

0.40 to 1.60mm (.016 to .063") PITCH

PCB and Wire Connectors

A

0.40mm (.016") Pitch

Product Matrix	A-2
Stacking Connectors	A-3 to A-12

0.50mm (.020") Pitch

Product Matrix	A-13
PCB Connectors	A-14
Stacking Connectors	A-15 to A-19

0.635mm (.025") Pitch

Product Matrix	A-20
Stacking Connectors	A-21 to A-23

0.80mm (.031") Pitch

Product Matrix	A-20
Stacking Connectors	A-24 to A-26

1.00mm (.039") Pitch

Product Matrix	A-27
Stacking Connectors	A-28 to A-29
Mezzanine	A-30 to A-32
Wire-to-Board	A-33 to A-35

1.20mm (.047") Pitch

Product Matrix	A-36
Wire-to-Board	A-37 to A-38
Mezzanine	A-39 to A-40

1.25mm (.049") Pitch

Product Matrix	A-41, A-49
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1.27mm (.050") Pitch

Product Matrix	A-49
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1.50mm (.059") Pitch

Product Matrix	A-56
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1.60mm (.063") Pitch

Product Matrix	A-56
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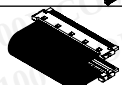
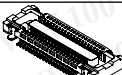
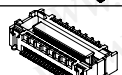
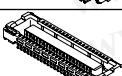
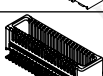
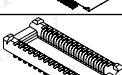
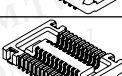
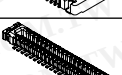
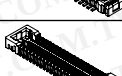
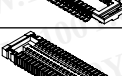
*SEARAY is a trademark of Samtec, Inc.

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

0.40mm (.016") Pitch

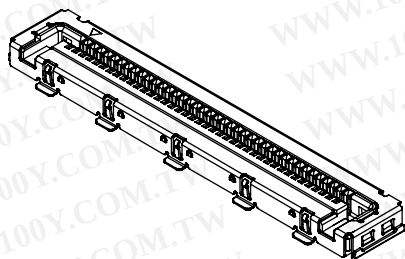
A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

Pitch	Series		Tradename	Description	Stacking Height
0.40mm (.016")	501083			PCB Receptacle, Vertical	
	501044			PCB Receptacle, Right Angle	
	501800			Cable Plug Assembly	
	54477		SlimStack™	Receptacle	4.00mm (.157")
	55339			Plug	4.00mm (.157")
	54765			Receptacle	1.50mm (.059")
	55604			Plug	1.50mm (.059")
	500913			Receptacle	1.80mm (.071")
	55909			Plug	1.50mm (.059")
	51338			Receptacle	1.50mm (.059")
	55526			Plug	3.50mm (.138")
	54684			Receptacle	3.50mm (.138")
	500027			Plug	0.95mm (.037")
	500024			Receptacle	0.95mm (.037")
	502430			Plug	1.00mm (.039")
	502426			Receptacle	1.00mm (.039")
	87820			Receptacle	0.95mm (.037")
	87819			Plug	0.95mm (.037")
	501594			Plug	0.90mm (.035")
	501591			Receptacle	0.90mm (.035")

0.40mm (.016") Pitch Wire-to-Board PCB Receptacle

501083
SMT, Vertical



Circuits	Order No.	Lead-free
30	501083-3010	Yes
40	501083-4010	
50	501083-5010	

Features and Benefits

- Provides convenient top-side mating for hard-to-reach areas
- Polarization features help facilitate proper mating
- Grounding tabs provide shielding protection against ESD
- Friction lock provides secure mating retention
- Terminal design offers long wipe length

Reference Information

Product Specification: PS-501083-001
Packaging: Embossed tape
Mates With: 501800
Designed In: Millimeters

Electrical

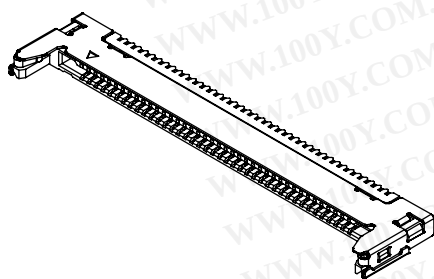
Voltage: 30V max.
Current: 0.2A max.
Contact Resistance: 450 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled heat resistant plastic, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel

0.40mm (.016") Pitch Wire-to-Board PCB Receptacle

501044
SMT, Right Angle



Circuits	Order No.	Lead-free
30	501044-3010	Yes
40	501044-4010	
50	501044-5010	

Features and Benefits

- Low profile of 1.15mm (0.45")
- Polarization features help facilitate proper mating
- Side grounding tabs provide shielding protection against ESD
- Friction lock provides secure mating retention
- Terminal design offers long wipe length

Reference Information

Product Specification: PS-501044-001
Packaging: Embossed tape
Mates With: 501800
Designed In: Millimeters

Electrical

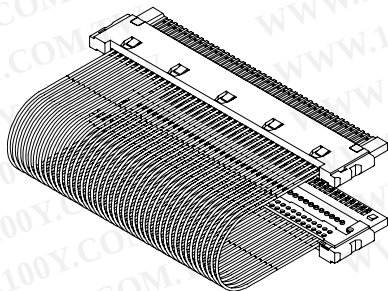
Voltage: 30V max.
Current: 0.2A max.
Contact Resistance: 450 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled heat resistant plastic, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel

0.40mm (.016") Pitch Wire-to-Board Plug Harness

501800



Order No.	Lead-free
501800-XXXX	Yes

Note: Contact Molex for ordering numbers and further details

Features and Benefits

- "Double-clamp" grounding method provides superior shielding and signal integrity
- IDT termination provides more reliable and efficient assembly versus solder methods
- Ultra-thin coaxial cable provides high speed and space savings

Reference Information

Product Specification: PS-501044-001/501083-001

Packaging: Tray

Mates With: 501044 and 501083

Designed In: Millimeters

Electrical

Voltage: 30V max.

Current: 0.2A max.

Contact Resistance: 450 milliohms max.

Dielectric Withstanding Voltage: 125V AC/1 min.

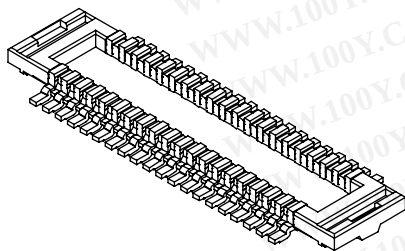
Insulation Resistance: 100 Megohms min.

www.molex.com

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

501594

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Sizes 10 to 70 circuits
- Stacking Height: 0.90mm (.035")
- Fitting nails provide PCB hold-down and solder joint

Reference Information

Product Specification: PS-501591-002

Packaging: Embossed tape

Mates With: 501591

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 0.3A max.

Contact Resistance: 90 milliohms max.

