

Storage Network Interconnects

Storage Device Interconnects Overview K-2

Small Form-Factor Pluggable (SFP)

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SCA-2

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EBBI 50D

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MUSIC SSA/1394

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For more information, please see the last page of the catalog for the location nearest you or contact:

molex® Storage Device Interconnects

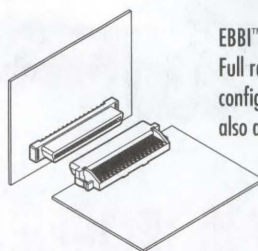
A complete solution for disk drive and device attachment in storage network systems and internal docking applications

Molex offers an expansive array of products to meet the needs of device attachment for servers, RAID's, JBOD's, and other disk enclosures. These interconnects are designed for various interfaces, including SCSI, Fibre Channel, SSA and custom applications.

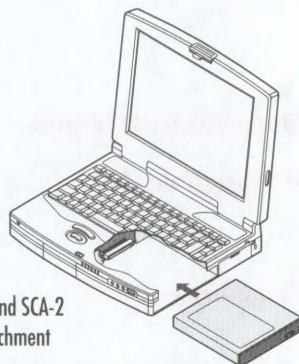
SCA-2 receptacles and plugs feature a variety of styles for every type of backplane and device. Conforming to Small Form Factor specifications, the Single Connector Attach versions feature standard or extended heights with your choice of through hole or press-fit termination methods.

For added alignment and durability, the EBBI™ 50D product family offers blind-mate versions with enhanced guide posts, used in various internal docking applications. Sequential mating options are available for hot swappability.

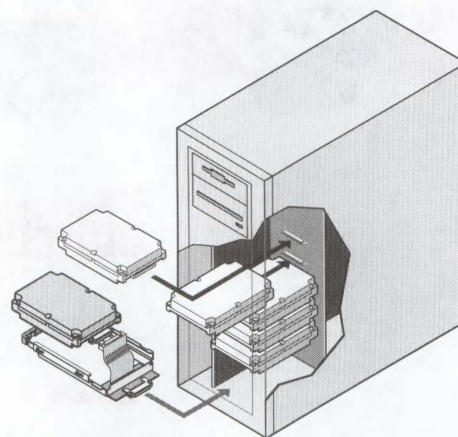
The EBBI 50D series of receptacles and plugs feature leaf-style contacts on 1.27mm (.050") pitch spacing in a full range of board-to-board configurations. IDT version is available for cable-to-board applications.



EBBI™ 50D
Full range of board-to-board configurations (IDT version also available)



EBBI 50D and SCA-2
Device Attachment



EBBI 50D and SCA-2
Disk Drive Attachment

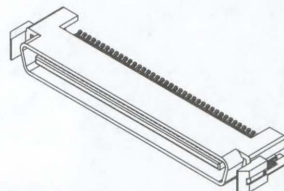
For direct attachment to backplanes or as interposers or extenders in drive trays or carrier assemblies

STORAGE DEVICE INTERCONNECT QUICK REFERENCE GUIDE

Device Connector

SCA-2 for SCSI drives (Enhanced 80 circuit)

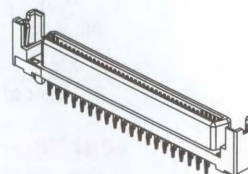
The 80-pin SCA-2 is an enhanced single connector attach with blind-mating guide features and integral ESD ground-ing contacts, allowing users to add and remove devices without taking the system off-line.



Plug—87012
87571
87641

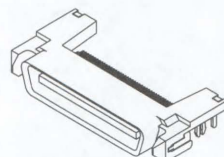
Backplane Connector

Receptacle—71743
71744
73826
73829
87557

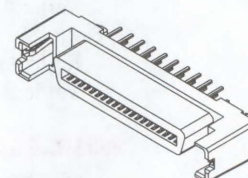


SCA-2 for Fibre Channel drives (Enhanced 40 circuit)

The 40-pin version of SCA-2 supports the Fibre Channel serial interface to allow high-speed data transfer rates with the flexibility of attaching directly to the backplane or cable.



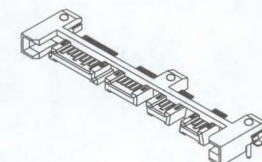
Plug—87012
87572
87641



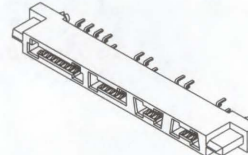
Receptacle—71743
71744
73826
73829
87620

SSA/IEEE 1394 (38 circuit)

Both SSA (Serial Storage Architecture) T10.1 and IEEE 1394 specify the same connector as the internal interconnect standard for disk drives and other media devices. This connector features 38 circuits in four unitized bays to connect disk drives and other media devices to backplanes.



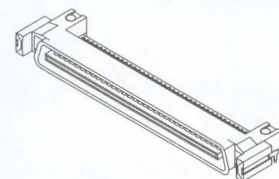
Plug—71265



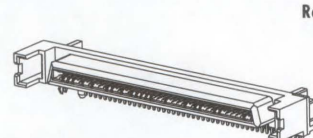
Receptacle—71264

EBBI™ with Towers

Used in hot-hot-swap applications, this version of EBBI mates with the standard EBBI product line, as well as SCA-2 style plugs. In addition, it has blind mate capabilities. It includes a 2-row, right angle, PC mount with 80 circuits.



Plug—71661
87012
87571
87572
87641



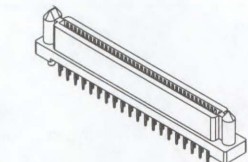
Receptacle—87018

EBBI™ Blind-Mate

This enhanced version of the EBBI series offers blind-mate guide posts that are integrated in the housing for a robust attachment of storage devices. Sequential-mating options are available.



Plug—71661



Receptacle—71660
87537
87599
87635

FEATURES AND SPECIFICATIONS

Features and Benefits

- Accepts copper and optical SFP pluggable transceiver modules for Fibre Channel, Gigabit Ethernet and InfiniBand* applications
- Available as a one-piece assembly or as a separate cover and base for various assembly processes
- Press-fit pins accommodate a range of PCB thicknesses
- Two-point spring contacts for optimal EMI grounding
- Chamfered edges on cover to facilitate assembly to base
- Design allows two cages to be mounted on opposite sides of PCB for belly-to-belly applications
- Meets MSA standards

Reference Information

Packaging: Tray

Mates With: 73929 Copper patch cable, 74720 Copper pluggable module and optical pluggable modules

Use With: 74441 SFP host board receptacle

Designed In: Millimeters

Physical

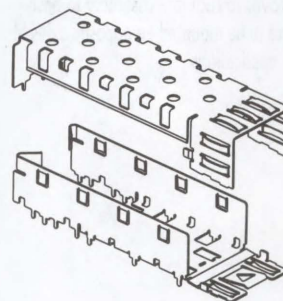
Material: Tin-plated Copper Alloy



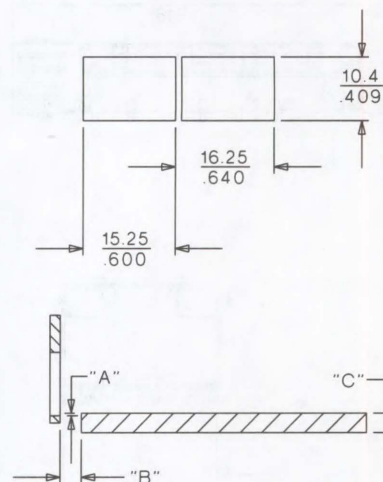
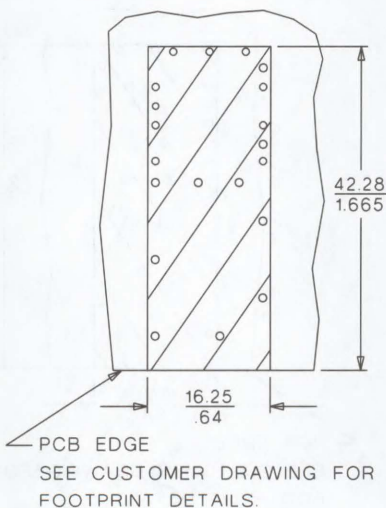
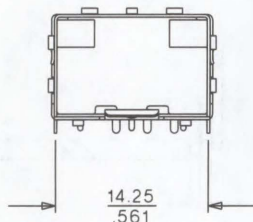
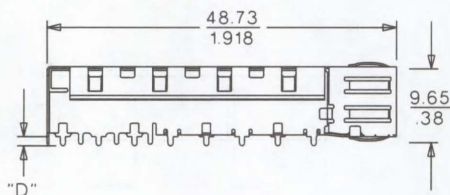
Small Form-Factor Pluggable (SFP) Cage Assembly

73927

Press-Fit



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension			
		A	B	C	D
73927-0001	One-Piece Assembly	0.40 (.016)	3.50 (.138)	1.57-3.18 (.062-.125)	3.05 (.120)
73927-0020	Cover				
73927-0030	Base	0.40 (.016)	3.50 (.138)	1.57-3.18 (.062-.125)	3.05 (.120)

* InfiniBand is a trademark of the InfiniBand Trade Association

FEATURES AND SPECIFICATIONS

Features and Benefits

- Accepts copper and optical SFP pluggable transceiver modules for Fibre Channel, Gigabit Ethernet and InfiniBand® applications
- Available as a one-piece assembly or as a separate cover and base for various assembly processes
- PCI version has solder posts angled one-degree for use with PCI panels
- Two-point spring contacts for optimal EMI grounding
- Chamfered edges on cover to facilitate assembly to base
- Design allows two cages to be mounted on opposite sides of PCB for belly-to-belly applications
- Meets MSA standards

Reference Information

Packaging: Tray
 Mates With: 73929 Copper patch cable, 74720 Copper pluggable module and optical pluggable modules
 Use With: 74441 SFP host board receptacle
 Designed In: Millimeters

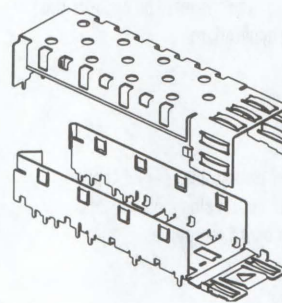
Physical

Material: Tin-plated Copper Alloy

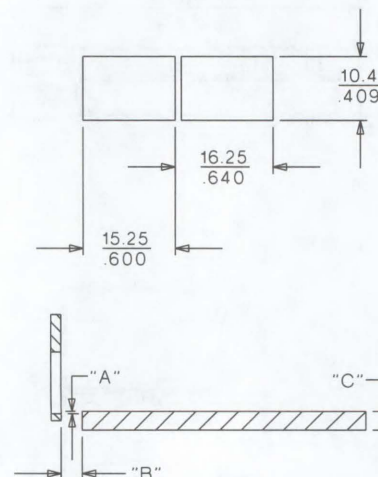
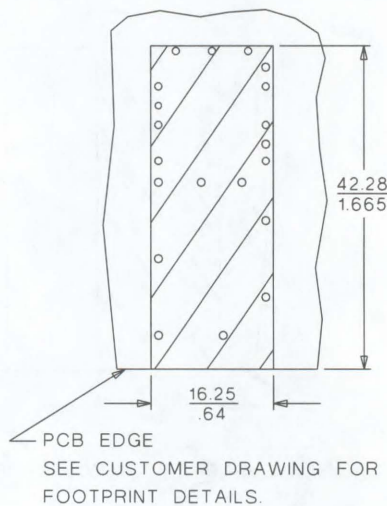
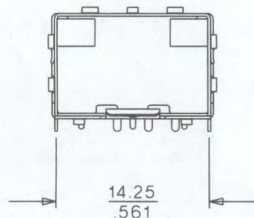
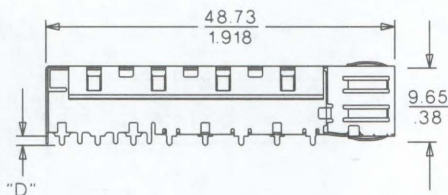
molex® Small Form-Factor Pluggable (SFP) Cage Assembly

73927

Solder Post



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension			
		A	B	C	D
73927-0002	One-Piece Assembly, Standard Panel Opening	0.40 (.016)	3.50 (.138)	1.57-3.18 (.062-.125)	1.25 (.049)
73927-0004	One-Piece Assembly, PCI Panel Opening	0.40 (.016)	1.02 (.040)	1.57-3.18 (.062-.125)	3.56 (.140)
73927-0020	Cover				
73927-0040	Base, Standard Panel Opening	0.40 (.016)	3.50 (.138)	1.57-3.18 (.062-.125)	1.25 (.049)
73927-0060	Base, PCI Panel Opening	0.40 (.016)	1.02 (.040)	1.57-3.18 (.062-.125)	3.56 (.140)

* InfiniBand is a trademark of the InfiniBand Trade Association

FEATURES AND SPECIFICATIONS

Features and Benefits

- Connector used in conjunction with pluggable transceiver modules allows you to mate copper cable or optical cable assemblies without changing host board
- Card entry slot to accept 1.00mm (.039") thick integrated circuit board (located inside pluggable module)
- Alignment posts provide stability for placement on the PCB
- Standoffs allow easy PCB cleaning after soldering
- SMT receptacle provides option for placement on either side of PCB
- Meets MSA standards

Reference Information

Packaging: Tape and reel

Mates With: 73929 Copper patch cable, 74720 Copper pluggable module and optical pluggable module

Use With: 73927 cage assembly

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 0.5A

Contact Resistance: 10mΩ max.

