

I/O Connectors

Industry Standard I/O Connectors

IEEE 1394

PCB Sockets	N-3 to N-12
Cable Assemblies	N-13 to N-17

Universal Serial Bus (USB)

Receptacles	N-18 to N-30
Cable Assemblies	N-31

mini-B™ Universal Serial Bus

Receptacles	N-32 to N-33
Cable Assemblies	N-34

MicroCross™ DVI

Receptacle Headers and Hardware	N-37 to N-46
Cable Assemblies	N-47 to N-55
Adapters	N-56 to N-62
Plug Components	N-63

MicroCross™ P&D Receptacle Headers and Hardware

N-64 to N-69

SCSI+

Receptacles	N-70 to N-85
Plugs	N-86 to N-88

Ultra+™ VHDCI

Receptacles	N-90 to N-93
Plug Kit and Strain Relief	N-94 to N-95

General I/O Connectors

LFH™ Matrix 50 and 75	N-96 to N-122
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Docking Connectors

0.80mm (.031") Pitch Receptacles and Plugs	N-123 to N-131
1.00mm (.039") Pitch Receptacles and Plugs	N-132 to N-136
1.27mm (.050") Pitch Receptacles and Plugs	N-137 to N-146

Leaf Style Contact Connectors

1.00mm (.039") Pitch Receptacles and Plugs	N-147 to N-149
1.27mm (.050") Pitch Receptacles and Plugs	N-150 to N-158

Commercial Micro-D Plugs and Cable Receptacles

N-159 to N-163

D-Subminiature Receptacles and Plugs

N-164 to N-165

DIN

Mini	N-166 to N-168
Circular	N-169 to N-170

Phono Jacks

N-171

Application Tooling

N-172 to N-182



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

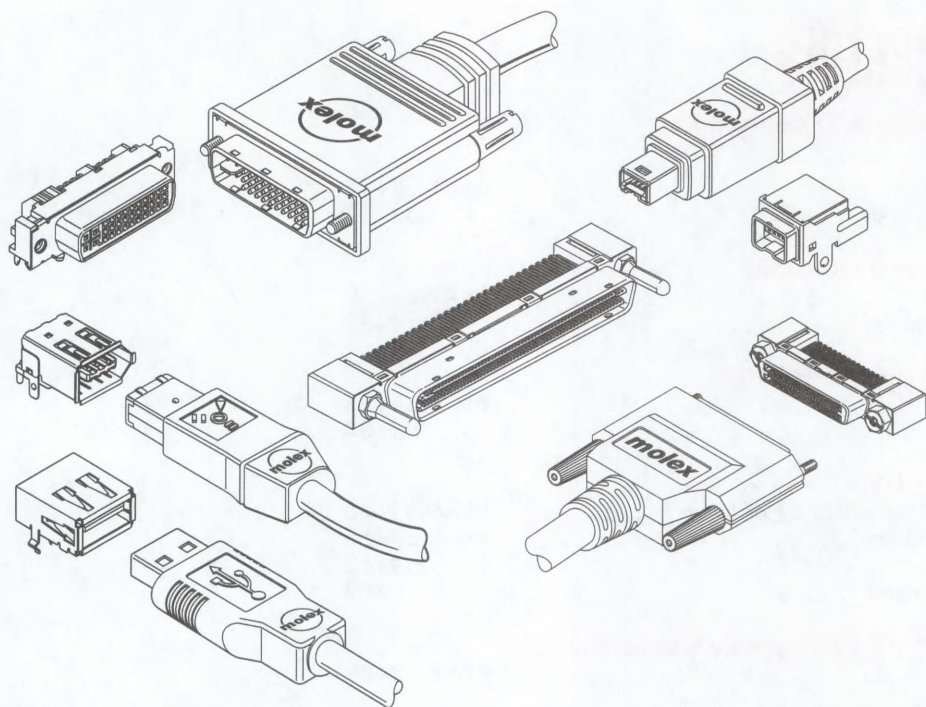


Input/Output (I/O) Products Introduction

Molex offers a broad range of I/O products for your design requirements. For years we have been providing innovative I/O design solutions for a variety of applications, and we have been the proven leaders in the area of new Industry Standards and Initiatives. We have created two sections, Industry Standards and General Products, to better help you select the correct connector for your application.

In offering you a diverse product line we strive to:

- Be a technological leader in I/O products
- Produce competitive products for a world market
- Offer system solutions with complete I/O cable products



I/O PRODUCT CATEGORIES

Industry Standards

This section includes the numerous government or worldwide agencies, such as ANSI (American National Standards Institute), IEC, IEEE and EIA. Other associations, such as VESA and Fiber Channel create industry-recognized specifications. This has become the fastest growing segment for I/Os. Products found in this section are designed to meet criteria called out by these various agencies. This criteria is constantly monitored for updates and changes.

Products included:

- IEEE 1284 products
- IEEE 1394 Products
- SCSI products
- VESA video products (EVC and P&D)
- USB products

General Products

Our general I/O products have been designed with specific application solutions in mind. However, these products will also fit many other applications. They are included for your evaluation of the specifications and form factor to determine how well they will fit your needs. These are industry-proven I/Os for your company's applications.

Products included:

- LFH (Low Force Helix) high-performance I/O
- Docking connectors for mobile and handheld
- Leaf contact connectors
- DIN (Mini-DIN and circular)
- Phono jacks
- SEMCONN™ (modular I/O)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 4 circuits
- Midplane mounting style enables 3.80mm (.150") low profile height
- Inverse mating for plug placement flexibility
- Screw locks for additional PCB hold-down
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding and recessed contacts for ESD protection

Reference Information

Packaging: Tray
Mates With: 59233-300X and 59233-9XXX
Designed In: Millimeters

Electrical

Voltage: 5.0V
Current: 0.5A
Contact Resistance: Terminal—50mΩ max.
Shell—50mΩ max.
Dielectric Withstanding Voltage: 100V AC/1 min.
Insulation Resistance: 1 GΩ min.

Physical

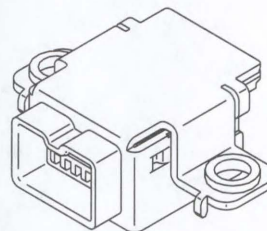
Housing: PPA, UL 94V-0
Shell: Steel, Tin/Lead over Nickel
Lock: Phosphor Bronze, Tin plating
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin/Lead over Nickel
Operating Temperature: -25 to +85°C



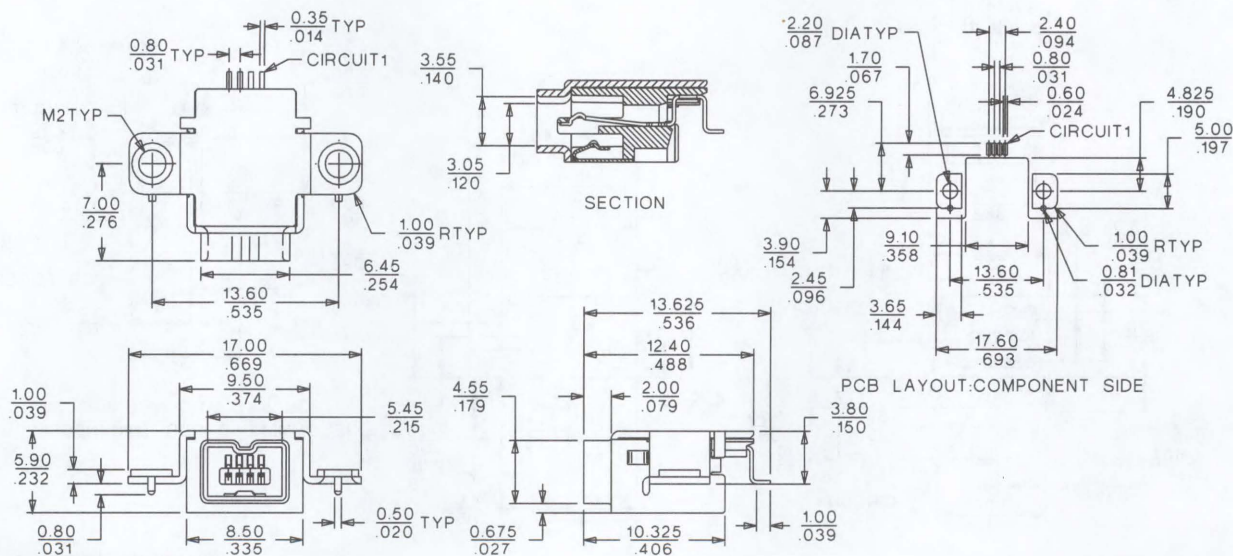
0.80mm (.031") Pitch
IEEE P1394a
Shielded I/O
PCB Socket

54515

Right Angle, SMT
Midplane Low-Profile
Inverse Type



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
4	54515-0411

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology. Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

0.80mm (.031") Pitch
IEEE 1394a
Shielded I/O
PCB Socket

- Inverse mating for plug placement flexibility
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding and recessed contacts for ESD protection
- Detent lock provides secure mating retention
- Solder tabs and metal pegs provide secure PCB retention
- Surface Mount Compatible

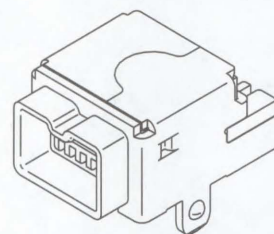
Packaging: Tube
Mates With: 59233-300X and 59233-900X
Designed In: Millimeters

Voltage: 5.0V
Current: 0.5A
Contact Resistance: Terminal—50mΩ max.
Shell—50mΩ max.
Dielectric Withstanding Voltage: 100V AC/1 min.
Insulation Resistance: 1 GΩ min.

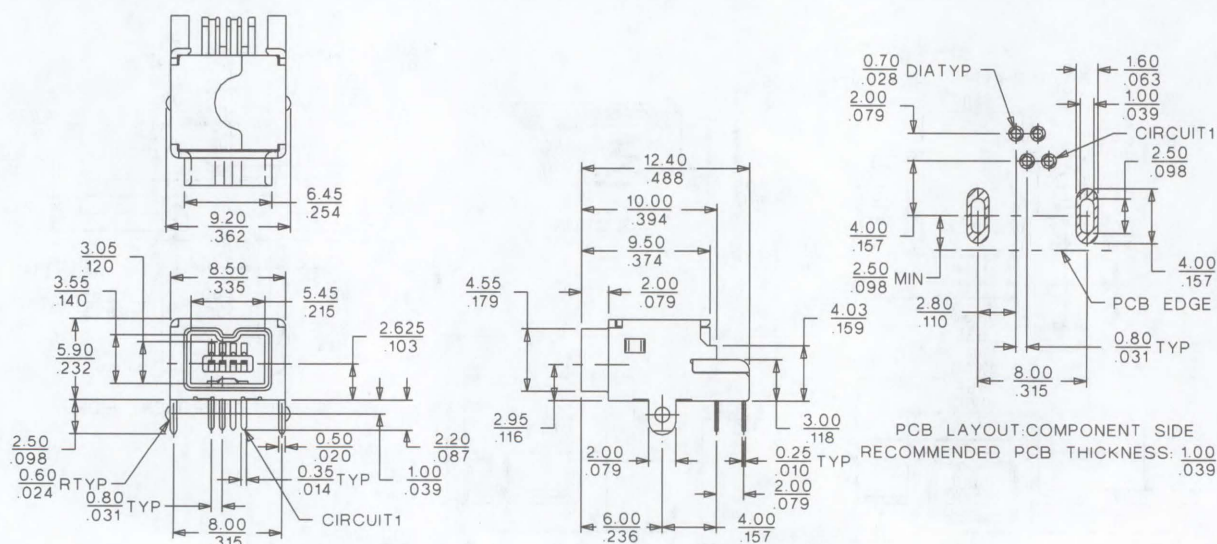
Housing: PPA, UL 94V-0
Shell: Steel, Tin/Lead over Nickel
Lock: Phosphor Bronze, Tin plating
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin/Lead over Nickel
Operating Temperature: -25 to +85°C

54516

Right Angle Inverse Type



I/O Connectors



Note: Drawing shown is 54516-0490

Circuits	Order No.	PCB Tail Length	Recommended PCB Thickness
4	54516-0490	2.20 (.087)	1.00 (.039)
4	54516-0491	2.80 (.110)	1.60 (.063)

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology. Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

molex® 0.80mm (.031") Pitch
IEEE P1394a
Shielded I/O
PCB Socket

Features and Benefits

- Size 4 circuits
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding and recessed contacts for ESD protection
- High-temperature plastic housing for SMT processing
- Detent lock provides secure mating retention
- Solder tabs and metal pegs provide secure PCB retention

Reference Information

Packaging: Tube
Mates With: 59233-300X and 59233-900X
Designed In: Millimeters

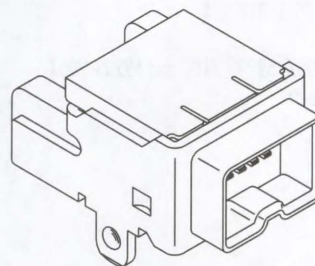
Electrical

Voltage: 5.0V
Current: 0.5A
Contact Resistance: Terminal—50mΩ max.
Shell—50mΩ max.
Dielectric Withstanding Voltage: 100V AC/1 min.
Insulation Resistance: 1 GΩ min.

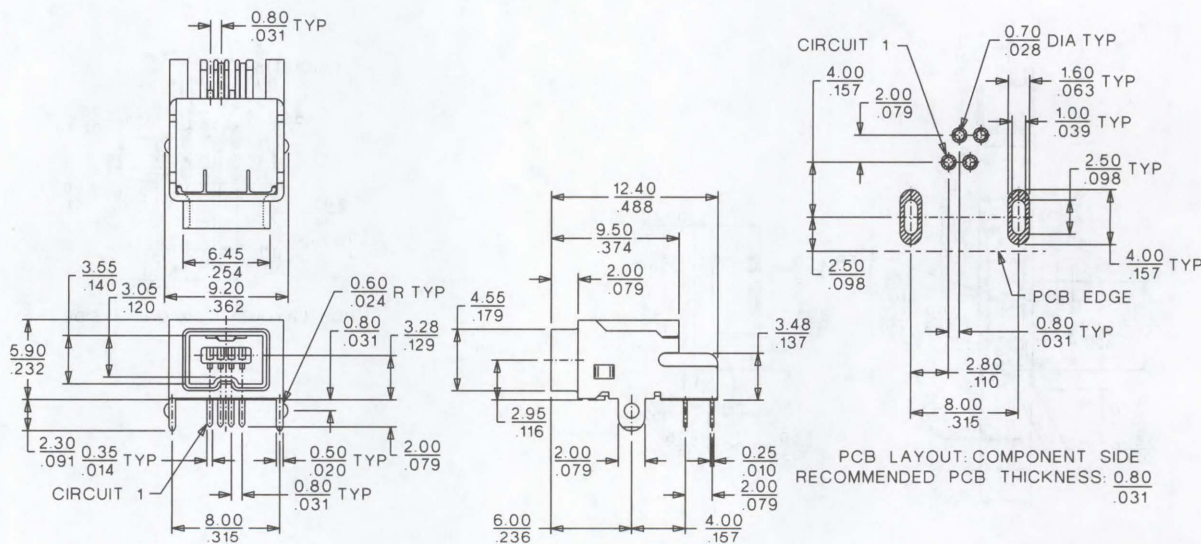
Physical

Housing: PPS, UL 94V-0
Shell: Steel, Tin/Lead over Nickel plating
Lock: Phosphor Bronze, Tin plating
Contact: Phosphor Bronze
Plating: Contact area—Gold over Nickel
Solder Tail Area—Tin/Lead over Nickel
Operating Temperature: -25 to +85°C

54030
Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
4	54030-0490

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology. Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Integral metal flange provides secure panel attachment
- Four metal pegs provide additional PCB retention and solder-joint protection
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding and recessed contacts for ESD protection
- Detent lock provides secure mating retention
- Surface Mount Compatible

Reference Information

Product Specification: PS-54818-004

Packaging: Tray

Mates With: 59233-300X, 59233-7100 and 59233-900X

Designed In: Millimeters

Electrical

Voltage: 5V

Current: 0.5A

Contact Resistance: Terminal—50mΩ max.

Shell—50mΩ max.

Dielectric Withstanding Voltage: 100V AC/1 min.

Insulation Resistance: 100 MΩ min.

Physical

Housing: PPS, UL 94V-0

Contact: Phosphor Bronze

Plating: Contact Area—30μ" min. Gold

Solder Tail Area—118 to 197μ" Tin/Lead

Underplating—Nickel

Shell: Steel, Tin/Lead over Nickel plating

Lock: Phosphor Bronze, Tin plating

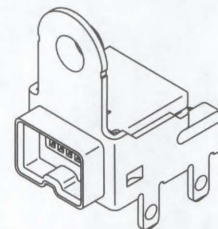
Operating Temperature: -25 to +85°C



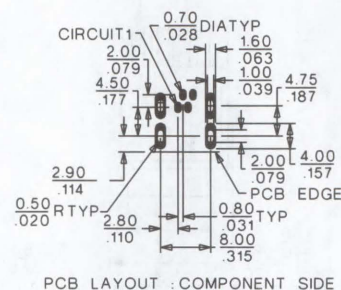
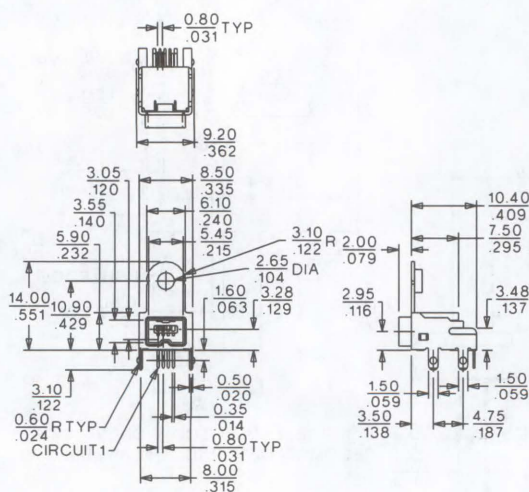
0.80mm (.031") Pitch
IEEE 1394a-2000
Shielded I/O
PCB Socket

54818

Right Angle
With Flange
Unthreaded Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
4	54818-0411

FEATURES AND SPECIFICATIONS

Features and Benefits

- Inverse mating for plug placement flexibility
- Integral metal flange provides secure panel attachment
- Four metal pegs provide additional PCB retention and solder-joint protection
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding and recessed contacts for ESD protection
- Surface Mount Compatible

Reference Information

Product Specification: Contact Molex

Packaging: Tray

Mates With: 59233-300X, 59233-7100 and 59233-900X

Designed In: Millimeters

Electrical

Voltage: 5V

Current: 0.5A

Contact Resistance: Terminal—50mΩ max.

Shell—50mΩ max.

Dielectric Withstanding Voltage: 100V AC/1 min.

Insulation Resistance: 100 MΩ min.

Physical

Housing: PPA, UL 94V-0

Contact: Phosphor Bronze

Plating: Contact Area—30μ" min. Gold

Solder Tail Area—118 to 197μ" Tin/Lead

Underplating—Nickel

Shell: Steel, Tin/Lead over Nickel plating

Lock: Phosphor Bronze, Tin plating

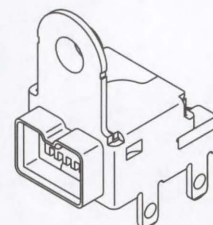
Operating Temperature: -25 to +85°C



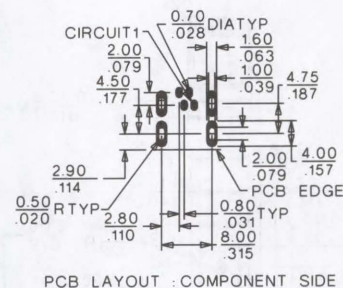
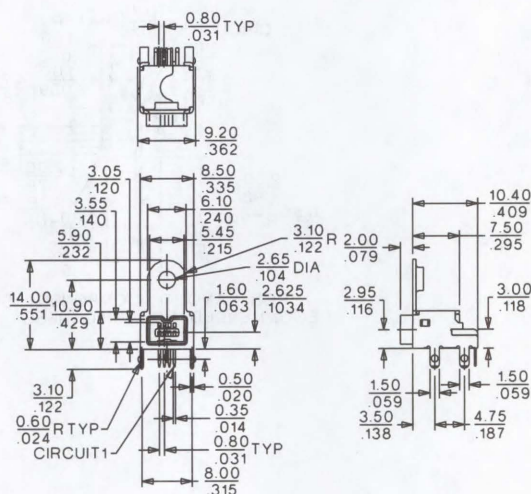
0.80mm (.031") Pitch
IEEE 1394a-2000
Shielded I/O
PCB Socket

54802

Right Angle
With Flange, Inverse Type
Unthreaded Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
4	54802-0411

FEATURES AND SPECIFICATIONS

Features and Benefits

- Integral metal flange provides secure panel attachment
- Four metal pegs provide additional PCB retention and solder-joint protection
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding and recessed contacts for ESD protection
- Detent lock provides secure mating retention
- Surface Mount Compatible

Reference Information

Product Specification: PS-54775-005

Packaging: Tray

Mates With: 59233-300X, 59233-7100 and 59233-900X

Designed In: Millimeters

Electrical

Voltage: 5V

Current: 0.5A

Contact Resistance: Terminal—50mΩ max.

Shell—50mΩ max.

Dielectric Withstanding Voltage: 100V AC/1 min.

Insulation Resistance: 100 MΩ min.

Physical

Housing: PPS, UL 94V-0

Contact: Phosphor Bronze

Plating: 30μ" Gold

Shell: Steel

Lock: Phosphor Bronze, Tin plating

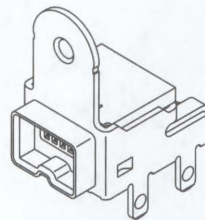
Operating Temperature: -25 to +85°C



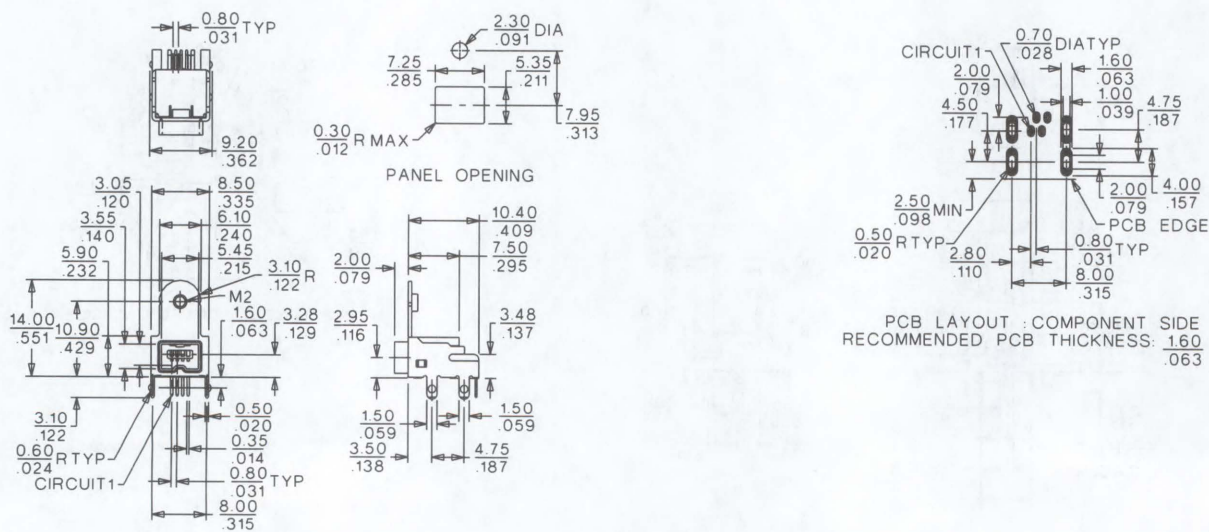
0.80mm (.031") Pitch
IEEE 1394a-2000
Shielded I/O
PCB Socket

54775

Right Angle
With Flange
Threaded Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.
4	54775-0411

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 6 circuits
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding for ESD protection
- High-temperature plastic housing for SMT processing
- Rugged Gold-plated leaf contacts withstand up to 1500 cycles
- Polarized shell design and friction lock grounding fingers ensure plug retention

Reference Information

Packaging: Tray
 Mates With: 59233-0XXX, 59233-300X and 59233-6003
 cable plugs
 Designed In: Millimeters

Electrical

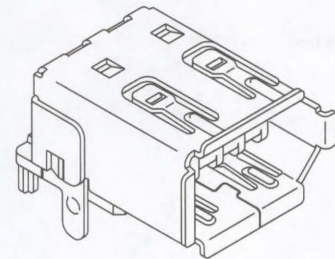
Voltage: 40V
 Current: 1.5A
 Contact Resistance: Terminal—30mΩ max.
 Shell—50mΩ max.
 Dielectric Withstanding Voltage: 500V AC/1 min.
 Insulation Resistance: 1000 MΩ min.

Physical

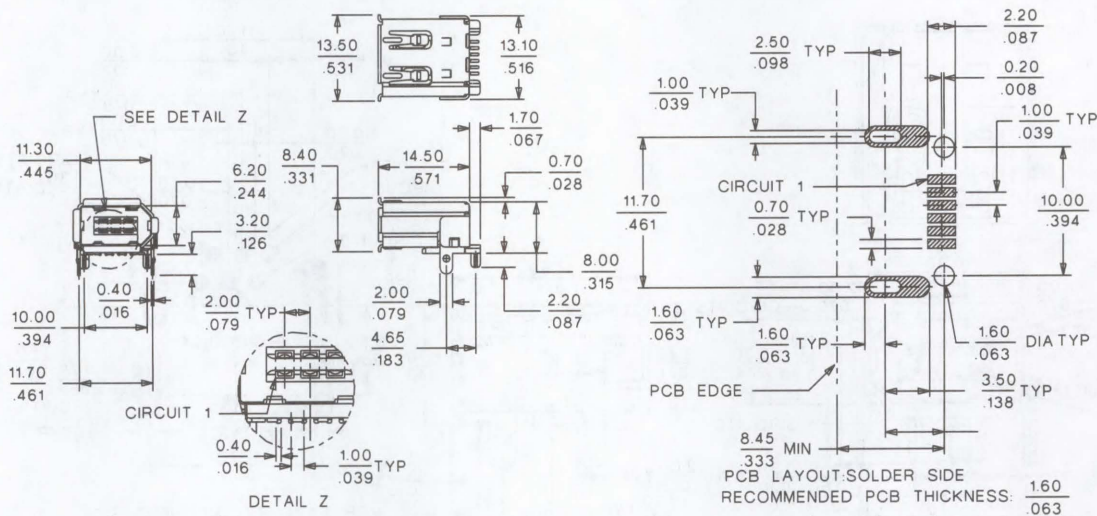
Housing: Black glass-filled 4/6 nylon, UL 94V-0 or equivalent
 Shell: Phosphor Bronze, Tin/Lead over Nickel plating
 Contact: Brass
 Plating: Contact area—Gold over Nickel
 Solder Tail Area—Tin/Lead over Nickel
 Operating Temperature: -40 to +85°C

molex® 2.00mm (.079") Pitch
 IEEE 1394-1995
 Shielded I/O
 PCB Socket

53462
 Right Angle
 Flat, SMT



CATALOG DRAWING (FOR REFERENCE ONLY)



Note: Drawing shown is 53462-0611

ORDERING INFORMATION

Circuits	Order No.	
	With Kinked Metal Pegs	Without Kinked Metal Pegs
6	53462-0621	53462-0611

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology.
 Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 6 circuits
- Provides the interface for speeds up to 400 Mbps
- Four metal PCB retention pegs for additional hold-down
- High-temperature plastic housing for SMT processing
- Rugged Gold-plated leaf contacts withstand up to 1500 cycles
- Polarized shell design and friction lock grounding fingers ensure plug retention

Reference Information

Packaging: Tray

Mates With: 59233-0XXX, 59233-300X and 59233-6003 cable plugs

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Contact Resistance: Terminal—30mΩ max.

Shell—50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 1000 MΩ min.

Physical

Housing: Black glass-filled 4/6 nylon, UL 94V-0 or equivalent

Shell: Phosphor Bronze, Tin/Lead over Nickel plating

Contact: Brass

Plating: Contact area—Gold over Nickel

Solder Tail Area—Tin/Lead over Nickel

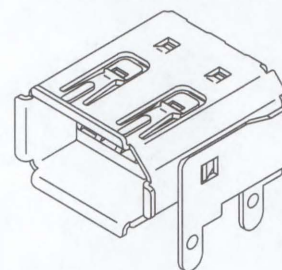
Operating Temperature: -40 to +85°C



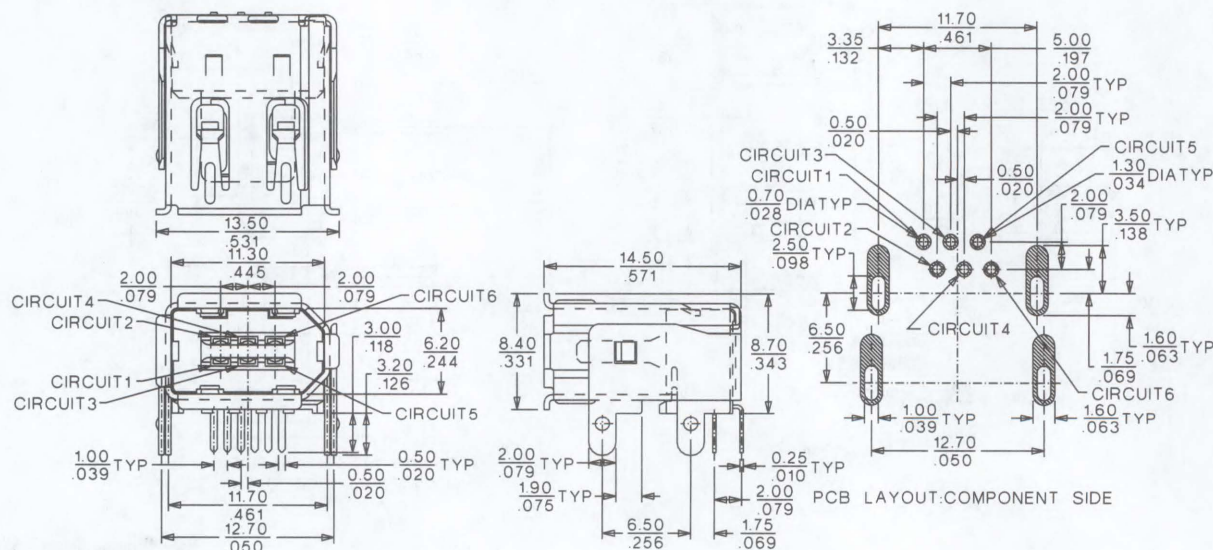
2.00mm (.079") Pitch
IEEE 1394-1995
Shielded I/O
PCB Socket

53984

Right Angle
Flat



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
6	53984-0611

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology. Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 6 circuits
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding for ESD protection
- High-temperature plastic housing for SMT processing
- Rugged Gold-plated leaf contacts withstand up to 1500 cycles
- Polarized shell design and friction lock grounding fingers ensure plug retention

Reference Information

Packaging: Tray

Mates With: 59233-0XXX, 59233-300X and 59233-6003 cable plugs

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Contact Resistance: Terminal—30mΩ max.

Shell—50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 1000 MΩ min.

Physical

Housing: Black glass-filled 4/6 nylon, UL 94V-0 or equivalent

Shell: Phosphor Bronze, Tin/Lead over Nickel plating

Contact: Brass

Plating: Contact area—Gold over Nickel

Solder Tail Area—Tin/Lead over Nickel

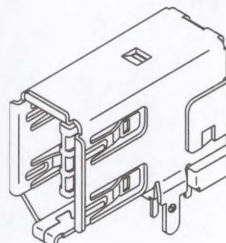
Operating Temperature: -40 to +85°C



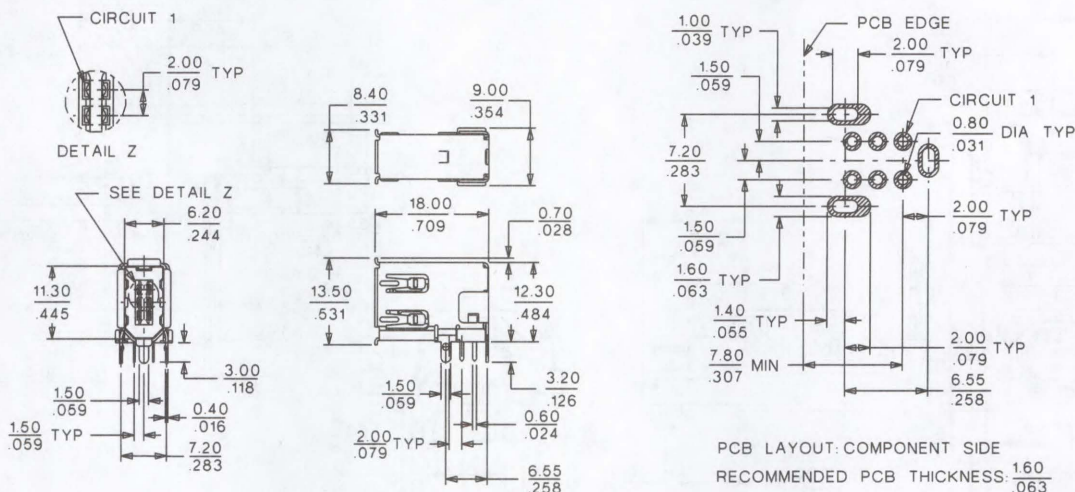
2.00mm (.079") Pitch
IEEE 1394-1995
Shielded I/O
PCB Socket

53460

Right Angle
Upright



CATALOG DRAWING (FOR REFERENCE ONLY)



Note: Drawing shown is 53460-0611

ORDERING INFORMATION

Circuits	Order No.	
	With Kinked Metal Pegs	Without Kinked Metal Pegs
6	53460-0621	53460-0611

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology. Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Provides the interface for speeds up to 400 Mbps
- Diecast metal shell provides robust construction for harsh environments
- Double shielding offers superior EMI/RFI protection
- Four screwlock locations enable secure panel and pcb mounting
- Spring retention feature provides secure mating and outer shell grounding
- Solder tabs and plastic pegs provide additional PCB retention and placement guidance

Reference Information

Product Specification: PS-55395-004

Packaging: Tray

Mates With: 59233-7***

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Contact Resistance: Terminal—30mΩ max.

Shell—50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 100 MΩ min.

Physical

Housing: 4/6 nylon, UL 94V-0

Shell: Phosphor Bronze

Contact: Brass

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin/Lead over Nickel

Shell—Tin/Lead over Nickel

Bracket: Zinc

Nut: Steel

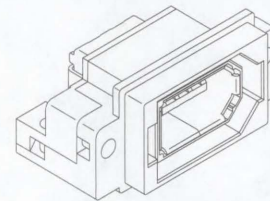
Operating Temperature: -25 to +85°C



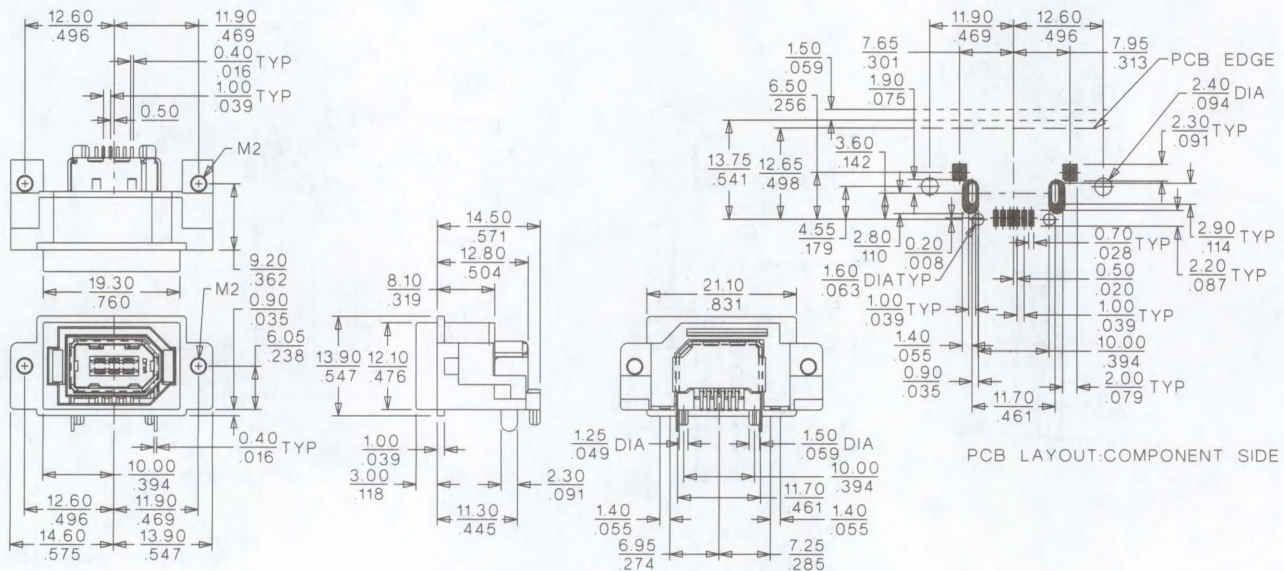
2.00mm (.079") Pitch
IEEE 1394 Shielded I/O
PCB Socket

55395

Right Angle
Flat, SMT
Industrial Type



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
6	55395-0611

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 4 circuit to 4 circuit IEEE P1394a cable assembly
- Offered in three standard lengths
- Uses S100 cable for speeds up to 100 Mbps (contact Molex for S400 cable)
- Full metal shielding for ESD protection
- Detent feature provides grounding and secure mating retention

Reference Information

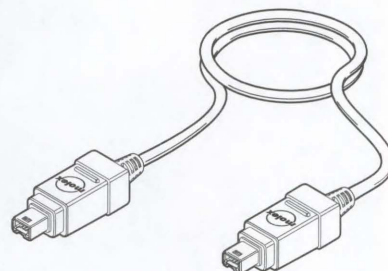
Packaging: Bag
Mates With: 54030, 54515 and 54516 PCB sockets
Designed In: Millimeters



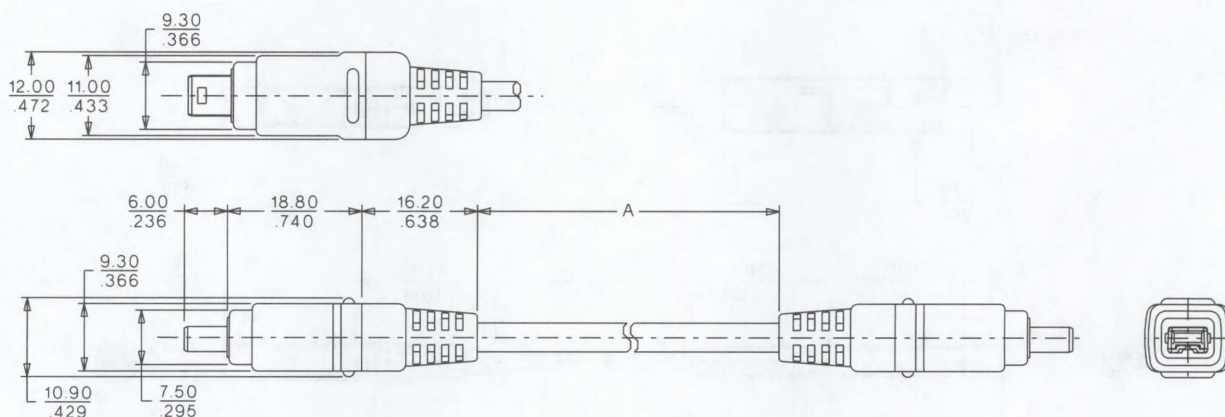
0.80mm (.031") Pitch IEEE P1394a Shielded I/O Cable Assembly Plug

59233

4-4 Pin Harness



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Applicable Wire				
		Circuits	Size	Conductor	Insulation Range	Finish Diameter
59233-9003	1.0 meters	4 (2 pair)	32 AWG	0.24 (7/0.08)	0.57	4.00
59233-9001	2.0 meters					
59233-9002	4.5 meters					

Note: For custom cable assemblies, contact Molex

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Use of this product contrary to this restriction will constitute a violation of certain license restrictions.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 6 circuit IEEE 1394-1995 to 4 circuit IEEE P1394a cable assembly
- Offered in three standard lengths
- Uses S100 cable for speeds up to 100 Mbps (contact Molex for S400 cable)
- Full metal shielding for ESD protection
- Detent features provide grounding and secure mating retention

Reference Information

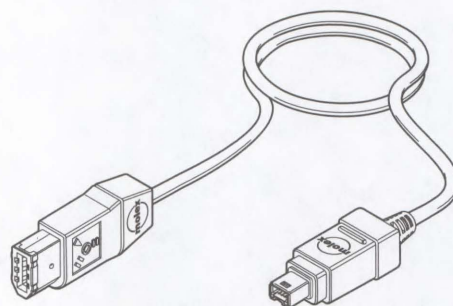
Packaging: Bag
Mates With: 53462, 53460, 53984, 54030, 54515 and 54516 PCB sockets
Designed In: Millimeters



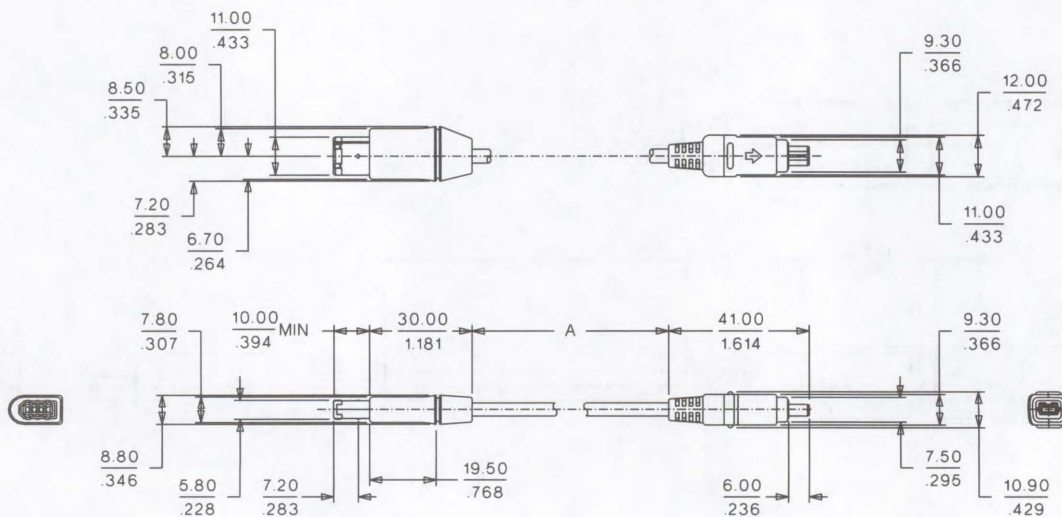
**2.00mm (.079") Pitch and
0.80mm (.031") Pitch
IEEE 1394-1995 & IEEE P1394a
Shielded I/O
Cable Assembly Plug**

59233

6-4 Pin Harness



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Applicable Wire				
		Circuits	Size	Conductor	Insulation Range	Finish Diameter
59233-3003	1.0 meters	4 (2 pair)	32 AWG	0.24 (7/0.08)	0.57	4.00
59233-3001	2.0 meters					
59233-3002	4.5 meters					

Note: For custom cable assemblies, contact Molex

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Use of this product contrary to this restriction will constitute a violation of certain license restrictions.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 6 circuit to 6 circuit IEEE 1394-1995 cable assembly
- Offered in three standard lengths
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding for ESD protection
- Detent features provide grounding and secure mating retention

Reference Information

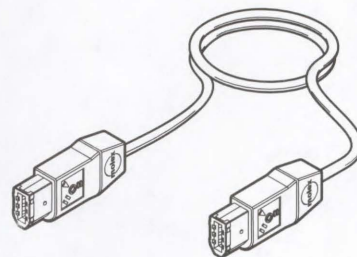
Packaging: Bag
Mates With: 53460, 53462 and 53984 PCB sockets
Designed In: Millimeters



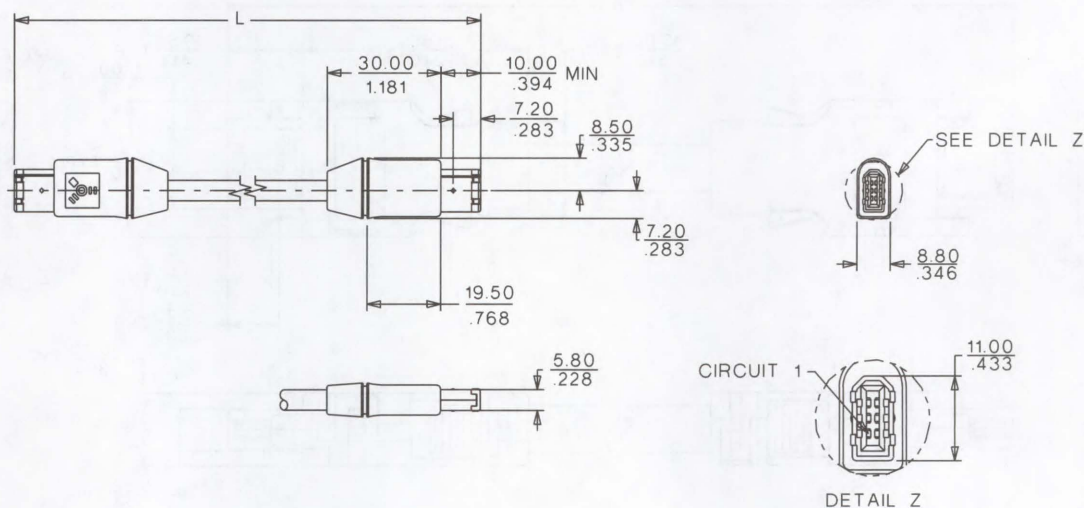
2.00mm (.079") Pitch IEEE 1394-1995 Shielded I/O Cable Assembly Plug

59233

6-6 Pin Harness



CATALOG DRAWING (FOR REFERENCE ONLY)



I/O Connectors

N

ORDERING INFORMATION AND DIMENSIONS

Order No.	Cable Length (L)	Applicable Wire				
		Circuits	Size	Conductor	Insulation Diameter	Finish Diameter
59233-0200	0.7 meters	4 (2 pair)	28 AWG	0.38 (7/0.127)	1.00	5.80
		2	22 AWG	0.76 (7/0.254)	1.20	
59233-0000		4 (2 pair)	30 AWG	0.30 (7/0.100)	0.90	5.30
		2	24 AWG	0.64 (19/0.127)	1.10	
59233-0201	2.0 meters	4 (2 pair)	28 AWG	0.38 (7/0.127)	1.00	5.80
		2	22 AWG	0.76 (7/0.254)	1.20	
59233-0001		4 (2 pair)	30 AWG	0.30 (7/0.100)	0.90	5.30
		2	24 AWG	0.64 (19/0.127)	1.10	
59233-0202	4.5 meters	4 (2 pair)	28 AWG	0.38 (7/0.127)	1.00	5.80
		2	22 AWG	0.76 (7/0.254)	1.20	
59233-0102		4 (2 pair)	30 AWG	0.30 (7/0.100)	0.90	5.30
		2	22 AWG	0.78 (17/0.160)	1.20	

Note: For custom cable assemblies, contact Molex

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology.

Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 6 circuit to 6 circuit IEEE 1394-1995 cable assembly
- Provides the interface for speeds up to 400 Mbps
- User-friendly latch provides secure mating retention
- Full metal shielding for ESD protection

Reference Information

Packaging: Bag

Mates With: 53460, 53462 and 53984 PCB sockets

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 22 AWG—1.5A

28 AWG—0.5A

Contact Resistance: Terminal—30mΩ max.

Shell—50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 100 MΩ min.

Physical

Housing: Black PBT

Contact: Phosphor Bronze

Plating: Contact Area—Gold over Nickel

Wire Termination Area—Tin/Lead over Nickel

Shell Cover/Body: Steel, Tin/Lead over Nickel plating

Mold Cover A/B: Gray PVC

Shield Cable: Gray PVC

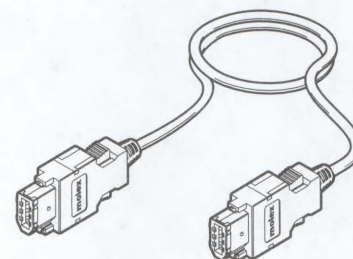
Operating Temperature: -40° to +85°



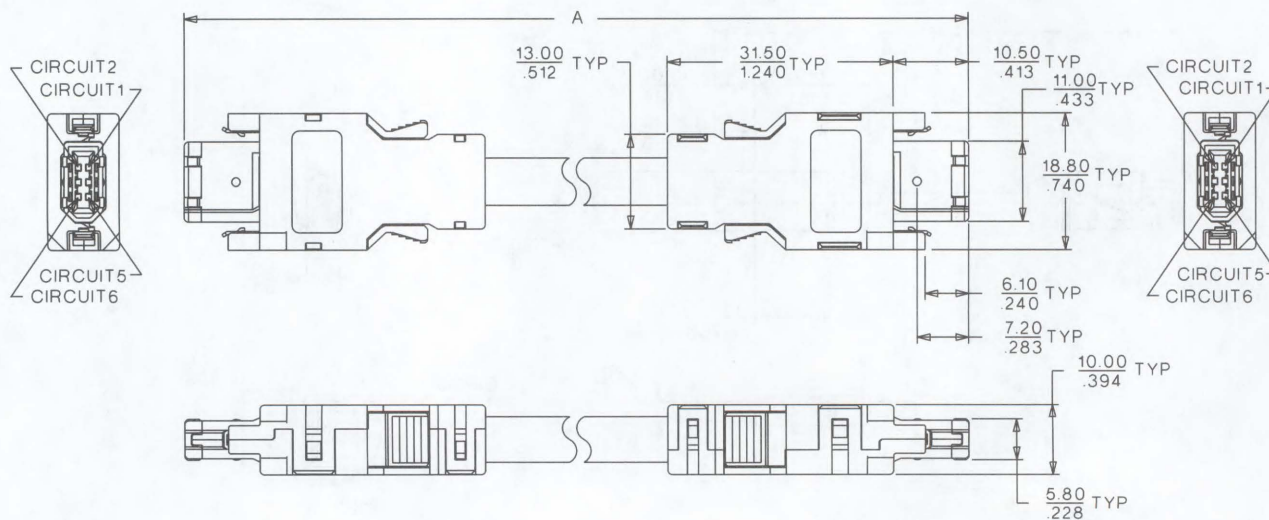
2.00mm (.079") Pitch IEEE 1394-1995 Shielded I/O Cable Assembly Plug

59233

6-6 Pin Harness Latching Type



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Cable Length (L)	Applicable Wire				
		Circuits	Size	Conductor	Insulation Diameter	Finish Diameter
59233-6003	4.5 meters	4 (2 pair)	28 AWG	0.38 (7/0.127)	1.00 (.039)	5.80 (.228)
		1	22 AWG	0.76 (7/0.254)	1.20 (.047)	

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology.
Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 6 circuit to 6 circuit, and 6 circuit to 4 circuit cable assemblies
- Provides the interface for speeds up to 400 Mbps
- Easy-to-use latch provides strong retention and audible "click"
- Rugged PCB molded boot includes serrated finger grips for easy mating and unmating
- Boot cover includes open area for custom logos

Reference Information

Product Specification: PS-55395-004

Packaging: Bag

Mates With: Industrial 6 circuit socket—55395

Standard 6 circuit socket—53460, 53462, 53984

Standard 4 circuit socket—54030, 54515, 54516

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 22 AWG—1.5A

28 AWG—0.5A

Contact Resistance: Terminal—30mΩ max.

Shell—50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 100 MΩ min.

Physical

Housing:

6 circuit—Black glass-filled 4/6 nylon, UL 94V-0

4 circuit—Black LCP

Contact: Phosphor Bronze

Plating: Contact Area—Gold over Nickel

Wire Termination Area—Tin/Lead

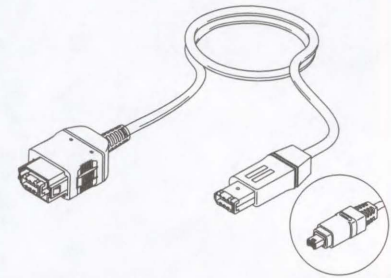
Operating Temperature: -25 to +85°C



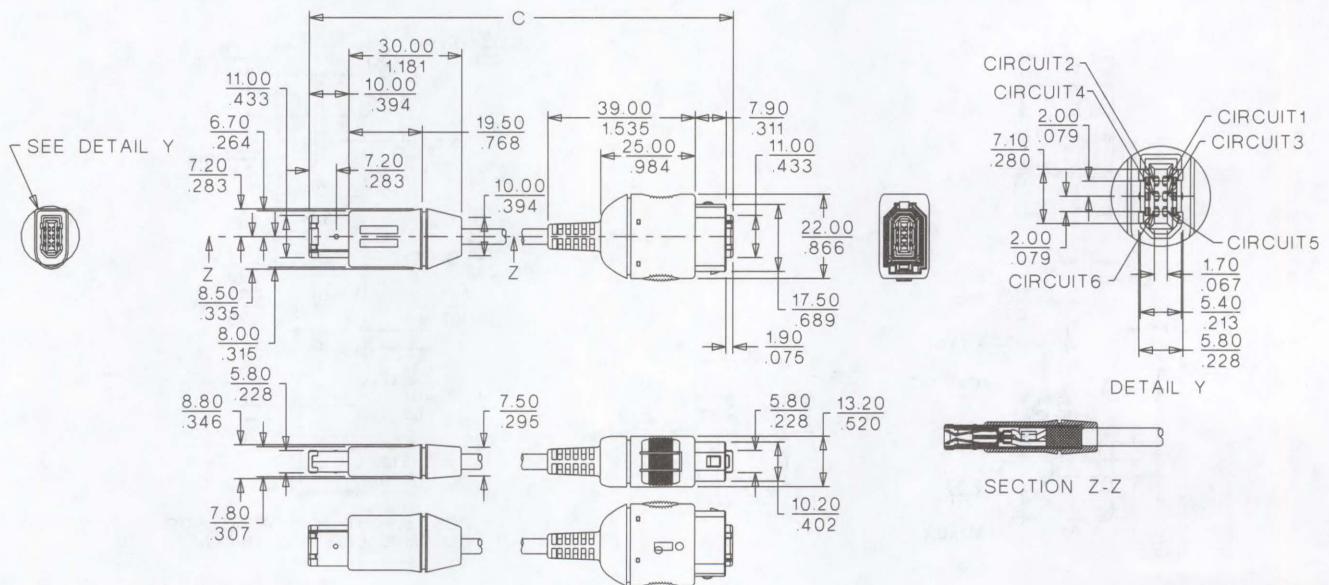
2.00mm (.079") Pitch and 0.80mm (.031") Pitch IEEE 1394 Shielded I/O Cable Assembly Plug

59233

6-6, 6-4 Pin Harness Industrial Type



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Harness Type	Cable length (C)	Applicable Wire				Finish Diameter
			Circuits	Wire Gauge	Conductor	Insulation Range	
59233-7000	6-6 pin	3.5 meters	4 (2 pair)	30 AWG	0.30 (7/0.100)	0.80 (0.031)	4.80 (0.189)
			2 (1 pair)	22 AWG	0.76 (7/0.254)	0.92 (0.362)	
59233-7001	6-4 pin	4.5 meters	4 (2 pair)	30 AWG	0.30 (7/0.100)	0.80 (0.031)	4.20 (0.165)
			2 (1 pair)	22 AWG	0.76 (7/0.254)	0.92 (0.362)	
59233-7100	6-4 pin	3.5 meters	4 (2 pair)	32 AWG	0.24 (7/0.080)	0.57 (0.224)	

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology.

Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 4 circuits
- Bottom flange with screw hole provides stability to PCB and strain relief for solder tails
- Overall metal shielding for superior EMI/RFI protection
- Split fork boardlock provides strong PCB retention
- Grounding fingers serve as locking feature and plug retention
- Surface Mount Compatible

Reference Information

Packaging: Tube
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 30mΩ max.
Dielectric Withstanding Voltage: 750V AC/1 min.
Insulation Resistance: 1000 MΩ min.

Physical

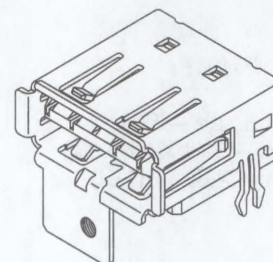
Housing: Glass-filled 4/6 nylon, UL 94V-0
Shell: Brass, Tin/Lead over Nickel plating
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: 0 to +40°C



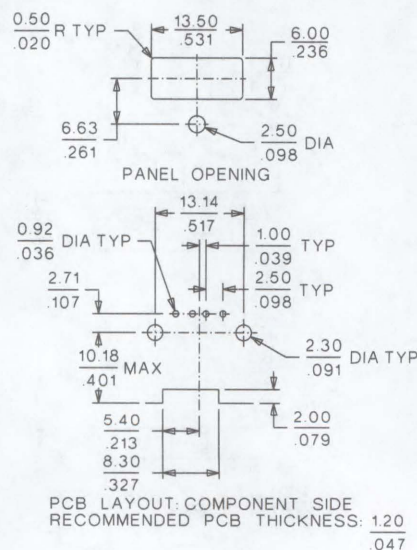
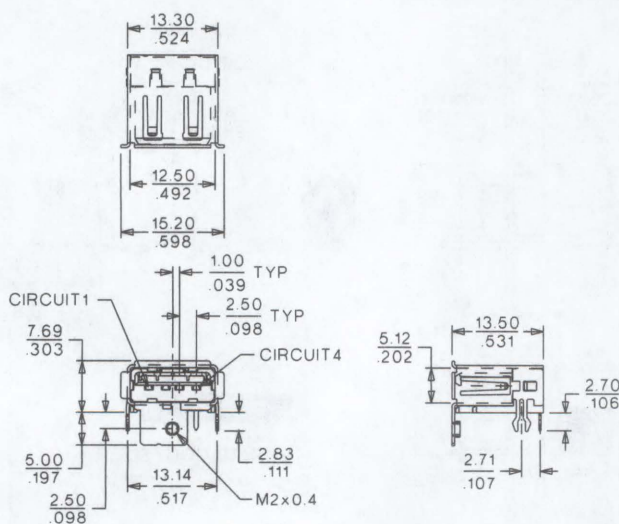
Universal Serial Bus (USB) Shielded I/O Receptacle

54231

Bottom Flange

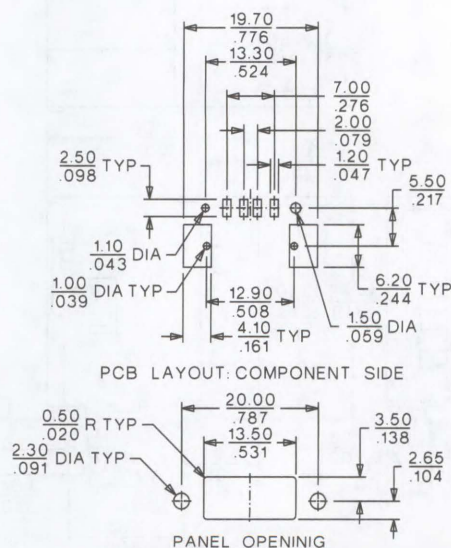
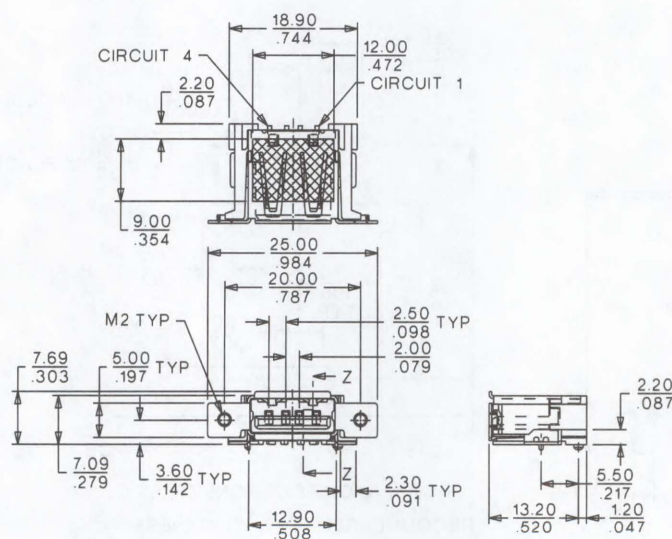
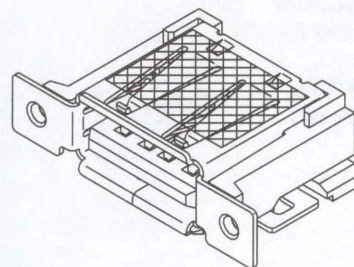


CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
4	54231-0419



Circuits	Order No.
4	54366-0418

FEATURES AND SPECIFICATIONS

Features and Benefits

- Small footprint saves PCB real estate
- Metal shell with back-shield offers all-round EMI/RFI shielding
- Staked-housing provides excellent solder tail alignment facilitating PCB mounting
- Dimples at inlet serve as locking feature and plug retention
- Panel grounding pins for ESD protection
- Kinked boardlocks provide strong board retention

Reference Information

Product Specification: PS-89485

Packaging: Tray

Mates With: USB 'A' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Withdrawal Force: 10N min.

Durability: 1500 cycles

Physical

Housing: Black high-temperature, glass fiber-filled nylon, UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Steel Alloy

Plating: Gold Flash/Gold 30μm

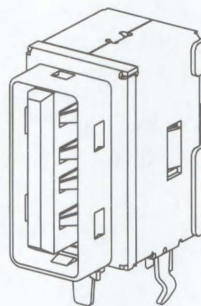
Operating Temperature: 0 to +40°C



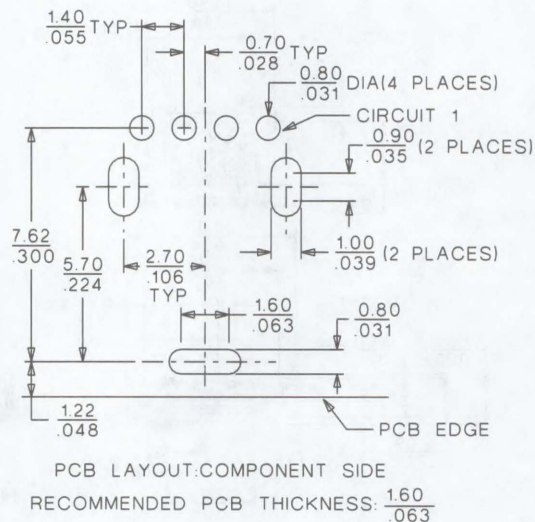
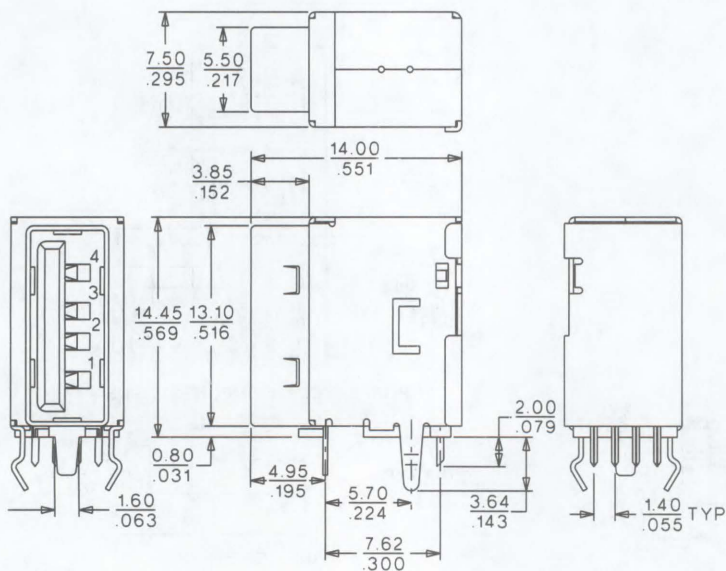
Universal Serial Bus (USB) Shielded I/O Type 'A' Receptacle

89485

**Single Upright
Right Angle**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Plating
4	89485-0000	Gold Flash
	89485-0001	30μm Gold

FEATURES AND SPECIFICATIONS

Features and Benefits

- Metal shell design allows uneven plug withdrawal forces
- Small footprint saves PCB real estate
- Staked housing provides excellent solder tail alignment facilitating PCB mounting
- Kinked boardlocks provide secure PCB retention

Reference Information

Product Specification: PS-89485

Packaging: Tray

Mates With: USB 'A' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Unmating Force: 10N min.

Durability: 1500 cycles

Physical

Housing: Black high temperature, glass fiber-filled nylon, UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Steel Alloy

Plating: Gold Flash or 30μ" Gold

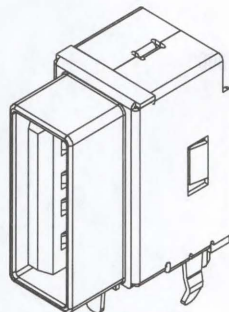
Operating Temperature: 0 to +40°C



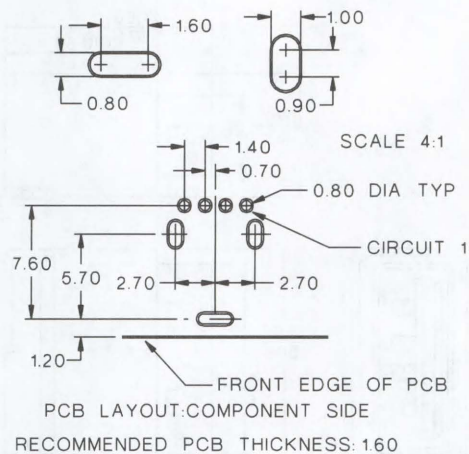
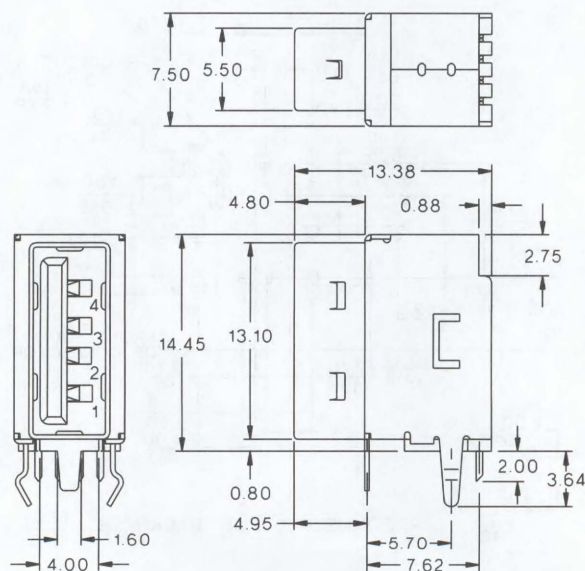
Universal Serial Bus Shielded I/O Type 'A' Receptacle

67230

**Upright Without
Back Cover**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Plating
4	67230-0000	Gold Flash
	67230-0001	30μ" Gold

I/O Connectors

N

- ## Electrical

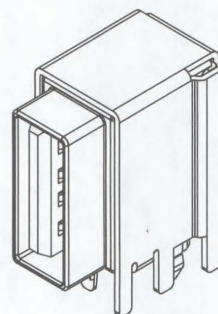
Mechanical

Physical



67226

Upright With Reinforced Cover

[illegible]

Circuits	Order No.	Plating
4	67226-0000	Gold Flash
	67226-0001	30u" Gold

FEATURES AND SPECIFICATIONS

Features and Benefits

- Low profile design
- Small footprint saves PCB real estate
- Flange-out shell design for plug misalignment lead-in
- Metal shell with back-shield offers all-round EMI/RFI shielding
- Spring beam shell contacts offer plug securement
- Four forklocks provide added PCB retention

Reference Information

Product Specification: PS-89485

Packaging: Tray

Mates With: USB 'A' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N (7.873 lb) max.

Unmating Force: 10N (2.248 lb) min.

Durability: 1500 cycles

Physical

Housing: Black high temperature, glass fiber-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Copper Alloy

Plating: Gold Flash or 30μ" Gold

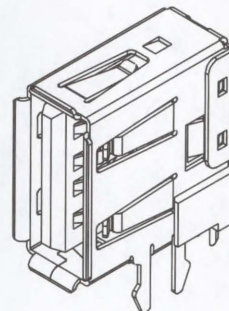
Operating Temperature: 0 to +40°C



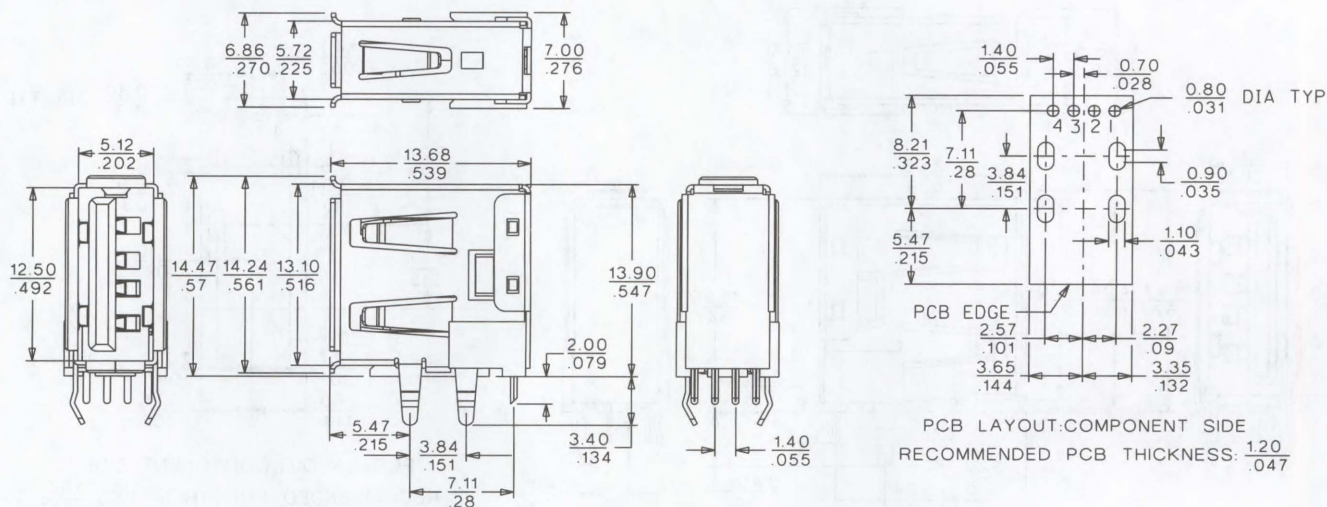
Universal Serial Bus Shielded I/O Type 'A' Receptacle

67329

Upright Flange-out With Forklock



CATALOG DRAWING (FOR REFERENCE ONLY)



Note: Drawing shown is 67329-0020

ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Plating	Recommended PCB Thickness
4	67329-0020	Gold Flash	1.60 (.063)
	67329-0021	30μ" Gold	1.60 (.063)
	67329-0030	Gold Flash	1.20 (.047)
	67329-0031	30μ" Gold	1.20 (.047)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Low profile design
- Small footprint saves PCB real estate
- Flange-out shell design for plug misalignment lead-in
- Metal shell with back-shield offers all-round EMI/RFI shielding
- Spring beam shell contacts offer plug securement
- Four kinked boardlocks provide added PCB retention

Reference Information

Product Specification: PS-89485

Packaging: Tray

Mates With: USB 'A' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Unmating Force: 10N min.

Durability: 1500 cycles

Physical

Housing: Black high temperature, glass fiber-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Copper Alloy

Plating: Gold Flash or 30μ" Gold

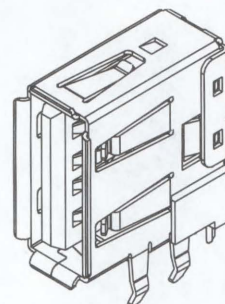
Operating Temperature: 0 to +40°C



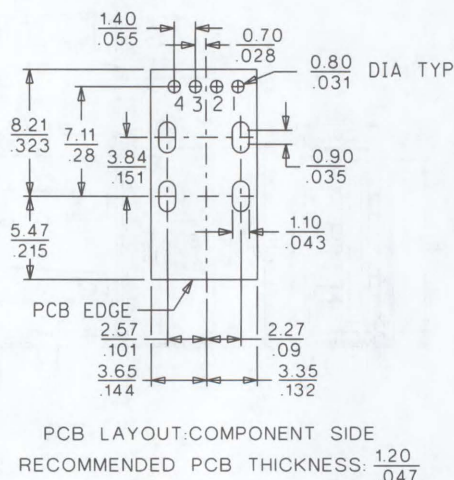
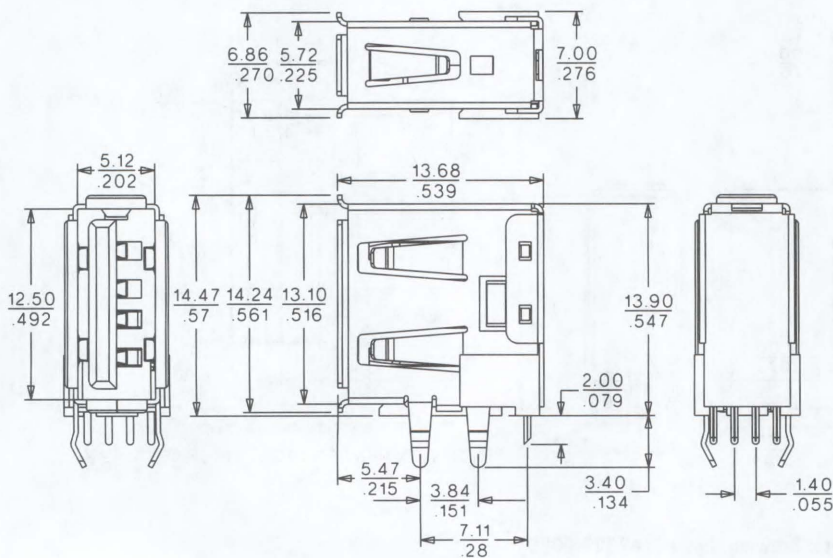
Universal Serial Bus Shielded I/O Type 'A' Receptacle

67329

Upright Flange-out With Kinked Boardlock



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Plating
4	67329-0000	Gold Flash
	67329-0001	30μ" Gold

FEATURES AND SPECIFICATIONS

Features and Benefits

- Metal shell with back-shield provides all round EMI/RFI shielding
- Staked-housing provides excellent solder tail alignment facilitating PCB mounting
- Multiple internal grounding fingers
- Stand-offs for anti-solder bridging
- Kinked boardlocks provide strong board retention

Reference Information

Product Specification: PS-67998-0000

UL File No.: E29179

CSA File No.: LR19980A

Packaging: Tray

Mates With: USB 'B' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Withdrawal Force: 10N min.