Dielectric Withstanding Voltage: 125V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

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

Contact: Phosphor Bronze

Plating: Gold over Nickel

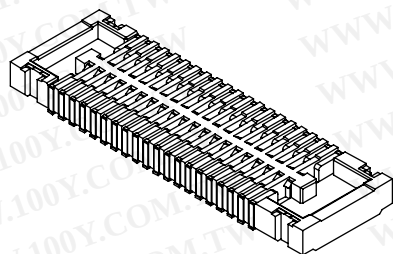
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
10	501594-1011	Yes
12	501594-1211	
20	501594-2011	
22	501594-2211	
24	501594-2411	
26	501594-2611	
30	501594-3011	

Circuits	Order No.	Lead-free
34	501594-3411	Yes
40	501594-4011	
44	501594-4411	
50	501594-5011	
54	501594-5411	
70	501594-7011	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

501591
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Sizes 10 to 70 circuits
- Stacking Height: 0.90mm (.035")
- J-Lead SMT solder tails offer space savings
- Solder tabs provide PCB hold-down and solder joint

Reference Information

Product Specification: PS-501591-002
Packaging: Embossed tape
Mates With: 501594
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

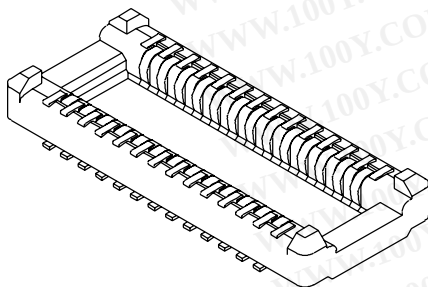
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
10	501591-1011	Yes
12	501591-1211	
20	501591-2011	
22	501591-2211	
24	501591-2411	
26	501591-2611	
30	501591-3011	

Circuits	Order No.	Lead-free
34	501591-3411	Yes
40	501591-4011	
44	501591-4411	
50	501591-5011	
54	501591-5411	
70	501591-7011	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

500027
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Sizes 16 to 80 circuits
- Stacking Height: 0.95mm (.037")
- Fitting nails provide PCB hold-down and solder joint

Reference Information

Product Specification: PS-500024-011
Packaging: Embossed tape
Mates With: 500024
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.1A max.
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

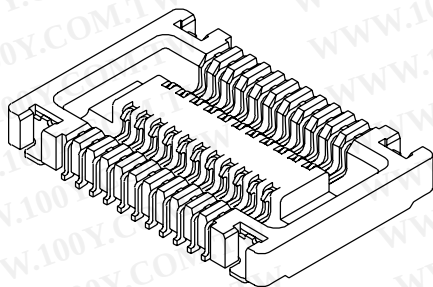
Physical

Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
16	500027-1641	Yes
20	500027-2041	
24	500027-2441	
30	500027-3041	
34	500027-3441	
40	500027-4041	

Circuits	Order No.	Lead-free
50	500027-5041	Yes
60	500027-6041	
64	500027-6441	
70	500027-7041	
80	500027-8041	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

500024
**SMT, Dual Row
Vertical Stacking**


Features and Benefits

- Sizes 16 to 80 circuits
- Stacking Height: 0.95mm (.037")
- Fitting nails provide PCB hold-down and solder joint

Reference Information

Product Specification: PS-500024-011
Packaging: Embossed tape
Mates With: 500027
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.1A max.
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

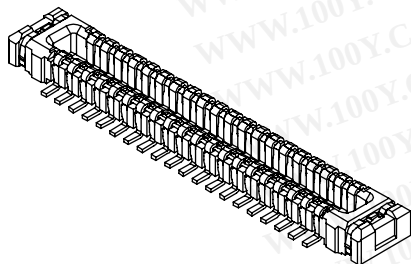
Physical

Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
16	500024-1681	Yes
20	500024-2081	
24	500024-2481	
30	500024-3071	
34	500024-3471	
40	500024-4071	

Circuits	Order No.	Lead-free
50	500024-5071	Yes
60	500024-6071	
64	500024-6471	
70	500024-7071	
80	500024-8071	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

502430
**SMT, Dual Row
Vertical Stacking**


Features and Benefits

- Sizes 20 to 80 circuits
- Stacking Height: 1.00mm (.039")
- Ultra-narrow mated width of 2.60mm
- Fitting nails provide PCB hold-down and solder joint

Reference Information

Product Specification: PS-502426-001
Packaging: Embossed tape
Mates With: 502426
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Gold over Nickel plating

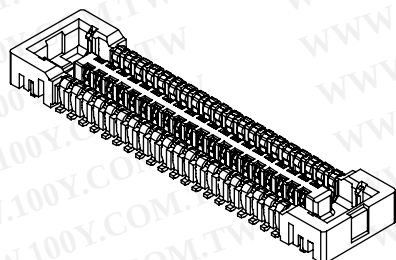
Circuits	Order No.	Lead-free
20	502430-2010	Yes
26	502430-2610	
32	502430-3210	
40	502430-4010	

Circuits	Order No.	Lead-free
50	502430-5010	Yes
60	502430-6010	
64	502430-6410	
80	502430-8010	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

502426

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Sizes 20 to 80 circuits
- Stacking Height: 1.00mm (.039")
- Ultra-narrow mated width of 2.60mm
- Fitting nails provide PCB hold-down and solder joint

Reference Information

Product Specification: PS-502426-001

Packaging: Embossed tape

Mates With: 502430

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 0.3A max.

Contact Resistance: 80 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

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

Contact: Phosphor Bronze

Plating: Gold over Nickel

Fitting Nail: Phosphor Bronze, Gold over Nickel plating

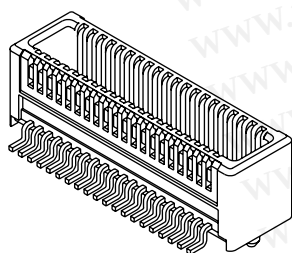
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20	502426-2010	Yes
26	502426-2610	
32	502426-3210	
40	502426-4010	

Circuits	Order No.	Lead-free
50	502426-5010	Yes
60	502426-6010	
64	502426-6410	
80	502426-8010	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55339

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking height: 4.00mm (.157")
- Sizes 60 to 150 circuits
- SMT tail design provides strong solder joints and visible inspection
- Positioning pegs assist placement

Reference Information

Product Specification: PS-54477-008

Packaging: Embossed tape

Mates With: 54477

Designed In: Millimeters

Electrical

Voltage: 30V max.

Current: 0.3A max.

