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Serial ATA* –
The Next Wave Of Storage
Interconnect Applications



Serial ATA Board-to-Board and Cable-to-Board Solutions To Meet All Storage Applications

Changing applications in digital consumer technology are re-shaping the storage application landscape. Moving beyond traditional desktop and network storage applications, Serial ATA is quickly becoming an integral part of consumer electronic products with integrated hard disk drives.

With applications that include HDD-DVD recorders, home servers, multimedia hubs, LCD TVs digital jukeboxes, HDD-enabled game consoles, set-top boxes with personal video recorders, audio players and audiovisual devices for the automotive industry, insuring a secure connection is a primary concern.

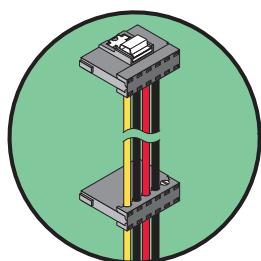
To address this concern Molex has incorporated a stainless metal latch into the design of its Serial ATA cable receptacles. When mated with a latch-designed plug, the metal latch catches the latch window on the plug side, thus providing a secure locking action.

Molex's global leadership and expertise in the design and manufacture of Serial ATA interconnect systems have allowed them to provide innovative solutions to the world's leading hard disk drive makers. Their ability to offer prompt time-to-market and low cost strategies makes Molex a reliable and innovative solution partner.

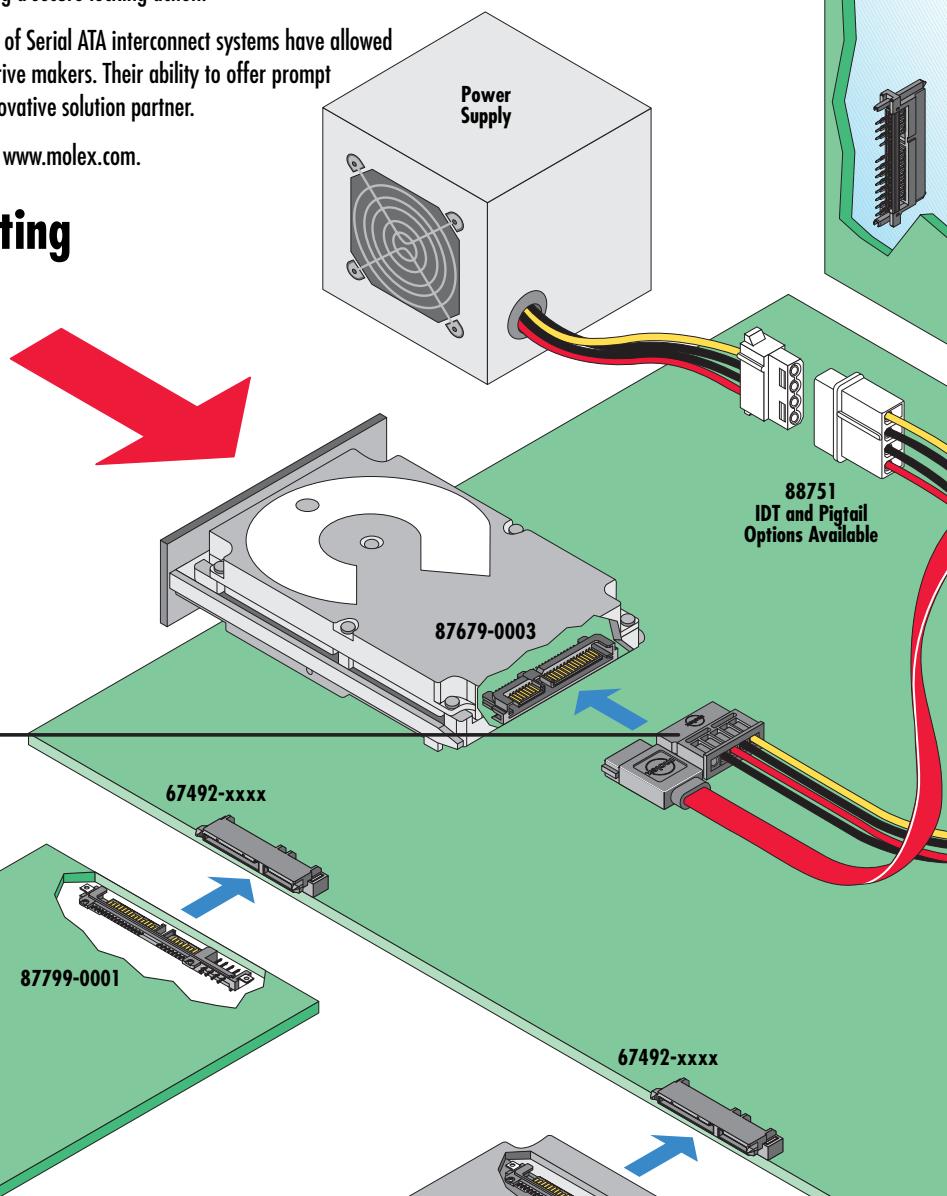
For more information on all Molex products, please visit our website at www.molex.com.

Desktop Computing

- Hard Disk Drive
- Motherboard
- Power Supply
- Adapters
- Controller Boards
- Data Protection
- Workstation