Durability: 1500 cycles min.

Physical

Housing: Black and white, glass fiber-filled polyester,
UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Copper Alloy

Plating: Gold Flash/Gold 30μm

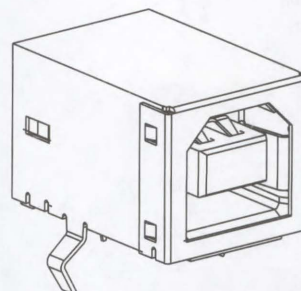
Operating Temperature: 0 to +40°C



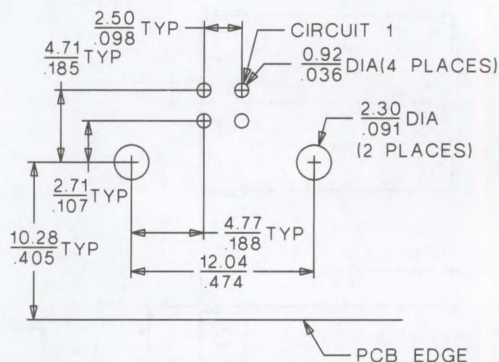
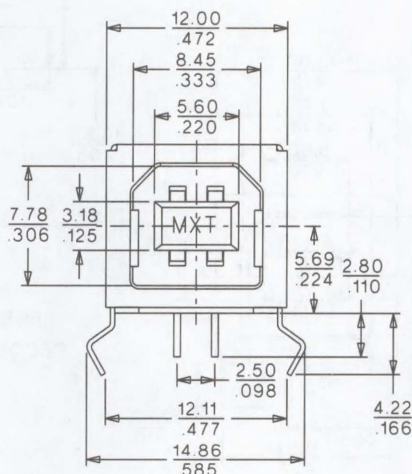
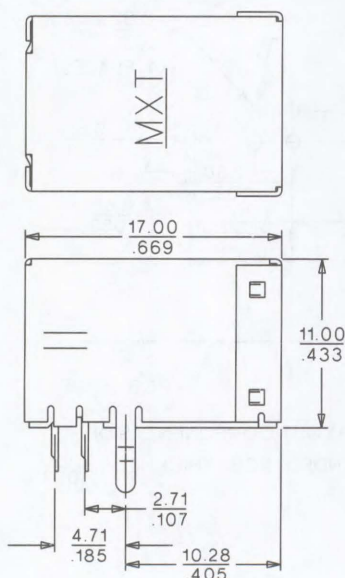
Universal Serial Bus (USB) Shielded I/O Type 'B' Receptacle

67068

**Single
Right Angle, Kinked Version**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Housing Color	Plating
4	67068-0000	Black	Gold Flash
	67068-0001	Black	30μ" Gold
	67068-1000	White	Gold Flash
	67068-1001	White	30μ" Gold

MX01

FEATURES AND SPECIFICATIONS

Features and Benefits

- Short body design saves PCB real estate
- Staked housing provides excellent solder-tail alignment facilitating PCB mounting
- Housing stand-offs for anti-solder bridging
- Kinked boardlocks provide secure PCB retention
- Housing available in black or white

Reference Information

Product Specification: PS-67998-0000

Packaging: Tray

Mates With: USB 'B' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Unmating Force: 10N min.

Durability: 1500 cycles

Physical

Housing: Black or white, glass fiber-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Copper Alloy

Plating: Gold Flash or 30μ" Gold

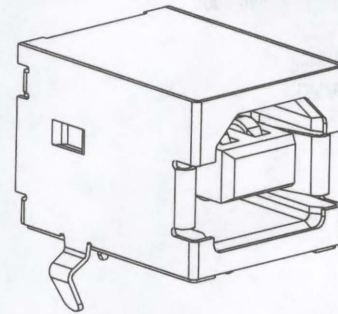
Operating Temperature: 0 to +40°C



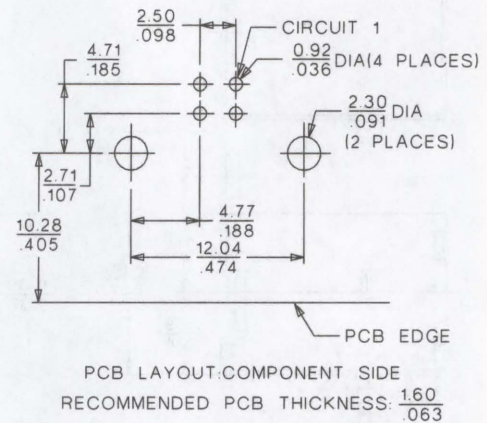
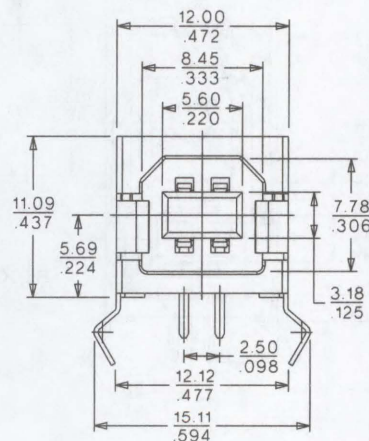
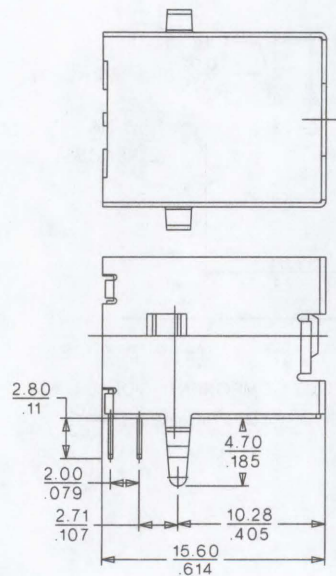
Universal Serial Bus Shielded I/O Type 'B' Receptacle

67248

**Short Body
Right Angle**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.		Plating
	Black	White	
4	67248-0000	67248-1000	Gold Flash
	67248-0001	67248-1001	30μ" Gold

FEATURES AND SPECIFICATIONS

Features and Benefits

- Screw flange for panel mounting provides robust connector securement
- Short body design saves PCB real estate
- Staked housing provides excellent solder-tail alignment facilitating PCB mounting
- Housing stand-offs for anti-solder bridging
- Kinked boardlocks provide secure PCB retention
- Housing available in black or white

Reference Information

Product Specification: PS-67998-0000

Packaging: Tray

Mates With: USB 'B' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Unmating Force: 10N min.

Durability: 1500 cycles

Physical

Housing: Black or white, glass fiber-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Copper Alloy

Plating: Gold Flash or 30μ" Gold

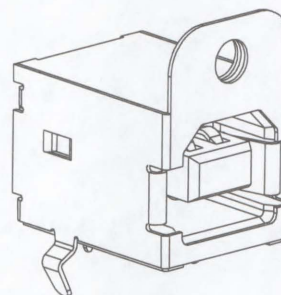
Operating Temperature: 0 to +40°C



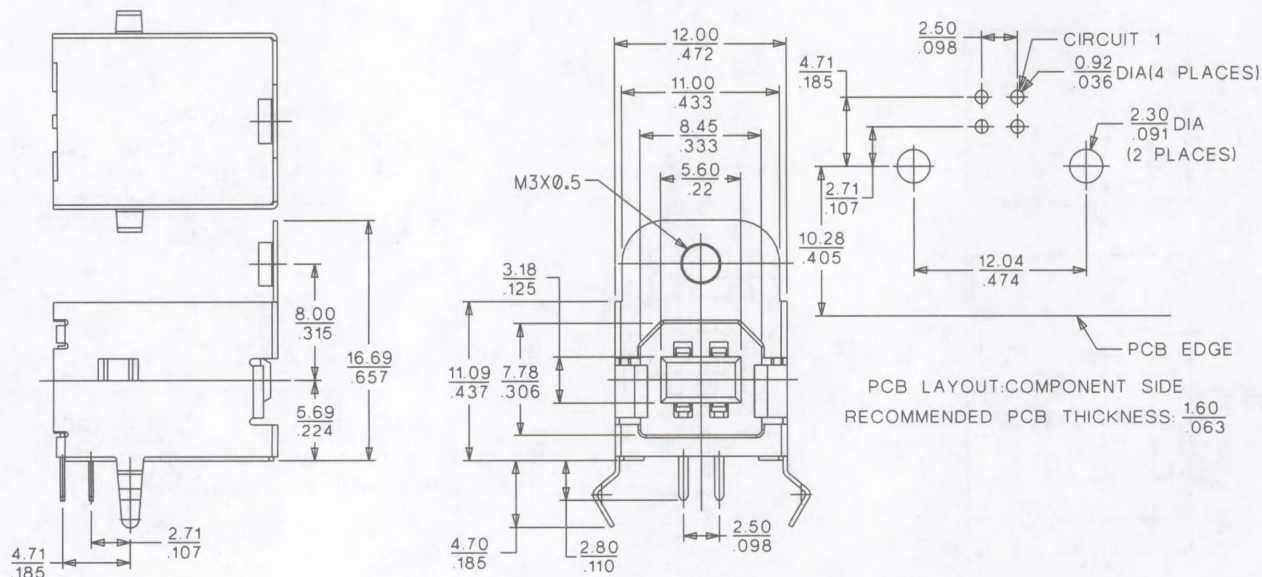
Universal Serial Bus Shielded I/O Type 'B' Receptacle

67285

Single Right Angle, Short Body With Screw Flange



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.		Plating
	Black	White	
4	67285-0000	67285-1000	Gold Flash
	67285-0001	67285-1001	30μ" Gold

FEATURES AND SPECIFICATIONS

Features and Benefits

- Four grounding contacts on metal shell for EMI leakage protection
- Dual pair boardlocks and straight tabs for robust PCB retention
- Staked housing provides excellent solder-tail alignment facilitating PCB mounting
- Housing stand-offs for anti-solder bridging
- Housing available in black or white

Reference Information

Product Specification: PS-67998-0000

Packaging: Tray

Mates With: USB 'B' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Unmating Force: 10N min.

Durability: 1500 cycles

Physical

Housing: Black or white, glass fiber-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Copper Alloy

Plating: Gold Flash or 30μ" Gold

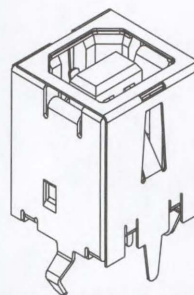
Operating Temperature: 0 to +40°C



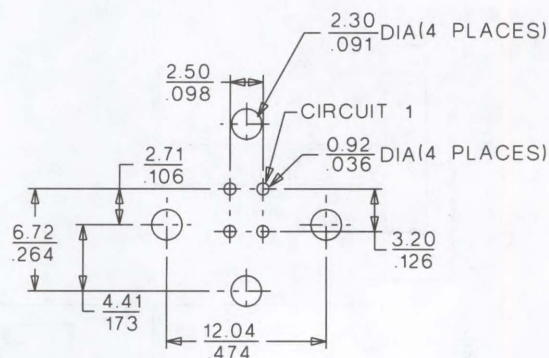
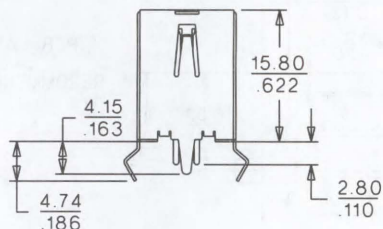
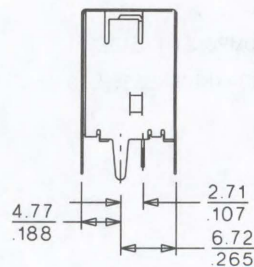
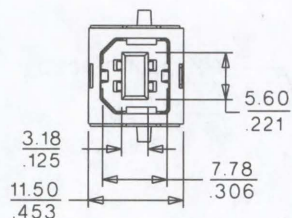
Universal Serial Bus Shielded I/O Type 'B' Receptacle

67265

Vertical With Paired Boardlocks and Grounding Pins



CATALOG DRAWING (FOR REFERENCE ONLY)



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

ORDERING INFORMATION

Circuits	Order No.		Plating
	Black	White	
4	67265-0000	67265-1000	Gold Flash
	67265-0001	67265-1001	30μ" Gold

FEATURES AND SPECIFICATIONS

Features and Benefit

- Dual kinked boardlocks provide secure PCB retention
- Housing stand-off for anti-solder bridging
- Housing available in black or white

Reference Information

Product Specification: PS-67998-0000

Packaging: Tray

Mates With: USB 'B' Plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Unmating Force: 10N min.

Durability: 1500 cycles

Physical

Housing: Black or white, glass fiber-filled polyester,
UL 94V-0

Contact: Phosphor Bronze

Metal Shell: Copper Alloy

Plating: Gold Flash or 30μ" Gold

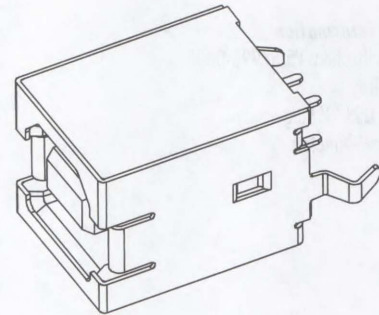
Operating Temperature: 0 to +40°C



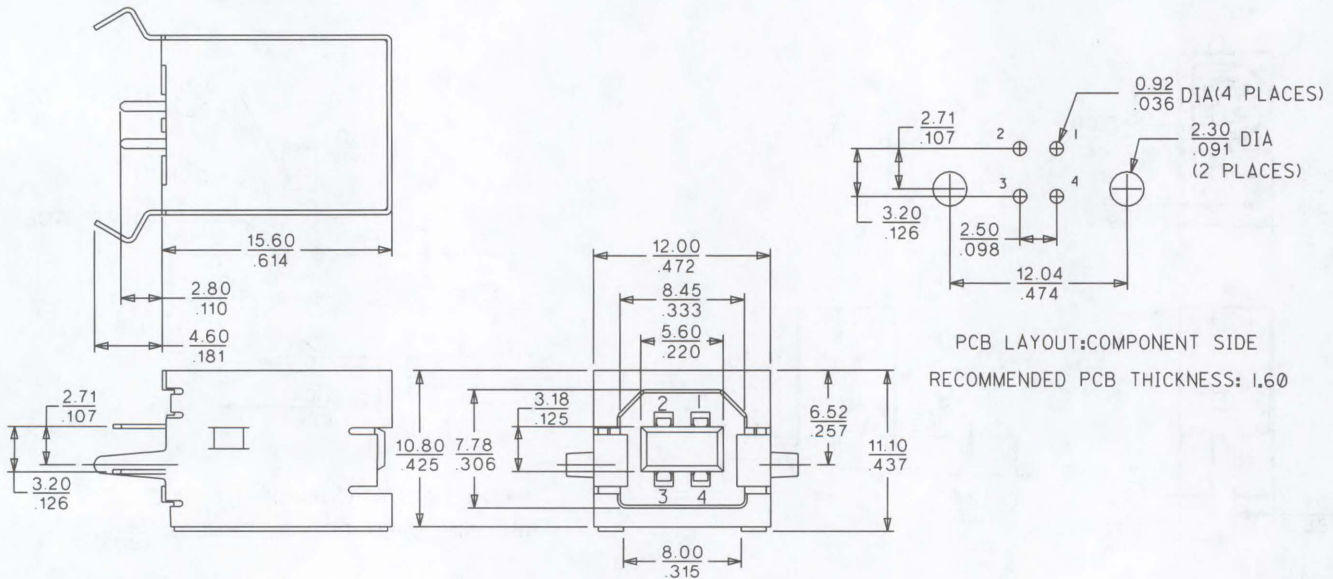
Universal Serial Bus Shielded I/O Type 'B' Receptacle

67171

Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.		Plating
	Black	White	
4	67171-0000	67171-1000	Gold Flash
	67171-0001	67171-1001	30μ" Gold

FEATURES AND SPECIFICATIONS

Features and Benefits

- Fully-shielded and polarized plugs
- Friction grip on over-molded body facilitates easy mating/unmating
- 5 standard cable lengths available
- Custom design available for complete cable assemblies
- For non-standard cable assembly lengths, please contact Molex

Reference Information

Product Specification: PS-87525

Packaging: Bag or custom-specified

Mates With: USB 'A' receptacle (for 'A' plug)

USB 'B' receptacle (for 'B' plug)

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 30mΩ max.

Dielectric Withstanding Voltage: 750V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 35N max.

Withdrawal Force: 10N min.

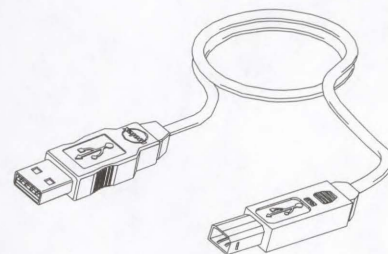
Durability: 1500 cycles min.

molex® Universal Serial Bus (USB) Shielded I/O Cable Assembly

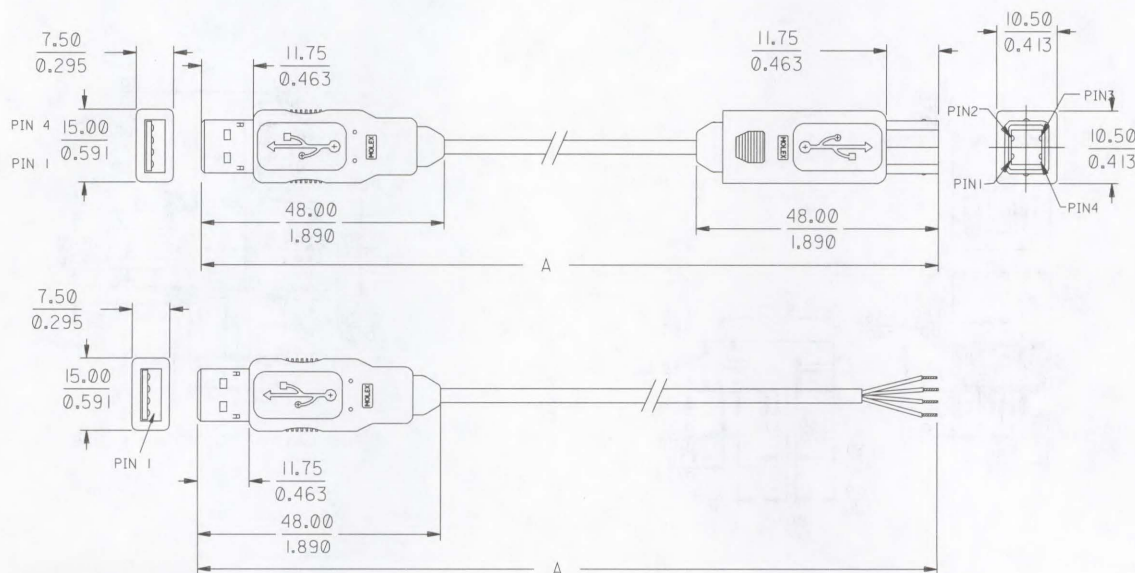
88732 'A-to-B' Full-Rated

**88728 'A-to-Pigtail'
Full-Rated**

**88738 'A-to-Pigtail'
Sub-Channel**



CATALOG DRAWING (FOR REFERENCE ONLY)



I/O Connectors

N

ORDERING INFORMATION

Order No.	Description	Dimension A Cable Assembly Lengths
88732-9000	USB Type 'A-to-B' Full-Rated	820 (32.28)
88732-9100		1320 (51.97)
88732-9200		2090 (82.28)
88732-9300		3340 (131.50)
88732-9400		5010 (197.24)

Order No.	Description	Dimension A Cable Assembly Lengths
88728-3200	USB Type 'A-to-Pigtail' Full-Rated	810 (31.89)
88728-3300		1310 (51.57)
88728-3400		2080 (81.89)
88728-3500		3330 (131.10)
88728-3600		5000 (196.85)

Order No.	Description	Dimension A Cable Assembly Lengths
88738-8000	USB Type 'A-to-Pigtail' Sub-Channel	810 (31.89)
88738-8100		1310 (51.57)
88738-8200		2080 (81.89)
88738-8300		3330 (131.10)
88738-8400		5000 (196.85)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Approximately 1/8 the size of standard USB-B connectors
- Fully compliant with current USB 2.0 specifications
- Compact and lightweight design meets various portable and mobile equipment needs
- Operates at speeds up to 480 Mbps
- Rugged durability up to 5,000 cycles

Reference Information

Product Specification: PS-54819-010

Packaging: Embossed tape

Mates With: 59204

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 100V AC/1 min.

Insulation Resistance: 100 MΩ min.

Physical

Housing: Black glass-filled Polyphthal Amide, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area—0.75μm (30μ") min. Gold

Solder Tail Area—3.80μm (150μ") Tin/Lead

Underplating—Nickel

Shield Case: Copper Alloy, Tin/Lead over Nickel plating

Cover Tape: Polyimide

Operating Temperature: 0 to +50°C

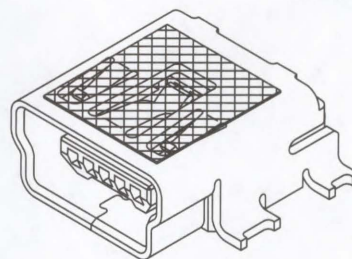


mini-B™

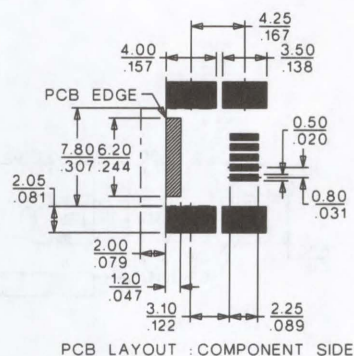
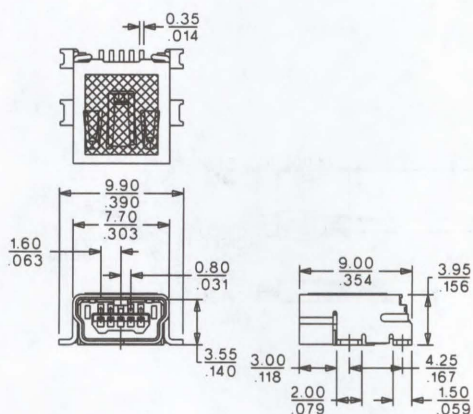
Universal Serial Bus (USB) Shielded I/O Receptacle

54819

With Cover Tape
SMT



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Carrier Tape Width
5	54819-0578	24.00 (.945)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Approximately 1/8 the size of standard USB-B connectors
- Fully compliant with current USB 2.0 specifications
- Compact and lightweight design meets various portable and mobile equipment needs
- Operates at speeds up to 480 Mbps
- Rugged durability up to 5,000 cycles

Reference Information

Product Specification: PS-54819-010
 Packaging: Bag
 Mates With: 54819
 Designed In: Millimeters

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 50mΩ max.
 Dielectric Withstanding Voltage: 100V AC/1 min.
 Insulation Resistance: 100 MΩ min.

Physical

Housing: Black glass-filled Polyphthal Amide, UL 94V-0
 Contact: Copper Alloy
 Plating: Contact Area—0.75μm (30μ") min. Gold
 Attach Area—3.80μm (150μ") Tin/Lead
 Underplating—Nickel
 Shield Case: Steel, Nickel plating
 Housing Cover: Black glass-filled PBT, UL 94V-0
 Over-Mold: Gray Polyvinyl Chloride, UL 94V-0
 Operating Temperature: 0 to +50°C

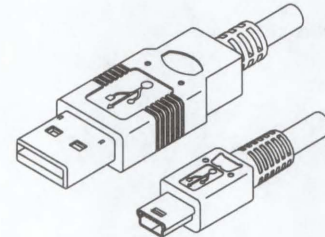


mini-B™

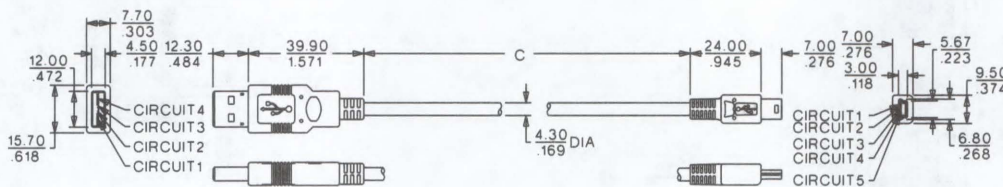
Universal Serial Bus (USB) Shielded I/O Cable Assembly

59204

mini-B-to-USB Type A



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension C
54819-0511	1000 (39.370)

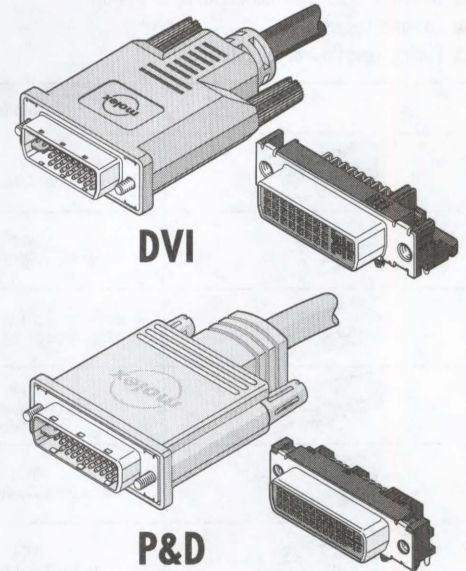
FEATURES

MicroCross

Receptacles: DVI-D, DVI-A and DVI-I (74320)/
P&D-A (71182) and P&D-D, A/D (73712)

Plugs: DVI-D Single Link, DVI-D Dual Link, DVI-A,
DVI-I Single Link and DVI-I Dual Link/P&D-A
and P&D-D

- MicroCross coax design supports analog video
- LFH™ contact design for high reliability
- P&D multimedia I/O supports the VESA (Video Electronics Standard Association) Plug and Display standard
- DVI video I/O supports the DDWG (Digital Display Working Group) Digital Visual Interface standard
- Right angle and vertical receptacles as well as cable assemblies, adapters and plug components available for a complete system solution
- Surface Mount Compatible
- Saves space on the host unit by integrating functions in one connector
- Staggered contact mating for power, ground and signal sequencing
- Improved bandwidth performance—analogue and digital
- Reduced crosstalk
- Impedance controlled for better high speed signal performance
- Field-proven reliability
- Provides a high cycle interface
- Reduces cable assembly need from multiple cables to one
- Fully shielded for RFI/EMI concerns
- Flexible termination capable of many wire sizes and types
- Both video connectors support plug-n-play
- First make, last break
- Protruding receptacle shield for ESD considerations



The Molex MicroCross connector family is based on an innovative use of "crossing" ground blades to provide high-speed electrical performance in a low cost connector format. It was chosen as the interface for the Digital Display Working Group (DDWG) Digital Visual Interface (DVI) standard and also was chosen for the Video Electronics Standards Association (VESA) Plug and Display (P&D) standard, which cover the future I/O requirements for video displays.

DDWG's DVI standard is grouped into two separate standards, the Digital Visual Interface-Analog/Digital (DVI-I) and the Digital Visual Interface-Digital (DVI-D). This standard provides the future direction for analog and digital video interfaces for the computer industry.

VESA's P&D standard is grouped into two separate standards, which are the Plug and Display-Analog (P&D-A), formerly known as the EVC standard, and the original Plug and Display standard, which covers the Plug and Display-Analog/Digital (P&D-A/D) and the Plug and Display-Digital (P&D-D). This

standard provides the future multimedia I/O that supports USB and 1394-1995, in addition to video, in one interconnect solution from the host to the display interface.

The MicroCross product line is comprised of the DVI-I, the DVI-D, DVI-A, the P&D-A, the P&D-D, and the P&D-A/D connector systems. The DVI-I supports digital and analog video interfaces whereas the DVI-D only supports a digital video interface. DVI-A supports analog video interface. The P&D-A supports analog video interface, the P&D-D supports digital video interface, and the P&D-A/D addresses both digital and analog video interfaces.

DVI provides the solution for higher digital and analog bandwidth requirements for video signaling from the host to the display. Data transfer remains in a digital format, thus eliminating conversion losses and increasing the capacity for high resolution monitors and flat panel displays.

P&D provides the multimedia solution for systems requiring higher analog and digital bandwidth from the host to the

display. It allows the option for the display to act as an I/O hub by providing easy access to ports for the keyboard, mouse, pen, camera, speakers, and other peripherals through a single cable and connector for today's systems, as well as in the future.

The MicroCross product family fills the needs of the industry for an interconnect system that is low cost, provides a more reliable interface than the existing video I/O connectors, and most importantly, provides increased bandwidth and EMI performance. Where traditional connector designs begin to breakdown at 250 MHz, Molex's MicroCross DVI and P&D can provide analog performance to 2.5 GHz. In digital applications, 1.65 Gbps of throughput is provided per data channel and DVI supports 9.9 Gbps over a dual link implementation. Utilizing Molex's LFH redundant contact interface, the MicroCross provides a robust pin and shrouded receptacle design that will take the abuse in handling, provide a low connector insertion force, and provide controlled contact interface surfaces, which renders reliability in high life-cycle applications through a variety of environmental conditions.

The MicroCross Product Family Supports the Following Signal Sets:

DVI-I:

- Analog Video Output (RGB)
- DDC
- Up to 2 Links of TMDS*
- H/V Sync
- Hot Plug Detect

DVI-D:

- DDC
- Up to 2 Links of TMDS*
- Hot Plug Detect

DVI-A:

- Analog video output (RGB)
- DDC
- H/V Sync
- Hot Plug Detect

P&D-A/D:

- Analog Video Output (RGB)
- Charging Power/Hot Plug Detect
- DDC
- H/V Sync
- IEEE 1394-1995
- Pixel Clock
- Stereo Sync
- TMDS*
- USB

P&D-D:

- Charging Power/Hot Plug Detect
- DDC
- IEEE 1394-1995
- TMDS*
- USB

P&D-A: (Formerly EVC)

- Analog Video Output (RGB)
- Audio In
- Audio Out
- Charging Power/Hot Plug Detect
- DDC
- Pixel Clock
- Stereo Sync
- USB
- Y/C Video
- H/V Sync

The Electrical Performance of the MicroCross Coax Lines Support:

- Impedance: $75\Omega \pm 10\%$
- Crosstalk: Less than 2% @ 1V/1n
- Bandwidth: 2.5 GHz (analog)

The Electrical Performance of the MicroCross Digital Lines Support:

- Impedance: $100\Omega \pm 15\%$
- Crosstalk: Less than 5% @ 1.65 Gbps channel data rate
- Bandwidth:
 - DVI Single Link (4.95 Gbps or 1.65 Gbps per data pair) 3 data pairs
 - DVI Dual Link (9.9 Gbps or 1.65 Gbps per data pair) 6 data pairs
 - P&D (4.95 Gbps or 1.65 Gbps per data pair) 3 data pairs

Note: Zero skew within data pairs

*TMDS (Transition Minimized Differential Signal) is a trademark of Silicon Image, Inc.

RECEPTACLE HEADERS

Features

- Through Hole
- Housings: Glass-filled thermoplastic, UL 94V-0
- Contacts: Copper Alloy
- Plating: Gold flash or 30µ" Gold

Specifications

Voltage: 40V
Current: 3.0A
Operating Temperature: -20 to +85°C



MicroCross™ DVI Connector System

Digital Visual Interface Standard

	Description	Options	Order No.	
			Gold Flash	30µ" Gold
	DVI-I Right Angle Digital/Analog Receptacle	PCB Retention: Peg	74320-1004	74320-1000
	DVI-D Right Angle Digital Receptacle	PCB Retention: Peg	74320-4004	74320-4000
	DVI-A Right Angle Analog Receptacle	PCB Retention: Peg	74320-1009	74320-1008
	DVI-D Right Angle Digital ATX Receptacle with Forklocks	PCB Retention: Forklock	74320-9004	74320-9000
	DVI-I Vertical Digital/Analog Receptacle	PCB Retention: Peg	74320-3004	74320-3000
	DVI-D Vertical Digital Receptacle	PCB Retention: Peg	74320-5004	74320-5000
	DVI-A Vertical Analog Receptacle	PCB Retention: Peg	74320-3009	74320-3008
	DVI-I Right Angle Digital/Analog Receptacle with Forklocks	PCB Retention: Forklock	74320-9014	74320-9010
	DVI-D Right Angle Digital Extended Height Receptacle	PCB Retention: Peg	74320-2010	74320-2011
	DVI-I Right Angle Digital/Analog Extended Height Receptacle	PCB Retention: Peg	74320-2020	74320-2021

CABLE ASSEMBLIES

Features

- Supports up to 1.65 Gbps bandwidth per differential pair, fully shielded against RFI/EMI
- Analog coax performance up to 2.5 GHz
- Provides 4.95 Gbps over a single link and 9.9 Gbps performance over a dual link implementation

Specifications

Voltage: 40V
Current: 3.0A
Operating Temperature: -20 to +85°C

	Replace XX with Order No. Code		
	2m (6.56 ft.)	3m (9.84 ft.)	5m (16.40 ft.)
Black	00	10	20

	Description	Order No.						
		DVI-Digital	P&D-Digital	DFP	M1-D with USB Breakout	DVI-Digital/Analog	DVI-Analog	VGA
	DVI-Digital to...	88741-80XX (Single Link TMDS*) 88741-81XX (Dual Link TMDS)	88741-85XX	88741-86XX	88745-2200 (2m, Single Link TMDS)			
	DVI-Digital/Analog to...					88741-90XX (Single Link TMDS)		
	DVI-Analog to...						88741-82XX	88741-83XX 88741-84XX

PASSIVE ADAPTERS

Features

- Adapts to existing systems using VGA, DFP, and P&D video I/O interfaces
- Compact in size, Molex's DVI adapters provide a lightweight and space efficient solution

Specifications

Voltage: 40V
Current: 3.0A
Operating Temperature: -20 to +85°C

	Description	Order No.			
		DVI-Digital to P&D-Digital	DVI-Digital to DFP	DVI-Analog to VGA	DVI-Digital to DVI-Digital
	Plug to Receptacle	88741-8900	88741-8800	88741-8700—Standard 88741-8701—Z Design	
	Receptacle to Plug	88741-9200	88741-9300	88741-9100	88741-9400

*TMDS (Transition Minimized Differential Signaling) is a trademark of Silicon Image, Inc.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports analog signal and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface compliant
- The MicroCross coaxial section supports a high bandwidth up to 2.5 GHz analog signal
- Selectively loaded circuits reduce cost

Reference Information

Product Specification: PS-74320-001

Packaging: 71781 — Bag

74320 — Tray

UL File No.: E29179

CSA File No.: LR19980

Mates with: 88741, 74323 and other plug components

Designed In: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb. min.

Insertion Force to PCB: 10 lb. max.

Mating Force: 10 lb. max.

Unmating Force: 2.2 lb. min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and 100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

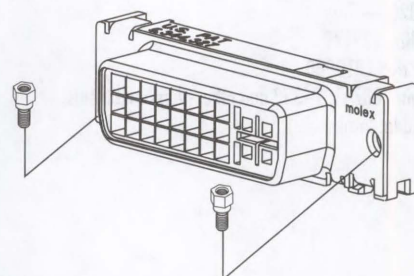
Operating Temperature: -20 to +85°C



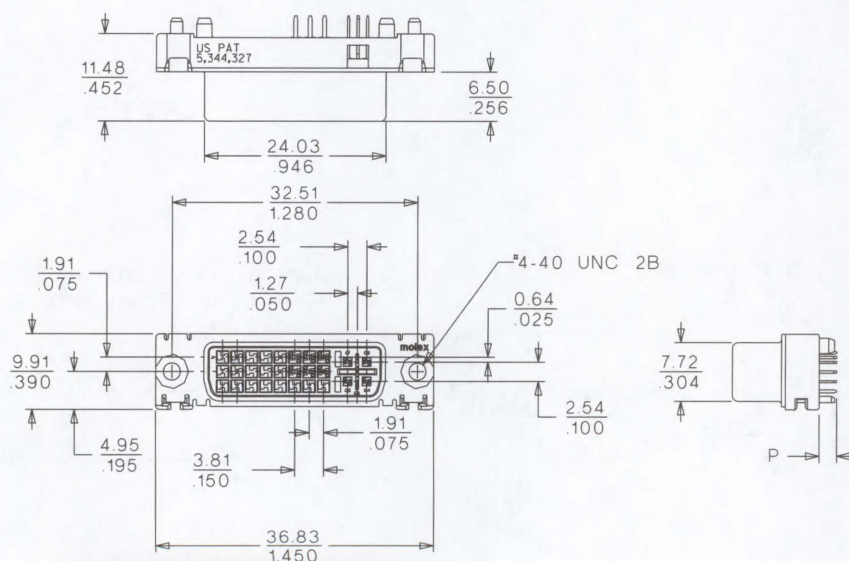
MicroCross™ DVI-A Analog Visual Interface Receptacle Header and Hardware

74320/71781

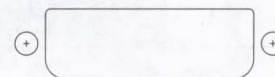
Panel Mount Through Hole Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



FOR P.C.B. LAYOUT AND PANEL
CUTOUT CONTACT FACTORY.



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension P	Plating
74320-3008	Vertical Receptacle	2.34 (.092)	30μ" Gold
74320-3009	Vertical Receptacle	2.34 (.092)	Gold Flash
71781-0001	Jackpost		Clear Chromate
71781-0002	Self-Clinching Jackpost		Zinc/Yellow Chromate

Please contact Molex for additional tail length options

N I/O Connectors

N

- # N I/O Connectors

N

N I/O Connectors

N

N I/O Connectors

N

N I/O Connectors

N

N I/O Connectors

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N I/O Connectors

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N I/O Connectors



N I/O Connectors



N I/O Connectors

N I/O Connectors

N I/O Connectors

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95 Gbps over a single link and 9.9 Gbps performance over a dual link implementation
- Narrow key slot for polarization

Reference Information

Product Specification: PS-74320-001

Packaging: 71781—Bag

74320—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates with: Versions of 88741, 74323 and other plug components

Designed In: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1,000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb. min.

Insertion Force to PCB: 10 lb. max.

Mating Force: 10 lb. max.

Unmating Force: 2.2 lb. min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and

100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ"bright Tin over Copper overall

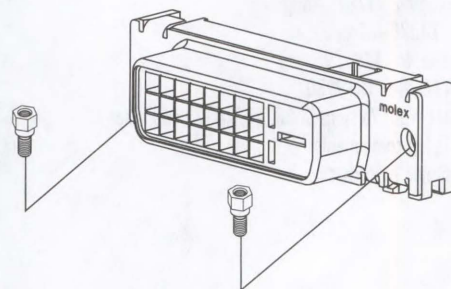
Operating Temperature: -20 to +85°C



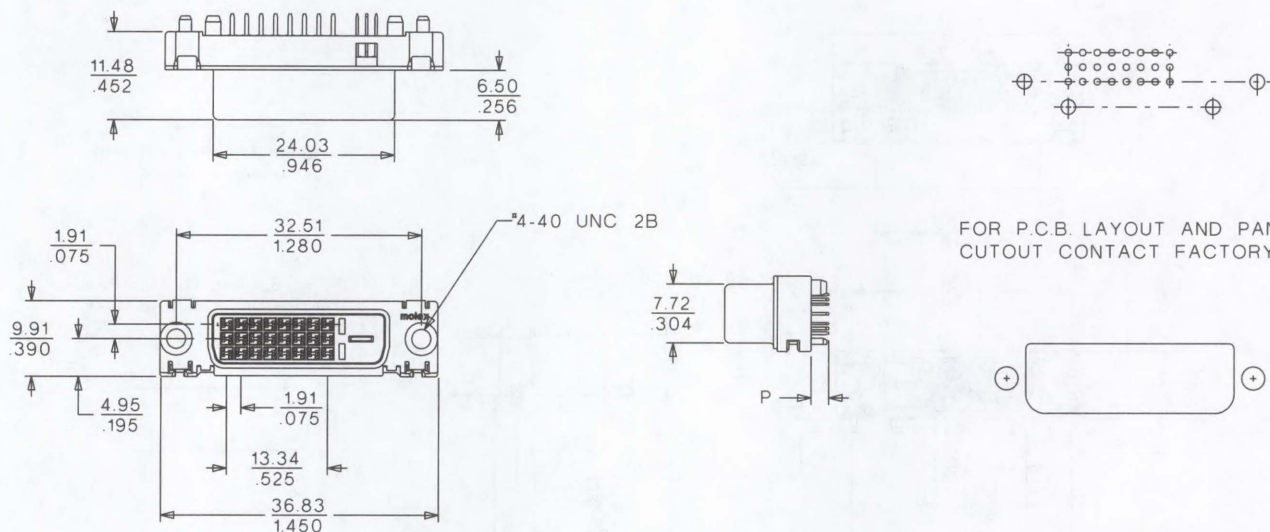
MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

74320/71781

Panel Mount Through Hole Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension P	Plating
74320-5000	Vertical Receptacle	2.34 (.092)	30μ" Gold
74320-5004	Vertical Receptacle	2.34 (.092)	Gold Flash
71781-0001	Jackpost		Clear Chromate
71781-0002	Self-Clinching Jackpost		Zinc/Yellow Chromate

Please contact Molex for additional tail length options

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFHT™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95 Gbps over a single link and 9.9 Gbps performance over a dual link implementation
- Narrow key slot for polarization

Reference Information

Product Specification: PS-74320-001

Packaging: 71781—Bag

74320—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: Versions of 88741, 74323 and other plug components

Designed In: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb. min.

Insertion Force to PCB: 10 lb. max.

Mating Force: 10 lb. max.

Unmating Force: 2.2 lb. min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and 100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

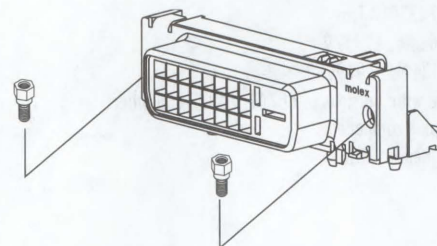
Operating Temperature: -20 to +85°C



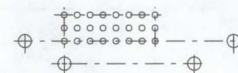
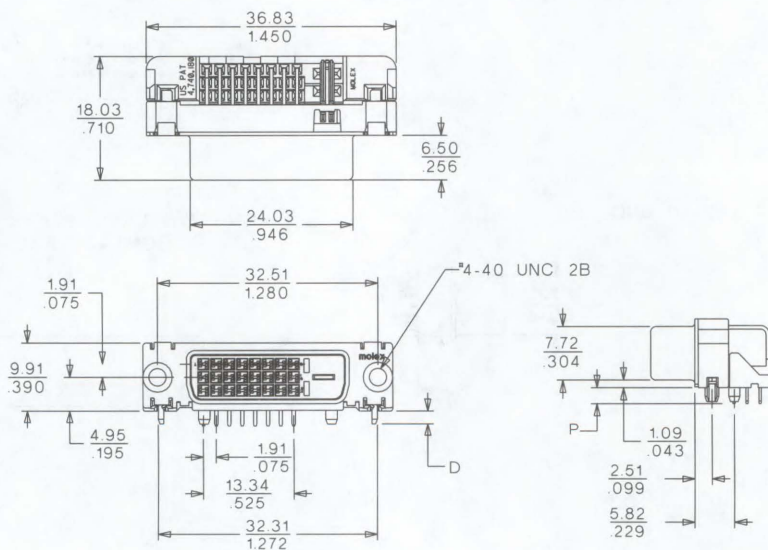
MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

74320/71781

Panel Mount Through Hole Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



FOR P.C.B. LAYOUT AND PANEL
CUTOUT CONTACT FACTORY.



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension		Plating
		D	P	
74320-4000	Right Angle Receptacle	2.03 (.080)	2.34 (.092)	30μ" Gold
74320-4004	Right Angle Receptacle	2.03 (.080)	2.34 (.092)	Gold Flash
71781-0001	Jackpost			Clear Chromate
71781-0002	Self-Clinching Jackpost			Zinc/Yellow Chromate

Please contact Molex for additional tail length options

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95 Gbps over a single link and 9.9 Gbps performance over a dual link implementation
- Narrow key slot for polarization

Reference Information

Product Specification: PS-74320-001

Packaging: 71781—Bag

74320—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates with: Versions of 88741, 74323 and other plug components

Designed In: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1,000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb. min.

Insertion Force to PCB: 10 lb. max.

Mating Force: 10 lb. max.

Unmating Force: 2.2 lb. min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and

100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

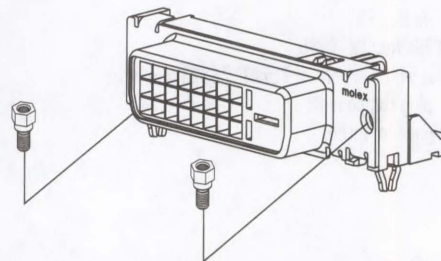
Operating Temperature: -20 to +85°C



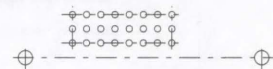
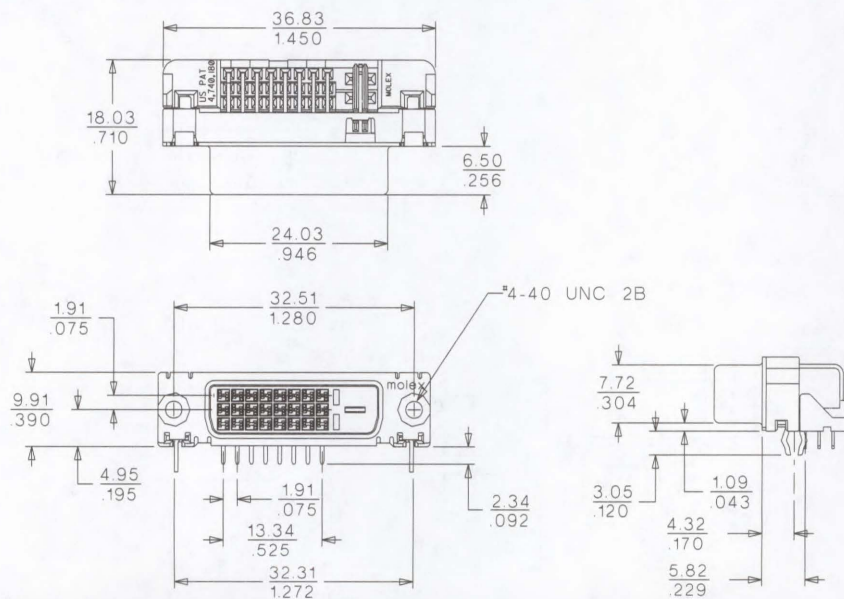
MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

74320/71781

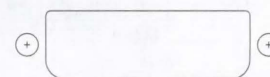
Panel Mount Through Hole Right Angle ATX with Forklocks



CATALOG DRAWING (FOR REFERENCE ONLY)



FOR P.C.B. LAYOUT AND PANEL
CUTOUT CONTACT FACTORY.



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Plating
74320-9000	Right Angle ATX Receptacle w/Forklocks	30μ" Gold
74320-9004	Right Angle ATX Receptacle w/Forklocks	Gold Flash
71781-0001	Jackpost	Clear Chromate
71781-0002	Self-Clinching Jackpost	Zinc/Yellow Chromate

Please contact Molex for additional tail length options

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95Gbps over a single link and 9.9Gbps over a dual link implementation
- Narrow key slot for polarization

Reference Information

Product Specification: PS-74320-001

Packaging: 71781—Bag

74320—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates with: Versions of 88741, 74323 and other plug components

Designed in: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb min.

Insertion Force to PCB: 10 lb max.

Mating Force: 10 lb max.

Unmating Force: 2.2 lb min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and

100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

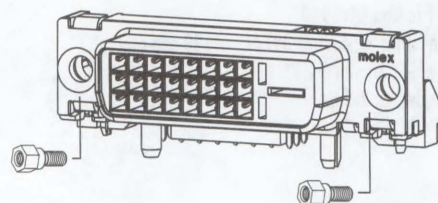
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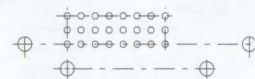
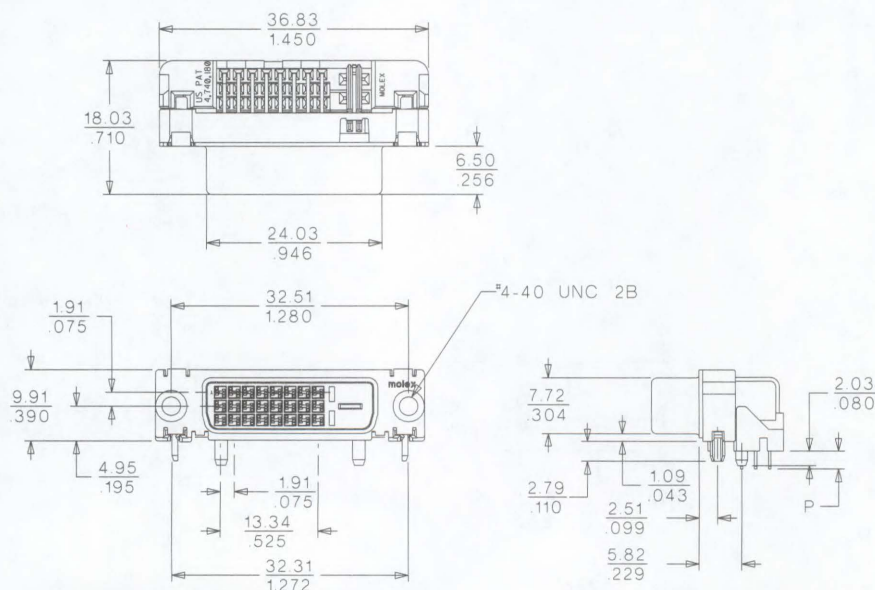
MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

74320/71781

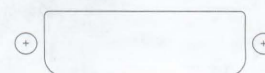
Panel Mount Through Hole Extended Height Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



FOR P.C.B. LAYOUT AND PANEL
CUTOUT CONTACT MOLEX
INCORPORATED.



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension P	Plating
74320-2010	Right Angle Receptacle	2.34 (.092)	Gold Flash
74320-2011	Right Angle Receptacle	2.34 (.092)	30μ" Gold
71781-0001	Jackpost		Clear Chromate
71781-0002	Self-Clinching Jackpost		Zinc/Yellow Chromate

Please contact Molex for additional tail length options

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports both analog and digital signals
- Plug and play interface
- Excellent EMI/RFI performance
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- The digital section supports 4.95 Gbps over a single link and 9.9 Gbps over a dual link.
- The MicroCross coax section supports a high-bandwidth of up to 2.5 GHz analog signal

Reference Information

Product Specification: PS-74320-001

Packaging: 71781 — Bag

74320 — Tray

UL File No.: E29179

CSA File No.: LR19980

Mates with: 88741, 74323 and other plug components

Designed In: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb. min.

Insertion Force to PCB: 10 lb. max.

Mating Force: 10 lb. max.

Unmating Force: 2.2 lb. min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and

100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

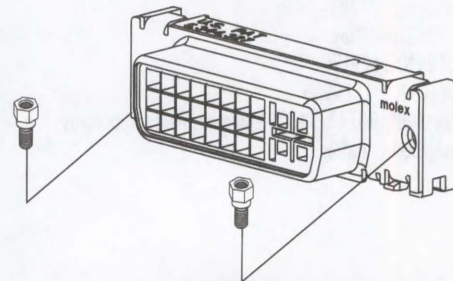
Operating Temperature: -20 to +85°C



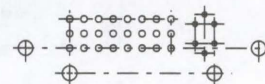
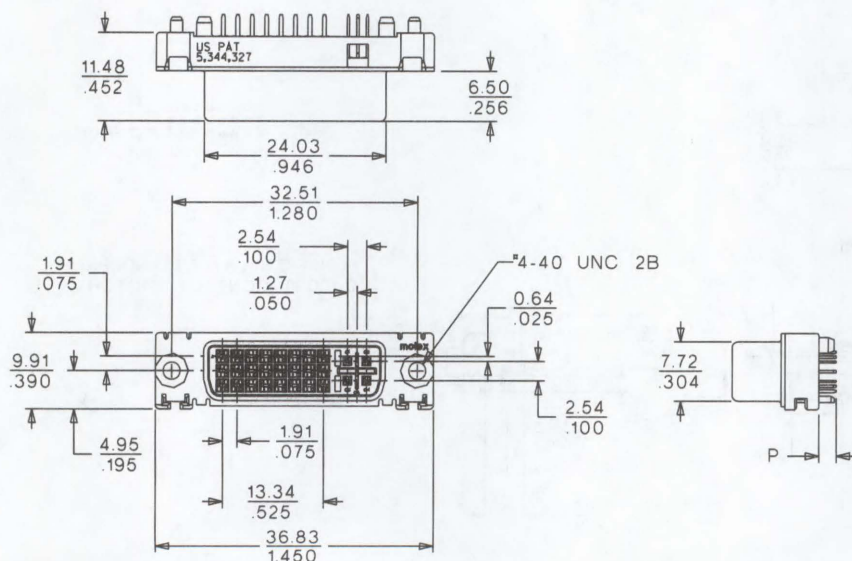
MicroCross™ DVI-I Digital/Analog Visual Interface Receptacle Header and Hardware

74320/71781

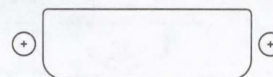
Panel Mount Through Hole Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



FOR P.C.B. LAYOUT AND PANEL
CUTOUT CONTACT FACTORY.



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension P	Plating
74320-3000	Vertical Receptacle	2.34 (.092)	30μ" Gold
74320-3004	Vertical Receptacle	2.34 (.092)	Gold Flash
71781-0001	Jackpost		Clear Chromate
71781-0002	Self-Clinching Jackpost		Zinc/Yellow Chromate

Please contact Molex for additional tail length options

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports both analog and digital signals
- Plug and play interface
- Excellent EMI/RFI performance
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- The digital section supports 4.95 Gbps over a single link and 9.9 Gbps over a dual link.
- The MicroCross coax section supports a high-bandwidth of up to 2.5 GHz analog signal

Reference Information

Product Specification: PS-74320-001

Packaging: 71781—Bag

74320—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 88741, 74323 and other plug components

Designed In: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb. min.

Insertion Force to PCB: 10 lb. max.

Mating Force: 10 lb. max.

Unmating Force: 2.2 lb. min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and

100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

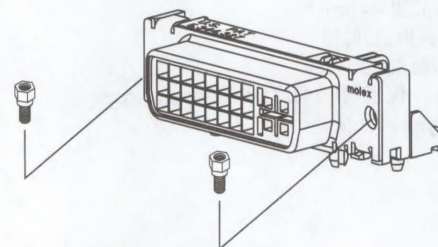
Operating Temperature: -20 to +85°C



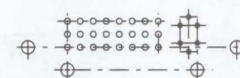
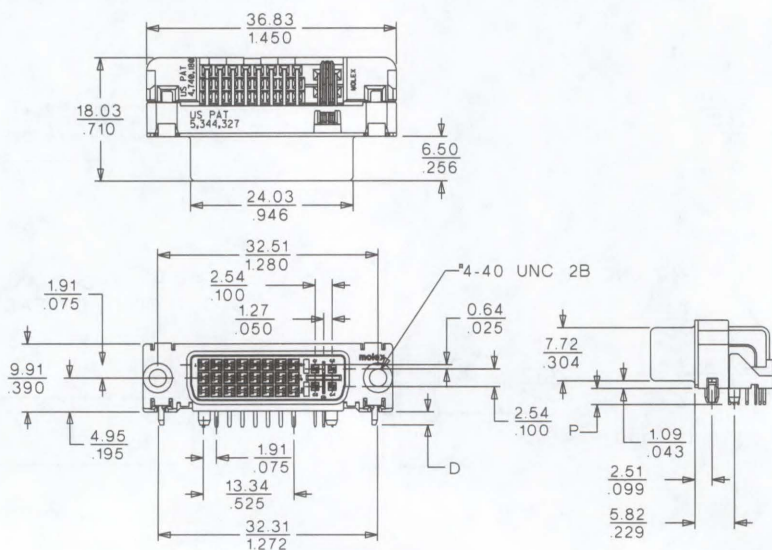
MicroCross™ DVI-I Digital/Analog Visual Interface Receptacle Header and Hardware

74320/71781

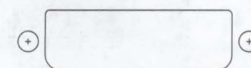
Panel Mount Through Hole Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



FOR P.C.B. LAYOUT AND PANEL
CUTOUT CONTACT FACTORY.



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension		Plating
		D	P	
74320-1000	Right Angle Receptacle	2.03 (.080)	2.34 (.092)	30μ" Gold
74320-1004	Right Angle Receptacle	2.03 (.080)	2.34 (.092)	Gold Flash
71781-0001	Jackpost			Clear Chromate
71781-0002	Self-Clinching Jackpost			Zinc/Yellow Chromate

Please contact Molex for additional tail length options

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports both analog and digital signals
- Excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- The digital section supports 4.95Gbps over a single link and 9.9Gbps over a dual link
- The MicroCross coax section supports a high-bandwidth of up to 2.5 GHz analog signal

Reference Information

Product Specification: PS-74320-001

Packaging: 71781—Bag

74320—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates with: 88741, 74323 and other plug components

Designed In: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb. min.

Insertion Force to PCB: 10 lb. max.

Mating Force: 10 lb. max.

Unmating Force: 2.2 lb. min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and

100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

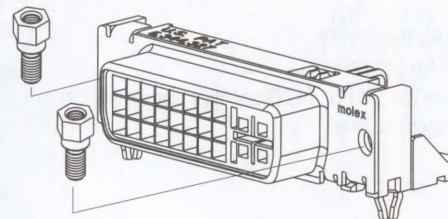
Operating Temperature: -20 to +85°C



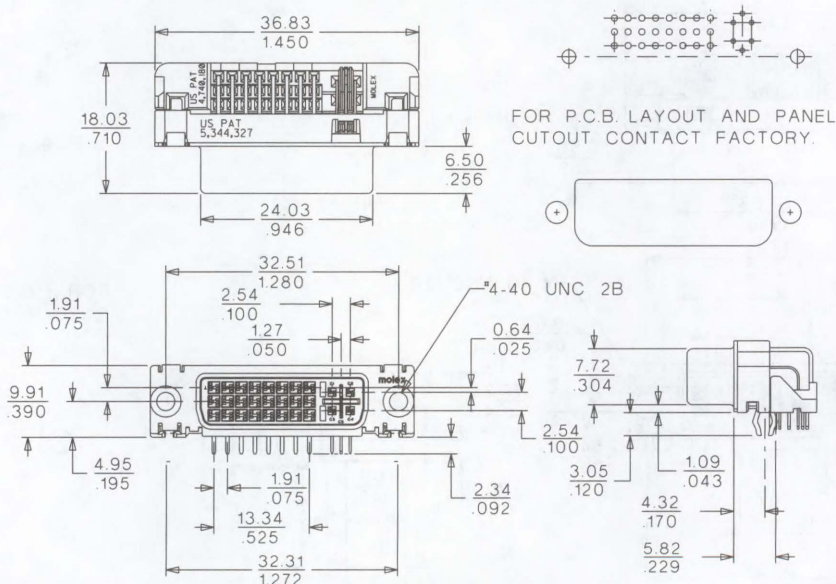
MicroCross™ DVI-I Digital/Analog Visual Interface Receptacle Header and Hardware

74320/71781

Panel Mount Through Hole Right Angle with Forklocks



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Plating
74320-9010	Right Angle Receptacle with Forklocks	30μ" Gold
74320-9014	Right Angle Receptacle with Forklocks	Gold Flash
71781-0001	Jackpost	Clear Chromate
71781-0002	Self-Clinching Jackpost	Zinc/Yellow Chromate

Please contact Molex for additional tail length options

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports both analog and digital signals
- Plug and play interface
- Excellent EMI/RFI performance
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- The digital section supports 4.95 Gbps over a single link and 9.9 Gbps over a dual link
- The MicroCross coax section supports a high-bandwidth of up to 2.5 GHz analog signal

Reference Information

Product Specification: PS-74320-001

Packaging: 71781—Bag

74320—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 88741, 74323 and other plug components

Designed In: Inches

Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb min.

Insertion Force to PCB: 10 lb max.

Mating Force: 10 lb max.

Unmating Force: 2.2 lb min.

Durability: 100 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact —30μ" Gold or Gold flash in contact area and 100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

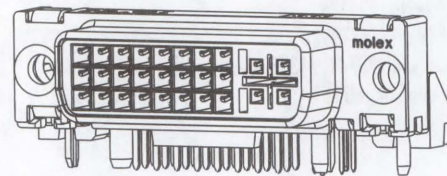
Operating Temperature: -20 to +85°C



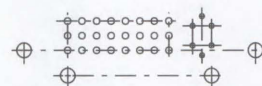
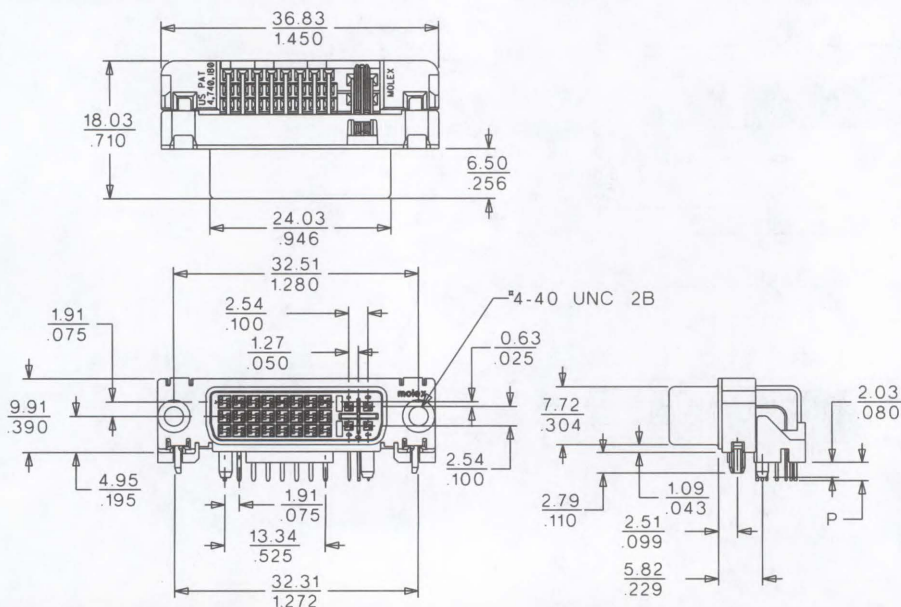
MicroCross™ DVI-I Digital/Analog Visual Interface Receptacle Header and Hardware

74320/71781

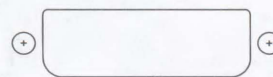
**Panel Mount, Through Hole,
Extended Height
Right Angle**



CATALOG DRAWING (FOR REFERENCE ONLY)



FOR P.C.B. LAYOUT AND PANEL
CUTOUT CONTACT FACTORY.



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension P	Plating
74320-2020	Right Angle Receptacle	2.34 (.092)	Gold Flash
74320-2021	Right Angle Receptacle	2.34 (.092)	30μ" Gold
71781-0001	Jackpost		Clear Chromate
71781-0002	Self-Clinching Jackpost		Zinc/Yellow Chromate

Contact Molex for additional tail length options.

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 2.5 GHz for the analog interface
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles (analog or integrated only)

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: Signal—1000 MΩ min.

Coaxial—3300 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

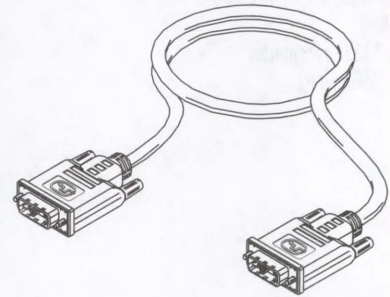
Durability: 100 cycles



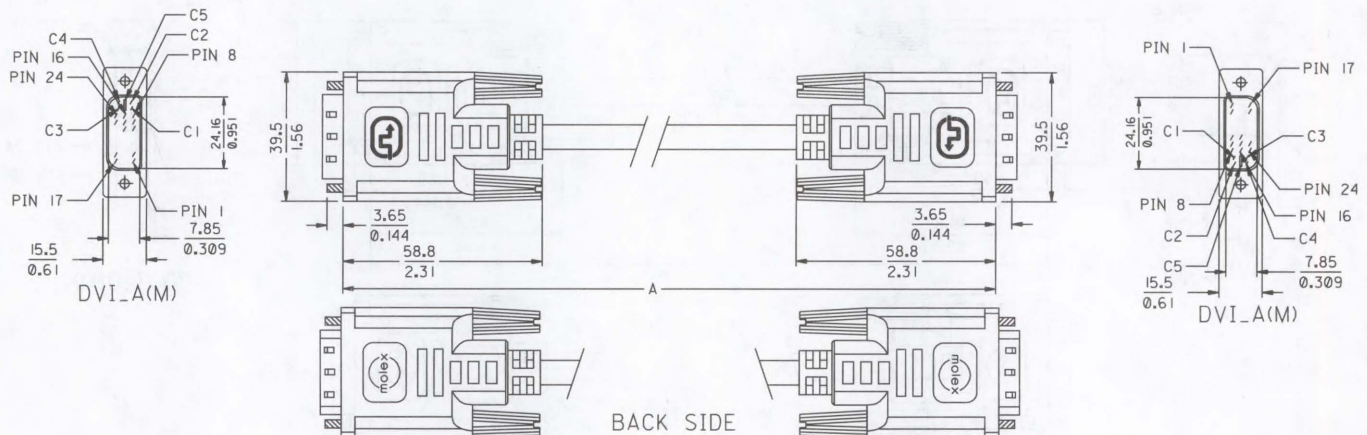
MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

DVI-Analog to DVI-Analog



CATALOG DRAWING (FOR REFERENCE ONLY)



I/O Connectors

N

ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-8200	2m (6.56ft)	Black
88741-8210	3m (9.84ft)	Black
88741-8220	5m (16.40ft)	Black
88741-8201	2m (6.56ft)	White
88741-8211	3m (9.84ft)	White
88741-8221	5m (16.40ft)	White

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 1.65 Gbps bandwidth per differential pair for a total of 4.95 Gbps
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001
Packaging: Bag
Mates With: 74320 receptacles
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 1.5A
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 MΩ min.

Mechanical

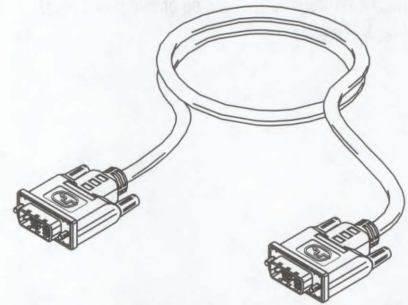
Mating Force: 10.0 lbf (4.5kgf) max.
Unmating Force: 2.2 lbf (1.0kgf) min.
Durability: 100 cycles



MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

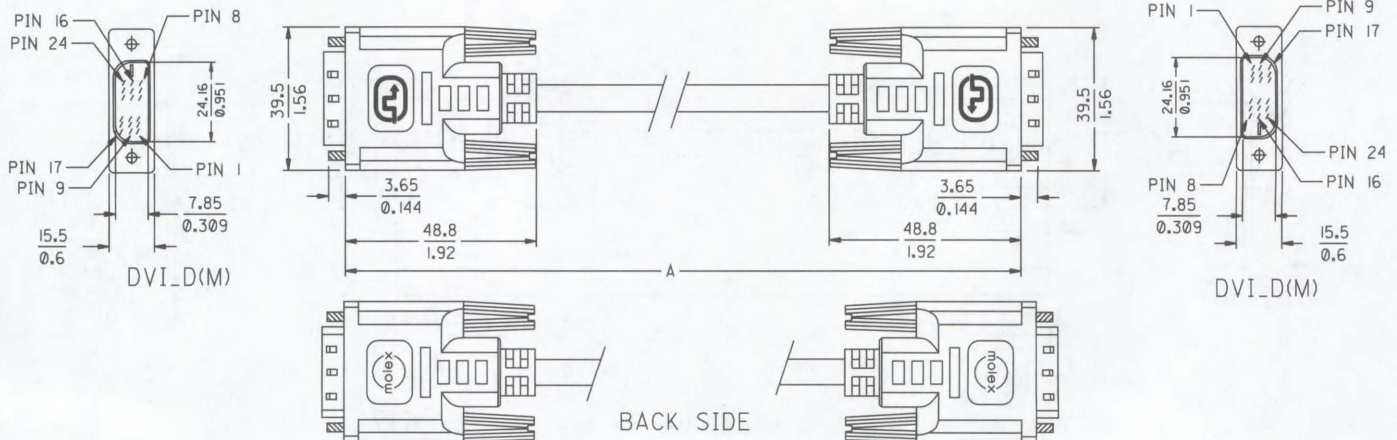
DVI-Digital to DVI-Digital Single Link



CATALOG DRAWING (FOR REFERENCE ONLY)

I/O Connectors

N



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-8000	2m (6.56ft)	Black
88741-8010	3m (9.84ft)	Black
88741-8020	5m (16.40ft)	Black
88741-8001	2m (6.56ft)	White
88741-8011	3m (9.84ft)	White
88741-8021	5m (16.40ft)	White

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 1.65 Gbps bandwidth per differential pair for a total of 9.9 Gbps
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

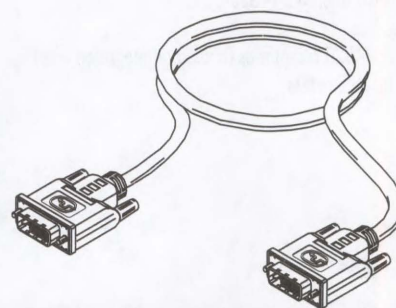
Durability: 100 cycles



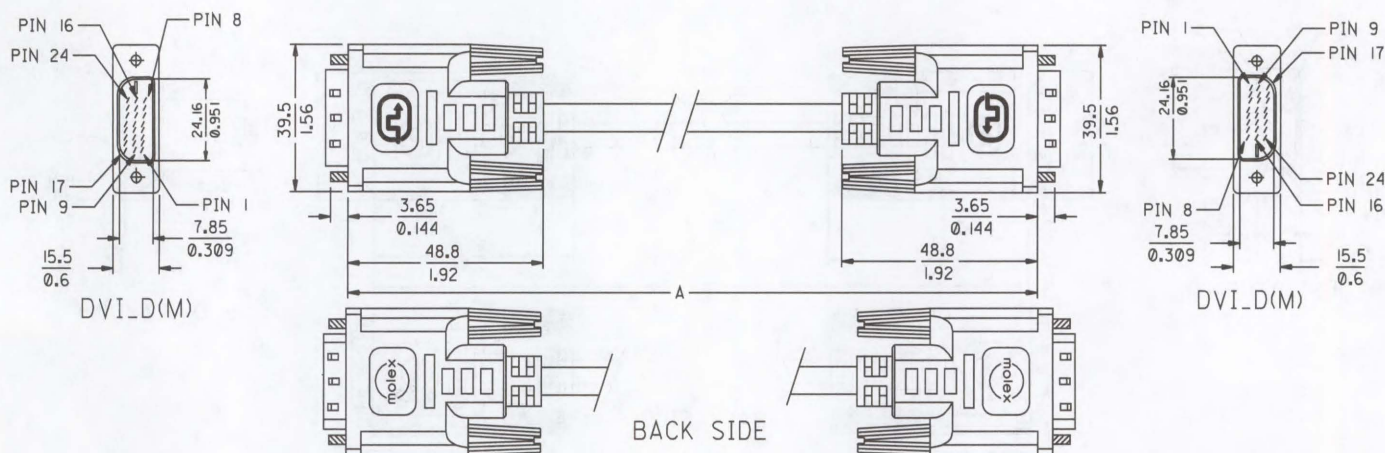
MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

DVI-Digital to DVI-Digital Dual Link



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-8100	2m (6.56ft)	Black
88741-8110	3m (9.84ft)	Black
88741-8120	5m (16.40ft)	Black
88741-8101	2m (6.56ft)	White
88741-8111	3m (9.84ft)	White
88741-8121	5m (16.40ft)	White

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 1.65 Gbps bandwidth per differential pair for a total of 4.95 Gbps and up to 2.5 GHz for the analog interface
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles (analog or integrated only)

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: Signal—1000 MΩ min.