Contact Resistance: 60 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

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

Contact: Phosphor Bronze

Plating: Gold over Nickel

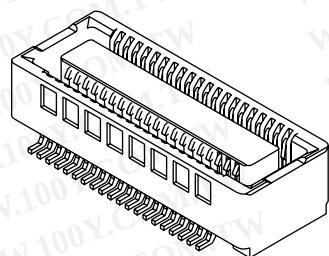
Circuits	Order No.	Lead-free
60	55339-0608	Yes
80	55339-0808	
100	55339-1008	
120	55339-1208	
150	55339-1508	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

54477

**SMT, Dual Row
Vertical Stacking**



Circuits	Order No.	Lead-free
60	54477-0608	Yes
80	54477-0808	
100	54477-1008	
120	54477-1208	
150	54477-1508	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

Features and Benefits

- Stacking height: 4.00mm (.157")
- Sizes 60 to 150 circuits
- Polarizing pegs assist placement
- Anti-flux design
- Durable blade-on-beam contact interface

Reference Information

Product Specification: PS-54477-008
Packaging: Embossed tape
Mates With: 55339
Designed In: Millimeters

Electrical

Voltage: 30V max.
Current: 0.3A max.
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

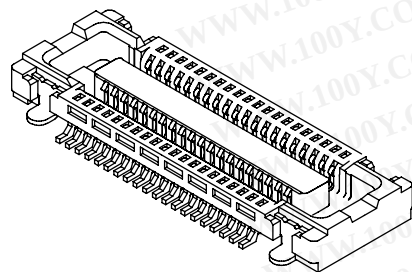
Physical

Housing: Brown glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

54765

SMT, Dual Row, Vertical Stacking



Circuits	Order No.	Lead-free
40	54765-4070	Yes
50	54765-5070	
70	54765-7070	
80	54765-8070	

Features and Benefits

- Stacking height: 1.50mm (.059")
- Housing guide provides mating alignment
- Metal friction lock provides secure mating retention
- High-temperature housing
- Durable blade-on-beam contact interface

Reference Information

Product Specification: PS-54765-012
Packaging: Embossed tape
Mates With: 55604
Designed In: Millimeters

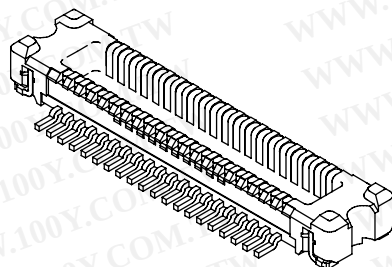
Electrical

Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55604
SMT, Dual Row, Vertical Stacking,


Circuits	Order No.	Lead-free
40	55604-4070	Yes
50	55604-5070	
70	55604-7070	
80	55604-8070	

Features and Benefits

- Stacking height: 1.50mm (.059")
- Housing guide provides mating alignment
- Metal friction lock provides secure mating retention
- High-temperature housing

Reference Information

Product Specification: PS-54765-012

Packaging: Embossed tape

Mates With: 54765

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 0.3A max.

Contact Resistance: 40 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

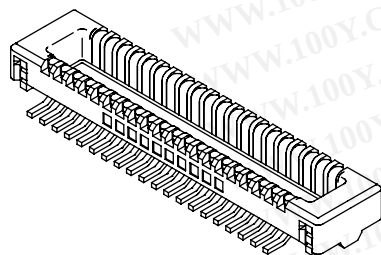
Housing: Black glass-filled LCP, UL 94V-0

Contact: Brass

Plating: Gold over Nickel

Fitting Nail: Phosphor Bronze, Tin over Nickel plating

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55909
SMT, Dual Row, Vertical Stacking


Circuits	Order No.	Lead-free
12	55909-9974	Yes
20	55909-0274	
22	55909-2274	
24	55909-2474	
26	55909-2674	
30	55909-3074	
34	55909-3474	

Features and Benefits

- Stacking Height: 1.50mm with 51338
1.80mm with 500913
- Sizes 12 to 100 circuits
- J-Lead SMT solder tails offer space savings
- Fitting nails provide PCB hold-down and solder joint protection

Reference Information

Product Specification: PS-51338-002 (with 51338)

PS-500913-001 (with 500913)

Packaging: Embossed tape

Mates With: 51338 and 500913

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 0.3A max.

Contact Resistance: 40 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

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

Contact: Brass

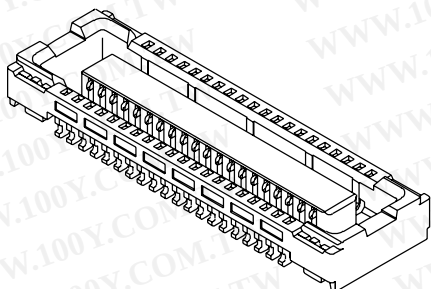
Plating: Gold over Nickel

Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
40	55909-4074	Yes
50	55909-5074	
60	55909-6074	
70	55909-7074	
80	55909-8074	
90	55909-9074	
100	55909-1074	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

51338
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking Height: 1.50mm (.059")
- Sizes 12 to 100 circuits
- J-Lead SMT solder tails offer space savings
- Fitting nails provide PCB hold-down and solder joint

Reference Information

Product Specification: PS-51338-002
Packaging: Embossed tape
Mates With: 55909
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

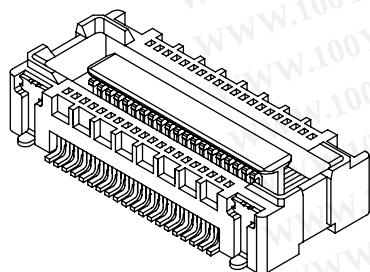
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
12	51338-9974	Yes
20	51338-0274	
22	51338-2274	
24	51338-2474	
26	51338-2674	
30	51338-0374	
34	51338-3474	

Circuits	Order No.	Lead-free
40	51338-0474	Yes
50	51338-0574	
60	51338-0674	
70	51338-0774	
80	51338-0874	
90	51338-0974	
100	51338-1074	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

500913
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 1.80mm
- Sizes 24 to 100 circuits
- Terminal friction lock provides secure mating retention
- Four fitting nails provide secure PCB hold-down
- Lead-free plating meets environmental requirements

Reference Information

Product Specification: PS-500913-001
Packaging: Embossed tape
Mates With: 55909
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

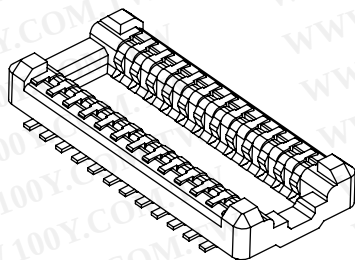
Circuits	Order No.	Lead-free
24	500913-0242	Yes
30	500913-0302	
40	500913-0402	
50	500913-0502	
60	500913-0602	
90	500913-0902	
100	500913-1002	

0.40mm (.016") Pitch Board-to-Board Receptacle

87820

SMT, Dual Row

0.95mm (.037") Height



Features and Benefits

- Cantilever-type gold contacts able to withstand severe shock and vibration
- Flat housing area facilitates auto pick-and-place
- High-temperature LCP housing material allows high-temperature SMT soldering processes
- Embossed tape packaging enables pick-and-place assembly
- High-coating on housings provides anti-solder wicking
- Wide-angled mating surface minimizes risk of damage during mating
- Good SMT tail co-planarity assures good solder joints on PCB

Reference Information

Product Specification: PS-87820-028

UL File No.: E29179

CSA File No.: 1699280

Packaging: Embossed tape on reel

Mates With: 87819

Designed In: Millimeters

Electrical

Voltage: 30V

Current: 0.1A

Contact Resistance: 90 milliohms max.