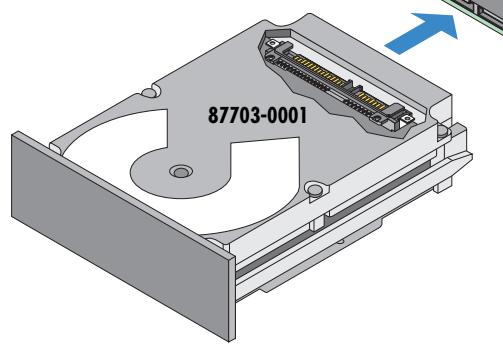


67926-0021
67926-0011
IDT With Metal
Latch Available



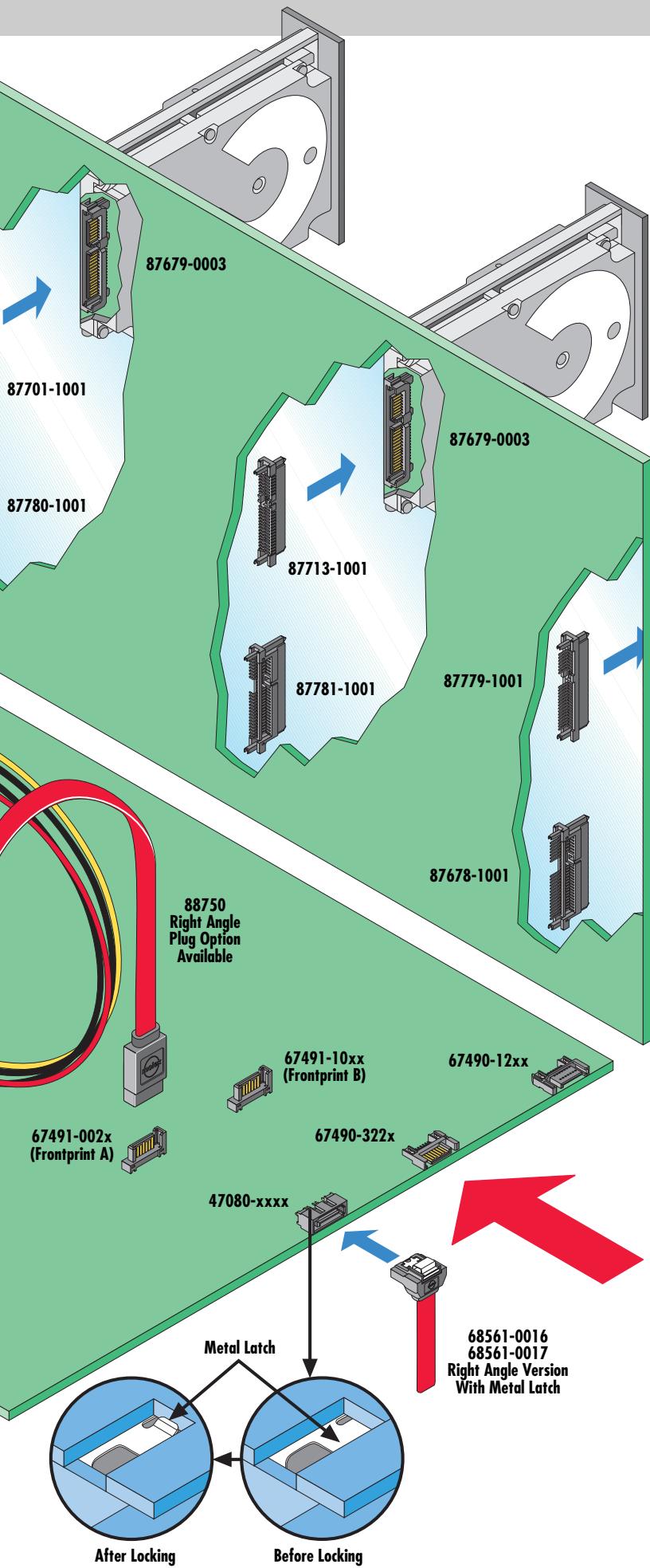
Mobile Computing

- Notebook PC
- Sub-Notebook PC
- Media PC
- Multimedia Peripherals





Serial ATA Connectors Family Overview and Applications



Enterprise Computing

- Mid Range Servers
- Network Storage
- RAID Storage
- Backplane
- Internet Services

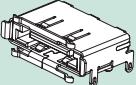
Emerging Trends

- Set-Top Box
- Digital Audio
- Automotive – Navigation
- Brown Goods
- Optical Drives
- HDTV Home Theatre
- Games – 3D Video

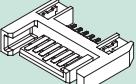
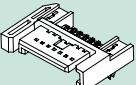
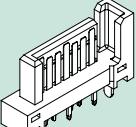
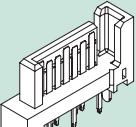


*Serial ATA is a trademark of the Serial ATAsm Trade Association

EXTERNAL SATA RECEPTACLE

	Description	Lead-Free Order No.	Features					
			Plating	Housing Color	PC Tail Length	Peg Type And Length	Packaging	
	External SATA Receptacle, SMT, Metal Shell	47082-0000	Gold Flash	Black	NA	Flat Metal Peg	Embossed Tape On Reel	With Mylar
		47082-2000	0.76µm/30µ" Gold					
		47082-1000	0.38µm/15µ" Gold					

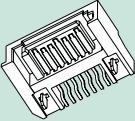
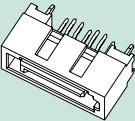
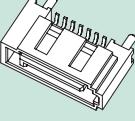
SIGNAL PLUGS

	Description	Lead-Free Order No.	Features								
			Plating	Housing Color	PC Tail Length	Peg Type And Length	Packaging				
	Right Angle SMT Signal Plug (Reverse Mount)	67490-3220	Gold Flash		NA	Flat Metal Peg	Tray				
		67490-3221	0.76µm/30µ" Gold								
		67490-3225	0.38µm/15µ" Gold								
	Right Angle SMT Signal Plug (Standard Mount)	67490-1220	Gold Flash		NA	Flat Metal Peg	Tray				
		67490-1221	0.76µm/30µ" Gold								
		67490-1225	0.38µm/15µ" Gold								
		67490-1230	Gold Flash				Embossed Tape On Reel	With Mylar			
		67490-1231	0.76µm/30µ" Gold								
		67490-1235	0.38µm/15µ" Gold								
		67490-1240	Gold Flash				Tube				
		67490-1241	0.76µm/30µ" Gold								
		67490-1245	0.38µm/15µ" Gold								
	88750-5418 Vertical Through Hole Signal Plug (Footprint A)	67491-0020	Gold Flash		Black	Flat Metal Peg	Tray				
		67491-0021	0.76µm/30µ" Gold								
		67491-0022	0.38µm/15µ" Gold								
		67491-0025	Gold Flash				Tray				
		67491-0026	0.76µm/30µ" Gold								
		67491-0027	0.38µm/15µ" Gold								
	Vertical Through Hole Signal Plug (Footprint B)	67491-1030	Gold Flash		2.05mm	Flat Metal Peg	Tray				
		67491-1031	0.76µm/30µ" Gold								
		67491-1032	0.38µm/15µ" Gold								
		67491-1035	Gold Flash								
		67491-1036	0.76µm/30µ" Gold		2.35mm	Flat Metal Peg	Tray				
		67491-1037	0.38µm/15µ" Gold								
		67491-1038	Gold Flash		2.05mm	Flat Metal Peg					
		67491-1039	0.76µm/30µ" Gold								
		67491-1040	0.38µm/15µ" Gold		3.00mm	Flat Metal Peg	Tray				

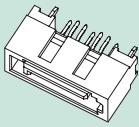
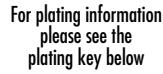
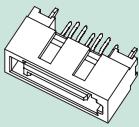
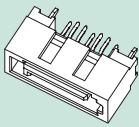
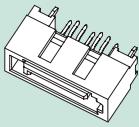
Cable Assemblies
88750-5310
8750-5318
88750-5400
88750-5410

Signal Cable Assemblies
67489-100y
67489-800y

SIGNAL PLUGS

	Description	Lead-Free Order No.	Features									
			Plating	Housing Color	PC Tail Length	Peg Type And Length	Packaging					
	Right Angle SMT Plug With Peg, Latch Type	47080-4001	Gold Flash	Black	NA	Flat Metal Peg 2.60mm	Embossed Tape On Reel	With Mylar				
		47080-4002	0.76µm/30µ" Gold									
		47080-4005	0.38µm/15µ" Gold									
		47080-5001	Gold Flash	Natural								
		47080-5002	0.76µm/30µ" Gold									
		47080-5005	0.38µm/15µ" Gold									
		47080-6001	Gold Flash	Blue								
		47080-6002	0.76µm/30µ" Gold									
		47080-6005	0.38µm/15µ" Gold									
	Vertical Through Hole Signal Plug, Latch Type	47155-4001	Gold Flash	Black	2.10mm PC Tail	Flat Metal Peg 2.65mm	Tray	67489 88750-5310 88750-5318 88750-5410 88750-5418				
		47155-4031		Blue								
		47155-4041		Natural								
	Vertical SMT Signal Plug, Latch Type	67800-5001		Black	NA	Round Peg 2.65mm	Tray	67489 88750-5310 88750-5318 88750-5410 88750-5418				
		67800-5002										
		67800-5005										
		67800-5021		NA	Round Peg 3.45mm	Tray						
		67800-5022										
		67800-5025										