Coaxial—3300 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

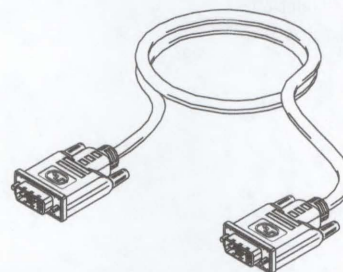
Durability: 100 cycles



MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

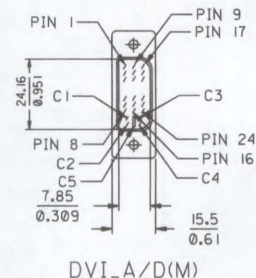
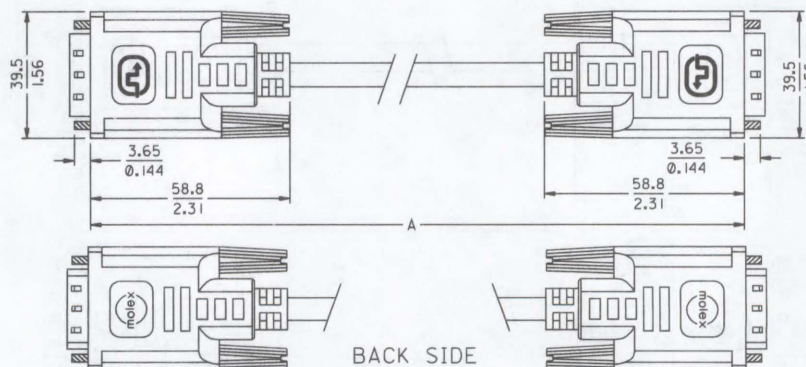
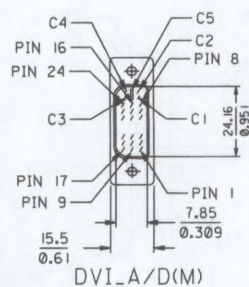
DVI-Digital/Analog to DVI-Digital/Analog Single Link



CATALOG DRAWING (FOR REFERENCE ONLY)

I/O Connectors

N



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-9000	2m (6.56ft)	Black
88741-9010	3m (9.84ft)	Black
88741-9020	5m (16.40ft)	Black
88741-9001	2m (6.56ft)	White
88741-9011	3m (9.84ft)	White
88741-9021	5m (16.40ft)	White

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 2.5 GHz for the analog interface
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles (analog or integrated only)

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: Signal—1000 MΩ min.

Coaxial—3300 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

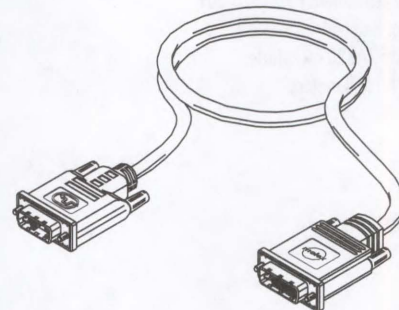
Durability: 100 cycles



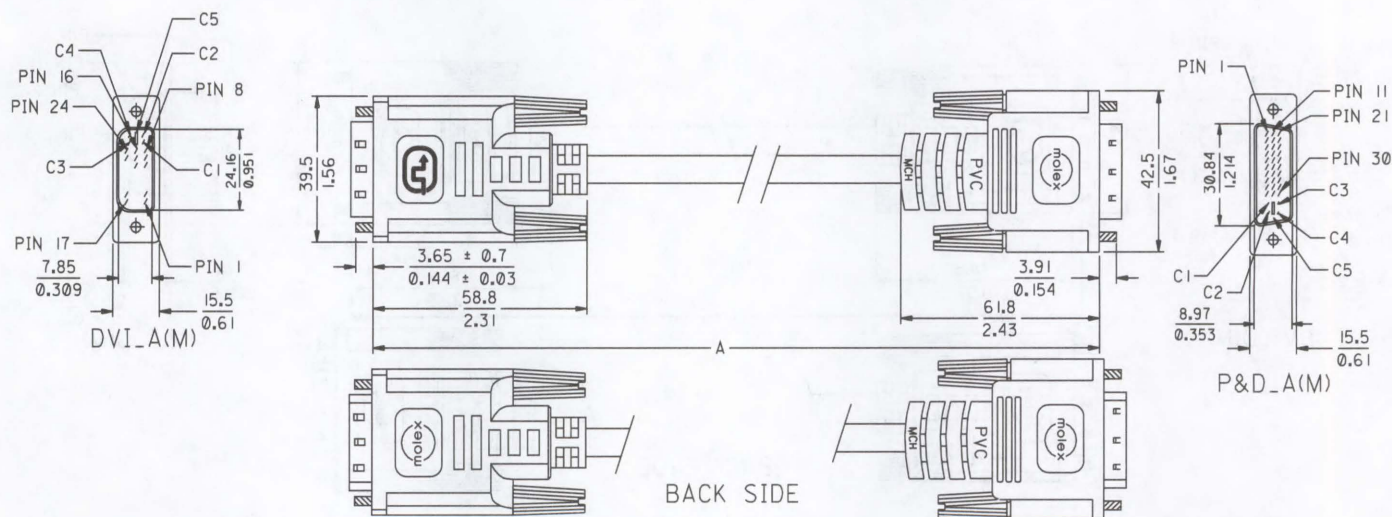
MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

DVI-Analog to P&D-Analog



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-8400	2m (6.56ft)	Black
88741-8410	3m (9.84ft)	Black
88741-8420	5m (16.40ft)	Black
88741-8401	2m (6.56ft)	White
88741-8411	3m (9.84ft)	White
88741-8421	5m (16.40ft)	White

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 1.65 Gbps bandwidth per differential pair for a total of 4.95 Gbps
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001
Packaging: Bag
Mates With: 74320 receptacles
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 1.5A
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 MΩ min.

Mechanical

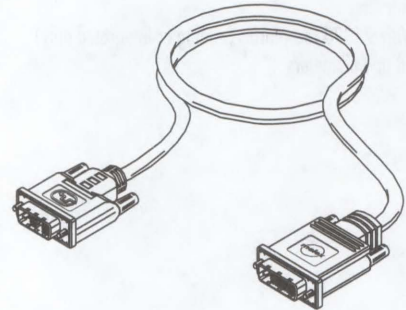
Mating Force: 10.0 lbf (4.5kgf) max.
Unmating Force: 2.2 lbf (1.0kgf) min.
Durability: 100 cycles



MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

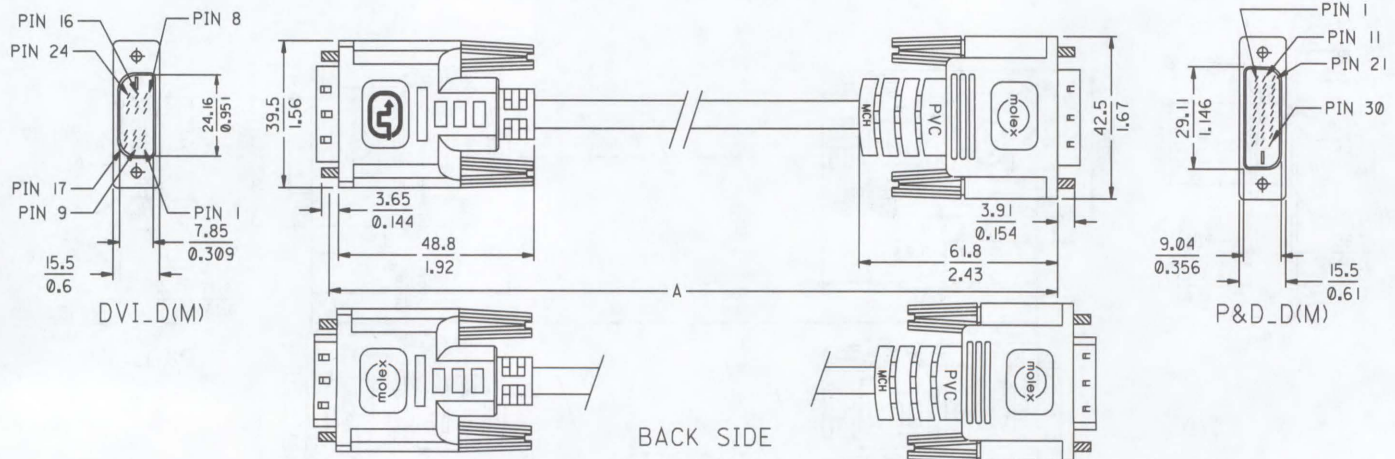
DVI-Digital to P&D-Digital



CATALOG DRAWING (FOR REFERENCE ONLY)

I/O Connectors

N



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-8500	2m (6.56ft)	Black
88741-8510	3m (9.84ft)	Black
88741-8520	5m (16.40ft)	Black
88741-8501	2m (6.56ft)	White
88741-8511	3m (9.84ft)	White
88741-8521	5m (16.40ft)	White

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 2.5 GHz for the analog interface
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles (analog or integrated only)

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: Signal—1000 MΩ min.

Coaxial—3300 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

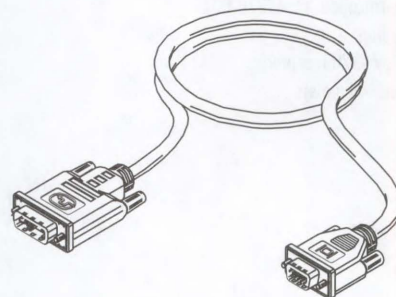
Durability: 100 cycles



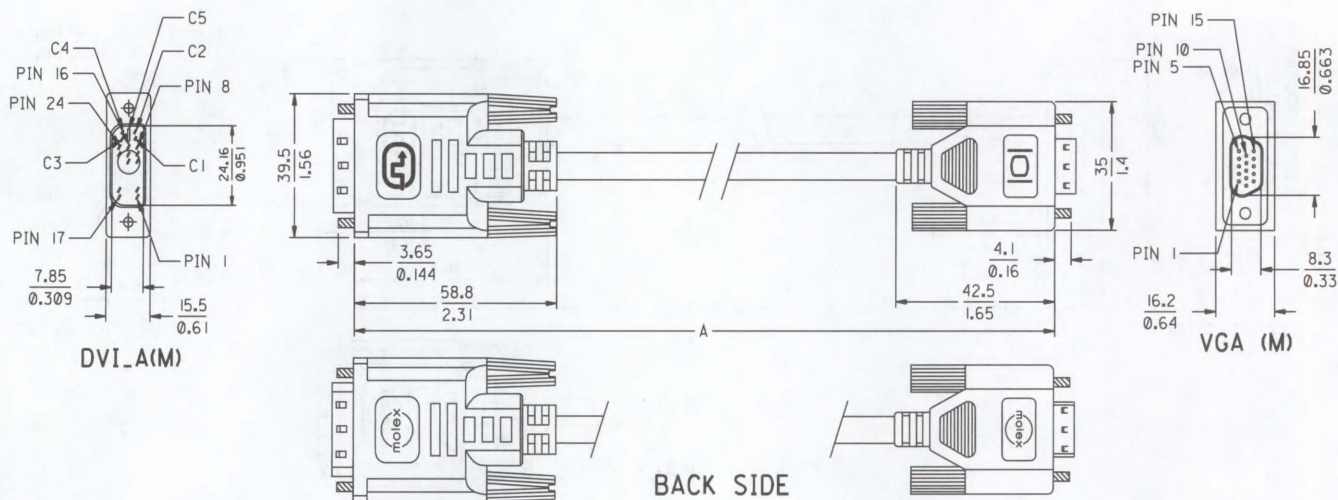
MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

DVI-Analog to VGA



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-8300	2m (6.56ft)	Black
88741-8310	3m (9.84ft)	Black
88741-8320	5m (16.40ft)	Black
88741-8301	2m (6.56ft)	White
88741-8311	3m (9.84ft)	White
88741-8321	5m (16.40ft)	White

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 1.65 Gbps bandwidth per differential pair for a total of 4.95 Gbps
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

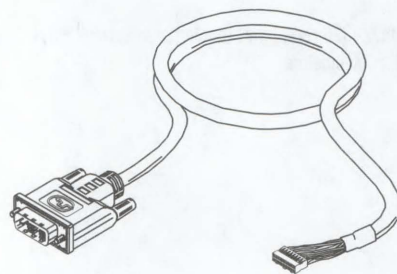
Durability: 100 cycles



MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

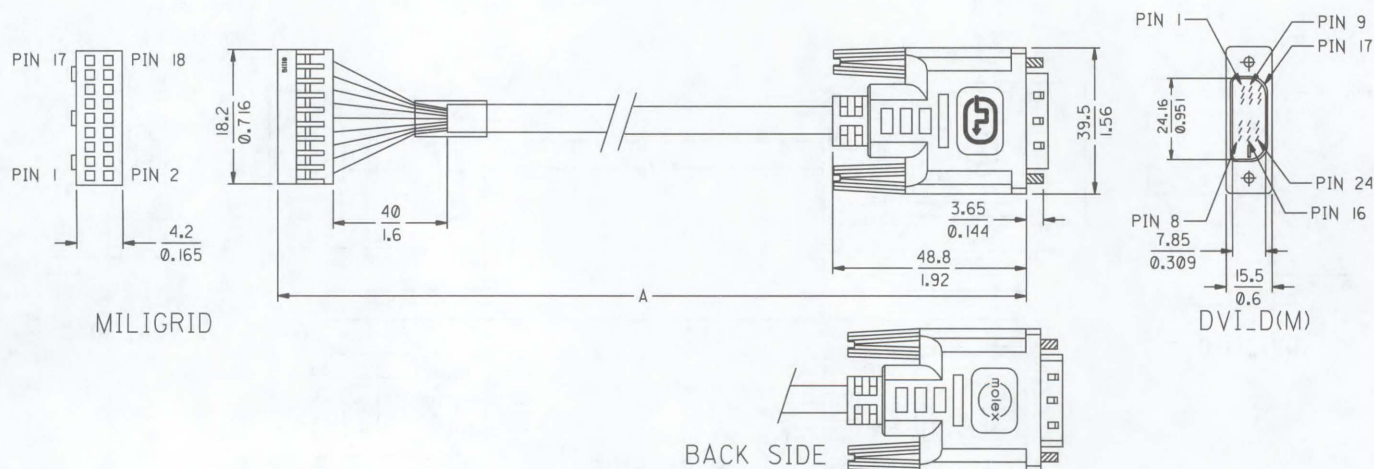
DVI-Digital to Captive Cable



CATALOG DRAWING (FOR REFERENCE ONLY)

I/O Connectors

N



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-9600	2m (6.56ft)	Black
88741-9610	3m (9.84ft)	Black
88741-9620	5m (16.40ft)	Black
88741-9601	2m (6.56ft)	White
88741-9611	3m (9.84ft)	White
88741-9621	5m (16.40ft)	White

FEATURES AND SPECIFICATIONS

Features and Benefits

- LFH™ (Low Force Helix) rugged contacts offer increased cycle life, mechanical reliability and optimal signal integrity
- Supports up to 1.65 Gbps bandwidth per differential pair for a total of 4.95 Gbps
- Fully shielded against RFI/EMI
- Grounding detents on mating shell
- Positive retention jackscrew: thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

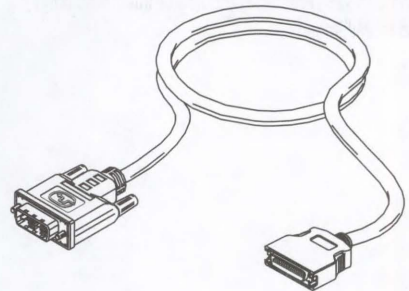
Durability: 100 cycles



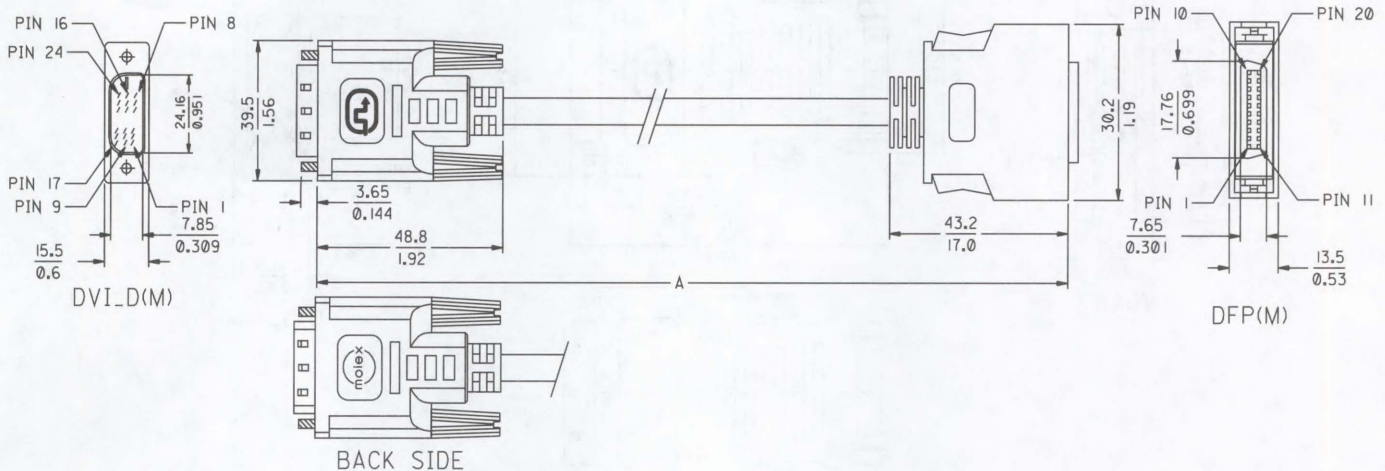
MicroCross™ DVI Digital Visual Interface Shielded I/O Cable Assembly

88741

DVI-Digital to DFP



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Dimension A	Color
88741-8600	2m (6.56ft)	Black
88741-8610	3m (9.84ft)	Black
88741-8620	5m (16.40ft)	Black
88741-8601	2m (6.56ft)	White
88741-8611	3m (9.84ft)	White
88741-8621	5m (16.40ft)	White

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- High cycle, dual beam, LFH™ (Low Force Helix) contacts
- Polarization achieved by a "D" shaped housing/shield
- Positive retention jackscrow: thread 4-40 UNC-2A&B
- Compact size for space efficiency
- 360° shielding from EMI/RFI

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles (analog or integrated only)

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

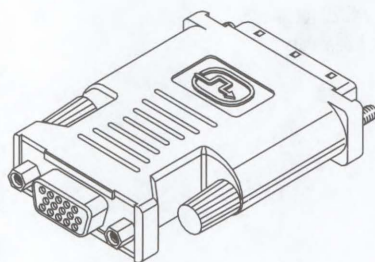
Durability: 100 cycles



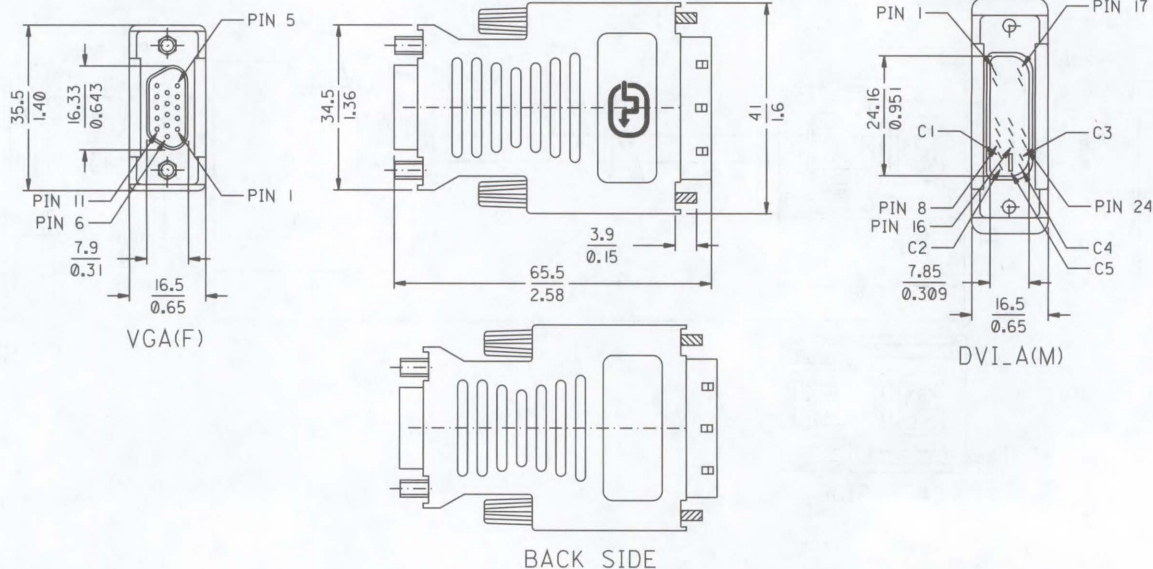
MicroCross™ DVI Digital Visual Interface Shielded I/O Adapter

88741

DVI-Analog Plug to VGA Receptacle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.
88741-8700

FEATURES AND SPECIFICATIONS

Features and Benefits

- High cycle, dual beam, LFH™ (Low Force Helix) contacts
- Polarization achieved by a "D" shaped housing/shield
- Positive retention jackscrew: thread 4-40 UNC-2A&B
- Compact size for space efficiency
- 360° shielding from EMI/RFI

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 88741 cable assemblies

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

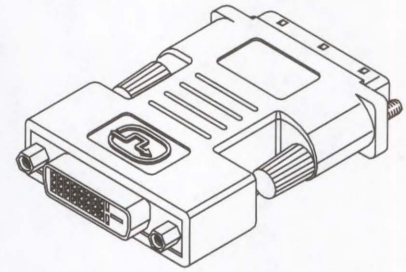
Durability: 100 cycles



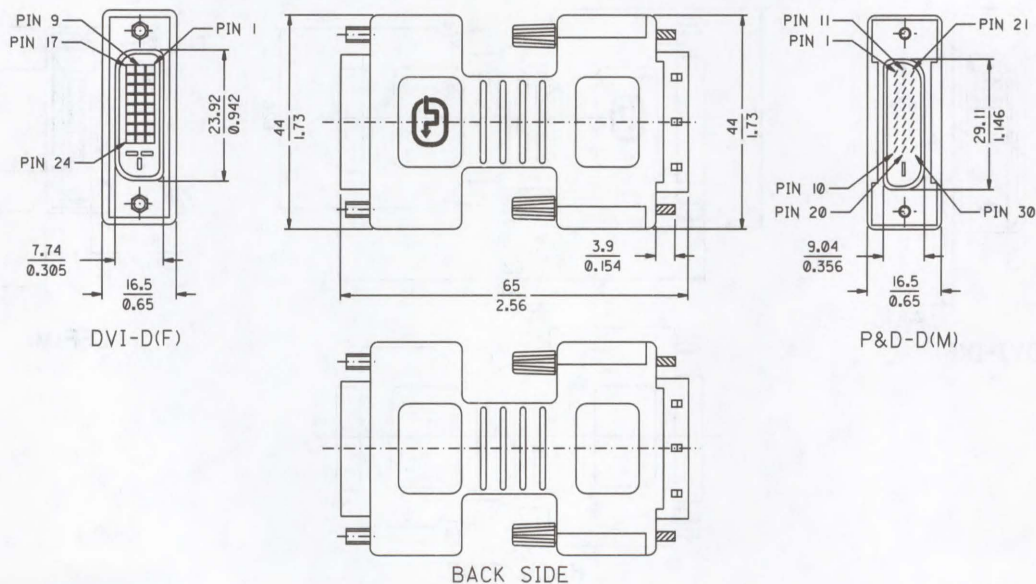
MicroCross™ DVI Digital Visual Interface Shielded I/O Adapter

88741

DVI-Digital Receptacle to P&D-Digital Plug



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.
88741-9200

FEATURES AND SPECIFICATIONS

Features and Benefits

- High cycle, dual beam, LFH™ (Low Force Helix) contacts
- Polarization achieved by a "D" shaped housing/shield
- Positive retention jackscrew: thread 4-40 UNC-2A&B
- Compact size for space efficiency
- 360° shielding from EMI/RFI

Reference Information

Product Specification: PS-74320-001
 Packaging: Bag
 Mates With: 88741 cable assemblies
 Designed In: Millimeters

Electrical

Voltage: 40V
 Current: 1.5A
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 1000 MΩ min.

Mechanical

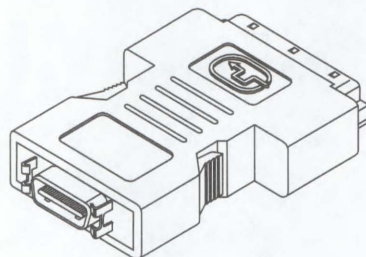
Mating Force: 10.0 lbf (4.5kgf) max.
 Unmating Force: 2.2 lbf (1.0kgf) min.
 Durability: 100 cycles



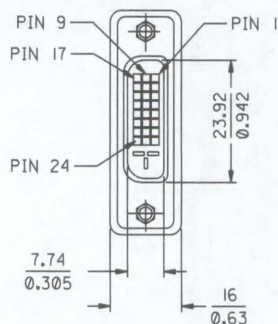
MicroCross™ DVI Digital Visual Interface Shielded I/O Adapter

88741

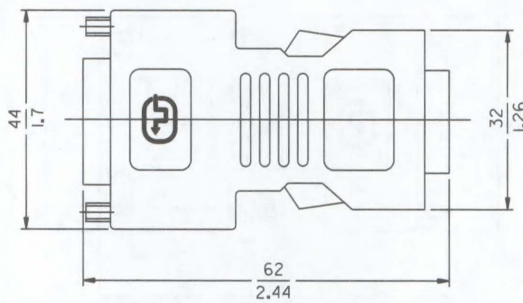
DVI-Digital Receptacle to DFP Plug



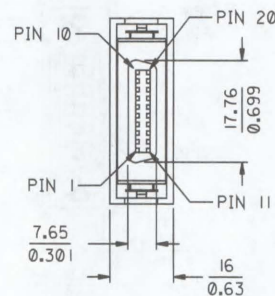
CATALOG DRAWING (FOR REFERENCE ONLY)



DVI-D(F)



BACK SIDE



DFP(M)

ORDERING INFORMATION

Order No.
88741-9300

FEATURES AND SPECIFICATIONS

Features and Benefits

- High cycle, dual beam, LFH™ (Low Force Helix) contacts
- Polarization achieved by a "D" shaped housing/shield
- Positive retention jackscrew: thread 4-40 UNC-2A&B
- Compact size for space efficiency
- 360° shielding from EMI/RFI

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 M Ω min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

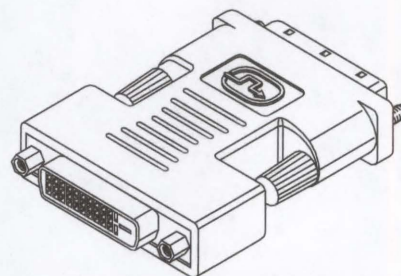
Durability: 100 cycles



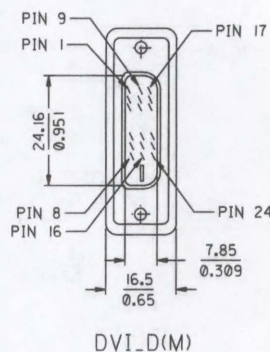
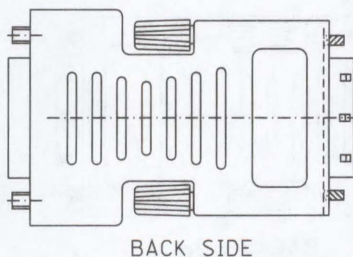
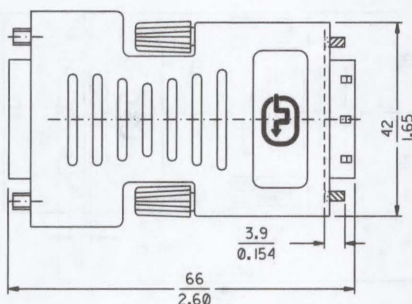
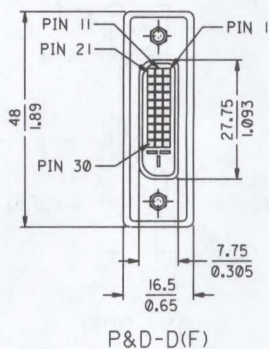
MicroCross™ DVI Digital Visual Interface Shielded I/O Adapter

88741

**DVI-Digital Plug to
P&D-Digital Receptacle**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.
88741-8900

FEATURES AND SPECIFICATIONS

Features and Benefits

- High cycle, dual beam, LFH™ (Low Force Helix) contacts
- Polarization achieved by a "D" shaped housing/shield
- Positive retention jackscrew: thread 4-40 UNC-2A&B
- Compact size for space efficiency
- 360° shielding from EMI/RFI

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 74320 receptacles

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

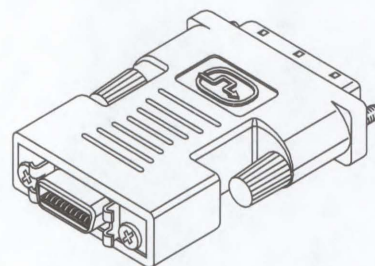
Durability: 100 cycles



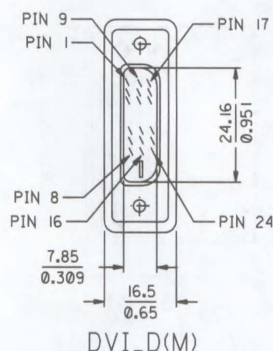
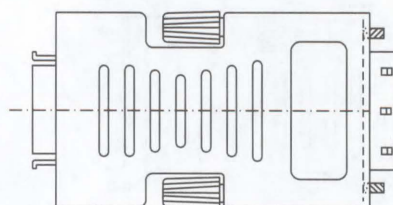
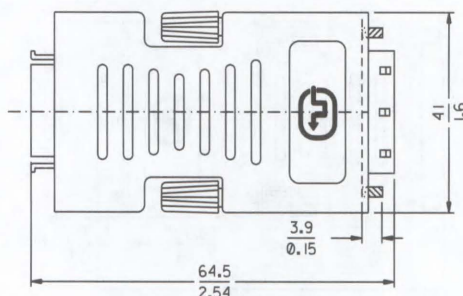
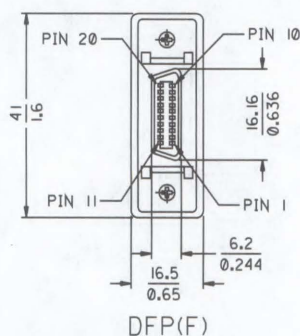
MicroCross™ DVI Digital Visual Interface Shielded I/O Adapter

88741

DVI-Digital Plug to DFP Receptacle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.
88741-8800

FEATURES AND SPECIFICATIONS

Features and Benefits

- High cycle, dual beam, LFH™ (Low Force Helix) contacts
- Polarization achieved by a "D" shaped housing/shield
- Positive retention jackscrew: thread 4-40 UNC-2A&B
- Compact size for space efficiency
- 360° shielding from EMI/RFI

Reference Information

Product Specification: PS-74320-001

Packaging: Bag

Mates With: 88741 cable assemblies

Designed In: Millimeters

Electrical

Voltage: 40V

Current: 1.5A

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 10.0 lbf (4.5kgf) max.

Unmating Force: 2.2 lbf (1.0kgf) min.

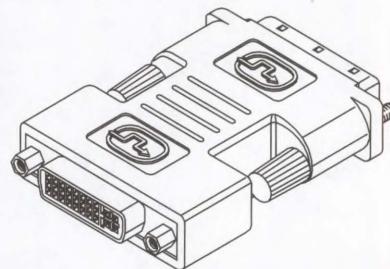
Durability: 100 cycles



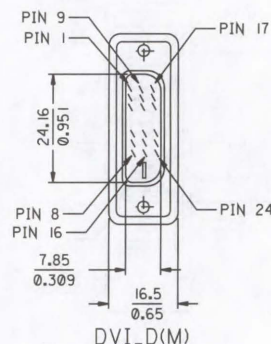
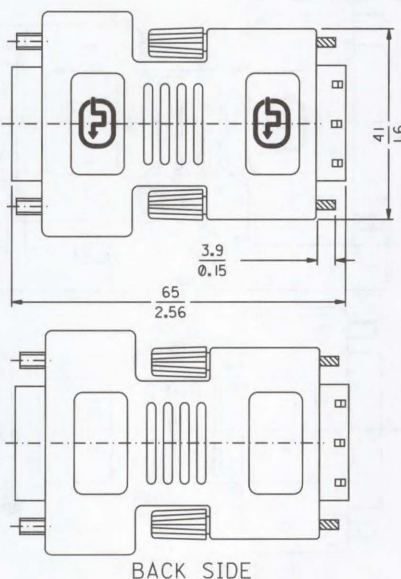
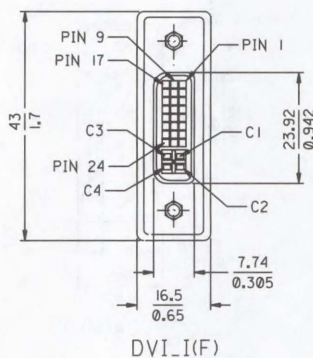
MicroCross™ DVI Digital Visual Interface Shielded I/O Adapter

88741

DVI-D with I Housing Receptacle to DVI Digital Plug



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.
88741-9400

FEATURES AND SPECIFICATIONS

Features and Benefits

- High cycle, dual beam, LFH™ (Low Force Helix) contacts
- Polarization achieved by a "D" shaped housing/shield
- Positive retention jackscrew: thread 4-40 UNC-2A&B
- Compact size for space efficiency
- 360° shielding from EMI/RFI

Reference Information

Product Specification: PS-74320-001
Packaging: Bag
Mates With: 88741 cable assemblies
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 1.5A
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 MΩ min.

Mechanical

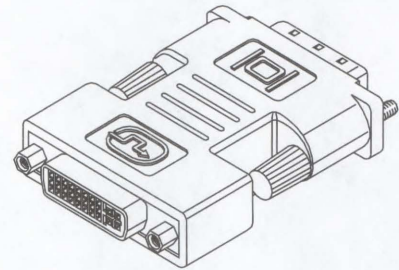
Mating Force: 10.0 lbf (4.5kgf) max.
Unmating Force: 2.2 lbf (1.0kgf) min.
Durability: 100 cycles



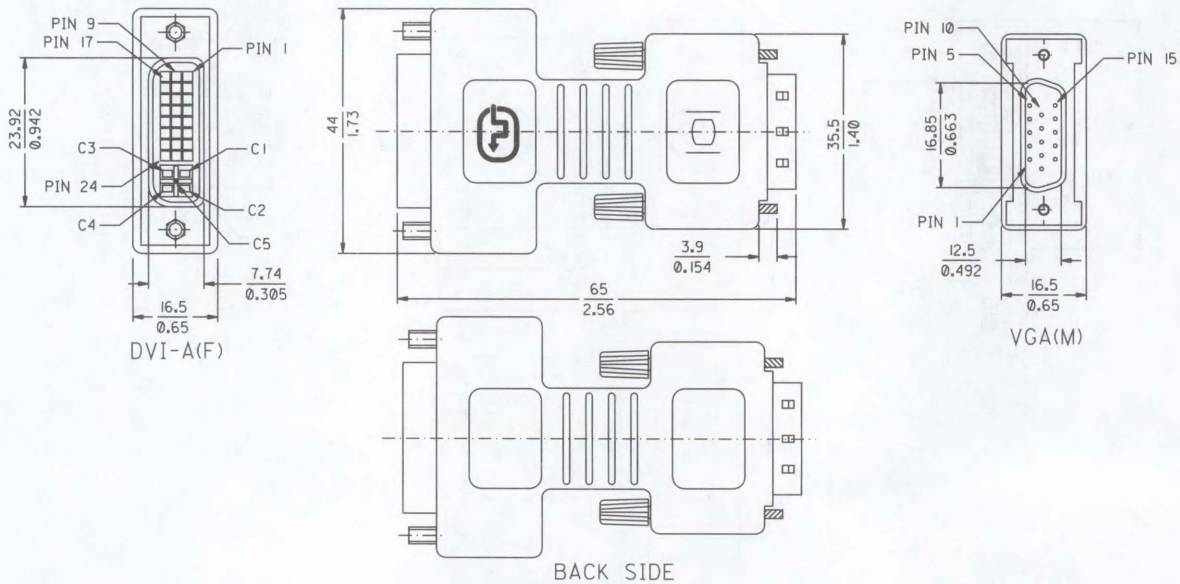
MicroCross™ DVI Digital Visual Interface Shielded I/O Adapter

88741

DVI-I-Analog Receptacle to VGA Plug



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.
88741-9100

FEATURES AND SPECIFICATIONS

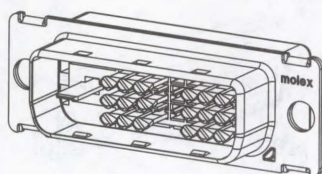
Features and Benefits

- EMI can kits provide 360° shielding for excellent EMI/RFI performance
- Pre-loaded plugs eliminate unnecessary manufacturing steps and extra components, providing a pre-assembled/packaged solution
- Staggered and widened plug tails for easy wire solder termination
- Crimp ferrule options are available for building cable assemblies with different O.D. dimensions

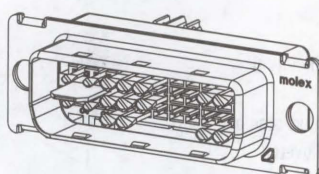
Reference Information

Product Specification: PS-74320-001
Termination Specification: ES-74320-002
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74320
Designed In: Inches

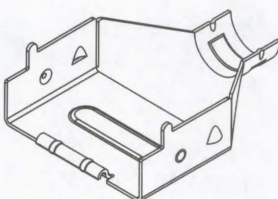
molex® MicroCross™ DVI Plug Components



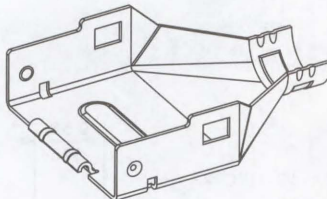
Single Link Digital Plug Shown



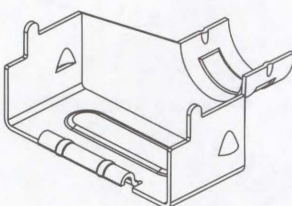
Analog Plug Shown



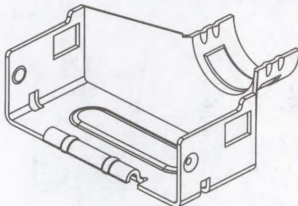
Digital Boot



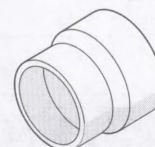
Analog and Integrated Boot



Digital Thumbscrew



Analog and Integrated Thumbscrew



*Crimp Ferrule

CABLE PLUG COMPONENTS (Recommended bills of material required to build a MicroCross DVI cable assembly)

DVI Digital Single Link Components

Description	Order No.	Quantity
Single Link Plug	74323-2001	1
EMI Can Kit	88789-9332	1
Boot	88743-2202	1
Crimp Ferrule	*73772-000X	1
Thumbscrew	88780-6006	2

DVI Digital Dual Link Components

Description	Order No.	Quantity
Dual Link Plug	74323-2003	1
EMI Can Kit	88789-9332	1
Boot	88743-2202	1
Crimp Ferrule	*73772-000X	1
Thumbscrew	88780-6006	2

DVI Analog Components

Description	Order No.	Quantity
Analog Plug	74323-2011	1
EMI Can Kit	88789-9333	1
Boot	88743-2302	1
Crimp Ferrule	*73772-000X	1
Thumbscrew	88780-6005	2

DVI Integrated Analog and Digital Single Link Components

Description	Order No.	Quantity
Integrated Single Link Plug	74323-2031	1
EMI Can Kit	88789-9333	1
Boot	88743-2302	1
Crimp Ferrule	*73772-000X	1
Thumbscrew	88780-6005	2

DVI Integrated Analog and Digital Dual Link Components

Description	Order No.	Quantity
Integrated Dual Link Plug	74323-2033	1
EMI Can Kit	88789-9333	1
Boot	88743-2302	1
Crimp Ferrule	*73772-000X	1
Thumbscrew	88780-6005	2

*Crimp Ferrule Options

Order No.	Cable OD
73772-0001	6.25-8.16mm (.246-.321")
73772-0002	8.17-9.00mm (.322-.354")
73772-0003	9.01-9.84mm (.355-.387")
73772-0004	9.85-10.67mm (.388-.420")

For component dimensions, contact Molex
DVI plugs have other plating options available, contact Molex

FEATURES AND SPECIFICATIONS

Features and Benefits

- MicroCross™ coax section allows up to 2.5 GHz analog performance
- LFH™ contact design—rugged and reliable
- VESA P&D-A standard interface
- Excellent EMI/RFI performance
- Surface Mount Compatible
- Includes USB, IEEE 1394-1995 and audio functions

Reference Information

Product Specification: PS-71182

Packaging: 71781—Bag

71182—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: New plug design. Contact Molex.

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.5A

Contact Resistance: 20mΩ initial

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1lb min.

Insertion Force to PCB: 10 lb max.

Mating Force: 10 lb max.

Unmating Force: 3 lb min.

Durability: 500 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold in contact area and 150μ"

Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

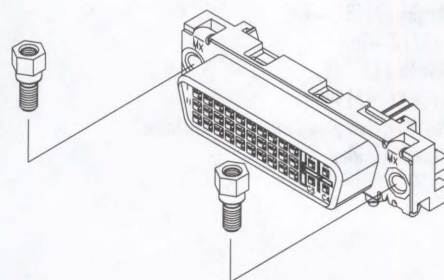
Operating Temperature: -20 to +85°C



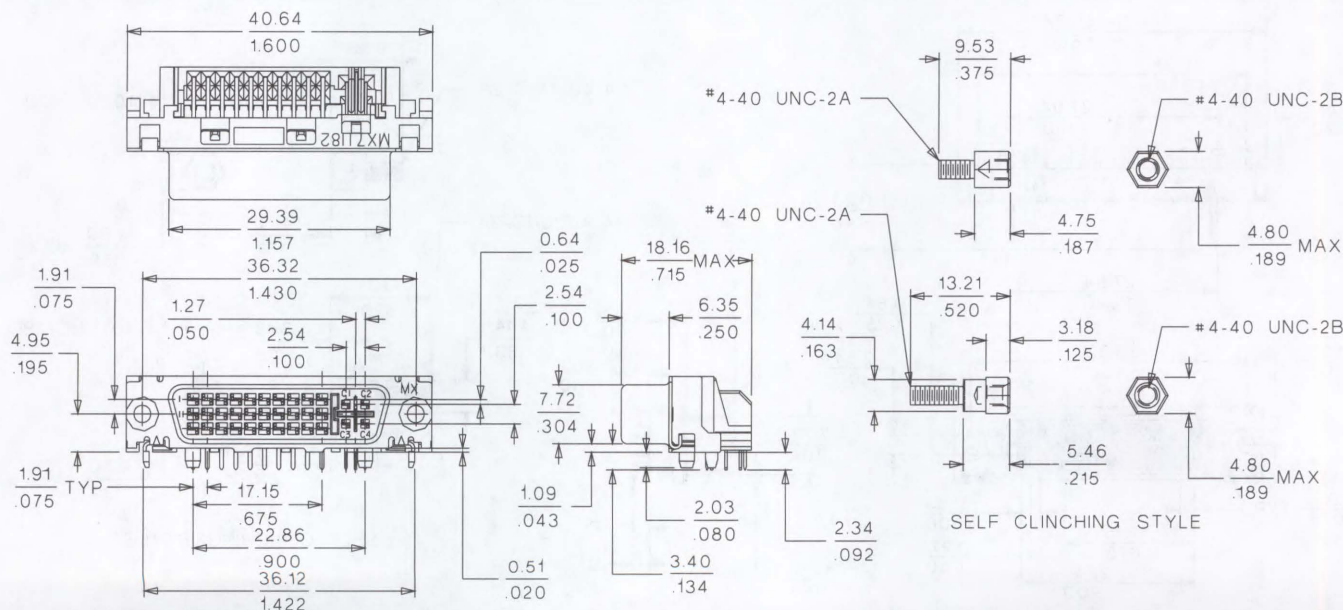
MicroCross™ P&D-A (Formerly EVC) Receptacle Header and Hardware

71182/71781

Right Angle, Panel Mount Through Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Order No.	Description	Plating
71182-2000	Right Angle Receptacle	30μ" Gold
71781-0001	Jackpost	Clear Chromate
71781-0002	Self-Clinching Jackpost	Zinc/Yellow Chromate

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports both analog and digital interfaces
- MicroCross™ coax section allows up to 2.5 GHz performance
- LFH™ contact design is rugged and reliable
- VESA P&D standard interface
- Excellent EMI/RFI performance
- Supports up to 4.95 Gbps
- Surface Mount Compatible
- Includes USB and IEEE 1394-1995 functions

Reference Information

Product Specification: PS-71182

Packaging: 71781—Bag

73712—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: New plug design. Contact Molex.

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.5A

Contact Resistance: 20mΩ initial max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb min.

Insertion Force to PCB: 10 lb max.

Mating Force: 10 lb max.

Unmating Force: 2.2 lb. min.

Durability: 500 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold in contact area and 150μ"

Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

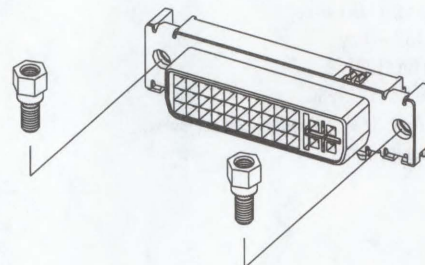
Operating Temperature: -20 to +85°C



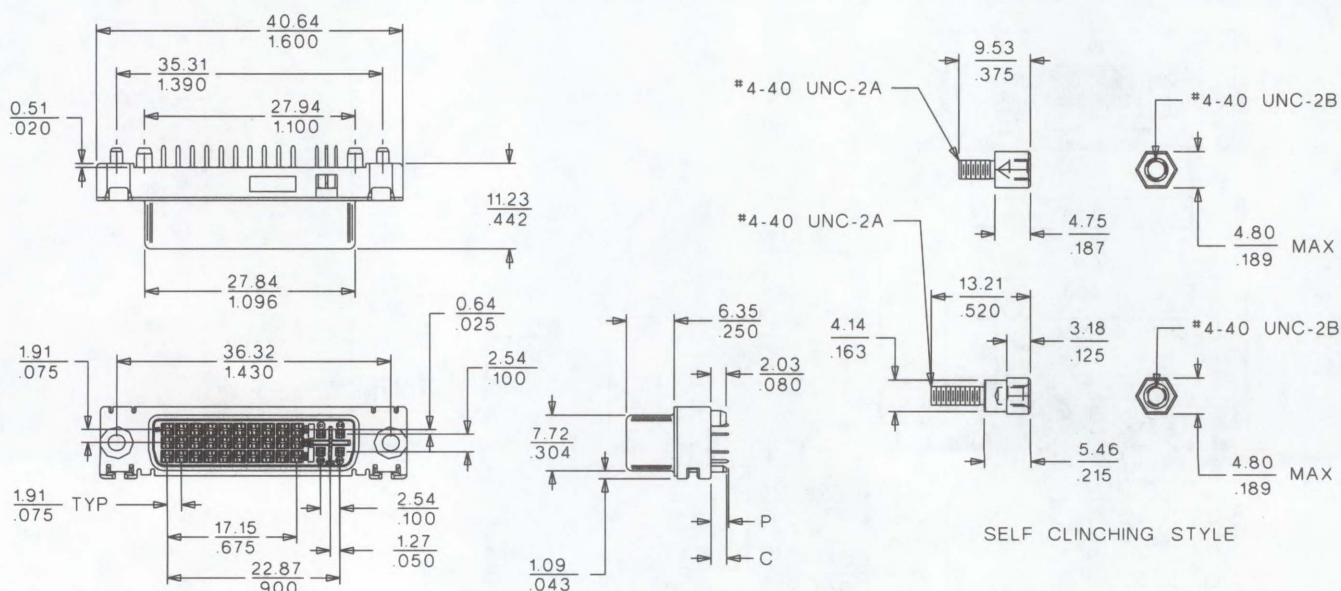
MicroCross™ P&D-A/D Receptacle Header and Hardware

73712/71781

Vertical, Panel Mount Through Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Plating	Dimension	
			C	P
73712-3000	Vertical Receptacle	30μ" Gold	2.03 (.080)	2.34 (.092)
71781-0001	Jackpost	Clear Chromate		
71781-0002	Self-Clinching Jackpost	Zinc/Yellow Chromate		

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports both analog and digital signals
- LFH™ contact design is rugged and reliable
- Excellent EMI/RFI performance
- MicroCross™ coax section allows up to 2.5 GHz performance
- Supports up to 4.95 Gbps
- VESA P&D standard interface
- Surface Mount Compatible
- Includes USB and IEEE 1394-1995 functions

Reference Information

Product Specification: PS-71182
 Packaging: 71781—Bag
 73712—Tray
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: New plug design. Contact Molex.
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.5A
 Contact Resistance: 20mΩ initial max.
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Retention to Housing: 1 lb min.
 Insertion Force to PCB: 10 lb max.
 Mating Force: 10 lb max.
 Unmating Force: 2.2 lb. min.
 Durability: 500 cycles

Physical

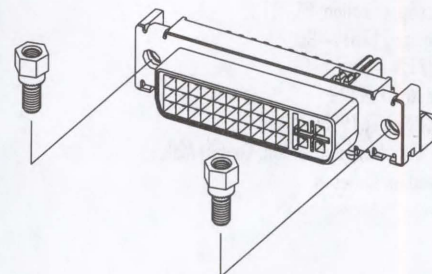
Housing: Glass-filled thermoplastic, UL 94V-0
 Contact: Copper Alloy
 Plating: Contact—30μ" Gold in contact area and 150μ" Tin/Lead in tail area over Nickel overall
 Shields—100μ" bright Tin over Copper overall
 Operating Temperature: -20 to +85°C



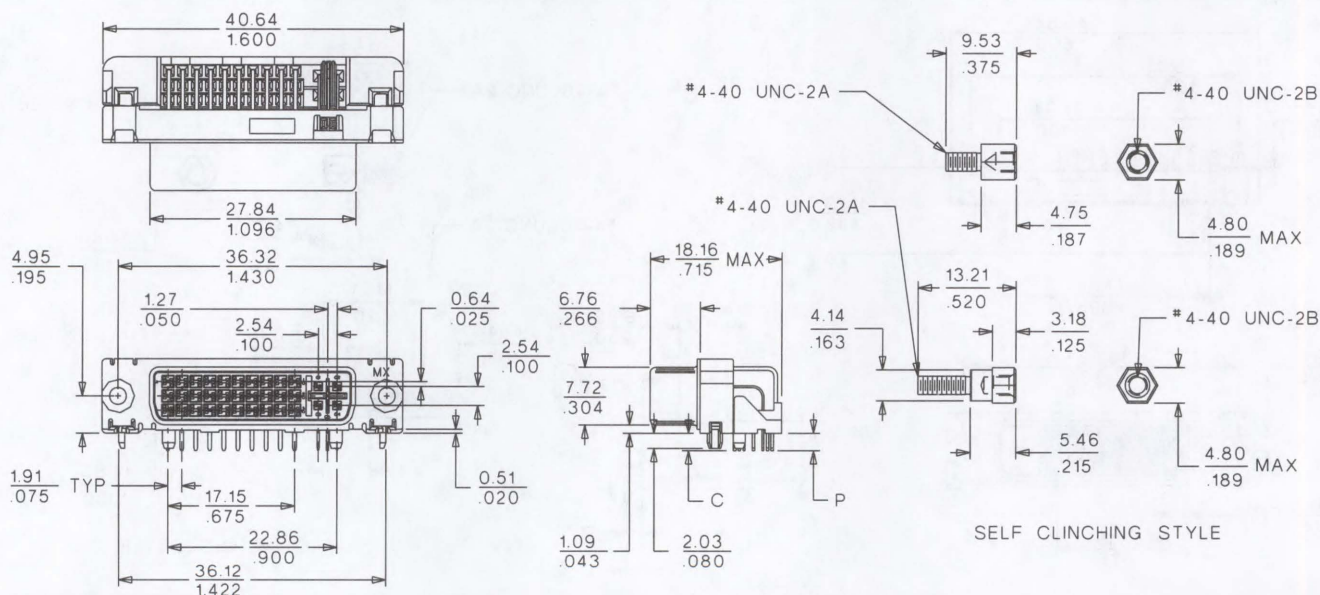
MicroCross™ P&D-A/D Receptacle Header and Hardware

73712/71781

Right Angle, Panel Mount Through Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Plating	Dimension	
			C	P
73712-2000	Right Angle Receptacle	30μ" Gold	2.03 (.080)	2.34 (.092)
71781-0001	Jackpost	Clear Chromate		
71781-0002	Self-Clinching Jackpost	Zinc/Yellow Chromate		

MicroCross™ P&D-D Receptacle Header and Hardware

- Supports digital signals and offers excellent EMI/RFI performance
- Supports up to 4.95 Gbps
- Narrow key slot for polarization
- VESA P&D standard interface
- LFH™ contact design is rugged and reliable
- Surface Mount Compatible
- Includes USB and IEEE 1394-1995 functions

Product Specification: PS-71182

Packaging: 71781—Bag

73712—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: New plug design. Contact Molex.

Designed In: Inches

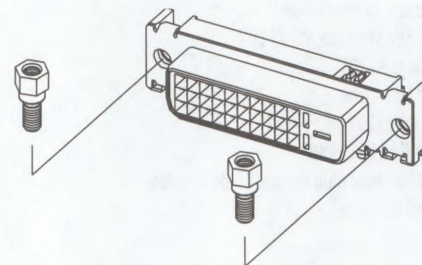
Voltage: 40V
Current: 1.5A
Contact Resistance: 20mΩ max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 MΩ min.

Contact Insertion Force: 1 lb min.
 Insertion Force to PCB: 10 lb max.
 Mating Force: 10 lb max.
 Unmating Force: 2.2 lb min.
 Durability: 500 cycles

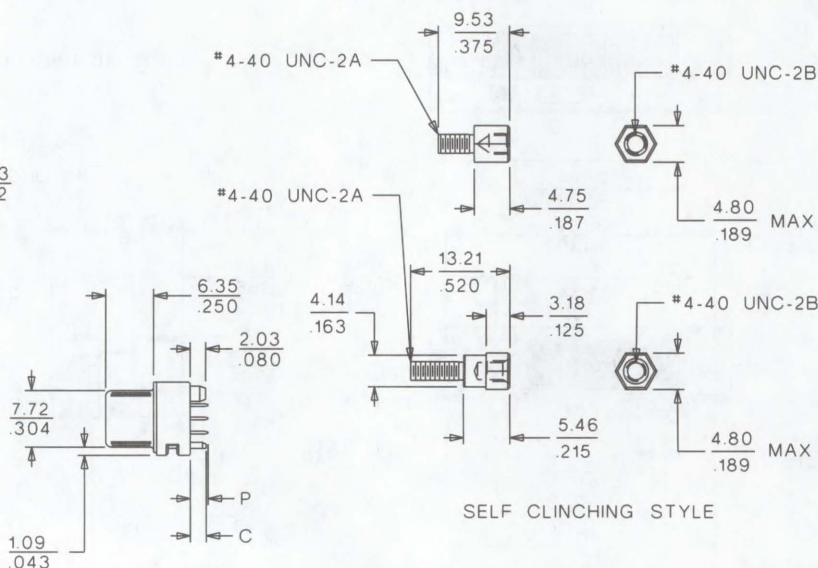
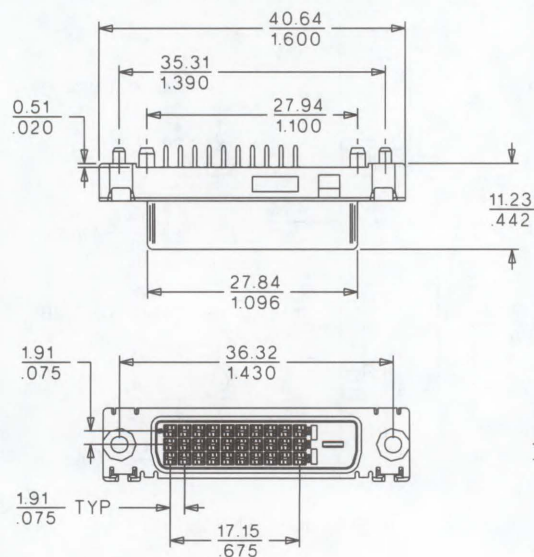
Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30 μ m Gold with 150 μ m Tin/Lead
in tail area over Nickel overall
Shields—100 μ m Tin over Copper overall
Operating Temperature: -20 to +80°C

73712/71781

Vertical, Panel Mount Through Hole



I/O Connectors



Order No.	Description	Plating	Dimension	
			C	P
73712-5000	Vertical Receptacle	30μ" Gold	2.03 (.080)	2.34 (.092)
71781-0001	Jackpost	Clear Chromate		
71781-0002	Self-clinching Jackpost	Zinc/Yellow Chromate		

FEATURES AND SPECIFICATIONS

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Supports up to 4.95 Gbps
- Narrow key slot for polarization
- VESA P&D standard interface
- LFH™ contact design is rugged and reliable
- Surface Mount Compatible
- Includes USB and IEEE 1394-1995 functions

Reference Information

Product Specification: PS-71182

Packaging: 71781—Bag

73712—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: New plug design. Contact Molex.

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.5A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Insertion Force: 1 lb min.

Insertion Force to PCB: 10 lb max.

Mating Force: 10 lb max.

Unmating Force: 2.2 lb min.

Durability: 500 cycles

Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold with 150μ" Tin/Lead

in tail area over Nickel overall

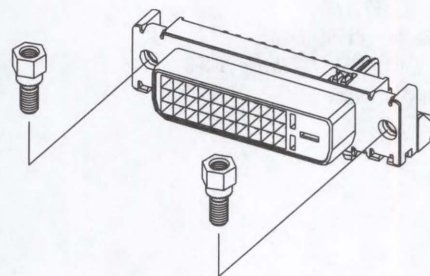
Shields—100μ" Tin over Copper overall

Operating Temperature: -20 to +80°C

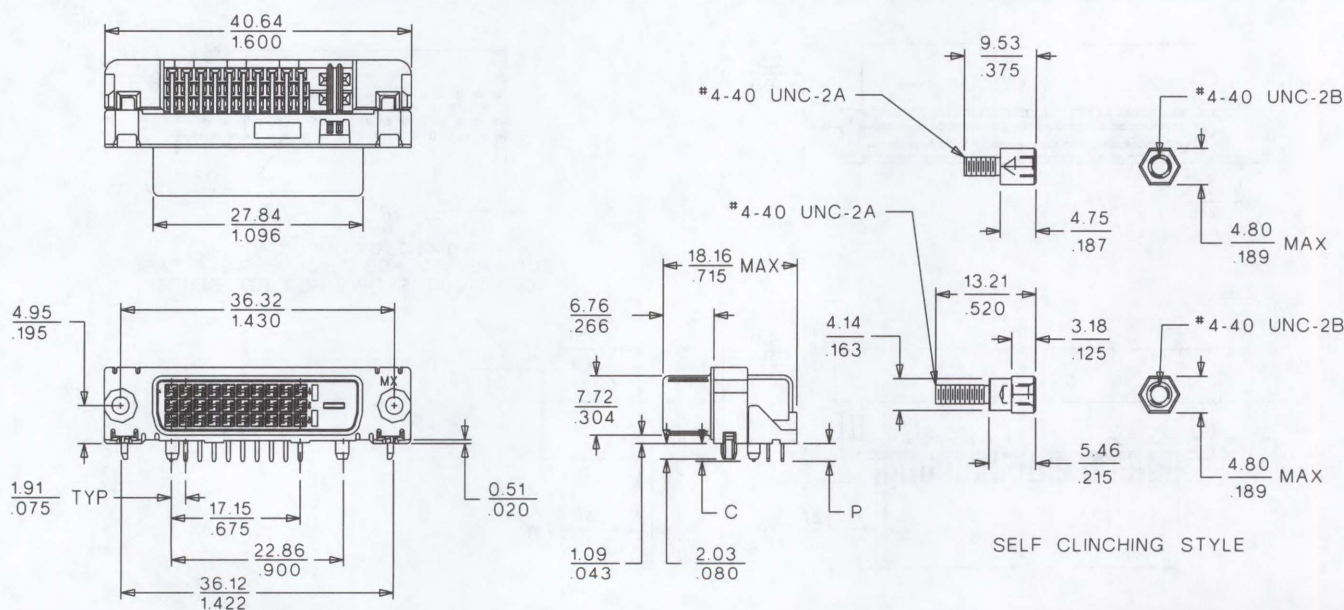
molex® MicroCross™ P&D-D Receptacle Header and Hardware

73712/71781

Right Angle, Panel Mount Through Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Plating	Dimension	
			C	P
73712-4000	Right Angle Receptacle	30μ" Gold	2.03 (.080)	2.34 (.092)
71781-0001	Jackpost	Clear Chromate		
71781-0002	Self-clinching Jackpost	Zinc/Yellow Chromate		

FEATURES AND SPECIFICATIONS

Features and Benefits

- Latching receptacle provides positive lock to mating plug
- Housing is compatible with SMT processing
- Date code assembly
- Polarizing peg ensures correct placement to PCB
- End clips provide additional retention to PCB
- Smooth contact surface, blanked terminal

Reference Information

Product Specification: PS-74184
 Packaging: Tube
 UL File No.: E29179
 CSA File No.: LR19980A-281
 Mates With: 79058, 71295 and 70498
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 25mΩ max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Insertion Force: 1 lb max.
 Insertion Force to PCB: 15 lb max.
 Mating Force: 5.3 oz max.
 Unmating Force: 1 oz min.
 Normal Force: 100g

Physical

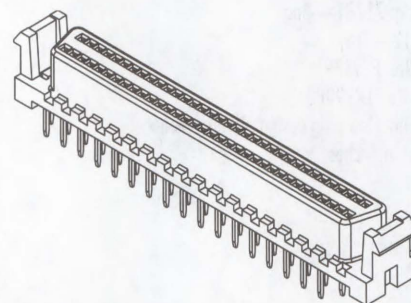
Housing: Black high-temperature thermoplastic, UL 94V-0
 Contact: Brass
 Plating: 15μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall
 Operating Temperature: -55 to +75°C



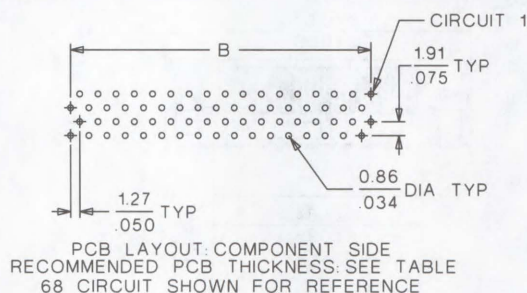
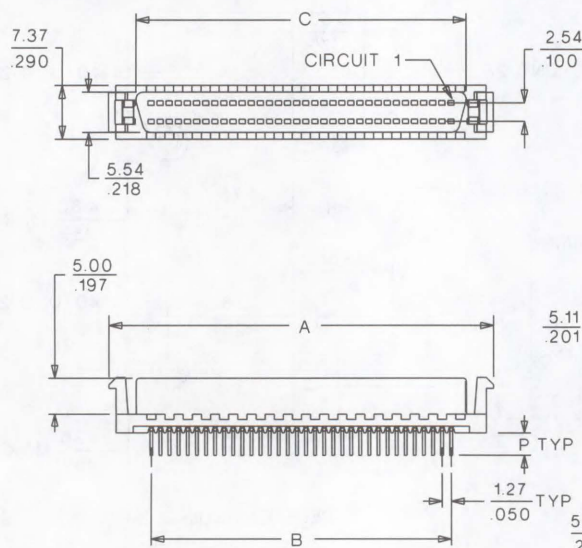
1.27mm (.050") Pitch SCSI+ Series II Unshielded Receptacle Low Cost Version

74306

**Vertical, All Plastic, with
 Latches and Through Hole**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension			
	With Polarizing Peg	Without Polarizing Peg	A	B	C	P
50	74306-1301	74306-0301	42.29 (1.665)	30.48 (1.200)	34.70 (1.366)	3.18 (.125)
68	74306-1302	74306-0302	53.72 (2.115)	41.91 (1.650)	46.13 (1.816)	3.18 (.125)

Note: Reverse tail patterns available (with and without clip and peg options), contact Molex for more information

FEATURES AND SPECIFICATIONS

Features and Benefits

- Latching receptacle provides positive lock to mating plug
- Housing is compatible with SMT processing
- Date code assembly
- Polarizing peg ensures correct placement to PCB
- End clips provide additional retention to PCB
- Smooth contact surface, blanked terminal

Reference Information

Product Specification: PS-79058

Packaging: Tube

UL File No.: E29179

CSA File No.: LR1998A-281

Mates With: 79058, 71295 and 70498

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 25mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Insertion Force: 1 lb min.

Insertion Force to PCB: 15 lb max.

Mating Force: 5.3 oz max.

Unmating Force: 1 oz min.

Normal Force: 100g

Physical

Housing: Black high-temperature thermoplastic, UL 94V-0

Contact: Phosphor Bronze

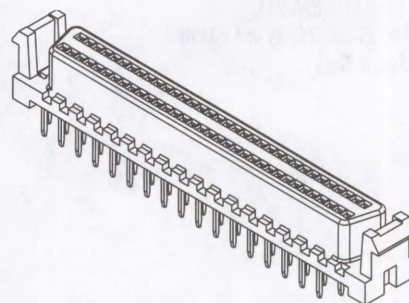
Plating: 30μ" Gold in contact area, 15μ" Tin/Lead on solder tails, all over Nickel overall

Operating Temperature: -55 to +105°C

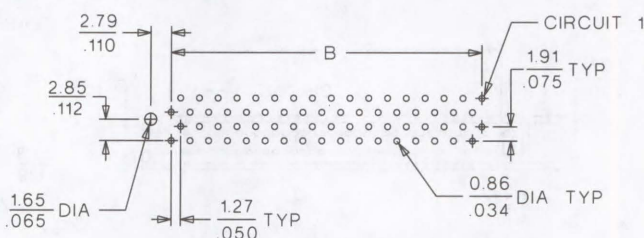
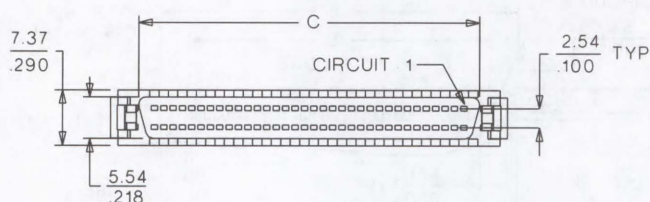
molex® 1.27mm (.050") Pitch SCSI+ Unshielded Receptacle

73631

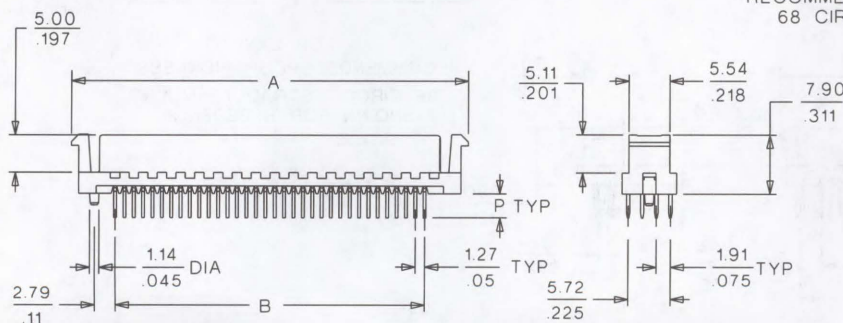
Vertical, All Plastic With Latches and Through Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: SEE TABLE
68 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension			
	With Polarizing Peg	Without Polarizing Peg	A	B	C	P
50	73631-3001	73631-3101	42.29 (1.665)	30.48 (1.200)	34.70 (1.366)	3.28 (.129)
68	73631-3002	73631-3102	53.72 (2.115)	41.91 (1.650)	46.13 (1.816)	3.28 (.129)

Note: Reverse tail patterns available (with and without clip and peg options), contact Molex for more information

**1.27mm (.050") Pitch
SCSI+ Series II
Unshielded Receptacle
Low Cost Version**

- Straddle mount version for edge placement to PCB
- Housing is compatible with SMT processing
- Date code assembly
- Polarizing peg ensures correct placement to PCB
- End clips provide additional retention to PCB
- Smooth contact surface, blanked terminal

Designed In: Inches

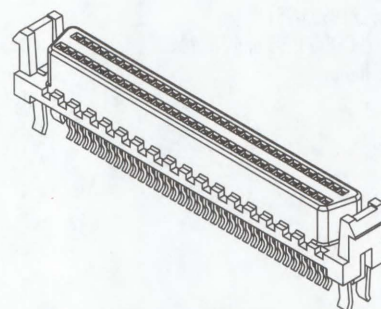
Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Contact Insertion Force: 1 lb max.
 Insertion Force to PCB: 15 lb max.
 Mating Force: 5.3 oz max.
 Unmating Force: 1 oz min.
 Normal Force: 100g

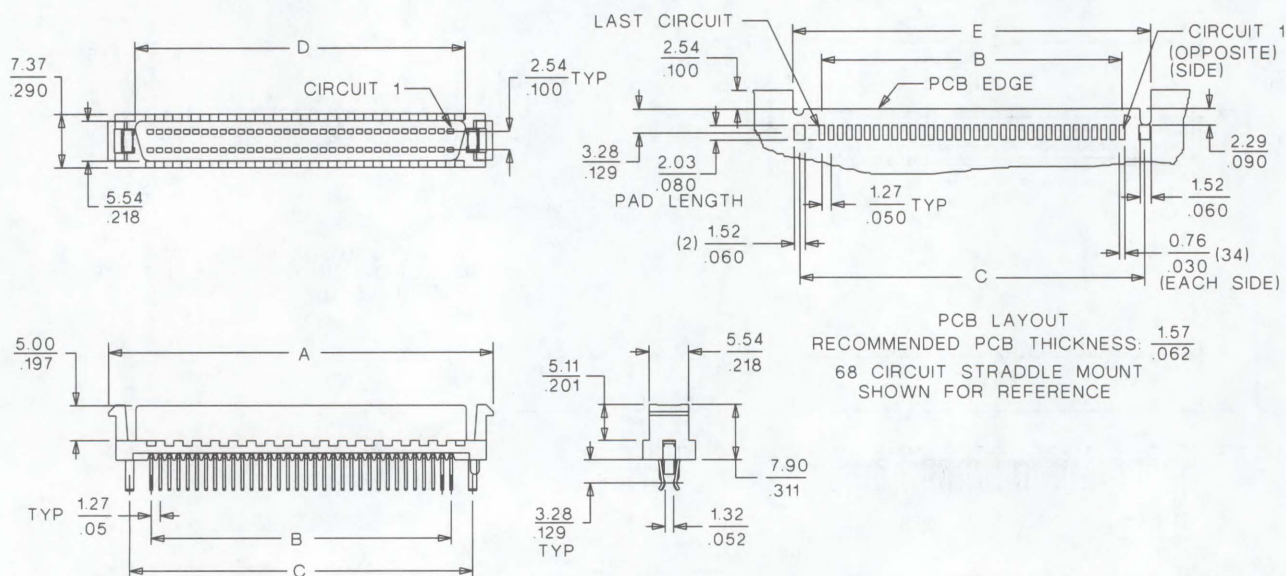
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Brass
Plating: 15 μ " Gold in contact area, 75 μ " Tin/Lead on solder
tails, all over Nickel overall
Operating Temperature: -55 to +75°C

74308

Vertical, All Plastic, with Latches and Straddle Mount



I/O Connectors



N

Circuits	Order No.	Dimension				
		A	B	C	D	E
50	74308-0001	42.29 (1.665)	30.48 (1.200)	36.70 (1.445)	34.70 (1.366)	38.56 (1.518)
68	74308-0002	53.72 (2.115)	41.91 (1.650)	48.13 (1.895)	46.13 (1.816)	49.99 (1.968)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Straddle mount version for edge placement to PCB
- Housing is compatible with SMT processing
- Date code assembly
- Polarizing peg ensures correct placement to PCB
- End clips provide additional retention to PCB
- Smooth contact surface, blanked terminal

Reference Information

Product Specification: PS-79058

Packaging: Tube

UL File No.: E29179

CSA File No.: LR1998A-281

Mates With: 79058, 71295 and 70498

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 25mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Insertion Force: 1 lb min.

Insertion Force to PCB: 15 lb max.

Mating Force: 5.3 oz max.

Unmating Force: 1 oz min.

