backplane design for eight (16) removable drive trays

Equipped with quiet hot-swappable fan cooling for self-contained ventilation

Individual Key lock of each HDD tray for physical security

Temperature and Fan failure LEDs and mutable buzzer alarm

Overview

iStarUSA's 2U 12 Bay, hot-swappable, SAS/SATA rackmount chassis is design for direct connection to host HBA with high bandwidth (10Gbps) of miniSAS (SFF8088) cables for 12 disks. This high-performance

and cost-effective solution integrated up to 12-drives in high density 2U is most popular solution for Disks expansion or Raid configuration from Host SAS or SATA HBA.

Application-Friendly

The 2U-12 bay series provide 12 removable drive trays and each tray built-in power and activity LED indicators for each single Hard Disk; moreover, the enclosure is

integrated hot-swappable cooling modules and environment detecting features with LEDs and mutable buzzer alarm for fan-fail and over temperature for user friendly.

Validated Controller Module

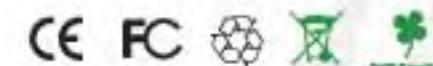
areca®

- ✓ ARC-8060-SAS 2 x 4 Lanes 3Gbps SAS
- ✓ ARC-8060-Fibre 2 x 4Gbps Fibre
- ✓ ARC-8060-iSCSI 2 x 1Gbps Ethernet



Specifications

Model	mAGE212U40-3MS	mAGE212U40-EXP
Host Interface	Three port miniSAS (SFF-8088) (w/o built-in SAS Expander)	miniSAS (SFF-8088)
HDD Interface	SAS/SATA (3Gbps)	
No. of Disk(s)	Up to 12	
Raid Function	JBOD	JBOD
Hot-Swap	Both on Host and Device	
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator	
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red	
Material	Heavy-duty cold-rolled steel Housing	
Power Supply	Single 400W or mini-Redundant 400W PSU 100-240V AC, 50/60Hz Universal	
Cooling	Two 6 x 6 x 2.5 cm Fan modules	Two 7.5 x 7.5 x 2.8 cm Blowers
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs	
External Enclosure Management	Backplane supports SGPIO	
Dimension	45.6(D) x 48.2(W) x 8.85(H) cm	55.9(D) x 48.2(W) x 8.85(H) cm
O.S Support	OS Independent	





up to **20Gbps**



External PCI-e (PCI-Express) x8 , up to 20Gbps Host Interface

Supports SAS/SATA (3Gbps) Drives

Up to twelve (12) Removable SAS/SATA Drive Trays

Optional Dual Hot-Swappable Power Supply

LED Indicators for Power and Activity on each HDD Tray

Environmental Monitoring with FAN/TEMP LEDs and mutable buzzer alarm

Overview

The Best Choice 2008 award-winning product line, iStarUSA's PCI-e Raid series, announces the 12-disks in high-density 2U rackmount chassis with the PCI-Express x8 host connectivity for up to 20Gbps data transfer rate. The mAGE212U40-PCI-E is designed for customers building their DAS

(Direct Attached Storage) by themselves for a high-performance and cost-effective external storage solution. Customers can choose any their trusted or favorite 12-port supported SAS or SATA HBA and then just install the HBA into mAGE212U40-PCI-E.

Exactly same experience like you build-up an internal HBA

After plugging the iStarUSA's enclosed PCI-e x8 adaptor into PC or MAC workstation, the following driver installation is just as easy as like you build the internal HBA card in the host server. The only difference is being an 12-bay external storage from your server system by only one external PCI-e cable connectivity.



mAGE212U40-PCI-E

mAGE212U40-PCI-E

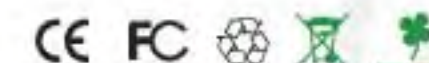
2U-12 bay SAS/SATA JBOD Rackmount Chassis

