

FEATURES AND SPECIFICATIONS



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

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 ensure 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.

Series

47300-1xxx Plug



47300-2xxx Receptacle



Features

- High-temperature housing
- Conform with SATA association's spec.
- Blind mate guide ears
- First-mate/last-break contacts
- Solderable metal pin

Benefits

- Withstands lead-free processing
- Ensure cross-function ability among SATA applications
- Provides easy connection
- Prevents electrical shorts in application
- Provides positive retention to the PCB

SPECIFICATIONS

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: Thermoplastic, 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 Slimline Serial ATA ODD Connectors

Markets and Applications

- Computer
 - Optical Disc Drive

Series

47300-1xxx

47300-2xxx

Plug
Receptacle



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
1.27mm (.050") Pitch Slimline SATA Receptacle for Optical Disk Drive	47300-2000	6.00mm	32.25mm	Screw Type
	47300-2010	6.00mm	26.14mm	Beveled Metal Pins

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