SIGNAL PLUGS

	Description	Lead-Free Order No.	Features					
			Plating	Housing Color	PC Tail Length	Peg Type And Length	Packaging	Mates With
	Vertical Through Hole Signal Plug, Latch Type (Footprint A)	67800-8X0Y	 For plating information please see the plating key below	Black	2.45mm		Tray	 Cable Assemblies 68561-0014 68561-0015 68561-0016 68561-0017
		67800-8X1Y			2.85mm			
		67800-8X2Y			3.25mm			
		67800-8X3Y		Blue	2.45mm			
		67800-8X7Y			2.85mm			
		67800-8X8Y			3.25mm			
		67800-8X4Y		Natural	2.45mm			
		67800-8X5Y			2.85mm			
		67800-8X6Y			3.25mm			
	Vertical Through Hole Signal Plug, Latch Type (Footprint B)	67800-7X0Y		Black	2.45mm			 Signal Cable Receptacles 67489-000Y 67489-200Y 67489-700Y 67489-200Y
		67800-7X1Y			2.85mm			
		67800-7X2Y			3.25mm			
		67800-7X3Y		Blue	2.45mm			
		67800-7X7Y			2.85mm			
		67800-7X8Y			3.25mm			
		67800-7X4Y		Natural	2.45mm			
		67800-7X5Y			2.85mm			
		67800-7X6Y			3.25mm			

Housing Material Replace X With:

0 = Thermoplastic

1 = High Temperature Thermoplastic

Contact Plating

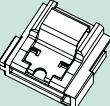
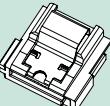
Replace Y With:

1 = Gold Flash

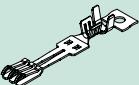
2 = 0.76 μ m/30 μ " Gold

5 = 0.38 μ m/15 μ " Gold

SIGNAL CABLE RECEPTACLES

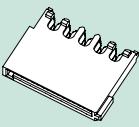
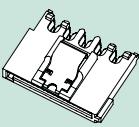
	Description	Lead-Free Order No.	Features				
			Plating	Locking	Packaging	Mates With	
	Right Angle Signal Receptacle	67489-1001	Gold Flash	Friction Locking	Tray	67490 67491	
		67489-1002	0.76µm/30µ" Gold				
		67489-1005	0.38µm/15µ" Gold				
	Vertical Signal Receptacle	67489-8001	Gold Flash	Friction Locking	Tray	67490 67491	
		67489-8002	0.76µm/30µ" Gold				
		67489-8005	0.38µm/15µ" Gold				
 	Right Angle Signal Receptacle With Metal Latch	67489-0001	Gold Flash	Metal Latch	Tray	47080 47155 67800	
		67489-0002	0.76µm/30µ" Gold				
		67489-0005	0.38µm/15µ" Gold				
		67489-2001	Gold Flash	Metal Latch And Friction Locking	Tray		
		67489-2002	0.76µm/30µ" Gold				
		67489-2005	0.38µm/15µ" Gold				
 	Vertical Signal Receptacle With Metal Latch	67489-9001	Gold Flash	Metal Latch	Tray		
		67489-9002	0.76µm/30µ" Gold				
		67489-9005	0.38µm/15µ" Gold				
		67489-7001	Gold Flash	Metal Latch And Friction Locking	Tray		
		67489-7002	0.76µm/30µ" Gold				
		67489-7005	0.38µm/15µ" Gold				

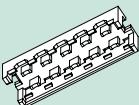
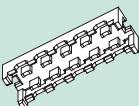
POWER CONNECTORS

	Description	Lead-Free Order No.	Features				
			Plating	Reel Direction	Wire Gauge	Packaging	
	Crimp Power Terminal	67581-0000	Gold Flash	Clockwise	18 AWG	Reel	
		67581-0001	0.76µm/30µ" Gold	Clockwise			
		67581-0002	0.38µm/15µ" Gold	Clockwise			
		67581-0010	Gold Flash	Anti-Clockwise			
		67581-0011	0.76µm/30µ" Gold	Anti-Clockwise			
		67581-0012	0.38µm/15µ" Gold	Anti-Clockwise			
		47128-1000	Gold Flash	Anti-Clockwise	18 AWG 22 AWG		
		47128-1001	0.76µm/30µ" Gold	Anti-Clockwise			
		47128-1002	0.38µm/15µ" Gold	Anti-Clockwise			
		47128-1009	Unplated	Anti-Clockwise			

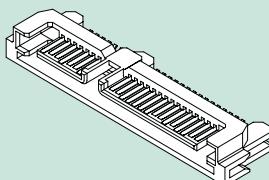
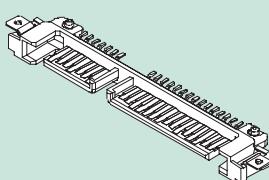
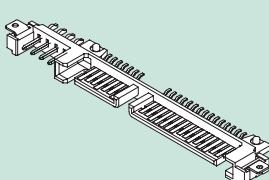
	Description	Lead-Free Order No.	Housing Material	Packaging	Mates With
	Crimp Power Housing	67582-0000	Thermoplastic	Bag	67581 47128

POWER CONNECTORS

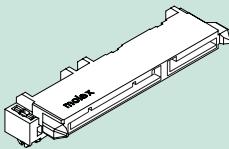
	Description	Lead-Free Order No.	Features					
			Plating	Locking	Packaging	Mates With		
 Without Latch  With Latch	IDT Power Receptacle	67926-0001	Gold Flash	Metal Latch		87679 Use With: 67926-0040 67926-0041		
		67926-0002	0.76µm/30µ" Gold					
		67926-0005	0.38µm/15µ" Gold					
		67926-0011	Gold Flash	Friction Locking				
		67926-0012	0.76µm/30µ" Gold					
		67926-0015	0.38µm/15µ" Gold					
		67926-0021	Gold Flash	Metal Latch And Friction Locking				
		67926-0022	0.76µm/30µ" Gold					
		67926-0025	0.38µm/15µ" Gold					

	Description	Lead-Free Order No.	Termination Style	Unmated Height	Packaging	Mates With
	Feed-To Cover For IDT Power Receptacle	67926-0040	Feed-To	4.99mm (.198")		67926-000* 67926-001*
	Feed-Through Cover For IDT Power Receptacle	67926-0041	Feed-Through	4.90mm (.193")		

COMBO PLUGS

	Description	Lead-Free Order No.	Features			Mates With	
						Board-to-Board	Cable-to-Board
			Plating	Locking	Packaging	Combo Receptacles	Signal
	Device Plug With Latching Straddle Mount	87679-0003				67492 87678 87701 87713 87779 87780 87781 47162 47018	67489 88750 88762
	Device Plug SMT Without Jumper	87703-0001					88751 88761
	Device Plug, SMT With Jumper	87799-0001					