Normal Force: 100g

Physical

Housing: Black high-temperature thermoplastic, UL 94V-0

Contact: Phosphor Bronze

Plating: 30μ" Gold in contact area, 15μ" Tin/Lead on solder tails, all over Nickel overall

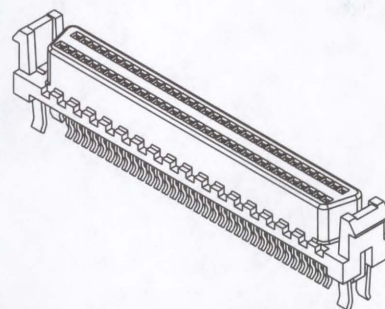
Operating Temperature: -55 to +105°C



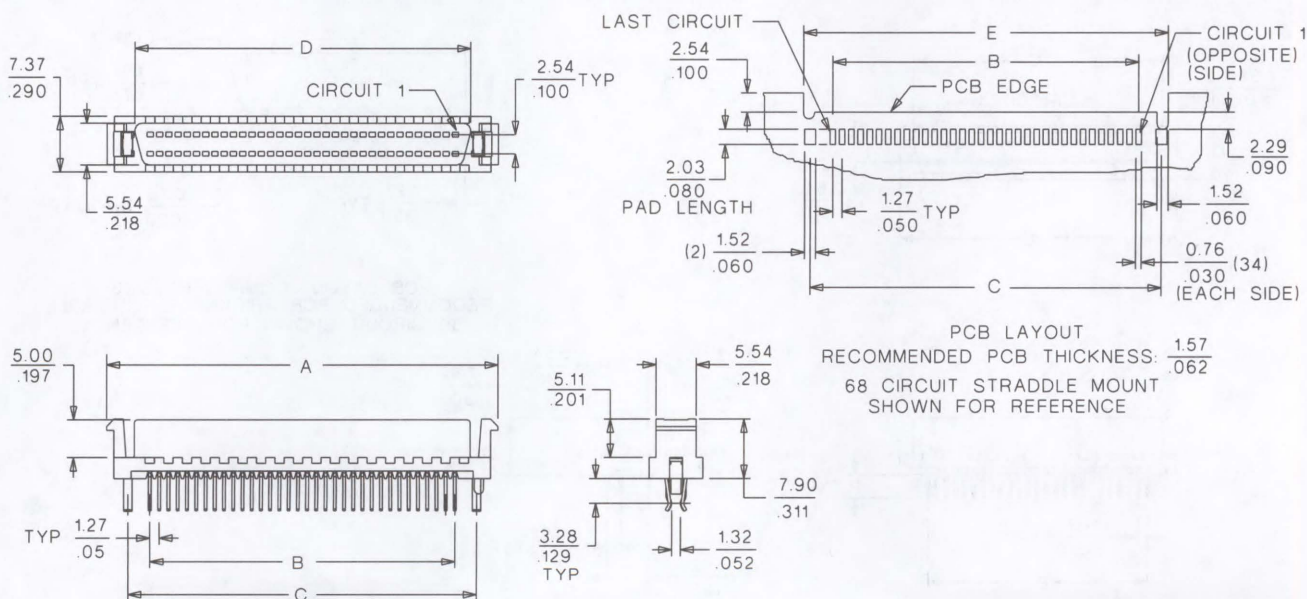
1.27mm (.050") Pitch SCSI+ Unshielded Receptacle

73631

Vertical, All Plastic With Latches and Straddle Mount



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension				
		A	B	C	D	E
50	73631-1001	42.29 (1.665)	30.48 (1.200)	36.70 (1.445)	34.70 (1.366)	38.56 (1.518)
68	73631-1002	53.72 (2.115)	41.91 (1.650)	48.13 (1.895)	46.13 (1.816)	49.99 (1.968)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Board polarization peg available
- Date code assembly
- Retentive tail feature available
- Reverse tail pattern available
- Smooth contact surface, blanked terminal

Reference Information

Product Specification: PS-74184
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

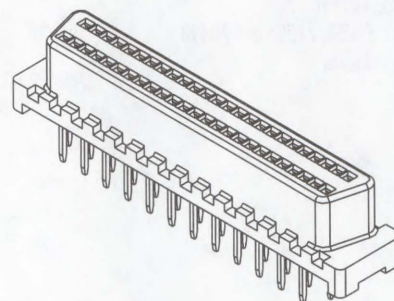
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Brass
Plating: 15μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall
Operating Temperature: -55 to +75°C



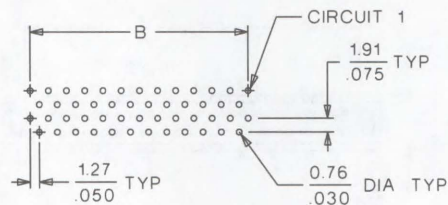
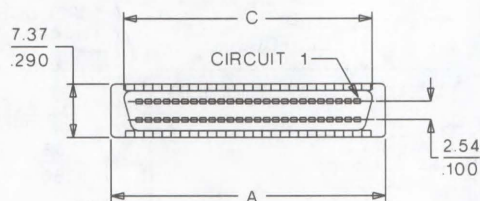
1.27mm (.050") Pitch SCSI+ Series II Unshielded Receptacle Low Cost Version

74305

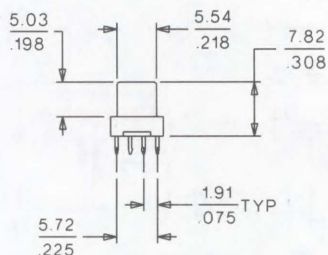
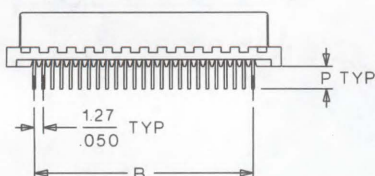
Vertical, All Plastic Without Latches



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: SEE TABLE
50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension				Recommended PCB Thickness
	With Peg	Without Peg	A	B	C	P	
50	74305-1301	74305-0301	41.78 (1.645)	30.48 (1.200)	34.70 (1.366)	3.18 (.125)	1.57 (.062)
	74305-1401	74305-0401	41.78 (1.645)	30.48 (1.200)	34.70 (1.366)	4.19 (.165)	2.36 (.093)
	74305-1101	74305-0101	41.78 (1.645)	30.48 (1.200)	34.70 (1.366)	2.03 (.080)	1.57 (.062)
68	74305-1302	74305-0302	53.21 (2.095)	41.91 (1.650)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	74305-1402	74305-0402	53.21 (2.095)	41.91 (1.650)	46.13 (1.816)	4.19 (.165)	2.36 (.093)
	74305-1102	74305-0102	53.21 (2.095)	41.91 (1.650)	46.13 (1.816)	2.03 (.080)	1.57 (.062)

Note: Omit .065 hole on PCB for version without peg

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Board polarization peg available
- Date-coded assembly
- Retentive tail feature available
- Reverse tail pattern available
- Smooth contact surface, blanked terminal

Reference Information

Product Specification: PS-79058

UL File No.: E29179

CSA File No.: LR19980A-281

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 25mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.

Unmating Force: 1.0 oz min.

Normal Force: 100g

Physical

Housing: Black high-temperature thermoplastic, UL 94V-0

Contact: Phosphor Bronze

Plating: 30μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall

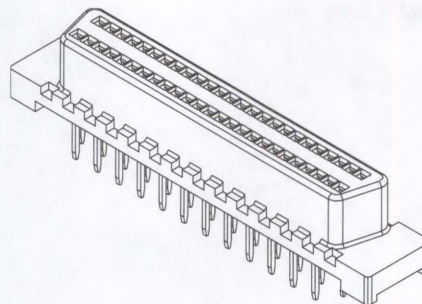
Operating Temperature: -55 to +105°C



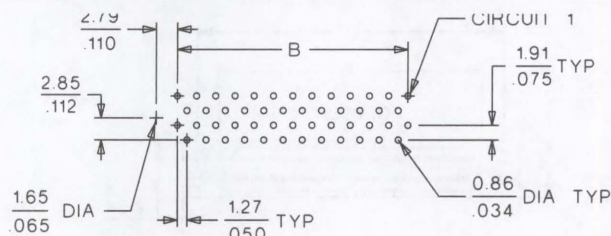
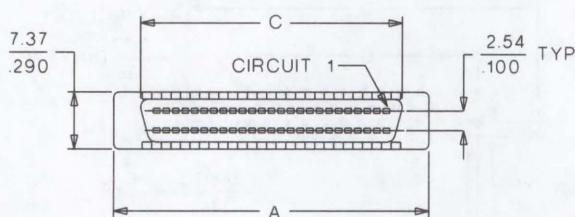
1.27mm (.050") Pitch
SCSI+
Unshielded Receptacle

70491

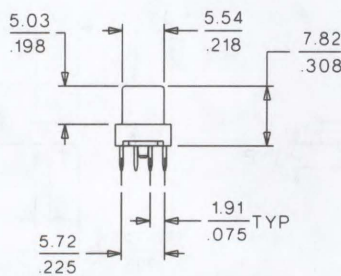
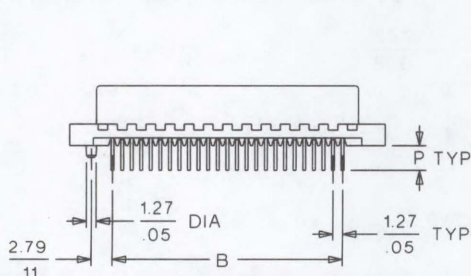
Vertical, All Plastic
Without Latches



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: SEE TABLE
50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension				Recommended PCB Thickness
	With Peg	Without Peg	A	B	C	P	
50	15-87-0301	15-87-0201	41.78 (1.645)	30.48 (1.200)	34.70 (1.366)	3.18 (.125)	1.57 (.062)
	15-87-0303	15-87-0203	41.78 (1.645)	30.48 (1.200)	34.70 (1.366)	4.19 (.165)	2.36 (.093)
	15-87-0309	15-87-0209	41.78 (1.645)	30.48 (1.200)	34.70 (1.366)	2.03 (.080)	1.02 (.040)
68	15-87-0305	15-87-0205	53.21 (2.095)	41.91 (1.650)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	15-87-0307	15-87-0207	53.21 (2.095)	41.91 (1.650)	46.13 (1.816)	4.19 (.165)	2.36 (.093)
	15-87-0311	15-87-0211	53.21 (2.095)	41.91 (1.650)	46.13 (1.816)	2.03 (.080)	1.02 (.040)

Note: Omit .065 hole on PCB for version without peg

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Date code assembly
- Tail lengths available: .060, .080 and .125"
- Contact Molex for other circuit sizes available
- Smooth contact surface, blanked terminal

Reference Information

Product Specification: PS -74184
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

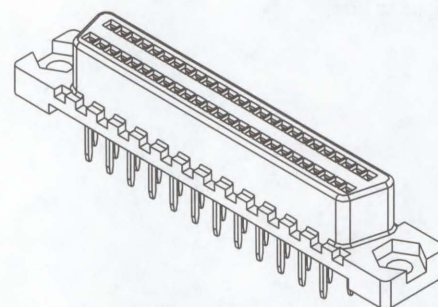
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Brass
Plating: 15μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall
Operating Temperature: -55 to +75°C



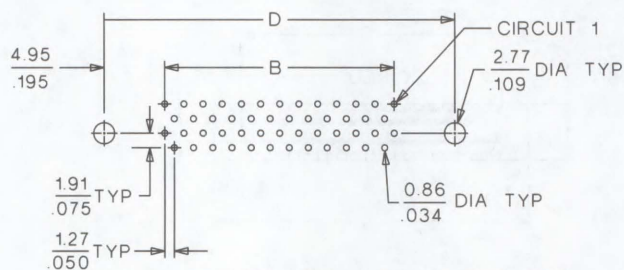
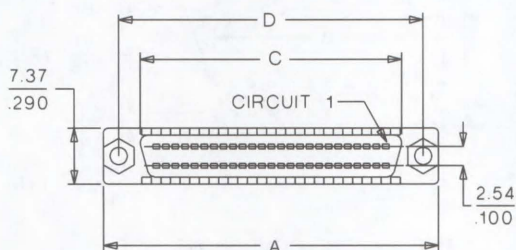
1.27mm (.050") Pitch SCSI+ Series II Unshielded Receptacle Low Cost Version

74305

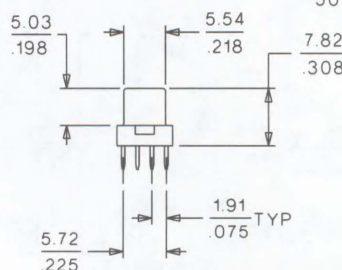
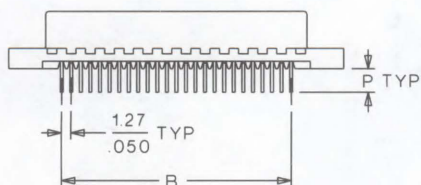
**Vertical, All Plastic
With Hex Ears**



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: SEE TABLE
50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension					Recommended PCB Thickness
		A	B	C	D	P	
50	74305-3001	44.45 (1.750)	30.48 (1.200)	34.70 (1.366)	40.39 (1.590)	1.52 (.060)	1.57 (.062)
	74305-3301	44.45 (1.750)	30.48 (1.200)	34.70 (1.366)	40.39 (1.590)	3.18 (.125)	2.36 (.093)
	74305-3101	44.45 (1.750)	30.48 (1.200)	34.70 (1.366)	40.39 (1.590)	2.03 (.080)	1.57 (.062)
68	74305-3302	55.88 (2.200)	41.91 (1.650)	46.13 (1.816)	51.82 (2.040)	1.52 (.060)	1.57 (.062)
	74305-3102	55.88 (2.200)	41.91 (1.650)	46.13 (1.816)	51.82 (2.040)	3.18 (.125)	2.36 (.093)
	74305-3002	55.88 (2.200)	41.91 (1.650)	46.13 (1.816)	51.82 (2.040)	2.03 (.080)	1.57 (.062)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Date-coded assembly
- Tail lengths available: .080 and .125"
- Contact Molex for other circuit sizes available
- Smooth contact surface, blanked terminal

Reference Information

Product Specification: PS-79058
UL File Number: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

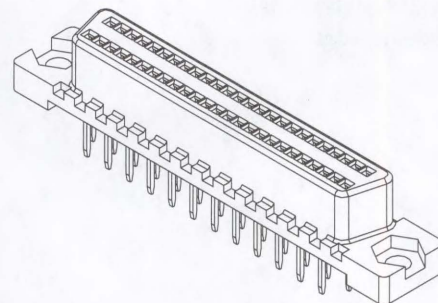
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Phosphor Bronze
Plating: 30μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall
Operating Temperature: -55 to +105°C



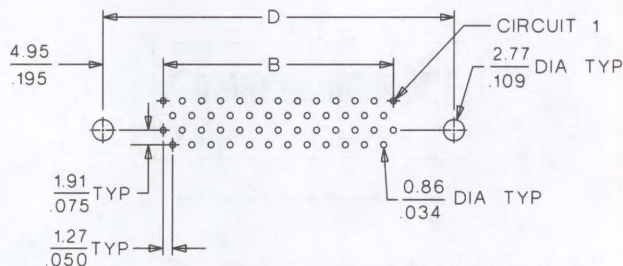
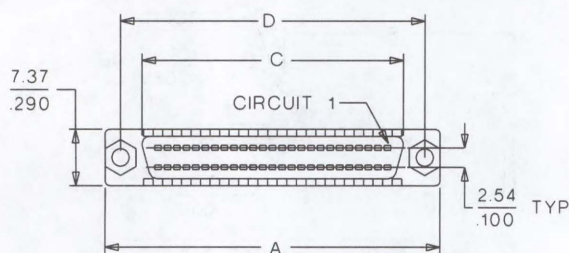
1.27mm (.050") Pitch SCSI+ Unshielded Receptacle

71163

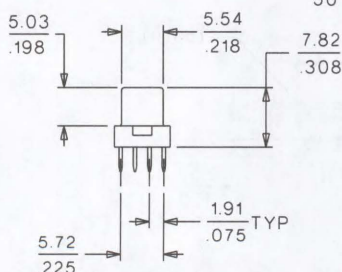
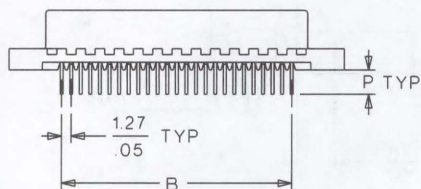
**Vertical, All Plastic
With Hex Ears**



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: SEE TABLE
50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension					Recommended PCB Thickness
		A	B	C	D	P	
50	71163-1001	44.45 (1.750)	30.48 (1.200)	34.70 (1.366)	40.39 (1.590)	3.18 (.125)	1.57 (.062)
	71163-1003	44.45 (1.750)	30.48 (1.200)	34.70 (1.366)	40.39 (1.590)	2.03 (.080)	1.02 (.040)
68	71163-1002	55.88 (2.200)	41.91 (1.650)	46.13 (1.816)	51.82 (2.040)	3.18 (.125)	1.57 (.062)
	71163-1004	55.88 (2.200)	41.91 (1.650)	46.13 (1.816)	51.82 (2.040)	2.03 (.080)	1.02 (.040)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Date code assembly
- Blanked tuning fork terminal, smooth contact surface
- Optimum true position control
- Retentive tail feature available
- Reverse tail pattern available

Reference Information

Product Specification: PS-74184
 UL File No.: E29179
 CSA File No.: LR19980A-281
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 25mΩ max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
 Unmating Force: 1.0 oz min.
 Normal Force: 100g

Physical

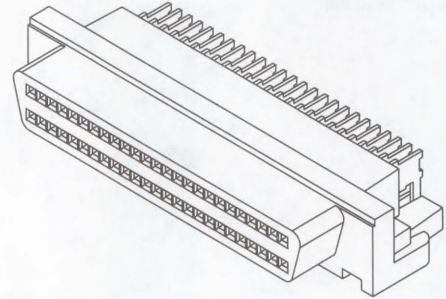
Housing: Black high-temperature thermoplastic, UL 94V-0
 Contact: Brass
 Plating: 15μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall
 Operating Temperature: -55 to +75°C



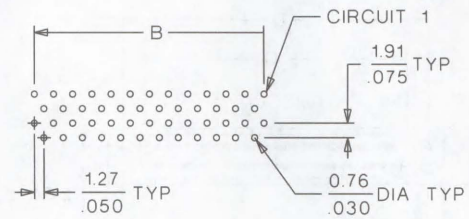
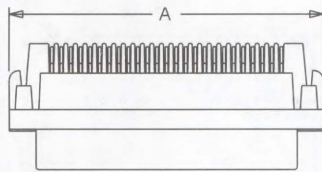
1.27mm (.050") Pitch SCSI+ Series II Unshielded Receptacle Low Cost Version

74182

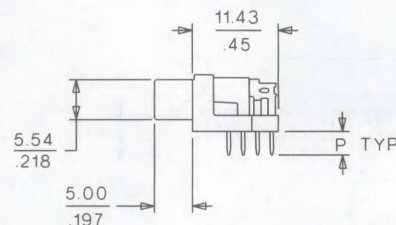
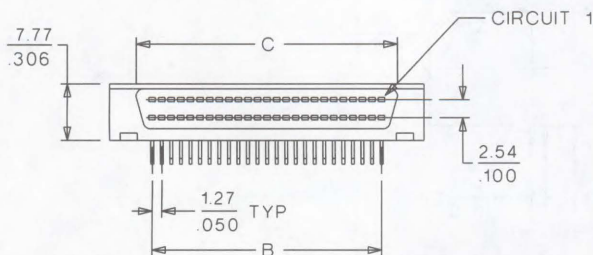
Right Angle, All Plastic



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
 RECOMMENDED PCB THICKNESS: SEE TABLE
 50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.			Dimension				Recommended PCB Thickness
	Reverse Tail	Standard Tail	Reverse Retentive Tail	A	B	C	P	
50	74182-0001	74182-0001	74182-1001	41.71 (1.642)	30.48 (1.200)	34.70 (1.366)	3.18 (.125)	1.57 (.062)
68	74182-0002	74182-2001	74182-1002	53.14 (2.092)	41.91 (1.650)	46.13 (1.816)	3.18 (.125)	1.57 (.062)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Date-coded assembly
- Blanked tuning fork terminal, smooth contact surface
- Optimum true position control
- Retentive tail feature available
- Reverse tail pattern available

Reference Information

Product Specification: PS-79058

UL File Number: E29179

CSA File No.: LR19980A-281

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 25mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.

Unmating Force: 1.0 oz min.

Normal Force: 100g

Physical

Housing: Black high-temperature thermoplastic, UL 94V-0

Contact: Phosphor Bronze

Plating: 30μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall

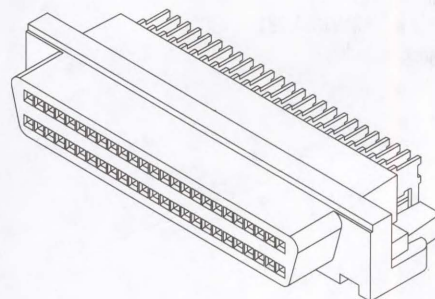
Operating Temperature: -55 to +105°C



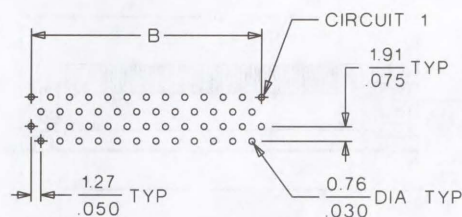
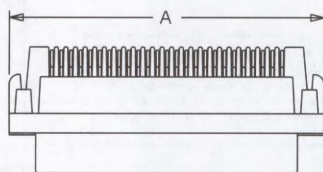
1.27mm (.050") Pitch SCSI+ Unshielded Receptacle

71061

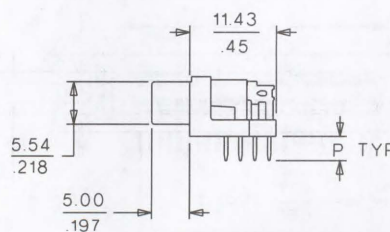
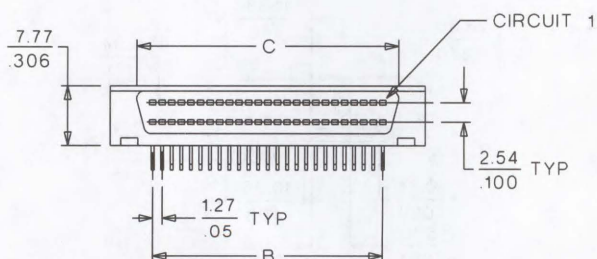
Right Angle, All Plastic



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: SEE TABLE
50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension				Recommended PCB Thickness
		A	B	C	P	
50	71061-0001	41.71 (1.642)	30.48 (1.200)	34.70 (1.366)	3.18 (.125)	1.57 (.062)
68	71061-0003	53.14 (2.092)	41.91 (1.650)	46.13 (1.816)	3.18 (.125)	1.57 (.062)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Blanked tuning fork terminal, smooth contact surface
- Optimum tail true position control
- Date-coded assembly
- Fork lock retention to board

Reference Information

Product Specification: PS-74184
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

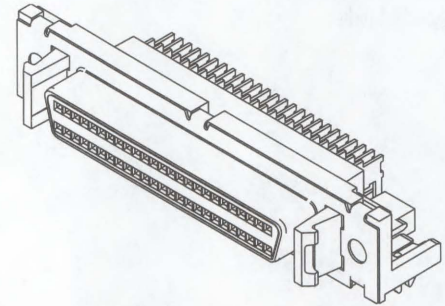
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Brass
Plating: Contact Area—15μ" Gold
Solder Tails—75μ" Tin/Lead
Underplating—Nickel
Operating Temperature: -55 to +75°C



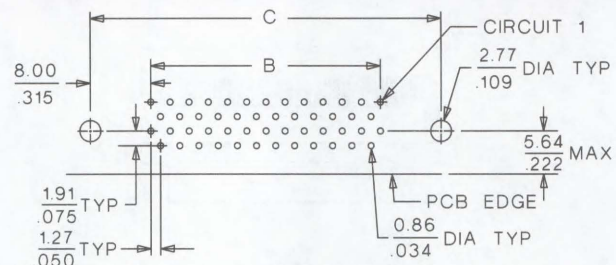
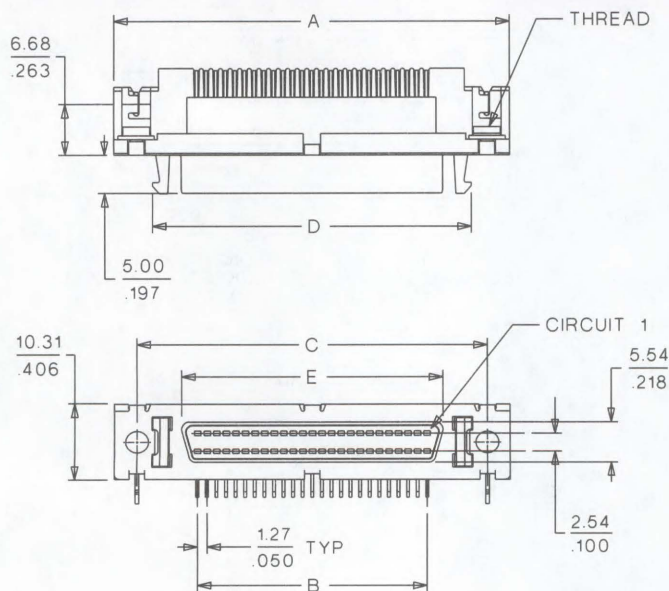
1.27mm (.050") Pitch
SCSI+
Unshielded Receptacle
Low Cost Version

74303

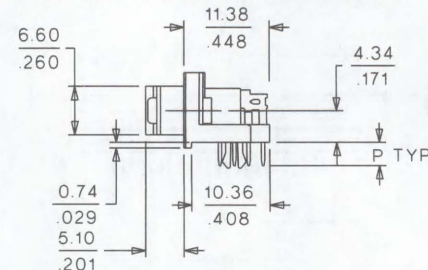
Right Angle with Latches
50 Circuits



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: SEE TABLE
50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Thread	End Holes	Dimension						Recommended PCB Thickness
				A	B	C	D	E	P	
50	74303-1001	2-56	1.98 (.078)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	3.18 (.125)	1.57 (.062)
	74303-1003	2-56	1.98 (.078)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	3.18 (.125)	2.36 (.093)
	74303-1005	2-56	1.98 (.078)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	4.19 (.165)	3.18 (.125)
	74303-1101	2-56	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	3.18 (.125)	1.57 (.062)
	74303-1103	2-56	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	3.18 (.125)	2.36 (.093)
	74303-1105	2-56	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	4.19 (.165)	3.18 (.125)
	74303-1201	4-40	2.67 (.105)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	3.18 (.125)	1.57 (.062)
	74303-1203	4-40	2.67 (.105)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	3.18 (.125)	2.36 (.093)
	74303-1205	4-40	2.67 (.105)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	4.19 (.165)	3.18 (.125)
	74303-1301	4-40	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	3.18 (.125)	1.57 (.062)
	74303-1303	4-40	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	3.18 (.125)	2.36 (.093)
	74303-1305	4-40	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	42.29 (1.665)	4.19 (.165)	3.18 (.125)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Blanked tuning fork terminal, smooth contact surface
- Optimum tail true position control
- Date-coded assembly
- Fork lock retention to board

Reference Information

Product Specification: PS-74184
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

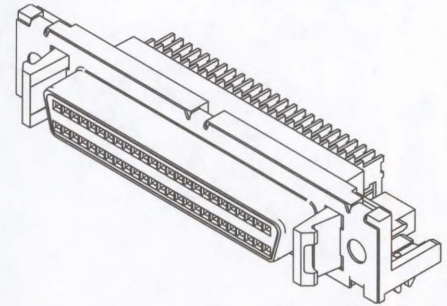
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Brass
Plating: Contact Area—15μ" Gold
Solder Tails—75μ" Tin/Lead
Underplating—Nickel
Operating Temperature: -55 to +75°C



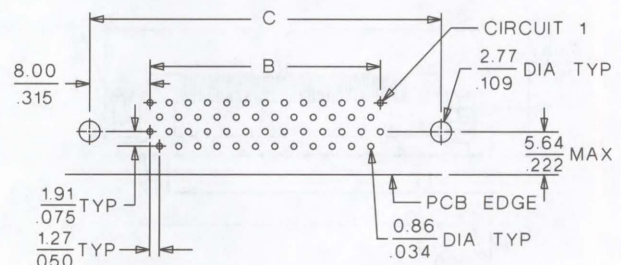
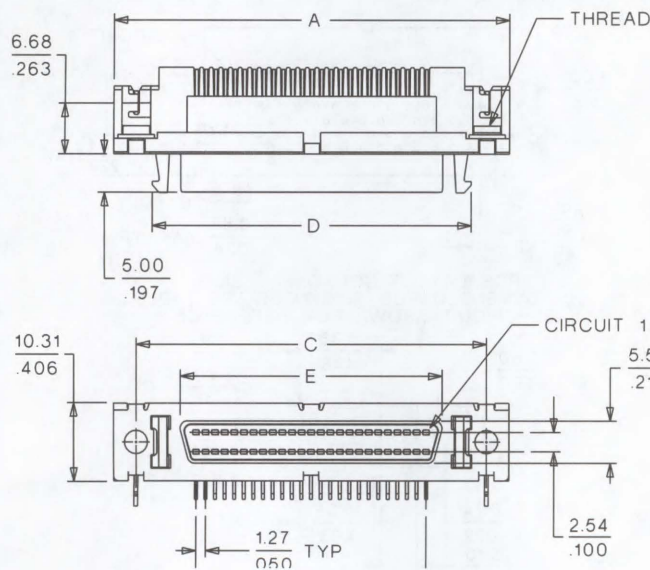
1.27mm (.050") Pitch
SCSI+
Unshielded Receptacle
Low Cost Version

74303

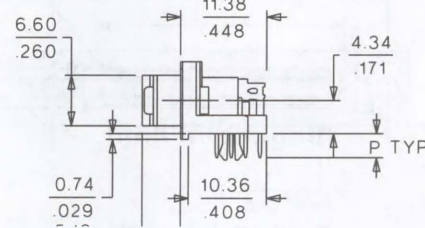
Right Angle with Latches
68 Circuits



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: SEE TABLE
50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Thread	End Holes	Dimension						Recommended PCB Thickness
				A	B	C	D	E	P	
68	74303-1002	2-56	1.98 (.078)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	3.18 (.125)	1.57 (.062)
	74303-1004	2-56	1.98 (.078)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	3.18 (.125)	2.36 (.093)
	74303-1006	2-56	1.98 (.078)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	4.19 (.165)	3.18 (.125)
	74303-1102	2-56	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	3.18 (.125)	1.57 (.062)
	74303-1104	2-56	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	3.18 (.125)	2.36 (.093)
	74303-1106	2-56	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	4.19 (.165)	3.18 (.125)
	74303-1202	4-40	2.67 (.105)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	3.18 (.125)	1.57 (.062)
	74303-1204	4-40	2.67 (.105)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	3.18 (.125)	2.36 (.093)
	74303-1206	4-40	2.67 (.105)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	4.19 (.165)	3.18 (.125)
	74303-1302	4-40	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	3.18 (.125)	1.57 (.062)
	74303-1304	4-40	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	3.18 (.125)	2.36 (.093)
	74303-1306	4-40	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	53.72 (2.115)	4.19 (.165)	3.18 (.125)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Blanked tuning fork terminal, smooth contact surface
- Optimum tail true position control
- Date-coded assembly
- Fork lock retention to board

Reference Information

Product Specification: PS-79058
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

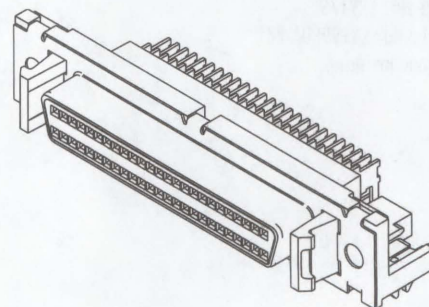
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Phosphor Bronze
Plating: 30μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall
Operating Temperature: -55 to +105°C



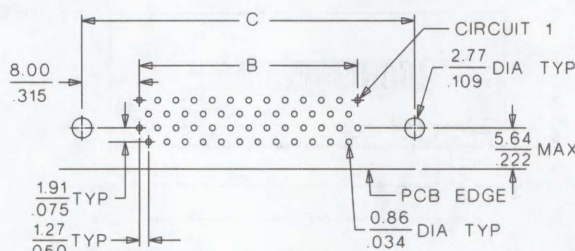
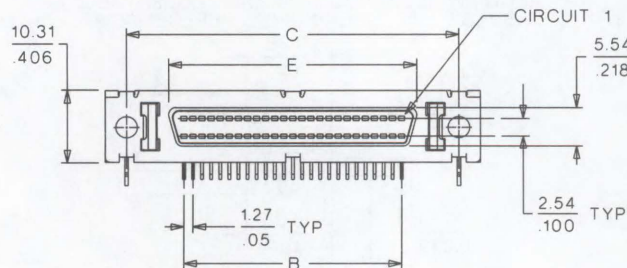
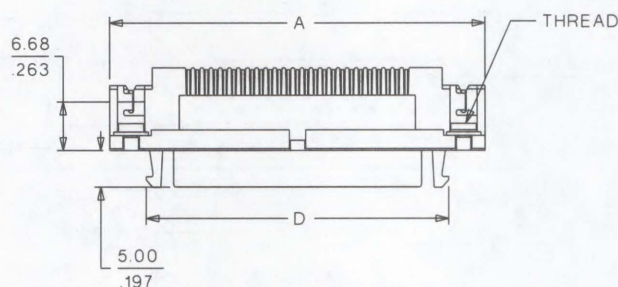
1.27mm (.050") Pitch SCSI+ Shielded Receptacle

79059

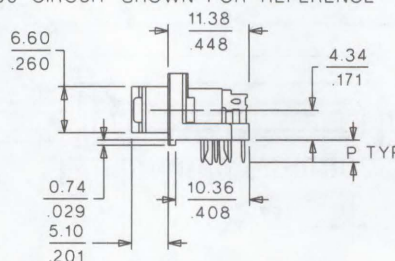
Right Angle with Latches



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT COMPONENT SIDE
RECOMMENDED PCB THICKNESS SEE TABLE
50 CIRCUIT SHOWN FOR REFERENCE



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Thread	Dimension						Recommended PCB Thickness
	Automatic*	Manual**		A	B	C	D	E	P	
50	15-87-6050	79059-2701	4-40	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	42.29 (1.665)	34.69 (1.366)	3.18 (.125)	1.57 (.062)
	15-87-6051	79059-2707		52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	42.29 (1.665)	34.69 (1.366)	3.18 (.125)	2.36 (.093)
	15-87-6052	79059-2711		52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	42.29 (1.665)	34.69 (1.366)	4.19 (.165)	3.18 (.125)
	15-87-6010	79059-2720	2-56	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	42.29 (1.665)	34.69 (1.366)	3.18 (.125)	1.57 (.062)
	15-87-6011	79059-2726		52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	42.29 (1.665)	34.69 (1.366)	3.18 (.125)	2.36 (.093)
	15-87-6012	79059-2730		52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	42.29 (1.665)	34.69 (1.366)	4.19 (.165)	3.18 (.125)
68	15-87-6020	79059-2702	4-40	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	53.72 (2.115)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	15-87-6021	79059-2708		63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	53.72 (2.115)	46.13 (1.816)	3.18 (.125)	2.36 (.093)
	15-87-6022	79059-2712		63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	53.72 (2.115)	46.13 (1.816)	4.19 (.165)	3.18 (.125)
	15-87-6023	79059-2721	2-56	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	53.72 (2.115)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	15-87-6024	79059-2727		63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	53.72 (2.115)	46.13 (1.816)	3.18 (.125)	2.36 (.093)
	15-87-6025	79059-2731		63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	53.72 (2.115)	46.13 (1.816)	4.19 (.165)	3.18 (.125)

* For automatic placement of screw hardware

** For manual placement of screw hardware

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Blanked tuning fork terminal, smooth contact surface
- Optimum tail true position control
- Date-coded assembly
- Fork lock retention to board

Reference Information

Product Specification: PS-74184
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

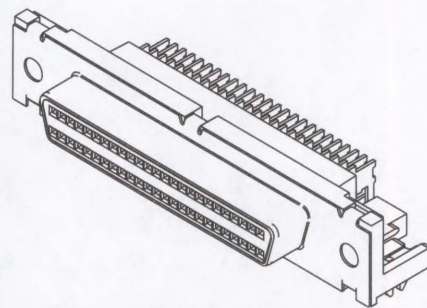
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Brass
Plating: Contact Area—15μ" Gold
Solder Tails—75μ" Tin/Lead
Underplating—Nickel
Operating Temperature: -55 to +75°C



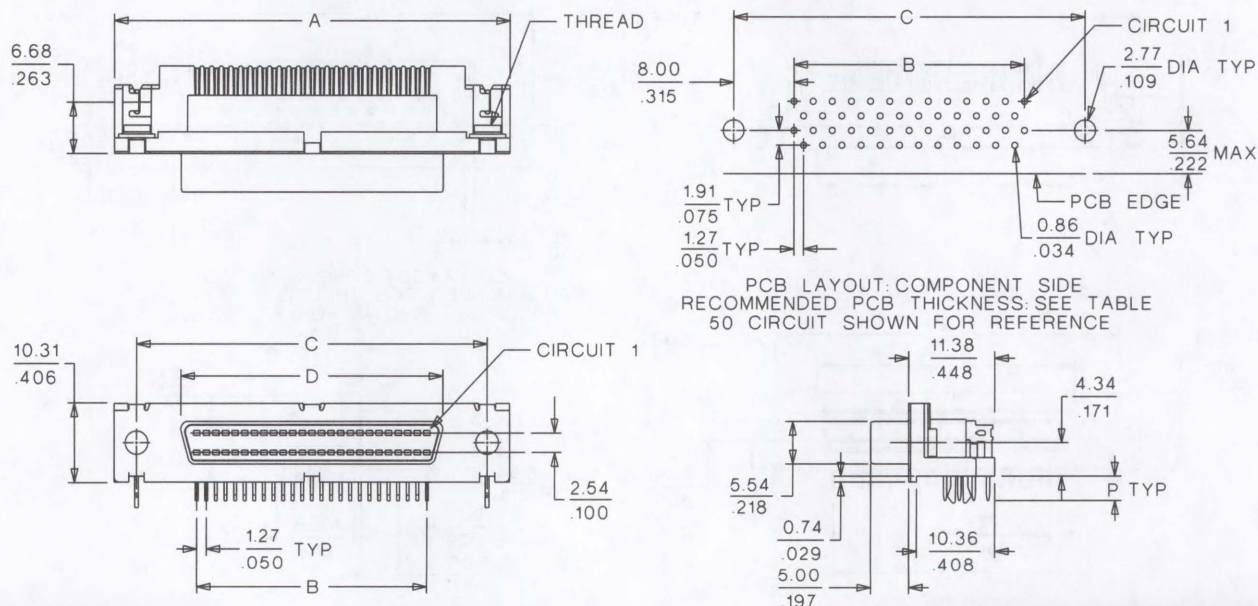
1.27mm (.050") Pitch
SCSI+
Unshielded Receptacle
Low Cost Version

74302

Right Angle without Latches
50 Circuits



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Thread	End Holes	Dimension					Recommended PCB Thickness
				A	B	C	D	P	
50	74302-1001	2-56	1.98 (.078)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	3.18 (.125)	1.57 (.062)
	74302-1003	2-56	1.98 (.078)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	3.18 (.125)	2.36 (.093)
	74302-1005	2-56	1.98 (.078)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	4.19 (.165)	3.18 (.125)
	74302-1101	2-56	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	3.18 (.125)	1.57 (.062)
	74302-1103	2-56	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	3.18 (.125)	2.36 (.093)
	74302-1105	2-56	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	4.19 (.165)	3.18 (.125)
	74302-1201	4-40	2.67 (.105)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	3.18 (.125)	1.57 (.062)
	74302-1203	4-40	2.67 (.105)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	3.18 (.125)	2.36 (.093)
	74302-1205	4-40	2.67 (.105)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	4.19 (.165)	3.18 (.125)
	74302-1301	4-40	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	3.18 (.125)	1.57 (.062)
	74302-1303	4-40	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	3.18 (.125)	2.36 (.093)
	74302-1305	4-40	3.05 (.120)	52.54 (2.065)	30.48 (1.200)	46.48 (1.830)	34.69 (1.366)	4.19 (.165)	3.18 (.125)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Blanked tuning fork terminal, smooth contact surface
- Optimum tail true position control
- Date-coded assembly
- Fork lock retention to board

Reference Information

Product Specification: PS-74184
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

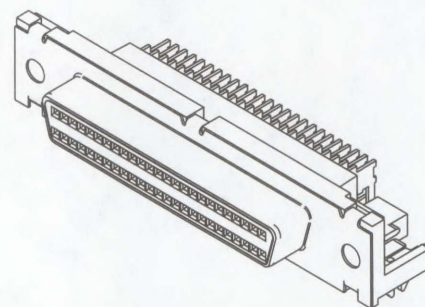
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Brass
Plating: Contact Area—15μ" Gold
Solder Tails—75μ" Tin/Lead
Underplating—Nickel
Operating Temperature: -55 to +75°C



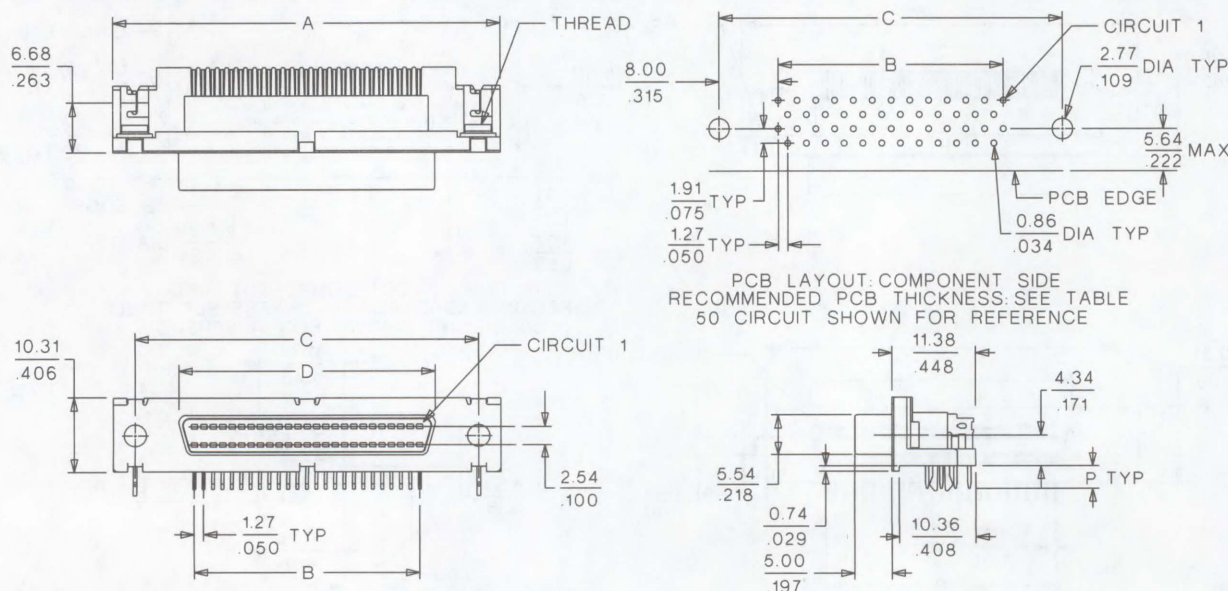
1.27mm (.050") Pitch
SCSI+
Unshielded Receptacle
Low Cost Version

74302

Right Angle without Latches
68 Circuits



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Thread	End Holes	Dimension					Recommended PCB Thickness
				A	B	C	D	P	
68	74302-1002	2-56	1.98 (.078)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	74302-1004	2-56	1.98 (.078)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	2.36 (.093)
	74302-1006	2-56	1.98 (.078)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	4.19 (.165)	3.18 (.125)
	74302-1102	2-56	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	74302-1104	2-56	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	2.36 (.093)
	74302-1106	2-56	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	4.19 (.165)	3.18 (.125)
	74302-1202	4-40	2.67 (.105)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	74302-1204	4-40	2.67 (.105)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	2.36 (.093)
	74302-1206	4-40	2.67 (.105)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	4.19 (.165)	3.18 (.125)
	74302-1302	4-40	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	74302-1304	4-40	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	2.36 (.093)
	74302-1306	4-40	3.05 (.120)	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	4.19 (.165)	3.18 (.125)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Housing is compatible with SMT processing
- Blanked tuning fork terminal, smooth contact surface
- Optimum tail true position control
- Date-coded assembly
- Fork lock retention to board

Reference Information

Product Specification: PS-79058
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

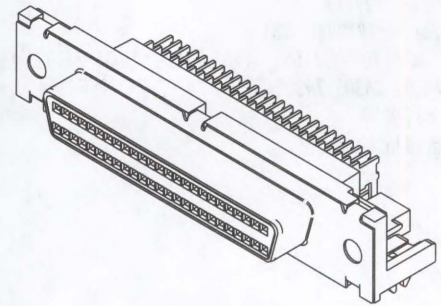
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Phosphor Bronze
Plating: 30μ" Gold in contact area, 75μ" Tin/Lead on solder tails, all over Nickel overall
Operating Temperature: -55 to +105°C



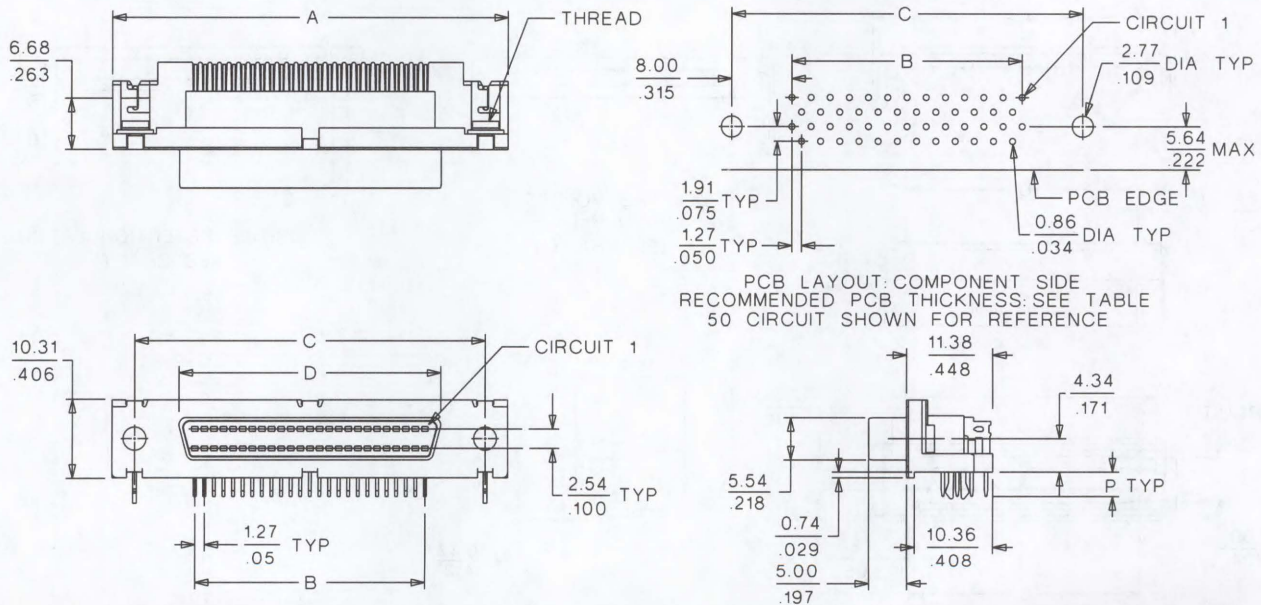
1.27mm (.050") Pitch
SCSI+
Shielded Receptacle

79059

Right Angle without Latches



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Thread	Dimension					Recommended PCB Thickness
	Automatic*	Manual**		A	B	C	D	P	
50	15-87-6040	79059-1901	4-40	52.45 (2.065)	30.48 (1.200)	46.48 (1.830)	34.70 (1.366)	3.18 (.125)	1.57 (.062)
	15-87-6041	79059-1905		52.45 (2.065)	30.48 (1.200)	46.48 (1.830)	34.70 (1.366)	3.18 (.125)	2.36 (.093)
	15-87-6042	79059-1909		52.45 (2.065)	30.48 (1.200)	46.48 (1.830)	34.70 (1.366)	4.19 (.165)	3.18 (.125)
	15-87-6043	79059-1918	2-56	52.45 (2.065)	30.48 (1.200)	46.48 (1.830)	34.70 (1.366)	3.18 (.125)	1.57 (.062)
	15-87-6044	79059-1922		52.45 (2.065)	30.48 (1.200)	46.48 (1.830)	34.70 (1.366)	3.18 (.125)	2.36 (.093)
	15-87-6045	79059-1926		52.45 (2.065)	30.48 (1.200)	46.48 (1.830)	34.70 (1.366)	4.19 (.165)	3.18 (.125)
68	15-87-6200	79059-1902	4-40	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	15-87-6201	79059-1906		63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	2.36 (.093)
	15-87-6202	79059-1910		63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	4.19 (.125)	3.18 (.125)
	15-87-6060	79059-1919	2-56	63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	1.57 (.062)
	15-87-6061	79059-1923		63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	3.18 (.125)	2.36 (.093)
	15-87-6062	79059-1927		63.88 (2.515)	41.91 (1.650)	57.91 (2.280)	46.13 (1.816)	4.19 (.165)	3.18 (.125)

* For automatic placement of screw hardware

** For manual placement of screw hardware

Note: Available screwlock hardware provides panel mounting, maintains cable-ground connection and accepts mating and jackscrew hardware to provide plug retention. Please see page Q-39.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Retention latch provides positive lock to mating plug
- Available as kit, with or without strain relief
- Conforms to SCSI requirements
- Date-coded assembly

Reference Information

Product Specification: PS-79058

Tooling Information: See end of section

UL File No.: E29179

CSA File No.: LR19980A-281

Mates With: 70491, 71061, 71163, 73976, 73631, 74182

74302, 74303, 74305, 74306, 74307, 74308, 74314,
and 79059

Designed In: Inches

Electrical

Voltage: 30V

Current: 1.0A

Contact Resistance: 25mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.

Unmating Force: 1.0 oz min.

Normal Force: 100g

Physical

Housing: Black glass-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Plating: 30μ" Gold in contact area, 75μ" Tin/Lead on IDT
area, all over Nickel overall

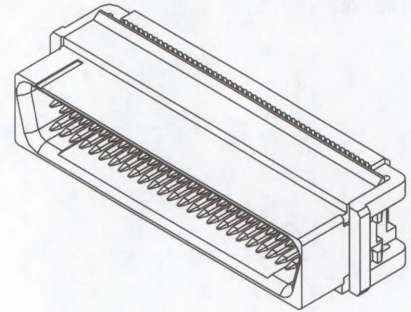
Operating Temperature: -55 to +105°C



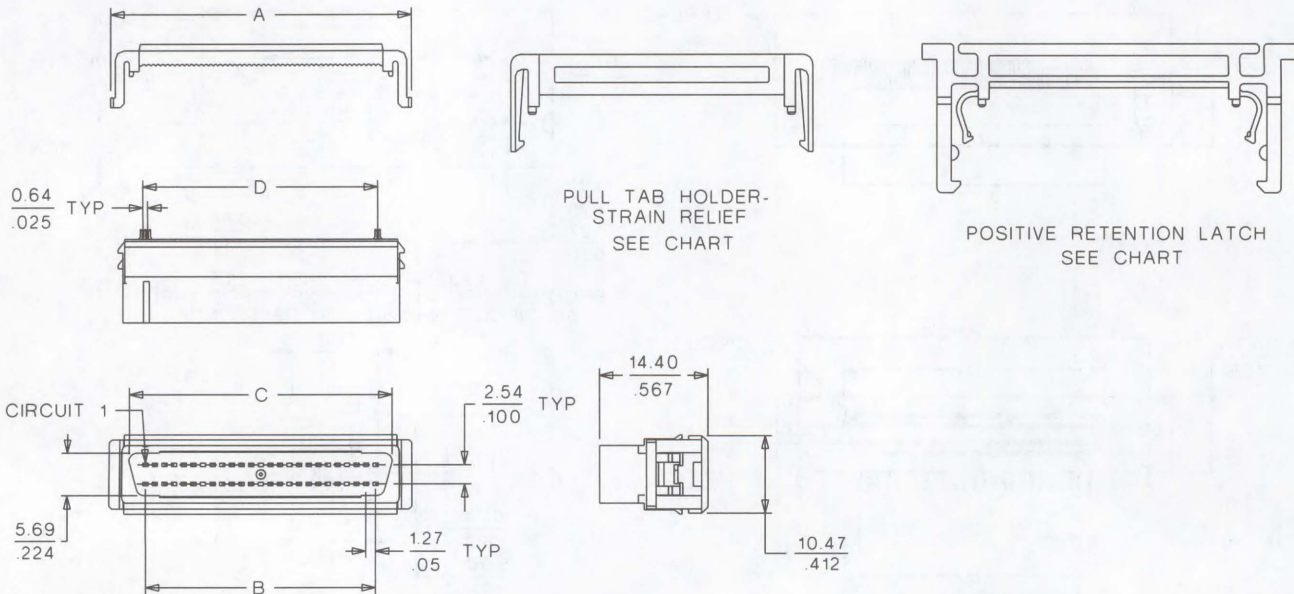
1.27mm (.050") Pitch
SCSI+
Unshielded Plug

70498

For .025" Ribbon Cable
All Plastic



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.			Dimension			
	Complete Kits		Positive Retention Latch Only	A	B	C	D
	With Pull Tab Holder	Without Pull Tab Holder					
50	70498-5050	70498-4050	70499-4001	51.49 (2.027)	30.48 (1.200)	34.85 (1.372)	31.12 (1.225)
68	70498-5068	70498-4068	70499-4002	40.06 (1.577)	41.91 (1.650)	46.28 (1.822)	42.54 (1.675)

Note: Shielded versions of this product are available, contact Molex

FEATURES AND SPECIFICATIONS

Features and Benefits

- Semi-automatic termination machine (Raptor)
- Full conformance to SCSI specifications
- Strain relieved plug subassembly
- Closed back end
- Expanded flange facilitates 360° soldering of shield to Copper wrapped pre-mold
- Accepts 28 to 30 AWG

Reference Information

Product Specification: PS-79058
Tooling Information: See end of section
UL File No.: E29179
CSA File No.: LR19980A-281
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

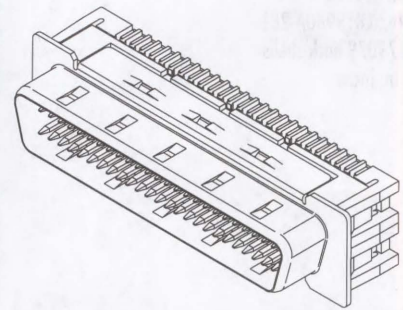
Housing: Black glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: 30μ" Gold in contact area, 75μ" Tin/Lead on IDT area, all over Nickel overall
Operating Temperature: -55 to +105°C



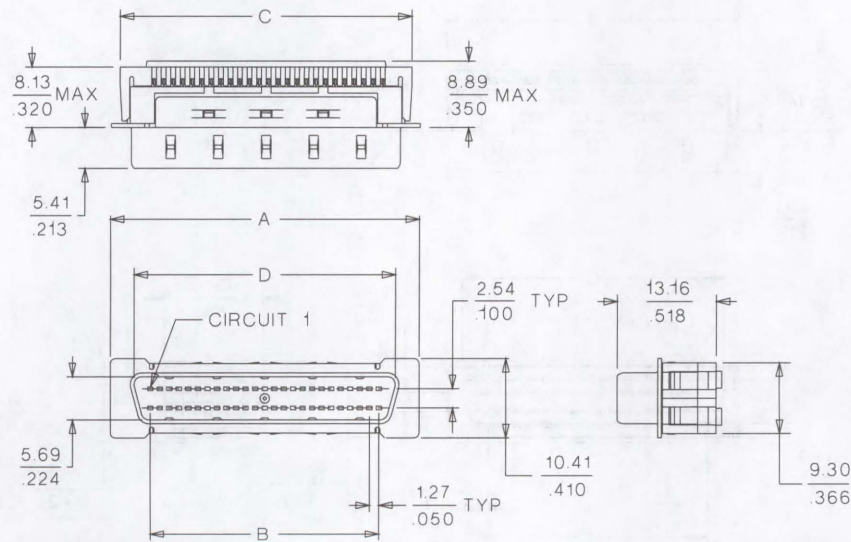
1.27mm (.050") Pitch SCSI+ Shielded Plug

71295

For Discrete Wire and Overmolding Applications



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Description	Dimension			
			A	B	C	D
50	71295-2050	Plug assembly and upper housings	41.15 (1.620)	30.48 (1.200)	38.86 (1.530)	34.85 (1.372)
68	71295-2068	Plug assembly and upper housings	52.58 (2.070)	41.91 (1.650)	50.29 (1.980)	46.28 (1.372)

Note: Upper housing shown assembled, however parts are shipped loose

FEATURES AND SPECIFICATIONS

Features and Benefits

- Semi-automatic termination machine (Raptor)
- Full conformance to SCSI specifications
- Strain relieved plug subassembly
- Closed back end
- Date-coded assembly
- Accepts 28 to 30 AWG

Reference Information

Product Specification: PS-79058
Tooling Information: See end of section
UL File No.: E29179
CSA File No.: LR19980A-281
Use With: 79079 back shells
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 25mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 MΩ min.

Mechanical

Mating Force: 5.3 oz max.
Unmating Force: 1.0 oz min.
Normal Force: 100g

Physical

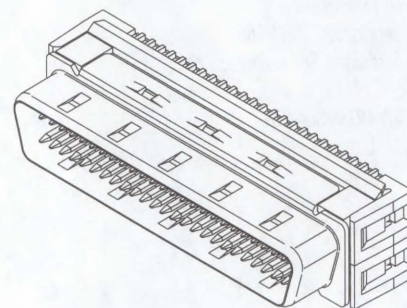
Housing: Black glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: 30μ" Gold in contact area, 75μ" Tin/Lead on IDT area, all over Nickel overall
Operating Temperature: -55 to +105°C



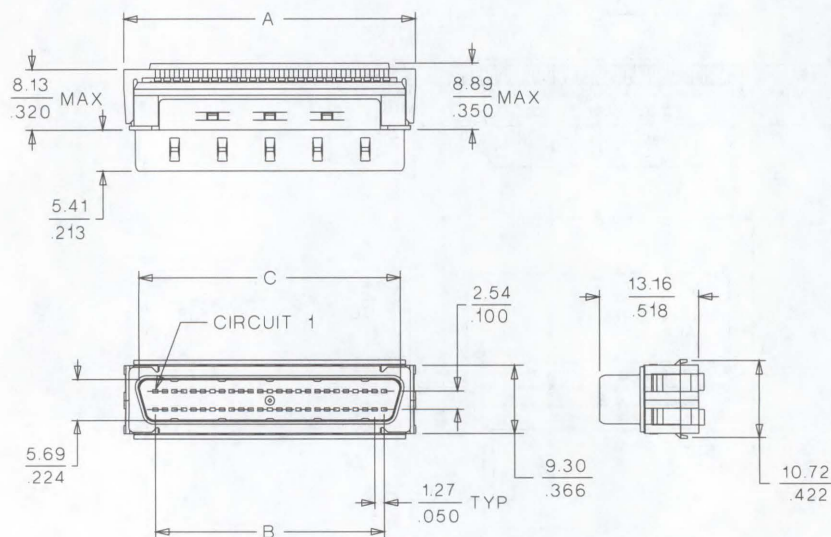
1.27mm (.050") Pitch SCSI+ Shielded Plug

79058

For Discrete Wire



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Description	Dimension		
			A	B	C
50	15-87-1050	Plug assembly and upper housings	38.86 (1.530)	30.48 (1.200)	34.85 (1.372)
68	15-87-1068	Plug assembly and upper housings	50.29 (1.980)	41.91 (1.650)	46.28 (1.822)

Note: Upper housing shown assembled, however parts are shipped loose

molex® Ultra+™ VHDCI Connector System

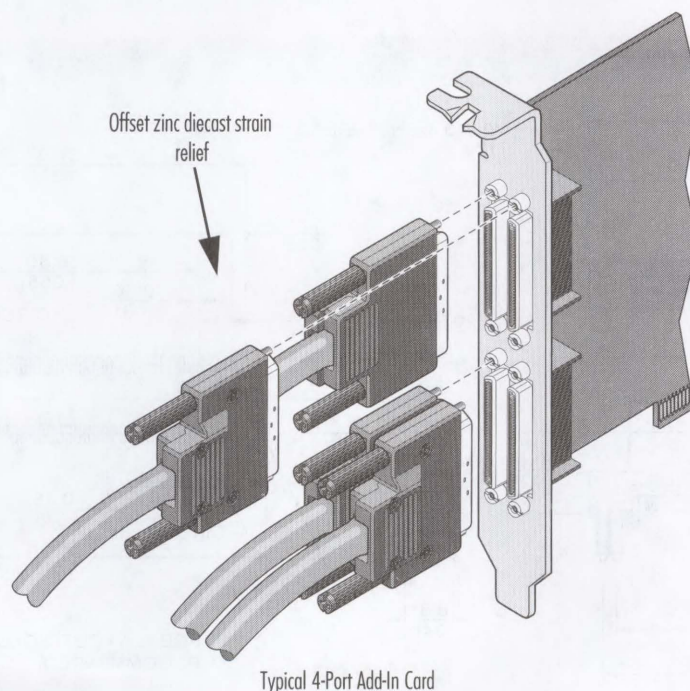
Ultra+ Cable SCSI Connector

Molex's new 0.80mm (.031") Ultra+ VHDCI Connector System is a leader among the next generation of high density connectors. These 68-circuit connectors are designed for high performance memory transfer applications, supporting the latest SCSI-style interfaces. They offer greatly increased density compared to existing SCSI connectors styles. They are also well suited for other high density I/O needs.

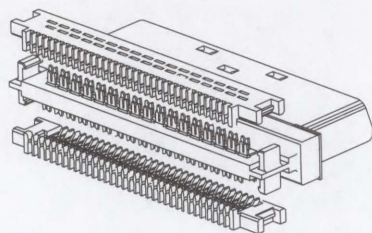
These connectors enable two side-by-side ports, allowing cards to support up to 30 drives. Stacked receptacles, which will be available in the future, will support up to 60 drives. They offer a tremendous advantage over the current SCSI-3 connectors that allow only one port on standard add-in cards.

Molex's Ultra+ VHDCI connectors feature easy-to-use cable assembly and superior leaf/ribbon style contacts. They meet the Small Form Factor and EIA Standards.

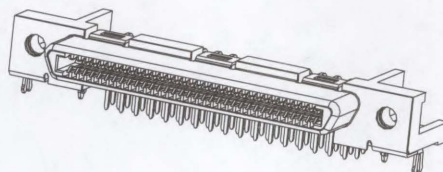
Molex also has standard high density SCSI-3 connectors for use with the new Ultra+ VHDCI cable formats.



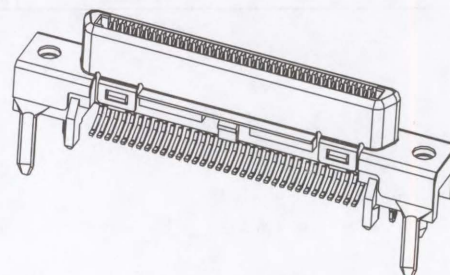
CATALOG DRAWING (FOR REFERENCE ONLY)



71425
IDT Plug



71430
Right Angle Receptacle

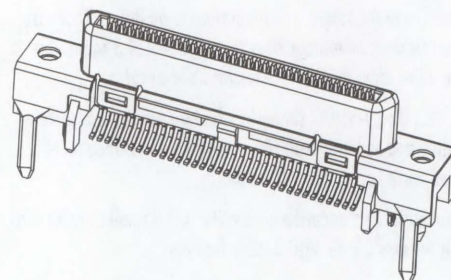


73776
Vertical SMT Receptacle

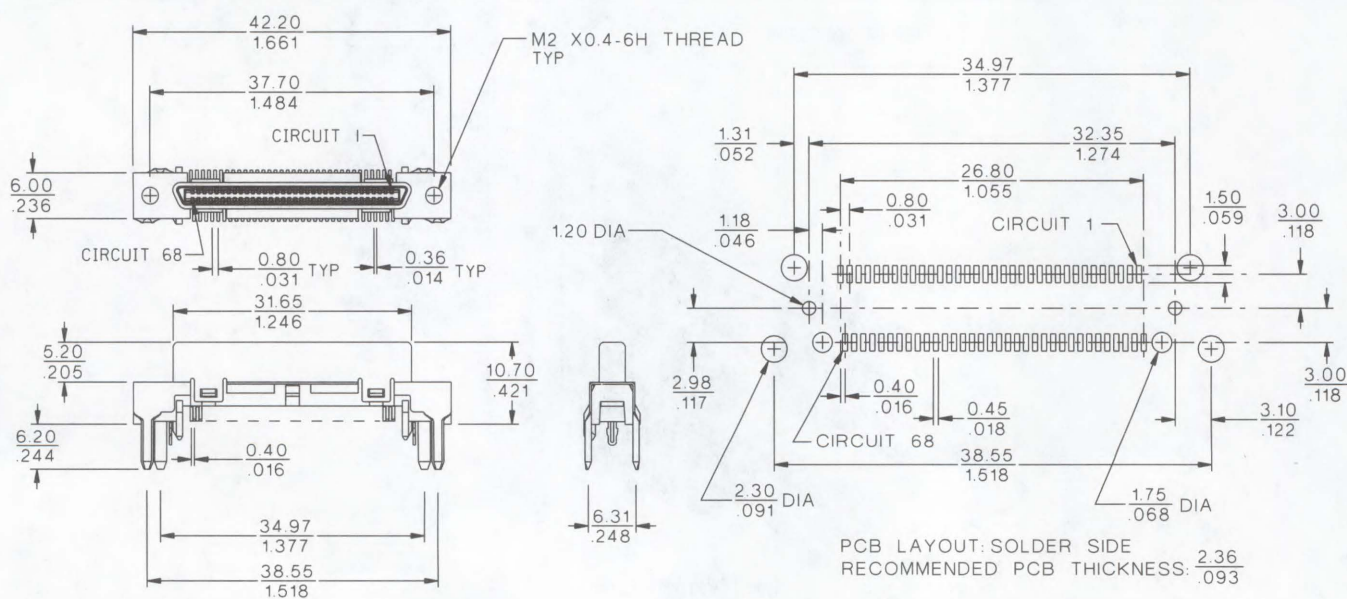
0.80mm (.031") Pitch
Ultra+™ VHDCI

Vertical, SMT

Housing: Black high-temperature thermoplastic, 94V-0
Contact: Phosphor Bronze
Plating: Gold flash over palladium nickel
Operating Temperature: -55 to +85°C



I/O Connectors



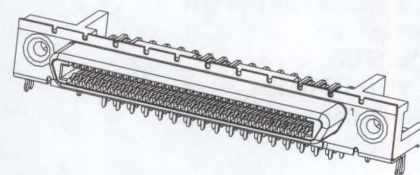
Circuits	Order No.	Description
68	73776-0101	Mounting ears with thread
68	73776-0201	Mounting ears with threaded screwlock



0.80mm (.031") Pitch
Ultra™ VHDCI
Receptacle

71430

Right Angle, Enhanced Shield



Features and Benefits

- Enhanced shield with multiple contact points for improved EMI/RFI shielding
- Conforms to EIA/SFF specifications to ensure intermateability with conforming products
- Shield design can eliminate reflow solder ground connection
- 1-piece shield offers maximum ground integrity
- Surface Mount Compatible

Reference Information

Product Specification: PSX-71425-9999

Packaging Type: Tube

UL File No.: E29179

CSA File No.: LR 19980-520

Mates With: 71425

Designed In: Millimeters

Electrical

Voltage: 30V

Current: .5A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 250V

Insulation Resistance: 500 M Ω min.

Mechanical

Mating Force: .54N (55g)

Unmating Force: .15N (15g)

Durability: 500 cycles max.

Physical

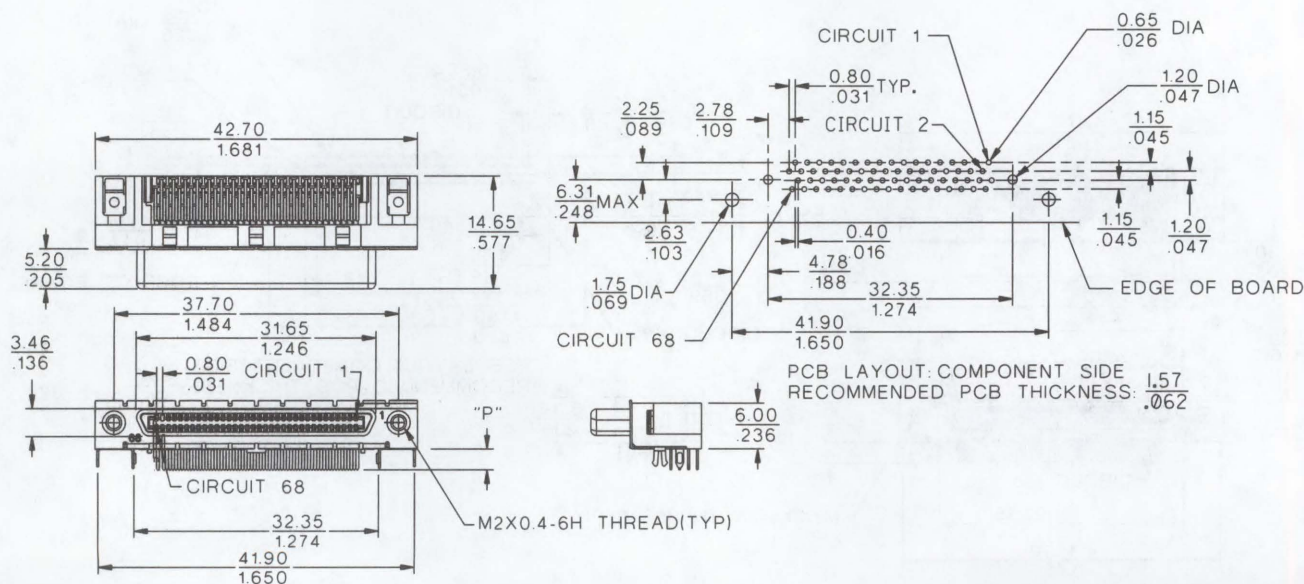
Housing: Black high-temperature thermoplastic, UL 94V-0

Contact: Phosphor Bronze

Plating : Gold flash over Palladium Nickel

Operating Temperature: -55 to +85°C

CATALOG DRAWING (FOR REFERENCE ONLY)

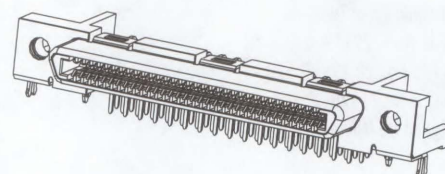


ORDERING INFORMATION AND DIMENSIONS

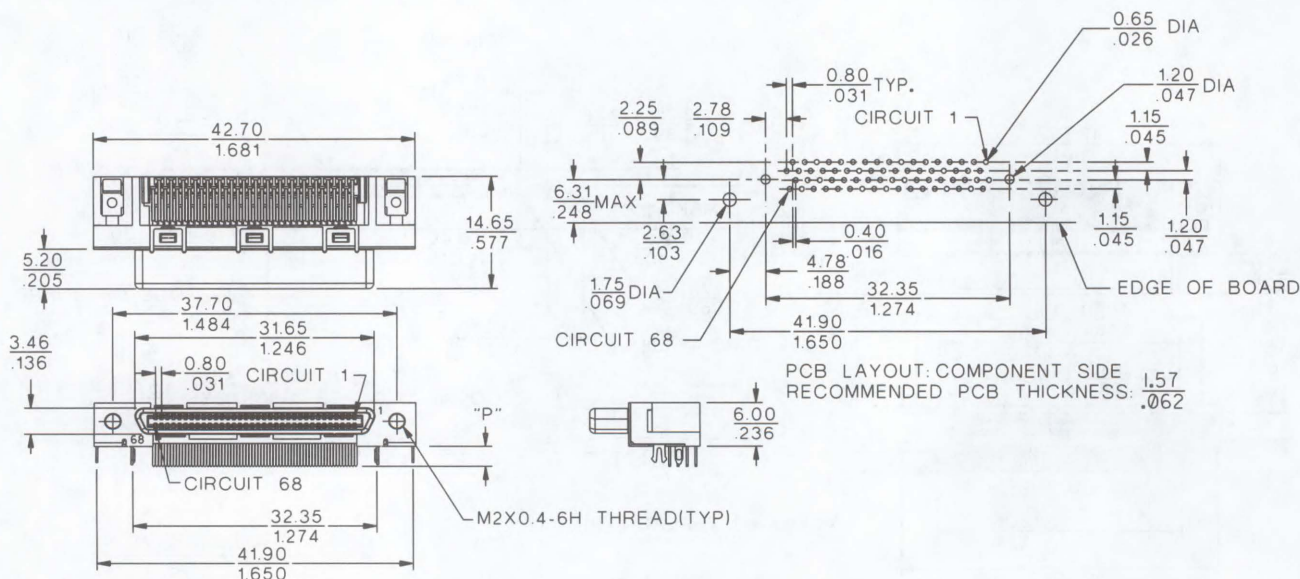
Circuits	Order No.		PC Tail Length
	Without Screwlock	With Screwlock	
68	71430-0005	71430-0008	2.08 (.082)
	71430-0004	71430-0009	2.71 (.107)

Right Angle, Standard

Designed In: Millimeters



N



Circuits	Order No.		PC Tail Length
	Without Screwlocks	With Screwlocks	
68	71430-0101	71430-0006	2.08 (.082)
68	71430-0268	71430-0007	2.71 (.107)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Conforms to EIA/SFF specifications to ensure interchangeability with conforming parts
- Gold flash over Palladium Nickel plating for a high durability/reliability interface

Reference Information

Product Specification: PS-71425-9999

Packaging: Tray

UL File No.: Contact Molex

CSA File No.: Contact Molex

Mates With: 71425 plug

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 0.5A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 250V AC

Insulation Resistance: 500 MΩ min.

