FEATURES AND SPECIFICATIONS



Molex offers the Slimline version of the Serial ATA interconnect solutions for Optical Disc Drive applications.

The demand for higher bandwidth electronic data transfer in compact storage applications has influenced the migration of parallel to serial bus architecture with a smaller overall product footprint design. Serial ATA International Organization (SATA-IO) in April 2007 released the new specs for the SATA interconnect solutions. The new 2.6 revision covers the addition of new features to the specs to make SATA available for new applications. One of the new features is the provision for the application of SATA optical drives in laptop computers. The new specs also includes Native Command Queuing (NCQ) Priority enhancement which provides better data priority in complex workload situations.

Molex's slimline SATA connector for the Optical Disk Drive (ODD) offers the standard blind mating with generous lead-in design for easier mating. This feature is compliant to the 2.6 version specs. The plug-to-ODD retention comes in various versions for manufacturers as options to ensures strong connector retention according to their design.

Molex is an active member of the Serial ATA International Organization (SATA-IO) which is the working group that is responsible for developing and specifying Serial ATA interconnect standards.

| Features | Benefits |
|---|---|
| High-temperature housing | Withstands lead-free processing |
| • Conform with SATA association's spec. | Ensure cross-function ability among SATA applications |
| Blind mate guide ears | Provides easy connection |
| • First-mate/last-break contacts | • Prevents electrical shorts in application |
| Solderable metal pin | Provides positive retention to the PCB |

1.27mm (.050") Pitch Slimline Serial ATA ODD Connectors

Series 47300-1xxx Plug



47300-2xxx Receptacle



SPECIIFICATIONS

Reference Information

Packaging: Embossed Tape on Reel

UL File No.: Pending CSA File No.: Pending

Mates With: Slimline Serial ATA ODD

Designed In: mm

Electrical
Voltage: 15V DC
Current: 1.5A

Contact Resistance: 30 milliohms max. Dielectric Withstanding Voltage: 500V AC Insulation Resistance: 1000 Megohms min. Mechanical

Mating Force: 20N (4.50lb) max. Unmating Force: 4N (0.90lb) min.

Durability: 500 cycles

Physical

Housing: Thermolplastic, High Temperature

Shield case: Copper (Cu) Alloy Contact: Copper (Cu) Alloy

Plating:

Contact Area — Gold

Solder Tail Area — Tin (Sn) Alloy

Underplating — Nickel (Ni)

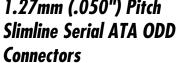
Shield case— Tin (Sn) Alloy over Nickel (Ni)
Operating Temperature: -35°C to +85°C

MARKETS AND APPLICATIONS



1.27mm (.050") Pitch

Series 47300-1xxx Plug 47300-2xxx Receptacle



Markets and Applications

- Computer
 - **Optical Disc Drive**





ORDERING INFORMATION

| Description | Lead-free Order No. | Overall Height above PCB | Overall Connector Length | Retention Type |
|--|---------------------|-----------------------------|-----------------------------|---|
| 1.27mm (.050") Pitch Slimline SATA Plug for Optical Disk Drive | 47300-1000 | 5.40mm | 35.60mm | Screw Type (Stainless steel, no Plating) |
| | 47300-1010 | 4.00mm | 35.60mm | |
| | 47300-1020 | 5.40mm | 28.70mm | Through Hole Solder Pins |
| | 47300-1040 | 5.40mm | 30.60mm | SMT |
| Slimline SATA Receptacle for | 47300-2000 | 6.00mm | 32.25mm | Screw Type |
| | 47300-2010 | 6.00mm | 26.14mm | Beveled Metal Pins |



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