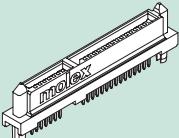
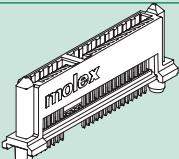
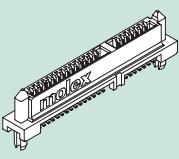
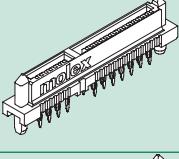
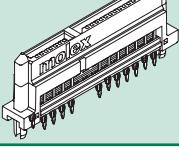
COMBO RECEPTACLES

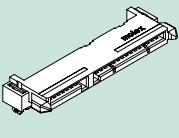
	Description	Lead-Free Order No.	Features			
			Plating	Housing Color	Unmated Height	Packaging
	Right Angle SMT Receptacle	67492-1120	Gold Flash		3.55mm (.140")	
		67492-1121	0.76µm/30µ" Gold		5.25mm (.207")	
		67492-1122	0.38µm/15µ" Gold		5.90mm (.232")	
		67492-1123	Gold Flash Over Palladium-Nickel		6.74mm (.285")	
		67492-1320	Gold Flash			
		67492-1321	0.76µm/30µ" Gold			
		67492-1322	0.38µm/15µ" Gold			
		67492-1323	Gold Flash Over Palladium-Nickel			
		67492-1420	Gold Flash			
		67492-1421	0.76µm/30µ" Gold			
		67492-1422	0.38µm/15µ" Gold			
		67492-1423	Gold Flash Over Palladium-Nickel			
		67492-9220	Gold Flash			
		67492-9221	0.76µm/30µ" Gold			
		67492-9222	0.38µm/15µ" Gold			
		67492-9223	Gold Flash Over Palladium-Nickel			

Combo Plugs
87679
87703
87799

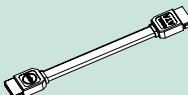
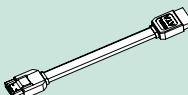
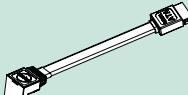
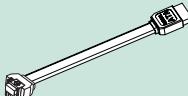
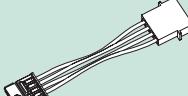
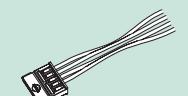
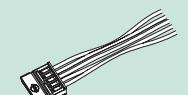
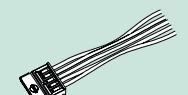
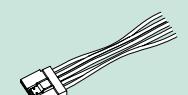
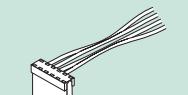
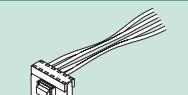
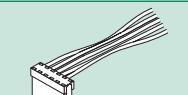
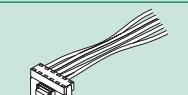


COMBO RECEPTACLES

	Description	Lead-Free Order No.	Features		
			Plating	PCB Thickness	Mates With
	Vertical Backplane Receptacle, Through Hole, Standard Height	87779-1001	0.76µm/30µ" Gold	0.8mm (0.031") – 2.5mm (0.098")	87703 87679 87799
	Vertical Backplane Receptacle, Through Hole, Extended Height	87678-1001			
	Vertical Host SMT, Receptacle, Standard Height	87713-1001			
	Vertical Host Receptacle, SMT, Extended Height	87781-1001			
	Vertical Host Receptacle, Press-Fit, Standard Height	87701-1001			
	Vertical Host Receptacle, Press-Fit, Extended Height	87780-1001			

	Description	Lead-Free Order No.	Features			
			Plating	Unmated Height	Mates With	
	Host Receptacle, SMT, Right Angle, Top Mount	47018-2000	Gold Flash	4.30mm (.169")	87679 87703 87799	
		47018-2001	0.76µm/30µ" Gold			
		47018-2002	0.38µm/15µ" Gold			
		47018-3000	Gold Flash	4.70mm (.185")		
		47018-3001	0.76µm/30µ" Gold			
		47018-3002	0.38µm/15µ" Gold			
		47018-4000	Gold Flash	5.15mm (.203")		
		47018-4001	0.76µm/30µ" Gold			
		47018-4002	0.38µm/15µ" Gold			

CABLE ASSEMBLIES

	Description	Lead-Free Order No.	Features		Mates With
	Signal Cable Assembly, Straight-To-Straight	88750-5310	0.5m, Grey	Contact Plating: 0.76µm/30µ" Gold	Signal Plugs
		88750-5318	0.5m, Red		Combo Plugs
		88750-5418	1.0m, Red		67490 67491
	Signal Cable Assembly, Straight Latching-To-Straight Latching	68561-0014	0.5m, Red	67800 47080	87679
		68561-0015	1.0m, Red		
	Signal Cable Assembly, Straight-To-Right Angle	88762-5400	0.5m, Red	67490 67491	87679
		88762-5410	1.0m, Red		
	Signal Cable Assembly, Straight Latching-To-Right Angle Latching	68561-0016	0.5m, Red	67800 47080	87679
		68561-0017	1.0m, Red		
	Power Adapter, Crimping Type	88751-1310	6", Gold flash, (5V+12V)	87679 87703 87799	
		88751-1311	6", 0.76µm/30µ" Gold, (5V+12V)		
	4-pin Power Harness To Pigtail, Crimping Type	88751-1410	1.5m, Gold Flash, (5V+12V)	87679 87703 87799	
		88751-1411	1.5m, 0.76µm/30µ" Gold, (5V+12V)		
	5-pin Power Harness To Pigtail, Crimping Type	88757-7810	1.5m, Gold Flash, (3.3V+5V+12V)	87679 87703 87799	
		88757-7811	1.5m, 0.76µm/30µ" Gold, (3.3V+5V+12V)		
	Power Adapter, IDT Type	88761-4500	6", Gold Flash, (5V+12V) Feed-To Version	NA	
		88761-4510	6", 0.76µm/30µ" Gold, (5V+12V) Feed-To-Version		
	Power Adapter, IDT With Latch Type	68561-0018	6", Gold Flash, (5V+12V) Feed-To Version	87679	
		68561-0019	6", 0.76µm/30µ" Gold, (5V+12V) Feed-To-Version		
	4-pin Power Harness To Pigtail, IDT Type	88761-4600	1.5m, Gold Flash, (5V+12V) Feed-To Version	87679 87703 87799	
		88761-4610	1.5m, 0.76µm/30µ" Gold, (5V+12V) Feed-To-Version		
	4-pin Power Harness To Pigtail, IDT With Latch Type	68561-0020	1.5m, Gold Flash, (5V+12V) Feed-To Version	87679	
		68561-0021	1.5m, 0.76µm/30µ" Gold, (5V+12V) Feed-To-Version		
	5-pin Power Harness To Pigtail, IDT Type	88761-4700	1.5m, Gold Flash, (3.3V+5V+12V) Feed-To Version	87679 87703 87799	
		88761-4710	1.5m, 0.76µm/30µ" Gold, (3.3V+5V+12V) Feed-To-Version		
	5-pin Power Harness To Pigtail, IDT With Latch Type	68561-0022	1.5m, Gold Flash, (3.3V+5V+12V) Feed-To Version	87679	
		68561-0023	1.5m, 0.76µm/30µ" Gold, (3.3V+5V+12V) Feed-To-Version		



