Microsemi Adaptec® 81605Z/81605ZQ in 4U Chassis

81605Z/81605ZQ RAID adapter with straight mini SAS HD cable connector in a generic 4U chassis with 2.5" or 3.5" drive bays with SATA and SGPIO sideband connectors in their backplanes

This illustration shows an 81605Z or 81605ZQ with 16 internal ports connected to 8 drive bays. If there is a second card in the slot next to it, a mini SAS HD cable with a straight connector is recommended. If there is no card occupying the next slot, a right-angle cable may also be used. If only 8 storage devices are needed, the 805 may also be used in this configuration.

Requirements

4U Chassis with SATA backplanes for 2.5" or 3.5" drives are one of the most flexible configurations because of the larger form factor of this chassis enclosure. This can still present a challenge for RAID adapter cards with respect to:

- Limited performance of a PCIe Gen 3 RAID card with only 8 ports
- Cables with straight connectors
- Expander modules/backplanes

Series 8 RAID Solution

- Microsemi's 16-port RAID adapter, an MD2 low-profile card, easily plugs into a PCI Gen3 slot, with 200 LFM airflow in a 4U chassis and delivers maximum performance for up to 16 drives.
- Series 8 PCIe Gen3 low-profile RAID cards with 16 native SAS/SATA ports take full advantage of PCI Gen3’s capabilities (16 x 6 Gbps SAS ports = 9.6 GB/s) without the overhead and cost of using two 8-port adapters or expanders.
- Microsemi's straight connector mini SAS HD cables are ideal if there is a second card in the next slot. Right angle connector cables can also be used in this configuration.


16-Port Card and 1 Internal Cable

Configuration:

- 81605Z or 81605ZQ: 16 internal native SAS/SATA ports, MD2 low-profile.
- The ACK-I-HdmSAS-4SATA-SB-.8M is an internal mini serial attached SCSI HD x4 (SFF-8643) to (4) X1 serial ATA (adapter-based) fan-out cable with sideband signals (SFF-8448). It measures 0.8 meters and is used for connecting a SAS/SATA adapter to SATA disks, or a SAS/SATA backplane. Ordering part number: 2279800-R
- HDDs and SDDs—check the compatibility guide at: [http://www.microsemi.com/products/storage/compatibility](http://www.microsemi.com/products/storage/compatibility)
- Built-in Flash Module 700 (AFM-700): super capacitor module for maintenance-free cache protection with real-time monitoring