Dielectric Withstanding Voltage: 125V AC

Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention: 0.5N

Durability: 10 cycles

Physical

Housing: Black LCP, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area—0.1μm (0.4μ") Gold

Solder Tail Area—0.1μm (0.4μ") Gold

Underplating: Nickel

Circuits	Order No.		Lead-free
	Without Solder Tab	With Solder Tab	
14	87820-0014	87820-0514	Yes
24	87820-0024	87820-0524	
30	87820-0030	87820-0530	
40	87820-0040	87820-0540	
50	87820-0050	87820-0550	
60	87820-0060	87820-0560	

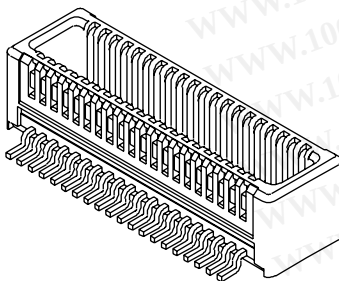
www.molex.com/customer.html?seriesNumber=87820

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55526

SMT, Dual Row

Vertical Stacking



Features and Benefits

- Stacking Height: 3.50mm (.138")
- High-temperature housing
- Double blade-on-beam contact interface

Reference Information

Product Specification: PS-54634-006

Packaging: Embossed tape

Mates With: 54684

Designed In: Millimeters

Electrical

Voltage: 30V max.

Current: 0.3A max.

Contact Resistance: 60 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

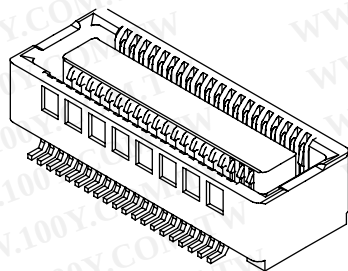
Physical

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

Contact: Phosphor Bronze

Plating: Gold over Nickel

Circuits	Order No.	Lead-free
70	55526-0708	Yes
80	55526-0808	
90	55526-0908	
120	55526-1208	

0.40mm (.016") Pitch**SlimStack™****Board-to-Board
Receptacle****54684****SMT, Dual Row, Vertical Stacking**

Circuits	Order No.	Lead-free
24	54684-0244	Yes
70	54684-0704	
80	54684-0804	
90	54684-0904	
100	54684-1004	
120	54684-1204	

Features and Benefits

- Stacking height: 3.50mm
- Locking feature provides secure mating
- High-temperature housing
- Durable blade-on-beam contact interface
- Anti-flux design

Reference Information

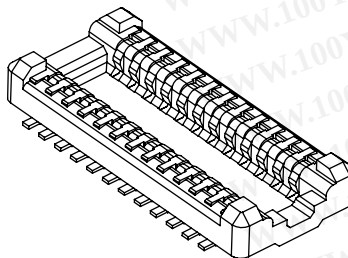
Product Specification: PS-54684-006
 Packaging: Embossed tape
 Mates With: 55526
 Designed In: Millimeters

Electrical

Voltage: 30V max.
 Current: 0.3A max.
 Contact Resistance: 60 milliohms max.
 Dielectric Withstanding Voltage: 250V AC/1 min.
 Insulation Resistance: 100 Megohms min.

Physical

Housing: Brown glass-filled LCP, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Gold over Nickel

www.molex.com/product/bb/slimstack.html
0.40mm (.016") Pitch**Board-to-Board
Plug****87819****SMT, Dual Row****0.95mm (.037") Height****Features and Benefits**

- Cantilever-type gold contacts able to withstand severe shock and vibration
- Flat housing area facilitates auto pick-and-place
- High-temperature LCP housing material allows high-temperature SMT soldering processes
- Embossed tape packaging enables pick-and-place assembly
- High-coating on housings provides anti-solder wicking
- Wide-angled mating surface minimizes risk of damage during mating
- Good SMT tail co-planarity assures good solder joints on PCB

Reference Information

Product Specification: PS-87820-028
 UL File No.: E29179
 CSA File No.: 1699280
 Packaging: Embossed tape on reel
 Mates With: 87820
 Designed In: Millimeters

Electrical

Voltage: 30V
 Current: 0.1A
 Contact Resistance: 90 milliohms max.
 Dielectric Withstanding Voltage: 125V AC
 Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention: 0.5N
 Durability: 10 cycles

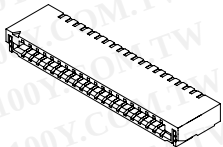
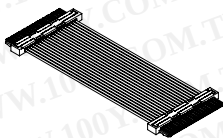
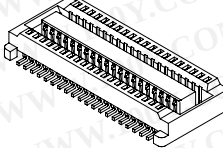
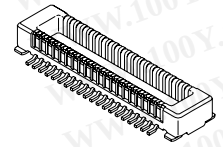
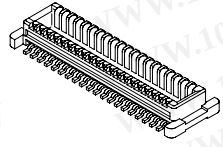
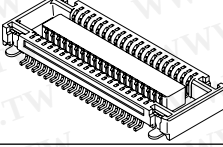
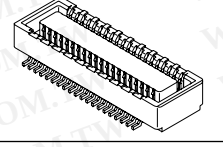
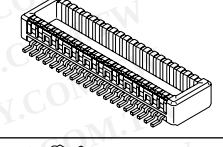
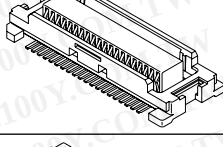
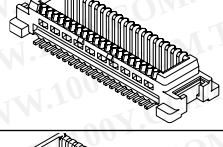
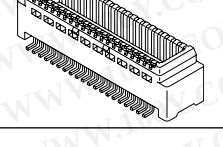
Physical

Housing: Black LCP, UL 94V-0
 Contact: Copper Alloy
 Plating: Contact Area—0.1μm (0.4μ") Gold
 Solder Tail Area—0.1μm (0.4μ") Gold
 Underplating: Nickel

Circuits	Order No.		Lead-free
	Without Solder Tab	With Solder Tab	
14	87819-0014	87819-0514	Yes
24	87819-0024	87819-0524	
30	87819-0030	87819-0530	
40	87819-0040	87819-0540	
50	87819-0050	87819-0550	
60	87819-0060	87819-0560	

0.50mm (.020") Pitch

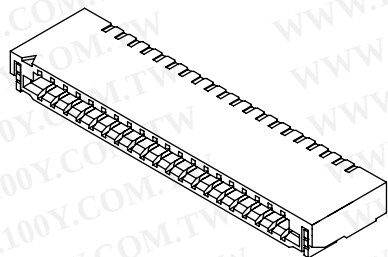
A

Pitch	Series		Tradename	Description	Stacking Height
0.50mm (.020")	500678			PCB Receptacle, Right Angle	1.20mm (.047")
	59205			Cable Plug Assembly	
	54729		SlimStack™	Receptacle	2.00mm (.079")
	55650			Plug	2.00mm (.079")
	55559			Plug	2.00mm (.079")
	54363			Receptacle	2.00 and 3.00mm (.079 and .118")
	54102			Receptacle	2.50mm (.098")
	53885/500334			Plug	2.50mm (.098")
	52991/54167			Receptacle	3.00 and 4.00mm (.118 and .157")
	53748			Plug	3.00mm (.118")
	53916			Plug	4.00mm (.157")