Validated HBA for mAGE212U40-PCI-E

adaptec	Adaptec RAID 51245	3ware	9650SE-12ML
adaptec	Adaptec RAID 31205	LSI	MegaRAID SAS64016
areca	ARC-1231ML	HighPoint	RR2340
areca	ARC-1680ix-12	PROMISE TECHNOLOGY, INC.	EX12350

Specifications

Model	mAGE212U40-PCI-E
Host Interface	External PCI-Express x8
HDD Interface	SAS/SATA (3Gbps)
No. of Disk(s)	Up to 12
Raid Function	JBOD
Expansion	N/A
Hot-Swap	Both on Host and Device
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red
Material	Heavy-duty cold-rolled steel Housing
Power Supply	Single 400W or mini-Redundant 400W PSU 100-240V AC, 50/60Hz Universal
Cooling	Two 7.5 x 7.5 x2.8 cm Blowers
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs
External Enclosure Management	Backplane supports SGPIO
Dimension	55.9(D) x 48.2(W) x 8.85(H) cm
O.S Support	OS Independent





mAGE316U40-4MS

3U-16 Bay SAS/SATA JBOD Rackmount Chassis



Supports SAS/SATA 3Gbps disks

Host connectivity by high speed 10Gbps miniSAS (SFF8088)

Backplane design for eight (16) removable drive trays

Equipped with quiet hot-swappable fan cooling for self-contained ventilation

Individual Key lock of each HDD tray for physical security

Temperature and Fan failure LEDs and mutable buzzer alarm

Overview

iStarUSA's 3U 16 Bay, hot-swappable, SAS/SATA rackmount chassis is design for direct connection to host HBA with high bandwidth (10Gbps) of miniSAS (SFF8088) cables for 16 disks. This high-performance

and cost-effective solution integrated up to 16-drives in high density 3U is most popular solution for Disks expansion or Raid configuration from Host SAS or SATA HBA.

Available for Integrated with 5.25" external controllers

The mAGE316U40-4MS provides a standard 3U-16 bay rackmount chassis with SAS/SATA backplane for customer to integrate any 5.25" standard controller module for becoming different host interface of Fibre, iSCSI or SAS. For instance, mAGE316U40-4MS can integrate with Areca's ARC-8060-

Fibre (16-port Fibre-to-SAS Controller) becoming a high-performance and cost-effective 3U-16 bay Fibre host interface. Moreover, the backplane of mAGE316U40-4MS is built-in SGPIO to support the HDD fail signal from Areca's controller module for best enclosure management.

Validated Controller Module



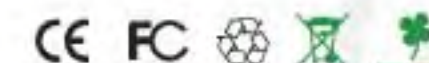
- ✓ ARC-8060-SAS 2 x 4 Lanes 3Gbps SAS
- ✓ ARC-8060-Fibre 2 x 4Gbps Fibre
- ✓ ARC-8060-iSCSI 2 x 1Gbps Ethernet

mAGE316U40-4MS



Specifications

Model	mAGE316U40-4MS
Host Interface	Quad port miniSAS (SFF-8088) (w/o built-in SAS Expander)
HDD Interface	SAS/SATA (3Gbps)
No. of Disk(s)	Up to 16
Raid Function	JBOD
Hot-Swap	Both on Host and Device
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red
Material	Heavy-duty cold-rolled steel Housing
Power Supply	Single 400W or mini-Redundant 400W PSU
Cooling	100-240V AC, 50/60Hz Universal
Alarm	Three 8 x 8 x 2.5 cm Fan modules
External Enclosure Management	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs Backplane supports SGPIO
Dimension	45.6(D) x 48.2(W) x 13.1(H) cm
O.S Support	OS Independent





up to **20Gbps**



External PCI-e (PCI-Express) x8 , up to 20Gbps Host Interface

Supports SAS/SATA (3Gbps) Drives

Up to Sixteen Removable SAS/SATA Drive Trays

Optional Dual Hot-Swappable Power Supply

LED Indicators for Power and Activity on each HDD Tray

Environmental Monitoring with FAN/TEMP LEDs and mutable buzzer alarm

Overview

With the innovative architecture, the award-winning, iStarUSA's mAGE316U40-PCI-E, is designed to allow you plugging any standard or your favorite SAS or SATA PCI-e Raid controller directly into its internal PCI-e slot and use its high speed external PCI-Express x8 (20Gbps)

as the host nterface. Moreover, mAGE316U40-PCI-E provides the maximum drives capacity with highest performance, fewer and lower-cost components. The substantial PCI-e cable connection also gives system operations the high reliability.