PRODUCT SPECIFICATION

SERIAL ATA HOST RECEPTACLE

1.0 SCOPE

This Product Specification covers the performance requirements of the Serial ATA / High Speed Serialized host receptacle connector.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

Product Name

Part Number

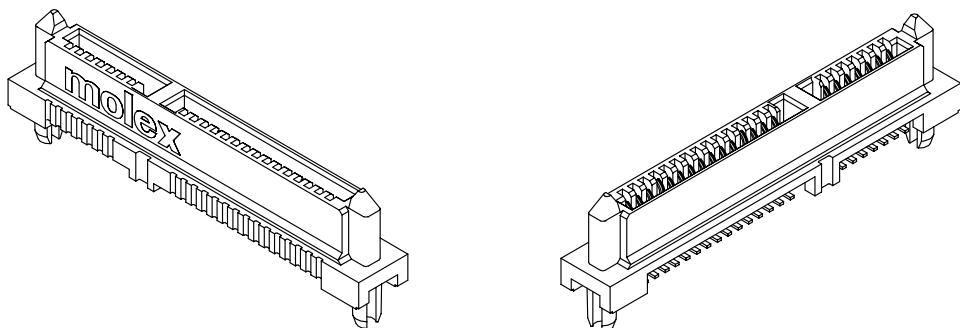
SERIAL ATA RECEPTACLE, VERTICAL SINGLE-IN-LINE
SURFACE MOUNT BACKPLANE (STANDARD HEIGHT) 87713-0001

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See Sales Drawing SD-87713-001 for information on dimensions, materials, platings and markings.

2.3 SAFETY AGENCY APPROVALS

UL FILE : TBD
CSA : TBD



REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
2	EC No: S2003-0481 DATE: 2003 / 04 / 07	SERIAL ATA HOST RECEPTACLE VERTICAL SIL SMT BACKPLANE	1 of 6
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-87713-016	Daniel Koh	K.C. Ling (2002/09/18)	S.K. Toh (2002/09/19)



PRODUCT SPECIFICATION

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See the Sales Drawing and other sections of this Specification for the necessary referenced Documents and Specifications.

Serial ATA Workgroup Specification

4.0 RATINGS

4.1 VOLTAGE

30 Volts Max.

4.2 CURRENT

1.5 Amps DC or AC (RMS). Max. @ 60 Hz

4.3 TEMPERATURE

Operating: - 40°C to + 105°C

4.4 HUMIDITY

20% - 80%

4.5 PRESSURE

650 mm – 800 mm Hg

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Low Level Contact Resistance (LLCR)	Subject mated contacts assembled in housing to 20 mV maximum open circuit at 100 mA maximum. (EIA 364-23)	30 mΩ MAXIMUM [initial] Resistance increase 15 mΩ MAXIMUM [after stress]
2	Contact Current Rating (Power Segment)	Mount connector to a test PCB with ½ oz copper layer. Wire power pins P1, P2, P8 and P9 in parallel for power. Wire ground pins P4, P5, P6, P10 and P12 in parallel for return. Supply 6A total DC current to the power pins in parallel (P1, P2, P8 and P9), returning from the parallel ground pins (P4, P5, P6, P10 and P12). Record temperature rise when thermal equilibrium is reach.	1.5 A per pin MINIMUM Temperature rise shall not exceed 30 °C at any point in the connector when contacts are powered Still Air at Ambient temperature 25 °C

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PRODUCT SPECIFICATION

3	Insulation Resistance	After 500 VDC for 1 minute, measure the insulation resistance between adjacent terminals of the mated and unmated connector assemblies. (EIA 364-21)	1000 Megohms MINIMUM
4	Dielectric Withstanding Voltage	Subject a voltage of 500 VAC for 1 minute between adjacent terminals of mated and unmated connector at sea level. (EIA 364-20)	No breakdown

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5	Connector Insertion and Removal Forces	Mate and Unmate connector assemblies at a rate of 12.5 mm per minute. (EIA 364-13)	45 N MAXIMUM insertion force & 5 N MINIMUM removal force
6	Durability	50 cycles for internal cabled application ; 500 cycles for backplane/blindmate application. All at a maximum rate of 200 cycles per hour. (EIA 364-09)	No Physical damage Meet requirements of additional tests as specified in the test sequence in Section 7.0
7	Resistance to Soldering Heat	Subject connector to 225 °C for 1 minute, 235 °C for 15 seconds and 260 °C for 10 seconds.	No damage in appearance of connector 60.0 N MINIMUM housing slip-out force
8	Housing Slip-Out Force	Apply axial pull out force on housing at a rate of 25.4 mm per minute.	60.0 N MINIMUM housing slip-out force

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DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-87713-016	Daniel Koh	K.C. Ling (2002/09/18)	S.K. Toh (2002/09/19)



PRODUCT SPECIFICATION

5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
9	Humidity	Subject the connector to temperature and humidity of 40°C at 95% RH for 96 hours. (EIA 364-31 Method II Test Condition A)	No Physical damage Meet requirements of additional tests as specified in the test sequence in Section 7.0
10	Physical Shock	Subject mated connector to 30 g's half-sine shock pulses of 11 msec duration. Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks. (EIA 364-27 Condition H)	No Physical damage No discontinuities of 1 μ s or longer duration Test Set-Up in Section 8.0
11	Random Vibration	Subject mated connector to 5.35 g's RMS. 30 minutes in each of the three mutually perpendicular planes. (EIA 364-28 Condition V Test letter A)	No discontinuities of 1 μ s or longer duration Test Set-Up in Section 8.0
12	Solderability	Immerse the end terminals in rosin for 5-10 seconds then immerse them in a soldering bath of 245°C \pm 5°C for 5 seconds.	No discontinuities of 1 μ s or longer duration Test Set-Up in Section 8.0
13	Temperature Life	Subject mated connector to temperature life at +85°C for 500 hours. (EIA 364-17 Test Condition III Method A)	No Physical damage Meet requirements of additional tests as specified in the test sequence in Section 7.0
14	Thermal Shock	Subject connector to 10 cycles between -55°C and +85°C . (EIA 364-32 Test Condition I)	No Physical damage Meet requirements of additional tests as specified in the test sequence in Section 7.0

6.0 PACKAGING

Refer to Sales Drawing SD-87713-001 for packaging details.