Dielectric Withstanding Voltage: 300V AC

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Retention to Housing: 4.4N (1.0 lb)

Mating Force: 22N (5.0 lb)

Unmating Force: 8.8N (2.0 lb)

Normal Force: 0.8N (80g)

Durability: 200 cycles

Physical

Housing: High-temperature thermoplastic

Contact: Copper Alloy

Plating: Contact Area—0.38μm min. Gold

Solder Tail Area—Gold flash or 2.54μm Tin/Lead

Underplating—2.54μm Nickel

PCB Thickness: 1.00mm (.039")

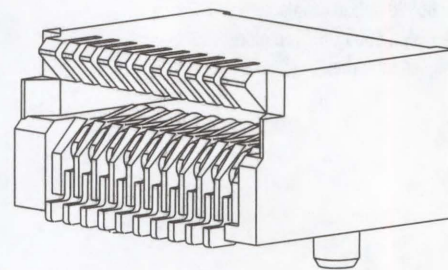
Operating Temperature: -55 to +105°C



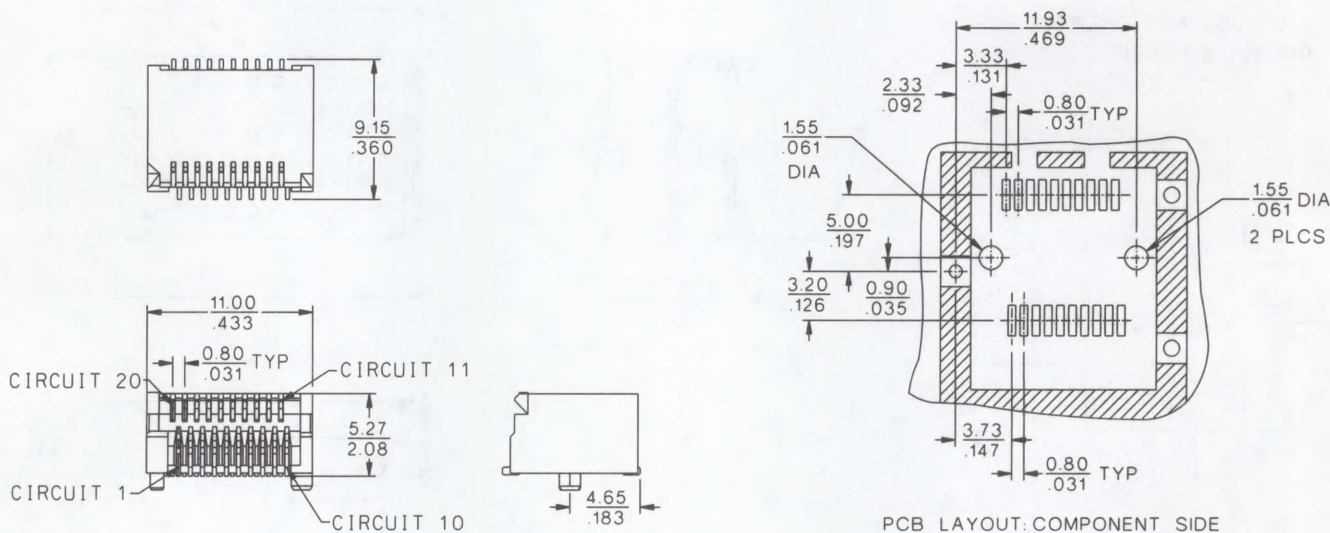
0.80mm (.031") Pitch Small Form-Factor Pluggable (SFP) Receptacle

74441

Right Angle, SMT 20 Circuit



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
20	74441-0001

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets all requirements of the Fibre Channel and Gigabit Ethernet GBIC standards
- All-metal construction
- EMI cover options for multiple PCB thicknesses
- Internal EMI seal gasket engages panel and module
- Torsion spring for proper door closure
- Additional chassis grounds available via the orientation posts

Reference Information

Packaging: Tray

Mates With: 73086 and 74730 Copper adapters, and 86990 optical adapters

Use With: 74065 GBIC receptacle

Designed In: Inches

Physical

Main Body: Zinc diecast, bright Tin plated

Gasket: Stamped Phosphor Bronze, bright Tin plated

Door: Zinc diecast, bright Nickel plated

EMI Cover: Stamped Brass Alloy, bright Tin plated

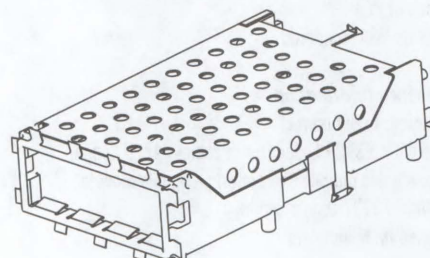
Torsion Spring: Stainless Steel



Gigabit Interface Converter (GBIC) Guide Frame

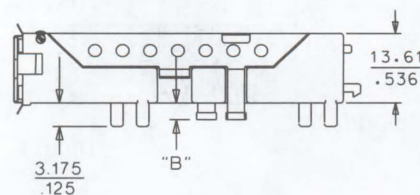
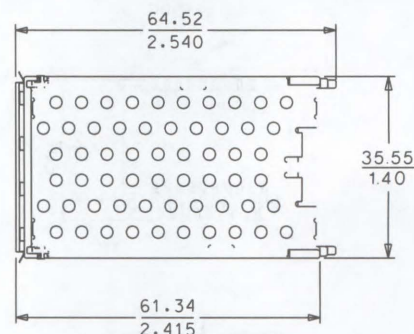
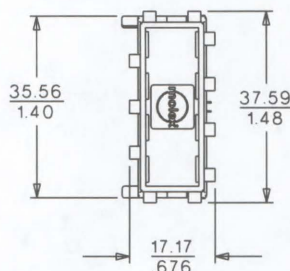
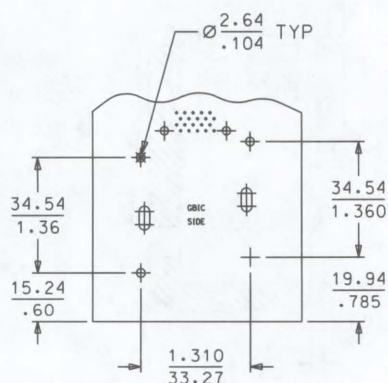
73847

Metal



CATALOG DRAWING (FOR REFERENCE ONLY)

SEE CUSTOMER DRAWING FOR COMPLETE FOOTPRINT DETAILS



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension B	PCB Thickness
73847-0001	3.12 (.123)	1.57 (.062)
73847-0002	3.71 (.146)	2.16 (.085)
73847-0003	4.09 (.161)	2.54 (.100)
73847-0004	3.91 (.154)	2.36 (.093)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets all requirements of the Fibre Channel and Gigabit Ethernet GBIC standards for copper links
- Hot-pluggable, duplex adapter
- Supports data rates up to 1.25 Gbps
- Diecast shield provides superior EMI performance
- Available in active or passive styles with or without serial identification

Reference Information

Packaging: Tray

Mates With: 74065 GBIC receptacle

Use With: 73847 Guide Frame and HSSDC Fibre Channel Cable assemblies—73915, 73916, 73917, 73918

Designed In: Inches

Physical

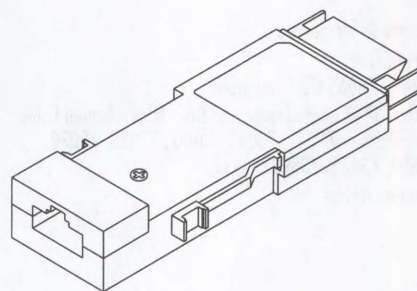
Shield: Zinc diecast, clear chromate finish



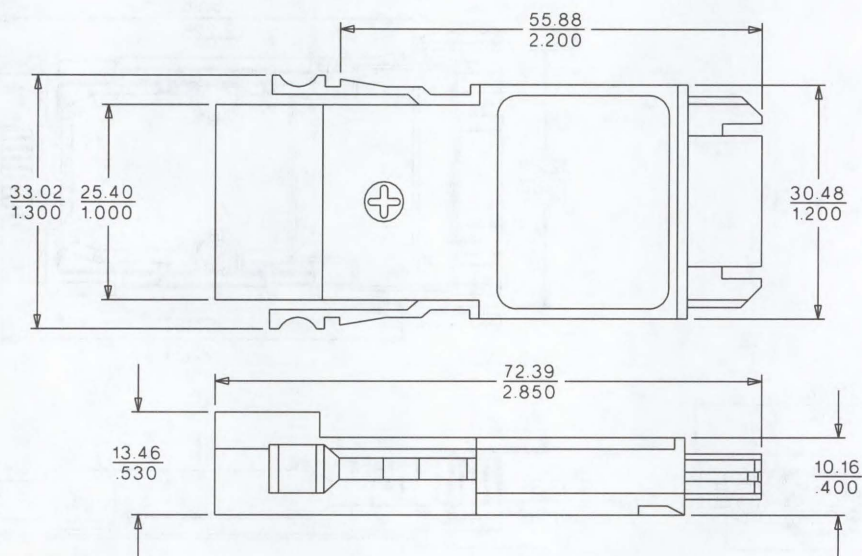
Gigabit Interface Converter (GBIC) Adapter

74730

Copper, HSSDC



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.		Serial ID Option	Protocol
Passive Style	Active Style		
74730-0001	74730-0005	Without ID	1.0625 GBaud Fibre Channel
74730-0002	74730-0006	Without ID	1.25 GBaud Gigabit Ethernet
74730-0003	74730-0007	With ID	1.0625 GBaud Fibre Channel
74730-0004	74730-0008	With ID	1.25 GBaud Gigabit Ethernet

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets all requirements of the Fibre Channel and Gigabit Ethernet GBIC standards for copper links
- Hot-pluggable, duplex adapter
- Diecast clam shell with 360-degree termination to DB-9 receptacle provides excellent EMI control
- Jackscrew termination to cable assembly for superior strain relief
- Staggered plastic latches with static dissipative properties

Reference Information

Packaging: Tray

Mates With: 74065 GBIC receptacle

Use With: 73847 Guide Frame and DB-9 Fibre Channel assemblies—73041, 73043, 73047, 73068, 73070, 73884, 73885, 73899, 73917

Designed In: Inches

Physical

Shield: Zinc diecast, clear chromate finish

DB-9 Receptacle: Shell—Steel with Tin Plating

Housing—Glass-filled PBT, UL 94V-0

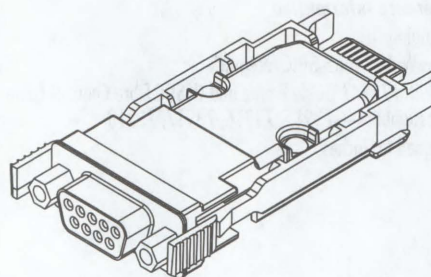
Contacts—Phosphor Bronze, 30μ" Gold over Nickel underplate

Guide Latches: Black, glass-filled PBT, statically dissipative, UL 94V-0

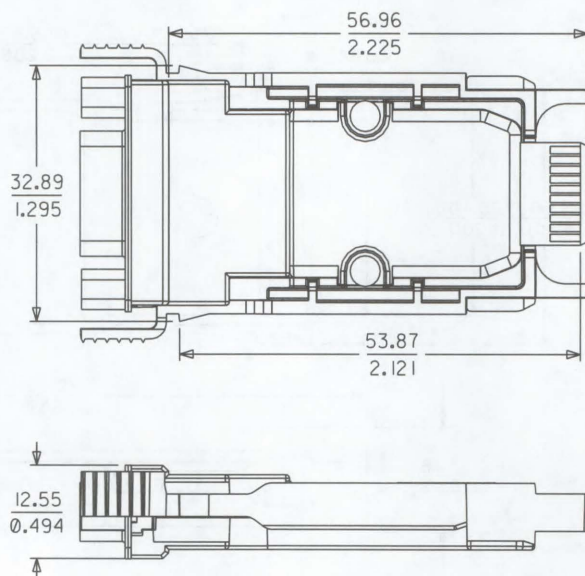
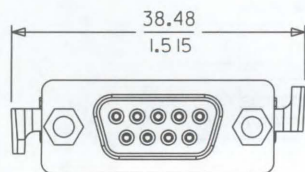
molex® Gigabit Interface Converter (GBIC) Adapter

73086

Copper, DB-9



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.		Serial ID Option	Protocol
Passive Style	Active Style		
73086-0001	73086-0005	Without ID	1.0625 GBaud Fibre Channel
73086-0002	73086-0006	Without ID	1.25 GBaud Gigabit Ethernet
73086-0003	73086-0007	With ID	1.0625 GBaud Fibre Channel
73086-0004	73086-0008	With ID	1.25 GBaud Gigabit Ethernet

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets Giga-bit Interface Converter (GBIC) specifications
- Rugged blind-mate guide ears with $\pm 2.00\text{mm}$ (0.079") mismatching tolerance
- Shielded for improved EMI protection with ESD ground contacts and optional shielding pegs
- Staggered "hot-plug" first-mate, last-break contacts on 1.27mm (.050") pitch spacing

Reference Information

Product Specification: PS-73826-0000

Packing: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: Fiber (86990) and copper (73086) GBIC modules

Use With: GBIC Guide Assembly 73847

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20m Ω

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 M Ω

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max./contact max.

Normal Force: 90g min.

Durability: 500 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Retention Clip and Shield: Copper Alloy

Plating: Terminals—30 μ min. select Gold in contact area over Nickel overall

Shield—Tin/Lead over Nickel overall

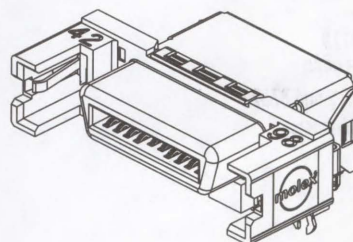
Operating Temperature: -40 to +105°C



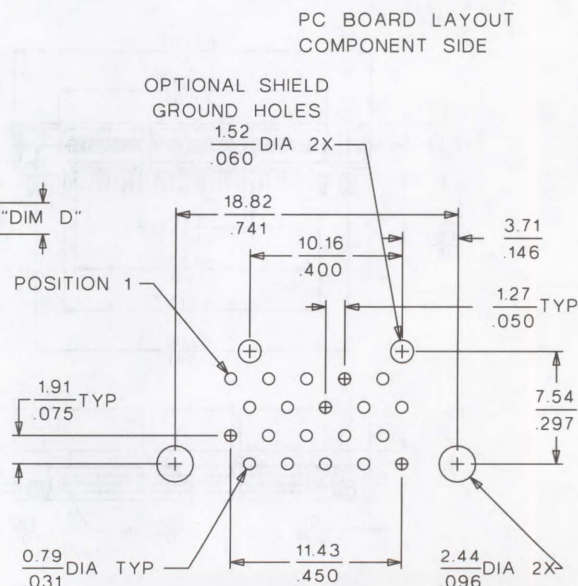
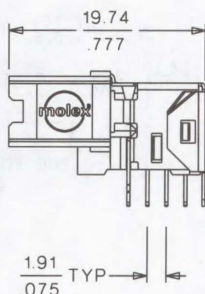
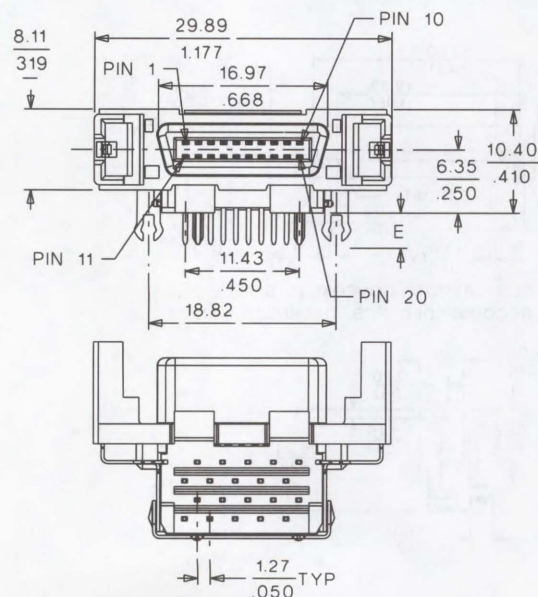
1.27mm (.050") Pitch EBBI 50D Receptacle

74065

Right Angle SCA-2 GBIC



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Shielding Options	Board Thickness	Dimension	
				D	E
20	74065-0001	Shielding Peg	1.57 - 2.00 (.062-.079)	3.18 (.125)	2.79 (.110)
	74065-0002	Shielding Peg	2.03 - 3.17 (.080-.125)	3.81 (.150)	3.56 (.140)
	74065-0003	No Peg	1.57 - 2.00 (.062-.079)	3.18 (.125)	2.79 (.110)
	74065-0004	No Peg	2.03 - 3.17 (.080-.125)	3.81 (.150)	3.56 (.140)
	74065-0005	Shielding Peg	1.57 - 2.00 (.062-.079)	2.54 (.100)	2.79 (.110)
	74065-0006	No Peg	1.57 - 2.00 (.062-.079)	2.54 (.100)	2.79 (.110)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- ESD ground contact with integral metal hold-down for mechanical hold-down before and after processing
- Integral blind mate capabilities with $\pm 2.00\text{mm}$ (.079") misalignment tolerances
- Card slot accommodates standard 1.57mm (.062") PCB

Reference Information

Product Specification: PS-87557-001

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 87012 and 87571

Designed In: Millimeters

Electrical

Voltage: 30V AC

Current: 1.0A

Contact Resistance: 35m Ω max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 M Ω min.