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

0.50mm (.020") Pitch Wire-to-Board PCB Receptacle

500678
SMT, Right Angle



Circuits	Order No.	Lead-free
10	500678-1070	Yes
20	500678-2070	
30	500678-3070	

Features and Benefits

- Compact size provides space savings
- Solder tabs provide secure PCB retention
- Connector-to-connector polarization ensures proper mating
- Friction lock provides secure mating retention

Reference Information

Product Specification: PS-500678-002
Packaging: Embossed tape
Mates With: 59205
Designed In: Millimeters

Electrical

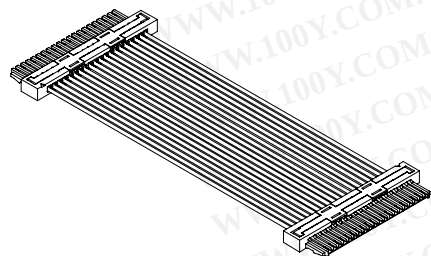
Voltage: 30V max.
Current: 0.4A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: White heat resistant Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel

0.50mm (.020") Pitch Wire-to-Board Plug Harness

59205



Order No.	Lead-free
59205-99XX	Yes

Note: Contact Molex for ordering numbers and further details.

Features and Benefits

- Friction lock ensures high retention force
- Retainer provides strain relief to solder termination areas

Reference Information

Product Specification: PS-500678-002
Packaging: Bag
Mates With: 500678
Designed In: Millimeters

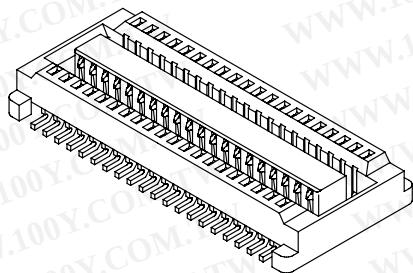
Electrical

Voltage: 30V max.
Current: 0.4A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 100 Megohms min.

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

54729

SMT, Dual Row, Vertical Stacking



Circuits	Order No.	Lead-free
16	54729-0166	Yes
24	54729-0246	

Features and Benefits

- Stacking height: 2.00mm (.079")
- Locking feature provides secure mating
- Durable blade-on-beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54729-013

Packaging: Embossed tape

Mates With: 55559

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 0.5A max.

Contact Resistance: 30 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 Megohms min.

Physical

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

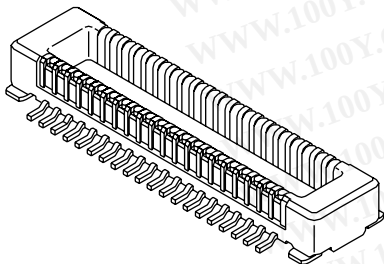
Contact: Phosphor Bronze

Plating: Gold over Nickel

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

55650

**SMT, Dual Row
Vertical Stacking**



Circuits	Order No.	Lead-free
20	55650-0288	Yes
30	55650-0388	
40	55650-0488	
50	55650-0588	
60	55650-0688	
70	55650-0788	

Features and Benefits

- Stacking Height: 2.00mm (.079")
- Sizes 20 to 70 circuits
- Fitting nails provide PCB hold-down and solder joint
- Anti-flux design

Reference Information

Product Specification: PS-54363-046

Packaging: Embossed tape

Mates With: 54363

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 0.5A max.

Contact Resistance: 40 milliohms max.

Dielectric Withstanding Voltage: 125V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

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

Contact: Copper Alloy

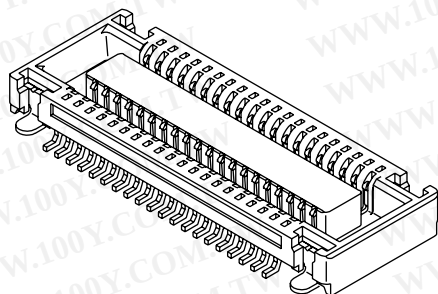
Plating: Gold over Nickel

Fitting Nail: Copper Alloy, Tin over Nickel plating

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

54363

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking height: 2.00mm (.079")
- Sizes 20 to 70 circuits
- Locking feature provides secure mating
- Fitting nails provide PCB hold-down and strain relief for SMT tails
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54363-046
Packaging: Embossed tape
Mates With: 55650
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A* max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

* Total current must not exceed 10A max.

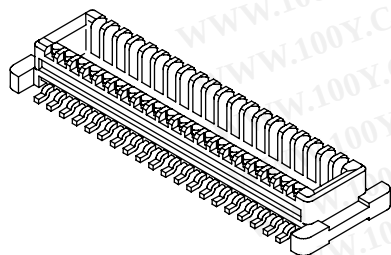
Circuits	Order No.	Lead-free
20	54363-0289	Yes
30	54363-0389	
40	54363-0489	
50	54363-0589	
60	54363-0689	
70	54363-0778	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

55559

SMT, Dual Row, Vertical Stacking



Features and Benefits

- Stacking height: 2.00mm
- Metal friction lock provides secure mating
- Durable blade-on-beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54729-013
Packaging: Embossed tape
Mates With: 54729
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

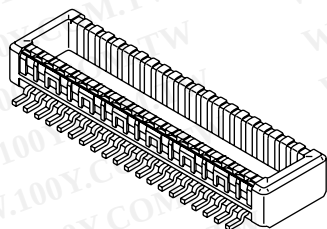
Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel

Circuits	Order No.	Lead-free
16	55559-0168	Yes
24	55559-0248	

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53885/500334
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 2.50mm (.098")
- Sizes 16 to 70 circuits
- Locking feature provides secure mating
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54102-001 (53885)
PS-54102-010 (500334)

Packaging: Embossed tape
Mates With: 54102
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

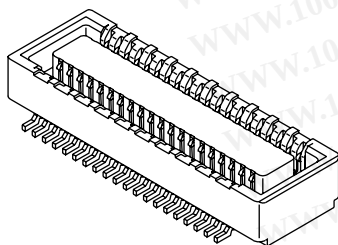
Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel

Circuits	Order No.	Lock Position	Lead-free
16	500334-0160	All	Yes
20	500334-0201		
30	500334-0300		
40	53885-0408	3, 6, 9, 12, 15, 18	
50	53885-0508	4, 10, 16, 22	
60	53885-0608	10, 21	
70	53885-0708	None	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

54102
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 2.50mm (.098")
- Sizes 16 to 70 circuits
- Locking feature provides secure mating
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54102-011 (with 53885)
PS-54102-010 (with 500334)

Packaging: Embossed tape
Mates With: 53885 and 500334
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

