

Microsemi Adaptec® 82885T

12 Gbps 36-port SAS Expander Card

Scalable Storage Solutions for Data Centers

The 12 Gbps 82885T SAS Expander Card offers a scalable connectivity/fan-out option for additional drives when used in conjunction with a SAS RAID adapter or SAS HBA. The 82885T SAS Expander Card offers 36 ports in a low-profile MD2 form factor. Of the 28 internal ports, four ports are dedicated for a controller, and the rest are available for connection to SAS or SATA drives. The eight external ports are available for optional connections to external JBODs or a SAS adapter.

Flexible Configuration

The 82885T SAS Expander Card mounts internally to any available PCIe slot, away from the backplane, and features mini-SAS HD connectors out the top for added cabling flexibility in dense server environments. The 82885T enables a low-cost drive expansion solution when mated with a RAID adapter or HBA. The expander draws power from the PCIe slot (requires four or more lanes), but there is no data transfer to the slot. Alternatively, power can also be supplied to the expander card through a standard 4-pin auxiliary power connector.

Universal Compatibility

The 82885T SAS Expander Card is fully compatible with Microsemi Adaptec Series 8, Series 7, and Series 6 RAID adapters and HBAs, allowing seamless integration and management within an end-to-end Microsemi solution. The 82885T is also compatible with third-party RAID adapters and HBAs, and has also been tested for interoperability with a wide variety of SAS and SATA HDDs and SSDs.

Enclosure Management Support

The 82885T SAS Expander Card supports SGPIO and SES2 enclosure management, allowing enclosure information to be routed from all daisy-chained 82885T cards to the HBA or RAID adapter. All device and slot mapping information is provided to the HBA or RAID adapter by the last 82885T card in the chain.



Benefits

- Low-cost solution ideal for density-optimized servers requiring direct connectivity to up to 24 internal ports for a SAS adapter and/or SATA HDDs and SSDs. Supports 12 Gbps data rates and is backward compatible to 6 Gbps.
- High I/O transaction and high bandwidth processing, solutions that reduce energy consumption and maintenance costs
- Low-profile form factor

Highlights

- Enables high-density storage within the server while maintaining a passive backplane
- Enables both internal and external connectivity
- Significantly lower power consumption than competing solutions
- Backward compatible to 6 Gbps for legacy 6G SAS or SATA devices
- Support for SGPIO and SES2 enclosure management
- Up to 24 internal ports for direct-attach drive connectivity
- 4 or 8 internal ports for connectivity to a RAID adapter or HBA
- 8 external ports for external storage expansion
- Microsemi Adaptec maxView Storage Manager
- Complete portfolio of mini-SAS HD cables available
- Low-profile MD2 form factor



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12 Gbps 36-port SAS Expander Card

Order part number	2283400-R
Utilities	maxView Storage Manager support
Physical dimensions	2.535" H x 6.6" L (64 mm x 167 mm)
Operating temperature	0 °C to 55 °C (with 200 LFM airflow)
Operating current	1.34 A at 12 VDC
Regulatory certification	CE, FCC, UL, C-tick, VCCI, KCC, CNS
Environmental compliance	RoHS
MTBF	1 million hours at 40 °C
Warranty	3 years
Ports	28* internal/8 external
Connectors	7 x SFF-8643, 2 x SFF-8644
Form factor	MD2, low profile
PCIe slot power	Through PCIe x4 interface

*Note: 4 internal ports dedicated to host controller and 24 internal ports for direct attach to drives



Microsemi Corporate Headquarters

One Enterprise, Aliso Viejo, CA 92656 USA
 Within the USA: +1 (800) 713-4113
 Outside the USA: +1 (949) 380-6100
 Sales: +1 (949) 380-6136
 Fax: +1 (949) 215-4996
 email: sales.support@microsemi.com
www.microsemi.com

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