Mechanical

Contact Retention to Housing: 4.4N (.99 lb) min.

Mating Force: 70.6N (15.87 lb) max.

Unmating Force: 11.77N (2.64 lb) min.

Durability: 500 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area—0.76 μm (30 μ) GoldSolder Tail Area—2.54 μm (100 μ) Tin

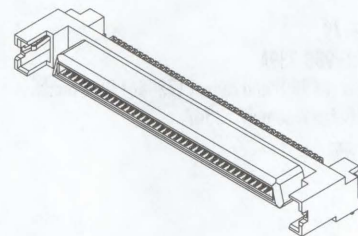
Underplating—Nickel

Operating Temperature: -55 to +105°C

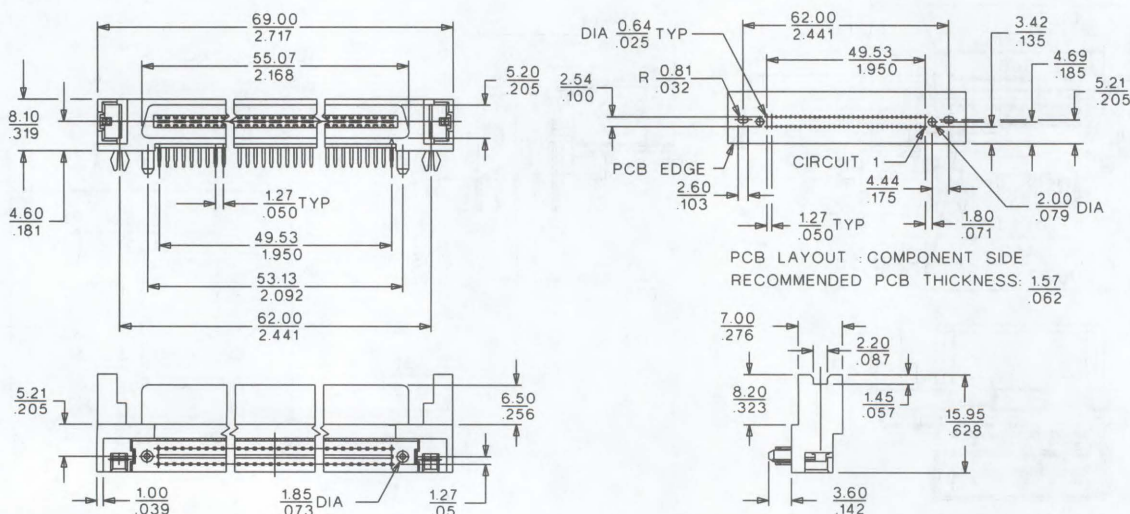
molex® 1.27mm (.050") Pitch EBBI™ 50D Receptacle

87557

Right Angle, Through Hole SCA-2, Reverse D Mate



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.
80	87557-0001

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Single I/O connector for storage devices interface
- ESD ground contact with integral metal hold-down for mechanical hold-down before and after processing
- Integral blind mate capabilities with $\pm 2.00\text{mm}$ (.079") misalignment tolerances
- Card slot accommodates standard 1.57mm (.062") PCB

Reference Information

Product Specification: PS-87620-002

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 87012 and 87572

Designed In: Millimeters

Electrical

Voltage: 30V AC

Current: 1.0A

Contact Resistance: $35\text{m}\Omega$ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 $\text{M}\Omega$ min.

Mechanical

Contact Retention to Housing: 4.4N (.99 lb) min.

Mating Force: 35.3N (7.94 lb) max.

Unmating Force: 5.88N (1.32 lb) min.

Durability: 500 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area— $0.76\mu\text{m}$ (30 μ) Gold

Solder Tail Area— $2.54\mu\text{m}$ (100 μ) Tin

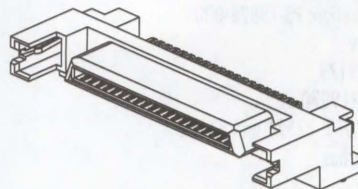
Underplating—Nickel

Operating Temperature: -55 to +105°C

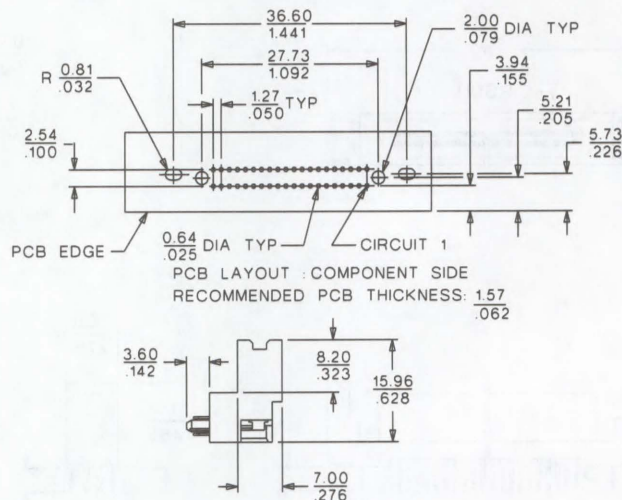
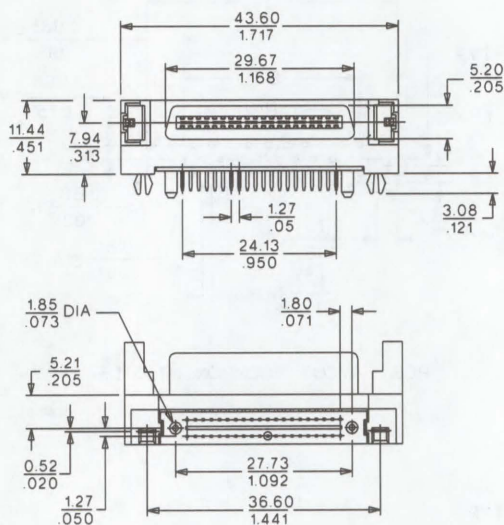
molex® 1.27mm (.050") Pitch EBBI™ 50D Receptacle

87620

Right Angle, Through Hole Extended Height, SCA-2 Reverse D Mate



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.
40	87620-0001

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Metal retention clips for mechanical hold down before and after processing
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Mates to standard .062" PC board card edge with low insertion force
- Surface Mount Compatible

Reference Information

Product Specification: PS-73826-0000

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 87012, 87571 and 87572

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max.

Unmating Force: 15g min.

Normal Force: 90g

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Retention Clip: Copper Alloy

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C

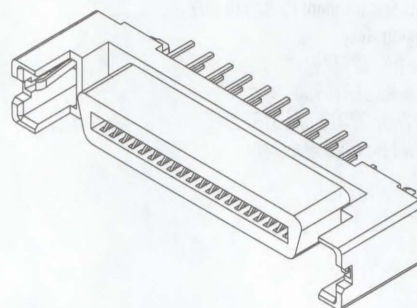


1.27mm (.050") Pitch

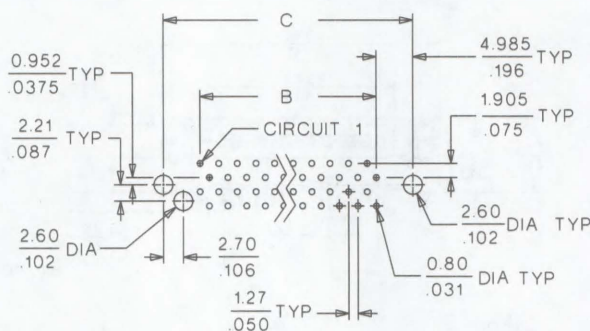
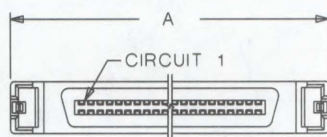
EBBI™ 50D

Receptacle

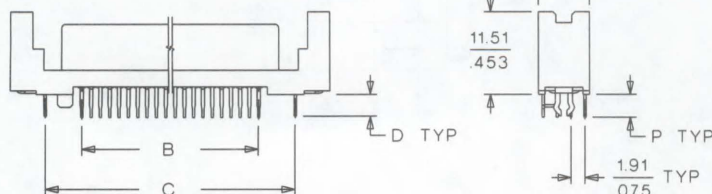
71743

Vertical
SCA-2

CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension				
		A	B	C	D	P
40	• 71743-1040	43.60 (1.717)	24.13 (.950)	34.11 (1.343)	3.00 (.118)	3.18 (.125)
	• 71743-1041	43.60 (1.717)	24.13 (.950)	34.11 (1.343)	3.00 (.118)	2.79 (.110)
	• 71743-1042	43.60 (1.717)	24.13 (.950)	34.11 (1.343)	2.24 (.088)	1.78 (.070)
	• 71743-1044	43.60 (1.717)	24.13 (.950)	34.11 (1.343)	3.00 (.118)	3.40 (.134)
	• 71743-1045	43.60 (1.717)	24.13 (.950)	34.11 (1.343)	3.00 (.118)	3.75 (.148)
80	• 71743-1080	69.00 (2.717)	49.53 (1.950)	59.51 (2.343)	3.00 (.118)	3.18 (.125)
	• 71743-1081	69.00 (2.717)	49.53 (1.950)	59.51 (2.343)	3.00 (.118)	2.79 (.110)
	• 71743-1082	69.00 (2.717)	49.53 (1.950)	59.51 (2.343)	2.24 (.088)	1.78 (.070)
	• 71743-1084	69.00 (2.717)	49.53 (1.950)	59.51 (2.343)	3.00 (.118)	3.40 (.134)
	• 71743-1085	69.00 (2.717)	49.53 (1.950)	59.51 (2.343)	3.00 (.118)	3.75 (.148)
	• 71743-1086	69.00 (2.717)	49.53 (1.950)	59.51 (2.343)	4.37 (.172)	3.18 (.125)

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Metal retention clips for mechanical hold down before and after processing
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Mates to standard .062" PC board card edge with low insertion force
- Surface Mount Compatible

Reference Information

Product Specification: PS-73826-0000

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 71661, 87012, 87571 and 87572

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max.

Unmating Force: 15g min.

Normal Force: 90g

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Retention Clip: Copper Alloy

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C



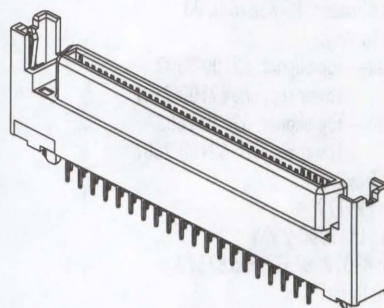
1.27mm (.050") Pitch

EBBI™ 50D

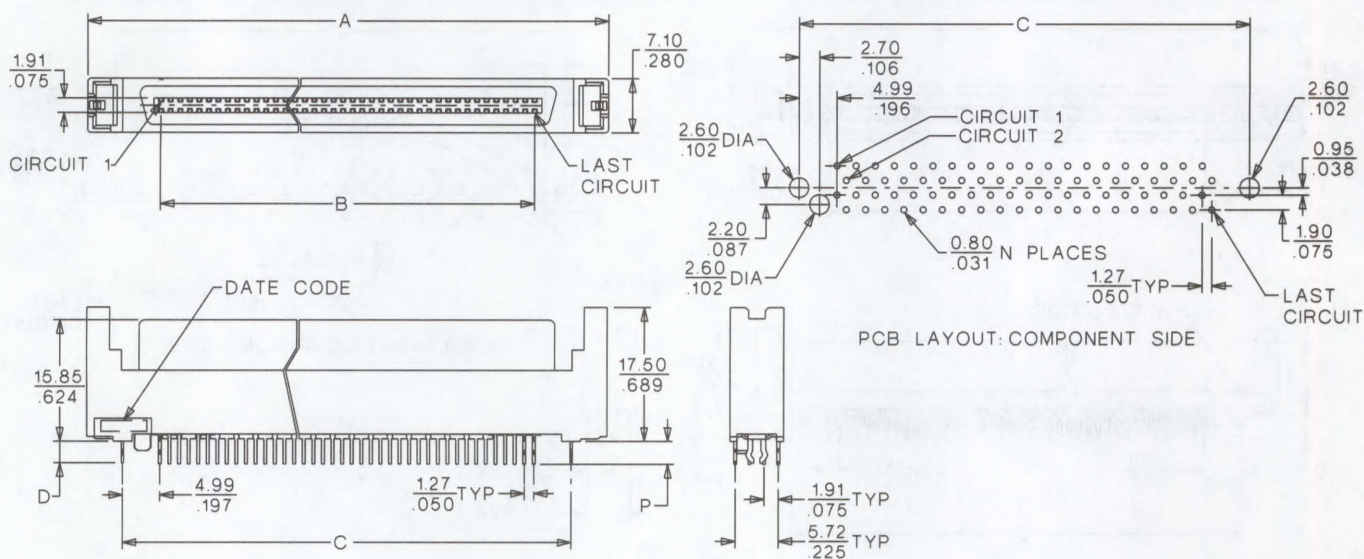
Receptacle

71744

Vertical, Extended Height
SCA-2



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension				
		A	B	C	D	P
40	71744-1040	43.61 (1.717)	24.13 (.950)	34.11 (1.343)	2.77 (.109)	3.18 (.125)
80	71744-1080	69.01 (2.717)	49.53 (1.950)	59.51 (2.343)	2.77 (.109)	3.18 (.125)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Mates to standard .062" PC board card edge
- Press-fit tails save in applied processing costs
- Preloaded contacts prevent stubbing during mating

Reference Information

Product Specification: PS-73826-0000

Application Tooling:

- 40 circuit—Top aligner: 62100-2502
Lower support: 62100-2501
- 80 circuit—Top aligner: 62100-2602
Lower support: 62100-2601

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 87012, 87571 and 87572

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max.

Unmating Force: 15g min.