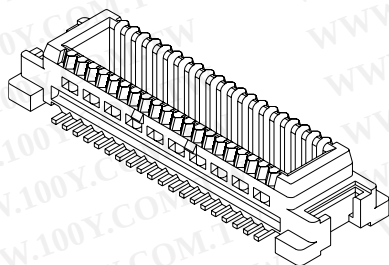
Physical

Housing: Black glass-filled PPA, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

Circuits	Order No.	Lead-free
16	54102-0164	Yes
20	54102-0204	
30	54102-0304	
40	54102-0404	
50	54102-0504	
70	54102-0704	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53748
**SMT, Dual Row
Vertical Stacking**


Circuits	Order No.	Lead-free
20	53748-0208	Yes
30	53748-0308	
40	53748-0408	
60	53748-0608	
70	53748-0708	
80	53748-0808	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

Features and Benefits

- Stacking height: 3.0mm
- Sizes 20 to 80 circuits
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-52991-003
Packaging: Embossed tape
Mates With: 52991/54167
Designed In: Millimeters

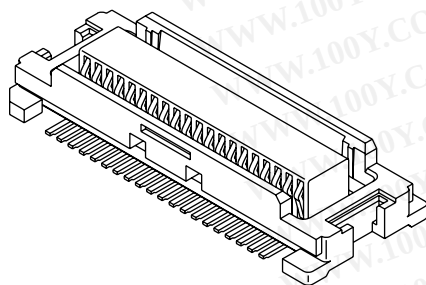
Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

52991/54167
**SMT, Dual Row
Vertical Stacking**


Features and Benefits

- Stacking Heights: 3.0 and 4.0mm
- Sizes 20 to 80 circuits
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-52991-003 (with 53748)
PS-54167-002 (with 53916)
Packaging: Embossed tape
Mates With: 53748 (H = 3.0mm)
53916 (H = 4.0mm)
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 53748—50 milliohms max.
53916—60 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

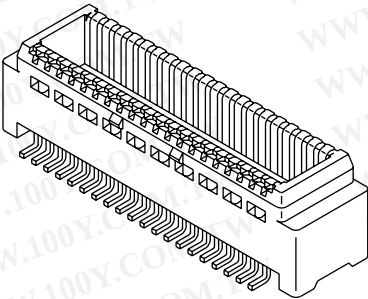
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

Circuits	Order No.		Lead-free
	White	Black	
20	52991-0208	54167-0208	Yes
30	52991-0308	54167-0308	
40	52991-0408	54167-0408	
50	52991-0508	54167-0508	
60	52991-0608	54167-0608	
70	52991-0708	54167-0708	
80	52991-0808	54167-0808	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch
SlimStack™
Board-to-Board
Plug

53916
SMT, Dual Row
Vertical Stacking



Circuits	Order No.	Lead-free
20	53916-0208	Yes

Note: Use only one connector per daughterboard in order to insure proper mating alignment

Features and Benefits

- Stacking height: 4.0mm
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54167-002
Packaging: Embossed tape
Mates With: 52991, 54167
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

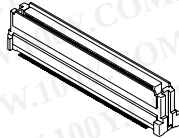
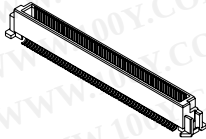
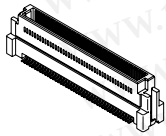
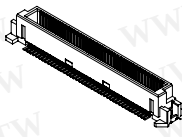
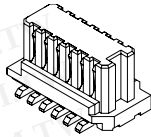
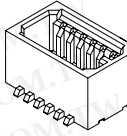
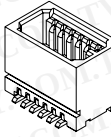
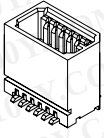
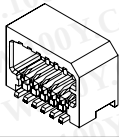
Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel

0.635mm (.025") and 0.80mm (.031") Pitch

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

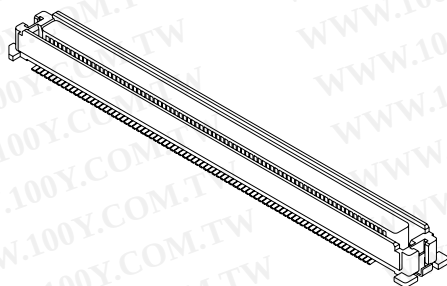
A

Pitch	Series		Tradename	Description	Stacking Height
0.635mm (.025")	52760/52885		SlimStack™	Receptacle	5.00 and 10.00mm (.197 and .394")
	52837/52901			Receptacle	11.00 and 16.00mm (.433 and .630")
	53481/53625			Plug	7.00 and 13.00mm (.276 and .512")
	53551/53647			Plug	8.00 and 14.00mm (.315 and .551")
	53553/53627			Plug	10.00 and 16.00mm (.394 and .630")
	55091			Header	6.00 and 12.00mm (.236 and .472")
0.80mm (.031")	52465			Receptacle	4.50, 6.00 and 7.00mm (.177, .236 and .276")
	53307			Header	4.50 and 5.50mm (.177 and .217")
	53364			Header	6.00 and 7.00mm (.236 and .276")
	53353			Header	7.00 and 8.00mm (.276 and .315")
	53309			Header, Right Angle	5.65 and 6.65mm (.222 and .262")

0.635mm (.025") Pitch SlimStack™ Board-to-Board Receptacle

52885

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking height: 6.0 to 10mm
- Sizes 20 to 240 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Product Specification: PS-52760-015

Packaging: Embossed tape

Mates With: 55091 (H = 6.0mm)

53625 (H = 7.0mm)

53647 (H = 8.0mm)

53627 (H = 10.0mm)

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 0.5A max.

Contact Resistance:

40 milliohms max. (H=6.0, 7.0mm)

50 milliohms max. (H=8.0, 10.0mm)

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

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

Contact: Copper Alloy

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin over Nickel

Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
20	52885-0274	Yes
30	52885-0374	
40	52885-0474	
50	52885-0574	
60	52885-0674	
70	52885-0774	
80	52885-0874	

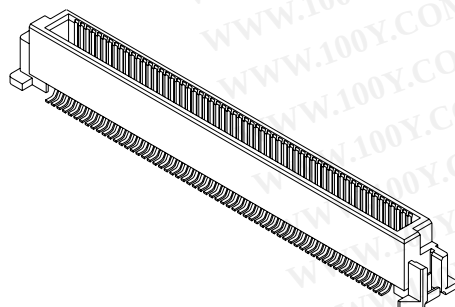
Note: Use only one connector per daughterboard in order to insure proper mating alignment

Circuits	Order No.	Lead-free
90	52885-0974	Yes
100	52885-1074	
120	52885-1274	
140	52885-1474	
160	52885-1674	
240	52885-2474	

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53625

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking height: 7.0 and 13.0mm
- Sizes 30 to 240 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Product Specification: PS-52760-015

Packaging: Embossed tape

Mates With: 52885 (H = 7.0mm)

52901 (H = 13.0mm)

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 0.5A max.