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2	EC No: S2003-0481 DATE: 2003 / 04 / 07	SERIAL ATA HOST RECEPTACLE VERTICAL SIL SMT BACKPLANE	4 of 6
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PS-87713-016	Daniel Koh	K.C. Ling (2002/09/18)	S.K. Toh (2002/09/19)



PRODUCT SPECIFICATION

7.0 TEST SEQUENCES

5.3 ENVIRONMENTAL REQUIREMENTS

Test Group →	A	B	C	D	E	F
Test or Examination ↓						
Examination of the connector(s)	1, 5	1, 9	1, 8	1, 8	1	
Low Level Contact Resistance (LLCR)	2, 4	3, 7	2, 4, 6			
Insulation Resistance				2, 6		
Dielectric Withstanding Voltage				3, 7		
Current Rating			7			
Insertion Force		2				
Removal Force		8				
Durability	3	4 ^(a)				
Physical Shock		6				
Vibration		5				
Humidity				5		
Temperature Life			3			
Reseating (manually unplug/plug three times)			5			
Thermal Shock				4		
Terminal/Pin Retention Force					2, 4	
Resistance to Soldering Heat					3	
Solderability						1

Note –

(a) Preconditioning, 20 cycles for the 50-durability cycle requirement, 50 cycles for the 500-durability cycles requirement. The insertion and removal cycle is at the maximum rate of 200 cycles per hour.

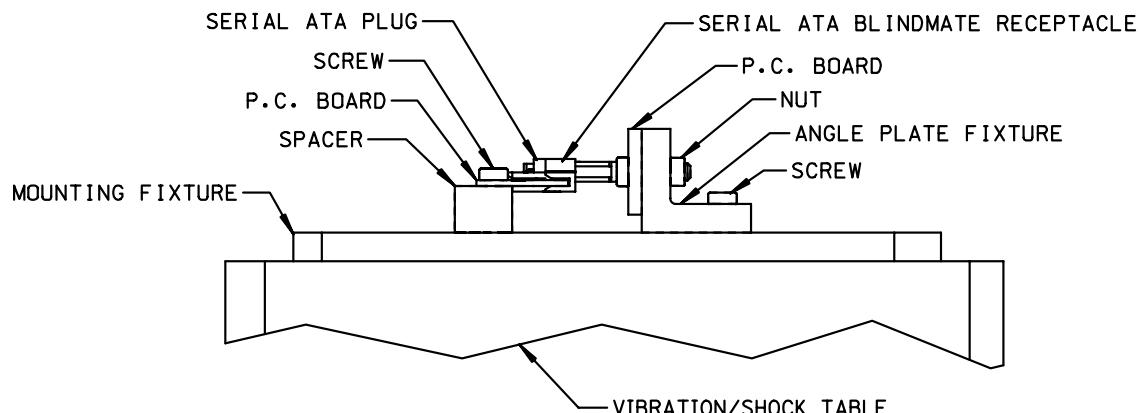
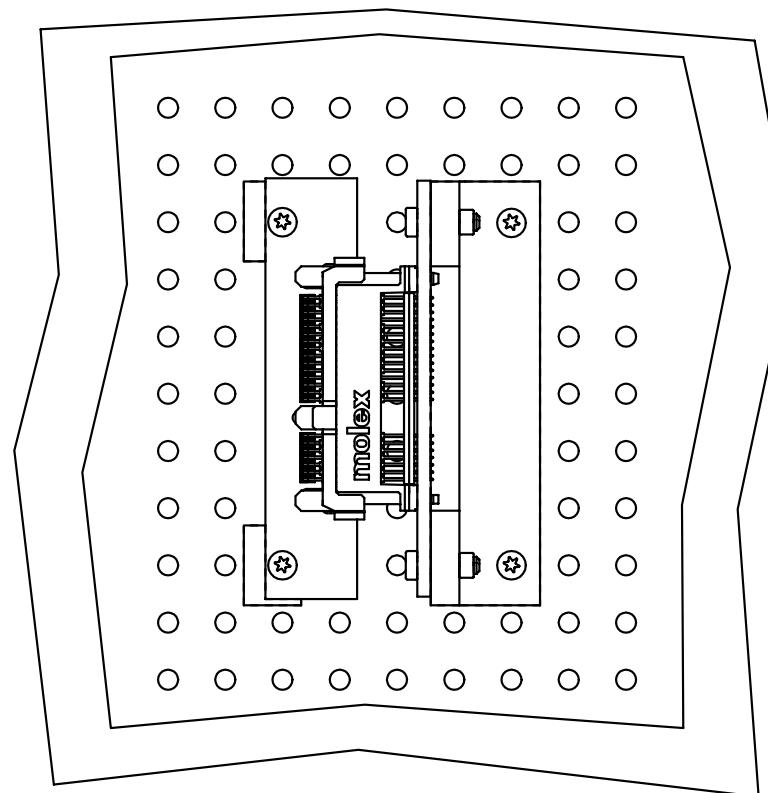
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PS-87713-016	Daniel Koh	K.C. Ling (2002/09/18)	S.K. Toh (2002/09/19)