Normal Force: 90g

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Retention Clip: Copper Alloy

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C

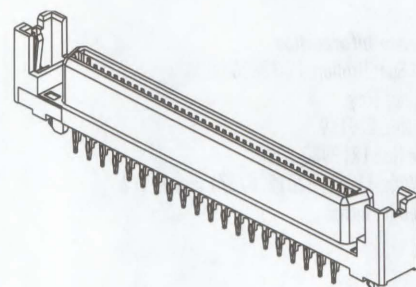


1.27mm (.050") Pitch

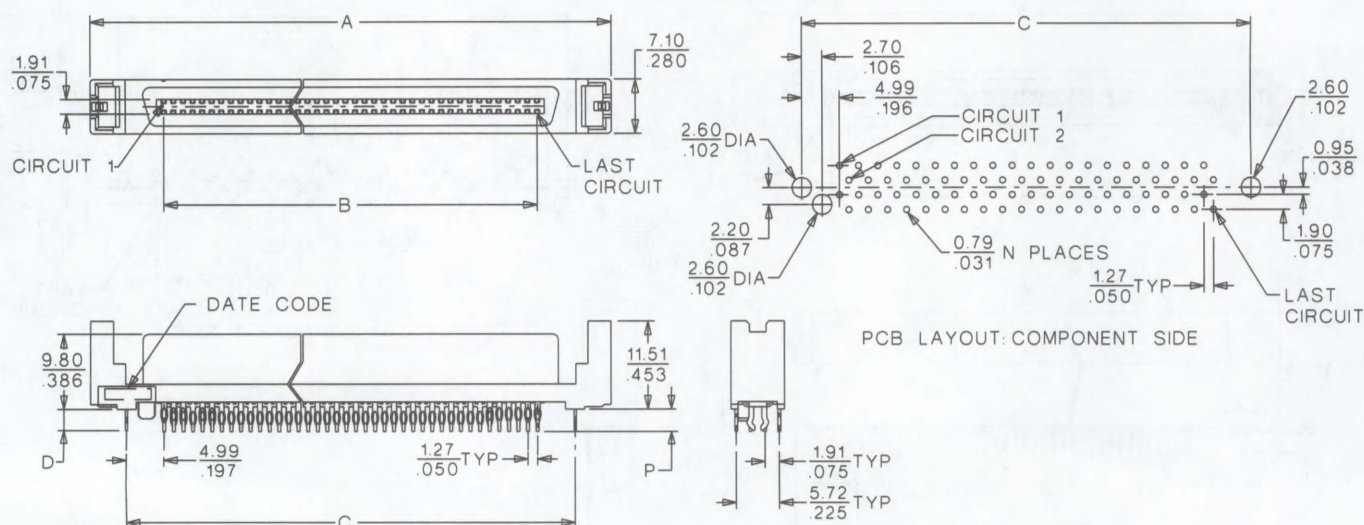
EBBI™ 50D

Receptacle

73826

Vertical, Press-Fit
SCA-2

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension				
		A	B	C	D	P
40	73826-0002	43.60 (1.717)	24.13 (.950)	34.11 (1.343)	2.77 (.109)	3.18 (.125)
80	73826-0001	69.00 (2.717)	49.53 (1.950)	59.51 (2.343)	2.77 (.109)	3.18 (.125)
80	73826-0003	69.00 (2.717)	49.53 (1.950)	59.51 (2.343)	2.77 (.109)	3.43 (.135)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Mates to standard .062" PC board card edge
- Press-fit tails save in applied processing costs
- Preloaded contacts prevent stubbing during mating

Reference Information

Product Specification: PS-73826-0000

Application Tooling:

40 circuit—Top aligner: 62100-2502
Lower support: 62100-2501

80 circuit—Top aligner: 62100-2602
Lower support: 62100-2601

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 71661, 87012, 87571 and 87572

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max. per contact

Unmating Force: 15g min. per contact

Normal Force: 90g

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Retention Clip: Copper Alloy

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C



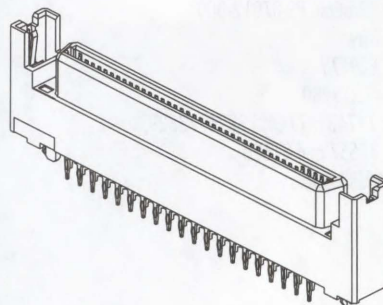
1.27mm (.050") Pitch

EBBI 50D

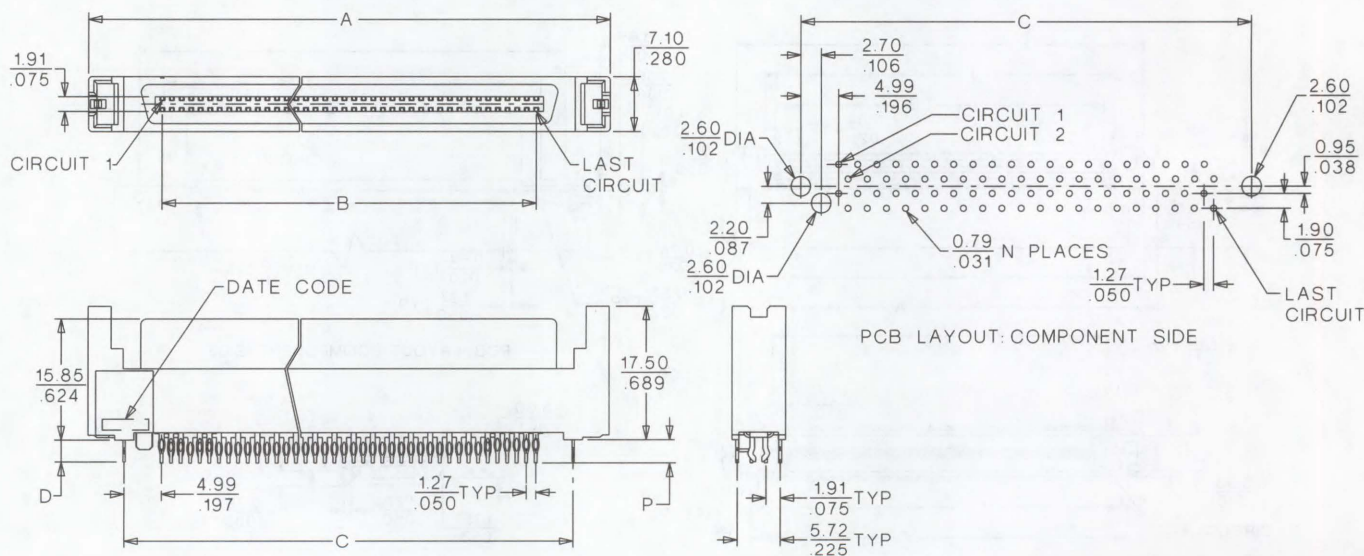
Receptacle

73829

Vertical, Extended Height
Press Fit SCA-2



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimensions				
		A	B	C	D	P
40	73829-0002	43.61 (1.717)	24.13 (.950)	34.11 (1.343)	2.77 (.109)	3.18 (.125)
80	73829-0001	69.01 (2.717)	49.53 (1.950)	59.51 (2.343)	2.77 (.109)	3.18 (.125)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Direct attachment to backplane arrays or motherboard
- Single I/O connector for storage devices interface
- ESD ground contact with integral metal hold-down for mechanical hold-down before and after processing
- Integral blind mate capabilities with $\pm 2.00\text{mm}$ (.079") misalignment tolerances

Reference Information

Product Specification: PS-87012-0001

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71743, 71744, 73826, 73829,

87018, 87557 and 87620

Designed In: Millimeters

Electrical

Voltage: 30V AC

Current: 1.0A

Contact Resistance: $35\text{m}\Omega$ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 $\text{M}\Omega$ min.

Mechanical

Contact Retention to Housing: 4.4N (.99 lb) min.

Mating Force: 0.88N (.20 lb) max.

Unmating Force: 0.15N (.03 lb) min.

Durability: 500 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area— $0.76\mu\text{m}$ (30 μ) GoldSolder Tail Area— $3.81\mu\text{m}$ (150 μ) Tin

Underplating—Nickel

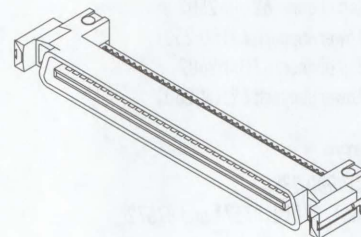
Operating Temperature: -40 to +105°C



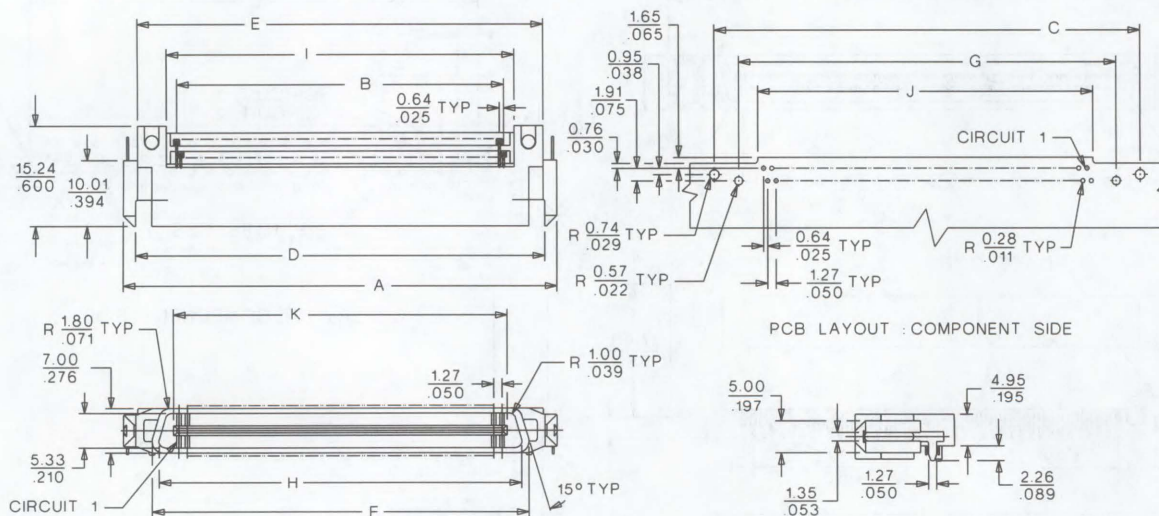
1.27mm (.050") Pitch EBBI™ 50D Board-to-Board Plug

87012

Right Angle, Through Hole, Reverse D Mate, SCA-2



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension										
		A	B	C	D	E	F	G	H	I	J	K
40	87012-0008	41.10 (1.618)	24.77 (.975)	39.83 (1.568)	37.34 (1.470)	36.83 (1.450)	32.46 (1.277)	32.39 (1.275)	29.87 (1.175)	27.94 (1.100)	25.91 (1.020)	25.78 (1.014)
80	87012-0001	66.50 (2.620)	50.17 (1.971)	65.23 (2.568)	62.74 (2.470)	62.23 (2.450)	57.87 (2.278)	57.79 (2.275)	55.27 (2.180)	53.34 (2.100)	51.31 (2.020)	51.18 (2.014)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Single I/O connector for 88.90mm (3.50") fiber channel disk drives
- ESD ground contact with integral metal hold-down for mechanical hold-down before and after processing
- Integral blind mate capabilities with $\pm 2.00\text{mm}$ (.079") misalignment tolerances

Reference Information

Product Specification: PS-87571-006

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71743, 71744, 73826, 73829 and 87620

Designed In: Millimeters

Electrical

Voltage: 30V AC

Current: 1.0A

Contact Resistance: $35\text{m}\Omega$ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 $\text{M}\Omega$ min.

Mechanical

Contact Retention to Housing: 4.5N (1.01 lb) min.

Mating Force: 0.9N (.20 lb) max.

Unmating Force: 0.15N (.03 lb) min.

Durability: 500 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area— $0.76\mu\text{m}$ (30μ) Gold

Solder Tail Area— $2.54\mu\text{m}$ (100μ) Tin

Underplating—Nickel

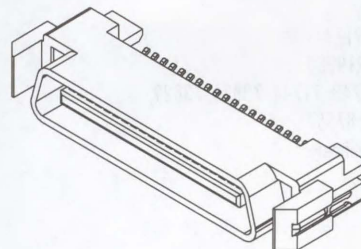
Operating Temperature: -40 to $+105^\circ\text{C}$



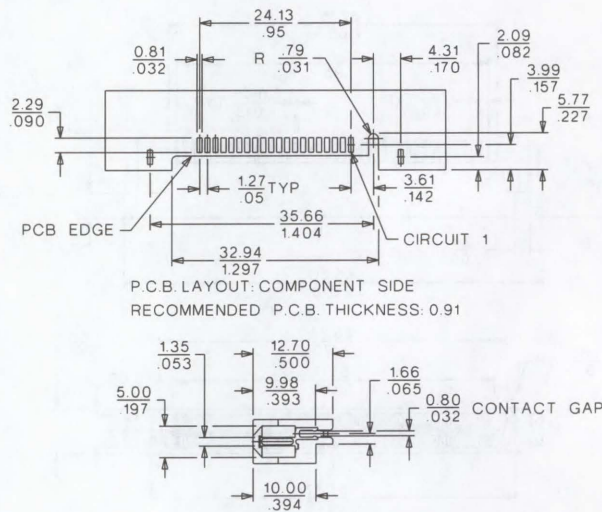
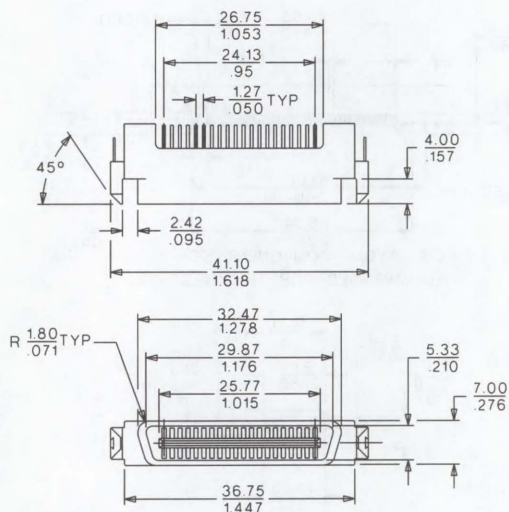
1.27mm (.050") Pitch
EBBI™ 50D
Plug

87572

Straddle Mount, SCA-2
D Mate, 40 Circuit



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
40	87572-0001

FEATURES AND SPECIFICATIONS

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Direct attachment to backplane arrays or motherboard
- ESD ground contact with integral metal hold-down for mechanical hold-down before and after processing
- Integral blind mate capabilities with $\pm 2.00\text{mm}$ (.079") misalignment tolerances

Reference Information

Product Specification: PS-87571-006

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71743, 71744, 73826, 73829,

87018 and 87557

Designed In: Millimeters

Electrical

Voltage: 30V AC

Current: 1.0A

Contact Resistance: $35\text{m}\Omega$ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 $\text{M}\Omega$ min.

Mechanical

Contact Retention to Housing: 4.5N (1.01 lb) min.

Mating Force: 0.9N (.20 lb) max.

Unmating Force: 0.15N (.03 lb) min.