Mechanical

Mating Force: 0.54N (0.12 lb)

Unmating Force: 0.15N (0.03 lb)

Durability: 500 cycles

Physical

Housing: Black, high-temperature thermoplastic, UL 94V-0

Contact: Phosphor Bronze

Plating: Gold Flash over Palladium Nickel

PCB Thickness: 1.57 and 2.36mm (.062 and .093")

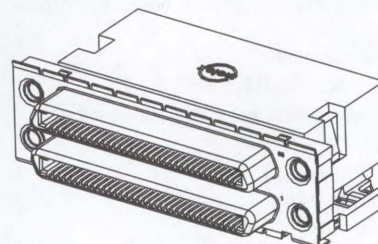
Operating Temperature: -55 to +85°C



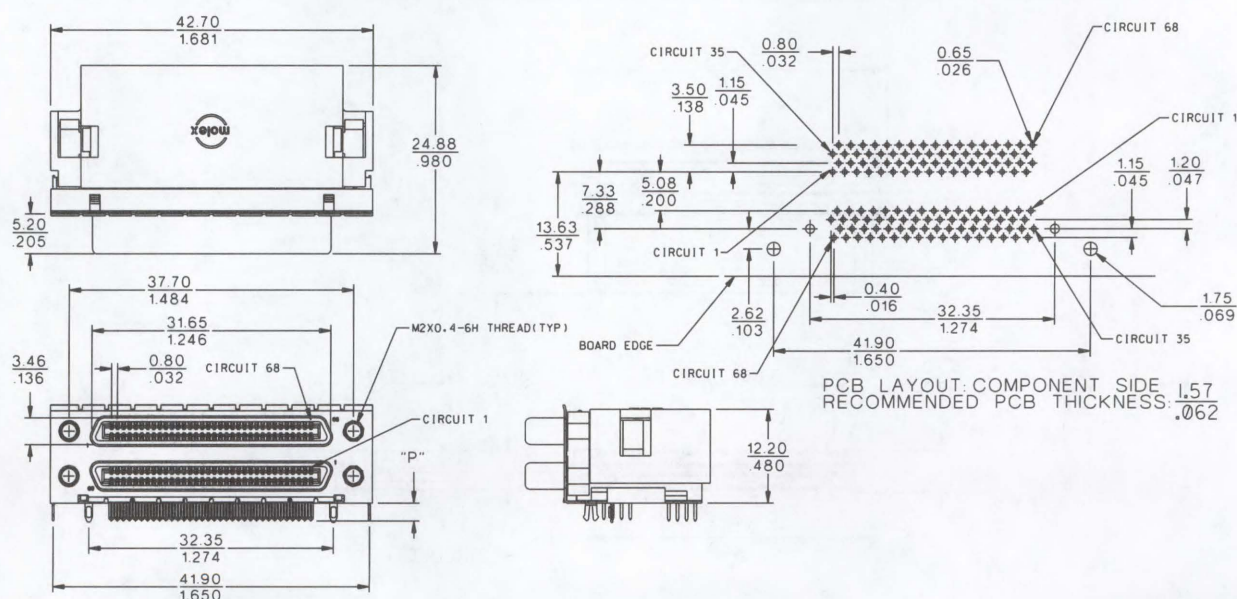
0.80mm (.031") Pitch Ultra+ VHDCI Wire-to-Board Receptacle

74337

Stacked, Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.				Dimension P
	With Screwlocks	With Cover	With Screwlocks and Cover	Without Screwlocks or Cover	
136	74337-0040	74337-0012	74337-0038	74337-0016	2.08 (.082)
	74337-0039	74337-0011	74337-0037	74337-0015	2.30 (.090)
	74337-0073	74337-0070	74337-0072	74337-0071	3.44 (.135)

Note: Other versions are available. Please contact Molex.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Compatible with overmolding process, or use 73796 backshell kit
- Conforms to EIA/SFF specifications to ensure intermateability with conforming products
- Semi-automatic tooling available, which maximizes termination efficiency
- Insert molded design for rugged mating interface
- Narrow terminated profile that permits 2 wire termination process for all applications
- Works for both straight and offset cable applications
- Designed to terminate 30 gauge, 34 pair ultra style cables

Reference Information

Product Specification: PSX-71425-9999

Tooling Information: Raptor 2 or manual termination press

UL File No.: E29179

CSA File No.: LR 19980-520

Mates With: 71430, 73776

Assembled with: 73796

Designed In: Millimeters

Electrical

Voltage: 30V

Current: .5A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 250V

Insulation Resistance: 500 MΩ min.

Mechanical

Mating Force: .54N (55g)

Unmating Force: .15N (15g)

Durability: 500 min.

Physical

Housing: 94V-0, thermoplastic

Contact: Phosphor Bronze

Plating: Gold Flash over palladium nickel

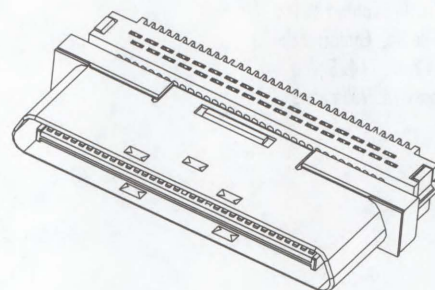
Operating Temperature: -55 to +85°C



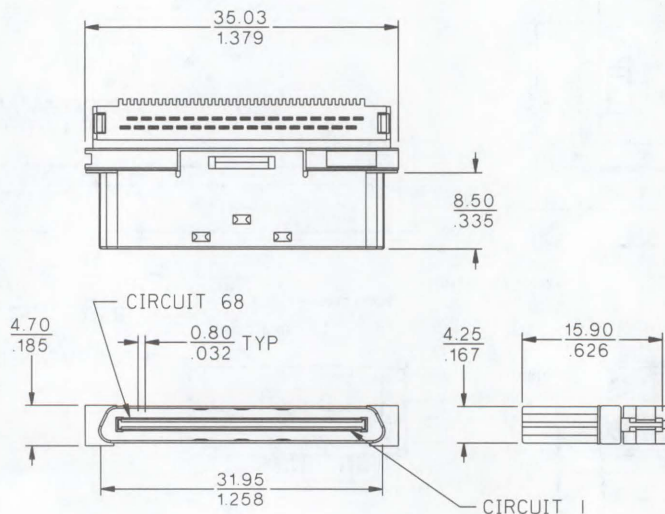
0.80mm (.031") Pitch Ultra+ VHDCI Plug Kit

71425

IDT



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Quantity	Description
68	71425-1001	1	Plug*

* Plug includes plug assembly and wire covers

FEATURES AND SPECIFICATIONS

Features and Benefits

- Eliminates need for overmolding
- Can be used for both offset and straight cable exit applications
- No secondary operations needed to strain relieve
- Reduces overall labor, eliminates pre-shot, copper wrap, solder and final overmold assembly processes
- Assembly compatible with 4 port PCI bracket applications

Reference Information

Termination Specification Procedure: SD-73796-007

Assembled With: 71425

Designed In: Millimeters

Physical

Housing: Zinc

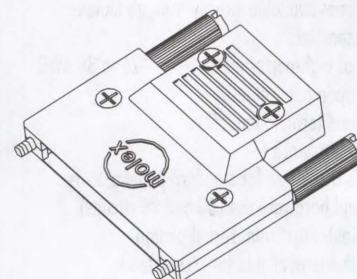
Plating: Nickel or black non-conductive coating



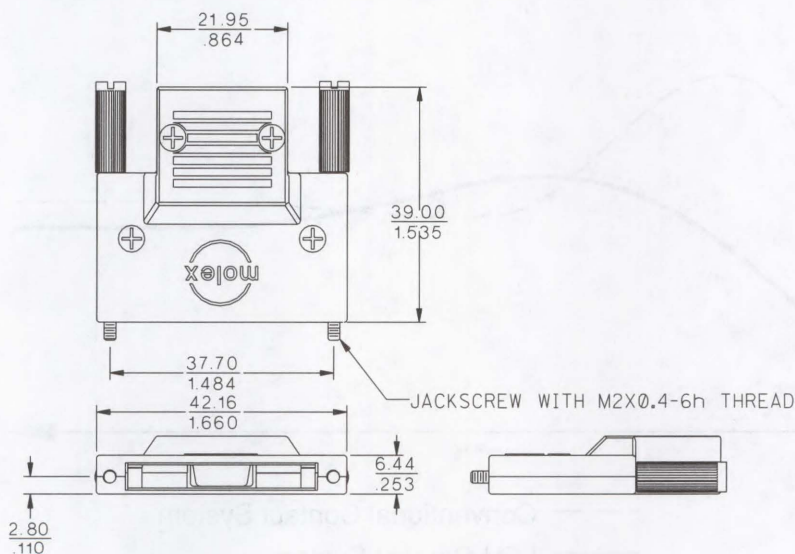
0.80mm (.031") Pitch
Ultra+™ VHDCI
Strain Relief

73796

Offset Zinc Die Cast



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Order No.		Quantity	Description
Black	Nickel		
73796-1001	73796-1002	1	Complete Kit*

* Complete kit includes 1 upper shell, 1 lower shell, 2 jack screws, 2 long screws and 2 short screws

Note: Backshell can be provided with custom logo, consult Molex

FEATURES AND SPECIFICATIONS

Features and Benefits

- Low insertion forces of 42g per contact
- Redundant contact points for long-term reliability
- Normal forces of 75g per beam
- Contact (Hertz) forces averaging 225K psi
- High cycle life via controlled plating and contact surfaces
- Good electrical performance for high-speed applications
- Blind mate options available
- SMT-compatible materials
- Cable assemblies available directly through Molex-approved assemblers
- Termination of high-performance wire—26 to 36 AWG (depending upon application)
- Solder and weld terminations
- M3 and 4-40 hardware
- I/O system is D-sub size for standard panel cutouts, overmolds and hardware use (60 and 96 circuits)
- 30μ" min. Gold/50μ" min. Nickel plating
- Docking hardware available for I/O systems
- Matrix 50 contact layout is on .050 x .050" spacing. Matrix 75 layout is on .075 x .075" spacing.

Mechanical

Please refer to individual product pages for details

Materials

Please refer to individual product pages for details

Environmental/Durability

After Temperature Cycling: <10mΩ ΔR

After Cycle Humidity: <10mΩ ΔR

After Flowing Mixed Gas Test: <10mΩ ΔR

After 5000 Mated Cycles Durability: <10mΩ ΔR

Please refer to individual product pages for more details

Electrical Characteristics—Matrix 50

Measured at 200 ps rise time for differential signals

Nominal Bandwidth: 3 to 4 GHz

Impedance: 80 to 104Ω



LFH™ Matrix 50 and 75 Connector Systems

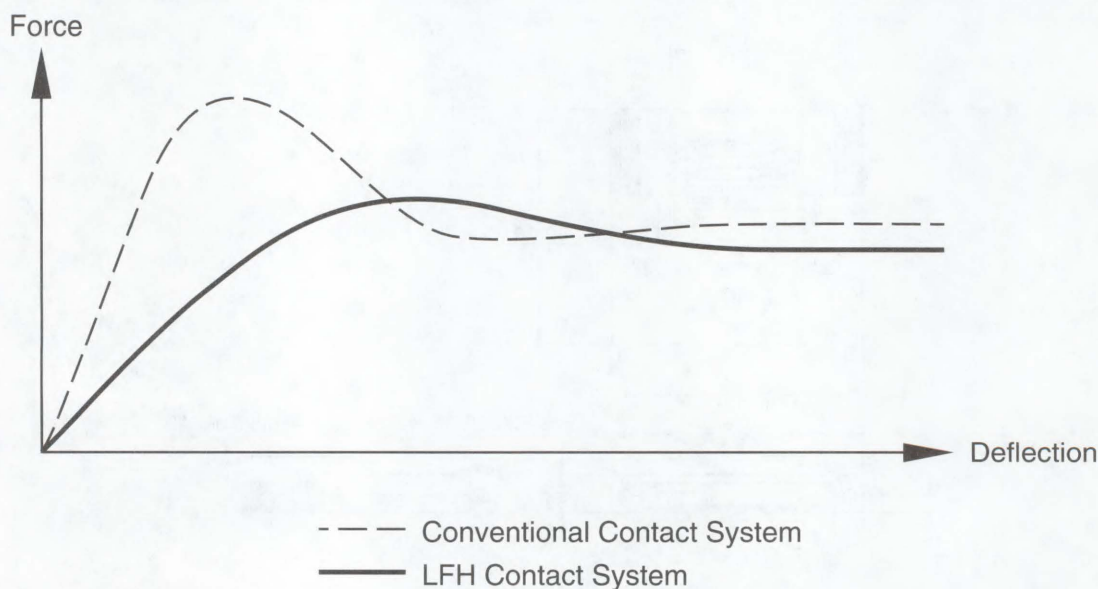
The Low Force Helix (LFH) contact was designed for high-pin-count signal applications where there is a need for reliability and performance. Designed for both cable I/O and board-to-board applications, the system's low insertion forces make it ideal for situations where multiple signal lines need to be terminated or packaged in a limited space. The patented "helix" plug pin interfaces with a split-beam receptacle contact giving a low insertion force with 2-point contact reliability.

Circuit sizes range from 60 to 200 circuits in the Matrix 50 system and 96 to 240 circuits in the Matrix 75 system. Matrix 50 features I/O shielding exclusively, while Matrix 75 offers shielded and unshielded versions. Both systems support vertical and right angle board mounting.

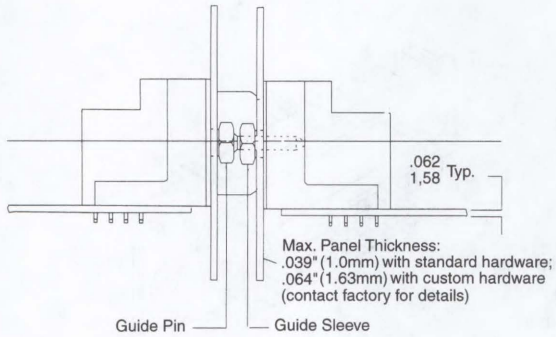
CATALOG DRAWING (FOR REFERENCE ONLY)

I/O Connectors

N

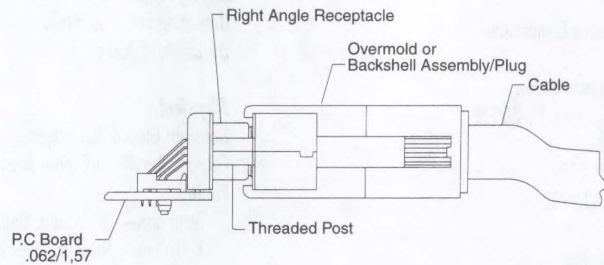


The LFH system's low insertion forces promote high cycle life and extended contact reliability. Compared with conventional contact systems, the patented "helix" LFH interface has a lower initial insertion force with a more gradual ramp up to the full normal force of 75g per beam.



Matrix 50 I/O

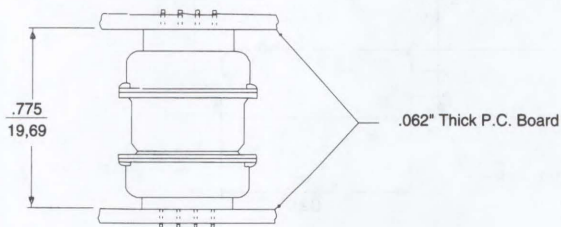
Blind Mate Docking
Right Angle Plug to Right Angle Receptacle
60 and 160 Circuit



Matrix 50 I/O

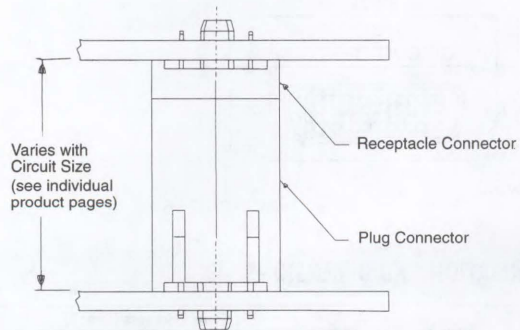
Right Angle Receptacle to Cable Plug
60, 160 and 200 Circuit

CATALOG DRAWING (FOR REFERENCE ONLY)



Matrix 75 I/O

Vertical Stacking
96 and 130 Circuit



Matrix 75 Board-to-Board*

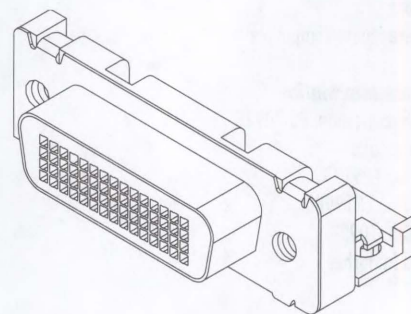
Vertical Stacking
96 and 240 Circuit Board-to-Board
* See section C for product information



1.27mm (.050") Pitch
LFH™ Matrix 50
Shielded Receptacle

70928

60 Circuit, Right Angle



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Same size as 15-pin D-sub for standard panel cut-outs and hardware use
- M3 threaded inserts for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

Mates With: 70929

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact: Beryllium Copper Alloy

Plating:

Terminals—30 μ " min. Gold over Nickel in contact area,

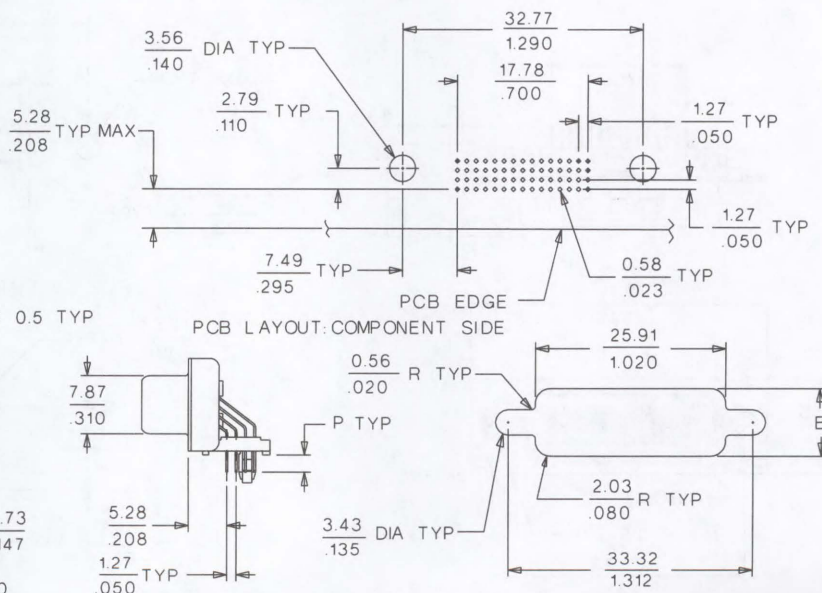
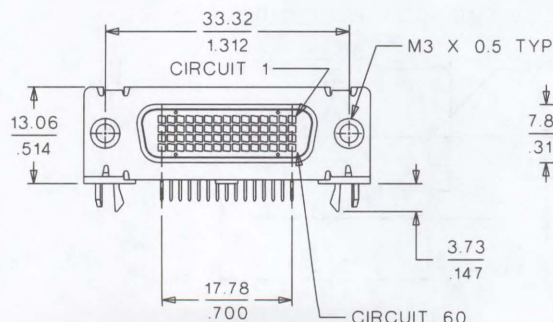
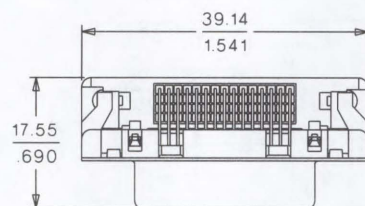
100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150 μ " min. bright Tin over Nickel all over

Copper flash

Operating Temperature: -20 to +80°C

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension P	Panel Thickness (Dim. B)		PCB Thickness	Hardware		
			.039" max.	.064" max.		Guide Pin	Guide Sleeve	Hex Screw Kit
60	• 70928-2000	2.01 (.079)	9.65 (.380)	10.67 (.420)	1.57 (.062)	71628 and 71770	71629 and 71771	70982
	• 70928-2001	2.34 (.092)	9.65 (.380)	10.67 (.420)	1.57 (.062)			70982
	• 70928-2002	2.64 (.104)	9.65 (.380)	10.67 (.420)	2.36 (.093)			70982
	70928-2005	2.01 (.079)	9.65 (.380)	10.67 (.420)	1.57 (.062)			70982-1004 Enclosed

- US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Same size as 15-pin D-sub for standard panel cut-outs and hardware use
- M3 threaded inserts for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

Mates With: 70928

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact: Phosphor Bronze Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area, 100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over Copper flash

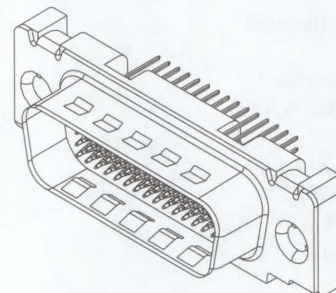
Operating Temperature: -20 to +80°C



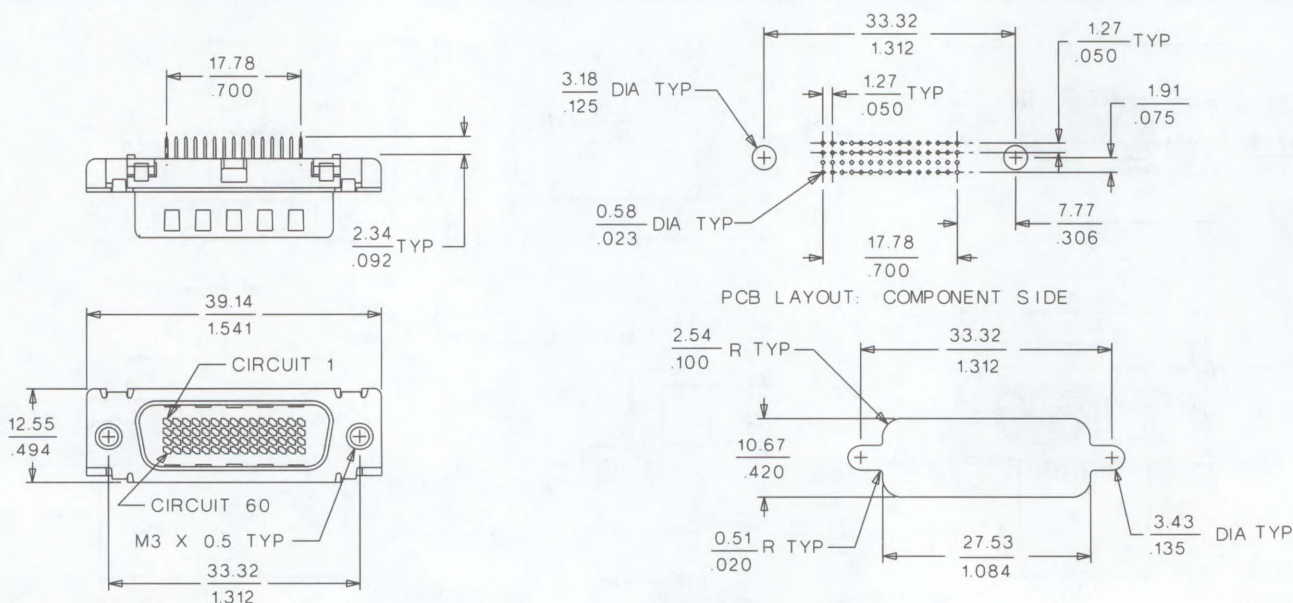
1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Plug

70929

60 Circuit, Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Hardware		
		Guide Pin	Guide Sleeve	Hex Screw Kits
60	• 15-92-2251	71628 and 71770	71629 and 71771	70982

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Same size as 15-pin D-sub for standard panel cut-outs and hardware use
- M3 threaded inserts for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

Mates With: 70928

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact: Phosphor Bronze Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over

Copper flash

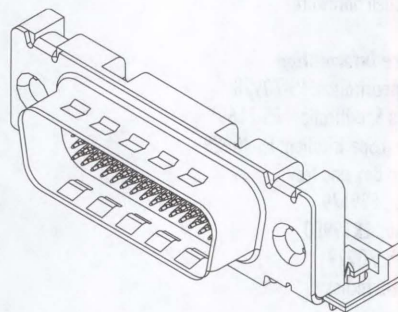
Operating Temperature: -20 to +80°C



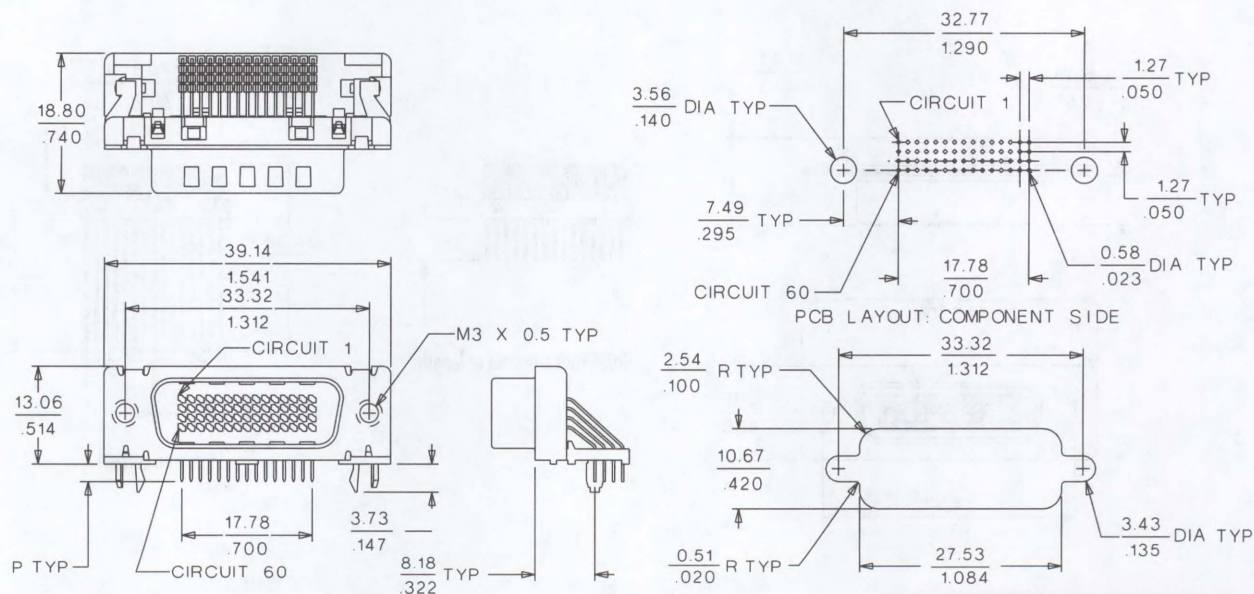
1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Plug

70929

60 Circuit, Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Hardware			Dimension P
		Guide Pin	Guide Sleeve	Hex Screw Kit	
60	• 15-92-2250	71628 and 71770	71629 and 71771	70982	2.34 (.092)
	• 15-92-2253				2.64 (.104)

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- Cable assemblies available through Molex-approved suppliers
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)
- Same size as 15-pin D-sub for standard overmolding and back shell hardware

Reference Information

Product Specification: PS-70928
 Application Specification: PS-71691
 Termination Specification: ES-70929
 Packaging: Box and tray
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: 70929
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.
 Mating Force: 50g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0
 Contact:

Receptacle—Beryllium Copper Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—100μ" min. bright Tin over Copper

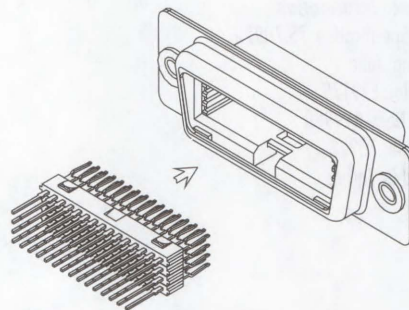
Operating Temperature: -20 to +80°C



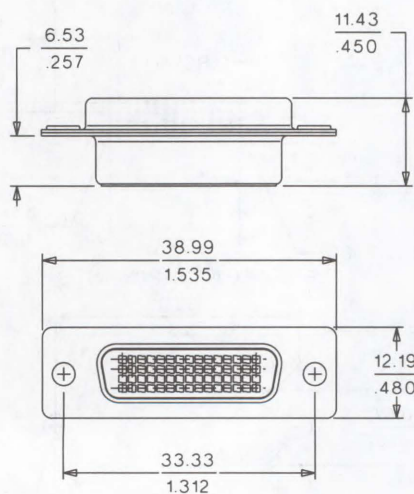
1.27mm (.050") Pitch LFH™ Matrix 50 Receptacle Cable Kit

71691/70985

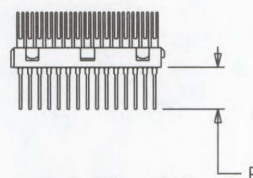
Subassembly and Terminal Sticks 60 Circuit



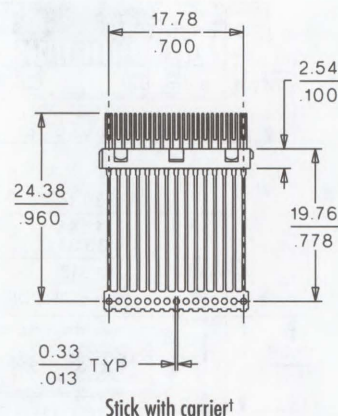
SUBASSEMBLY CATALOG DRAWING (FOR REFERENCE ONLY)



TERMINAL STICKS



Note: Stick trimmed to length



ORDERING INFORMATION AND DIMENSIONS

Subassembly	
Order No.	Description
• 71691-0003*	60-Circuit I/O Receptacle Connector Subassembly

Terminal Sticks—4 Sticks Required per Subassembly		
Order No.	Description	Trim Length P
• 51-25-2012	Trimmed to Length without Carrier	5.46 (.215)
• 51-25-2011	With Carrier†	
51-25-2014	Trimmed to Length without Carrier	3.30 (.130)

* US Standard Product, available through Molex franchised distributors

* Stick Loading Tool 62200-1600 can be used for inserting sticks into subassembly

† Sticks can be trimmed using LFH Stick Preparation Tool Kit 62200-1100

FEATURES AND SPECIFICATIONS

Features and Benefits

- Cable assemblies available through Molex-approved suppliers
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)
- Same size as 15-pin D-sub for standard overmolding and back shell hardware

Reference Information

Product Specification: PS-70928

Application Specification: PS-70929

Termination Specification: ES-70929

Packaging: Box and tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 70928

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact:

Plugs—Phosphor Bronze Alloy

Receptacle—Beryllium Copper Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over

Copper flash

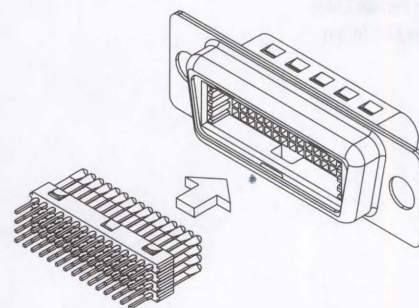
Operating Temperature: -20 to +80°C



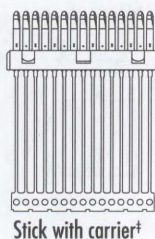
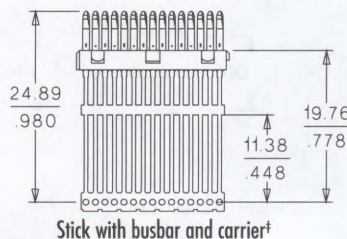
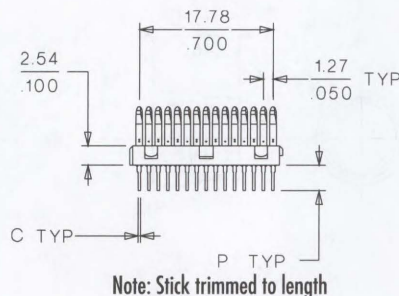
1.27mm (.050") Pitch LFH™ Matrix 50 Plug Cable Kit

70929/70984

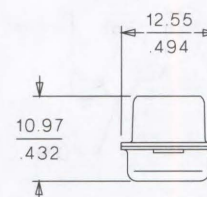
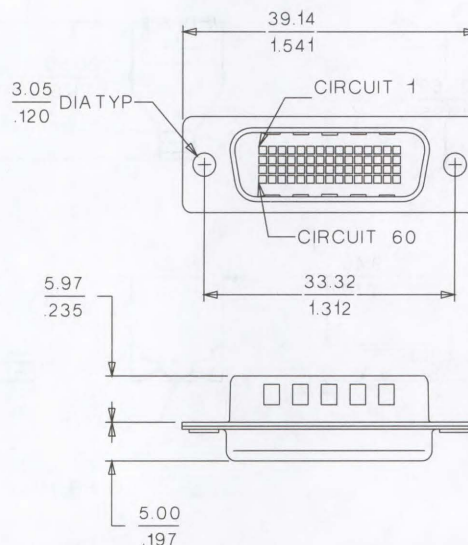
Subassembly and Terminal Sticks 60 Circuit



TERMINAL STICKS CATALOG DRAWING (FOR REFERENCE ONLY)



SUBASSEMBLY



ORDERING INFORMATION AND DIMENSIONS

Subassembly	
Order No.	Description
• 70929-2000	60-Circuit I/O Plug Connector Subassembly

Terminal Sticks—4 Sticks Required per Subassembly			
Order No.	Description	Dimension C	Trim Length P
• 51-24-2022	Trimmed to Length without Carrier	0.33 (.013)	3.30 (.130)
• 51-24-2021	With Carrier†	0.33 (.013)	
70984-1007*	With Busbar and Carrier†	0.51 (.020)	
70984-1010‡	With Busbar and Carrier†	0.51 (.020)	

* US Standard Product, available through Molex franchised distributors

* 50μ" Nickel plating on termination end

† 200μ" Tin/Lead plating over Nickel on termination end

‡ Sticks can be trimmed using LFH Stick Preparation Tool Kit 62200-1100

§ Stick Loading Tool 62200-1500 can be used for inserting sticks into subassembly

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- Use with 60-circuit plug cable kit
- Each can kit includes top and bottom pieces
- Crimp ferrule used for grounding cable shield (sold separately)
- Can pieces snap together to provide continuous electrical shielding with connector and cable

Reference Information

Application Specification: PS-70929

Packaging: Bag

Tooling Information: Ferrule Crimp Hand Tool or Manual Press for Ferrule Crimp

Designed In: Inches

Physical

Plating: Bright Tin over Copper flash



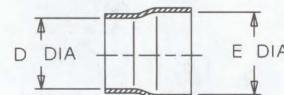
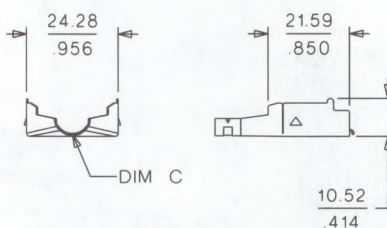
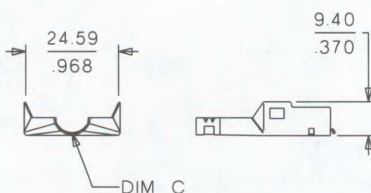
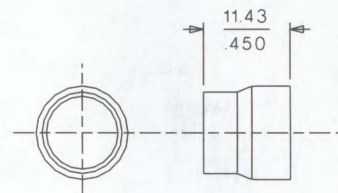
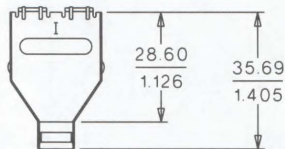
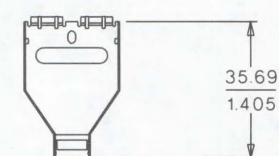
1.27mm (.050") Pitch
LFH™ Matrix 50
Hardware

71245/71256

Overmold Can Kit and
Crimp Ferrule

OVERMOLD CAN KIT CATALOG DRAWING (FOR REFERENCE ONLY)

CRIMP FERRULE



UPPER HALF

LOWER HALF

CRIMP FERRULE

ORDERING INFORMATION AND DIMENSIONS

Overmold Can		
Order No.	Dimension C	Cable Sizes (max.)
• 71245-2000	4.45 (.175)	11.18 (.440)
• 71245-3000	6.35 (.250)	12.57 (.495)

Crimp Ferrule			
Order No.	Dimension D	Dimension E	Cable Sizes
• 71256-0001	5.84 (.230)	11.10 (.437)	4.83-5.51 (.190-.217)
• 71256-0002	9.53 (.375)	11.10 (.437)	8.31-9.53 (.327-.375)
71256-0003	14.22 (.560)	14.22 (.560)	10.67-11.18 (.420-.440)

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- For use with .062" PCBs or smaller
- M3 threaded inserts for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928

Packaging: Tube

Mates With: 71475

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact: Beryllium Copper Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over

Copper flash

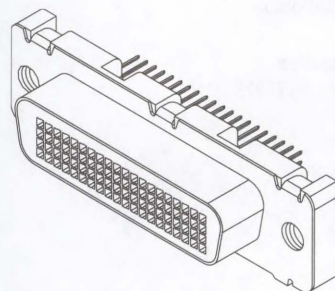
Operating Temperature: -20 to +80°C



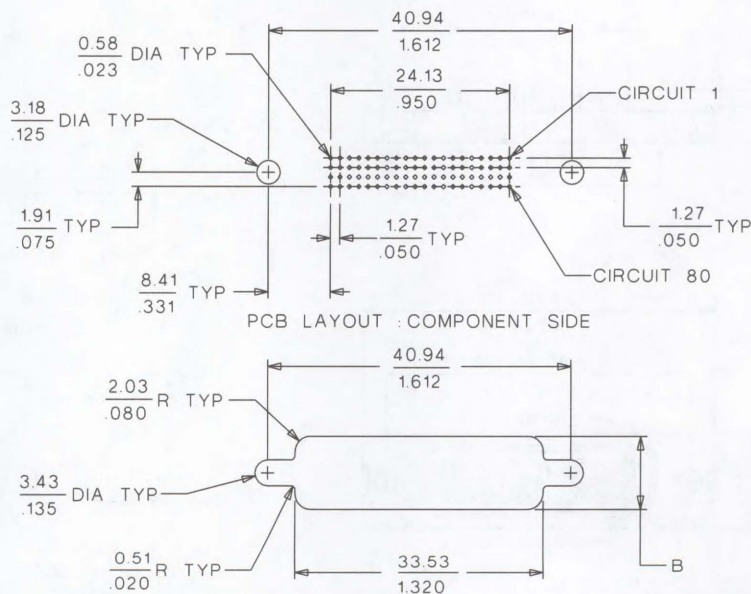
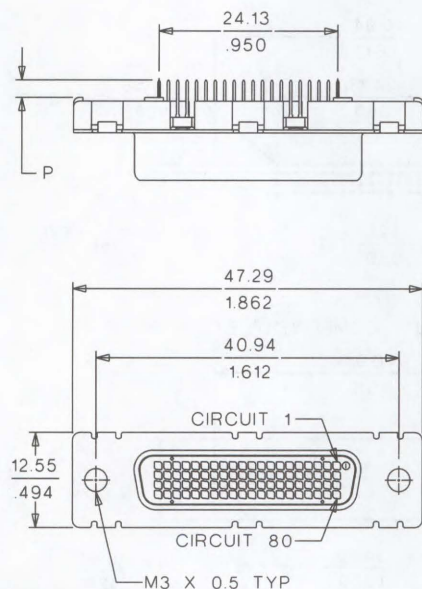
1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

71478

80 Circuit, Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension P	Panel Thickness (Dim. B)		Guide Pin	Hardware	
			0.99 (.039) max.	1.63 (.064) max.		Guide Sleeve	Hex Screw Kit
80	• 71478-1000	2.34 (.092)	9.65 (.380)	10.67 (.420)	71628 and 71770	71629 and 71771	70982
	• 71478-1001	1.57 (.062)					
	71478-1002	3.81 (.150)					
	71478-1003	4.70 (.185)					

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- For use with .062" PCBs or smaller
- M3 threaded inserts for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71478

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact: Phosphor Bronze Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over

Copper flash

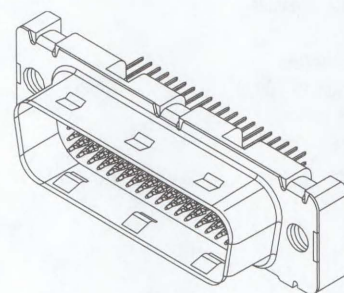
Operating Temperature: -20 to +80°C



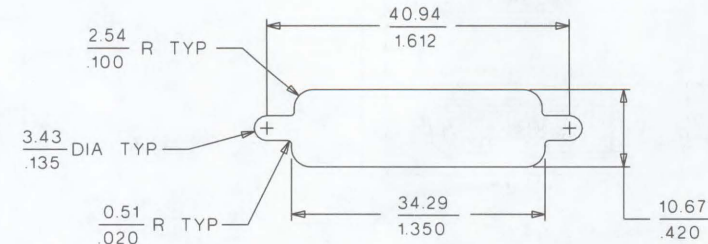
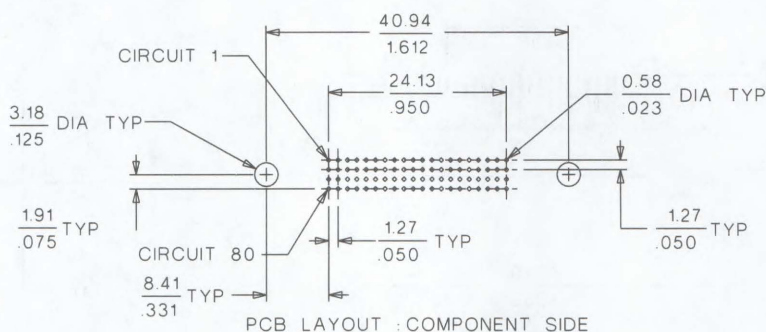
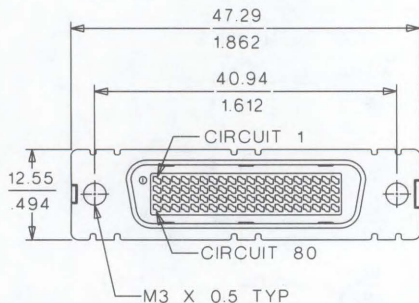
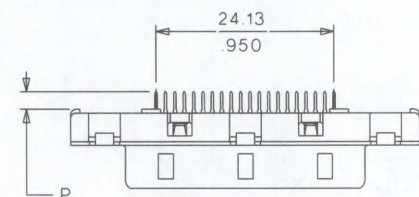
1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Plug

71475

80 Circuit, Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Hardware			Dimension P
		Guide Pin	Guide Sleeve	Hex Screw Kit	
80	• 71475-1000	71628 and 71770	71629 and 71771	70982	2.34 (.092)
	• 71475-1001				1.40 (.055)

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- Cable assemblies available through Molex-approved suppliers
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)
- Overmold can, ferrule, and No. 2-56 jackscrew sold separately

Reference Information

Product Specification: PS-70928
 Application Specification: PS-70929
 Termination Specification: ES-70929
 Packaging: Box and tray
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: 71478
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.
 Mating Force: 50g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0
 Contact:

Plugs—Phosphor Bronze Alloy
 Receptacle—Beryllium Copper Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area
 100μ" min. Tin/Lead over Nickel in PC tail area
 Shields—150μ" min. bright Tin over Nickel all over
 Copper flash

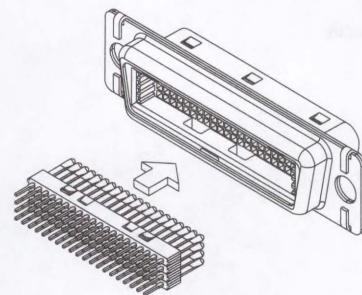
Operating Temperature: -20 to +80°C



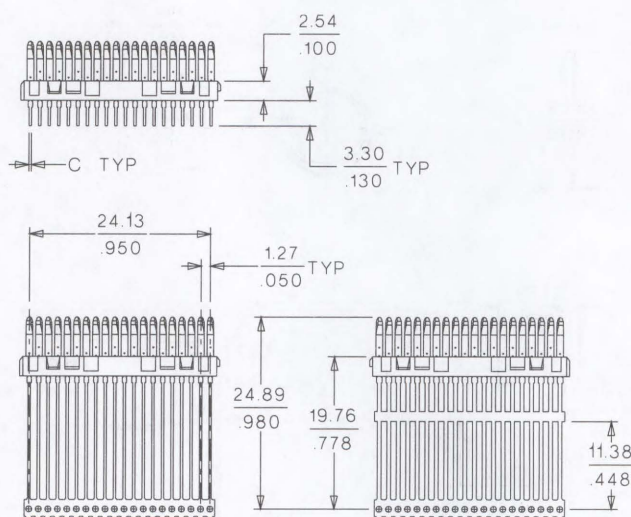
1.27mm (.050") Pitch LFH™ Matrix 50 Plug Cable Kit

71720/71477

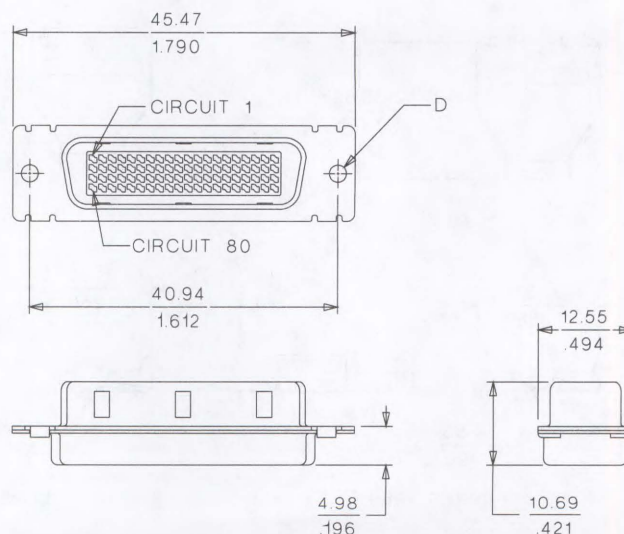
Subassembly and Terminal Sticks 80 Circuit



TERMINAL STICKS CATALOG DRAWING (FOR REFERENCE ONLY)



SUBASSEMBLY



ORDERING INFORMATION AND DIMENSIONS

Subassembly		
Order No.	Description	Dimension D
• 71720-1000	80-Circuit I/O Plug Connector Subassembly*	2.29 (.090)

Terminal Sticks—4 Sticks per Subassembly			
Order No.	Description	Dimension C	Trim Length
• 71477-0003	Trimmed to Length without Carrier	0.33 (.013)	3.30 (.130)
• 71477-0002	With Carrier	0.33 (.013)	
Contact Molex	With Busbar and Carrier	0.51 (.020)	

* US Standard Product, available through Molex franchised distributors

*For use with #2-56 jackscrew

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- Use with 80-circuit plug cable kit
- Each can kit includes top and bottom pieces
- Crimp ferrule used for grounding cable shield (sold separately)
- Can pieces snap together to provide continuous electrical shielding with connector and cable

Reference Information

Application Specification: PS-70929

Tooling Information: Ferrule crimp hand tool or manual press for ferrule crimp

Packaging: Bag

Designed In: Inches

Physical

Plating: Tin over Copper flash

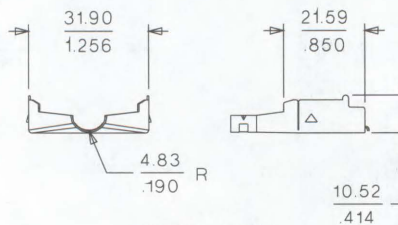
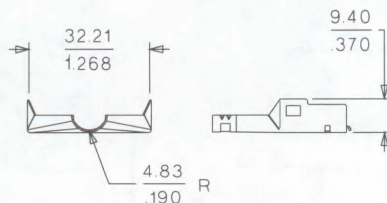
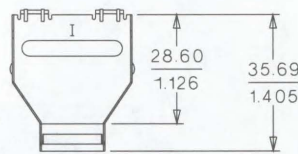
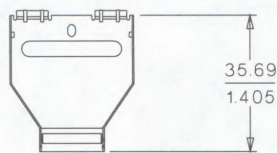


1.27mm (.050") Pitch
LFH™ Matrix 50
Hardware

71723/71256

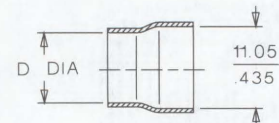
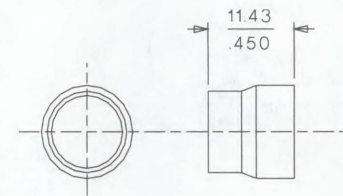
Overmold Can Kit and
Crimp Ferrule
80 Circuit

OVERMOLD CAN KIT CATALOG DRAWING (FOR REFERENCE ONLY)



UPPER HALF

LOWER HALF



CRIMP FERRULE

ORDERING INFORMATION AND DIMENSIONS

Overmold Can		
Order No.	Cable Exit Diameter	Cable Sizes
• 71723-0001	9.40 (.370)	9.40 (.370) max.

Crimp Ferrule		
Order No.	Dimension D	Cable Sizes
• 71256-0001	5.84 (.230)	4.83-5.51 (.190-.217)
• 71256-0002	9.53 (.375)	8.31-9.53 (.327-.375)
• 71256-0003	14.22 (.560)	10.67-11.18 (.420-.440)

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Docking hardware available for I/O systems
- M3 threaded insert with optional board lock for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-71626
 Packaging: Tube
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: 71624
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.
 Mating Force: 50g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

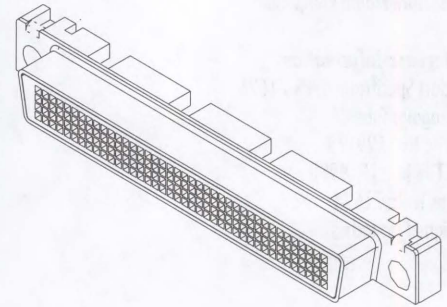
Physical

Housing: Glass-filled polymer, UL 94V-0
 Contact: Beryllium Copper Alloy
 Plating:
 Terminals—30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel in PC tail area
 Shields—150μ" min. bright Tin over Nickel all over
 Copper flash
 Operating Temperature: -20 to +80°C

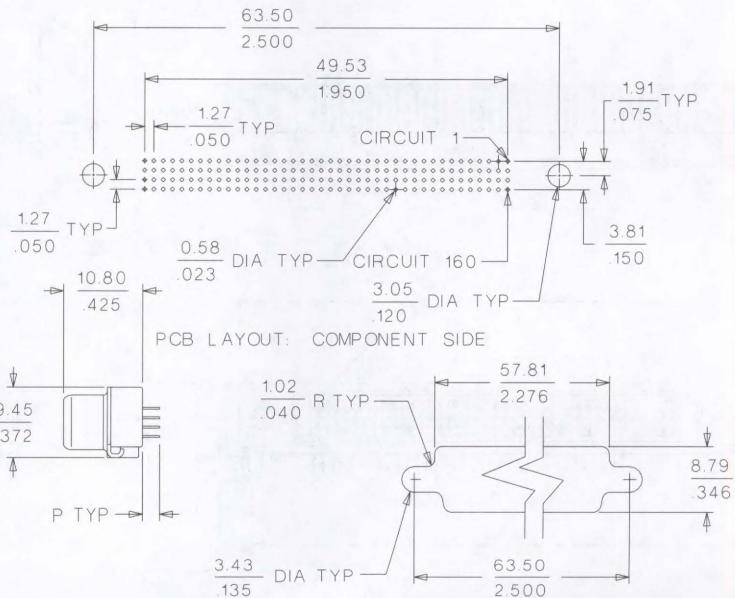
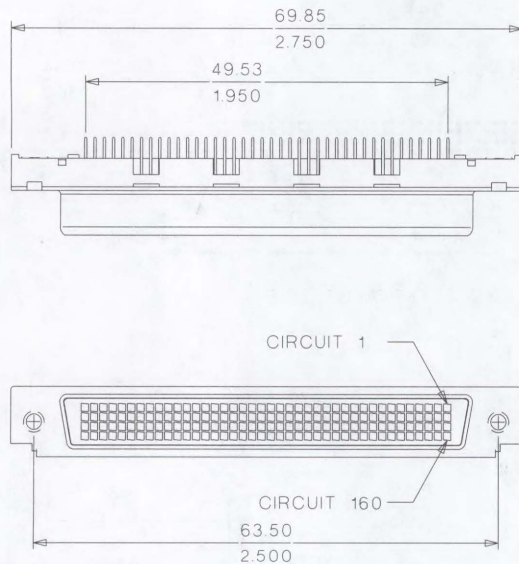
molex® 1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

71626

160 Circuit, Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Feature	Hardware			Dimension P
			Guide Pin	Guide Sleeve	Hex Screw Kit	
160	• 51-24-1030	M3 Threaded Insert	71628 and 71770	71629 and 71771	70982	2.34 (.092)
	• 71626-1001	M3 Threaded Insert with Board Lock				2.34 (.092)
	71626-1003	M3 Threaded Insert				3.18 (.125)
	71626-1004	M3 Threaded Insert with Board Lock				3.18 (.125)
	71626-1006	M3 Threaded Insert				4.49 (.177)

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Docking hardware available for I/O systems
- M3 threaded insert for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-71626
 Packaging: Tube
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: 71624
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.
 Mating Force: 50g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

Physical

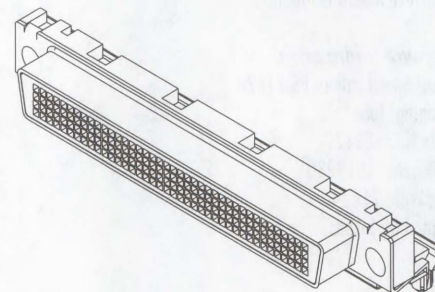
Housing: Glass-filled polymer, UL 94V-0
 Contact: Beryllium Copper Alloy
 Plating:
 Terminals—30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel in PC tail area
 Shields—150μ" min. bright Tin over Nickel all over
 Copper flash
 Operating Temperature: -20 to +80°C



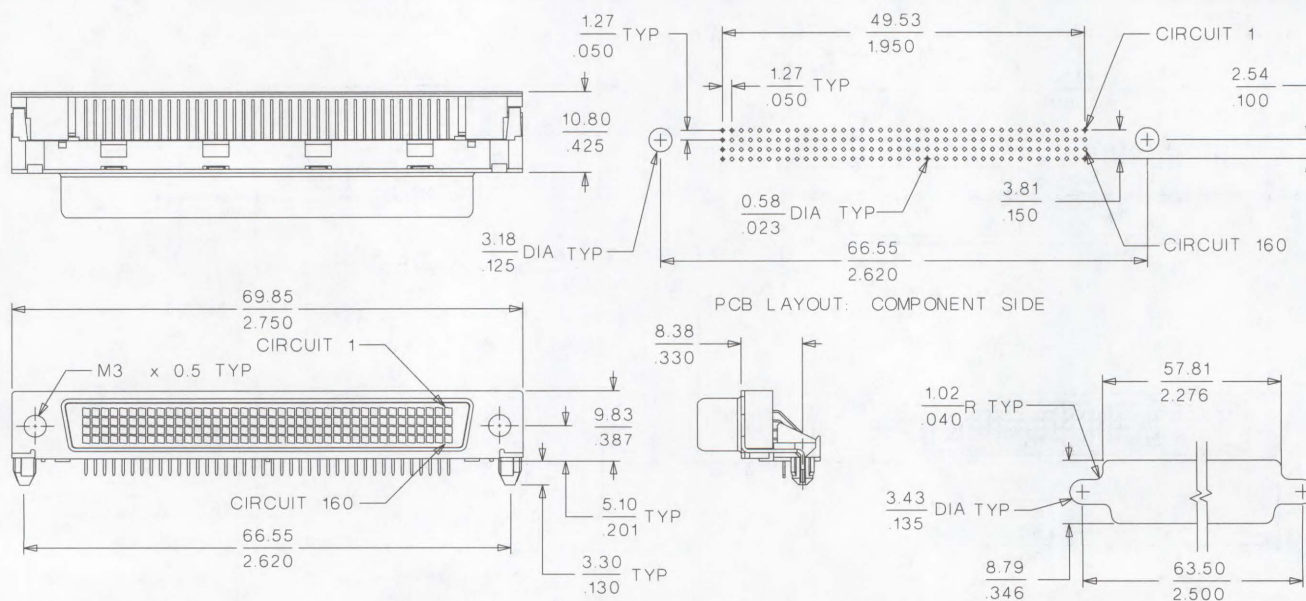
1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

71626

160 Circuit, Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Hardware		
		Guide Pin	Guide Sleeve	Hex Screw Kit
160	51-24-1040 71626-4000*	71628 and 71770	71629 and 71771	70982

* US Standard Product, available through Molex franchised distributors

* Guide hardware attached (71629-4000)

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Docking hardware available for I/O systems
- M3 threaded insert with optional board lock for attaching various hardware options
- Surface Mount Compatible

Reference Information:

Product Specification: PS-71626
 Packaging: Tube
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: 71626
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.
 Mating Force: 50g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0
 Contact: Phosphor Bronze Alloy
 Plating:

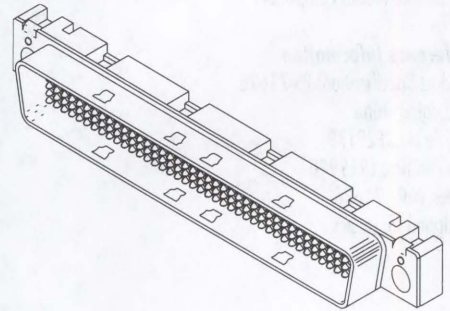
Terminals—30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel in PC tail area
 Shields—150μ" min. bright Tin over Nickel all over
 Copper flash
 Operating Temperature: -20 to +80°C



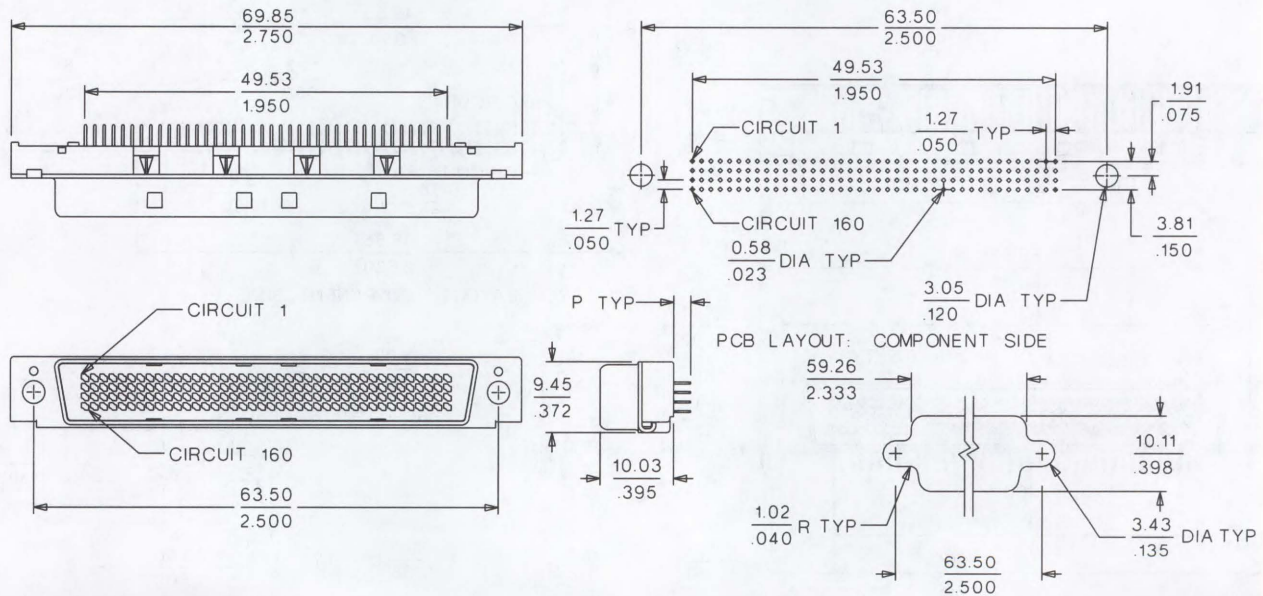
1.27mm (.050") Pitch
LFH™ Matrix 50
Shielded Plug

71624

160 Circuit, Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Feature	Hardware			Dimension P	Mated Stack Height
			Guide Pin	Guide Sleeve	Hex Screw Kit		
160	• 51-25-1030	M3 Threaded Insert	71628 and 71770	71629 and 71771	70982	2.34 (.092)	15.62 (.615)
	• 71624-1001	M3 Threaded Insert with Board Lock				2.34 (.092)	15.62 (.615)
	71624-1003	M3 Threaded Insert				3.18 (.125)	15.62 (.615)
	71624-1004	M3 Threaded Insert with Board Lock				3.18 (.125)	15.62 (.615)

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Docking hardware available for I/O systems
- Optional M3 threaded insert for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-71626

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71626

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact: Phosphor Bronze Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over

Copper flash

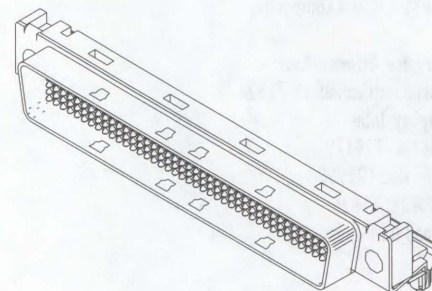
Operating Temperature: -20 to +80°C



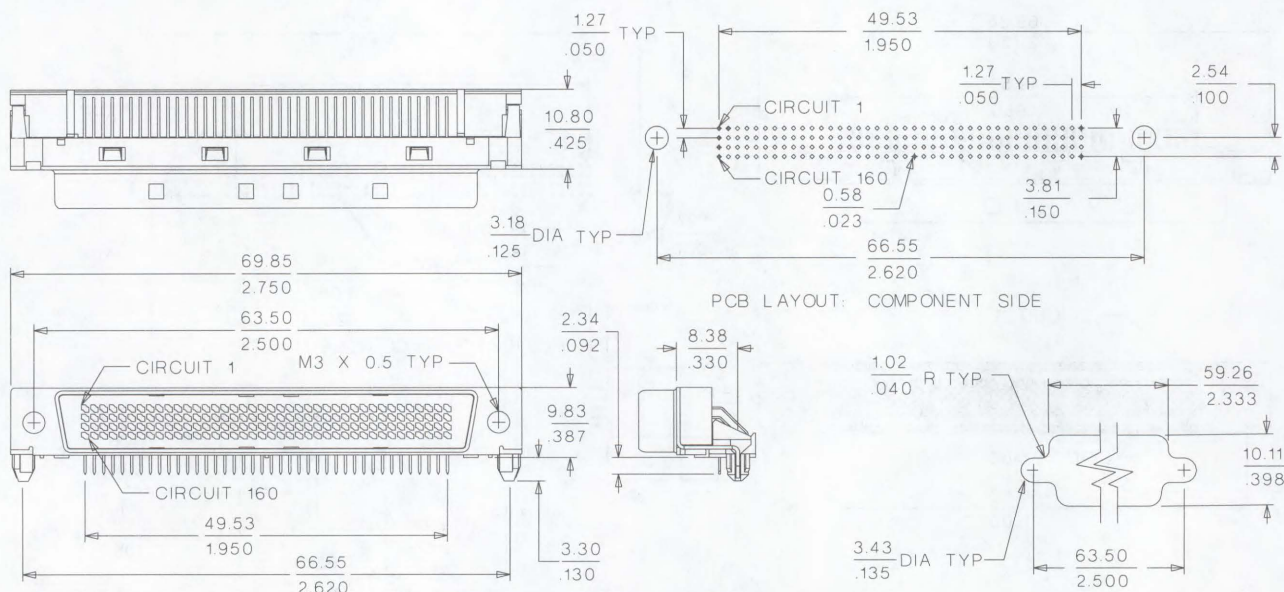
1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Plug

71624

160 Circuit, Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Description	Hardware		
			Guide Pin	Guide Sleeve	Hex Screw Kit
160	• 51-25-1040	With M3 Threaded Insert	71628 and 71770	71629 and 71771	70982
	• 71624-2004	Without M3 Threaded Insert			

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- Cable assemblies available through Molex-approved suppliers
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)

Reference Information

Product Specification: PS-71626
 Application Specification: PS-71624
 Termination Specification: ES-70929
 Packaging: Box and tray
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: 71626
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.
 Mating Force: 50g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

Physical

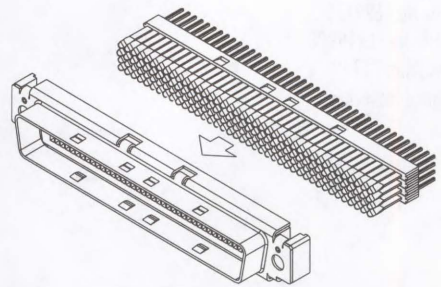
Housing: Glass-filled polymer, UL 94V-0
 Contact:
 Plugs—Phosphor Bronze Alloy
 Plating:
 Terminals—30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel in PC tail area
 Shields—150μ" min. bright Tin over Nickel all over
 50μ" Copper
 Operating Temperature: -20 to +80°C



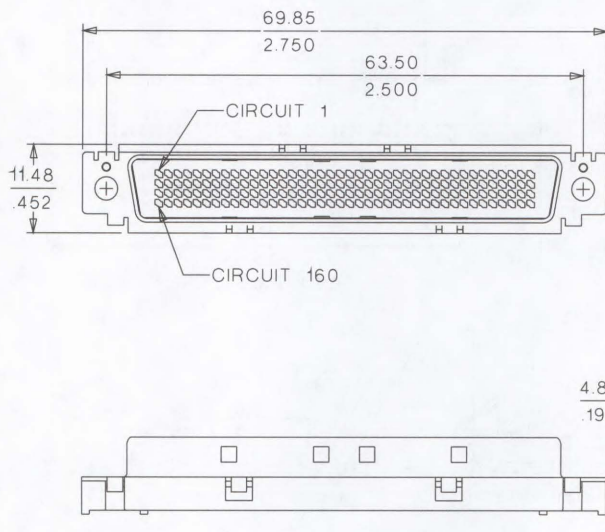
1.27mm (.050") Pitch LFH™ Matrix 50 Plug Cable Kit

71624/70984

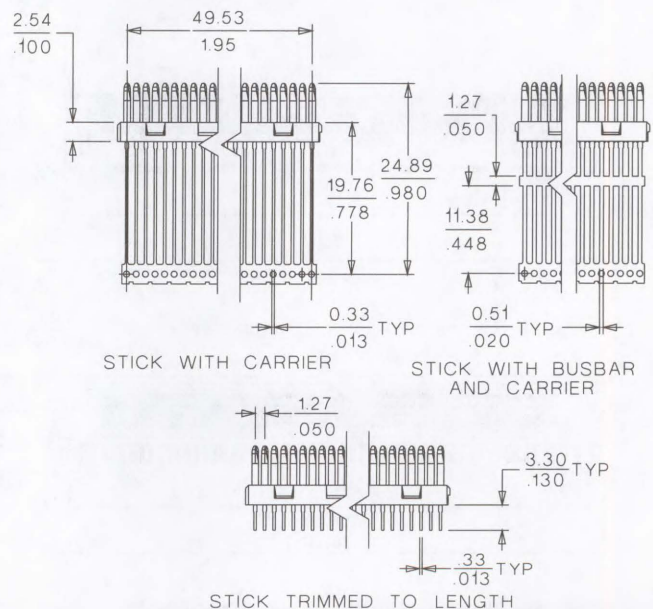
Subassembly and Terminal Sticks 160 Circuit



SUBASSEMBLY CATALOG DRAWING (FOR REFERENCE ONLY)



TERMINAL STICKS



ORDERING INFORMATION AND DIMENSIONS

Subassembly	
Order No.	Description
• 71624-3000 [†]	160-Circuit I/O Plug Connector Subassembly

Terminal Sticks—4 Sticks Required per Subassembly		
Order No.	Description	Trim Length
• 70984-4009	Trimmed to Length without Carrier	3.30 (.130)
• 51-25-1020	With Carrier [§]	
70984-4008*	With Busbar and Carrier [§]	

* US Standard Product, available through Molex franchised distributors

* 200μ" Tin/Lead plating over Nickel in termination area

[†] Stick Loading Tool 62200-1700 can be used for inserting sticks into subassembly

[§] Sticks can be trimmed using LFH Stick Preparation Tool Kit 62200-1100

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 x .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- M3 threaded inserts for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-71718

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71719

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact: Beryllium Copper Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over

Copper flash

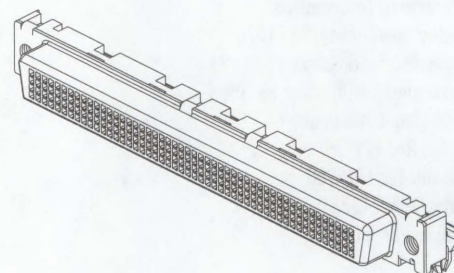
Operating Temperature: -20 to +80 °C



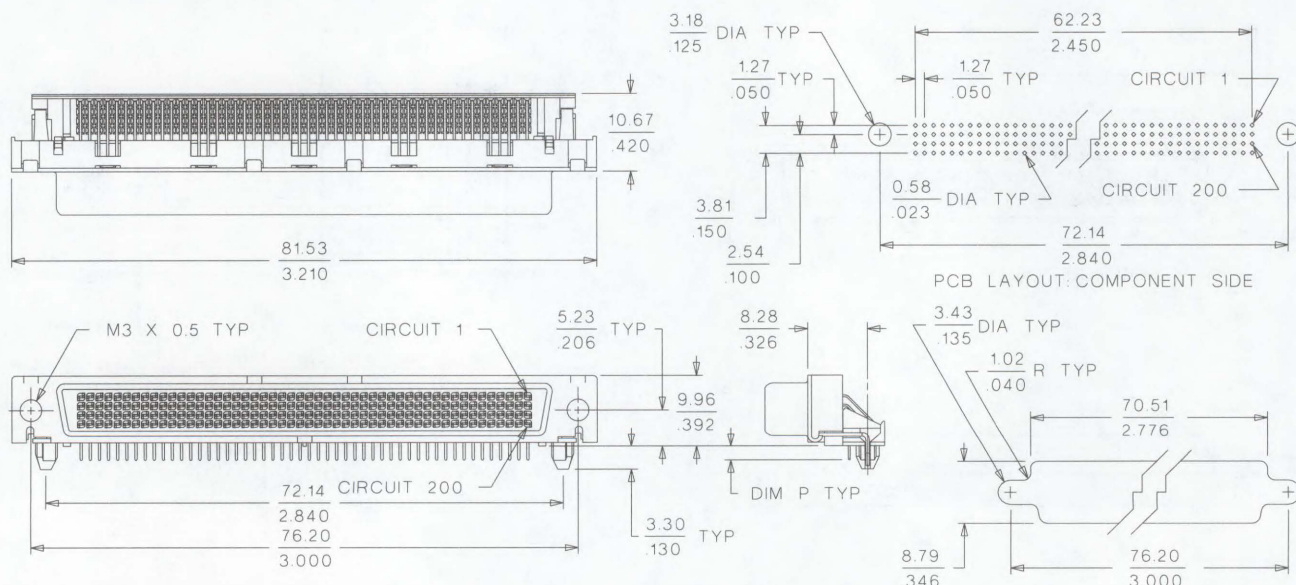
1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

71718

200 Circuit, Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Tail Length (P)	Hardware		
			Guide Pin	Guide Sleeve	Hex Screw Kit
200	• 71718-2000	2.01 (.079)	71628 and 71770	71629 and 71771	70982

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- Cable assemblies available through Molex-approved suppliers
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)

Reference Information

Product Specification: PS-71719-9999

Application Specification: AS-71719

Termination Specification: AS-71715

Packaging: Box and tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: 71718

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 60g max.

