

# Intel® RAID Expander RES2SV240

Low profile, short depth card perfect for any system with more than 8 drives

## Product Overview:

For a low-cost value-added alternative to high port count RAID cards, select the Intel® RAID Expander RES2SV240 to achieve excellent performance and higher returns on investment. As the perfect complement for Intel's SAS-2 generation RAID cards, the RES2SV240 offers ultimate flexibility for architecting a high drive count (>8 drive) storage solution in any sized system.

The RES2SV240, powered by an LSISAS2x24 24-port SAS-2 expander, enables the connection of up to 24 directly attached SAS or Serial ATA (SATA) devices with transfers based on the speed of the host or target at either 6.0Gb/s, 3.0Gb/s, or 1.5Gb/s. The RES2SV240 can be cascaded to accommodate as many drives as the associated SAS/RAID card allows with table routing for up to 1024 SAS connections. Furthermore, the RES2SV240 supports usability functions such as discovery and enclosure management.



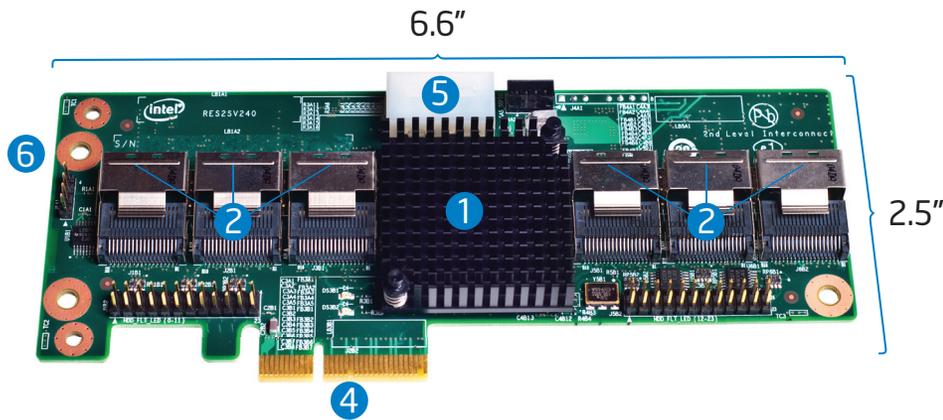
All Intel RAID solutions are validated across multiple platforms with Intel® boards, chassis, and systems. Customized training, as well as Intel® service and support, make Intel the one source for customers seeking data protection, increased productivity, and simplified IT.

## KEY Advantages:

- **Low-cost alternative to high port count RAID cards.** Provide a more economic solution that is similar to a 16 or 20 high port count card, but has more flexibility as the RES2SV240 can be teamed up with a wide variety 4 or 8 port SAS RAID card/modules to provide you with features that are better suited to customer needs.
- **Inside-the-box design flexibility.** With a true MD2 form factor, this expander card is ideal for low-profile height and half-length adapter slots. In cases where an add-in slot is not available, the RES2SV240 can even be mounted to a chassis wall or air-duct with power obtained from a power cable.
- **Excellent performance.** Overall performance of the RES2SV240 is on par with Intel's SAS-2 high port count RAID with transfer rates of up to 6Gb/s per port. While today's high port count RAID cards typically include an expander on the card, a RES2SV240-based solution separates the expander from the RAID card for more system design flexibility.
- **Compatible with Intel's current and future RAID products.** Connect any of Intel's current SAS-2 RAID products now, and upgrade with Intel's forthcoming 2<sup>nd</sup> generation SAS-2 of SAS-2 cards in 2011 (Future products are subject to feature and schedule changes.).
- **Exceptional quality and support.** Thoroughly tested across Intel's SAS-2 RAID product line to ensure ease of deployment; and backed by a 3 year warranty.

## Features:

- 1 LSI\* LSI SAS2x24 SAS/SATA Expander to enable communication with 24-ports at 3 or 6Gb/s
- 2 Six SFF8087 SAS/SATA connectors for attaching up to 24 targets or initiators
- 3 Low Profile, MD2 depth for use in low profile slots and motherboards with add-in card depth constraints (dimensions indicated on image)
- 4 PCIe x4 connector with power pins to mount and power from a PCIe slot (if desired)
- 5 RA 4 Pin power connector to power from a cable (if desired)
- 6 Mounting holes for attaching to a chassis or duct wall (if desired)
- 7 Six SAS cables with SFF8087 connectors at each end and designed to allow tight bend radii are included for ease of procurement and integration simplicity (not shown)



For more information on the Intel® Integrated RAID Expander RES2SV240, visit: [www.intel.com/go/RAID](http://www.intel.com/go/RAID)

For more information on how to make the Intel® RAID Expander RES2SV240 part of your server environment, please contact an Intel® Channel Partner Program participant.

## Technical Specifications:

<b>Intel Order Code</b>	RES2SV240 (includes 6 cables) RES2SV240NC (no cables)
<b>Embedded Processor</b>	LSI* LSI SAS2x24 24-Port Serial Attached SCSI/SATA Expander chip
<b>Compatibility</b>	Intel® RAID Controllers (SAS-2) Intel® Integrated RAID Modules (SAS-2) RAID or non-RAID mode 2.5-inch and 3.5-inch SAS or SATA drives Drives of mixed capacity Non disk devices including expanders
<b>SAS/SATA Ports</b>	24 total sub-divided into 6 quad port via 8087 (Mini-SAS) connectors
<b>Firmware</b>	8 MB in an updateable flash ROM
<b>Enclosure Management</b>	SGPIO
<b>Operating Temperature</b>	Maximum ambient: 50°C (45°C with optional BBU)
<b>Operating Voltage</b>	+3.3 V
<b>Cables Included</b>	Six with 8087 (Mini-SAS) to 8087 (Mini-SAS) connectors (2 short and 4 long)



INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS OTHERWISE AGREED IN WRITING BY INTEL, THE INTEL PRODUCTS ARE NOT DESIGNED NOR INTENDED FOR ANY APPLICATION IN WHICH THE FAILURE OF THE INTEL PRODUCT COULD CREATE A SITUATION WHERE PERSONAL INJURY OR DEATH MAY OCCUR.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

Intel and the Intel logo are trademarks of Intel Corporation in the U.S. and other countries.

\*Other names and brands may be claimed as the property of others.