Terabyte-Infinity (mAGE316U40-PCIE-EXP)

The second generation of PCI-e to SAS/SATA 3U-16 bay storage, mAGE316U40-PCIE-EXP, features PCI-Express expander for more PCI-e slot(s) expansion. This chassis is designed to provide one(1) more PCI-e x8 slot for connection next mAGE316U40-PCIE-EXP for infinity multiple-disks expansion or two(2)

more PCI-e x4 slots for plugging any standard PCI-e add-on card while the slot shortage in server or workstation. mAGE316U40-PCIE-EXP is the top line of external storage solution designed for seeking for biggest disk capacity and highest performance at the time.

Validated HBA for mAGE316U40-PCI Series

Adaptec RAID 51645

Adaptec RAID 31605

ARC-1261ML

ARC-1680ix-16

9650SE-16ML

MegaRAID SAS84016

RR2340

EX16350

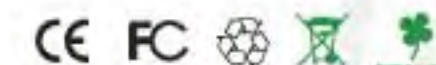
mAGE316U40-PCI-E mAGE316U40-PCIE-EXP

3U-16 bay External PCI-Express to SAS/SATA JBOD Rackmount Chassis



Specifications

Model	mAGE316U40-PCI-E	mAGE316U40-PCIE-EXP
Host Interface	External PCI-Express x8	External PCI-Express x8
HDD Interface	SAS/SATA (3Gbps)	SAS/SATA (3Gbps)
No. of Disk(s)	Up to 16	Up to 16
Raid Function	JBOD	JBOD
Expansion	N/A	1* PCI-e x8 slot or 2*PCI-e x4 slot
Hot-Swap	Both on Host and Device	
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator	
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red	
Material	Heavy-duty cold-rolled steel Housing	
Power Supply	Single 400W or mini-Redundant 400W PSU 100-240V AC, 50/60Hz Universal	
Cooling	Two 7.5 x 7.5 x 2.8 cm Blowers	Two 7.5 x 7.5 x 2.8 cm Blowers
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs	
External Enclosure Management	Backplane supports SGPIO	Backplane supports SGPIO
Dimension	55.9(D) x 48.2(W) x 13.1(H) cm	55.9(D) x 48.2(W) x 13.1(H) cm
O.S Support	OS Independent.	



iSCSI RAID

mAGE316U20-iSCSI

3U-16 bay iSCSI GbE to SATA Raid Storage

GbE IP Storage



Backplane design supports sixteen (16) SATA II 3Gbps drives

Front-end Dual Gigabit Ethernet TCP/IP offload device

Hardware RAID Intel IOP 331 64-bit processor

Supports Raid levels 0, 1, 0+1, 5, 6, 50, 60 & JBOD

Built-in LCD control & easy operation

Online volume expansion & migration

Overview

IStarUSA's mAGE316U20-iSCSI is a cost-effective enterprise level 3U-16 bay iSCSI-to-SATA IP Raid storage built-in dual Gigabit Ethernet ports for convenient connectivity and fast data transfer by networking infrastructures and it provides a simple to use GUI and a fashion-blue

color LCD for ease-of-control and operation in setting, a server-grade 400W universal power supply for running reliability and dual Gigabit iSCSI ports for high speed data transfer rate and sharing.