Durability: 500 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area— $0.76\mu\text{m}$ (30 μ) GoldSolder Tail Area— $2.54\mu\text{m}$ (100 μ) Tin

Underplating—Nickel

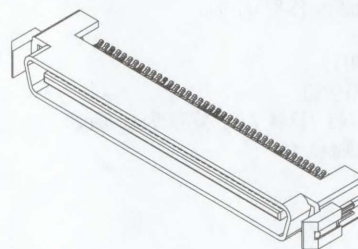
Operating Temperature: -40 to +105°C



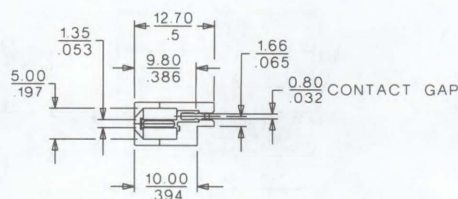
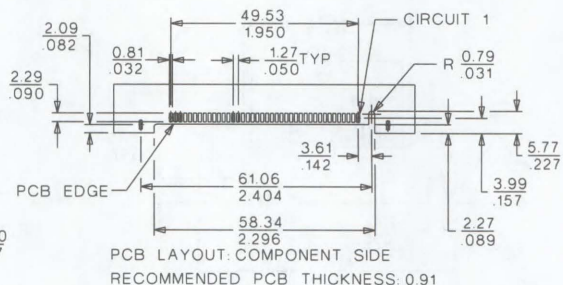
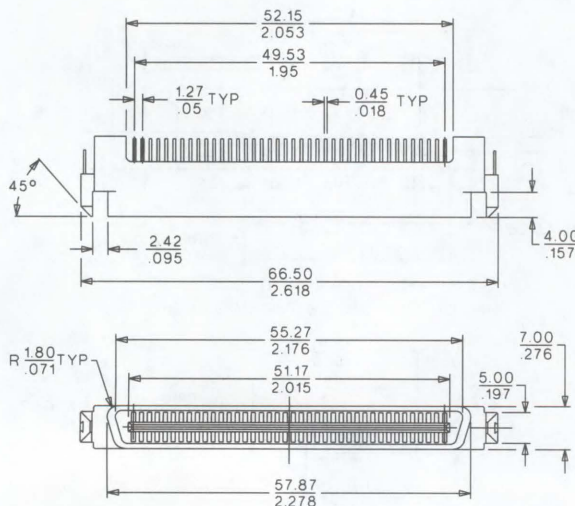
1.27mm (.050") Pitch
EBBI™ 50D
Plug

87571

Straddle Mount, SCA-2
D Mate, 80 Circuit



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
80	87571-0001

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 50, 68 and 80 circuits
- High-density contacts with .050" spacing on 4 rows
- Leaf-style interface provides high durability
- Fork boardlock provides excellent PCB retention

Reference Information

Product Specification: PS 87552-006

Packaging: Tray

Mates With: 71661

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 0.45kg min.

Mating Force: 7.2kg max.

Unmating Force: 1.2kg min.

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: 0.76μm min. select Gold

Operating Temperature: -55 to +105°C



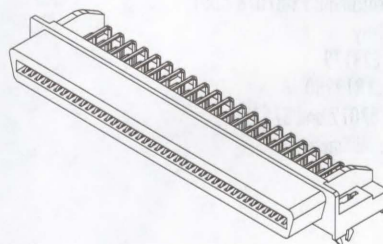
1.27mm (.050") Pitch

EBBI™ 50D

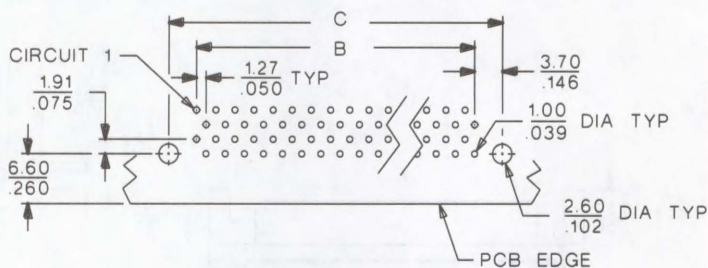
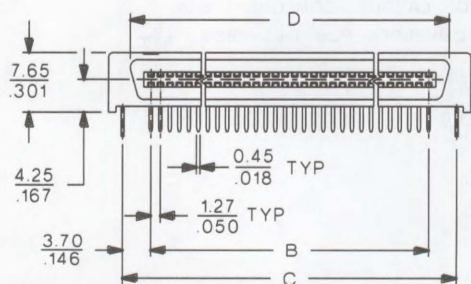
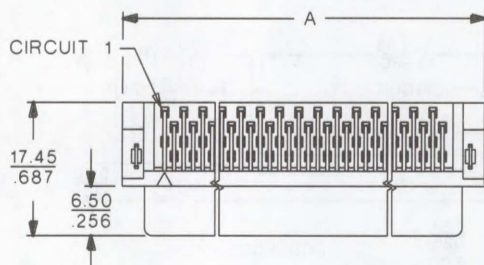
Receptacle

87552

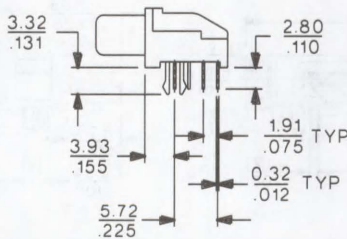
Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT : COMPONENT SIDE
RECOMMENDED PCB THICKNESS: $\frac{1.60}{.063}$



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension			
		A	B	C	D
50	87552-0501	41.70 (1.641)	30.48 (1.200)	37.88 (1.491)	36.02 (1.418)
68	87552-0681	53.13 (2.091)	41.91 (1.650)	49.30 (1.941)	47.45 (1.868)
80	87552-0801	60.75 (2.391)	49.53 (1.950)	56.93 (2.241)	55.07 (2.168)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Parallel, perpendicular and in-line interconnections
- Fork boardlock provides excellent mechanical PCB retention before and after processing
- Integral blind mate capabilities with $\pm 2.00\text{mm}$ (.079") misalignment tolerances
- Card slot accommodates standard 1.57mm (.062") PCB

Reference Information

Product Specification: PS-87018-0001

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 87012 and 87571

Designed In: Millimeters

Electrical

Voltage: 30V AC

Current: 1.0A

Contact Resistance: $30\text{m}\Omega$ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 $\text{M}\Omega$ min.

Mechanical

Contact Retention to Housing: 4.4N (.99 lb) min.

Mating Force: 70.6N (15.87 lb) max.

Unmating Force: 11.77N (2.65 lb) min.

Durability: 500 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area— $0.76\mu\text{m}$ (30μ) GoldSolder Tail Area— $2.54\mu\text{m}$ (100μ) Tin

Underplating—Nickel

Operating Temperature: -55 to $+105^\circ\text{C}$ 

1.27mm (.050") Pitch

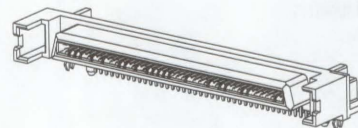
EBBI™ 50D

Receptacle

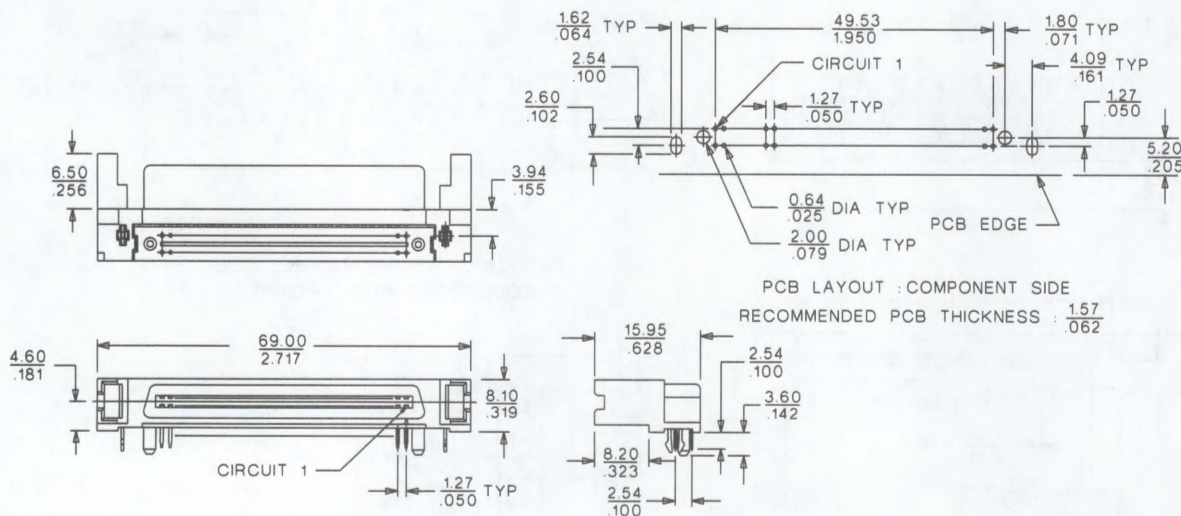
87018

Right Angle, Through Hole

Reverse D with Towers



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.
80	87018-8061

FEATURES AND SPECIFICATIONS

Features and Benefits

- Parallel, perpendicular and in-line interconnections
- First mate/last break terminal
- Polarized guide posts on ends provide 2.00mm (.079") radial lead-in for blind mating
- Fork boardlock provides excellent mechanical PCB retention before and after processing
- Card slot accommodates standard 1.57mm (.062") PCB

Reference Information

Product Specification: PS-87537-0001

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71661-25XX and 71661-7XXX

Designed In: Millimeters

Electrical

Voltage: 30V AC

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 4.4N (.99 lb) min.

Mating Force: 58.84N (13.23 lb) max.

Unmating Force: 9.8N (2.20 lb) min.

Durability: 2000 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area—0.76μm (30μ") Gold

Solder Tail Area—100μm (2.54μ") Tin

Underplating—Nickel

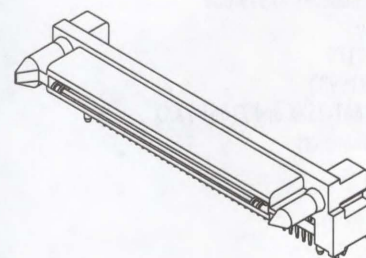
Operating Temperature: -40 to +105°C



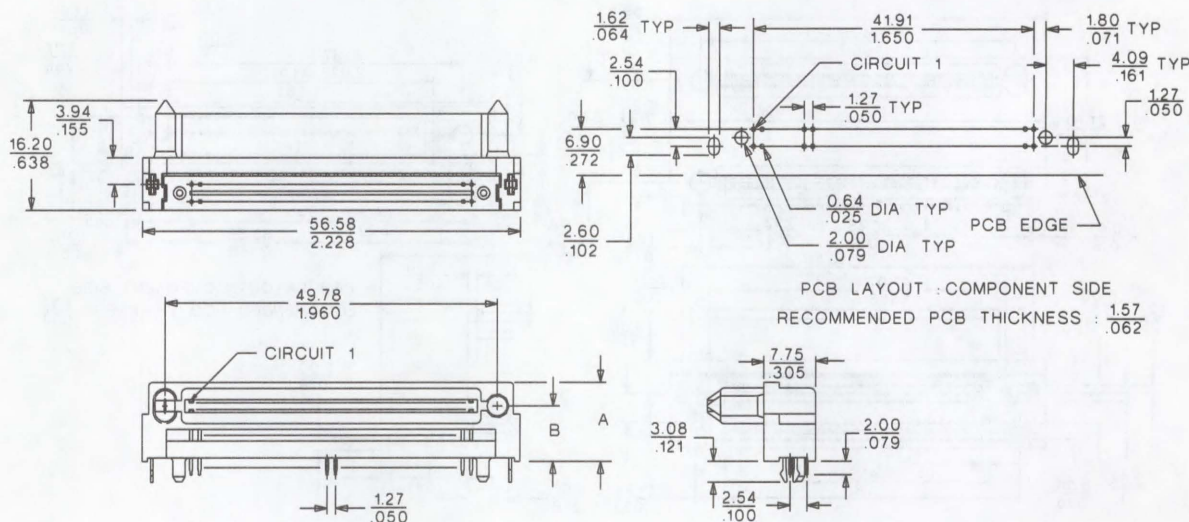
1.27mm (.050") Pitch EBBI™ 50D Receptacle

87537

Right Angle, Blind Mate, Through Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension	
		A	B
68	87537-6811	11.70 (.460)	8.20 (.320)
	87537-6812	6.04 (.240)	2.54 (.100)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Parallel, perpendicular and in-line interconnections
- First mate/last break terminal
- Polarized guide posts on ends provide 2.00mm (.079") radial lead-in for blind mating
- Fork boardlock provides excellent mechanical PCB retention before and after processing
- Threaded insert ensures additional mechanical retention to PCB
- Card slot accommodates standard 1.57mm (.062") PCB

Reference Information

Product Specification: PS-87599-009

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71661-25XX and 71661-7XXX

Designed In: Millimeters

Electrical

Voltage: 30V AC

Current: 1.0A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 4.4N (.99 lb) min.

Mating Force: 60N (13.49 lb) max.

Unmating Force: 10N (2.25 lb) min.

Durability: 2000 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0

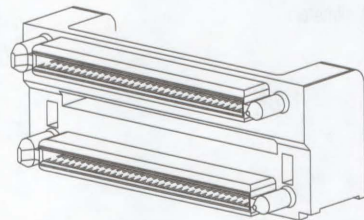
Contact: Copper Alloy

Plating: Contact Area—0.76μm (30μ") Gold

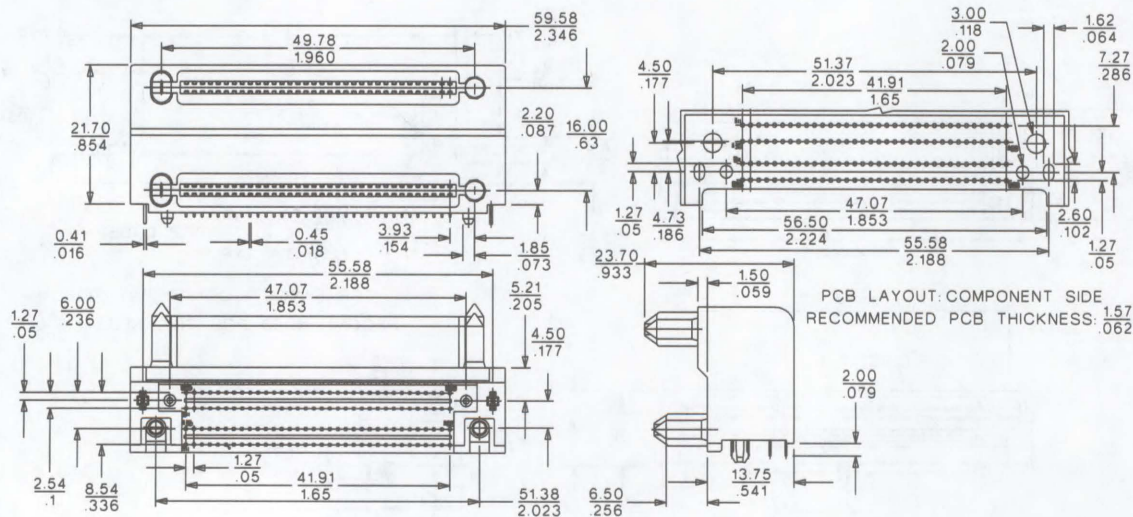
Solder Tail Area—100μm (2.54μ") Tin

Underplating—Nickel

Operating Temperature: -25 to +85°C

**1.27mm (.050") Pitch****EBBI™ 50D****Board-to-Board
Receptacle****87599****Right Angle, Dual Stack
Though Hole, Four Row,
Blind-Mate**

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.
68	87599-0001

FEATURES AND SPECIFICATIONS

Features and Benefits

- Polarized D-shaped leaf-contact connector
- Chamfered lead-in on tails for PCB mounting
- Metal retention clips for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board packaging
- Mates to standard 1.60mm (.062") PCB card edge with low insertion force
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
 Packaging: Tray
 UL File No.: E29179
 CSA File No.: LR19980-239A
 Mates With: 71661
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.
 Mating Force: 90g max.
 Unmating Force: 15g min.
 Normal Force: 90g
 Durability: 500 cycles min.