Contact Resistance: 40 milliohms max. (H=7.0mm)

60 milliohms max. (H=13.0mm)

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

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

Contact: Copper Alloy

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin over Nickel

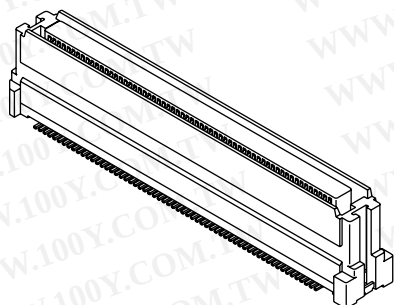
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
30	53625-0374	Yes
40	53625-0474	
50	53625-0574	
80	53625-0874	
90	53625-0974	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

Circuits	Order No.	Lead-free
120	53625-1274	Yes
140	53625-1474	
160	53625-1674	
240	53625-2474	

0.635mm (.025") Pitch SlimStack™ Board-to-Board Receptacle

52901
**SMT, Dual Row
Vertical Stacking**


Features and Benefits

- Stacking height: 12.0 to 16.0mm
- Sizes 20 to 140 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Product Specification: PS-52760-015

Packaging: Embossed tape

Mates With: 55091 (H = 12.0mm)

53625 (H = 13.0mm)

53647 (H = 14.0mm)

53627 (H = 16.0mm)

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 0.5A max.

Contact Resistance:

60 milliohms max. (H=12.0, 13.0mm)

70 milliohms max. (H=14.0, 16.0mm)

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

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

Contact: Copper Alloy

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin over Nickel

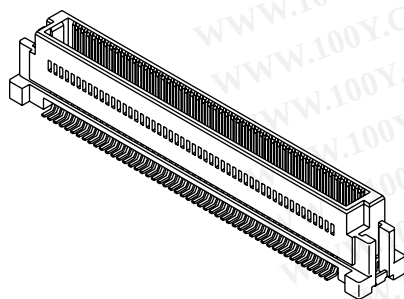
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
20	52901-0274	Yes
30	52901-0374	
40	52901-0474	
60	52901-0674	
70	52901-0774	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

Circuits	Order No.	Lead-free
80	52901-0874	
90	52901-0974	
100	52901-1074	
120	52901-1274	
140	52901-1474	

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53647
**SMT, Dual Row
Vertical Stacking**


Features and Benefits

- Stacking height: 8.0 and 14.0mm
- Sizes 20 to 160 circuits
- Housing lock on 20 to 40 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Product Specification: PS-52760-015

Packaging: Embossed tape

Mates With: 52885 (H = 8.0mm)

52901 (H = 14.0mm)

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 0.5A max.

Contact Resistance: 50 milliohms max. (H=8.0mm)

70 milliohms max. (H=14.0mm)

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

Housing: Brown glass-filled PPS, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin over Nickel

Circuits	Order No.	Lead-free
20	53647-0274	Yes
30	53647-0374	
40	53647-0474	
60	53647-0674	
80	53647-0874	

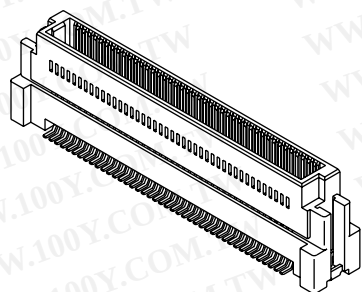
Note: Use only one connector per daughterboard in order to insure proper mating alignment

Circuits	Order No.	Lead-free
100	53647-1074	Yes
120	53647-1274	
140	53647-1474	
160	53647-1674	

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53627

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking height: 10.0 and 16.0mm
- Sizes 20 to 140 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Product Specification: PS-52760-015
Packaging: Embossed tape
Mates With: 52885 (H = 10.0mm)
52901 (H = 16.0mm)
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 50 milliohms max. (H=10.0mm)
70 milliohms max. (H=16.0mm)
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Brown glass-filled PPS, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
20	53627-0274	Yes
30	53627-0374	
40	53627-0474	
50	53627-0574	
60	53627-0674	
70	53627-0774	

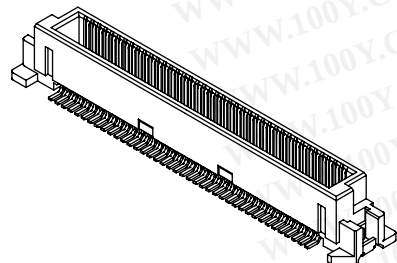
Note: Use only one connector per daughterboard in order to insure proper mating alignment

Circuits	Order No.	Lead-free
80	53627-0874	Yes
90	53627-0974	
100	53627-1074	
120	53627-1274	
140	53627-1474	

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

55091

SMT, Dual Row, Vertical Stacking



Features and Benefits

- Stacking heights of 6.00 and 12.00mm (.236 and .472")
- Sizes 20 to 160 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold-down and strain relief for SMT tails
- Polarizing pegs assist placement onto PCB

Reference Information

Product Specification: PS-52760-015
Packaging: Embossed tape
Mates With: 52885 (H = 6.0mm)
52901 (H = 12.0mm)
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max., 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

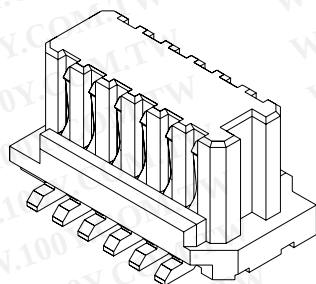
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
20	55091-0274	Yes
30	55091-0374	
40	55091-0474	
50	55091-0574	
60	55091-0674	
70	55091-0774	

Circuits	Order No.	Lead-free
80	55091-0874	Yes
90	55091-0974	
100	55091-1074	
120	55091-1274	
140	55091-1474	
160	55091-1674	

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

52465
Dual Row
SMT



Features and Benefits

- Stacking Heights: 4.5 to 7.0mm (5.65mm right angle mated height)
- Sizes 10 to 40 circuits

Reference Information

Product Specification: PS-52465-015 (with 53307)
PS-52465-010 (with 53364, 53353)
PS-52465-014 (with 53309)

Packaging: Embossed tape
Mates With: 53307 (H = 4.5mm)
53309 (H = 5.65mm)
53364 (H = 6.0mm)
53353 (H = 7.0mm)

Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPA, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel

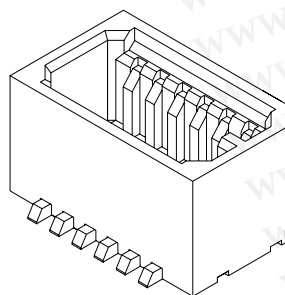
Circuits	Order No.	Lead-free
10	52465-1071	Yes
12	52465-1271	
14	52465-1471	
16	52465-1671	
18	52465-1871	
20	52465-2071	
22	52465-2271	
24	52465-2471	

Circuits	Order No.	Lead-free
26	52465-2671	Yes
28	52465-2871	
30	52465-3071	
32	52465-3271	
34	52465-3471	
36	52465-3671	
40	52465-4071	

www.molex.com/customer.html?seriesNumber=52465

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

53307
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 4.5mm
- Sizes 10 to 40 circuits