Hardware Raid Integrated

IStarUSA's mAGE316U20-iSCSI uses Intel 331, 64-bit Xscale processor to be core engine that can deliver the performance in 180MB/s while running by dual GbE channel and supports the hardware Raid levels from Raid 0, 1, 0+1, 3, 5, 6, & JBOD in wide rage Raid function selection for data protection.

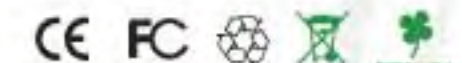


More Features

- Dual GbE ports support MC/S
- Supports MPIO in Windows2000 & Windows 2003 Server system
- N-way mirror and Offline array roaming support
- Online volume expansion & migration
- Event notification via Email, SNMP trap, Windows & browser
- Smart fault sector relocation and hard drive S.M.A.R.T. enable

Specifications

Model	mAGE316U20-iSCSI
Host Interface	Dual port iSCSI Gigabit Ethernet
HDD Interface	SATA II (3Gbps)
No. of Disk(s)	Up to 16
CPU & Memory	Intel IOP 331 & 512MB DDR1
Raid Function	RAID 0, 1, 0+1, 3, 5, 6, 50, 60 & JBOD
Hot-Swap	Both on Host and Device
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red
Material	Aluminum Housing and Plastic Front Panel
Power Supply	Single 400W (IPC-grade) (Available in optional 400 Redundant)
Cooling	Two 7.5 x 7.5 x 2.8 cm Blowers
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs
External Enclosure Management	Fast Ethernet Port for Web-based management, Event Notification via Email, SNMP trap, Windows & browser
Dimension	55.9(D) x 48.2(W) x 13.1(H) cm
O.S Support	OS Independent, Compatible with Windows, Linux & Mac system





mAGE424U40-PCIE-EXP

4U-24 bay External PCI-Express to SAS/SATA JBOD Rackmount Chassis



External PCI-e (PCI-Express) x8 , up to 20Gbps Host Interface

Supports SAS/SATA (3Gbps) Drives

Up to twenty-four (24) Removable SAS/SATA Drive Trays

Optional Dual Hot-Swappable Power Supply

LED Indicators for Power and Activity on each HDD Tray

Environmental Monitoring with FAN/TEMP LEDs and mutable buzzer alarm

Overview

The Best Choice 2008 award-winning product line, iStarUSA's PCI-e Raid series, announces the maximum 24-disks in high-density 4U rackmount chassis with the PCI-Express x8 host connectivity for up to 20Gbps data transfer rate. The mAGE424U40-PCIE-EXP not only allows you plugging any standard or your favorite 24 port supports SAS or SATA PCI-e Raid controller directly into its internal PCI-e

slot to configure the storage with Raid functions but also provides one(1) more PCI-e x8 slot for connection next external storage chassis for infinity multiple-disks expansion or two(2) more PCI-e x4 slots for plugging any standard PCI-e add-on card while the slot shortage in server or workstation.

External Raid Solution keeps your workstation cooler

Unlike the traditional internal HBA has to plug into the workstation, mAGE424U40-PCIE-EXP external Raid solution totally solves the heat problem generated from all components

like Power Supply, CPU, HDD, Controller, and etc... (Heat affects the system performance and reduces the life of components.)

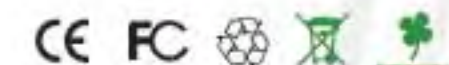
Validated HBA for mAGE424

adaptec	Adaptec RAID 52445
areca	ARC-1280ML
areca	ARC-1680lx-24
3ware	9650SE-24M8