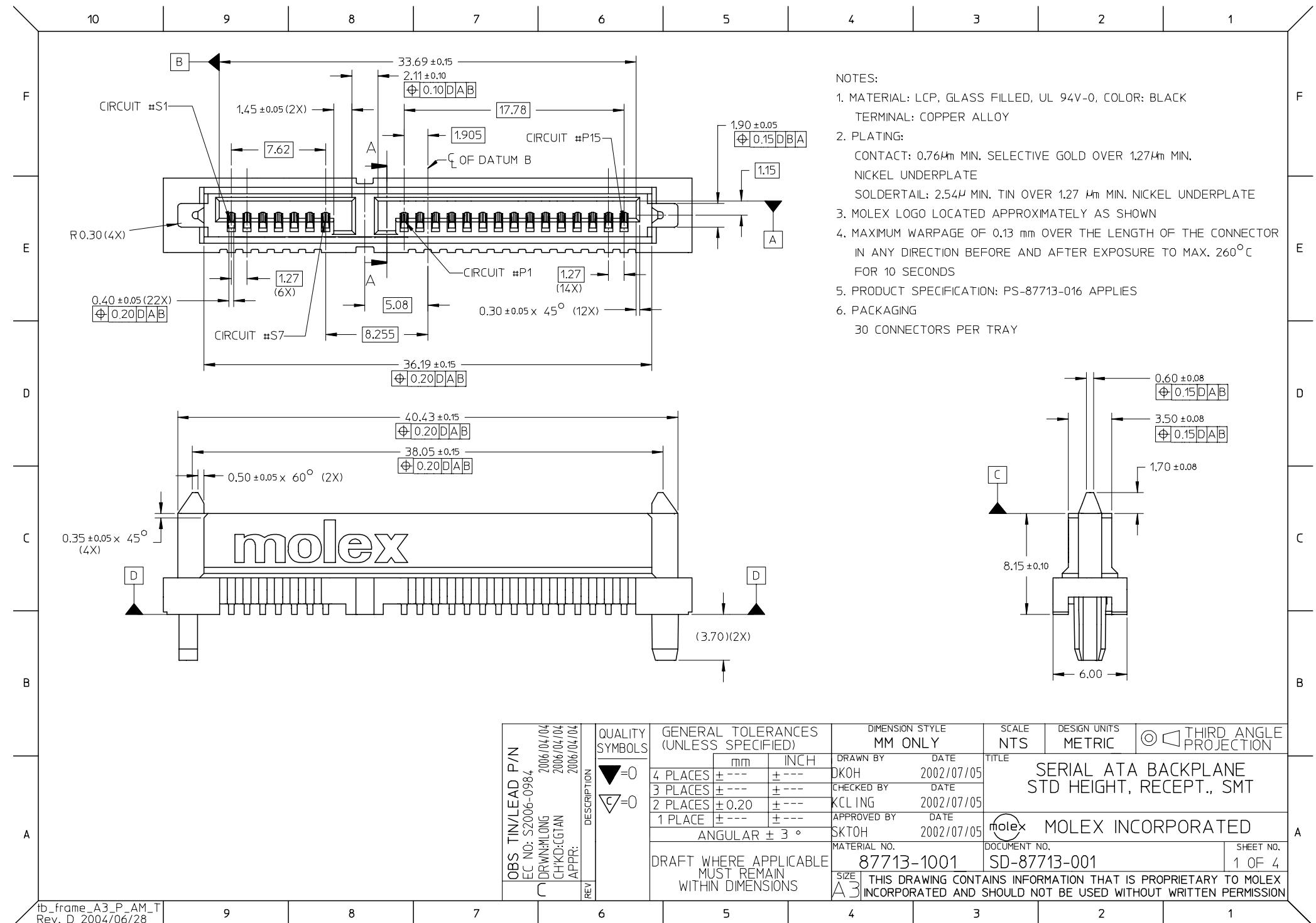
PRODUCT SPECIFICATION

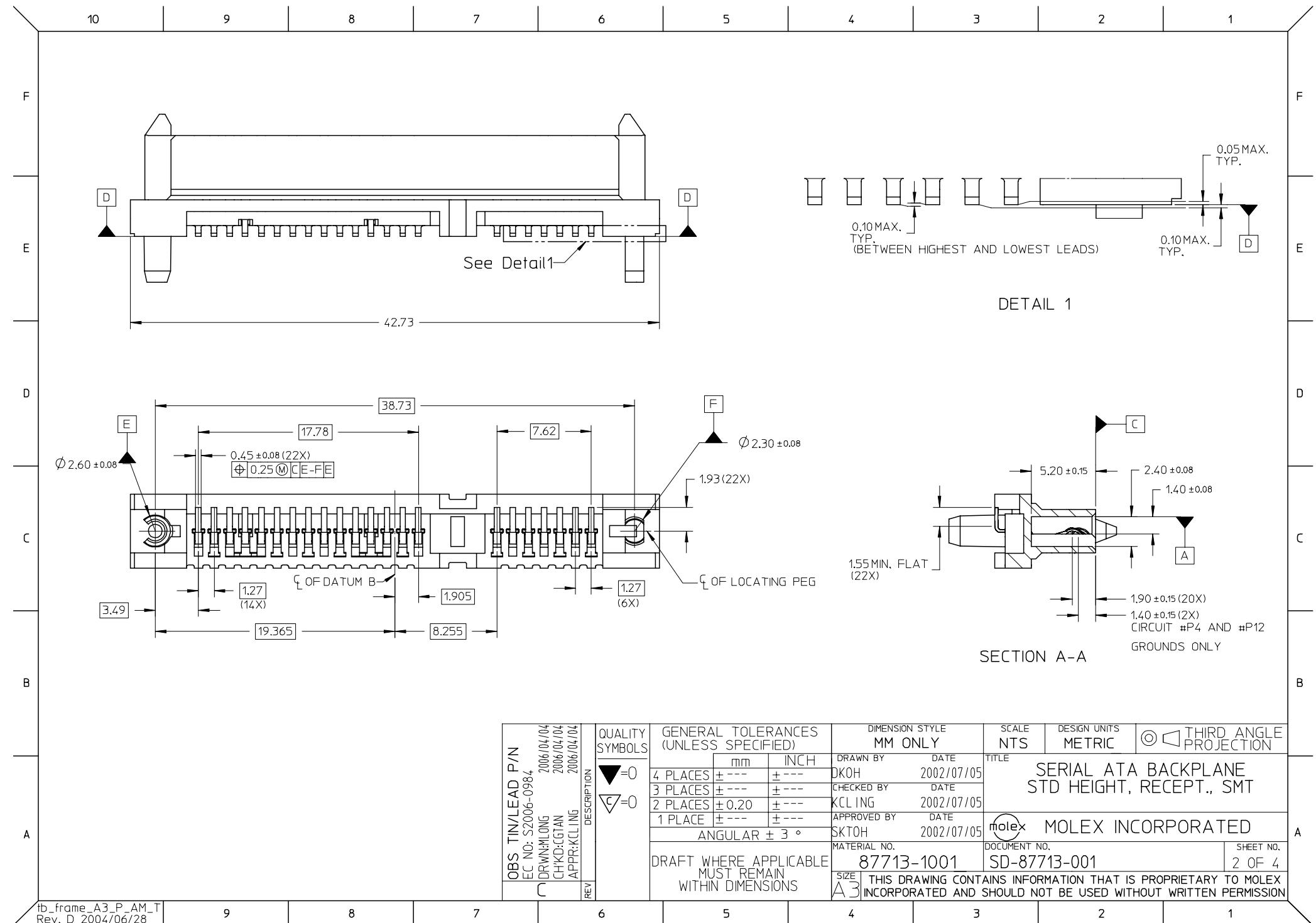
8.0 VIBRATION/SHOCK TEST SET-UP

Serial ATA Plug with Blindmate Receptacle

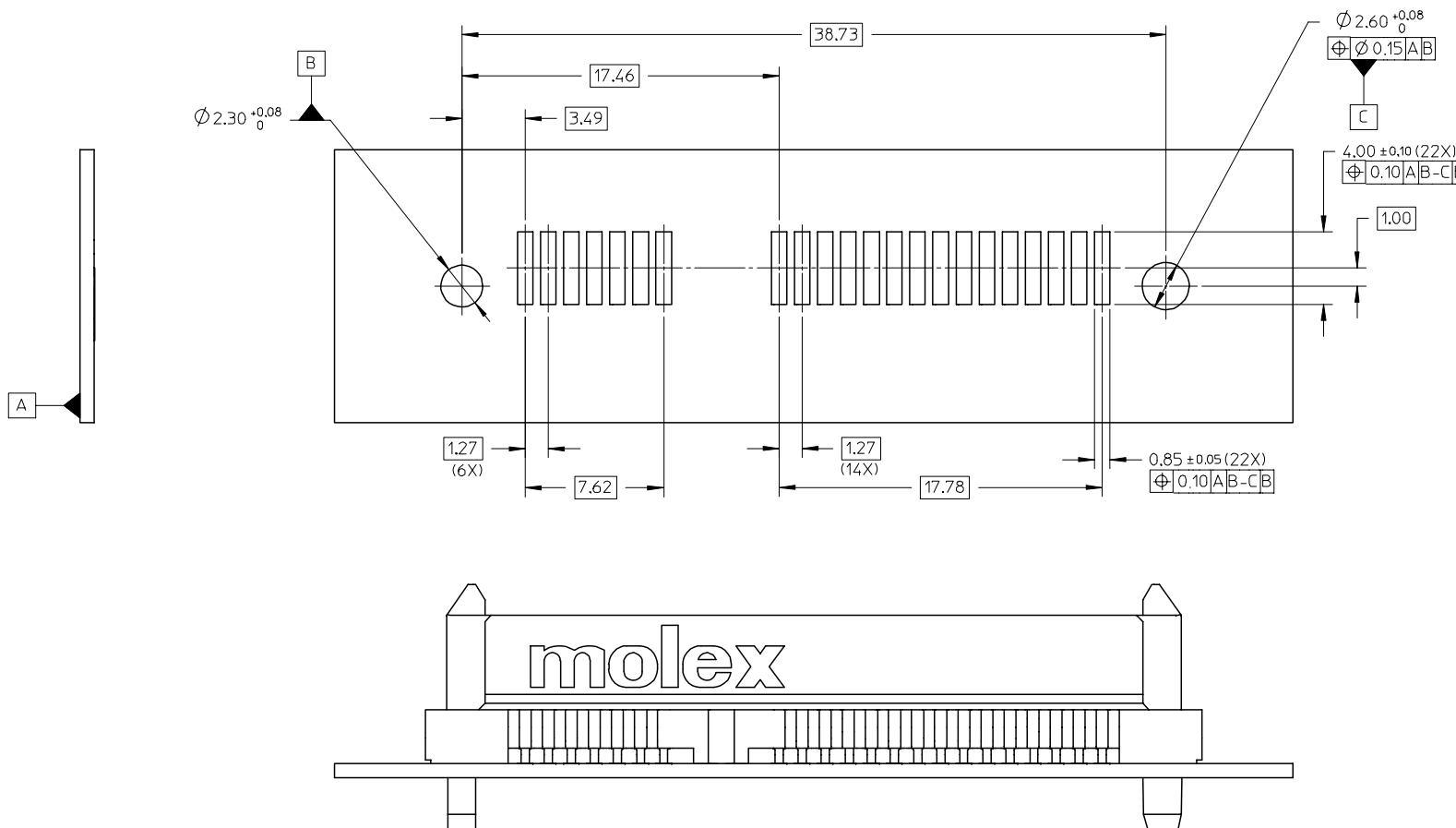


REVISION: 2	ECR/ECN INFORMATION: <u>EC No:</u> S2003-0481 <u>DATE:</u> 2003 / 04 / 07	TITLE: SERIAL ATA HOST RECEPTACLE VERTICAL SIL SMT BACKPLANE	SHEET No. 6 of 6
DOCUMENT NUMBER: PS-87713-016	CREATED / REVISED BY: Daniel Koh	CHECKED BY: K.C. Ling (2002/09/18)	APPROVED BY: S.K. Toh (2002/09/19)





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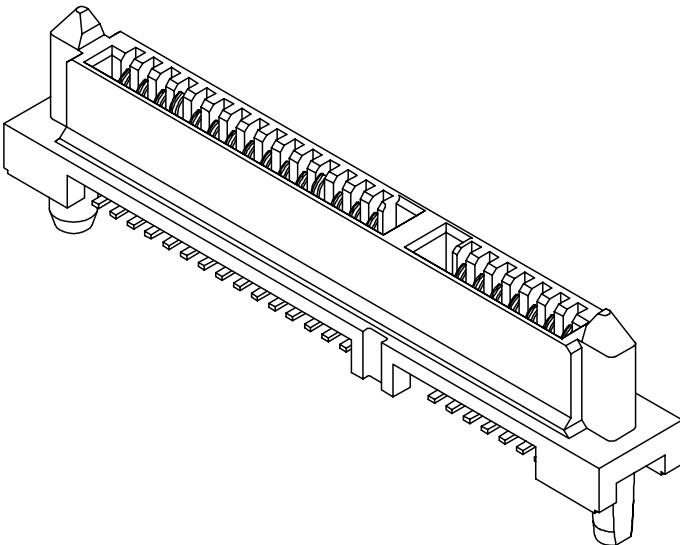
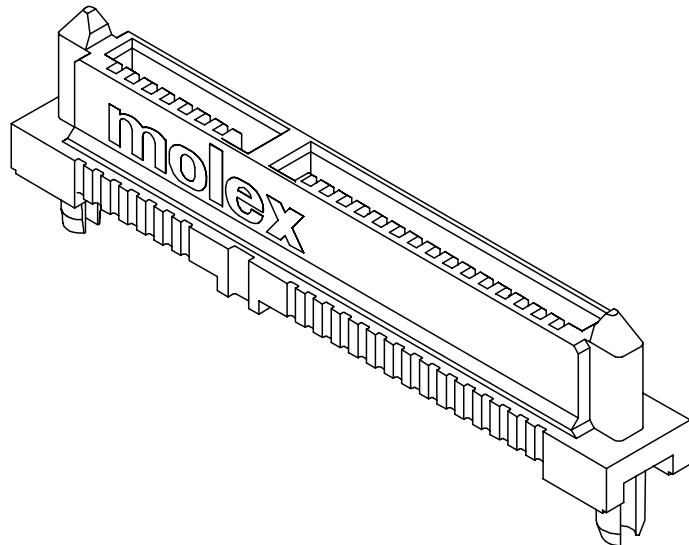


PCB THICKNESS: TBA mm

RECOMMENDED PCB LAYOUT

CDS TIN/LEAD P/N		QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	TITLE SERIAL ATA BACKPLANE STD HEIGHT, RECEPT., SMT	© THIRD ANGLE PROJECTION
EC NO: S2006-0984	2006/04/04		mm	INCH	DRAWN BY DKOH	DATE 2002/07/05				
DRWN:MLONG	2006/04/04	▼=0	4 PLACES	± ---	CHECKED BY KCLING	DATE 2002/07/05				
