SAS/PCIe® 4.0 (U.2&U.3) Connectors

HIGH SPEED MULTI-PROTOCOL DESIGN WITH FLEXIBILITIES

SAS/PCIe® 4.0 (U.2&U.3) connectors come with 16GT/s (PCIe® lanes) or 24Gb/s (SAS lanes) speeds to meet the demands of next-generation servers. The 68-position, SAS/PCIe® receptacle and header enables implementation of high speed Serial Attached SCSI (SAS) hard disk drive (HDD) interface as well as Peripheral Component Express (PCIe®)-based devices. The molded guide post allows device plug and receptacle to self-align during mating process. With halogen-free high temperature thermoplastic, these connectors are made to withstand diverse conditions. It also offers a durability of 500 mating cycles.

- Compatible with SFF8639 specification
- Capable of meeting 24Gb/s SSDs and HDDs or PCIe® based devices at 16GT/s
- Footprint backward compatible to 12G, 6G and 3G SAS connectors

TARGET MARKETS

SAS/PCIe® 4.0 (U.2&U.3) Connectors

- Compatible with SFF8639 specification
- Footprint backward compatible to 12G, 6G and 3G SAS connectors

FEATURES

- Receptacles are inter-mateable with unshielded dual port SFF8680 (SAS 3.0 or SAS 4.0) connectors
- SAS/PCIe® connectors enable SFF8630, SFF8680 and SFF8432 interfaces
- Backward compatible with 12Gb/s, 6Gb/s SAS, SATA and 3Gb/s SFF8482 connectors
- Supports up to 4 port 16GT/s PCIe® based devices
- Supports both SAS and SATA drives
- Staggered contact lengths
- Stamped clips act as connector retainers for robust PCB attachment
- Molded guideposts help mating halves to self-align by providing angled lead-ins

BENEFITS

- Offers flexibility in component selection
- Implementation of high speed SSDs (Solid State Drives) and HDDs (Hard Disk Drives) allows compatibility between unshielded dual and multiport interfaces
- Same interface can be used for cost-effective storage HDDs as well as higher performance server SSDs
- Improves performance and faster file transfers
- Addresses the needs of both mission critical and bulk storage applications
- Provides sequential contact mating for hot plugging
- Provide additional mechanical strength after soldering
- Compensates for connector misalignment
TECHNICAL INFORMATION

MATERIAL
- Contact Base Metal: Copper alloy
- Contact Area Plating: Gold over nickel
- Solder Tail Plating: Tin over nickel
- Retainer Clip Base Metal: Copper alloy
- Retainer Plating: Tin over nickel
- Housing: Halogen-free high temperature thermoplastic (UL94V-0), black

ELECTRICAL PERFORMANCE
- Contact Resistance: 30mΩ max. for signal contacts. Per EIA 364–23
- Current Rating: 1.5A min. per contact with temperature rise not exceeding 30°C (power pins only: P1–P15). Per EIA 364–70B
- Insulation Resistance: 1000MΩ min. per EIA 364–21

MECHANICAL PERFORMANCE
- Durability: 500 mating cycles
- Mating Force: 59N max.
- Unmating Force: 6N min.

ENVIRONMENTAL
- Humidity: 96 hours at 40°C with 90–95% relative humidity. Per EIA 364–31, Method II, test condition A
- Temperature Life: 85°C for 500 hours. Per EIA 364–17 test condition III, method A
- Thermal Shock: 10 cycles between −55°C to +85°C. Per EIA 364–32, test condition I
- Mixed Flow Gas: Expose ½ samples unmated for 7 days and then mated for 7 additional days; the other ½ samples are exposed mated for 14 days. Per EIA 364–65, class II Aexposed mated for 14 days. Per EIA 364–65, class II A

SPECIFICATIONS
- Amphenol Product Specification: SSAS009

PACKAGING
- Tape and Reel
- Tray

TARGET MARKETS/APPLICATIONS
- Processor and Storage Blade
- Mezzanine Card
- HDD
- HDD Carrier
- External Storage System
- Interposer Card
- Server
- Storage Server
- Processor and Storage Blade
## SAS/PCIe® 4.0 (U.2&U.3) Connectors

### PART NUMBERS

Note: More options are available upon request. Please contact your local sales representative.

<table>
<thead>
<tr>
<th>Application</th>
<th>Orientation</th>
<th>Termination Type</th>
<th>Retainers</th>
<th>Height (mm)</th>
<th>Mount Type</th>
<th>Impedance</th>
<th>Others</th>
<th>Part Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.2</td>
<td>Vertical</td>
<td>SMT</td>
<td>DIP</td>
<td>8.15</td>
<td>Top mount</td>
<td>92Ω</td>
<td>Wide base</td>
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