Physical

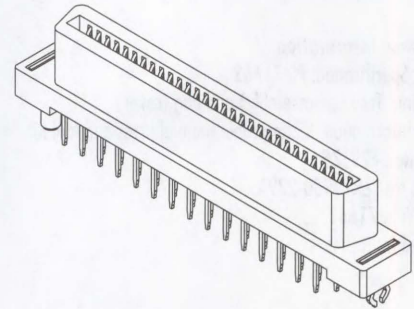
Housing: High-temperature thermoplastic, UL 94V-0
 Retention Clip: Copper Alloy
 Contact: Copper Alloy
 Plating: 30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel on tails
 Operating Temperature: -40 to +105°C



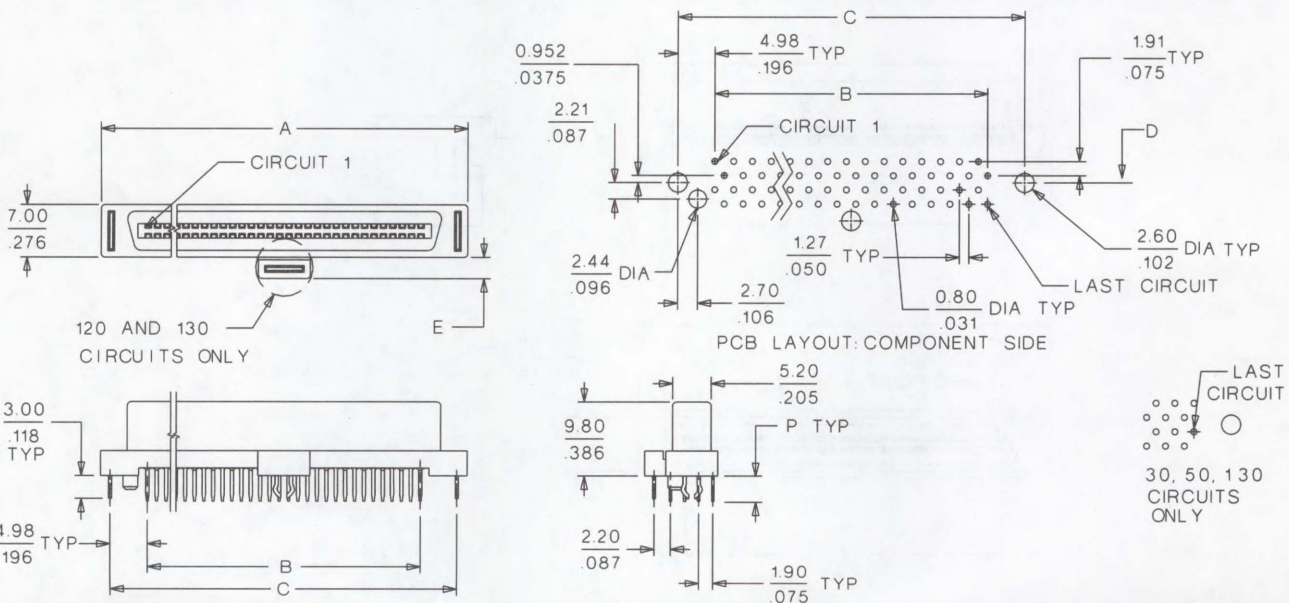
1.27mm (.050") Pitch
EBBI™ 50D
Receptacle

71660

Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension		
	Tail Length (Dim. P) 3.40mm (.134")	Tail Length (Dim. P) 2.79mm (.110")	A	B	C
30	15-92-1030	15-92-1430	30.45 (1.199)	17.78 (.700)	27.75 (1.092)
40	15-92-1040	15-92-1440	36.80 (1.449)	24.13 (.950)	34.10 (1.342)
50	15-92-1050	15-92-1450	43.15 (1.699)	30.48 (1.200)	40.45 (1.592)
60	15-92-1060	15-92-1460	49.50 (1.949)	36.83 (1.450)	46.80 (1.842)
68	15-92-1068	15-92-1468	54.58 (2.149)	41.91 (1.650)	51.88 (2.042)
80*	15-92-1080	15-92-1480	62.20 (2.449)	49.53 (1.950)	59.50 (2.342)
100	15-92-1100	15-92-1500	74.90 (2.949)	62.23 (2.450)	72.20 (2.842)
120	15-92-1120	15-92-1520	87.60 (3.449)	74.93 (2.950)	84.90 (3.342)

* Meets SCA (Single Connector Attachment) standard for small form factor disk drives

FEATURES AND SPECIFICATIONS

Features and Benefits

- Polarized D-shaped leaf-contact connector for wire-to-board packaging
- Terminates to 30 AWG solid or stranded .025" ribbon cable or laminated discrete wire cable (including high-performance FEP cable)
- Card slot accommodates standard .062" PCB
- Polarizing key orients connector to PCB
- Meets VESA standards for connecting advanced video and graphics cards (68 and 80 circuits)

Reference Information

Product Specification: PS-71662

Packaging: Tray (subassembly) and bag (cover)

Tooling Information: Ribbon cable manual press and tool kit

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 71661

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max.

Unmating Force: 15g min.

Normal Force: 90g

Durability: 500 cycles min.

Physical

Housing: Thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C

Wire Range: 30 AWG solid or stranded Tinned Copper

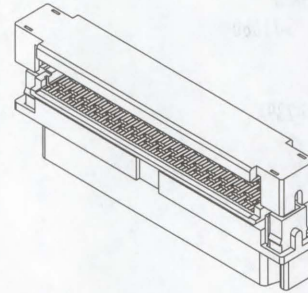


1.27mm (.050") Pitch

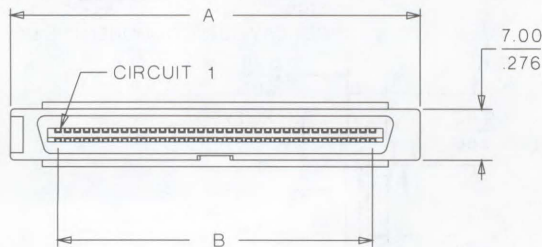
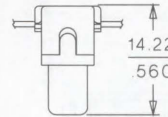
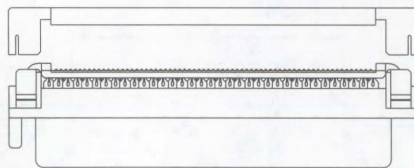
EBBI™ 50D

Receptacle

71660

Vertical
IDT

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension	
		A	B
30	71660-3530	30.35 (1.195)	19.68 (.775)
40	71660-3540	36.70 (1.445)	26.04 (1.025)
50	71660-3550	43.05 (1.695)	32.38 (1.275)
60	71660-3560	49.40 (1.945)	38.74 (1.525)
68	71660-3568	54.48 (2.145)	43.81 (1.725)
80	71660-3580	62.10 (2.445)	51.43 (2.025)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Polarized guide posts on ends provide generous 2.0mm radial lead-in for blind mating
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Mates to standard 1.60mm (.062") PCB card edge
- First-mate/last-break terminal option available
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 71661-7XXX and 71661-25XX

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max.

Unmating Force: 15g min.

Normal Force: 90g

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C



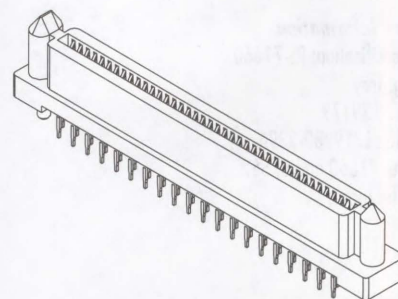
1.27mm (.050") Pitch

EBBI™ 50D

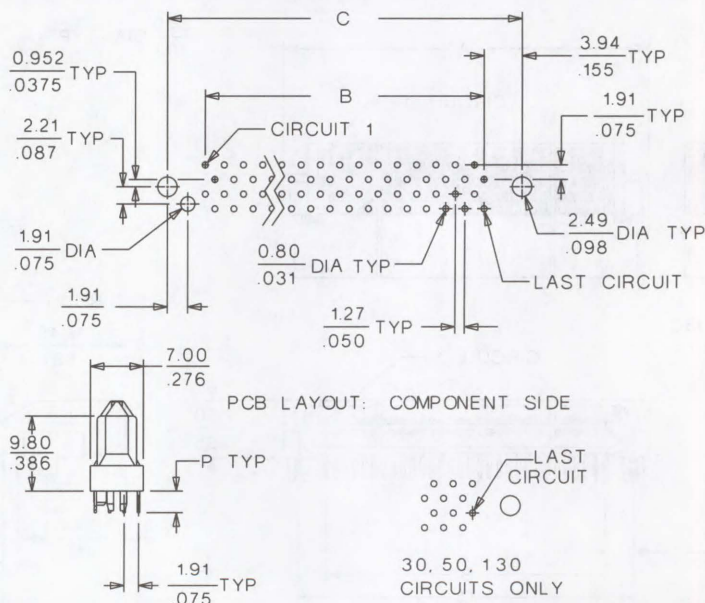
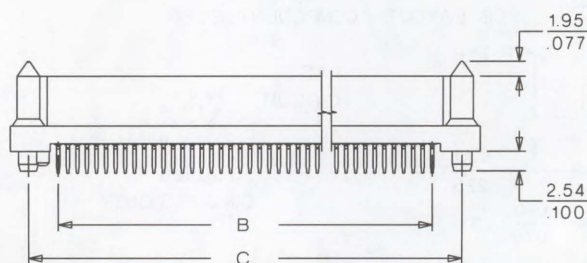
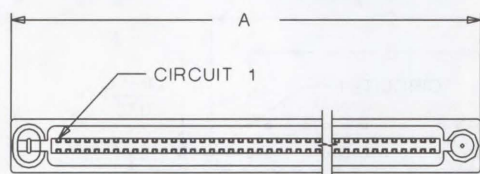
Receptacle

71660

Vertical, Blind Mate



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension		
	Tail Length (Dim. P) 2.79mm (.110")	Tail Length (Dim. P) 3.40mm (.134")	A	B	C
30	71660-7030	71660-7230	30.45 (1.199)	17.78 (.700)	25.65 (1.010)
40	71660-7040	71660-7240	36.80 (1.449)	24.13 (.950)	32.00 (1.260)
50	71660-7050	71660-7250	43.15 (1.699)	30.48 (1.200)	38.35 (1.510)
60	71660-7060	71660-7260	49.50 (1.949)	36.83 (1.450)	44.70 (1.760)
68	71660-7068	71660-7268	54.58 (2.149)	41.91 (1.650)	49.78 (1.960)
80	71660-7080	71660-7280	62.20 (2.449)	49.53 (1.950)	57.40 (2.260)
80*	71660-7508		62.20 (2.449)	49.53 (1.950)	57.40 (2.260)
100	71660-7100	71660-7300	74.90 (2.949)	62.23 (2.450)	70.10 (2.760)
120	71660-7120	71660-7320	87.60 (3.449)	74.93 (2.950)	82.80 (3.260)

* Circuit numbers 1, 36 through 43, 45, 46 and 75 through 80 are advanced terminals for sequential first-mate/last-break mating

FEATURES AND SPECIFICATIONS

Features and Benefits

- Polarized D-shaped leaf-contact connector for perpendicular board packaging
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Meets VESA standards for video and graphics cards (68 and 80 circuits)
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
 Packaging: Tray
 UL File No.: E29179
 CSA File No.: LR19980-239A
 Mates With: 71660 and 87552
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.
 Mating Force: 90g max.
 Unmating Force: 15g min.
 Normal Force: 90g
 Durability: 500 cycles min.

Physical

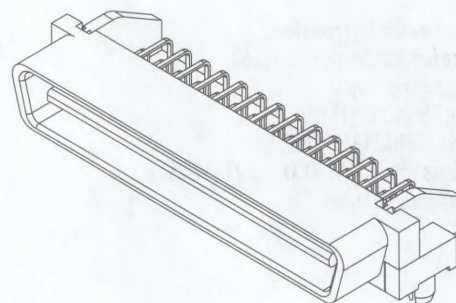
Housing: High-temperature thermoplastic, UL 94V-0
 Contact: Copper Alloy
 Plating: 30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel on tails
 Operating Temperature: -40 to +105°C



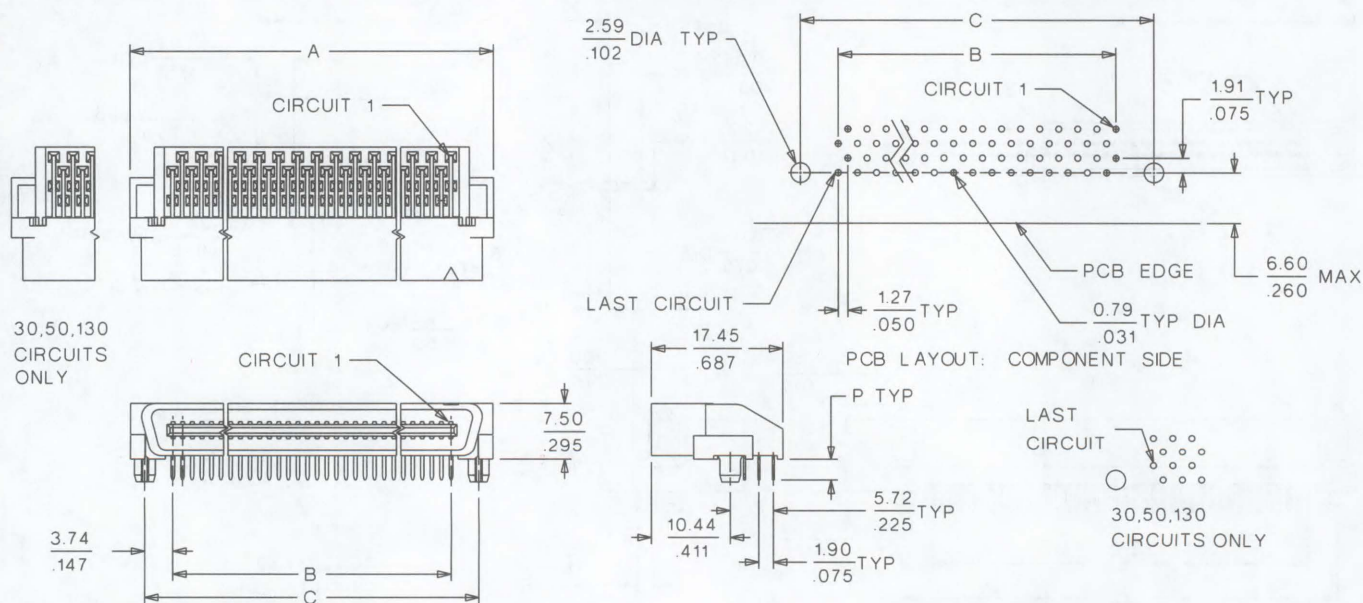
1.27mm (.050") Pitch
EBBI™ 50D
Plug

71661

Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension		
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.18mm (.125")	A	B	C
30	71661-2030	71661-2330	29.00 (1.142)	17.78 (.700)	25.18 (.991)
40	71661-2040	71661-2340	35.35 (1.392)	24.13 (.950)	31.53 (1.241)
50	71661-2050	71661-2350	41.70 (1.642)	30.48 (1.200)	37.88 (1.491)
60	71661-2060	71661-2360	48.05 (1.892)	36.83 (1.450)	44.23 (1.741)
68	71661-2068	71661-2368	53.13 (2.092)	41.91 (1.650)	49.31 (1.941)
80	71661-2080	71661-2380	60.75 (2.392)	49.53 (1.950)	56.93 (2.241)
100	71661-2100	71661-2400	73.45 (2.892)	62.23 (2.450)	69.63 (2.741)
120	71661-2120	71661-2420	86.15 (3.392)	74.93 (2.950)	82.33 (3.241)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Polarized guide features provide generous 2.0mm radial lead-in for blind mating
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Recommended for 1.60mm (.062") PCB
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 71660-7XXX, 87537

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max.