Mating Force: 50g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact:

Plugs—Phosphor Bronze Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over

50μ" Copper

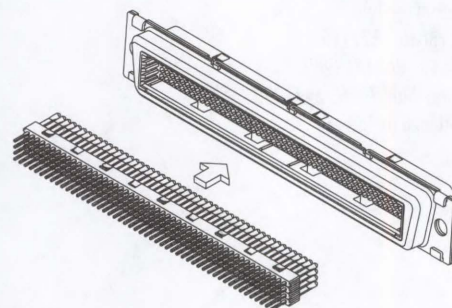
Operating Temperature: -20 to +80°C



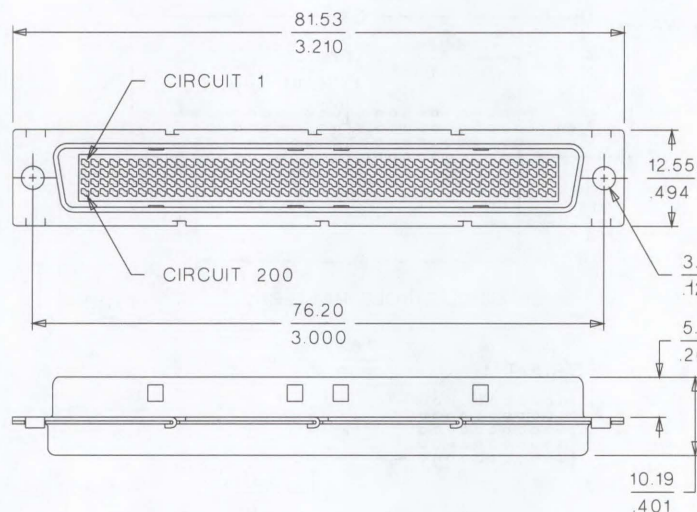
1.27mm (.050") Pitch LFH™ Matrix 50 I/O Plug Cable Kit

71719/71715

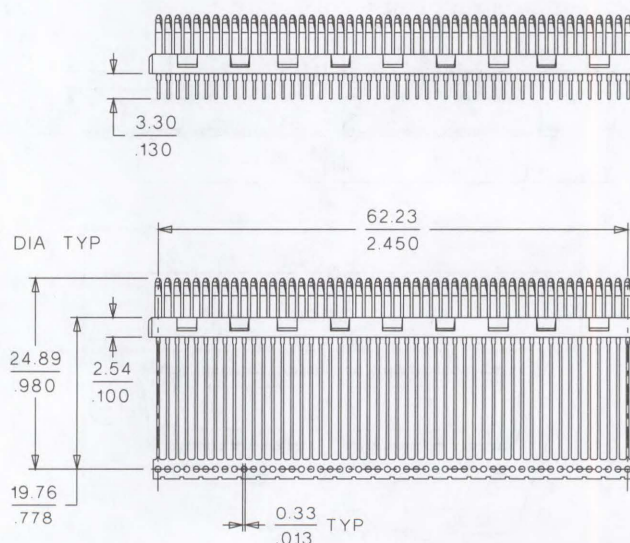
Subassembly and Terminal Sticks 200 Circuit



SUBASSEMBLY CATALOG DRAWING (FOR REFERENCE ONLY)



TERMINAL STICKS



ORDERING INFORMATION AND DIMENSIONS

Subassembly	
Order No.	Description
• 71719-3000	200-Circuit I/O Plug Connector Subassembly

Terminal Sticks—4 Sticks per Subassembly		
Order No.	Description	Trim Length
• 71715-4002	Trimmed to Length without Carrier	3.30 (.130)
• 71715-4001	With Carrier	

• US Standard Product, available through Molex franchised distributors

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .075 x .075"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- 96-circuit same size as 50-pin standard D-sub for backshell hardware
- Surface Mount Compatible

Reference Information

Product Specification: PS-70660
 Packaging: Tube
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: 70665 or 71995
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 1000V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 84g max.
 Mating Force: 60g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0
 Contact: Beryllium Copper Alloy
 Plating:

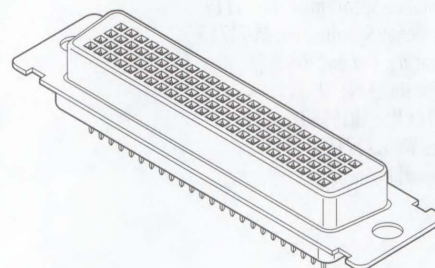
Terminals—30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel in PC tail area
 Shields—100μ" min. bright Tin over Copper
 Operating Temperature: -20 to +80°C



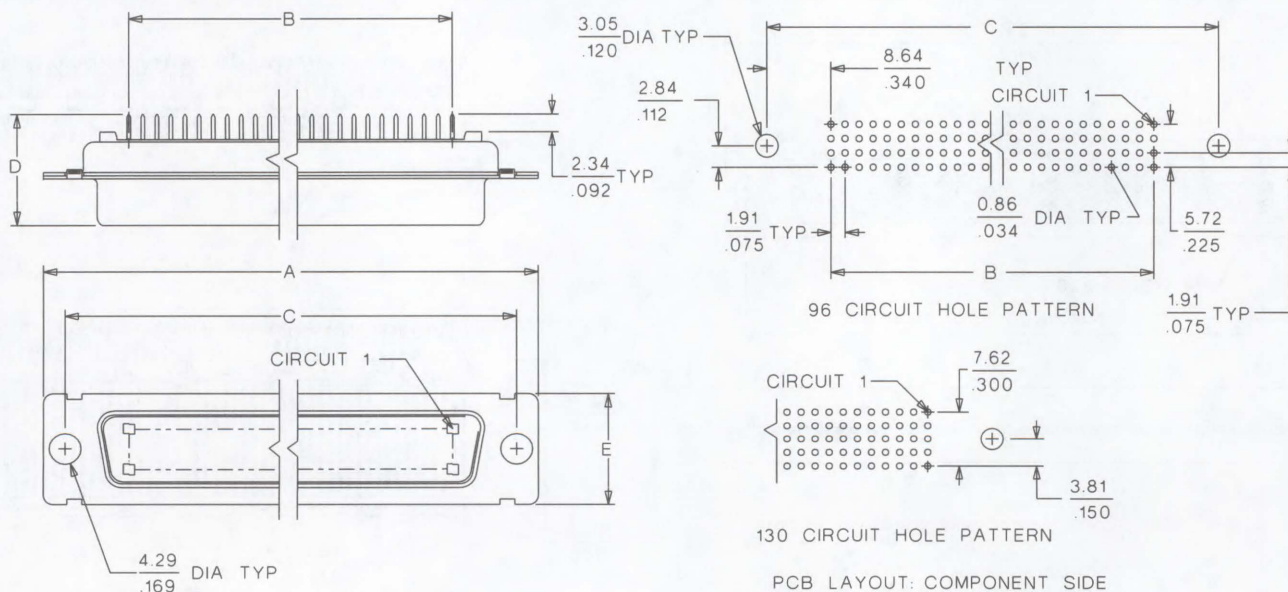
1.90mm (.075") Pitch LFH™ Matrix 75 Shielded Receptacle

70660/71990

**96 and 130 Circuit
 Vertical**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension				
		A	B	C	D	E
96	51-26-0001	66.93 (2.635)	43.82 (1.725)	61.11 (2.406)	14.66 (.616)	15.37 (.605)
130	51-26-0021	69.32 (2.729)	47.63 (1.875)	63.50 (2.500)	14.71 (.610)	16.97 (.668)

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .075 x .075"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- 96-circuit same size as 50-pin standard D-sub for backshell hardware
- M3 threaded inserts for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-70660
 Packaging: Tube
 UL File No.: E291794
 CSA File No.: LR19980
 Mates With: 70665 or 71995
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 1000V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 84g max.
 Mating Force: 60g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

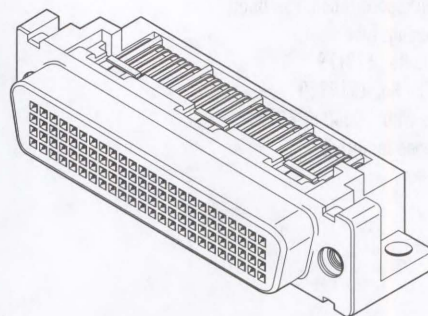
Physical

Housing: Glass-filled polymer, UL 94V-0
 Contact: Beryllium Copper Alloy
 Plating:
 Terminals—30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel in PC tail area
 Shields—100μ" min. bright Tin over Copper
 Operating Temperature: -20 to +80°C

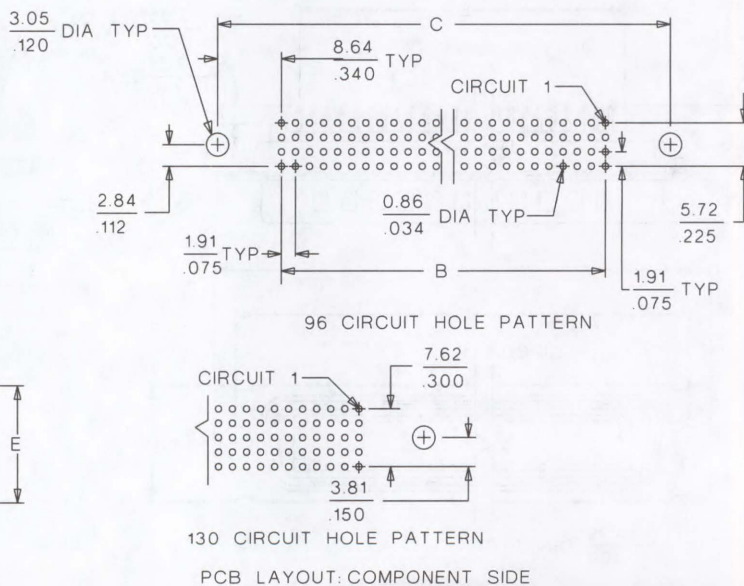
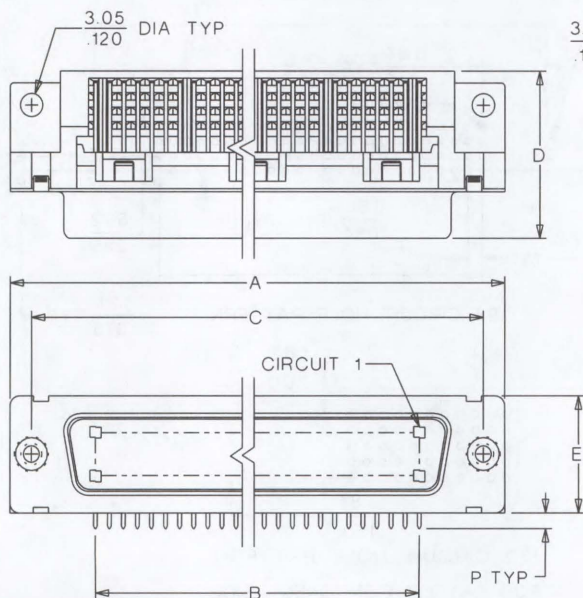
molex® 1.90mm (.075") Pitch LFH™ Matrix 75 Shielded Receptacle

70660/71990

**96 and 130 Circuit
 Right Angle**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension					
		A	B	C	D	E	P
96	51-26-0000	66.93 (2.635)	43.82 (1.725)	61.11 (2.406)	21.92 (.863)	15.37 (.605)	2.34 (.092)
96	51-26-0003	66.93 (2.635)	43.82 (1.725)	61.11 (2.406)	21.92 (.863)	15.37 (.605)	3.43 (.135)
130	51-26-0020	69.32 (2.729)	47.63 (1.875)	63.50 (2.500)	23.70 (.933)	16.97 (.668)	2.08 (.082)

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .075 x .075"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- 96-circuit same size as 50-pin standard D-sub for backshell hardware
- Surface Mount Compatible

Reference Information

Product Specification: PS-70660

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

Mates With: 70660 or 71990

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 1000V

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 84g max.

Mating Force: 60g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact: Phosphor Bronze Alloy

Plating: Terminal—30μ" min. Gold over Nickel in contact area, 100μ" min. Tin/Lead over Nickel in PC tail area

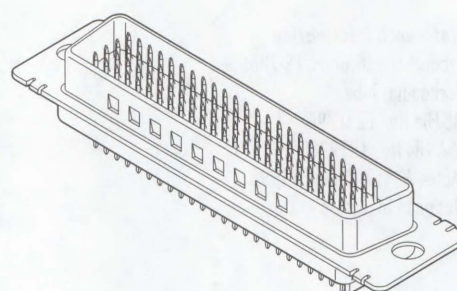
Shields—100μ" min. bright Tin over Copper

Operating Temperature: -20 to +80°C

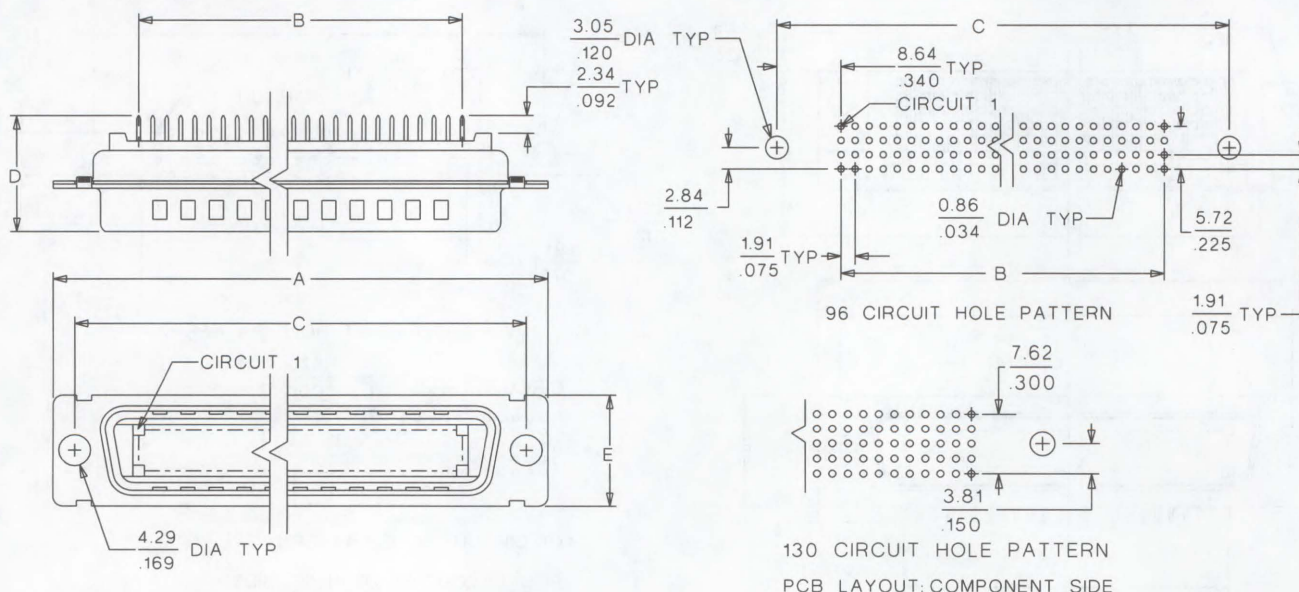
molex® 1.90mm (.075") Pitch LFH™ Matrix 75 Shielded Plug

70665/71995

96 and 130 Circuit Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension				
		A	B	C	D	E
96	51-26-0011	66.93 (2.635)	43.82 (1.725)	61.11 (2.406)	14.66 (.616)	15.37 (.605)
130	51-26-0031	69.32 (2.729)	47.63 (1.875)	63.50 (2.500)	14.71 (.610)	16.97 (.668)

FEATURES AND SPECIFICATIONS

Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .075 x .075"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- 96-circuit same size as 50-pin standard D-sub for backshell hardware
- M3 threaded inserts for attaching various hardware options
- Surface Mount Compatible

Reference Information

Product Specification: PS-70660
 Packaging: Tube
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: 70660 or 71990
 Designed In: Inches

Electrical

Voltage: 40V
 Current: 1.0A
 Contact Resistance: 20mΩ max.
 Dielectric Withstanding Voltage: 1000V
 Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 84g max.
 Mating Force: 60g nom.
 Unmating Force: 20g min.
 Durability: 5000 cycles

Physical

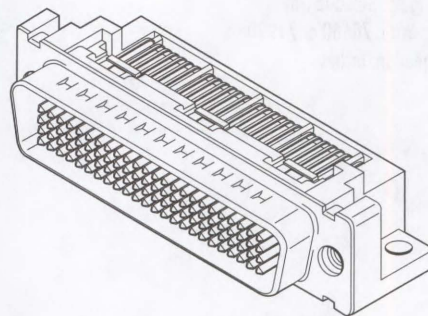
Housing: Glass-filled polymer, UL 94V-0
 Contact: Phosphor Bronze Alloy
 Plating:
 Terminals—30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin/Lead over Nickel in PC tail area
 Shields—100μ" min. bright Tin over Copper
 Operating Temperature: -20 to +80°C



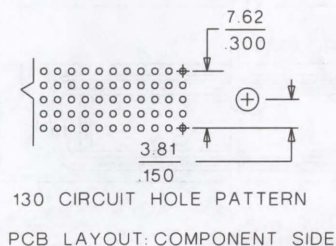
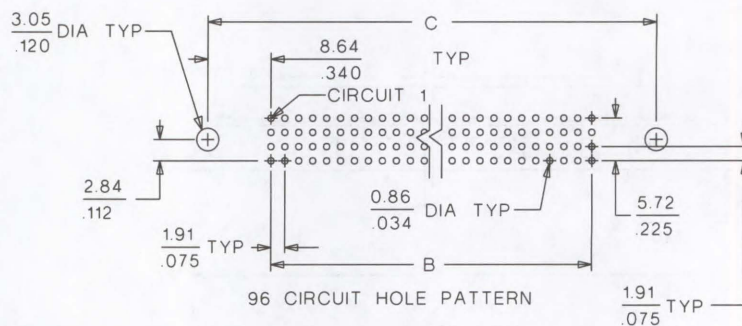
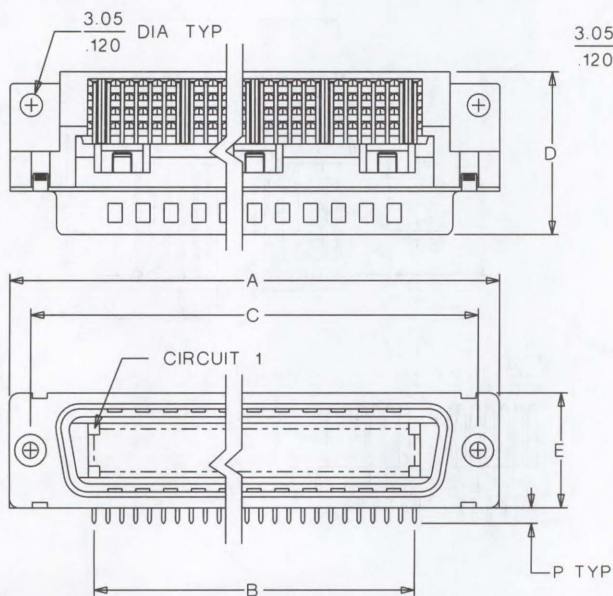
1.90mm (.075") Pitch
LFH™ Matrix 75
Shielded Plug

70665/71995

96 and 130 Circuit
Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension					
		A	B	C	D	E	P
96	51-26-0010	66.93 (2.635)	43.82 (1.725)	61.11 (2.406)	21.92 (.863)	15.37 (.605)	2.34 (.092)
130	51-26-0030	69.32 (2.729)	47.63 (1.875)	63.50 (2.500)	23.70 (.933)	16.97 (.668)	2.08 (.082)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Cable assemblies available through Molex-approved suppliers
- Termination of a variety of wire types 26 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- Terminal sticks sold separately
- 96-circuit same size as 50-pin D-sub for standard overmolding and back shell hardware

Reference Information

Packaging: Box and tray

Mates With: 70660 or 71990

Designed In: Inches

Electrical

Voltage: 40V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 1000V

Insulation Resistance: 100 MΩ min.

Mechanical

Mating Force: 60g nom.

Unmating Force: 20g min.

Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0

Contact:

Plug—Phosphor Bronze Alloy

Receptacle—Beryllium Copper Alloy

Plating:

Terminals—30μ" min. Gold over Nickel in contact area,

100μ" min. Tin/Lead over Nickel in PC tail area

Shields—150μ" min. bright Tin over Nickel all over

Copper flash

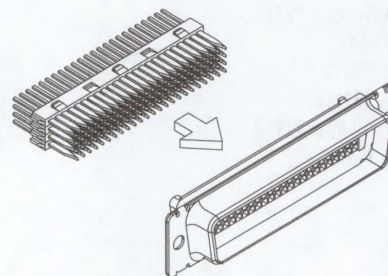
Operating Temperature: -20 to +80°C



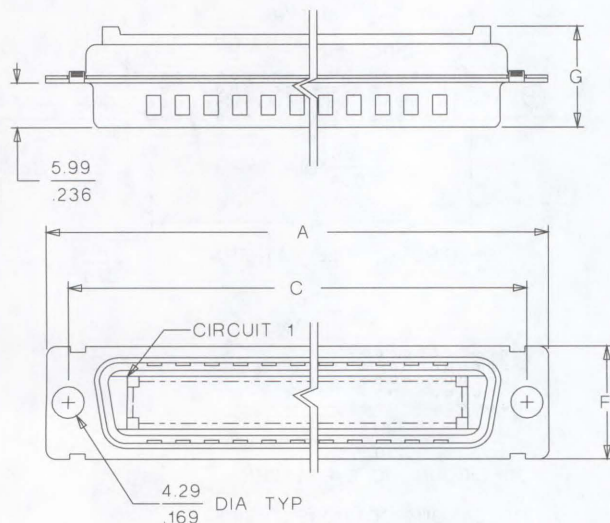
1.90mm (.075") Pitch LFH™ Matrix 75 Plug Cable Kit

70665/71995

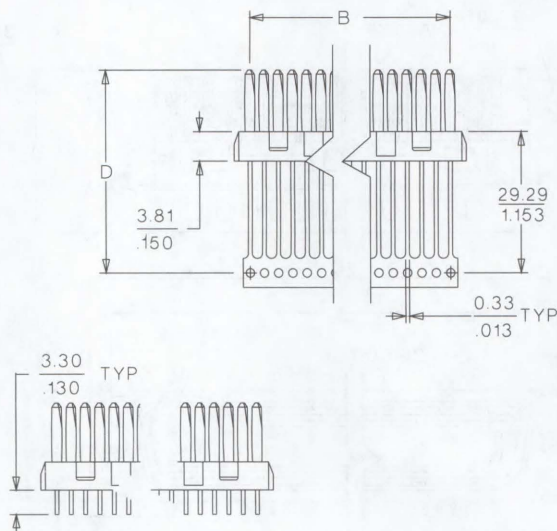
Subassembly and Terminal Sticks 96 and 130 Circuit



SUBASSEMBLY CATALOG DRAWING (FOR REFERENCE ONLY)



TERMINAL STICKS



ORDERING INFORMATION AND DIMENSIONS

Subassembly		
Circuits	Order No.	Description
96	51-26-0012	I/O Plug Connector Subassembly
130	51-26-0032	

Circuits	Dimension					
	A	B	C	D	F	G
96	66.93 (2.635)	43.81 (1.725)	61.11 (2.406)	37.33 (1.470)	15.33 (.605)	13.31 (.524)
130	69.32 (2.729)	47.62 (1.875)	63.50 (2.500)	37.33 (1.470)	16.96 (.668)	13.15 (.518)

Terminal Sticks				
Circuits	Order No.	Description	Tail Width	No. Required per Subassembly
96	51-25-1012	Trimmed to Length without Carrier	0.51 (.020)	Four 24-Circuit Sticks
	51-25-1005	With Carrier	0.51 (.020)	
	51-25-1007	With Carrier	0.51 (.020)	Five 26-Circuit Sticks
130	71989-2003	Trimmed to Length without Carrier	0.51 (.020)	

FEATURES AND SPECIFICATIONS

Features and Benefits

- For use with Matrix 50 and 75 products
- Guide pin is heat-treated steel material; guide sleeve is cold-drawn steel material
- Socket size 3/16"
- M3 external thread
- Suitable for docking applications
- Recommended panel thickness is .040" max.

Mechanical

Assembly Torque: 5 in.-lb max.

Physical

Plating: Nickel



LFH™ Matrix 50 and 75 Docking Hardware

**71628/71629 and
71770/71771**

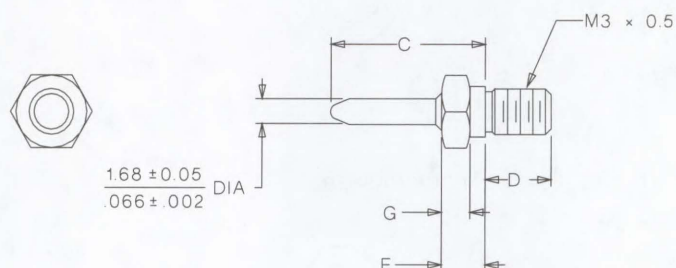
Guide Pin and Guide Sleeve

Reference Information

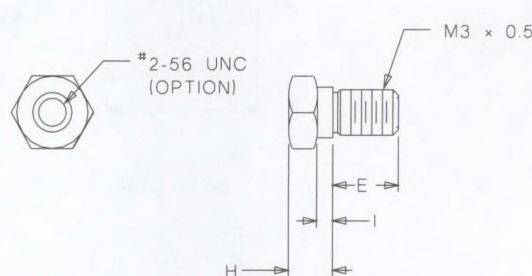
Packaging: Bag

Designed In: Inches

GUIDE PIN CATALOG DRAWING (FOR REFERENCE ONLY)



GUIDE SLEEVE



ORDERING INFORMATION AND DIMENSIONS

Order No.	Guide Pin			
	Dimension			
	C	D	F	G
• 89-00-2190	10.85 (.427)	4.37 (.172)	2.92 (.115)	1.91 (.075)
• 89-00-2180	11.94 (.470)	4.37 (.172)	2.92 (.115)	1.91 (.075)
• 71628-2000 [†]	10.85 (.427)	3.35 (.132)	2.92 (.115)	1.91 (.075)
• 71628-3000 [†]	11.68 (.460)	4.37 (.172)	2.92 (.115)	1.91 (.075)
71770-1000	10.85 (.427)	4.37 (.172)	2.34 (.092)	1.91 (.075)

• US Standard Product, available through Molex franchised distributors

* Has 2-56 internal thread for use in board-to-board and cable-to-board applications with jackscrew 71724-0001

[†] Lead-in .050" x 45° (alignment tolerance of 1.5mm radially) for docking applications

[‡] For use in vertical applications (shorter thread area will not interfere with vertical board locks)

Note: 71770-1000 and 71771-1000 for use with .062" panels

Order No.	Guide Sleeve		
	Dimension		
	E	H	I
• 89-00-2191	4.37 (.172)	2.92 (.115)	1.02 (.040)
71629-2000 [†]	3.35 (.132)	2.92 (.115)	1.02 (.040)
• 71629-3000*	4.37 (.172)	2.92 (.115)	1.02 (.040)
• 71629-4000 [†]	4.37 (.172)	2.92 (.115)	1.02 (.040)
• 71771-1000*	4.37 (.172)	3.38 (.133)	1.47 (.058)

FEATURES AND SPECIFICATIONS

Features and Benefits

- For use with Matrix 50 and 75 products
- Each kit includes 2 hex lock screws, 4 washers, 2 lockwashers and 2 nuts
- Screws available separately
- Socket size 3/16"
- 4-40 or M3 internal threads
- Recommended panel thickness is .025" max.

Mechanical

Assembly Torque: 5 in.-lb max.

LFH™ Matrix 50 and 75
Hardware

70982

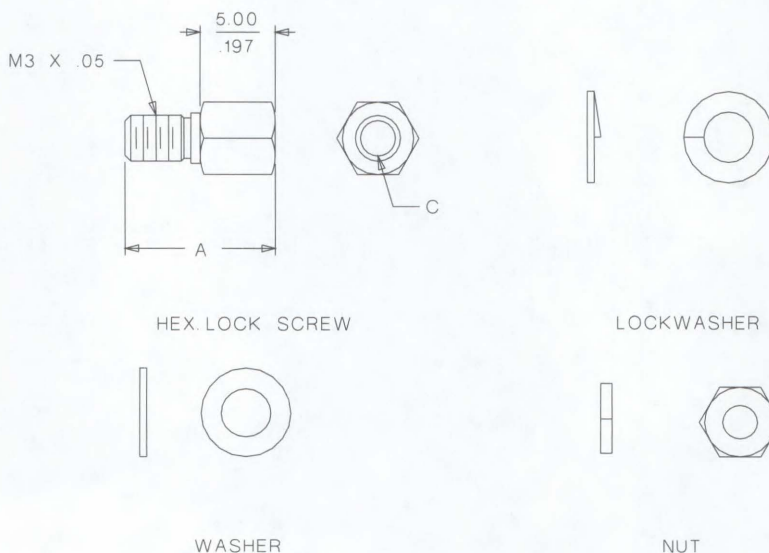
Panel Mount Hex Screw Kit

Reference Information

Packaging: Bag

Designed In: Inches

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

4-40 Thread (Internal and M3 External) (Dimension C)				
Kit Order No.	Quantity	Description	Plating	Dimension A
• 70982-1003	1	Hex Lock Screw (4-40/M3 screw only)	Yellow Chromate	11.00 (.433)
• 70982-1002	2	Hex Lock Screw (4-40/M3)	Tin	10.01 (.394)
	4	Washer		
	2	Lockwasher		
	2	Nut		
70982-1005	1	Hex Lock Screw (4-40/M3)	Tin	10.01 (.394)

M3 Thread (Internal and External) (Dimension C)				
Kit Order No.	Quantity	Description	Plating	Dimension A
70982-1004	1	Hex Lock Screw (M3/M3 screw only)	Tin	10.01 (.394)
• 70982-0002	2	Hex Lock Screw (M3/M3)	Tin	10.01 (.394)
	4	Washer		
	2	Lockwasher		
	2	Nut		
70982-1006	Kit of above	With 16.00 (.630) Length Instead of 10.00 (.394)	Tin	16.00 (.630)

• US Standard Product, available through Molex franchised distributors

**0.80mm (.031") Pitch
Docking Station
Board-to-Board
Shielded Receptacle**

- Size 100 circuits
- Mating height 8.5mm
- Superior EMI/RFI shielding via integral metal pegs that provide direct contact to ground plane
- Leaf-style contacts prevent stubbing

Electrical

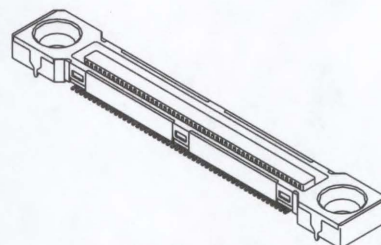
Voltage: 100V
Current: 0.5A
Contact Resistance: 40mΩ max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 MΩ min.

54075

Packaging: Tube
Mates With: 53751
Designed In: Millimeters

Housing: Black glass-filled LCP, UL 94V-0
Shell: Iron, Nickel plating
Contact: Beryllium Copper
Plating: Gold over Palladium Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Under Plating: Nickel
Operating Temperature: -55 to +85°C

Vertical, Ultra Low Profile SMT



Circuits	Order No.
100	54075-1009

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 200 circuits
- Mating height 10.82mm (.426")
- Superior EMI/RFI shielding via integral metal tabs that provide direct contact to ground plane
- Leaf-style contacts prevent stubbing

Reference Information

Packaging: Tube
Mates With: 53891
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 0.5A
Contact Resistance: 40mΩ max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 MΩ min.

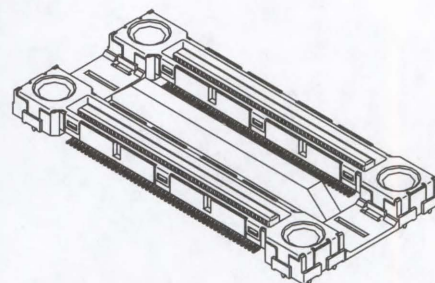
Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Beryllium Copper
Plating: Gold over Palladium Nickel in contact area;
Tin/Lead in solder-tail area
Under plating: Nickel
Shell: Iron, Nickel plating
Operating Temperature: -55 to +85°C

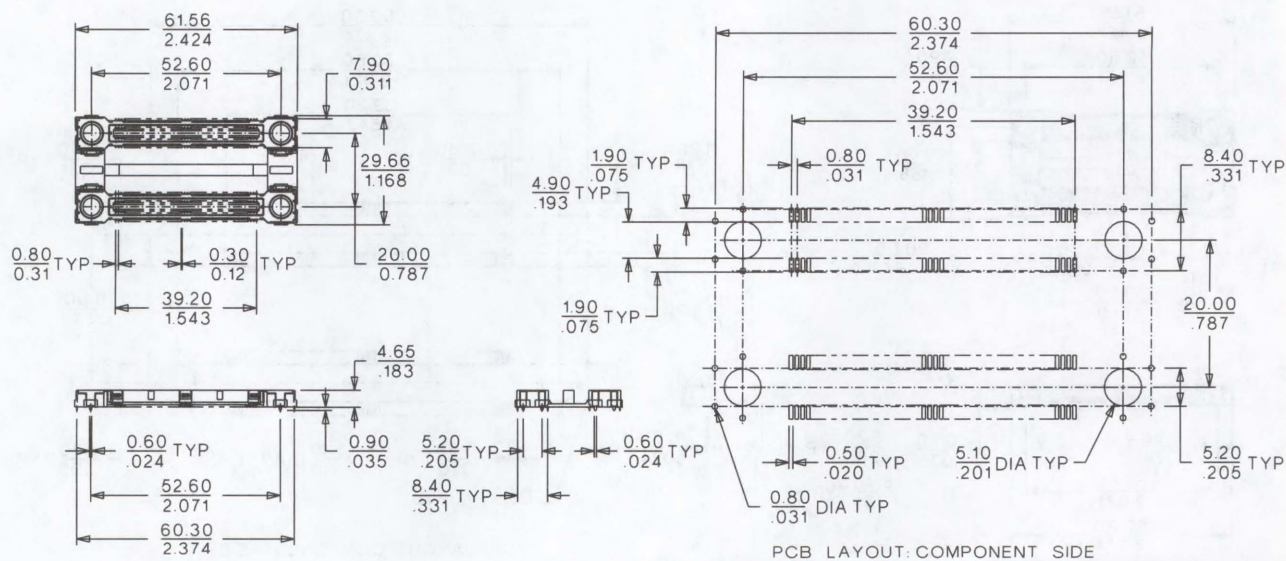


0.80mm (.031") Pitch Docking Station Board-to-Board Shielded Receptacle

54238
Vertical
Dual-Stack, SMT



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
200	54238-2009

0.80mm (.031") Pitch Docking Station Board-to-Board Shielded Receptacle

- Sizes 200 circuits
- Mating height 11.60mm (.457")
- Superior EMI/RFI shielding via integral metal tabs that provide direct contact to ground plane
- Leaf-style contacts prevent stubbing

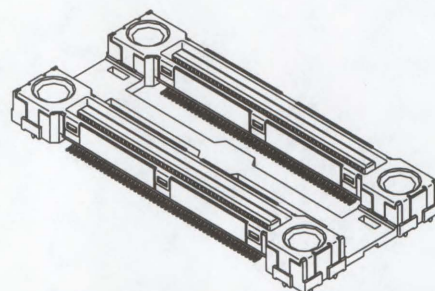
Packaging: Tube
Mates With: 53891
Designed In: Millimeters

Voltage: 100V
Current: 0.5A
Contact Resistance: 40mΩ max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 MΩ min.

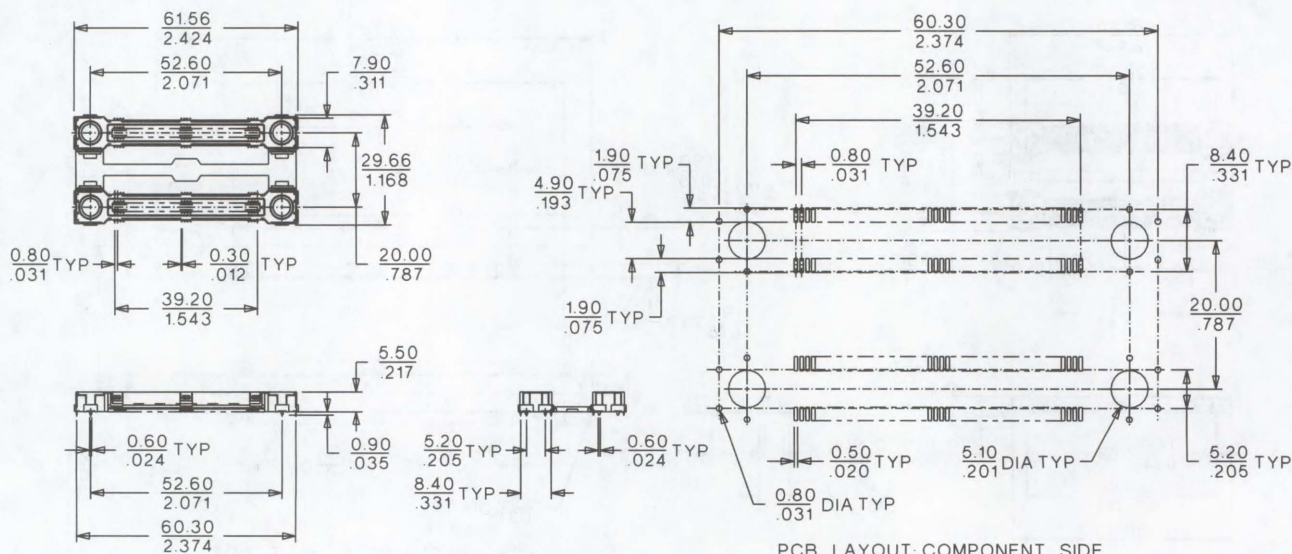
Housing: Black glass-filled LCP, UL 94V-0
Contact: Beryllium Copper
Plating: Gold over Palladium Nickel in contact area;
Tin/Lead in solder-tail area
Under plating: Nickel
Shell: Iron, Nickel plating
Operating Temperature: -55 to +85°C

54390

Vertical Dual-Stack, SMT



I/O Connectors



PCB LAYOUT: COMPONENT SIDE

Circuits	Order No.
200	54390-2009

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 200 circuits
- Mating height 12.90mm (.508")
- Superior EMI/RFI shielding via integral metal tabs that provide direct contact to ground plane
- Leaf-style contacts prevent stubbing

Reference Information

Packaging: Tube
Mates With: 53891
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 0.5A
Contact Resistance: 40mΩ max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 MΩ min.

Physical

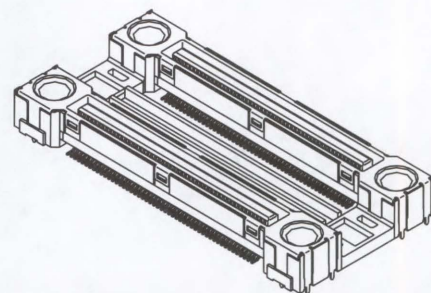
Housing: Black glass-filled LCP, UL 94V-0
Contact: Beryllium Copper
Plating: Gold over Palladium Nickel in contact area;
Tin/Lead in solder-tail area
Under plating: Nickel
Shell: Iron, Nickel plating
Operating Temperature: -55 to +85°C



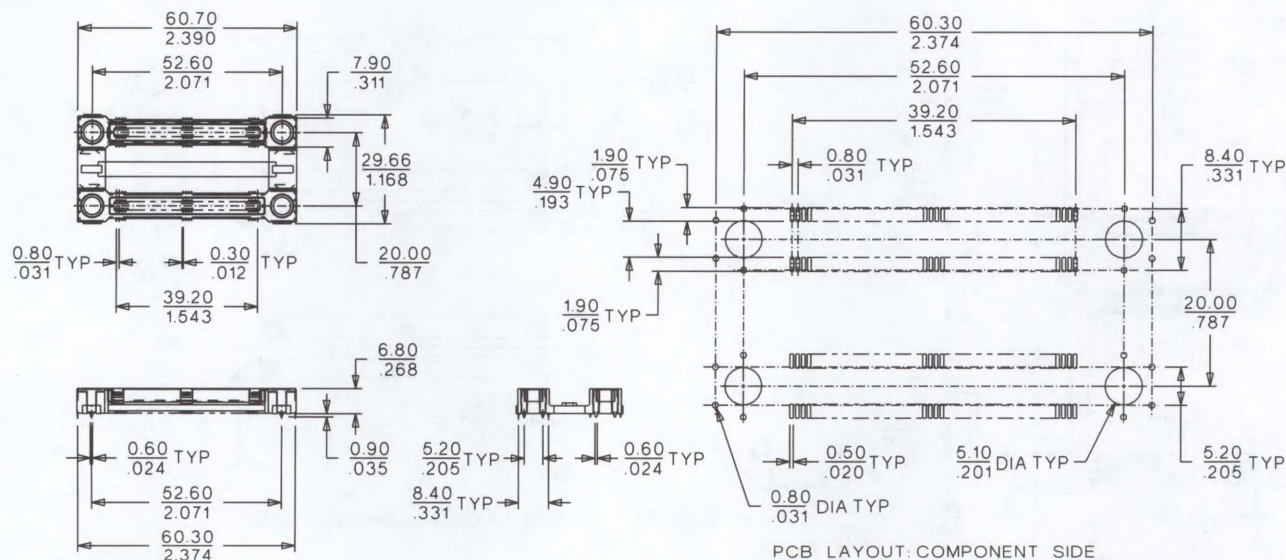
0.80mm (.031") Pitch Docking Station Board-to-Board Shielded Receptacle

54110

**Vertical
Dual-Stack, SMT**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
200	54110-2009

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 200 circuits
- Superior EMI/RFI shielding via integral metal tabs that provide direct contact to ground plane
- Guide pins allow blind mating
- Removable cover assists automatic placement
- Leaf-style contacts prevent stubbing

Reference Information

Packaging: Tube

Mates With: 54110, 54238 and 54390

Designed In: Millimeters

Electrical

Voltage: 100V

Current: 0.5A

Contact Resistance: 40mΩ max.

Dielectric Withstanding Voltage: 200V AC/1 min.

Insulation Resistance: 1000 MΩ min.

Physical

Housing: Black glass-filled LCP, UL 94V-0

Contact: Brass

Plating: Gold over Palladium Nickel in contact area;

Tin/Lead in solder-tail area

Under plating: Nickel

Shell: Iron, Nickel plating

Bracket: Black glass-filled PPA, UL 94V-0

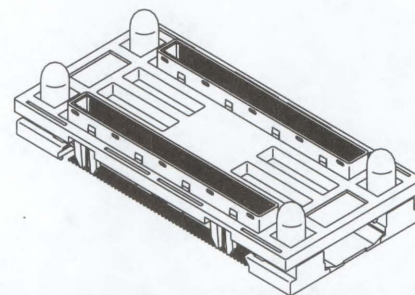
Operating Temperature: -55 to +85°C



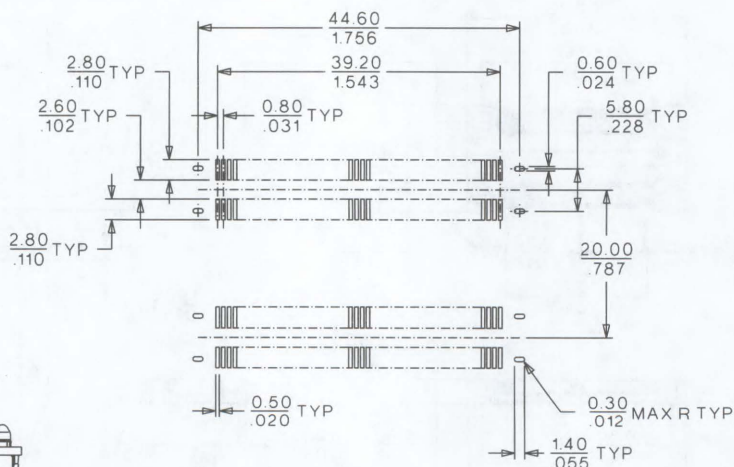
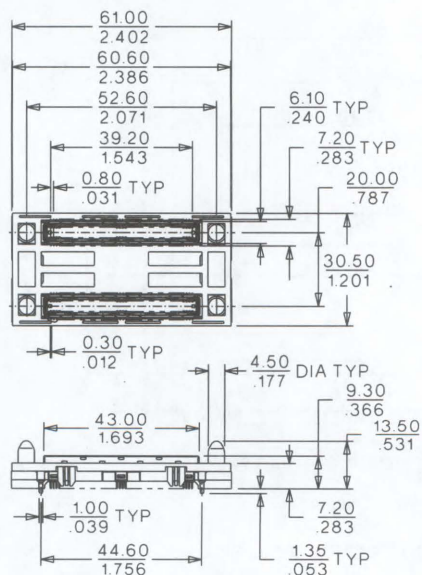
0.80mm (.031") Pitch Docking Station Board-to-Board Shielded Plug

53891

**Vertical
Dual-Stack, SMT**



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
200	53891-2009

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 160 and 240 circuits
- Unique "elevator" base plate protects pins and rises up into position during PCB insertion
- Metal fork boardlocks for PCB hold-down and plastic pegs for placement guidance
- Staggered contact length arrangement for low insertion force
- Leaf-style contacts prevent stubbing
- Optional guide bushings allow blind mating
- Surface Mount Compatible

Reference Information

Product specification: Contact Molex

Packaging: Tray

Mates With: 53941 and 53944

Designed In: Millimeters

Electrical

Voltage: 100V

Current: 0.4A

Contact Resistance: 110mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 MΩ min.

Physical

Housing: White glass-filled heat resistant plastic, UL 94V-0

Contact: Phosphor Bronze

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin/Lead over Nickel

Guide Plate: White glass-filled heat resistant plastic, UL 94V-0

Shield Cover: Steel, Nickel plating

Metal Peg: Steel, Tin/Lead plating

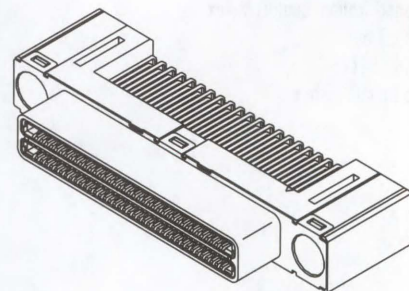
Operating Temperature: -55 to +85°C



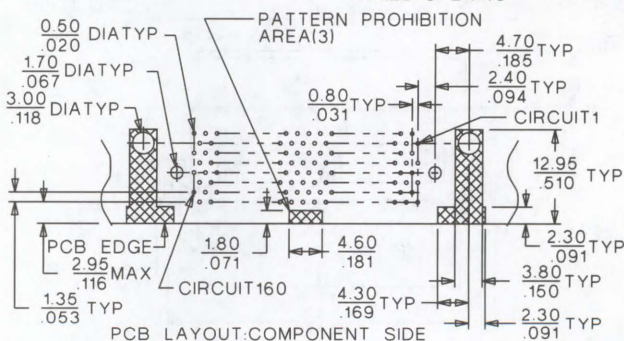
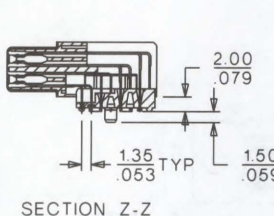
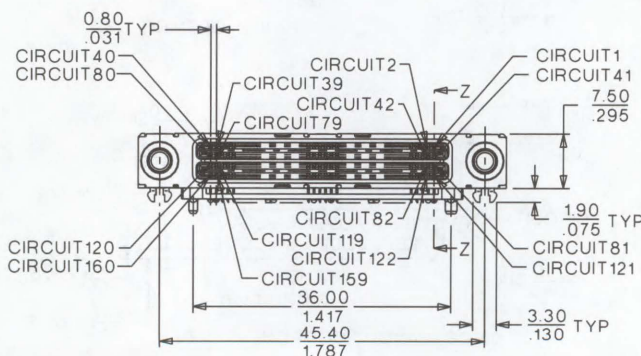
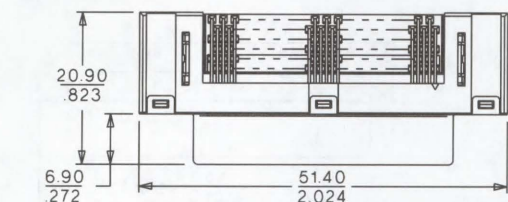
0.80mm (.031") Pitch Docking Station Board-to-Board Shielded Receptacle

54145

Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	
	Without Loose-Piece Guide Bushing	Loose-Piece Guide Bushing
160	54145-1605	58245-0000
240	54145-2405	

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 160 and 240 circuits
- Unique "elevator" base plate protects pins and rises up into position during PCB insertion
- Metal fork boardlocks for PCB hold-down and plastic pegs for placement guidance
- Leaf-style contacts prevent stubbing
- Optional guide pins allow blind mating
- Surface Mount Compatible

Reference Information

Product specification: Contact Molex

Packaging: Tray

Mates With: 54145

Designed In: Millimeters

Electrical

Voltage: 100V

Current: 0.4A

Contact Resistance: 110mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 MΩ min.

Physical

Housing: White glass-filled heat resistant plastic, UL 94V-0

Contact: Phosphor Bronze

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin/Lead over Nickel

Guide Plate: White glass-filled heat resistant plastic, UL 94V-0

Shield Cover: Steel, Nickel plating

Metal Peg: Steel, Tin/Lead plating

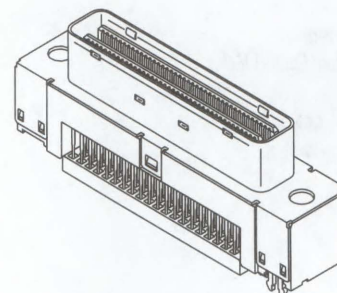
Operating Temperature: -55 to +85°C



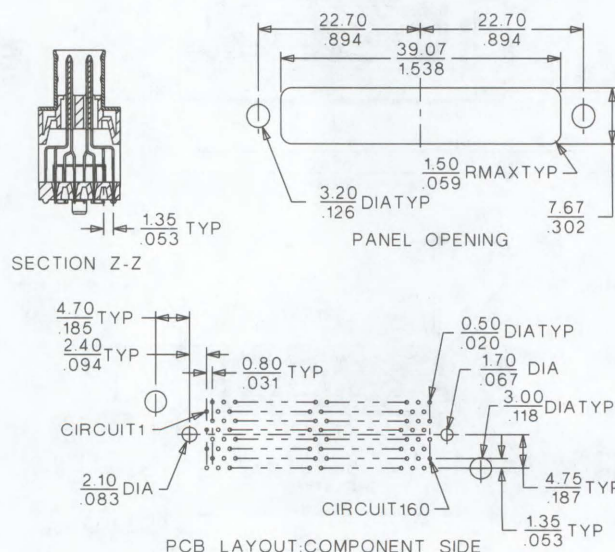
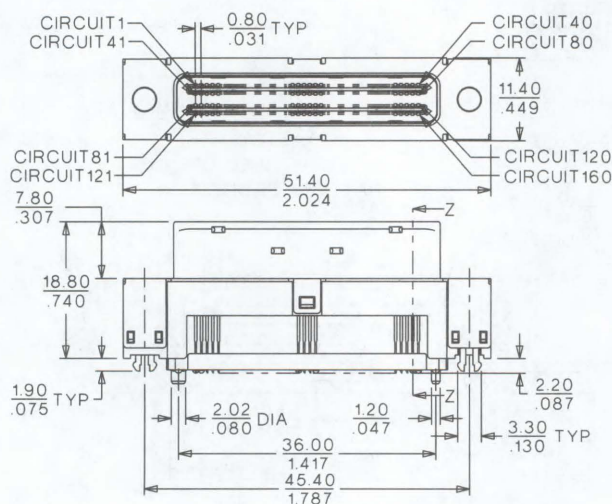
0.80mm (.031") Pitch Docking Station Board-to-Board Shielded Plug

53944

Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	
	Without Loose-Piece Guide Pin	Loose-Piece Guide Pin
160	53944-1605	58257-0000
240	53944-2405	

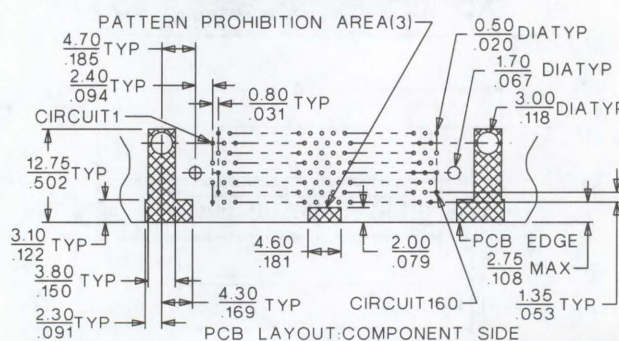
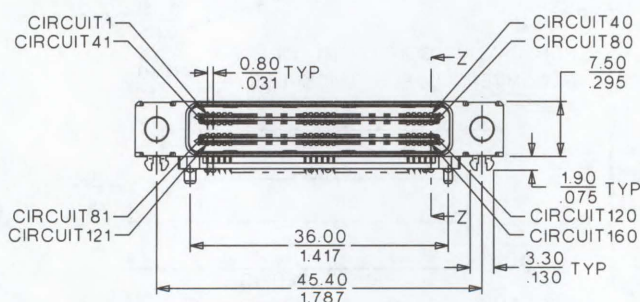
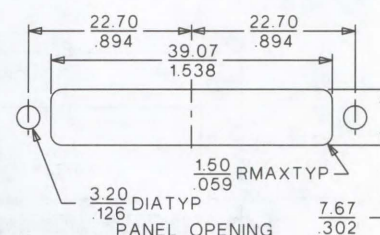
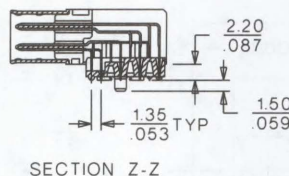
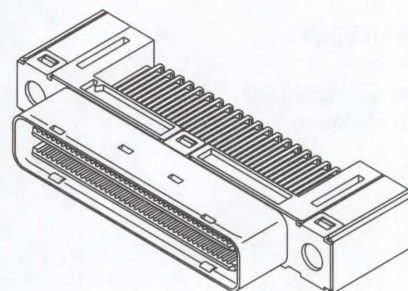
53941
Right Angle

- Sizes 160 and 240 circuits
- Unique "elevator" base plate protects pins and rises up into position during PCB insertion
- Metal fork boardlocks for PCB hold-down and plastic pegs for placement guidance
- Leaf-style contacts prevent stubbing
- Optional guide pins allow blind mating
- Surface Mount Compatible

Product specification: Contact Molex
Packaging: Tray
Mates With: 54145
Designed In: Millimeters

Voltage: 100V
Current: 0.4A
Contact Resistance: 110mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 MΩ min.

Housing: White glass-filled heat resistant plastic, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin/Lead over Nickel
Guide Plate: White glass-filled heat resistant plastic, UL 94V-0
Shield Cover: Steel, Nickel plating
Metal Peg: Steel, Tin/Lead plating
Operating Temperature: -55 to +85°C



Circuits	Order No.	
	Without Loose-Piece Guide Pin	Loose-Piece Guide Pin
160	53941-1605	58249-0000
240	53941-2405	

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 120 and 240 circuits
- Unique "elevator" base plate protects pins and rises up into position during PCB insertion
- Metal fork boardlocks for PCB hold-down and plastic pegs for placement guidance
- First-mate/last-break contacts for electrical grounding purposes
- Leaf-style contacts prevent stubbing
- Optional guide bushings allow blind mating
- Surface Mount Compatible

Reference Information

Packaging: Tray
Mates With: 52758 and 52943
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 500 MΩ min.

Physical

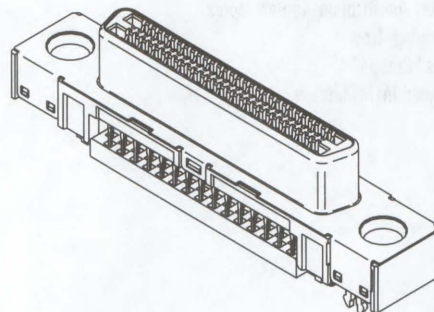
Housing/Guide Plate: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +85°C



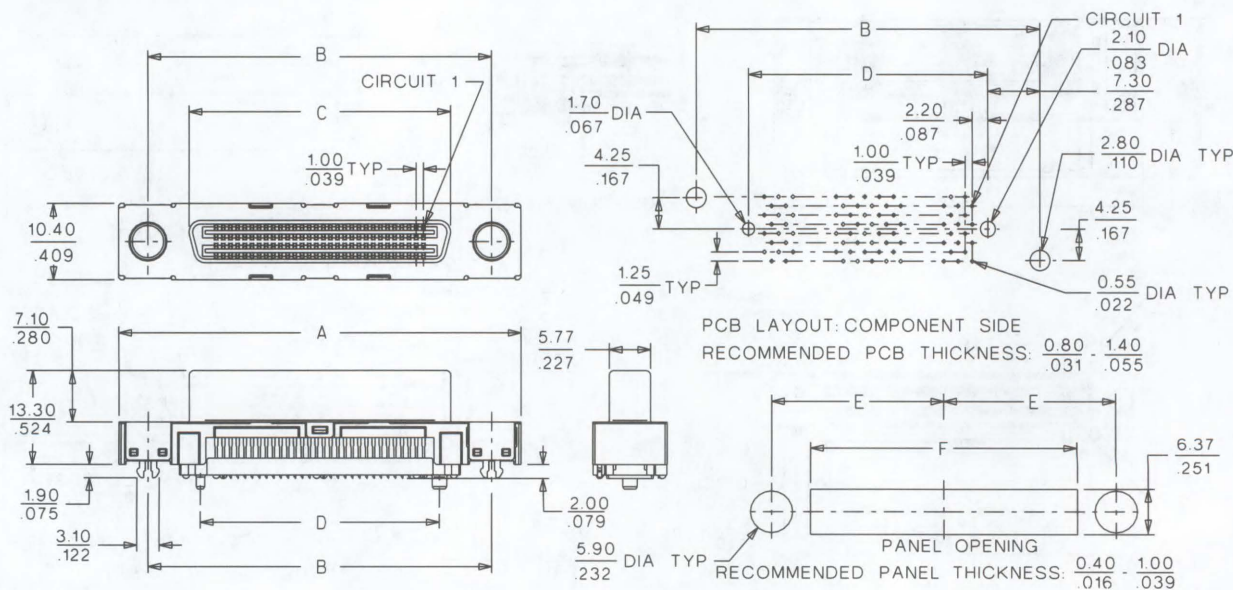
1.00mm (.039") Pitch Docking Station Board-to-Board Shielded Receptacle

52940

Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension					
	Without Loose-Piece Guide Bushing	Loose-Piece Guide Bushing	A	B	C	D	E	F
120	52940-1200	58002-0000	56.20 (2.212)	48.00 (1.889)	36.57 (1.439)	33.40 (1.314)	24.00 (.944)	37.17 (1.463)
240	52940-2400		86.20 (3.393)	78.00 (3.070)	66.57 (2.620)	63.40 (2.496)	39.00 (1.535)	67.17 (2.644)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 120, 176 and 240 circuits
- Unique "elevator" base plate protects pins and rises up into position during PCB insertion
- Metal fork boardlocks for PCB hold-down and plastic pegs for placement guidance
- Staggered contact length arrangement for low insertion force
- Leaf-style contacts prevent stubbing
- Optional threaded bushings for screw locks, and guide bushings for blind mating

Reference Information

Packaging: Tray
Mates With: 52943, 52758 and 55032/58423
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 MΩ min.

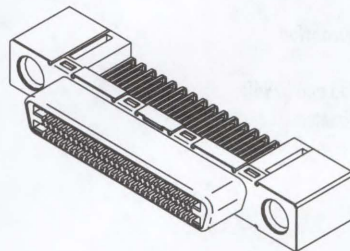
Physical

Housing/Guide Plate: White glass-filled LCP, UL 94V-0
Shield Cover: Steel, Nickel plating
Metal Peg: Steel, Tin/Lead plating
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +85°C

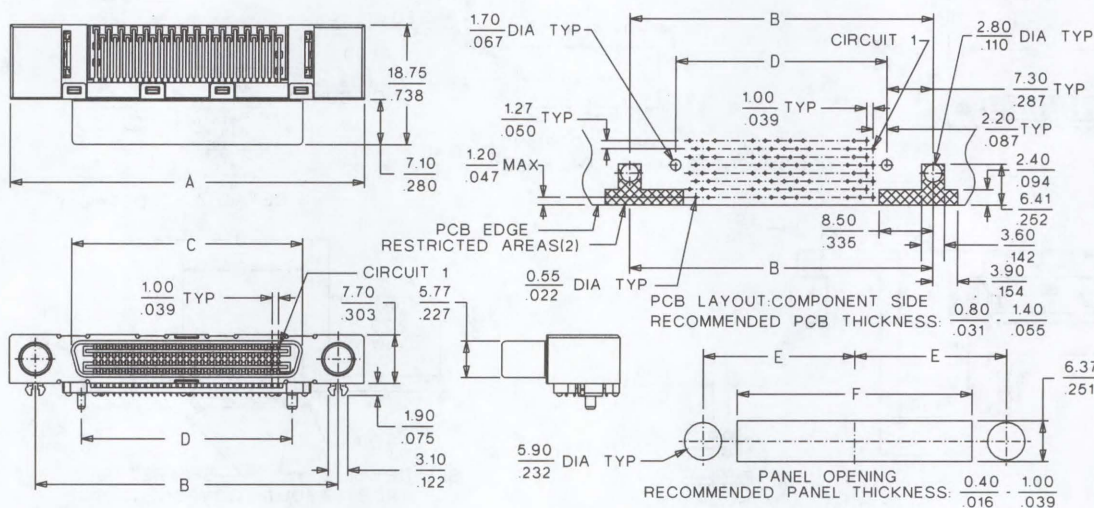
molex® 1.00mm (.039") Pitch Wire-to-Board and Board-to-Board Shielded Receptacle

52755

Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension					
	Without Loose-Piece Guide Bushing	Loose-Piece Guide Bushing	A	B	C	D	E	F
120*	52755-1200	58001-0000	56.20 (2.213)	48.00 (1.890)	36.57 (1.440)	33.40 (1.315)	24.00 (.945)	37.17 (1.463)
176	52755-1760		70.20 (2.764)	62.00 (2.441)	50.57 (1.991)	47.40 (1.866)	31.00 (1.220)	57.17 (2.251)
240	52755-2400		86.20 (3.394)	78.00 (3.071)	66.57 (2.621)	63.40 (2.496)	39.00 (1.535)	67.17 (2.644)

* 59811-0000 (threaded bushing) needed when mated with 55032/58423

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 120, 176 and 240 circuits
- Unique "elevator" base plate protects pins and rises up into position during PCB insertion
- Metal fork boardlocks for PCB hold-down and plastic pegs for placement guidance
- First-mate/last-break contacts for electrical grounding purposes
- Leaf-style contacts prevent stubbing
- Optional guide pins allow blind mating
- Surface Mount Compatible

Reference Information

Packaging: Tray
Mates With: 52755 and 52940
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 500 MΩ min.

Physical

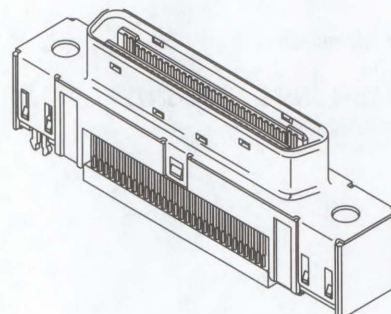
Housing/Guide Plate: White glass-filled LCP, UL 94V-0
Shield Cover: Steel, Nickel plating
Metal Peg: Steel, Tin/Lead plating
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +85°C



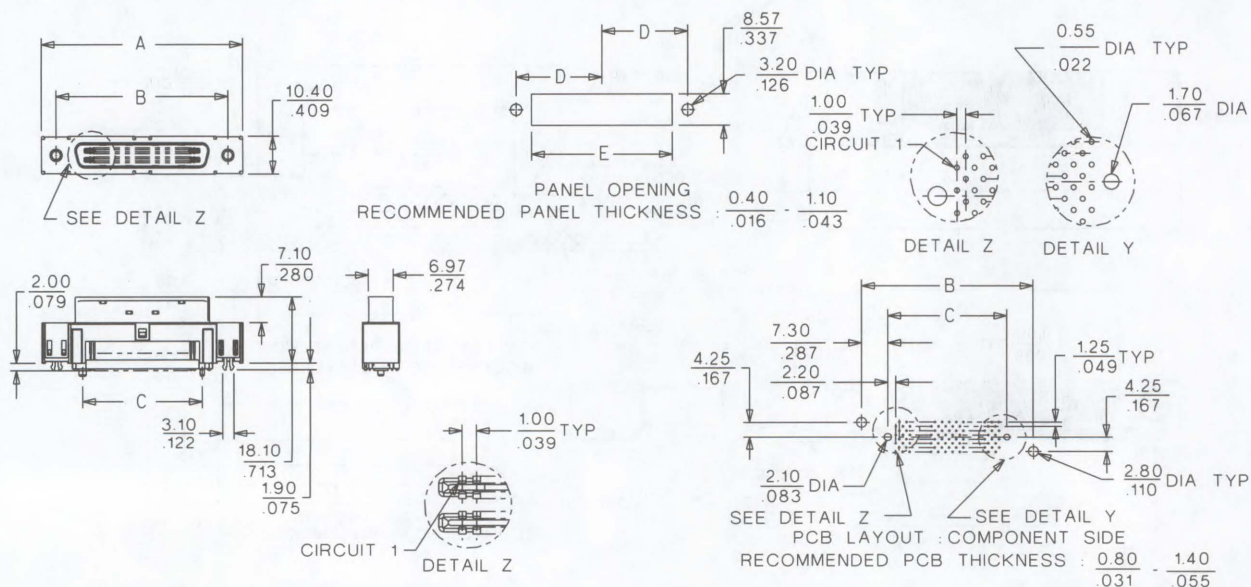
1.00mm (.039") Pitch Docking Station Board-to-Board Shielded Plug

52943

Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension				
	Without Loose-Piece Guide Pin	Loose-Piece Guide Pin	A	B	C	D	E
120	52943-1200	58003-0000	56.20 (2.212)	48.00 (1.889)	33.40 (1.314)	24.00 (.944)	38.17 (1.502)
176	52943-1760		70.20 (2.763)	62.00 (2.440)	47.40 (1.866)	31.00 (1.220)	52.17 (2.053)
240	52943-2400		86.20 (3.394)	78.00 (3.070)	63.40 (2.496)	39.00 (1.535)	68.17 (2.683)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 120, 176 and 240 circuits
- Unique "elevator" base plate protects pins and rises up into position during PCB insertion
- Metal fork boardlocks for PCB hold-down and plastic pegs for placement guidance
- First-mate/last-break contacts for electrical grounding purposes
- Leaf-style contacts prevent stubbing
- Optional guide pins allow blind mating

Reference Information

Packaging: Tray
Mates With: 52940 and 52755
Designed In: Millimeters

Electrical

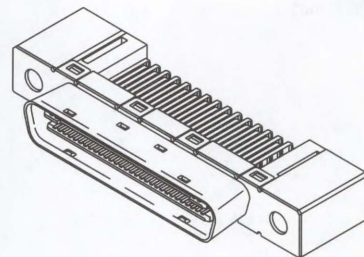
Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 MΩ min.

Physical

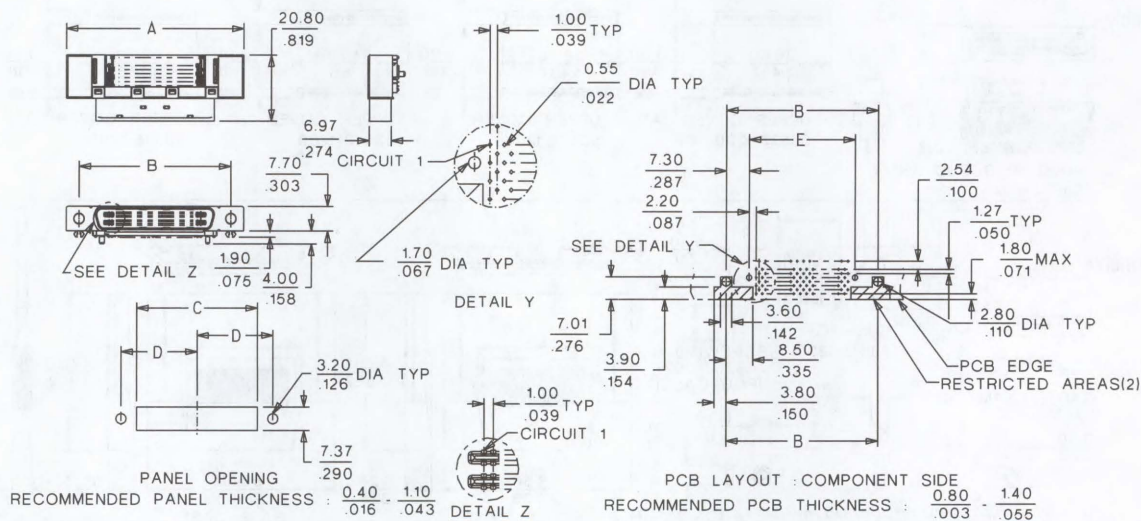
Housing/Guide Plate: White glass-filled LCP, UL 94V-0
Shield Cover: Steel, Nickel plating
Metal Peg: Steel, Tin/Lead plating
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +85°C

molex® 1.00mm (.039") Pitch Docking Station Board-to-Board Shielded Plug

52758
Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension				
	Without Loose-Piece Guide Pin	Loose-Piece Guide Pin	A	B	C	D	E
120	52758-1200	58003-0000	56.20 (2.213)	48.00 (1.890)	38.17 (1.503)	24.00 (.945)	33.40 (1.315)
176	52758-1760		70.20 (2.764)	62.00 (2.441)	52.17 (2.054)	31.00 (1.220)	47.40 (1.866)
240	52758-2400		86.20 (3.394)	78.00 (3.071)	68.17 (2.684)	39.00 (1.535)	63.40 (2.496)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 120 circuits
- Thin, high-density design meets tighter packaging needs in high-end PC and datacom applications
- Durable diecast metal hood provides shielding and protection
- Screw locks provide secure mating retention

Reference Information

Packaging: Tray and bag (contact Molex for details)
Mates With: 52755
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 80mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 MΩ min.

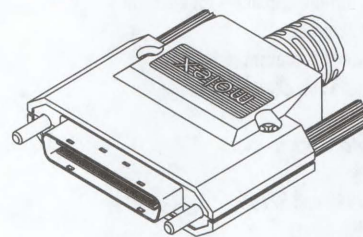
Physical

Housing: Black glass-filled PBT
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in IDT area
Cover Case: Aluminum Alloy
Operating Temperature: -55 to +85°C



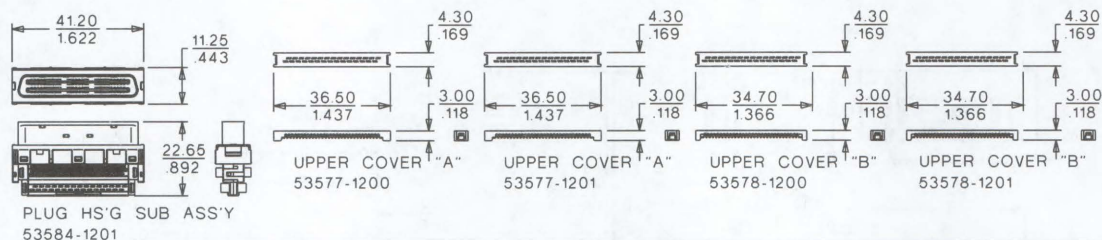
1.00mm (.039") Pitch Wire-to-Board Shielded Plug Kit

55032/58423

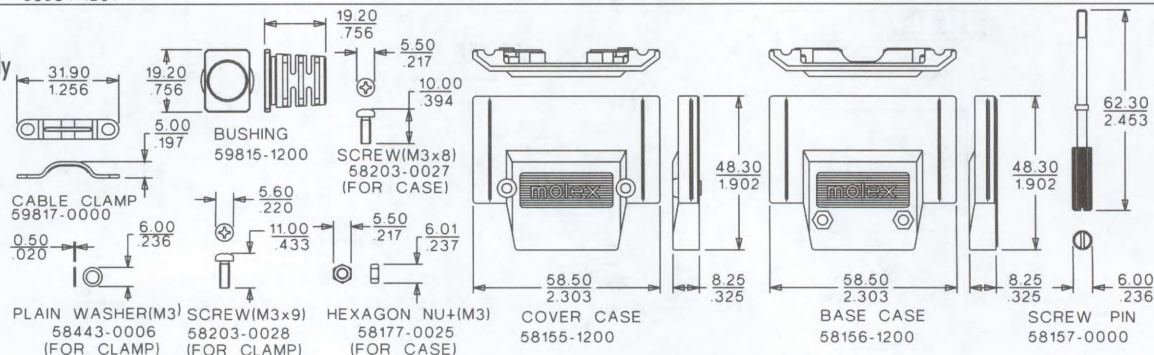


CATALOG DRAWING (FOR REFERENCE ONLY)

55032 Plug Assembly



58423 Cover Assembly



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Applicable Wire				
	Plug Assembly	Cover Assembly	Size	Conductor	Insulation Diameter	Shield Range	Jacket Range
120	55032-1200	58423-1200	28 AWG	0.38 (7/0.127)	0.58	9.40	11.00

FEATURES AND SPECIFICATIONS

Features and Benefits

- Suitable for high-speed bus applications
- Fully shielded
- Staggered contact, low mating force
- Guide bushing allows blind mating
- Leaf-style contacts prevents stubbing
- First-mate/last-break contacts for grounding

Reference Information

Packaging: Tray

Mates With: 52580 only

Designed In: Millimeters

Electrical

Voltage: 125V

Current: 0.4A

Contact Resistance: 70mΩ max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 500 MΩ min.