Specifications

Model	mAGE424U40-PCIE-EXP
Host Interface	External PCI-Express x8
HDD Interface	SAS/SATA (3Gbps)
No. of Disk(s)	Up to 24
Raid Function	JBOD
Expansion	1* PCI-e x8 slot or 2*PCI-e x4 slot
Hot-Swap	Both on Host and Device
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C- Red
Material	Heavy-duty cold-rolled steel Housing
Power Supply	Single 500W or mini-Redundant 500W PSU 100-240V AC, 50/60Hz Universal
Cooling	Two 9 x 9 x 2.5 cm and three 6 x 6 x 2.5 cm cooling fans
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs
External Enclosure Management	Backplane supports SGPIO
Dimension	55.9(D) x 48.2(W) x 17.6(H) cm
O.S Support	OS Independent



jAGE34R40MS jAGE35R40

Internal multi-drive SAS/SATA backplane module



Supports SAS/SATA (3Gbps) disks Compatible

High quality aluminum construction

Backplane design for multiple removable SAS/SATA drive trays

Individual Key lock of each HDD tray for physical security

Built-in fans for self-contained ventilation

Temperature and Fan failure LEDs and mutable buzzer alarm

Overview

jAGE34R40MS / jAGE35R40 is an internal multi-drives aluminum enclosures, SAS/SATA compatible backplane design supports multiple 3.5-inch SAS & SATA 3Gbps Disks with hot-swappable trays, equipped a hot-swappable fan for self-ventilation and ease-of-change and the LEDs and

mutable buzzer alarm for enclosure's environmental detecting on temperature and fan failure. Each hot-swappable tray is built-in an individual key lock for physical security and disk power/activity LEDs for user friendly.

Single Connectivity for Multiple Disks

jAGE34R40MS is particularly designed with a Mini-SAS (SFF8088) connector in the rear-panel for single mini-SAS 10Gbps bandwidth cable connectivity for four (4) SAS/SATA Disks to the host Raid control card that

equipped with mini-SAS connector as well. The secure latch of miniSAS(SFF8088) will prevent it from potential cable coming off easily and best cable arrangement for excellent venting inside of server chassis.

jAGE34R40MS



jAGE35R40



Specifications

Model	jAGE34R40MS	jAGE35R40
Host Interface	SAS/SATA (1* Internal miniSAS)	SAS/SATA (10*Discrete SATA Connector)
HDD Interface	SAS/SATA (3Gbps)	
No. of Disk(s)	4	5
Raid Function	N/A	N/A
Hot-Swap	Both on Host and Device	
LED Display for each Tray	Green- Power ON indicator , Blue- Busy (HDD Accessing) indicator	
LED Display for Enclosure	Power-On LED - White , FAN Normal -Green ; FAN Fail - Red TEMP. Normal-Green ; TEMP. over 55°C - Red	
Material	Aluminum Housing and Plastic Front Panel	
Power Connector	2	
Cooling	One 8 x 8 x 2.5 cm Cooling Fan	
Alarm	Buzzer Beeping for Fan-fail or over temperature(over 55°C) occurs	
Dimension	Including Fan: 22(D) x 14.6(W) x 12.6(H) cm Excluding Fan: 19.3(D) x 14.6(W) x 12.6(H) cm	
O.S Support	OS Independent	



eSATA Port Multiplier Adaptor

zAGE-H-5SAES-PM



zAGE-D-5SAES-PM

Supports Port Multiplier(Sil3726) up to 5 SATAII drives through a single eSATA cable

SATA Adaptor

zAGE-H-4SA70



zAGE-D-4SA70

Multilane(SFF8470) to 4 discrete SATA conveter

SAS Adaptor

zAGE-H-8788-SI



zAGE-D-8788-SI

Single internal miniSAS(SFF8087) to Single external miniSAS(SFF8088) Adaptor

zAGE-H-8788-DU



zAGE-D-8788-DU

Dual internal miniSAS(SFF8087) to Dual external miniSAS(SFF8088) Adaptor

zAGE-H-8788-QU



Quad internal miniSAS(SFF8087) to Quad external miniSAS(SFF8088) Adaptor

Product Matrix

SAS/SATA Cable Accessories

External SAS Cable

Model No.	Cable Description
cAGE-AAMSS1	Multilane Screw(SFF8470) to Multilane Screw(SFF8470), 1M
cAGE-AAMSM1	Multilane Screw(SFF8470) to mini SAS (SFF8088), 1M
cAGE-AAMSM2	Multilane(SFF8470) to mini SAS (SFF8088), 2 M
cAGE-AAMMM1	miniSAS(SFF8088) to miniSAS(SFF8088) Cable, 1M
cAGE-AAMMM2	miniSAS(SFF8088) to miniSAS(SFF8088) Cable, 2M
cAGE-AAMME1	miniSAS (SFF8088) to 4*eSATA, 1M
cAGE-AAMME2	miniSAS (SFF8088) to 4*eSATA, 2M
cAGE-AAMSE1	Multilane SCREW (SFF8470) to 4*eSATA cable, 1M