Unmating Force: 15g min.

Normal Force: 90g

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C



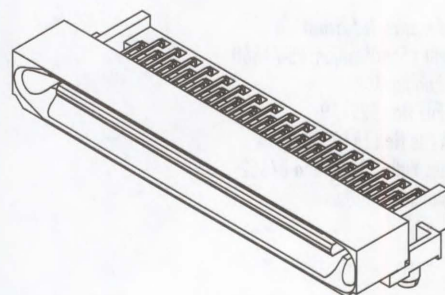
1.27mm (.050") Pitch

EBBI™ 50D

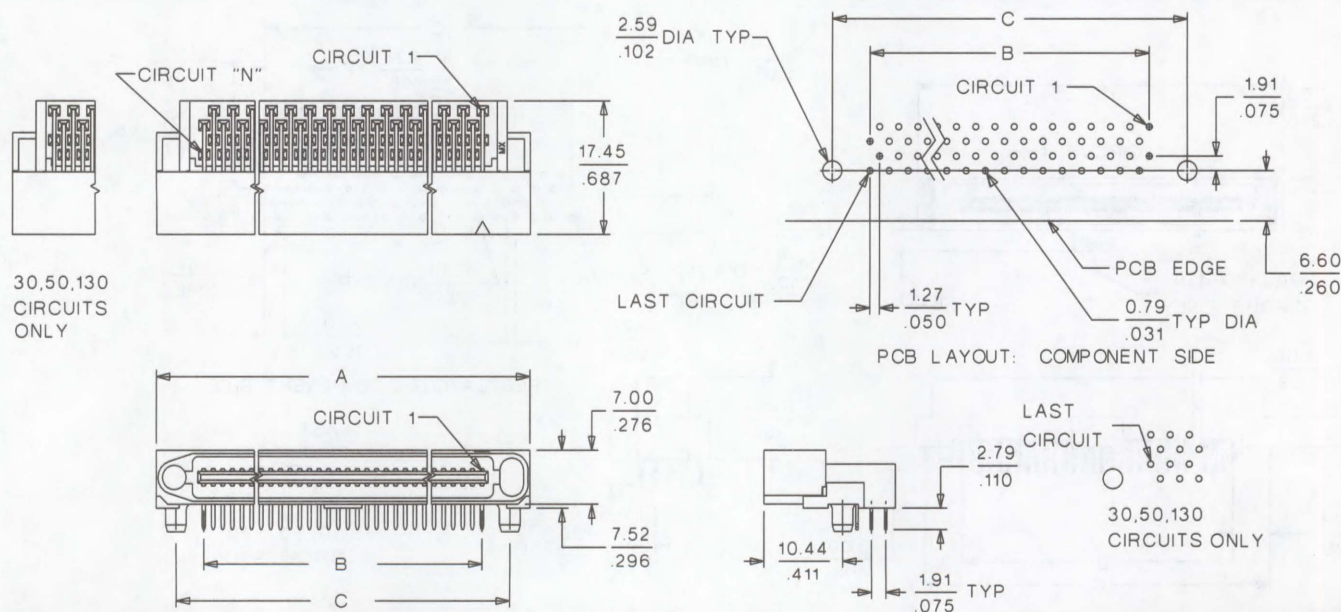
Plug

71661

Right Angle, Blind Mate



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension		
		A	B	C
30	Contact Molex	30.45 (1.199)	17.78 (.700)	25.18 (.991)
40	71661-2540	36.80 (1.449)	24.13 (.950)	31.53 (1.241)
50	Contact Molex	43.15 (1.699)	30.48 (1.200)	37.88 (1.491)
60	Contact Molex	49.50 (1.949)	36.83 (1.450)	44.23 (1.741)
68	71661-2568	54.58 (2.149)	41.91 (1.650)	49.31 (1.941)
80	Contact Molex	62.20 (2.449)	49.53 (1.950)	56.93 (2.241)
100	71661-2511	74.90 (2.949)	62.23 (2.450)	69.63 (2.741)
120	Contact Molex	87.60 (3.449)	74.93 (2.950)	82.33 (3.241)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Polarized D-shaped leaf-contact connector
- Metal retention clips for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board packaging
- Meets VESA standards for advanced video and graphics cards (68 and 80 circuits)
- Surface Mount Compatible

Reference Information

Product Specification: PS-71 660

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 71660 and 87552

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 100 M Ω min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max.

Unmating Force: 15g min.

Normal Force: $90g$

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Retention Clip: Copper Alloy

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C



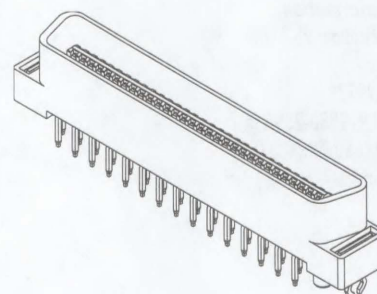
1.27mm (.050") Pitch

EBBI™ 50D

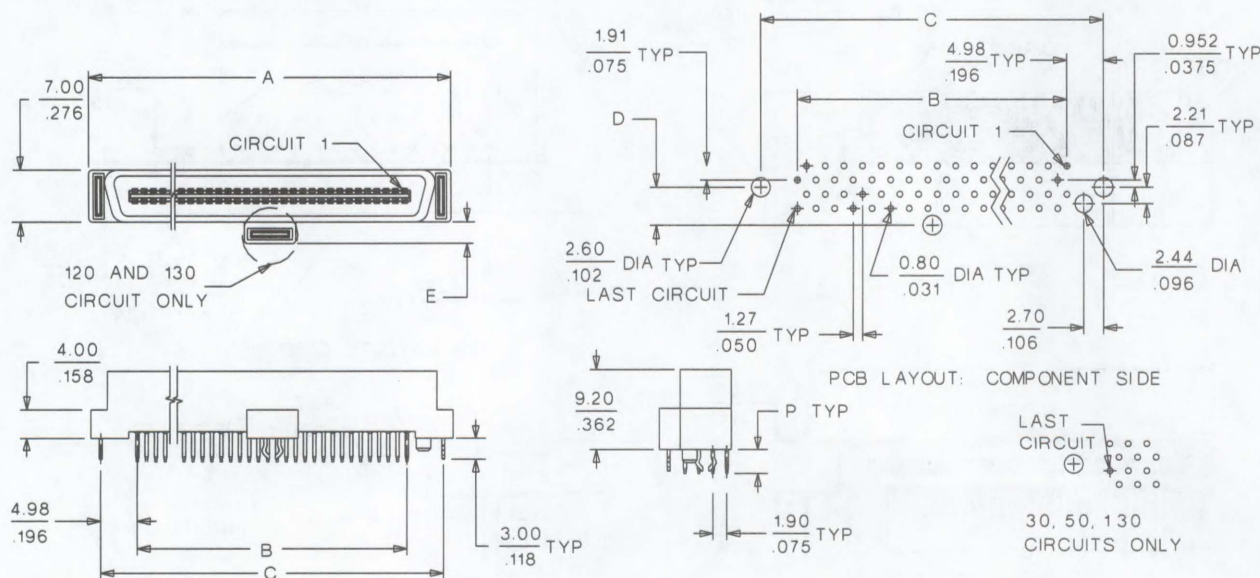
Plug

71661

Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension				
	Tail Length (Dim. P) 3.40mm (.134")	Tail Length (Dim. P) 2.79mm (.110")	A	B	C	D	E
30	15-92-2030	15-92-2430	30.45 (1.199)	17.78 (.700)	27.75 (1.092)		
40	15-92-2040	15-92-2440	36.80 (1.449)	24.13 (.950)	34.10 (1.342)		
50	15-92-2050	15-92-2450	43.15 (1.699)	30.48 (1.200)	40.45 (1.592)		
60	15-92-2060	15-92-2460	49.50 (1.949)	36.83 (1.450)	46.80 (1.842)		
68	15-92-2068	15-92-2468	54.58 (2.149)	41.91 (1.650)	51.88 (2.042)		
80	15-92-2080	15-92-2480	62.20 (2.449)	49.53 (1.950)	59.50 (2.342)		
100	15-92-2100	15-92-2500	74.90 (2.949)	62.23 (2.450)	72.20 (2.842)		
120	15-92-2120	15-92-2520	87.60 (3.449)	74.93 (2.950)	84.90 (3.342)		

FEATURES AND SPECIFICATIONS

Features and Benefits

- Polarized guide features provide generous 2.0mm radial lead-in for blind mating
- Press-fit retention pegs for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board stacking
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
 Packaging: Tray
 UL File No.: E29179
 CSA File No.: LR19980-239A
 Mates With: 71660-7XXX
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.
 Mating Force: 90g max.
 Unmating Force: 15g min.
 Normal Force: 90g
 Durability: 500 cycles min.

Physical

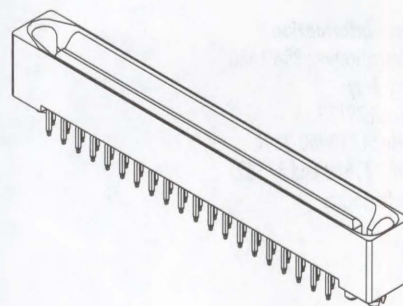
Housing: High-temperature thermoplastic, UL 94V-0
 Contact: Copper Alloy
 Plating: 30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel on tails
 Operating Temperature: -40 to +105°C



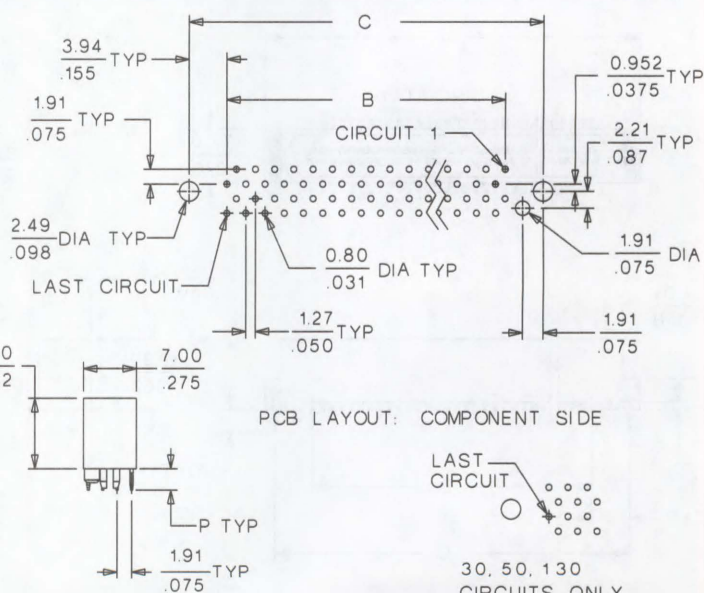
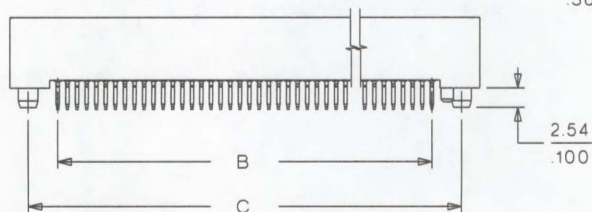
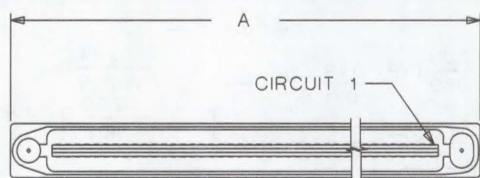
1.27mm (.050") Pitch
EBBI™ 50D
Plug

71661

Vertical, Blind Mate



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension		
	Tail Length (Dim. P) 2.79mm (.110")	Tail Length (Dim. P) 3.40mm (.134")	A	B	C
30	71661-7030	71661-7230	30.45 (1.199)	17.78 (.700)	25.65 (1.010)
40	71661-7040	71661-7240	36.80 (1.449)	24.13 (.950)	32.00 (1.260)
50	71661-7050	71661-7250	43.15 (1.699)	30.48 (1.200)	38.35 (1.510)
60	71661-7060	71661-7260	49.50 (1.949)	36.83 (1.450)	44.70 (1.760)
68	71661-7068	71661-7268	54.58 (2.149)	41.91 (1.650)	49.78 (1.960)
80	71661-7080	71661-7280	62.20 (2.449)	49.53 (1.950)	57.40 (2.260)
100	71661-7100	71661-7300	74.90 (2.949)	62.23 (2.450)	70.10 (2.760)
120	71661-7120	71661-7320	87.60 (3.449)	74.93 (2.950)	82.80 (3.260)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Polarized D-shaped leaf-contact connector for parallel board packaging
- SMT high-temperature 94V-0 thermoplastic
- Metal retention clips for mechanical hold down before and after processing
- SMT terminals in-line on 1.27mm (.050") spacing for easy processing
- Stringent +.000/-0.005" coplanarity specification

Reference Information

Product Specification: PS-71660

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-239A

Mates With: 71660 and 87552

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Retention to Housing: 500g min.

Mating Force: 90g max.

Unmating Force: 15g min.