Mechanical

Durability: 2000 cycles min. (contact Molex for 5000 cycles)

Physical

Housing: White glass-filled LCP, UL 94V-0

Shield Cover: Steel with Nickel plating

Contact: Phosphor Bronze

Plating: 30μ" Gold over Nickel

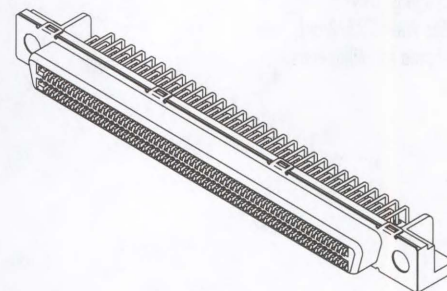
Operating Temperature: -55 to +100°C



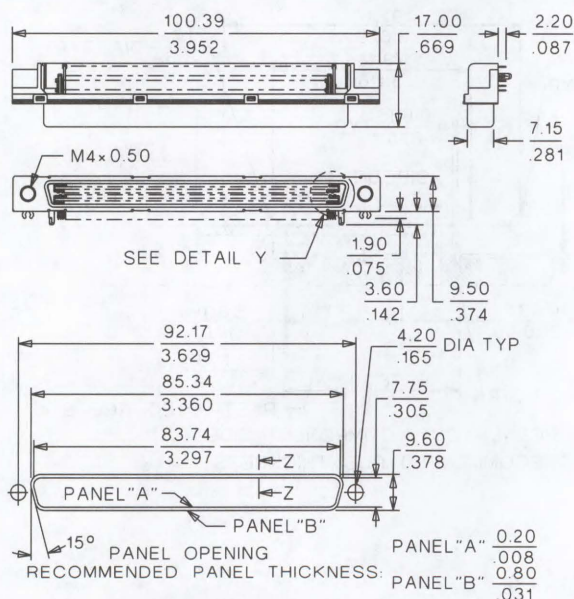
1.27mm (.050") Pitch Docking Station Shielded Receptacle

52578

Right Angle

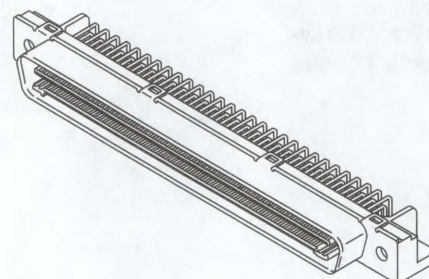


CATALOG DRAWING (FOR REFERENCE ONLY)



52580

Right Angle



- Suitable for high-speed bus applications
- Fully shielded
- Low mating force
- Guide pin allows blind mating
- Leaf-style contacts prevent stubbing
- First-mate/last-break contacts for grounding

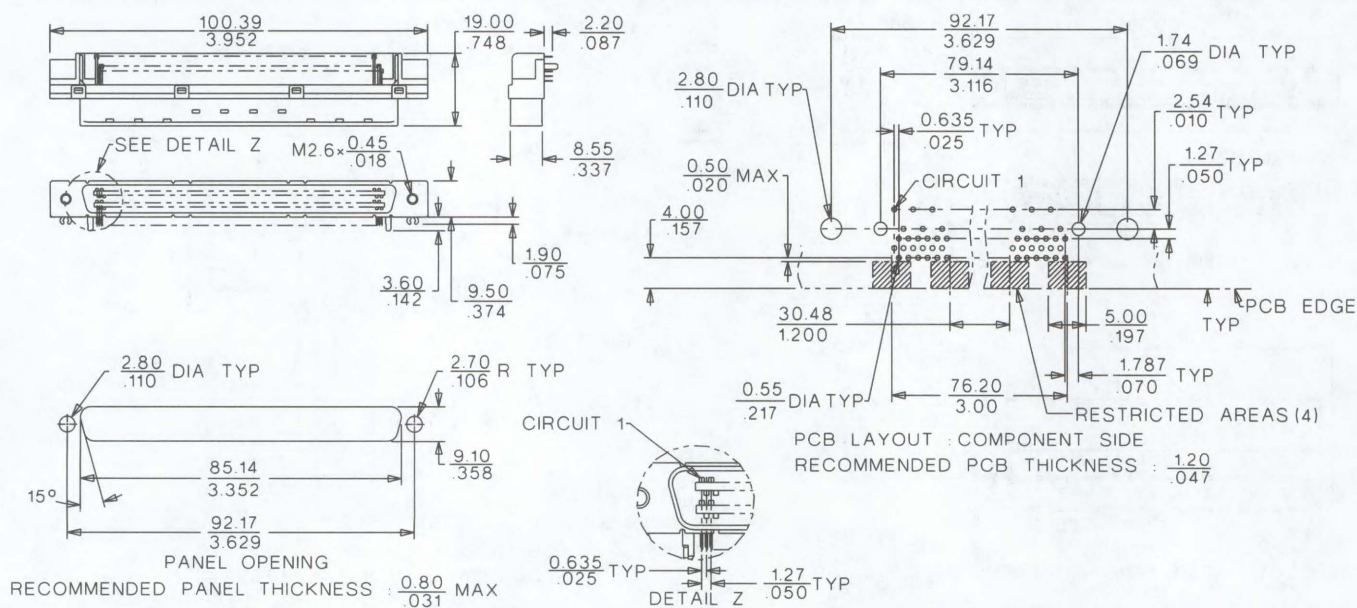
Packaging: Tray
Mates With: 52578 only
Designed In: Millimeters

Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 500 MΩ min.

Durability: 2000 cycles min. (contact Molex for 5000 cycles)

Housing: White glass-filled LCP, UL 94V-0
Shield Cover: Steel with Nickel plating
Contact: Phosphor Bronze
Plating: 30 μ " Gold over Nickel
Operating Temperature: -55 to +100°C

I/O Connectors



Circuits	Order No.	
	Without Loose-Piece Guide Pin	Loose-Piece Guide Pin
240	52580-2400	59667-0010

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 240 circuits
- First-mate/last-break contacts for electrical grounding purposes
- Optional guide pins allow blind mating
- Leaf-style contacts prevent stubbing
- Metal fork boardlocks for PCB hold-down and plastic pegs for placement guidance
- Durable metal shell provides reliable shielding

Reference Information

Packaging: Tray
Mates With: 52635
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 MΩ min.

Physical

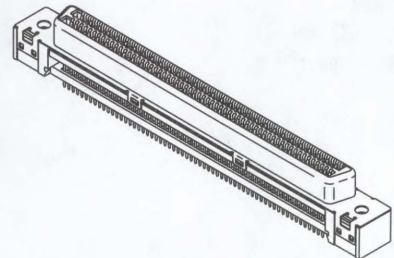
Housing/Guide Plate: White glass-filled LCP, UL 94V-0
Shield Cover: Steel, Nickel plating
Metal Peg: Steel, Tin/Lead plating
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +100°C



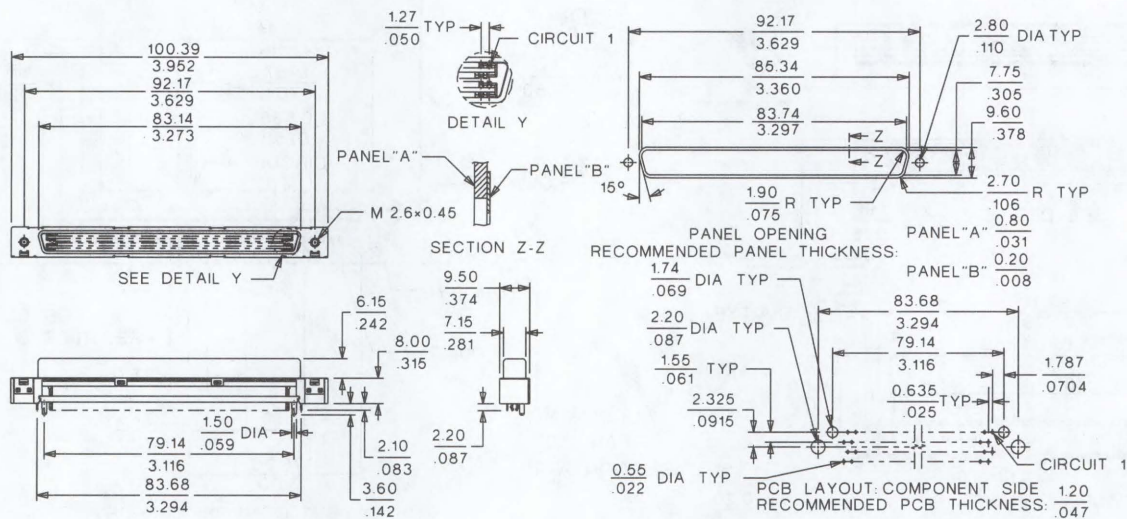
1.27mm (.050") Pitch Docking Station Shielded Receptacle

52802

Vertical



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	
	Without Loose-Piece Guide Pin	Loose-Piece Guide Pin
240	52802-2400	59667-0010

**molex® 1.27mm (.050") Pitch
Docking Station
Shielded Plug**

Features and Benefits

- Suitable for high-speed bus applications
- Fully shielded
- Low mating force
- Guide bushing allows blind mating
- Leaf-style contacts prevent stubbing
- First-mate/last-break contacts for grounding

Reference Information

Packaging: Tray
CSA File No.: LR19980
Mates With: 52637 and 52802
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 500 MΩ min.

Mechanical

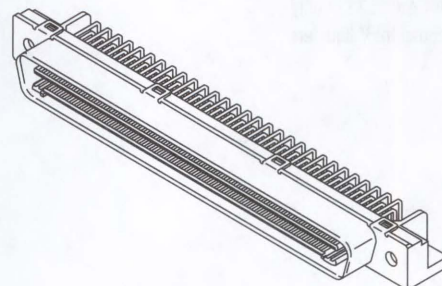
Durability: 2000 cycles min. (contact Molex for 5000 cycles)

Physical

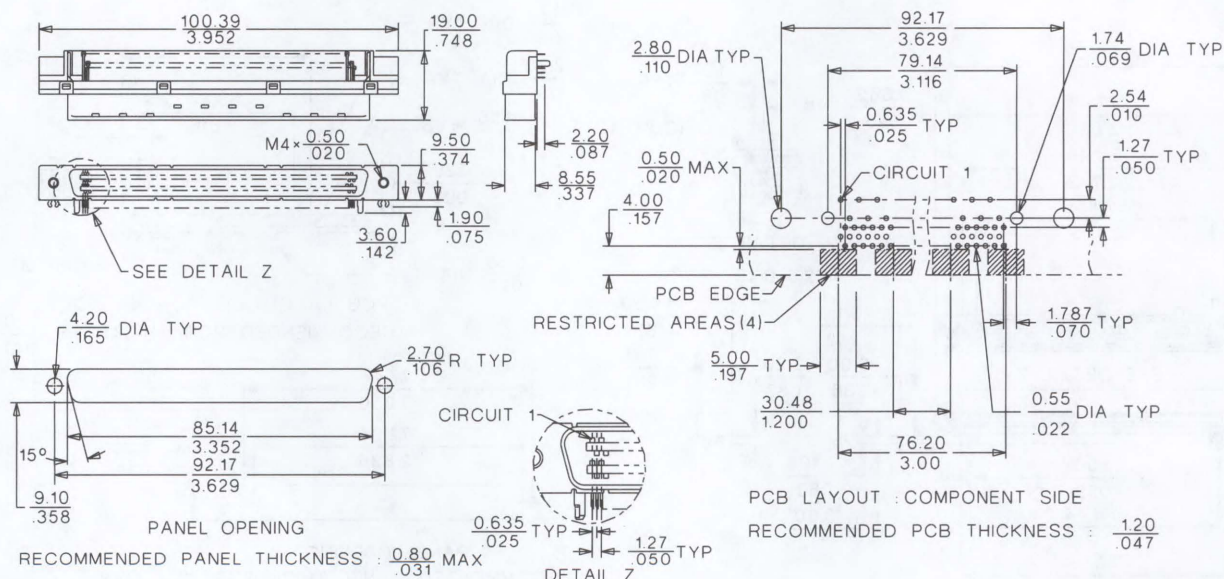
Housing: White glass-filled LCP, UL 94V-0
Shield Cover: Steel with Nickel plating
Contact: Phosphor Bronze
Plating: 30 μ Gold over Nickel
Operating Temperature: -55 to +100°C

52635

Right Angle

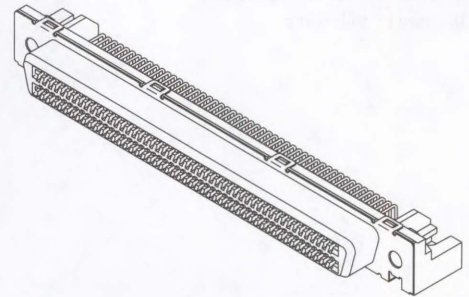


CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	
	Without Loose-Piece Guide Bushing	Loose-Piece Guide Bushing
240	52635-2400	59666-0010



FEATURES AND SPECIFICATIONS

Features and Benefits

- Suitable for high-speed bus applications
- Fully shielded
- Low mating force
- Leaf-style contacts prevent stubbing
- First-mate/last-break contacts for grounding

Reference Information

Packaging: Tray
Mates With: 52537 and 52569 only
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 500 MΩ min.

Mechanical

Durability: 2000 cycles min. (contact Molex for 5000 cycles)

Physical

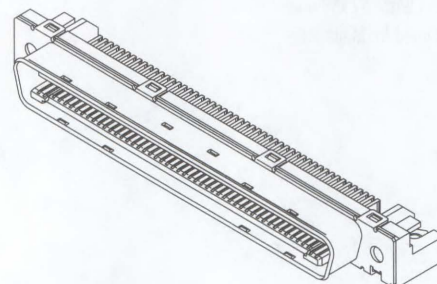
Housing: White glass-filled LCP, UL 94V-0
Shield Cover: Steel with Nickel plating
Contact: Phosphor Bronze
Plating: 30μ" Gold over Nickel
Operating Temperature: -55 to +100°C



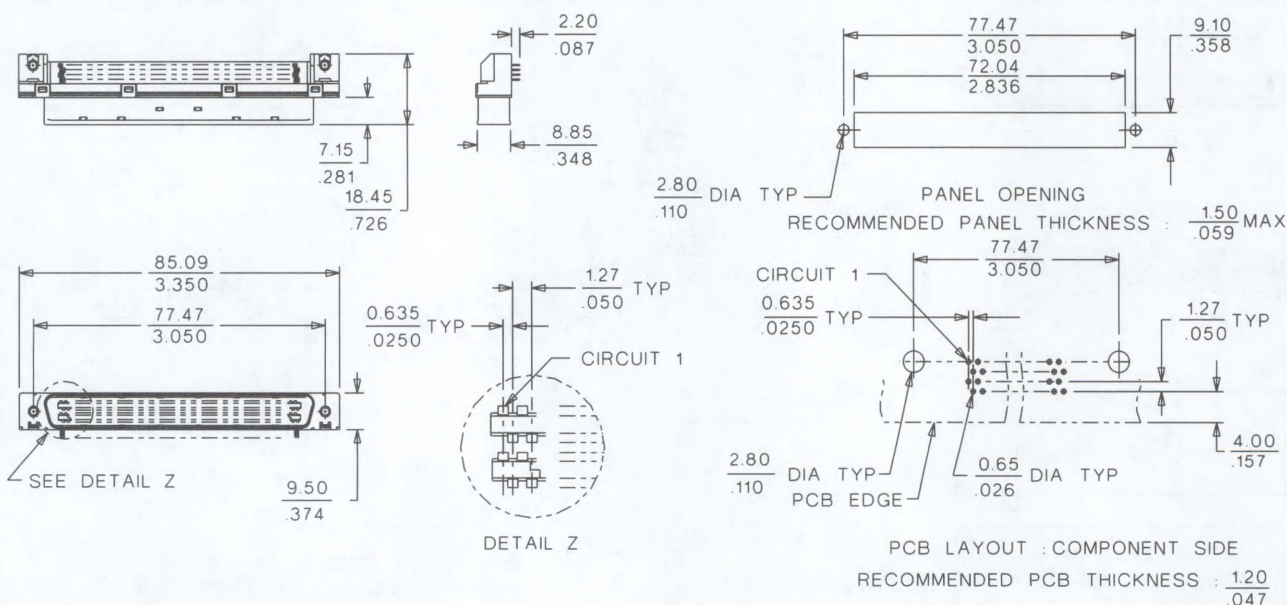
1.27mm (.050") Pitch Docking Station Shielded Plug

52539

Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
200	52539-2001

**molex® 1.27mm (.050") Pitch
Docking Station
Shielded Receptacle**

Features and Benefits

- Suitable for high-speed bus applications
- Fully shielded
- Staggered contact, low mating force
- Guide bushing allows blind mating
- Leaf-style contacts prevent stubbing
- First-mate/last-break contacts for grounding

Reference Information

Packaging: Tray
Mates With: 52688 only
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 70m Ω max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 500 M Ω min.

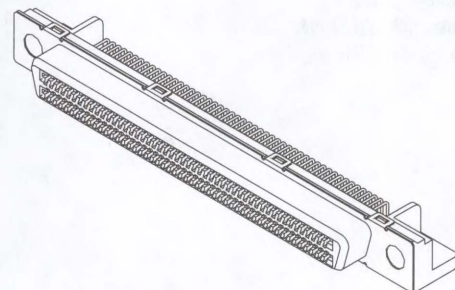
Mechanical

Durability: 2000 cycles min. (contact Molex for 5000 cycles)

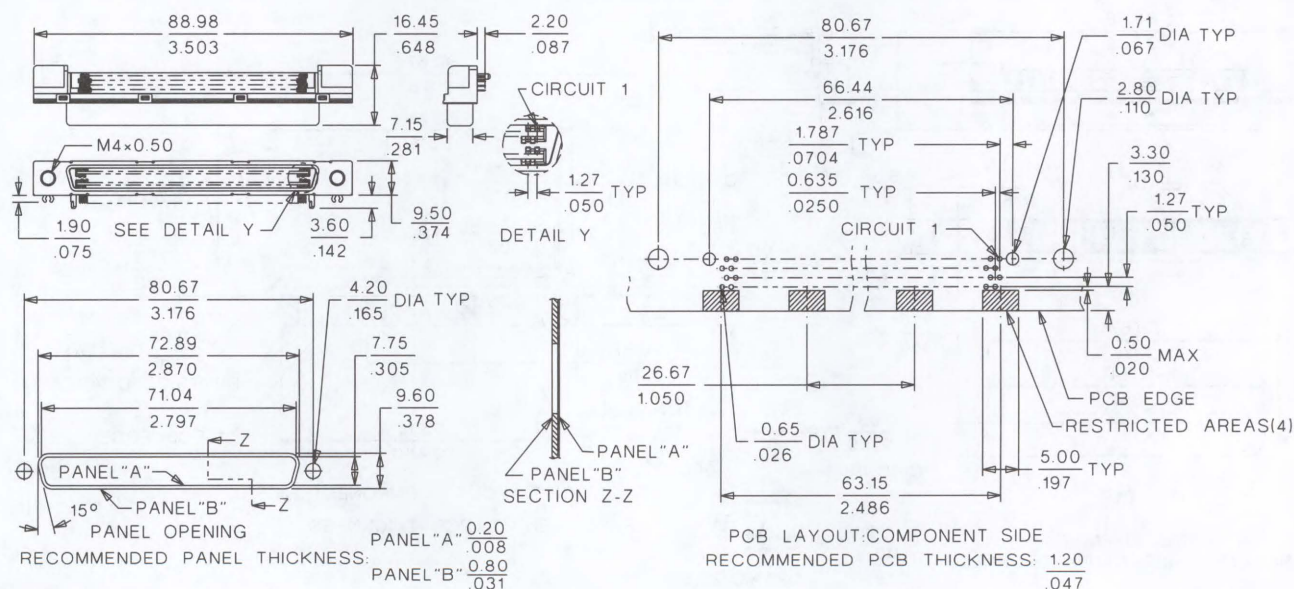
Physical

Housing: White glass-filled LCP, UL 94V-0
Shield Cover: Steel with Nickel plating
Contact: Phosphor Bronze
Plating: 30 μ " Gold over Nickel
Operating Temperature: -55 to +100°C

52686
Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	
	Without Loose-Piece Bushing	Loose-Piece Bushing
200	52686-2001	59666-0010

FEATURES AND SPECIFICATIONS

Features and Benefits

- Suitable for high-speed bus applications
- Fully shielded
- Low mating force
- Guide pin allows blind mating
- Leaf-style contacts prevent stubbing
- First-mate/last-break contacts for grounding

Reference Information

Packaging: Tray
Mates With: 52686 only
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.4A
Contact Resistance: 70mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 500 MΩ min.

Mechanical

Durability: 2000 cycles min. (contact Molex for 5000 cycles)

Physical

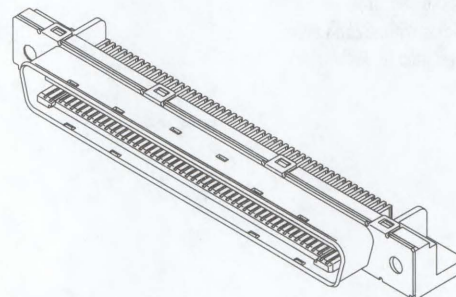
Housing: White glass-filled LCP, UL 94V-0
Shield Cover: Steel with Nickel plating
Contact: Phosphor Bronze
Plating: 30μ" Gold over Nickel
Operating Temperature: -55 to +100°C



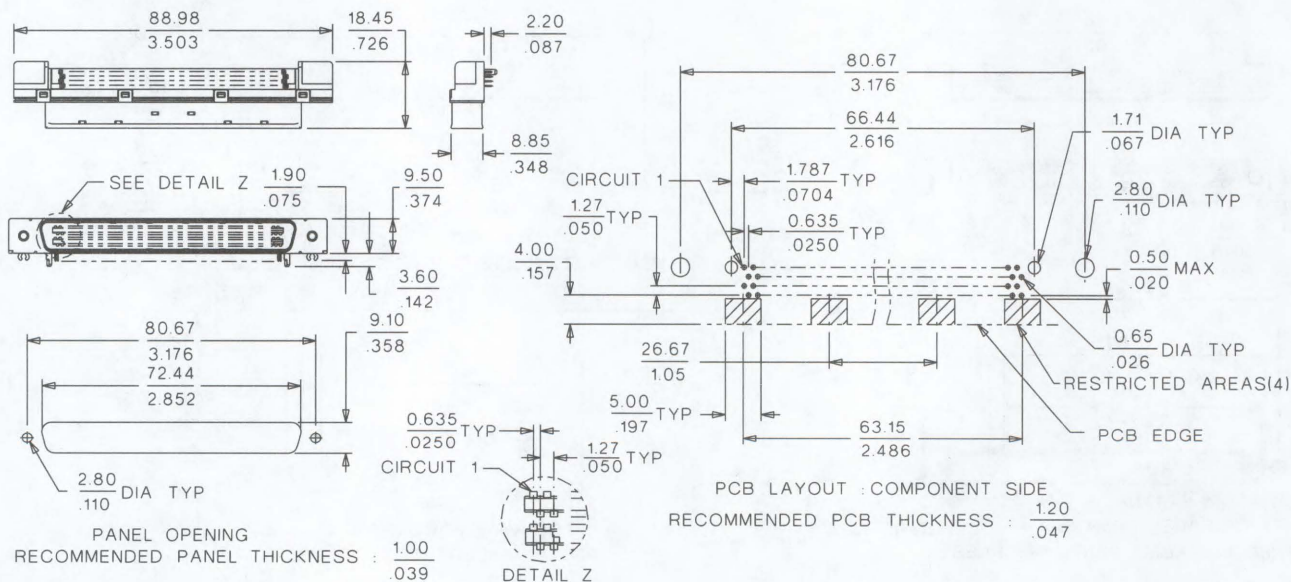
1.27mm (.050") Pitch Docking Station Shielded Plug

52688

Right Angle



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	
	Without Loose-Piece Guide Pin	Loose-Piece Guide Pin
200	52688-2001	59667-0010

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 10 and 26 circuits
- Low profile: 5.4mm high
- In-line 0.50mm (.020") pitch solder tail for good co-planarity and visual solder checking
- Molded PCB hold-down feature snaps into board for secure retention prior to soldering
- One-piece latch/board mounting feature and first-mate/last-break contacts for electrical grounding purposes
- Threaded inserts on panel and PCB sides accept screws for secure PCB hold-down

Reference Information

Packaging: Tray
Mates With: 52660
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.5A
Contact Resistance: 50mΩ max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 500 MΩ min.

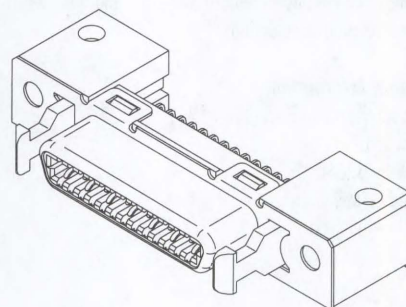
Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin/Lead over Nickel
Shields: Steel, Nickel plating
Operating Temperature: -55 to +85°C

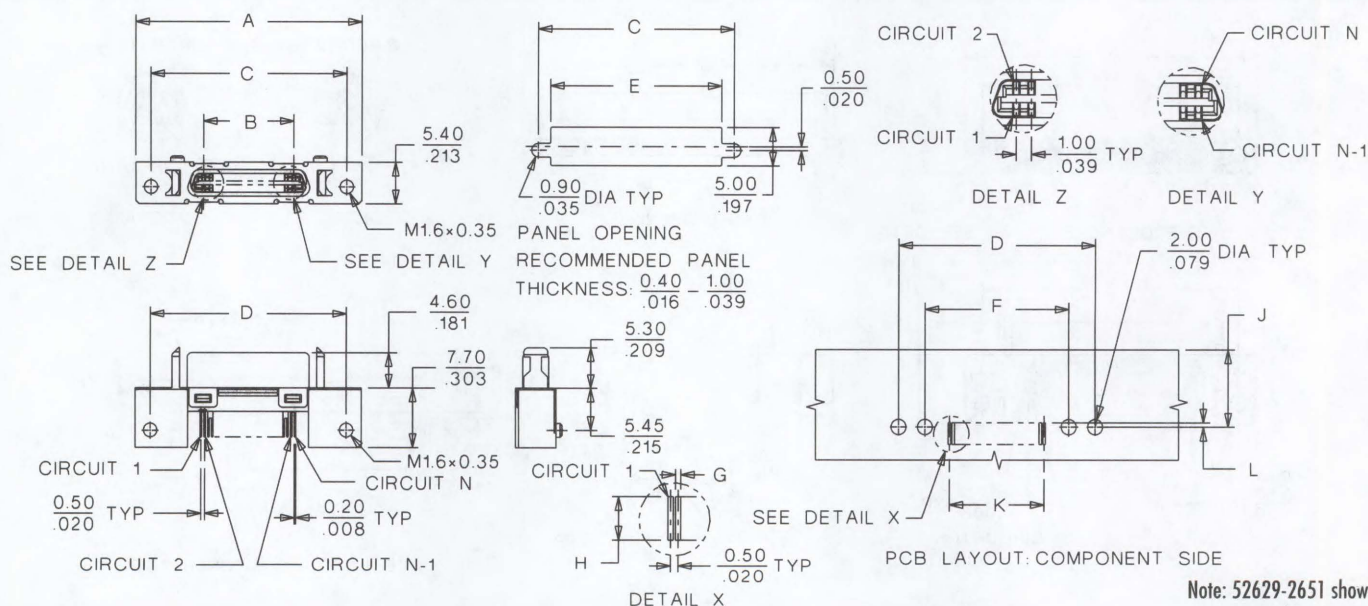
molex® 1.00mm (.039") Pitch Wire-to-Board Shielded Receptacle

52629

Right Angle, SMT



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Dimension										
		A	B	C	D	E	F	G	H	J	K	L
10	52629-1051	24.40 (.961)	4.00 (.157)	18.00 (.709)	18.00 (.709)	14.70 (.579)	11.00 (.433)	0.30 (.012)	2.10 (.083)	5.45 (.215)	4.50 (.177)	0.10 (.004)
26	52629-2651	30.00 (1.181)	12.00 (.472)	26.00 (1.024)	26.00 (1.024)	22.70 (.894)	19.00 (.748)	0.35 (.014)	2.80 (.110)	5.45 (.215)	12.50 (.492)	0.55 (.022)

Note: Contact Molex for lower profile version in additional circuit sizes

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 26, 50 and 68 circuits
- Midplane mounting for ultra-low profile of 2.40mm (.094")
- In-line 0.50mm (.020") pitch solder tails for good co-planarity and visual solder checking
- One-piece latch/board mounting feature and first-mate/last-break contacts for electrical grounding
- Threaded inserts on panel and PCB sides accept screws for secure PCB hold-down
- Molded PCB hold-down feature snaps into board for secure retention prior to soldering

Reference Information

Product specification: PS-54397-012

Packaging: Tray

Mates With: 52660

Designed In: Millimeters

Electrical

Voltage: 125V

Current: 0.5A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 MΩ min.

Physical

Housing: Black PPA, UL 94V-0

Contact: Phosphor Bronze

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin/Lead over Nickel

Shell: Steel, Nickel plating

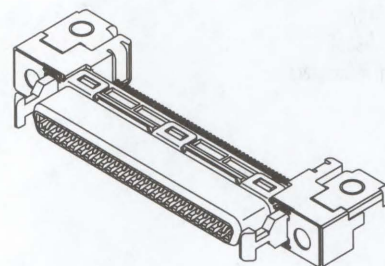
Lock: Steel, Nickel plating

Operating Temperature: -55 to +85°C

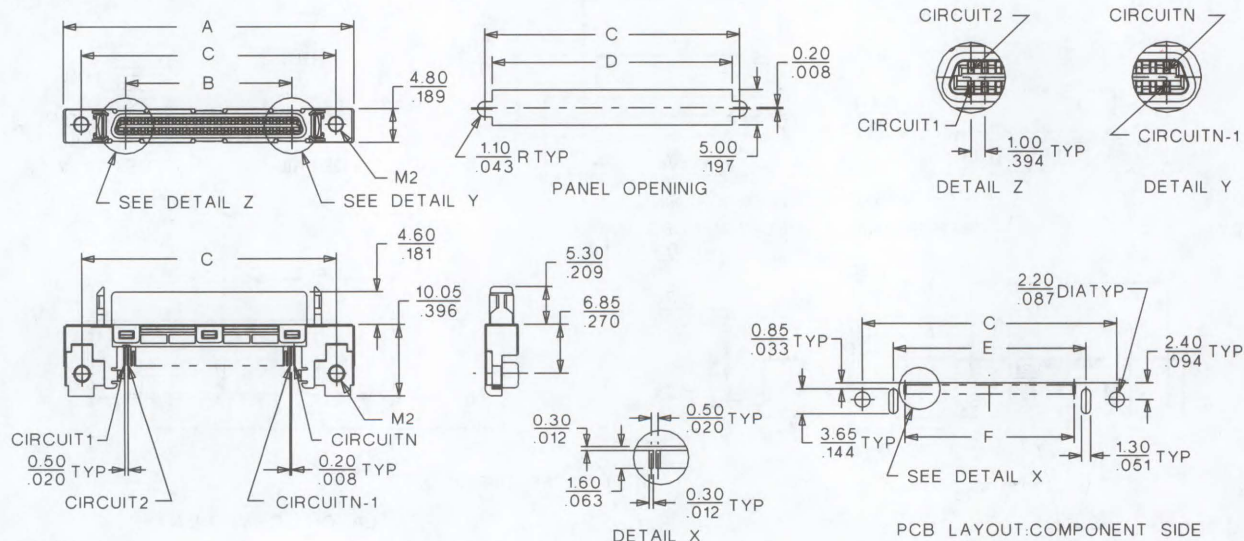
molex® 1.00mm (.039") Pitch Wire-to-Board Shielded Receptacle

54397

Right Angle, SMT Midplane Mounting Ultra Low Profile



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension					
		A	B	C	D	E	F
26	54397-2651	30.00 (1.181)	12.00 (.472)	24.80 (.976)	22.70 (.894)	15.90 (.626)	12.50 (.492)
50	54397-5001	42.00 (1.654)	24.00 (.945)	36.80 (1.449)	34.70 (1.366)	27.90 (1.098)	24.50 (.965)
68	54397-6801	51.00 (2.008)	33.00 (1.299)	45.80 (1.803)	43.70 (1.720)	36.90 (1.453)	33.50 (1.319)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 10, 26, 50 and 68 circuits (contact Molex for other circuit sizes)
- Mating and unmating made easy by the 1-touch lock
- The projected metal shell permits the receptacle to be face-mounted on the edge of the PCB to save space

Reference Information

Packaging: Tray
Tooling Information: See end of section
Mates With: 52629 and 54397
Designed In: Millimeters

Electrical

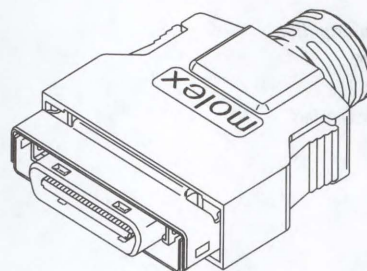
Voltage: 125V
Current: 0.5A
Contact Resistance: 50mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 MΩ min.

Physical

Housing: Glass-filled PBT
Shell Body Bottom: Steel, Nickel plating
Boot: PBT
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in IDT area
Operating Temperature: -55 to +85°C

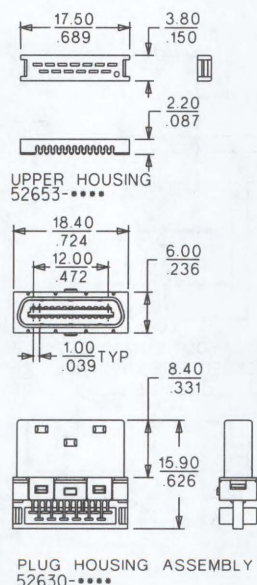
**molex® 1.00mm (.039") Pitch
Shielded Plug**

**52660/52661
Dual Row**

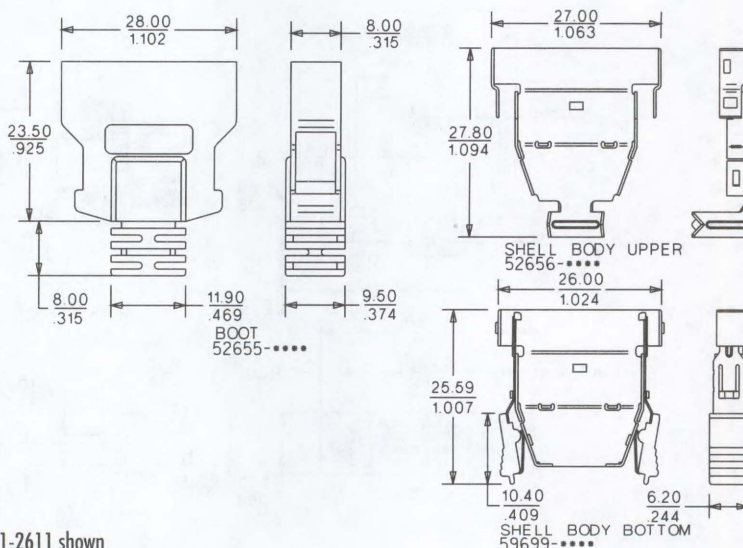


CATALOG DRAWING (FOR REFERENCE ONLY)

**52660
Plug Assembly**



**52661
Shell Kit**



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Size	Conductor	Applicable Wire		
	Plug Assembly	Shell Kit			Insulation Diameter	Shield Diameter	Jacket Diameter
10	52660-1051	52661-1011	28 AWG	0.38 (7/0.127)	0.58 (.023)	3.00 (.118)	5.00 (.197)
26	52660-2651	52661-2611	28 AWG	0.38 (7/0.127)	0.58 (.023)	4.60 (.181)	6.40 (.252)
50	52660-5051	52661-5051	30 AWG	0.30 (7/0.100)	0.50 (.020)	4.90 (.193)	6.70 (.264)
68	52660-6851	52661-6851	30 AWG	0.30 (7/0.100)	0.50 (.020)	5.44 (.214)	6.70 (.264)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 20 circuits
- Four polarizing and positioning pegs to help insure correct placement and provide stability during reflow soldering
- Metal shielding provides EMI/RFI protection
- Insert nut accepts screw locks
- User-friendly leaf-style contact design

Reference Information

Packaging: Tray
Mates With: 52316
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: 50mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 5000 MΩ min.

Physical

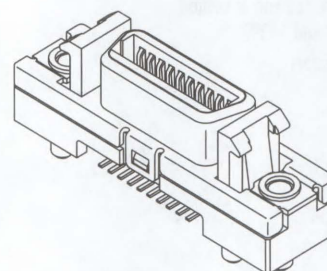
Housing: Black glass-filled heat-resistant plastic, UL 94V-0
Shield Cover: Steel
Nut: Brass, Tin/Lead plating
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +125°C



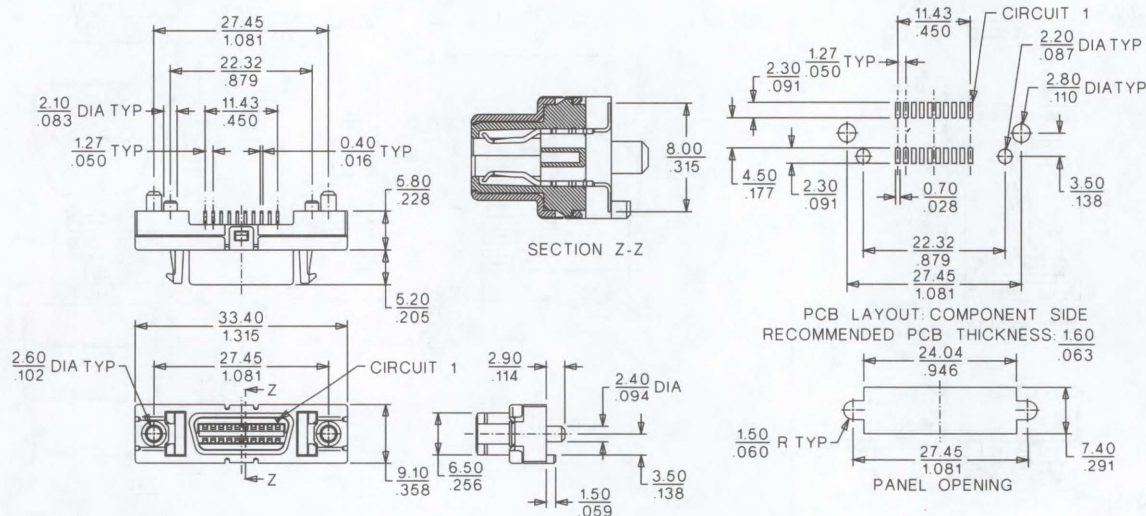
1.27mm (.050") Pitch Wire-to-Board Shielded Receptacle

52871

Vertical, SMT



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
20	52871-2011

FEATURES AND SPECIFICATIONS

Features and Benefits

- Thin, low-profile design for space savings
- Metal shielding provides EMI/RFI protection
- Integral metal screw nut/solder pegs provide grounding and PCB retention
- Positioning pegs help insure correct placement
- Insert nut accepts screw locks
- User-friendly leaf-style contact design

Reference Information

Product Specification: PS-54122-001

Packaging: Tray

Mates With: 52316 and 54306

Designed In: Millimeters

Electrical

Voltage: 250V

Current: 1.0A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 MΩ min.

Physical

Housing: Black glass-filled PBT, UL 94V-0

Contact: Phosphor Bronze

Plating: Gold over Nickel in contact area

Shield Cover: Steel

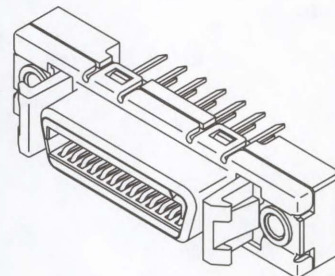
Nut: Brass

Operating Temperature: -55 to +85°C

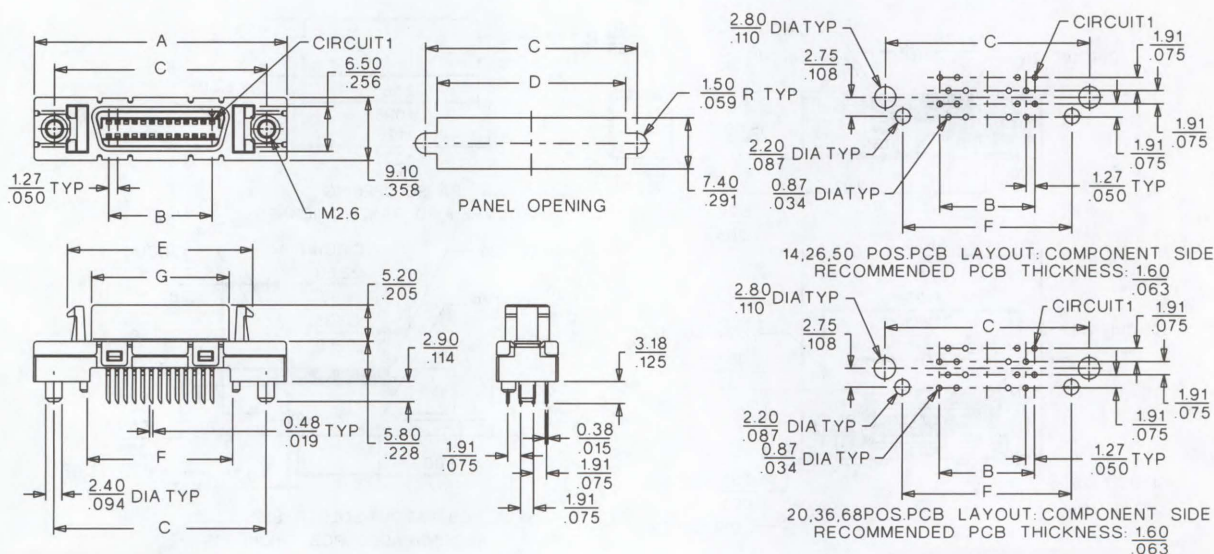
molex® 1.27mm (.050") Pitch Wire-to-Board Shielded Receptacle

54122

Vertical Dual Row



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension						
	With Small Pegs	Without Small Pegs	A	B	C	D	E	F	G
20	54122-2011	54122-2012	33.40 (1.315)	11.43 (.450)	27.45 (1.081)	24.04 (.946)	23.55 (.927)	17.59 (.693)	16.43 (.647)
50	54122-5011	54122-5012	52.45 (2.065)	30.48 (1.200)	46.50 (1.831)	43.09 (1.696)	42.60 (1.677)	36.64 (1.443)	35.48 (1.397)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 26 circuits
- Positioning pegs assist PCB placement
- User-friendly leaf-style contact design
- Fully shielded for EMI/RFI protection
- High-temperature material withstands I.R. vapor phase soldering

Reference Information

Packaging: Tube
Mates With: 52316
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 0.5A
Contact Resistance: 35mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 MΩ min.

Physical

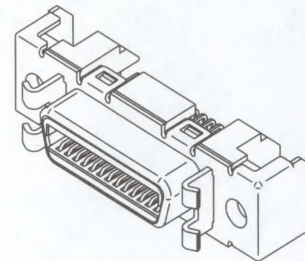
Housing: Black glass-filled heat-resistant plastic, UL 94V-0
Shield Cover: Steel, Tin/Lead over Nickel plating
Latch Receiver: Steel, Nickel plating
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +85°C



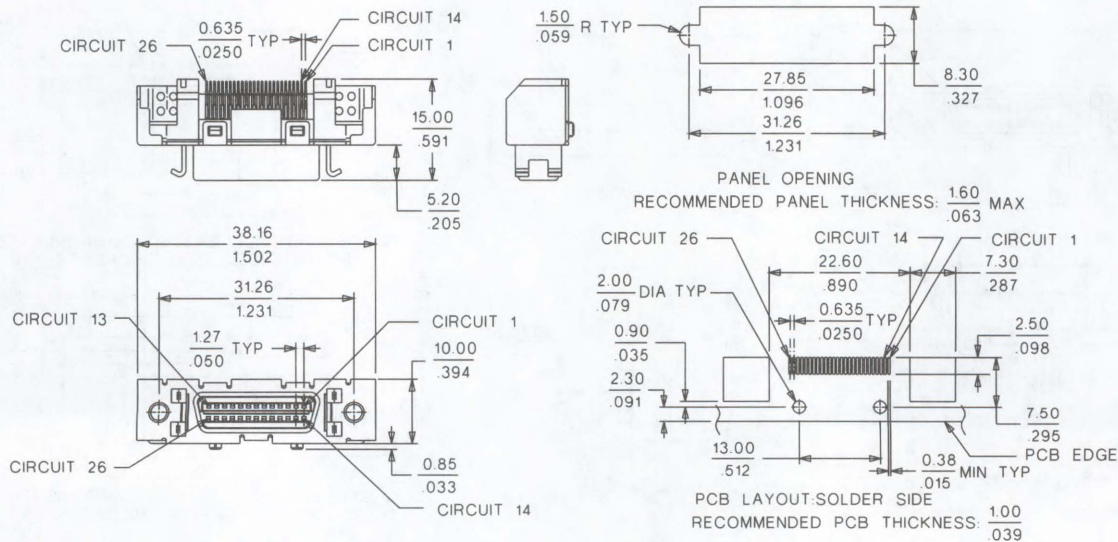
1.27mm (.050") Pitch Wire-to-Board Shielded Receptacle

52311

Right Angle Dual Row, SMT



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
26	52311-2690

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 14, 20 and 36 circuits
- Meets IEEE 1284 standard (36 circuits only)
- 1-piece metal shell with fork lock offers direct electrical grounding
- User-friendly leaf-style contact design
- Fully shielded for EMI/RFI protection

Reference Information

Packaging: Tray
Mates With: 52316
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: 35mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 5000 MΩ min.

Physical

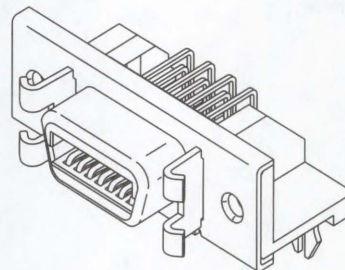
Housing/Guide Plate:
14 circuit—Glass-filled LCP, UL 94V-0
20 and 36 circuit—Glass-filled PBT, UL 94V-0
Shield Cover: Steel
Latch Receiver:
14 circuit—Stainless Steel
20 and 36 circuit—Steel
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +125°C



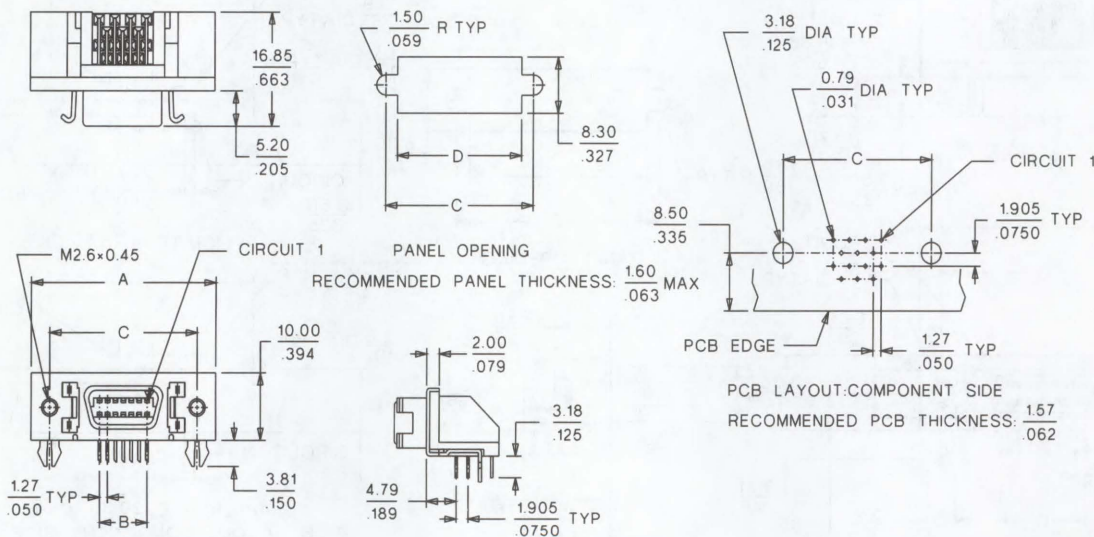
1.27mm (.050") Pitch Wire-to-Board Shielded Receptacle

52515

Right Angle Dual Row



CATALOG DRAWING (FOR REFERENCE ONLY)

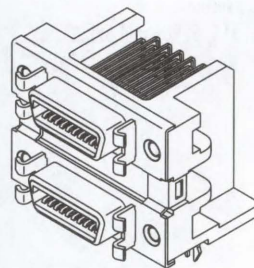


ORDERING INFORMATION AND DIMENSIONS

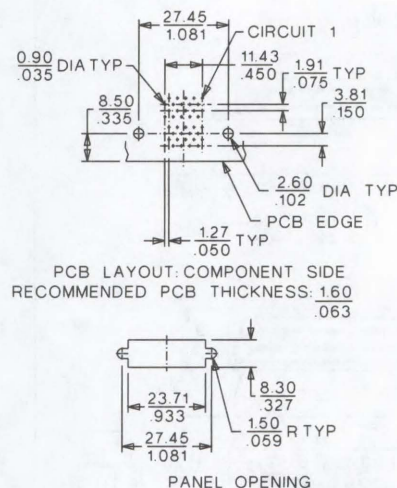
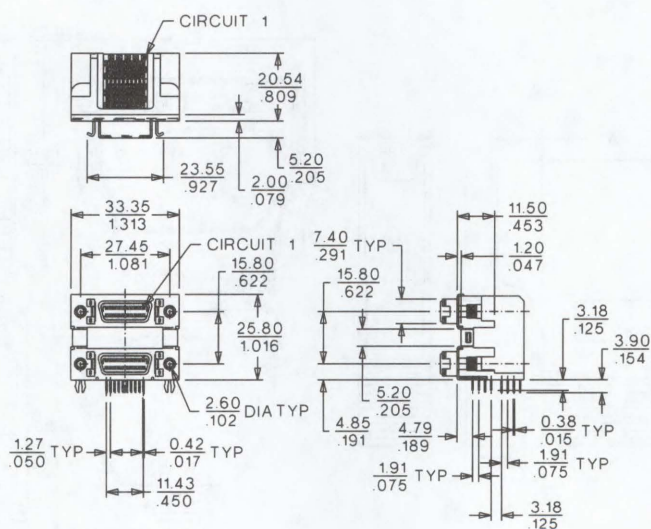
Circuits	Order No.	Housing Color	Dimension			
			A	B	C	D
14	52515-1411	Black	29.54 (1.163)	7.62 (.300)	23.64 (.931)	19.90 (.783)
	52515-1410	White	29.54 (1.163)	7.62 (.300)	23.64 (.931)	19.90 (.783)
20	52515-2011	Black	33.35 (1.313)	11.43 (.450)	27.45 (1.081)	24.04 (.946)
36	52515-3611	Black	43.51 (1.713)	21.59 (.850)	37.61 (1.481)	34.20 (1.346)

Note: 36 circuit header and plug conform to IEEE 1284C standard

MX01



Housing/Guide Plate: Black glass-filled PBT, UL 94V-0
Shield Cover/Latch Receiver: Steel
Heat Lock Nut: Brass
Contact: Phosphor Bronze
Plating: Gold over Nickel in contact area;
Tin/Lead over Nickel in solder tail area
Operating Temperature: -55 to +85°C



Circuits	Order No.
40 (2 x 20)	52822-4011

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 20, 26, 36 and 50 circuits
- Meets IEEE 1284 standard (36 circuits only)
- Mating and unmating made easy by the 1-touch lock
- Fully shielded for EMI/RFI protection
- Spring latch provides secure connection and easy plug removal
- User-friendly leaf-style contact design

Reference Information

Packaging: Tray

Tooling Information: See end of section

Mates With: 52311, 52871, 52515, 52986 and 52822

Designed In: Millimeters

Electrical

Voltage: 250V

Current: 1.0A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 MΩ min.

Physical

Housing: Glass-filled PBT

Shell Cover: Steel, Tin/Lead over Nickel plating

Boot: ABS

Contact: Phosphor Bronze

Plating: Gold over Nickel in contact area;

Tin/Lead over Nickel in IDT area

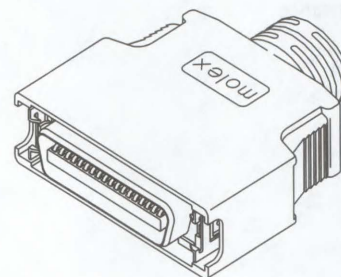
Operating Temperature: -55 to +85°C



1.27mm (.050") Pitch Wire-to-Board Shielded Plug

52316/52370

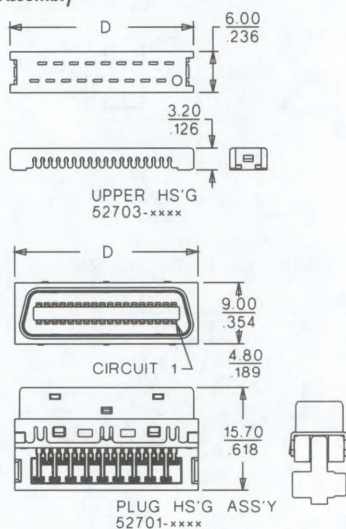
Dual Row, IDT



CATALOG DRAWING (FOR REFERENCE ONLY)

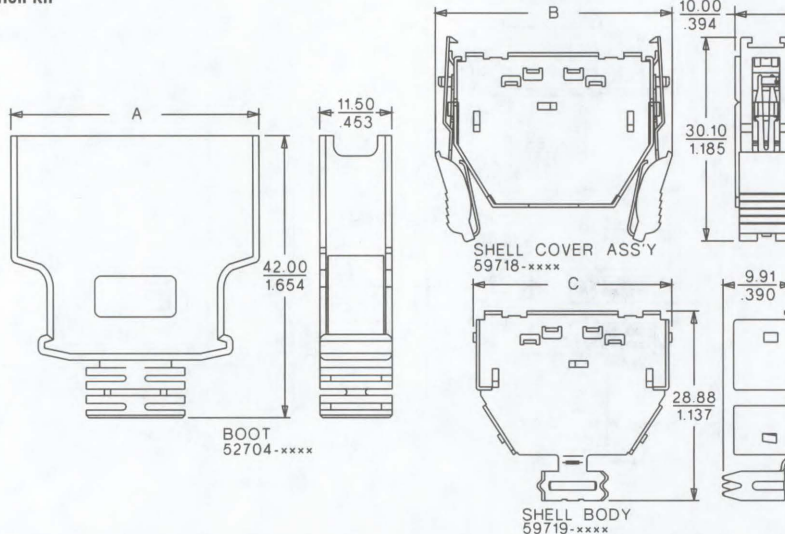
52316

Plug Assembly



52370

Shell kit



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.			Dimension			
	Plug Assembly	Shell Kit		A	B	C	D
		Ivory Color	Black Color				
20	52316-2011	52370-2010	52370-2011	29.60 (1.165)	27.76 (1.093)	21.62 (.851)	19.18 (.755)
26	52316-2611	52370-2610	52370-2611	33.41 (1.315)	31.57 (1.243)	25.43 (1.001)	22.99 (.905)
36	52316-3611	52370-3610	52370-3611	39.76 (1.565)	37.92 (1.493)	31.78 (1.251)	29.34 (1.155)
50	52316-5011	52370-5010	52370-5011	48.65 (1.915)	46.81 (1.843)	40.67 (1.601)	38.23 (1.505)

Note: 36 circuit header and plug conform to IEEE 1284C standard

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 14, 20, 26, 36 and 50 circuits
- Durable diecast metal hood provides shielding and protection
- Screw lock and latch lock options
- Fully shielded for EMI/RFI protection
- User-friendly leaf-style contact design

Reference Information

Product Specification: Contact Molex

Packaging: Tray

Mates With: 52871, 52822, 52986 and 54122

Designed In: Millimeters

Electrical

Voltage: 250V

Current: 1.0A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 MΩ min.

Physical

Housing: Black glass-filled heat resistant plastic, UL 94V-0

Contact: Phosphor Bronze

Plating: Contact Area—12μ" Gold

Solder Tail Area—39μ" Tin/Lead

Underplating—Nickel

Shell: Steel, Nickel plating

Shell Cover Assembly: Aluminum die cast, Nickel plating

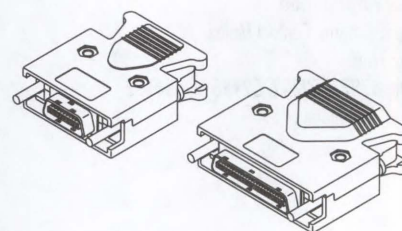
Operating Temperature: -55 to +85°C



1.27mm (.050") Pitch Wire-to-Board Shielded Plug

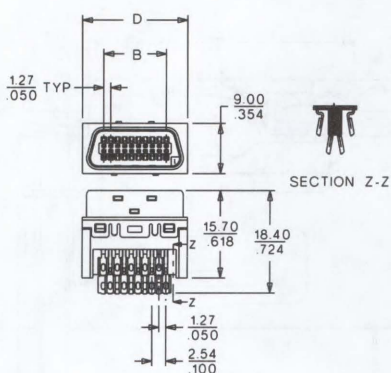
54306/54331

Dual Row, IDT

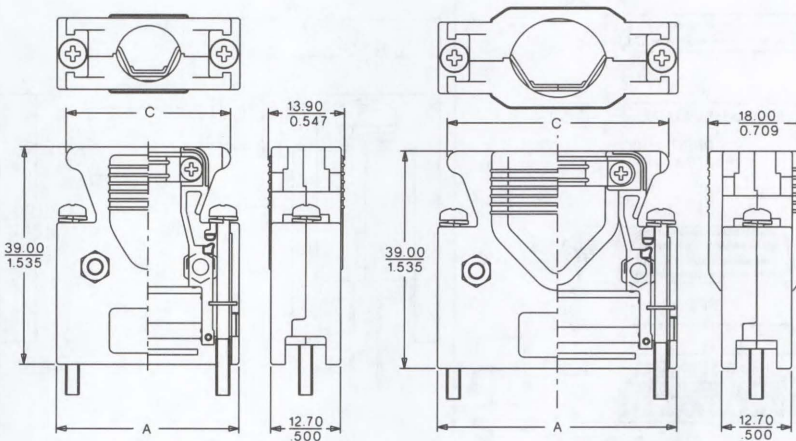


CATALOG DRAWING (FOR REFERENCE ONLY)

54306



54331 (Screw Lock Type)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.			Dimension				Cable Dia.
	Plug Assembly	Shell Cover Assembly		A	B	C	D	
		Screw Lock Type	Latch Lock Type					
14	54306-1411	54331-0141	54331-0140	29.49 (1.161)	7.62 (.300)	26.19 (1.031)	15.37 (.605)	8.00 (.315)
20	54306-2011	54331-0201	54331-0200	33.30 (1.311)	11.43 (.450)	30.00 (1.181)	19.30 (.760)	12.00 (.472)
26	54306-2611	54331-0261	54331-0260	37.11 (1.461)	15.24 (.600)	33.81 (1.331)	22.99 (.905)	12.00 (.472)
36	54306-3611	54331-0361	54331-0360	43.46 (1.711)	21.59 (.850)	40.16 (1.581)	29.34 (1.155)	16.00 (.630)
50	54306-5011	54331-0501	54331-0500	52.35 (2.061)	30.48 (1.200)	49.05 (1.931)	38.23 (1.505)	16.00 (.630)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 20, 36 and 50 circuits
- Low-profile right-angle design for tight space requirements
- Durable diecast metal hood provides shielding and protection
- Screw locks provide secure mating retention
- Fully-shielded for EMI/RFI protection
- User-friendly leaf-style contact design

Reference Information

Product Specification: Contact Molex
Packaging: Tray
Mates With: 52871, 52822, 52986 and 54122
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: 50mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 MΩ min.

Physical

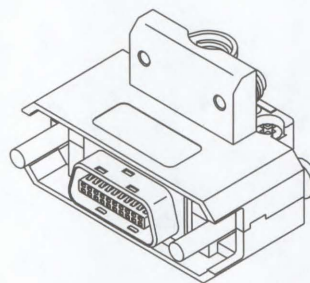
Housing: Glass-filled PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—30μ" Gold
IDT Area—Tin/Lead
Underplating—Nickel
Shield: Steel, Nickel plating
Shell Cover Assembly: Aluminum, Nickel plating
Cable Clamp: Steel
Cross Recessed Head Screw: Steel
Operating Temperature: -55 to +85°C



1.27mm (.050") Pitch Wire-to-Board Shielded Plug

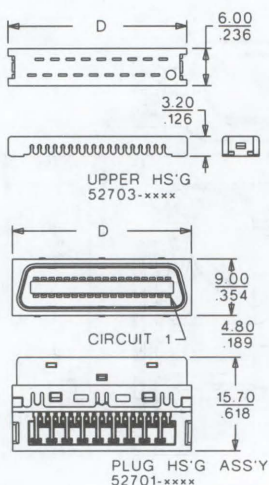
52316/58892

Right Angle, Dual Row Low Profile, Screw Lock Solder Type

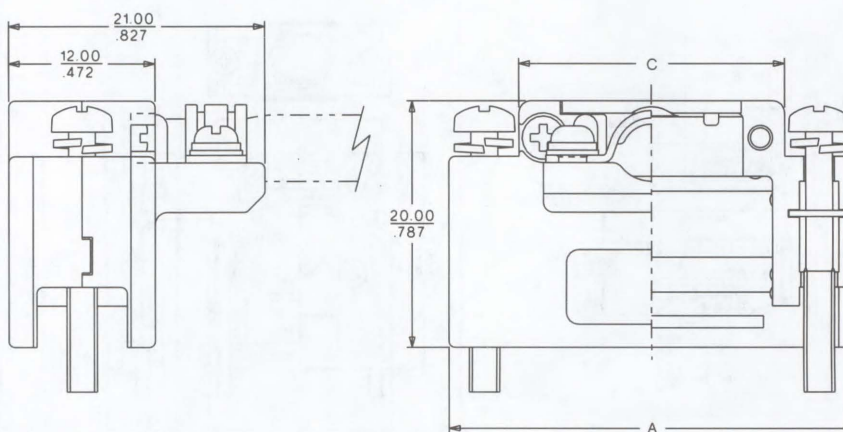


CATALOG DRAWING (FOR REFERENCE ONLY)

52316



58892



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension			Cable Dia.
	Plug Assembly	Shell Cover Assembly	A	C	D	
20	52316-2011	58892-0201	33.30 (1.311)	21.80 (.858)	19.18 (.755)	6.40 (.252)
36	52316-3611	58892-0361	43.46 (1.711)	31.96 (1.258)	29.34 (1.155)	7.20 (.283)
50	52316-5011	58892-0501	52.35 (2.061)	40.85 (1.608)	38.23 (1.505)	8.00 (.315)

FEATURES AND SPECIFICATIONS

Features and Benefits

- Economical solution for commercial applications requiring the density of a microminiature connector
- Rugged commercial design with a metal interface and grounding tabs for improved mechanical and electrical shield conditions

Reference Information

UL File No: E81982

Electrical

Current: 3.0A

Contact Resistance: 8mΩ max.

Mechanical

Contact Insertion Force: 3 oz. avg.

Unmating Force: 0.5 oz. min.

Physical

Housing: Shell—Nickel-plated 1008LC Steel

Insulator—LCP, UL 94V-0

Contact: Pin—Gold-plated Beryllium Copper

Jackpost: Stainless Steel

Temperature: -55 to +125°C



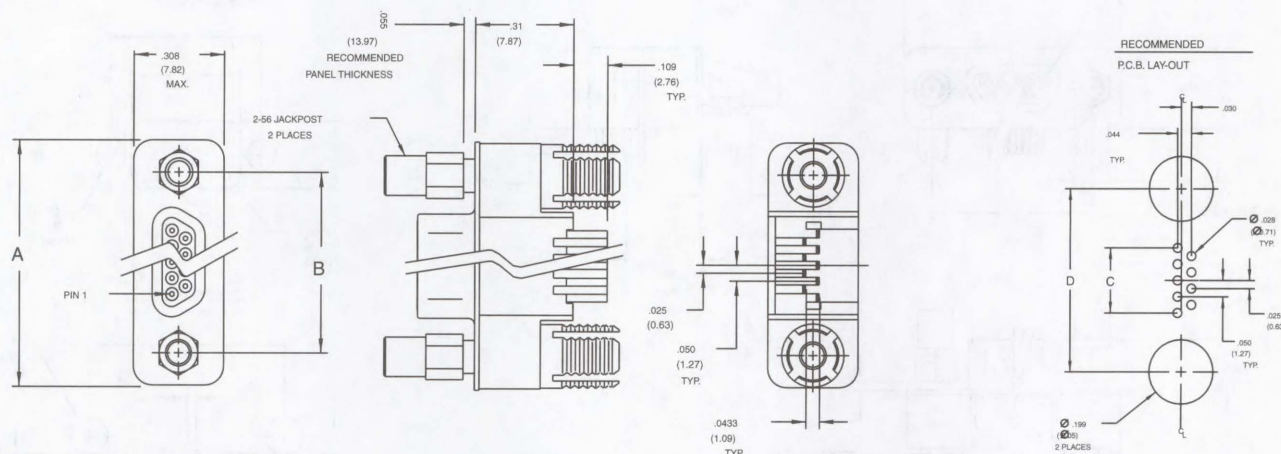
1.27mm (.050") Pitch Commercial Micro-D Plug

83611/83612/83614

Vertical

Note: Designed to meet the requirements of SSA applications

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension					
		A Max.	B Nom.	C Ref.	D Nom.	E Ref.	F Nom.
9	83611-9023	19.93 (.785)	14.35 (.565)	5.08 (.200)	14.35 (.565)	10.41 (.410)	14.35 (.565)
15	83612-9024	23.75 (.935)	18.16 (.715)	8.88 (.350)	18.16 (.715)	11.68 (.460)	18.16 (.715)
25	83614-9016	30.10 (1.185)	24.51 (.965)	15.23 (.600)	24.51 (.965)	20.57 (.810)	24.51 (.965)

Note: Contact Molex for alternate hardware configurations (i.e. cable mount, solder cup or special hardware).

Contact Molex for material performance specifications.

1.60mm (.063") Jackpost optional for SSA applications. Contact Molex for order number.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Economical solution for commercial applications requiring the density of a microminiature connector
- Rugged commercial design with a metal interface and grounding tabs for improved mechanical and electrical shield conditions

Reference Information

UL File No: E81982

Electrical

Current: 3.0A

Contact Resistance: 8mΩ max.

Mechanical

Contact Insertion Force: 3 oz. avg.

Unmating Force: 0.5 oz. min.

Physical

Housing: Shell—Nickel-plated 1008LC Steel

Insulator—LCP, UL 94V-0

Contact: Pin—Gold-plated Beryllium Copper

Jackpost: Stainless Steel

Temperature: -55 to +125°C



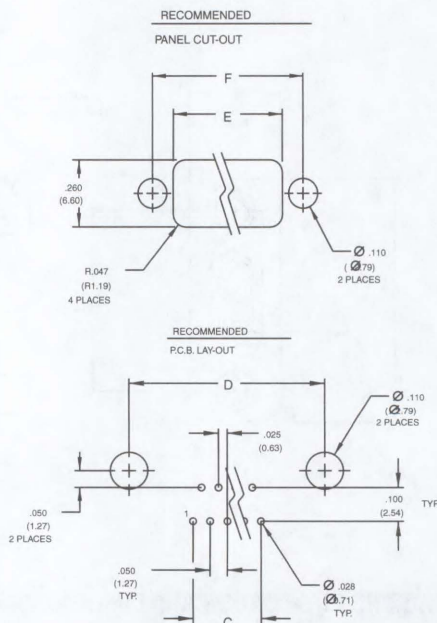
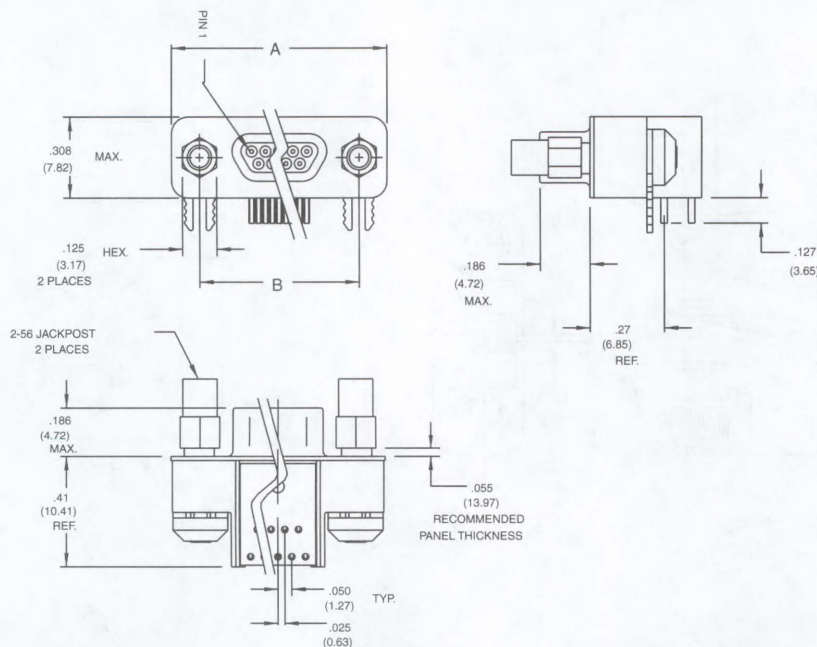
1.27mm (.050") Pitch Commercial Micro-D Plug

83611/83612/83614

Right Angle

Note: Designed to meet the requirements of SSA applications

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension					
		A Max.	B Nom.	C Ref.	D Nom.	E Ref.	F Nom.
9	83611-9006	19.93 (.785)	14.35 (.565)	5.08 (.200)	14.35 (.565)	10.41 (.410)	14.35 (.565)
15	83612-9020	23.75 (.935)	18.16 (.715)	8.88 (.350)	18.16 (.715)	11.68 (.460)	18.16 (.715)
25	83614-9012	30.10 (1.185)	24.51 (.965)	15.23 (.600)	24.51 (.965)	20.57 (.810)	24.51 (.965)

Note: Contact Molex for alternate hardware configurations (i.e. cable mount, solder cup or special hardware).

Contact Molex for material performance specifications.

1.60mm (.063") Jackpost optional for SSA applications. Contact Molex for order number.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Economical solution for commercial applications requiring the density of a microminiature connector
- Rugged commercial design with a metal interface and grounding tabs for improved mechanical and electrical shield conditions

Reference Information

UL File No: E81982

Electrical

Current: 3.0A
Contact Resistance: 8mΩ max.

Mechanical

Contact Insertion Force: 3 oz. avg.
Unmating Force: 0.5 oz. min.

Physical

Housing: Shell—Nickel-plated 1008LC Steel
Insulator—LCP, UL 94V-0
Contact: Pin—Gold-plated Beryllium Copper
Jackpost: Stainless Steel
Temperature: -55 to +125°C



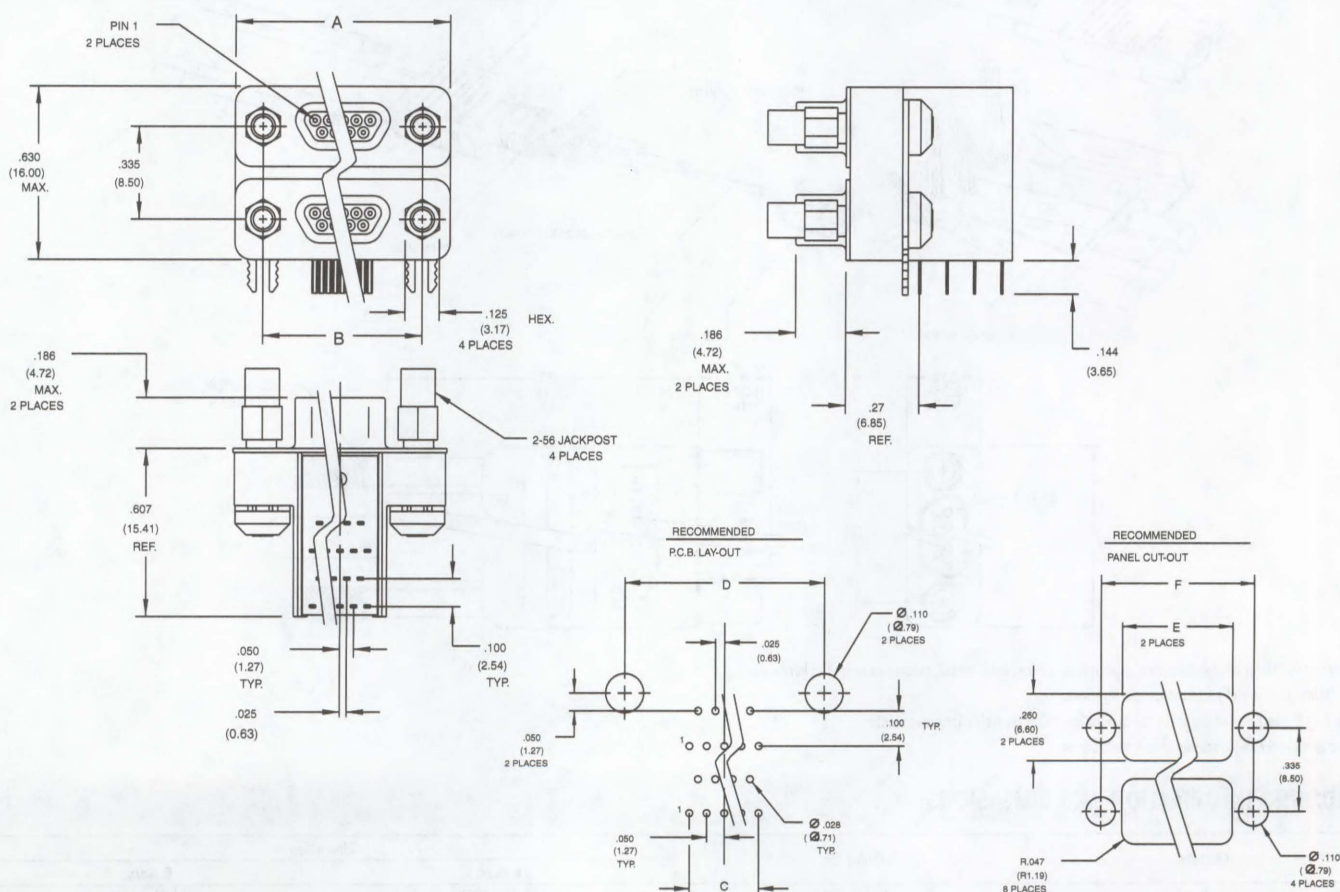
1.27mm (.050") Pitch Commercial Micro-D Plug

83619

Right Angle, Dual Stack

Note: Designed to meet the requirements of SSA applications

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension					
		A Max.	B Nom.	C Ref.	D Nom.	E Ref.	F Nom.
9	83619-9003	19.93 (.785)	14.35 (.565)	5.08 (.200)	14.35 (.565)	10.41 (.410)	14.35 (.565)
15	83619-9010	23.75 (.935)	18.16 (.715)	8.88 (.350)	18.16 (.715)	11.68 (.460)	18.16 (.715)
25	83619-9011	30.10 (1.185)	24.51 (.965)	15.23 (.600)	24.51 (.965)	20.57 (.810)	24.51 (.965)

Note: Contact Molex for vertical configuration or for alternate hardware configurations (i.e. cable mount, solder cup or special hardware).

Contact Molex for material performance specifications.

1.60mm (.063") Jackpost optional for SSA applications. Contact Molex for order number.