CH'K'D:CGTAN	2006/04/04	▽=0	3 PLACES	± ---	APPROVED BY SKTOH	DATE 2002/07/05				
APP'R:KCLING			2 PLACES	± 0.20						
REV C			1 PLACE	± ---						
			ANGULAR ± 3 °							
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. 87713-1001		DOCUMENT NO. SD-87713-001			
			SIZE A	3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

10 9 8 7 6 5 4 3 2 1



1035 TIN/LEAD P/N
EC NO: S2006-0984
DRAWN/MODIFIED BY: CH'K'D:CGTAN
APPR'D:KCLING
2006/04/04
2006/04/04
2006/04/04
REV: C

GENERAL TOLERANCES
(UNLESS SPECIFIED)
QUALITY SYMBOLS
▼=0
▽=0
DESCRIPTION

DIMENSION STYLE
MM ONLY
DRAWN BY: DKOH
DATE: 2002/07/05
CHECKED BY: DATE
KCLING
2002/07/05
APPROVED BY: SKTOH
DATE: 2002/07/05
ANGULAR $\pm 3^\circ$
DRAFT WHERE APPLICABLE
MATERIAL NO.
REV: 87713-1001
MUST REMAIN
WITHIN DIMENSIONS

SCALE
NTS
DESIGN UNITS
METRIC
TITLE
SERIAL ATA BACKPLANE
STD HEIGHT, RECEPT., SMT
MOLEX INCORPORATED
DOCUMENT NO.
SD-87713-001
SHEET NO.
4 OF 4

SIZE
A
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