Normal Force: 90g

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: 30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel on tails

Operating Temperature: -40 to +105°C

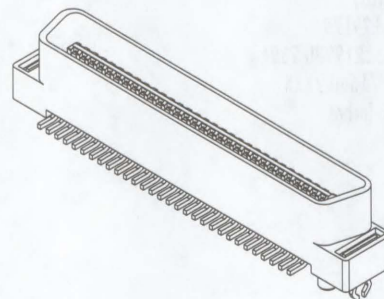


1.27mm (.050") Pitch

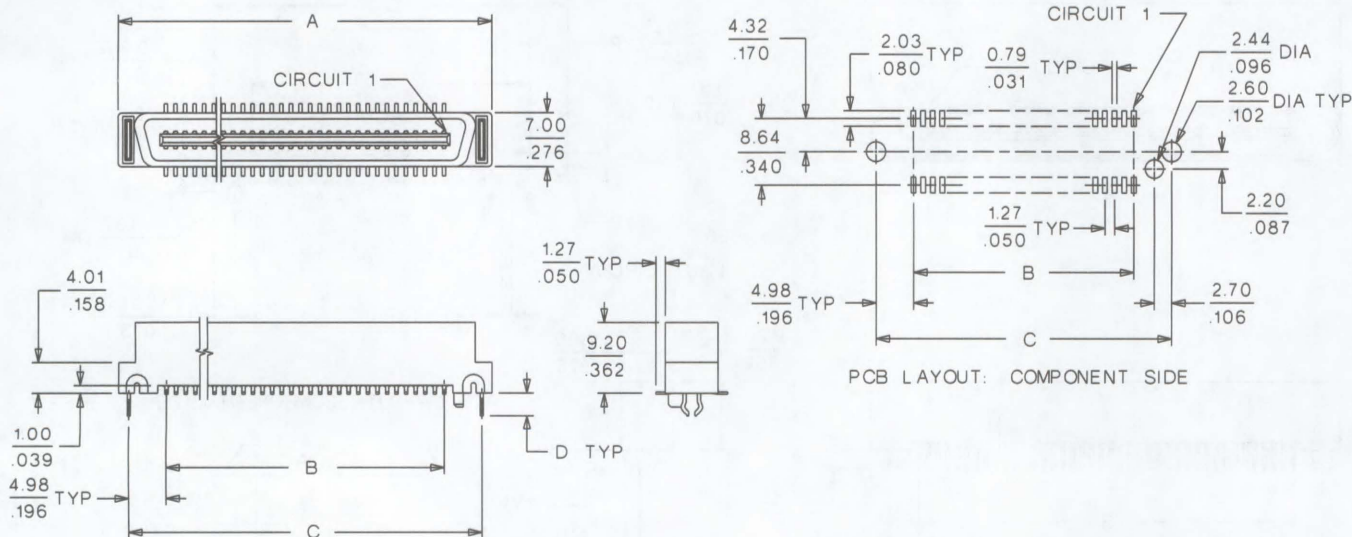
EBBI™ 50D

Plug

71661

Vertical
SMT

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension			
		A	B	C	D
30	71661-5030	30.45 (1.199)	17.78 (.700)	27.75 (1.092)	3.00 (.118)
30	71661-5031*	30.45 (1.199)	17.78 (.700)	27.75 (1.092)	4.37 (.172)
40	71661-5040	36.80 (1.449)	24.13 (.950)	34.10 (1.342)	3.00 (.118)
50	71661-5050	43.15 (1.699)	30.48 (1.200)	40.45 (1.592)	3.00 (.118)
60	71661-5060	49.50 (1.949)	36.83 (1.450)	46.80 (1.842)	3.00 (.118)
68	71661-5068	54.58 (2.149)	41.91 (1.650)	51.88 (2.042)	3.00 (.118)
80	71661-5080	62.20 (2.449)	49.53 (1.950)	59.50 (2.342)	3.00 (.118)

* For PCB thickness of .116 ± .006"

molex® Internal Serial Device
Connector Family
MUSIC™

Molex's **MUSIC System**—Molex *Unitized Serial Connector System*—is used in the serial drive industry.

A serial port uses one line to send data and another to receive data. A serial port sends data in a series, one bit of data at a time, but at very high speeds. A parallel port can send several bits of data simultaneously, but as speed increases cross talk becomes a problem that limits most parallel connections to 10 feet. Parallel communications also require more complex cables to carry signals.

Serial drives will offer many advantages over today's parallel interfaces such as smaller connectors and cables, greater drive connectivity, enhanced reliability, and over 100 MB per second data rates.

Both **SSA 3T10.1** and **IEEE 1394** specify Molex's 4-bay plug connector as the internal interconnect standard for disk drives and other media devices.

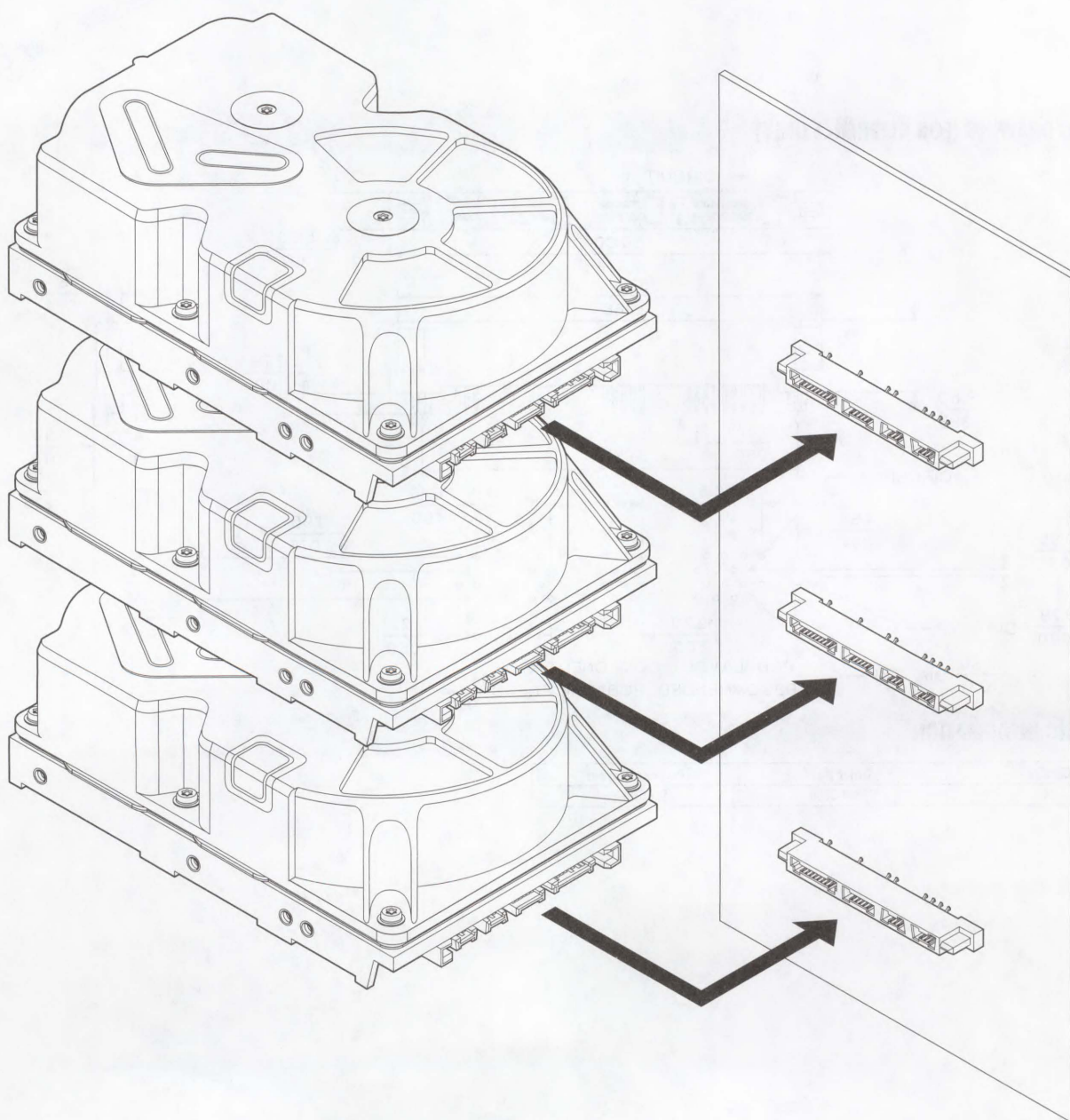
SSA (Serial Storage Architecture)

SSA is a serial interface developed by IBM that was designed specifically to connect disk drives, optical drives, CD-ROMs, tape drives, printers, scanners and other peripherals to personal computers, workstations, servers and storage subsystems.

1394 (Firewire)

1394 was originally developed by Apple in cooperation with Texas Instruments.

The serial bus is designed and priced to operate both between and within consumer electronics and computer components. Its cable specification has been created to enable the average systems user to easily string together personal computers, printers, scanners, engineering workstations, digital camcorders, VCRs, multimedia audio and video products, advanced television sets, and TV set-top boxes.



FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 38 circuits
- Meets both 1394 & SSA Internal connector standards covered by the IEEE and the X3T10.1 SSA physical specifications for storage device interfaces
- Mating interface divided into 4 bays to accept independent mating receptacles
- Signal sequencing is achieved through 2 levels of contact lengths
- Blind-mate guiding posts allow up to 2.0mm misalignment during mating
- Pin-through solder tails and locating pins provide strong mechanical hold-downs

Reference Information

Product Specification: PS-71265

UL File No.: E29179

CSA File No.: LR19980A-448

Packaging: Tray

Mates With: 71264

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.5A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1kg min.

Mating Force: 4kg max.

Unmating Force: 1kg min.

Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: 0.76μm min. select Gold

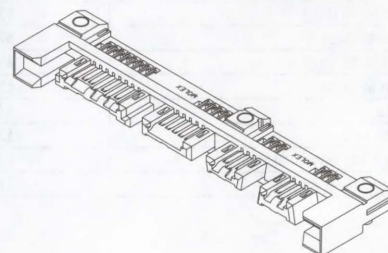
Operating Temperature: -55 to +125°C



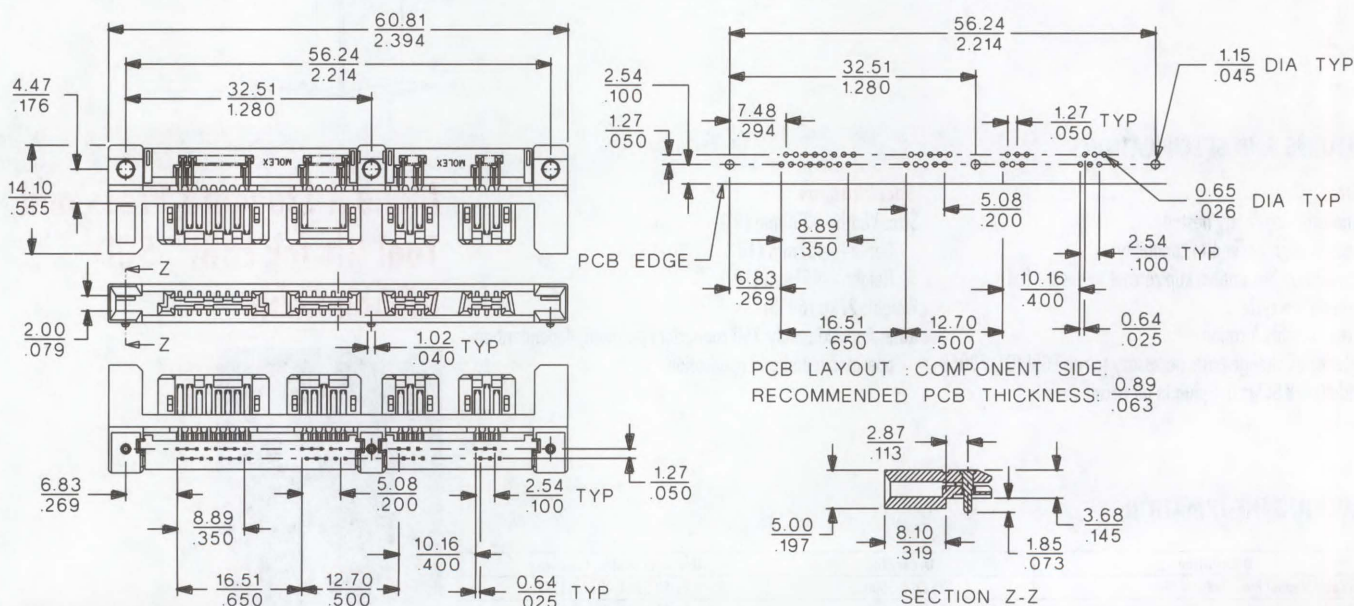
1.27mm (.050") Pitch Music™ SSA/1394 Board-to-Board Plug

71265

**4-Bay, Through Hole
Right Angle**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
38	71265-5000

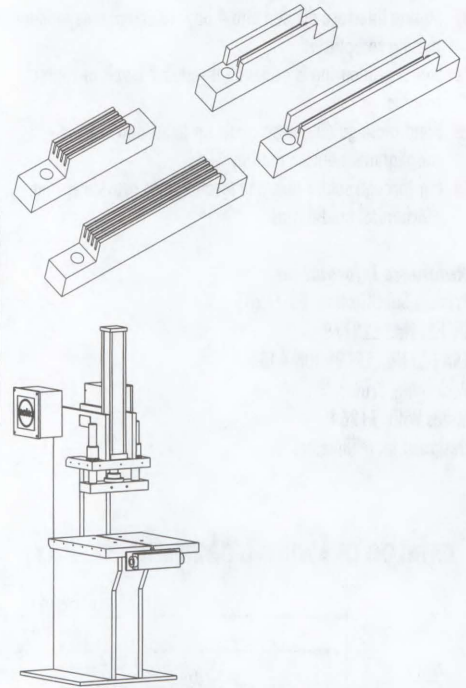
FEATURES AND SPECIFICATIONS

Features

- Tooling is simple to use
- Tooling can be purchased individually, allowing customization
- Tooling available for 40 and 80 circuit Molex connectors
- Tooling requires no lubrication

ORDERING INFORMATION

Description	Order No.	Use with Molex Connector
Lower Support for 40 circuit	62100-2501	73826-0002, 73829-0002
Top Aligner for 40 circuit	62100-2502	73826-0002, 73829-0002
Lower Support for 80 circuit	62100-2601	73826-0003, 73826-0001, 73829-0001
Top Aligner for 80 circuit	62100-2602	73826-0003, 73826-0001, 73829-0001
Mounting Plate	62100-2900	All above connectors
Pneumatic Press only	62200-8200	All above connectors
Pneumatic Press with Adapter Kit installed	62201-3800	All above connectors
Pneumatic Press Adapter Kit only	62201-3700	All above connectors

 Application Tooling
Semi-Automatic Press
Tooling for SCA-2

FEATURES AND SPECIFICATIONS

Features

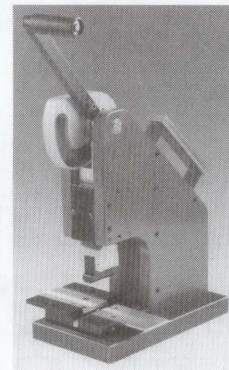
- Connector accurately nested
- Feed-through or feed-to capability
- Termination has antibackup ratchet to ensure full termination cycle
- Accurate cable location
- Includes all change parts necessary to run EBBI IDT, 79058 and 70498 SCSI+ IDT plug in all circuit sizes

Specifications

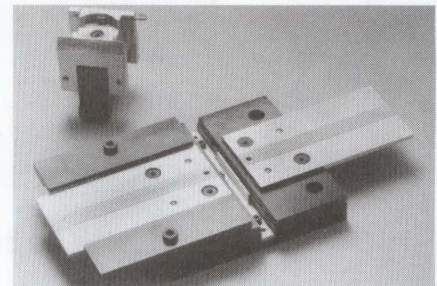
Size: Width—230mm (9")
 Depth—457mm (18")
 Height—457mm (18")
 Weight: 27kg (60 lb)
 Rate: Approximately 250 connectors per hour, dependent on operator speed and application

ORDERING INFORMATION

Description	Order No.	Use with Molex Connector
Ribbon Cable Manual Press and Tool Kit	62200-5500	15-92-3XXX, 71660-35XX
Tool Kit only	62200-4600	15-92-3XXX, 71660-35XX

Manual Standard Press and
Tool Kit for EBBI™ 50D
Ribbon Cable

Complete Manual Press



Tool Kit