FEATURES AND SPECIFICATIONS

Features and Benefits

- Economical solution for commercial applications requiring the density of a microminiature connector
- "Crimp and poke" configuration designed for hand or semi-automatic crimping

Reference Information

UL File No: E81982

Electrical

Current: 3.0A

Contact Resistance: 8mΩ max.

Mechanical

Contact Insertion Force: 3 oz. avg.

Unmating Force: 0.5 oz. min.

Physical

Housing: Shell—Nickel-plated 1008LC Steel

Insulator—LCP, UL 94V-0

Contact: Socket—Gold-plated Copper Alloy

Boot: Santoprene

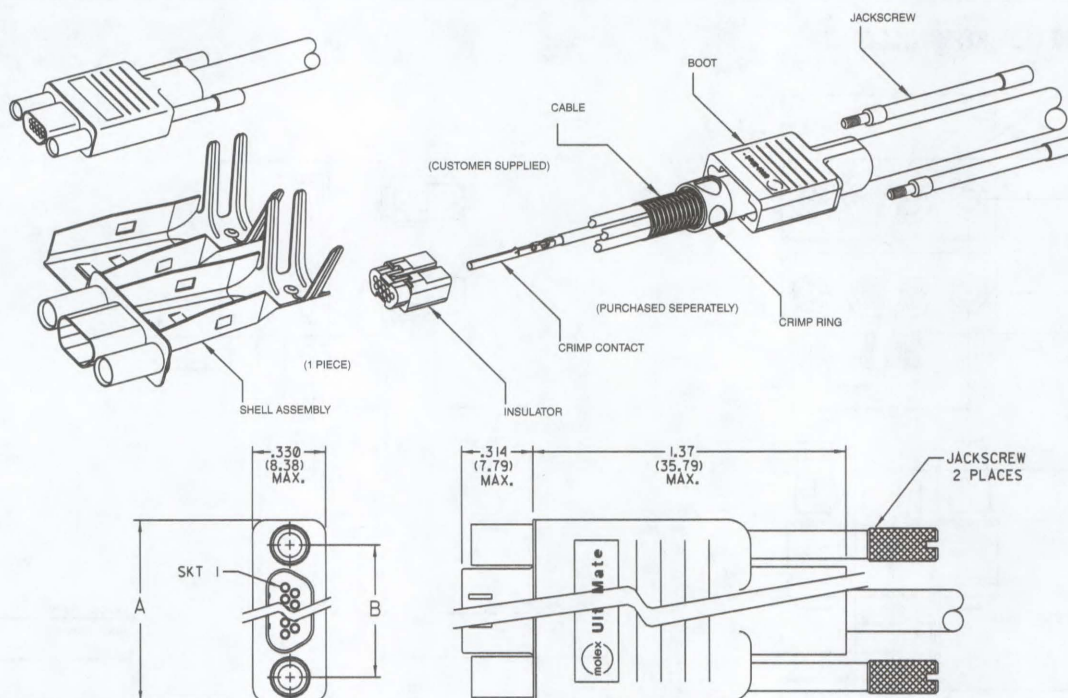
Jackscrew: Stainless Steel



1.27mm (.050") Pitch Commercial Micro-D Cable Receptacle

83421/83422/83424

Kit



Note: Contact Molex for alternate hardware configurations (i.e. cable mount, solder cup or special hardware).

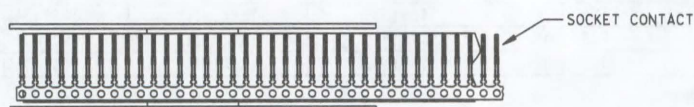
Contact Molex for material performance specifications.

1.60mm (.063") Jackpost optional for SSA applications. Contact Molex for order number.

Designed to meet the requirements of SSA applications.

ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension	
		A Max.	B Nom.
9	83421-9014	19.93 (.785)	14.35 (.565)
15	83422-9014	23.75 (.935)	18.16 (.715)
25	83424-9014	30.10 (1.185)	24.51 (.965)



Terminals
83000*

Description	Order No.
2,500 Piece Reel	83000-9502
50,000 Piece Reel	83000-9503
Loose	83000-0083

* Use with 83421/83422/83424

FEATURES AND SPECIFICATIONS

Features and Benefits

- Economical solution for commercial applications requiring the density of a microminiature connector
- "Crimp and poke" configuration designed for hand or semi-automatic crimping

Reference Information

UL File No: E81982

Electrical

Current: 3.0A
Contact Resistance: 8mΩ max.

Mechanical

Contact Insertion Force: 3 oz. avg.
Unmating Force: 0.5 oz. min.

Physical

Housing: Shell—Nickel-plated 1008LC Steel
Insulator—LCP, UL 94V-0
Contact: Socket—Gold-plated Copper Alloy
Boot: Santoprene
Jackpost: Stainless Steel



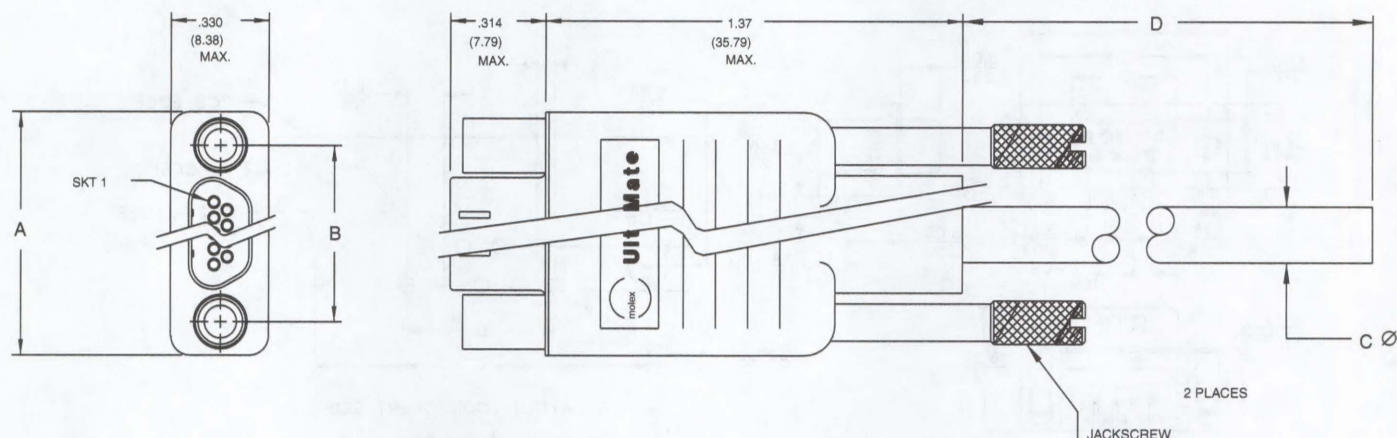
1.27mm (.050") Pitch Commercial Micro-D Cable Receptacle

83421/83422/83424

Assembled

Note: Designed to meet the requirements of SSA applications

CATALOG DRAWING (FOR REFERENCE ONLY)



I/O Connectors

N

ORDERING INFORMATION AND DIMENSIONS

Circuits	Dimension					
	Order No.			A Max.	B Nom.	C Nom.
	D=18"~1"	D=36"~1"	D=72"~1"			
9	83421-9042	83421-9043	83421-9044	19.93 (.785)	14.35 (.565)	5.80 (.228)
15	83422-9007	83422-9013	83422-9018	23.75 (.935)	18.16 (.715)	6.43 (.253)
25	83424-9019	83424-9020	83424-9021	30.10 (1.185)	24.51 (.965)	7.72 (.304)

Note: Contact Molex for alternate hardware configurations (i.e. cable mount, solder cup or special hardware).

Contact Molex for material performance specifications.

1.60mm (.063") Jackpost optional for SSA applications. Contact Molex for order number.

Cable = 28 AWG-PVC Jacket - shielded -80° - 300V - color coded per UL 2464 - Jacket Gray

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 9, 15 and 25 circuits
- Fork lock provides positive PCB retention
- Optional face mounting hardware
- Metal shell provides EMI/RFI shielding
- Intermateable with industry-standard receptacles

Reference Information

Product Specification: PS-87204

Packaging: Tray

UL File No.: E45587

Mates With: 87203

Designed In: Millimeters

Electrical

Voltage: 300V DC

Current: 1.0A min.

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 750V AC RMS/1 min.

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Insertion Force: 7.84N (1.76 lb) max.

Contact Withdraw Force: 0.98N (0.22 lb) max.

Terminal Retention: 22.25N (4.99 lb) min.

Mating Force: 9 circuits—44.94N (9.99 lb) max.

15 circuits—173.56N (38.96 lb) max.

25 circuits—124.56N (27.96 lb) max.

Unmating Force: 9.80N (2.20 lb) min.

Durability: 1000 cycles

Physical

Housing: Black polyester, UL 94V-0

Contact: Phosphor Bronze

Shell: Steel

Plating: See Ordering Table

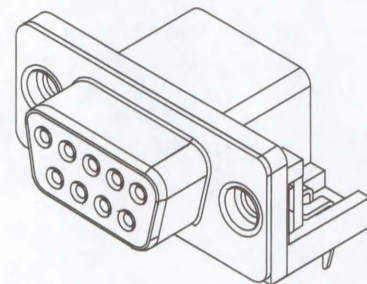
Operating Temperature: -55 to +85°C



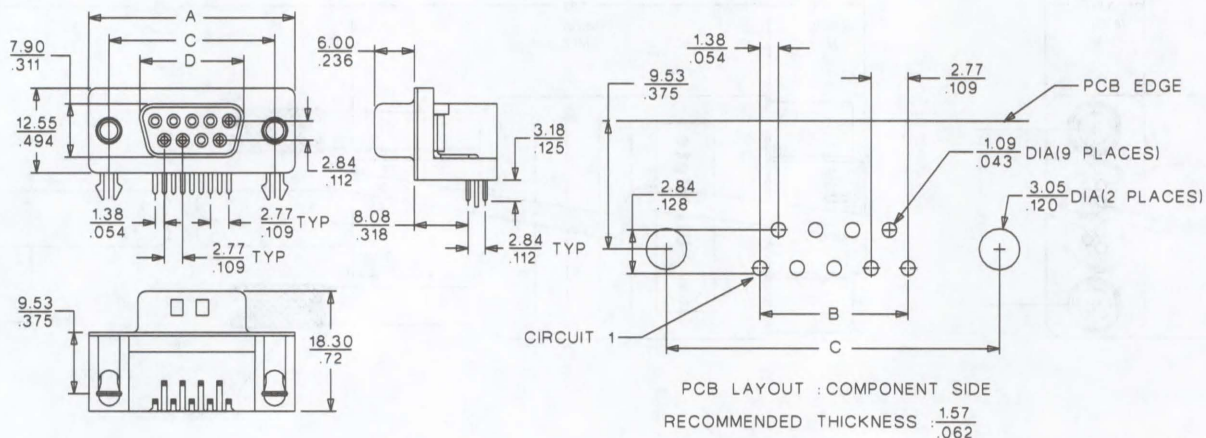
D-Subminiature Shielding I/O Receptacle

87204

Through Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Plating	Dimension		
			A	C	D
9	87204-004X	30μ" Gold	30.81 (1.213)	24.99 (.984)	16.33 (.643)
	87204-104X				
	87204-204X				
	87204-604X				
	87204-704X				
	87204-804X				
15	87204-015X	15μ" Gold	39.14 (1.541)	33.32 (1.312)	24.66 (.971)
	87204-115X				
	87204-215X				
	87204-615X				
	87204-715X				
	87204-815X				
25	87204-036X	Gold Flash	53.04 (2.088)	47.04 (1.852)	38.38 (1.511)
	87204-136X				
	87204-236X				
	87204-636X				
	87204-736X				
	87204-836X				

Screw Option	Description	No. of Pieces
1	#4-40 round inner thread screw riveted	2
2	Flush insert only	0
3	#4-40 hex inner thread screw assembled	2
4	M2.6 inner thread screw assembled	2
5	M3 inner thread screw assembled	2
6	#4-40 hex inner thread screw attached	2
7	M2.6 inner thread screw attached	2
8	M3 inner thread screw attached	2

Note: Replace X with number of Screw Option 1 to 8

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 9, 15 and 25 circuits
- Fork lock provides positive PCB retention
- Indents in metal shell ensure reliable grounding
- Metal shell provides EMI/RFI shielding
- Intermateable with industry-standard receptacles

Reference Information

Product Specification: PS-87203
Packaging: Tray
UL File No.: E45587
Mates With: 87204
Designed In: Millimeters

Electrical

Voltage: 300V DC
Current: 1.0A min.
Contact Resistance: 20mΩ max.
Dielectric Withstanding Voltage: 750V AC RMS/1 min.
Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Insertion Force: 7.84N (1.76 lb) max.
Contact Withdrawal Force: 0.98N (0.22 lb) max.
Terminal Retention: 22.25N (4.99 lb) min.
Mating Force: 9 circuits—44.94N (9.99 lb) max.
15 circuits—173.56N (38.96 lb) max.
25 circuits—124.56N (27.96 lb) max.
Unmating Force: 9.80N (2.20 lb) min.
Durability: 1000 cycles

Physical

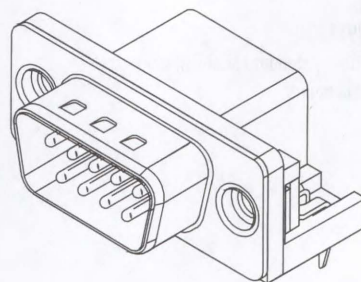
Housing: Black polyester, UL 94V-0
Contact: Brass
Shell: Steel
Plating: See Ordering Table
Operating Temperature: -55 to +85°C



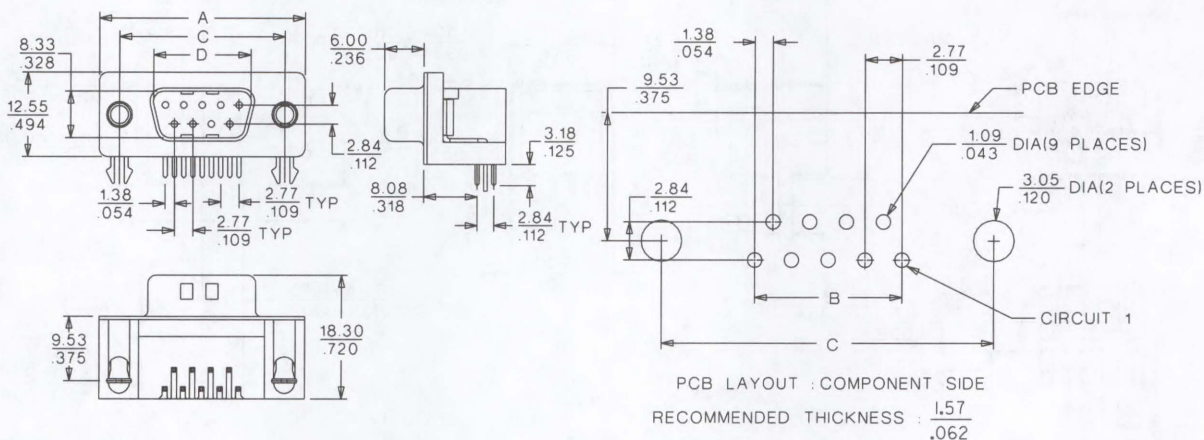
D-Subminiature Shielding I/O Plug

87203

Through Hole



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Plating	Dimension		
			A	C	D
9	87203-004X	30μ" Gold	30.81 (1.213)	24.99 (.984)	16.92 (.666)
	87203-104X				
	87203-204X				
	87203-604X				
	87203-704X				
	87203-804X				
15	87203-015X	15μ" Gold	39.14 (1.541)	33.32 (1.312)	25.25 (.994)
	87203-115X				
	87203-215X				
	87203-615X				
	87203-715X				
	87203-815X				
25	87203-036X	Gold Flash	53.04 (2.088)	47.04 (1.852)	38.96 (1.534)
	87203-136X				
	87203-236X				
	87203-636X				
	87203-736X				
	87203-836X				

Screw Option	Description	No. of Pieces
1	#4-40 round inner thread screw riveted	2
2	Flush insert only	0
3	#4-40 hex inner thread screw assembled	2
4	M2.6 inner thread screw assembled	2
5	M3 inner thread screw assembled	2
6	#4-40 hex inner thread screw attached	2
7	M2.6 inner thread screw attached	2
8	M3 inner thread screw attached	2

Note: Replace X with number of Screw Option 1 to 8

FEATURES AND SPECIFICATIONS

Features and Benefits

- EMI/RFI shielding
- Kinked metal PCB hold downs provide stable retention to the PCB
- Positive polarization
- Select terminal loading—contact Molex

Reference Information

Product Specification: PS-87220

Packaging: Tube

UL File No.: E29179(N)

Mates With: Industry standard Mini-DIN plug

Designed In: Millimeters

Electrical

Voltage: 12V

Current: 2.0A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 250V AC

Insulation Resistance: 1000 MΩ min.

Mechanical

Contact Insertion Force: 71g (2.50 oz)

Contact Retention to Housing: 2kg (4.41 lb) min.

Mating Force: 4.5kg (9.92 lb) max.

Unmating Force: 0.9kg (1.98 lb) min.

Durability: 500 cycles min.

Physical

Housing: Glass-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Plating: 0.76μm (30μ") min. select Gold with Tin/Lead on PC tails

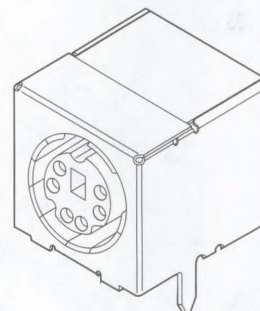
Operating Temperature: -40 to +105°C



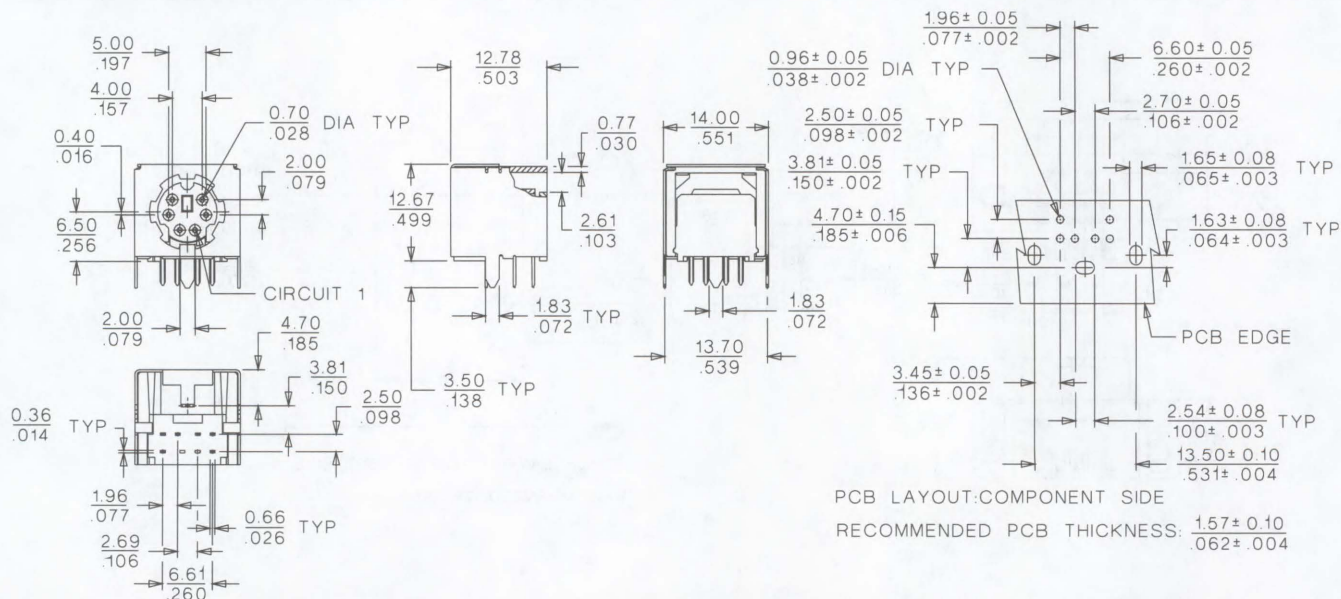
Mini-DIN PCB Receptacle

87220

Front Shield Design



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.			
	Without Kink		With Kink	
	Gray Housing	Black Housing	Gray Housing	Black Housing
4	87220-0410	87220-0411	87220-1410	87220-1411
6	87220-0610	87220-0611	87220-1610	• 87220-1611
8	87220-0810	87220-0811	87220-1810	87220-1811

• US Standard Product, available through Molex franchised distributors

FEATURES AND SPECIFICATIONS

Features and Benefits

- EMI/RFI shielding
- Fully shielded top, back and sides
- Kinked metal hold-down provides stable retention to PCB
- Positive polarization
- Select terminal loading—contact Molex

Reference Information

Product Specification: PS-87123

Packaging: Tube

UL File No.: E29179(N)

Mates With: Industry standard Mini-DIN plug

Designed In: Inches

Electrical

Voltage: 12V

Current: 1.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 250V AC rms

Insulation Resistance: 100 MΩ min.

Mechanical

Contact Insertion Force: 4.5kg (9.9 lb)

Contact Retention to Housing: 2kg (4.4 lb) min.

Insertion Force to PCB: 4.55kg (10 lb)

Mating Force: 4.5kg (9.92 lb) max.

Unmating Force: 0.9kg (2 lb) min.

Normal Force: 80g (2.8 oz)

Durability: 500 cycles min.

Physical

Housing: Glass-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Plating: 0.76μm (30μ") min. select Gold with Tin/Lead on PC tails

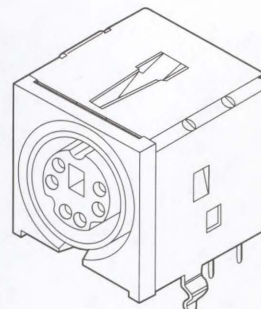
Operating Temperature: -40 to +105°C



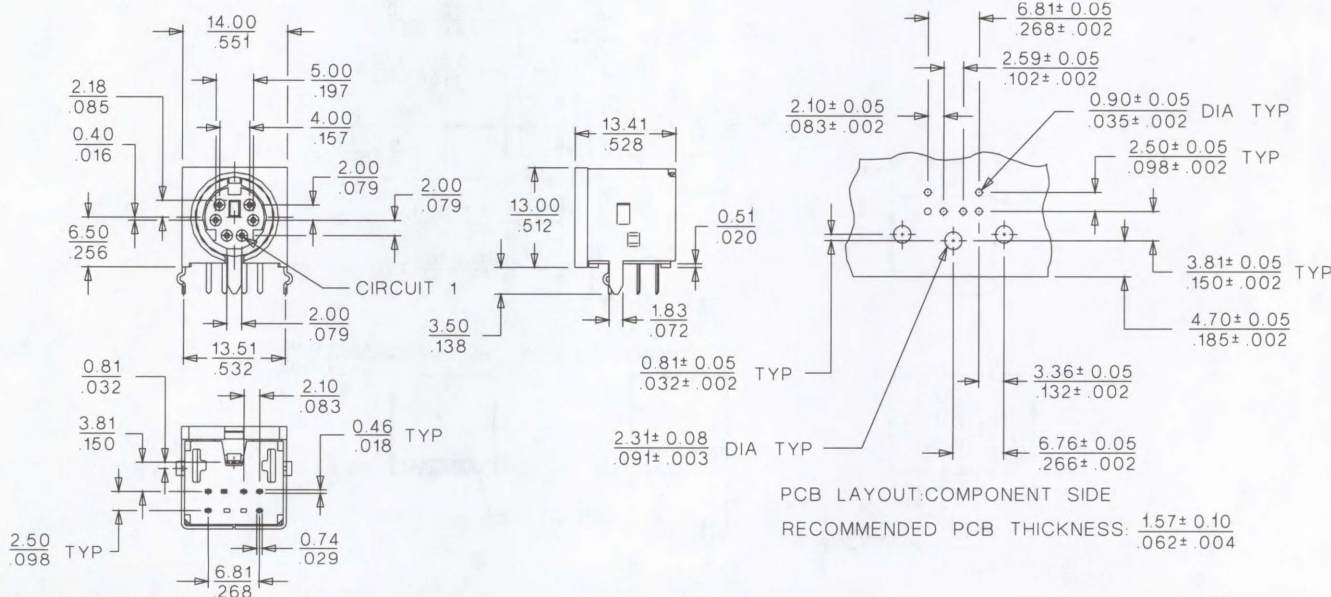
Mini-DIN PCB Receptacle

87123

Full Shield Design



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.
4	87123-0401
6	• 87123-0601
8	87123-0801

• US Standard Product, available through Molex franchised distributors

I/O Connectors

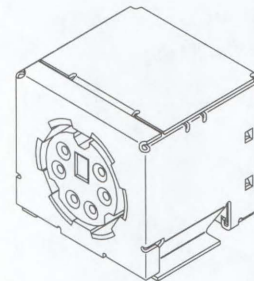
N



Mini-DIN PCB Receptacle

87391

SMT, Full Shield Design With Fork Lock or Fitting Nail



FEATURES AND SPECIFICATIONS

Features and Benefits

- Fully shielded for maximum EMI/RFI protection
- Available in 2 styles: fork lock for additional PCB retention and fitting nail for true SMT
- Dual-cantilever contact design for repeated cycling
- Preloaded SMT leads help insure coplanarity
- Positive polarization

Reference Information

Product Specification: PS-87391
Packaging: Tube
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 2.0A
Contact Resistance: 30mΩ max.
Dielectric Withstanding Voltage: 250V AC rms
Insulation Resistance: 1000 MΩ min.

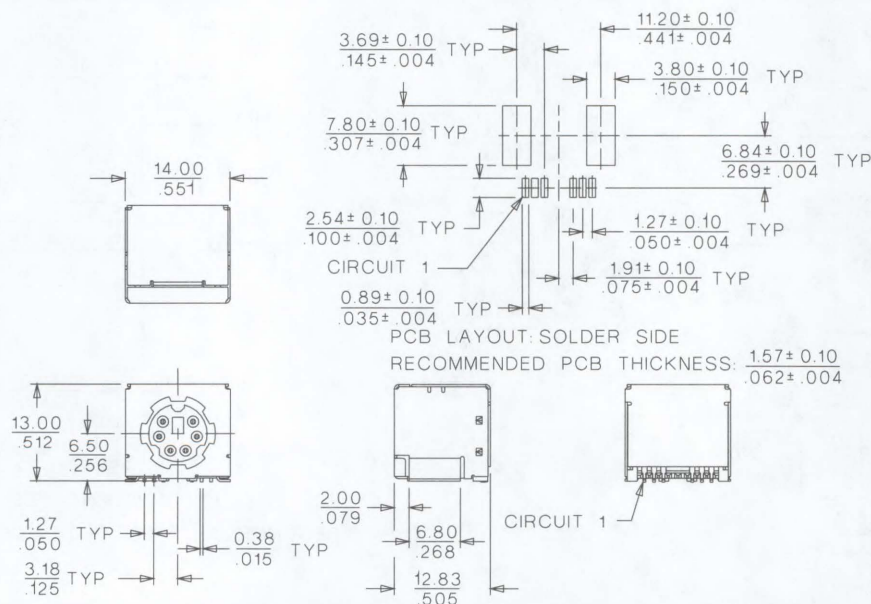
Mechanical

Contact Insertion Force: 500g (17.63 oz)
Contact Retention to Housing: 1kg (2.20 lb) min.
Mating Force: 4.5kg (9.92 lb) max.
Unmating Force: 0.9kg (1.98 lb) min.
Durability: 500 cycles

Physical

Housing: Glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: 0.76μm (30μ") min. select Gold with Tin/Lead on PC tails
Operating Temperature: -40 to +105°C

CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	
	Fork Lock	Fitting Nail
4	87391-6401	87391-0401
6	87391-6601	87391-0601
8	87391-6801	87391-0801

FEATURES AND SPECIFICATIONS

Features and Benefits

- Size 13 circuits for car radio applications
- Tapered metal positive lock provides superior tensile strength while protecting cable plug

Reference Information

Product Specification: PS-52866

Packaging: Tray

Mates With: Circular DIN plug

Designed In: Millimeters

Electrical

Voltage: 12V

Current: 2.0A

Contact Resistance: 50mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 100 MΩ min.

Mechanical

Mating Force: 5.8kg max.

Unmating Force: 0.5kg min.

Durability: 30 cycles

Physical

Housing: Black PBT, UL 94V-0

Contact: Phosphor Bronze

Plating: Gold

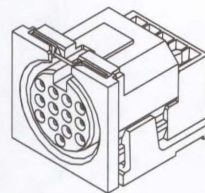
Operating Temperature: -40 to +105°C



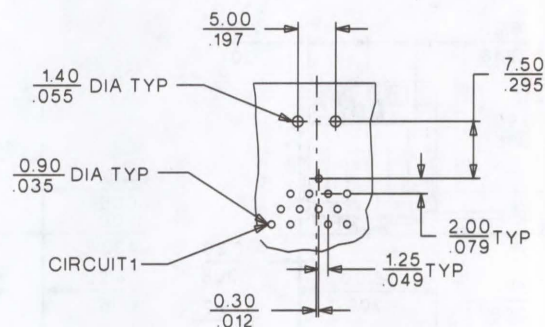
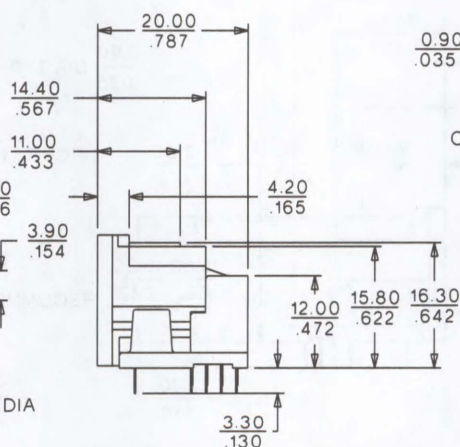
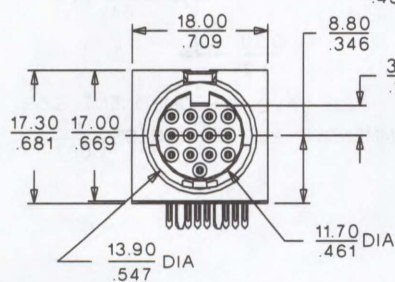
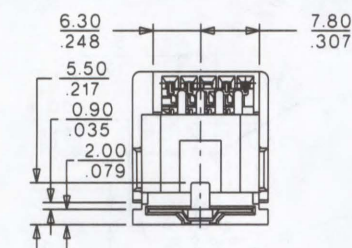
2.50mm (.098") Pitch Circular DIN Receptacle

52866

Right Angle PCB Mount



CATALOG DRAWING (FOR REFERENCE ONLY)



PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS: .160
RECOMMENDED PCB THICKNESS: .063

ORDERING INFORMATION

Circuits	Order No.
13	52866-1311

MX01

**Phono Jack
PCB Receptacle**

Features and Benefits

- Sizes 5 and 7 circuits
- Fully shielded design
- Kinked board lock for secure PCB retention
- Bracket shield and topless shield versions available

Reference Information

Product Specification: PS-87370-0001
Packaging: Tube
Mates With: 3.50mm diameter pin plug
Designed In: Millimeters

Electrical

Current: 2.0A max.
Contact Resistance: 50mΩ max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 50 MΩ min.

Mechanical

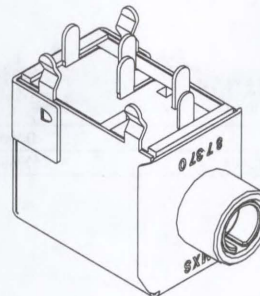
Insertion Force: 2800g max.
Contact Retention: 3kg min.
Durability: 500 cycles

Physical

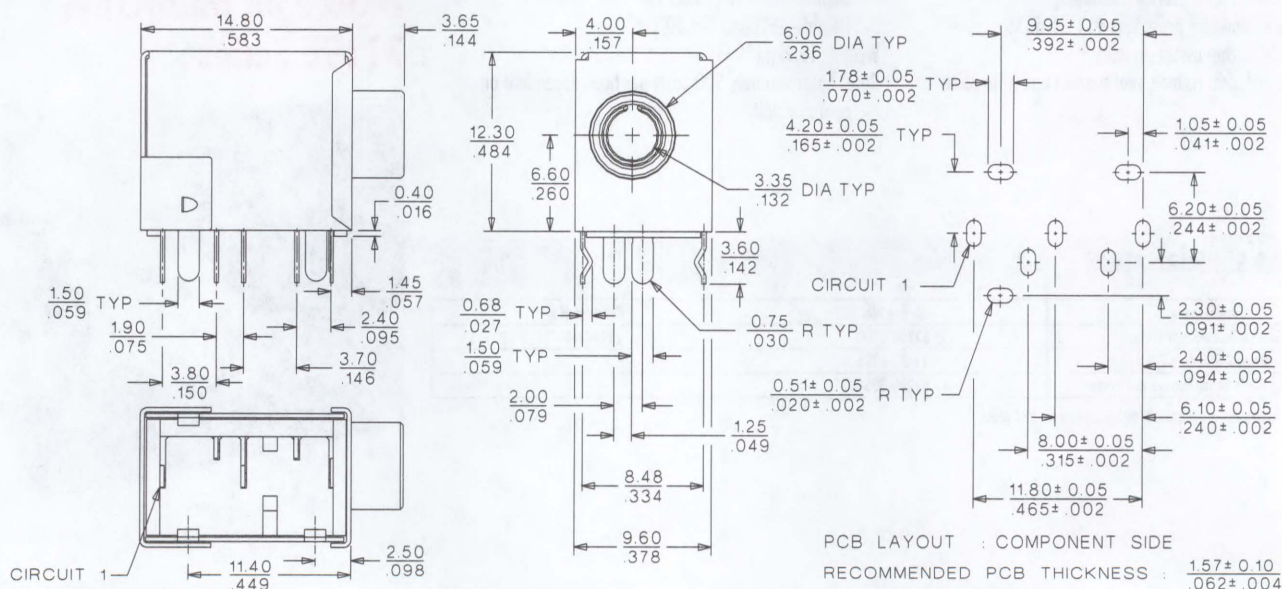
Cover/Housing: 4/6 nylon, UL 94V-0
Terminal: Phosphor Bronze
Shield: Brass
Plating: Terminal—120 μ " Tin/Lead over 100 μ " Nickel
Shield—100 μ " Tin/Lead over 30 μ " Nickel
Operating Temperature: -40 to +105°C

87370

Fully Shielded Design



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION

Circuits	Order No.	Shield Type
5	87370-0502	No Shield
5	87370-2502	Full Shield
7	87370-2702	Full Shield

FEATURES AND SPECIFICATIONS

Features

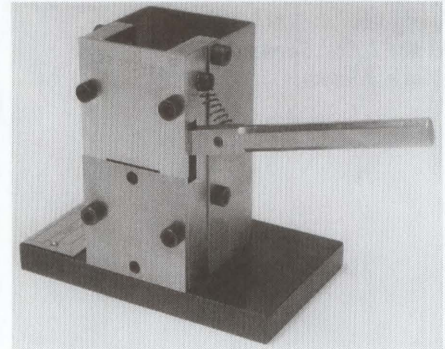
- Stand-alone unit
- Separates 2-circuit strips from carrier stick
- Cutoff blades have multiple cutting edges for extended life
- Easily converts for right or left hand operators

Specifications

Size: Width—125mm (4.90")
 Depth—75mm (3.00")
 Height—112.7mm (4.48")
 Weight: 1.8kg (4 lb)
 Rate: Approximately 700 parts per hour dependent on operator skill

molex® Application Tooling

Manual 2-Circuit Stick Trim Fixture for MicroCross™ 71197 Series



ORDERING INFORMATION

Description	Order No.	Product No.
2 Circuit Stick Trim Fixture	62200-3400	71197-9001

FEATURES AND SPECIFICATIONS

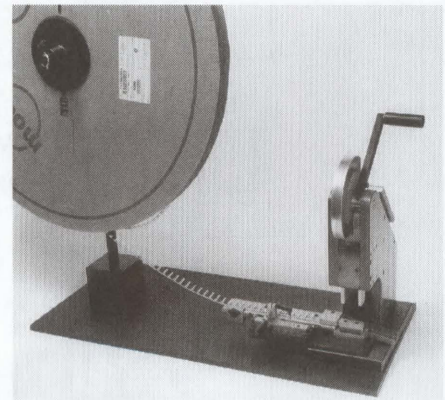
Features

- Separates ground blades (4) from carrier strip
- Adjustable stop for precise positioning
- For use in standard press Part #11-31-6356
- Full cycle ratchet assures quality
- Tool kit includes: fixture, reel support and base plate

Specifications*

Size: Width—800mm (31.50")
 Depth—381mm (15.00")
 Height—610mm (24.00")
 Weight: 40.9kg (90 lb)
 Rate: Approximately 900 parts per hour dependent on operator skill

Manual Ground Blade Shear Fixture for MicroCross™ 71198 Series



ORDERING INFORMATION

Description	Order No.	Product No.
Ground Blade Shear Fixture	62200-3300	71198-1001
Manual Standard Press	11-31-6356	
Ground Blade Shear Fixture and Press	62200-3350	

* Specifications are for complete set, including tool kit and press

FEATURES AND SPECIFICATIONS

Features

- Crimps 3 to 4 coax style conductors onto MicroCross ground blade
- Crimps upper and lower braid clips simultaneously
- Built-in guides for loading and positioning coax wires before terminating
- For use in standard press Part #11-31-6356
- Full cycle ratchet assures quality

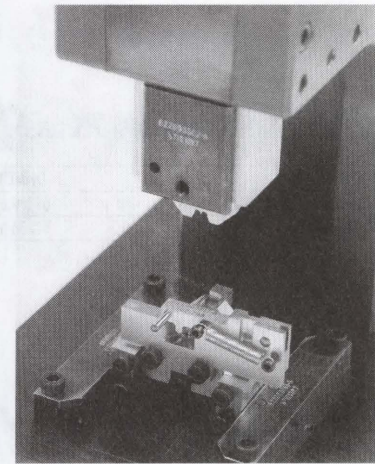
Specifications*

Size: Width—270mm (10.63")
 Depth—150mm (5.90")
 Length—530mm (21.00")
 Weight: 23.1kg (51 lb)
 Rate: Approximately 130 parts per hour dependent on operator skill



Application Tooling

Manual Ground Blade Crimp Fixture for MicroCross™ 71198 Series



ORDERING INFORMATION AND DIMENSIONS

Description	Order No.	Product No.
Ground Blade Crimp Fixture	62200-3800	71198-1001
Manual Standard Press	11-31-6356	
Ground Blade Crimp Fixture and Press	62200-3850	

* Specifications are for the complete set, including Ground Blade Crimp Fixture and Press

FEATURES AND SPECIFICATIONS

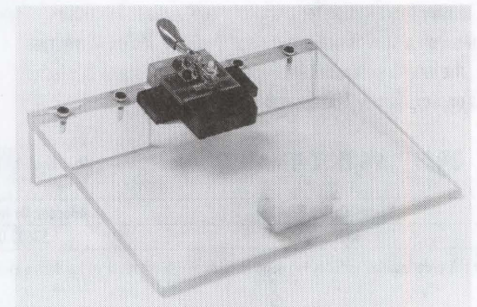
Features

- Holds 10-circuit P&D-A/P&D contact stick
- Easy setup and operation

Specifications

Size: Width—250mm (9.80")
 Depth—197mm (7.75")
 Length—100mm (3.90")
 Weight: 0.9kg (2 lb)
 Rate: Approximately 30 assemblies per hour dependent on operator skill

Manual 10-Circuit Soldering Fixture for MicroCross™ 73623



ORDERING INFORMATION AND DIMENSIONS

Description	Order No.	Product No.
10-Circuit Sticks	62200-6200	73623-1001

FEATURES AND SPECIFICATIONS

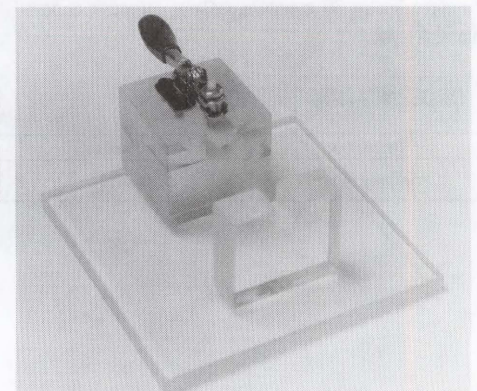
Features

- Holds MicroCross ground blade and 2-circuit stick
- Assists users in easily soldering wires in reversible holder to MicroCross ground blade and 2-circuit sticks

Specifications

Size: Width—250mm (9.80")
 Depth—197mm (7.75")
 Height—100mm (3.90")
 Weight: 0.9kg (2 lb)
 Rate: Approximately 30 assemblies per hour dependent on operator skill

Manual 2-Circuit and Ground Blade Soldering Fixture for MicroCross™ 71198 and 71197 Series



ORDERING INFORMATION AND DIMENSIONS

Description	Order No.	Product No.
MicroCross Ground Blade and 2 Circuit	62200-6300	71198-1001, 71197-9001

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features

- Pneumatic operation
- Available as three P&D-A/P&D 10-circuit sticks, or a MicroCross ground blade and 2-circuit stick
- Assembles into P&D-A plug assembly

Specifications

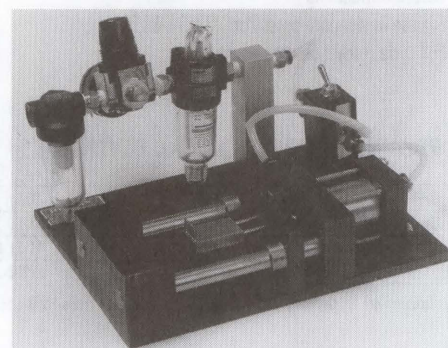
Size: Width—257mm (10.10")
 Depth—230mm (9.10")
 Height—150mm (5.90")
 Weight: 8kg (17.6 lb)
 Air: Pressure—5.6 BAR (80psig)
 Consumption—2.8L per minute (0.1 CFM)
 Rate: Approximately 50 plug assemblies per hour dependent on operator skill

ORDERING INFORMATION AND DIMENSIONS

Description	Order No.	Product No.
MicroCross Ground Blade and 2 Circuit	62200-6500	71198-1001, 71197-9001, 71754-2000
10-circuit sticks	62200-6600	73623-1001, 71754-2000, 73814-1000

molex® Application Tooling

Stick Insertion Fixture for MicroCross™



FEATURES AND SPECIFICATIONS

Features

Molex MicroCross tooling offers a tester kit which includes a standard commercial tester and two custom adapters. This tester is a Cirris model 1000H+ and the adapter model is a DVI-30. The adapter card supports DVI-A, DVI-D, and DVI-I. The continuity and hipot test automatically perform a connection resistance test and an insulation resistance / dielectric test on harness and cables. Test results are given audibly, visually and can be printed. DVI is an interface standard which provides an industry specification for a digital visual / video interface between a host device and a display device. Molex MicroCross is the industry standard for digital video. The rate of this tester is approximately 100 assemblies per hour.

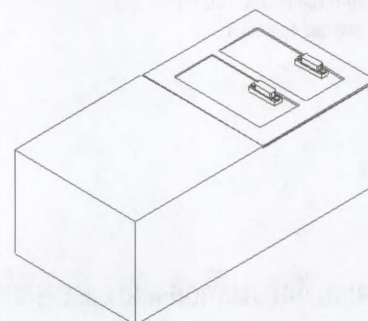
Electrical

Voltage: 105-134V AC, 60Hz

Mechanical

Dimensions: Height—127.00mm (05.00")
 Width—330.20mm (13.20")
 Depth—165.10mm (06.50")
 Weight: Unpacked—3.4kg (7.5 lb)
 Rate: Approximately 100 assemblies per hour, depending on operator skill level

MicroCross™ Continuity and Hi-pot Tester



ORDERING INFORMATION

Tester Order Number	Adapter Order Number	Kit and Tester Order Number
63600-0518	63600-0936	62201-7200*

* This order number includes two adapter cards, which are required for double end testing

FEATURES AND SPECIFICATIONS

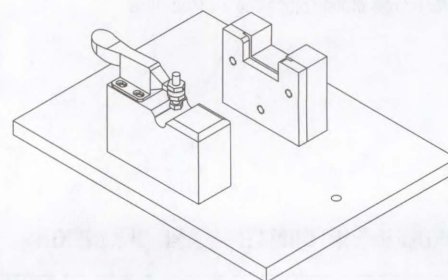
Features

The Molex MicroCross™ Digital Visual Interface soldering fixture supports a male plug and cable for soldering. This process allows the operator to securely place the plug and cable in the fixture and then use both hands to solder the wires to the terminals. This fixture accepts the connector in two orientations for quick soldering of all rows. The cable clamp is adjustable to accommodate all popular cable sizes. This soldering fixture allows for approximately 30 assemblies per hour, depending on operator skill level.

Mechanical

Dimensions: Height—81.30mm (3.20")
 Width—200.00mm (07.90")
 Depth—150.00mm (05.90")
 Weight: Unpacked—0.9kg (2.0 lb)
 Rate: Approximately 30 assemblies per hour, depending on operator skill level

MicroCross™ Soldering Fixture



ORDERING INFORMATION

Description	Order Number	Used with Product
Soldering Fixture	62100-3700	74323-2001, 74323-2002, 74323-2003, 74323-2004, 74323-2011, 74323-2012, 74323-2031, 74323-2032, 74323-2033, 74323-2034

FEATURES AND SPECIFICATIONS

Molex MicroCross tooling offers a ferrule crimp tool that is designed to crimp both the large and small diameters of the ferrule simultaneously. There are two die sets to cover the two ferrules (see list below). The crimp tool works in conjunction with the Molex Standard Manual Press.

Mechanical

Dimensions (includes Press):

Height—530.00mm (21.00")

Width—270.00mm (10.63")

Depth—150.00mm (05.90")

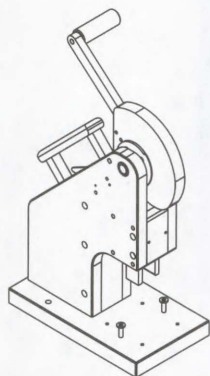
Weight: Unpacked—24.60 kg (55.00 lb)

Rate: Approximately 180 assemblies per hour, depending on operator skill level

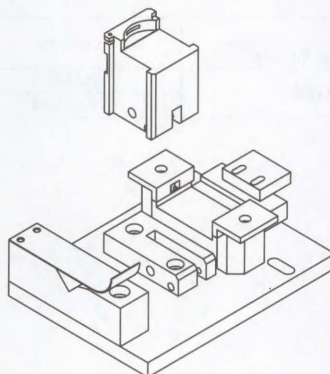
molex® Application Tooling

MicroCross™ Ferrule Crimp Tooling

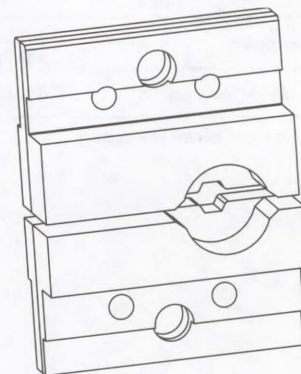
Order No.	Description
11-31-6356	Manual Standard Press
62200-4401	Die Fixture



Manual Standard Press



Die Fixture



Die Set

ORDERING INFORMATION

Cable Range	Ferrule No.	EMI Can	Order No.	Description
6.25-7.31 (.246-.288)	73772-0001	88789-9332 88789-9333	62200-6700 62200-6701 62200-6702	Die Set Die Fixture + Die Set Press + Die Fixture + Die Set
8.18-8.99 (.322-.354)	73772-0002	88789-9332 88789-9333	62200-4431 62200-4441 62200-4443	Die Set Die Fixture + Die Set Press + Die Fixture + Die Set

Note: For all other crimp ferrule options contact Molex.

I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features

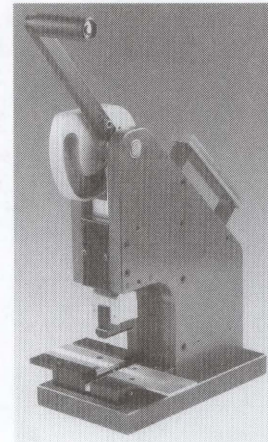
- Cable is located before termination
- Feed-through and feed-to capability
- Press has full cycle ratchet to ensure complete termination
- Connectors may be spaced as close as 35mm (1.4")

Specifications

Size: Width—230mm (9")
 Depth—457mm (18")
 Height—457mm (18")
 Weight: 27kg (60 lb)
 Rate: Up to 150 connectors per hour, dependent on operator speed and application
 Application Specification: AS70498-001



Manual Standard Press for SCSI+ Shielded I/O for 0.63mm (.025") Pitch Ribbon Cable



ORDERING INFORMATION

Description	Order No.		Connector
	Press with Tooling	Tool Kit Only*	
Press for SCSI+ All Circuit Sizes	62200-5500	62200-4600	79058-5050 70498-5068

* If you already own a press, only tool kit is necessary

FEATURES AND SPECIFICATIONS

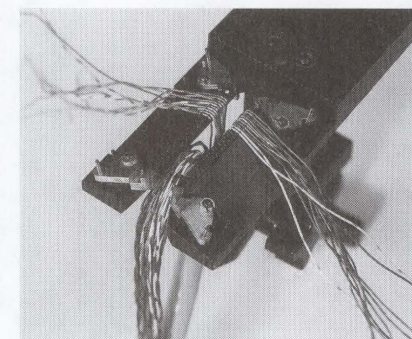
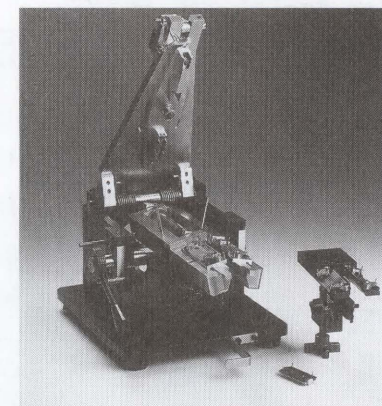
Features

- Separate loading fixture allows user to load nests off-line to increase productivity
- Tool kits available for 50 and 68 circuit product, minimizing the investment needed to terminate different circuit sizes
- Low force to cut-off wires and terminate the plug
- Safety posts assure the operator cannot terminate unless nests are together reducing the risk of damaging tooling
- Designed to be used either as a complete lace, cut and terminate tool or one cut and terminate press will support up to 5 lacing fixtures

Specifications

Size: Press Fixture
 Width: 254mm (10.00") 61mm (2.5")
 Depth: 392mm (16.00") 135mm (5.5")
 Height: 466mm (19.00") 123mm (5.0")
 Weight: 81.4kg (37 lb) 3.3kg (1.5 lb)
 Production Rate:
 Loading—Able to load nine 50 circuit housings per hour, dependent on operator skill
 Termination—Able to trim and terminate 60 plug ends per hour, dependent on operator skill
 Application Specification: AS79058-001

Manual Discrete Wire Press for SCSI+ Shielded I/O



ORDERING INFORMATION

Description	Order No.	Connector
Manual Press Only*	62200-0000	79058, 71295
Manual Press Tooling for 50 Circuit Plug	62200-0100	79058, 71295
Manual Press Tooling for 68 Circuit Plug	62200-0200	79058, 71295
Complete Press with Tooling for 50 Circuit Plug†	62200-2800	79058, 71295
Complete Press with Tooling for 68 Circuit Plug†	62200-2500	79058, 71295
Loading Fixture for 50 Circuit Upper Housing	62200-0300	79058, 71295
Loading Fixture for 68 Circuit Upper Housing	62200-0400	79058, 71295
Transfer Clamp for 50 Circuit Upper Housing	62200-0500	79058, 71295
Transfer Clamp for 68 Circuit Upper Housing	62200-0600	79058, 71295
Loading Fixture and Transfer Clamp for 50 Circuit	62200-2600	79058, 71295
Loading Fixture and Transfer Clamp for 68 Circuit	62200-2700	79058, 71295

* Manual press requires specific tooling for corresponding circuit size

† Complete press includes manual press, tooling for one circuit size, loading fixture and transfer clamp

FEATURES AND SPECIFICATIONS

Features

- All electric operation; no air required
- Easy to set up and operate
- Up to 25 different jobs can be saved in memory
- Optional speech synthesizer to announce wire color
- Keypad with display shows operator connector position, number of connectors made and diagnostic faults messages

Specifications

Size: Width—560mm (22")
 Depth—660mm (26")
 Height—580mm (23")
 Weight: 55kg (120 lb)
 Electrical: Voltage—110/220V AC, 50/60 Hz
 Current—10.0A at 120V or 5.0A at 220V
 Rate: Up to twenty 50 circuit (or fifteen 68 circuit) plugs per hour, dependent on operator speed and application
 Application Specification: AS79058-001



Application Tooling

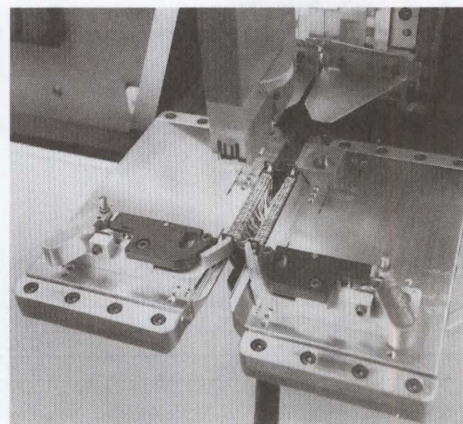
Semi-Automatic Terminator for SCSI+ Shielded I/O for Jacketed Multi-Conductor Cable

ORDERING INFORMATION

Description	Order No.	Connector*
Semi-Automatic Press for Jacketed Cable	62300-4200 [†]	15-87-1050, 15-87-1068, 71295-2050, 71295-2068, 79058-8050, 79058-8068

* Terminator is furnished with tooling to process 50 and 68 position connectors

[†] Unless otherwise specified, terminator will be delivered to operate at 120V AC. If 220V is specified, machine will be delivered with US standard plug.



I/O Connectors

N

FEATURES AND SPECIFICATIONS

Features

The Ultra+ Terminating Press was designed as a stand-alone unit capable of doing all the steps necessary to terminate a VHDCI connector. It is ideally suited for low-volume, manual applications.

Specifications:

Size: Width—203mm (8.0")
Depth—457mm (18.0")
Height—355mm (14.0")
Weight: 18.0kg (40 lb.)
Rate: 4 complete 68 circuit plugs per hour depending on operator skill

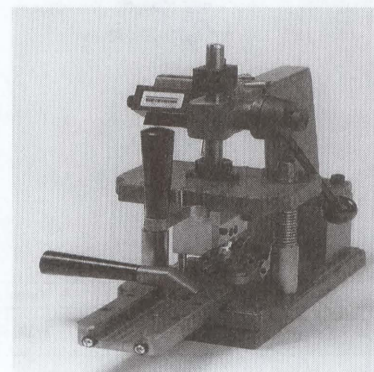
ORDERING INFORMATION

Order No.
62200-4500



Application Tooling Ultra+™ VHDCI

Termination Press



FEATURES AND SPECIFICATIONS

Features

- Wires are mass terminated and cut off
- No air or electricity required
- Press supports multiple lacing fixtures for increased production
- Lacing done outside the press for better visibility and ease of operation

Specifications—Lacing Fixture

Size: Width—266mm (8.00")
Height—184mm (7.25")
Length—200mm (7.90")
Weight: 4.5kg (10 lb.)

Specifications—Termination and Cutoff Press

Size: Width—423mm (17.00")
Height—521mm (20.50")
Length—272mm (10.70")
Weight: 27kg (60 lb.)

Lacing Fixture and Termination and Cutoff Press

ORDERING INFORMATION

Description	Order No.	Product No.
Lacing Fixture	62200-7600	71425
VHDCI Termination and Cutoff Press	62201-1700	71425

FEATURES AND SPECIFICATIONS

Features

The Raptor II Machine will do all the steps necessary to terminate a VHDCI connector. The wire holding covers are positioned in the machine and the prepared cable is clamped in place. Then the tool automatically indexes to receive each pair of wires. Each pair of wires, when positioned, is automatically pushed into the covers and cut off. When all the wires are loaded, the plug is manually placed in the tool and terminated by activating the lever on the side of the machine.

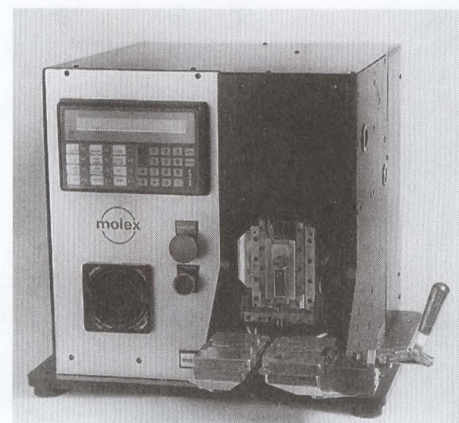
Specifications:

Size: Width—505mm (19.9")
Depth—660mm (26.0")
Height—575mm (22.6")
Weight: 90.8kg (200 lb.)
Electrical: Voltage—110/220V AC
Current—5/2.5A
Power Supply Current Frequency—50/60 Hz
Rate: 12 complete 68 circuit plugs per hour depending on operator skill

ORDERING INFORMATION

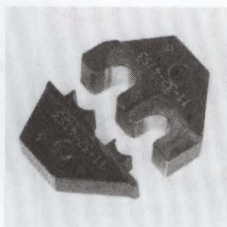
Order No.
62300-2000

"Raptor II" Semi-Automatic Termination Machine



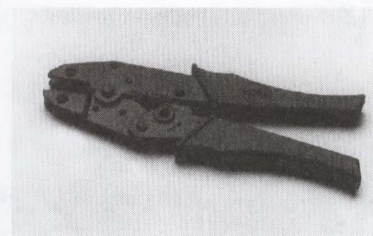
FEATURES

- Crimp die has 2 positions to crimp the large and small diameter in a 2 step operation
- For low volume, prototype or repairs



molex® Application Tooling

Manual Ferrule Crimp Hand Tool for LFH™

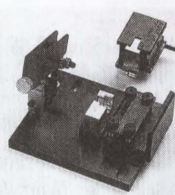
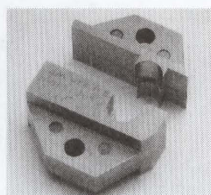


ORDERING INFORMATION

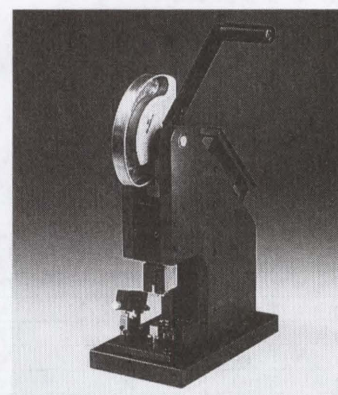
Description	Order No.	For Ferrule No.
Ferrule Hand Tool with Dies	62100-0100	71256-0001
Ferrule Hand Tool with Dies	62100-0200	71256-0002
Untooled Hand Tool	11-31-6379	
Ferrule Crimping Die	62100-0101	71256-0001
Ferrule Crimping Die	62100-0201	71256-0002

FEATURES

- Able to crimp both large and small diameter of the ferrule in 1 step
- Ratchet terminator assures completion of full cycle
- Modularity, able to use same press for stick prep and ferrule crimp with a simple die change



Standard Manual Press for Ferrule Crimp LFH™



ORDERING INFORMATION

Description	Order No.	For Ferrule No.
1.00mm Manual Wiring Jig 10 Circuit	57859-5000	52660
1.00mm Manual Wiring Jig 26 Circuit	57849-5000	52660
1.00mm Manual Wiring Jig 80 Circuit	57883-5000	52660
1.27mm Manual Wiring Jig 20 Circuit	57826-5000	52316
1.27mm Manual Wiring Jig 26 Circuit	57837-5000	52316
1.27mm Manual Wiring Jig 36 Circuit	57843-5000	52316
1.27mm Manual Wiring Jig 50 Circuit	57862-5000	52316

FEATURES AND SPECIFICATIONS

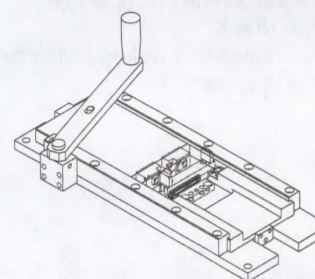
Features

- Used for inserting terminated LFH sticks into LFH connector housing
- All 4 sticks are simultaneously inserted
- Stick-holding nest has feature to prevent loading sticks upside down
- Insertion lever has positive stop for consistent insertions
- Holes provided for mounting to workbench

Specifications

Size: Width—400mm (16")
 Depth—250mm (10")
 Height—130mm (5")
 Weight: 11.3kg (25 lb)
 Rate: Up to 60 plugs per hour, dependent on operator speed and application

Manual Stick Loading Tool for LFH™



ORDERING INFORMATION

Description	Order No.		Use with Molex Connector
	Complete Tool	Tool Kit Only	
Stick Insertion Tool, 60-Circuit Plug	62200-1500	62200-0800	70929-2000
Stick Insertion Tool, 60-Circuit Receptacle	62200-1600	62200-0900	71691-0003
Stick Insertion Tool, 160-Circuit Plug	62200-1700	62200-1000	71624-3000

FEATURES AND SPECIFICATIONS

Features

- Lightweight
- Programmable
- After one end is terminated, machine automatically indicates what circuit other end should be placed in
- Automatically cuts off ends once inserted into nest
- 1.00mm, 120 circuit requires 2 machines to complete

Specifications

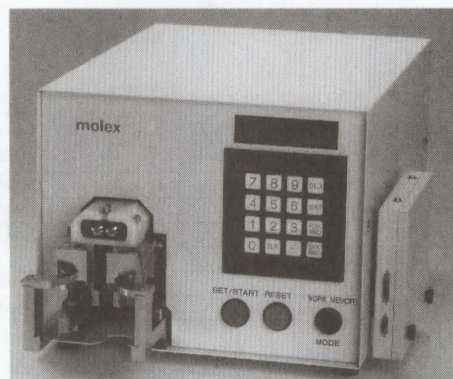
Size: Width—310mm (12.20")
 Depth—545mm (21.46")
 Height—220mm (8.66")
 Weight: 15kg (33.6 lb)
 Electrical: Voltage—100V, 50/60 Hz, Current—3.0A
 Rate: 1.00mm series, 10 circuit—22 ends per hour
 1.00mm series, 26 circuit—11 ends per hour
 1.00mm series, to 120 circuit—2 ends per hour
 1.27mm series, 20 circuit—14 ends per hour
 1.27mm series, to 80 circuit—4 ends per hour depending on operator skill

ORDERING INFORMATION

Description	Order No.	For Connector Series
1.00mm Cable Selector 10 to 68 Circuits	57846-7000	52660
1.00mm Cable Selector-120P(A)	57868-7000	55032
1.00mm Cable Selector-120P(B)	57869-7000	55032
1.27mm Cable Selector	57847-7000	52316



Cable Selector Machine 1.00 and 1.27mm Series for I/O Cable



FEATURES AND SPECIFICATIONS

Features

- Presses wires into upper housing and cuts off the ends
- Manual version of the selector machine
- Available in dedicated circuit sizes only

Specifications

Size: Width—180mm (7.09")
 Depth—380mm (14.96")
 Height—440mm (17.32")
 Weight: 16kg (35.8 lb)
 Rate: 1.00mm series, 10 circuit—15 ends per hour
 1.00mm series, 26 circuit—8 ends per hour
 1.27mm series, 20 circuit—8 ends per hour
 1.27mm series, to 50 circuit—6 ends per hour

ORDERING INFORMATION

Description	Order No.	For Connector Series
1.00mm Manual Wiring Jig for 10 Circuit	57859-5000	52660
1.00mm Manual Wiring Jig for 20 Circuit	57879-5000	52660
1.00mm Manual Wiring Jig for 26 Circuit	57849-5000	52660
1.00mm Manual Wiring Jig for 50 Circuit	57883-5000	52660
1.00mm Manual Wiring Jig for 68 Circuit	57874-5000	52660
1.00mm Manual Wiring Jig for 80 Circuit	57883-5000	52660
1.27mm Manual Wiring Jig for 20 Circuit	57826-5000	52316
1.27mm Manual Wiring Jig for 26 Circuit	57837-5000	52316
1.27mm Manual Wiring Jig for 36 Circuit	57843-5000	52316
1.27mm Manual Wiring Jig for 50 Circuit	57862-5000	52316
1.27mm Manual Wiring Jig for 68 Circuit	57835-5000	52316
1.27mm Manual Wiring Jig for 80 Circuit	57856-5000	52316

FEATURES AND SPECIFICATIONS

Features

- Manual tool for pressing wires into 120 circuit upper housing and cutting off ends
- Comes with "A" and "B" nests which are loaded outside the press then inserted for trimming

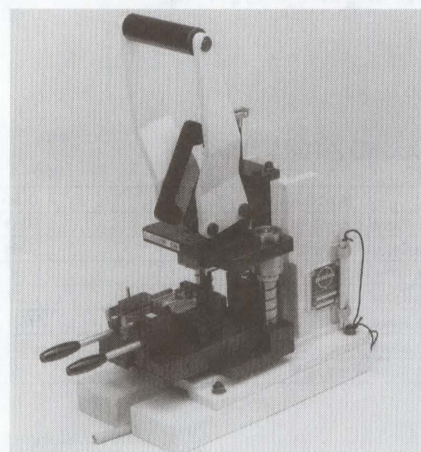
Specifications

Size: Width—180mm (7.09")
 Depth—380mm (14.96")
 Height—440mm (17.32")
 Weight: 16kg (35.8 lb)
 Rate: 2 ends per hour depending on operator skill

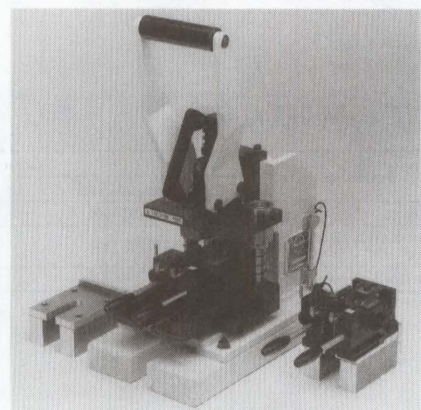
ORDERING INFORMATION

Circuits	Order No.	For Connector Series
120	57832-5000	55032

Manual Wiring Jig 1.00 and 1.27mm I/O Series



Manual Wiring Jig, 1.00mm, 120 Circuit for I/O Series



FEATURES AND SPECIFICATIONS

Features

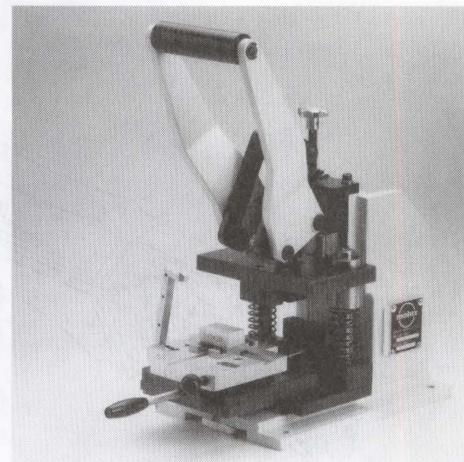
- Presses upper housing into plug assembly
- All wires terminated simultaneously
- Modular and portable
- 1.00mm, 120 circuit requires both an "A" and a "B" tool to complete a cable end

Specifications

Size: Width—180mm (7.09")
 Depth—380mm (14.96")
 Height—440mm (17.32")
 Weight: 16kg (35.8 lb)
 Rate: 82 ends per hour
 120 circuit—41 ends per hour depending on operator skill

molex® Application Tooling

Manual Wire Terminator 1.00 and 1.27mm Series



ORDERING INFORMATION

Description	Order No.	For Shell Body Series
1.00mm Cable Wire Terminator for 10 Circuit	57860-5000	52660
1.00mm Cable Wire Terminator for 26 Circuit	57850-5000	52660
1.00mm Cable Wire Terminator for 120 Circuit (A)	57833-5000	53584
1.00mm Cable Wire Terminator for 120 Circuit (B)	57848-5000	53584
1.27mm Cable Wire Terminator for 20 Circuit	57827-5000	52316
1.27mm Cable Wire Terminator for 26 Circuit	57838-5000	52316
1.27mm Cable Wire Terminator for 36 Circuit	57844-5000	52316
1.27mm Cable Wire Terminator for 50 Circuit	57863-5000	52316
1.27mm Cable Wire Terminator for 68 Circuit	57836-5000	52316
1.27mm Cable Wire Terminator for 80 Circuit	57857-5000	52316

FEATURES AND SPECIFICATIONS

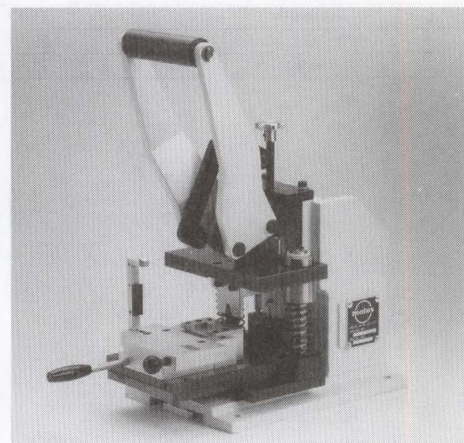
Features

- Modular and portable
- Crimps the shell onto the loaded plug assembly

Specifications

Size: Width—180mm (7.09")
 Depth—380mm (14.96")
 Height—440mm (17.32")
 Weight: 16kg (35.8 lb)
 Rate: 72 ends per hour depending on operator skill

Manual Shell Crimping Press 1.00 and 1.27mm Series



ORDERING INFORMATION

Description	Order No.	For Connector Series
1.00mm Cable Wire Shell Crimping Press for 10 Circuit	57863-5000	52661
1.00mm Cable Wire Shell Crimping Press for 26 Circuit	57851-5000	52661
1.27mm Cable Wire Shell Crimping Press for 20 Circuit	57828-5000	52370
1.27mm Cable Wire Shell Crimping Press for 26 Circuit	57839-5000	52370
1.27mm Cable Wire Shell Crimping Press for 36 Circuit	57845-5000	52370
1.27mm Cable Wire Shell Crimping Press for 50 Circuit	57864-5000	52370
1.27mm Cable Wire Shell Crimping Press for 80 Circuit	57858-5000	52370

I/O Connectors

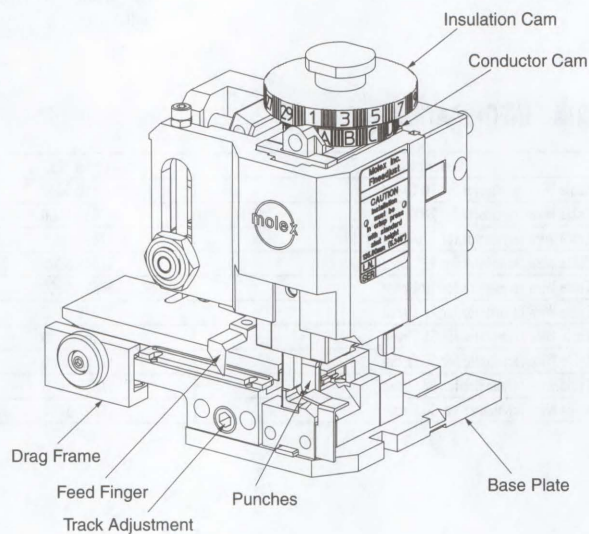
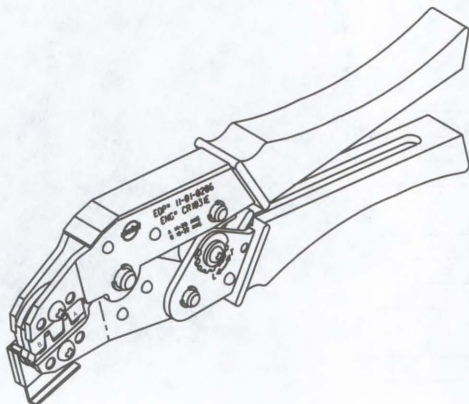
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ORDERING INFORMATION

Description	Order No.	Product No.
Hand Tool	63811-1400	83000
FineAdjust Applicator	63820-7000	83000

molex® Application Tooling

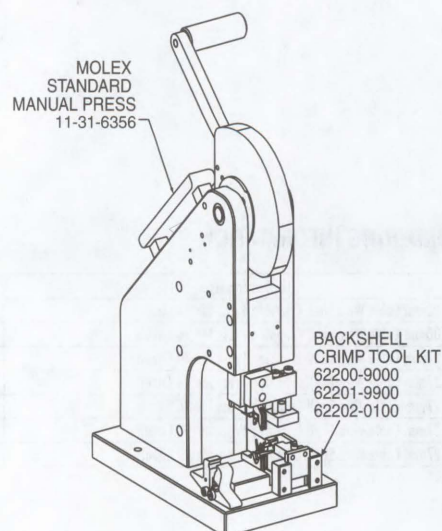
Commercial Micro-D Crimp Tooling for Contact



ORDERING INFORMATION

Description	Circuits	Order No.	Product No.
Hand Tool	9	62100-0900	83421
Hand Tool	15	62100-4100	83442
Hand Tool	25	62100-4200	83424
Press and Tool Kit	9	62200-8900	83421
Press and Tool Kit	15	62201-9800	83442
Press and Tool Kit	25	62202-0000	83424
Tool Kit Only	9	62200-9000	83421
Tool Kit Only	15	62201-9900	83442
Tool Kit Only	25	62202-0100	83424
Press Only	All	11-31-6356	All

Commercial Micro-D Strain Relief Crimp Tooling



I/O Connectors

N