Internal SAS Cable

Model No.	Cable Description
cAGE-AAM1MI-H	4x SATA (Host) to mini SAS(SFF8087)(Device) , 50 cm
cAGE-AAM1MI-1	4x SATA (Host) to mini SAS(SFF8087)(Device) , 100 cm
cAGE-AAMM1I-H	miniSAS(SFF8087) (Host) to 4 x SATA (Device) , 50 cm
cAGE-AAMM1I-1	miniSAS(SFF8087) (Host) to 4 x SATA (Device) , 100 cm
cAGE-AAMFMI-H	Multilane 32pin(SFF8484) to mini SAS(SFF8087) cable, 50 cm
cAGE-AAMFMI-1	Multilane 32pin(SFF8484) to mini SAS(SFF8087) cable, 100 cm
cAGE-AAMLMI-H	Multilane Latch (SFF8470)to miniSAS(SFF8087) , 50 cm
cAGE-AAMLMI-1	Multilane Latch (SFF8470)to miniSAS(SFF8087) , 1M
cAGE-AAMMMI-30	mini SAS(SFF8087) to mini SAS(SFF8087) cable, 30 cm
cAGE-AAMMMI-H	mini SAS(SFF8087) to mini SAS(SFF8087) cable, 50 cm
cAGE-AAMMMI-1	mini SAS(SFF8087) to mini SAS(SFF8087) cable, 100 cm
cAGE-AASFMI-75	Multilane 32pin (SFF8484) to 4*SAS (SFF8482), 75cm
cAGE-AASFMI-75	Multilane 32pin (SFF8484)(Host) to 4*SATA (SFF8482)(Device), 75cm

Model No.	Form-Factor	Host Interface							Note
		USB 2.0	FireWireB	eSATA	Multilane (SFF8470)	miniSAS (SFF8088)	PCI-Express x8	iSCSI	
vAGE220-SA	Mini 2 bay			✓					JBOD
vAGE220-UF	Mini 2 bay	✓	✓						
vAGE220-ES	Mini 2 bay			✓					With Raid
IAGE420UFE	Desktop 4 bay	✓	✓	✓					Raid
IAGE420ML-5	Desktop 4 bay				✓				I2C
IAGE420ML	Desktop 4 bay				✓				
IAGE520ES-PM	Desktop 5 bay			✓					Port Multiplier
IAGE1020ES-PM	Desktop 10 bay				✓				Port Multiplier
IAGE820ML2-5	Desktop 8 bay				✓				I2C
IAGE840ML2	Desktop 8 bay				✓				
IAGE820-iSCSI	Desktop 8 bay							✓	
mAGE104U20-ML-5	1U-4 bay					✓			I2C
mAGE104U40-MS	1U-4 bay					✓			
mAGE208U40-2MS	2U-8 bay					✓			
mAGE208U20-iSCSI	2U-8 bay							✓	
mAGE212U40-3MS	2U-12 bay					✓			
mAGE312U40-EXP	2U-12 bay					✓			SAS Expander
mAGE212U40-PCI-E	2U-12 bay						✓		
mAGE316U40-4MS	3U-16 bay					✓			
mAGE316U40-PCI-E	3U-16 bay						✓		
mAGE316U40-PCIE-EXP	3U-16 bay						✓		PCI-e Slot Expander
mAGE316U20-iSCSI	3U-16 bay							✓	