Reference Information

Product Specification: PS-52465-015
Packaging: Embossed tape
Mates With: 52465
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel

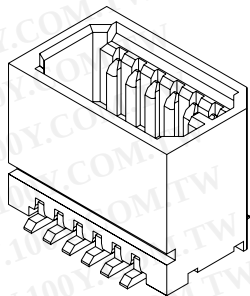
Circuits	Order No.	Lead-free
10	53307-1071	Yes
12	53307-1271	
14	53307-1471	
16	53307-1671	
18	53307-1871	
20	53307-2071	

Circuits	Order No.	Lead-free
24	53307-2471	Yes
26	53307-2671	
28	53307-2871	
30	53307-3071	
36	53307-3671	
40	53307-4071	

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

53364

**SMT, Dual Row
Vertical Stacking**



Circuits	Order No.	Lead-free
18	53364-1871	Yes
20	53364-2071	
30	53364-3071	
36	53364-3671	

Features and Benefits

- Stacking height: 6.0mm
- Sizes 18 to 36 circuits

Reference Information

Product Specification: PS-52465-010
Packaging: Embossed tape
Mates With: 52465
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

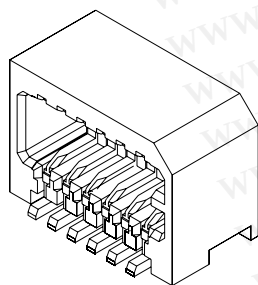
Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel

www.molex.com/customer.html?seriesNumber=53364

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

53309

**SMT, Dual Row
Right Angle**



Features and Benefits

- Mated height: 5.65mm
- Sizes 10 to 40 circuits

Reference Information

Product Specification: PS-52465-014
Packaging: Embossed tape
Mates With: 52465
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

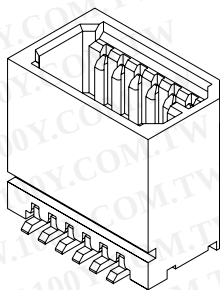
Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel

Circuits	Order No.	Lead-free
10	53309-1070	Yes
12	53309-1270	
14	53309-1470	
16	53309-1670	
18	53309-1870	
20	53309-2070	
22	53309-2270	
24	53309-2470	

Circuits	Order No.	Lead-free
26	53309-2670	Yes
28	53309-2870	
30	53309-3070	
32	53309-3270	
34	53309-3470	
36	53309-3670	
40	53309-4070	

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

53353
**SMT, Dual Row
Vertical Stacking**


Features and Benefits

- Stacking height: 7.0mm
- Sizes 10 to 30 circuits

Reference Information

Product Specification: PS-52465-010

Packaging: Embossed tape

Mates With: 52465

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 0.5A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0

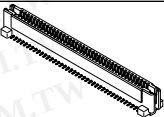
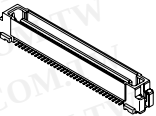
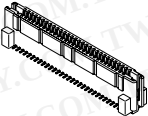
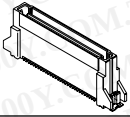
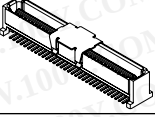
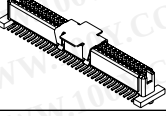
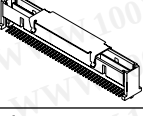
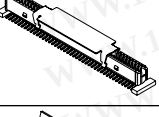
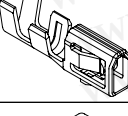
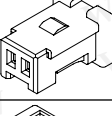
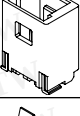
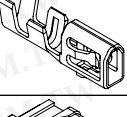
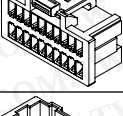
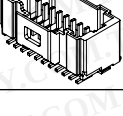
Contact: Phosphor Bronze

Plating: Tin

Circuits	Order No.	Lead-free
10	53353-1071	Yes
16	53353-1671	
18	53353-1871	
20	53353-2071	
28	53353-2871	
30	53353-3071	

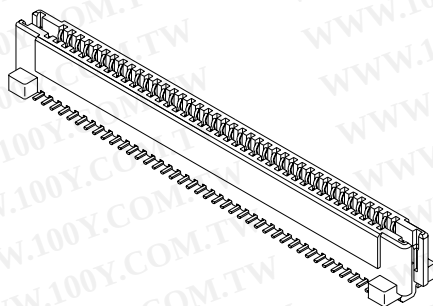
1.00mm (.039") Pitch

A

Pitch	Series		Tradename	Description
1.00mm (.039")	52584		SlimStack™	Receptacle
	53395			Plug
	52602			Receptacle
	53408			Plug
	71436		Mezzanine IEEE 1386	Plug
	71439			Receptacle
	71741		Mezzanine	Plug
	71742			Receptacle
	501334		Pico-Clasp™	Crimp Terminal
	501330			Housing
	501331			Header
	501193			Crimp Terminal
	501189			Housing
	501190			Header

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

1.00mm (.039") Pitch SlimStack™ Board-to-Board Receptacle

52584**SMT, Dual Row
Vertical Stacking****Features and Benefits**

- Stacking heights: 8.0 and 18.0mm
- Sizes 20 to 140 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information

Product Specification: PS-52584-003

Packaging: Tube

Mates With: 53395 (H = 8.0mm)

53408 (H = 18.0mm)

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 0.5A max.

Contact Resistance:

40 milliohms max. (H=8.0mm)

70 milliohms max. (H=18.0mm)

Dielectric Withstanding Voltage: 200V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

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

Contact: Phosphor Bronze

Plating: Contact Area—Gold over Nickel

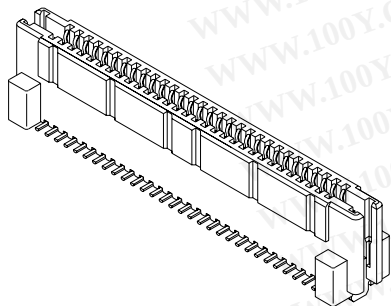
Solder Tail Area—Tin over Nickel

Circuits	Order No.	Lead-free
20	52584-0279	Yes
34	52584-3479	
50	52584-0579	
60	52584-0679	
66	52584-6679	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

Circuits	Order No.	Lead-free
80	52584-0879	Yes
100	52584-1079	
120	52584-1279	
140	52584-1479	

1.00mm (.039") Pitch SlimStack™ Board-to-Board Receptacle

52602**SMT, Dual Row
Vertical Stacking****Features and Benefits**

- Stacking heights: 20.0mm
- Sizes 50 to 120 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information

Product Specification: PS-52584-003

Packaging: Tube

Mates With: 53408

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 0.5A max.

Contact Resistance: 70 milliohms max.

Dielectric Withstanding Voltage: 200V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

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

Contact: Phosphor Bronze

Plating: Contact Area—Gold over Nickel

Solder Tail Area—Tin over Nickel

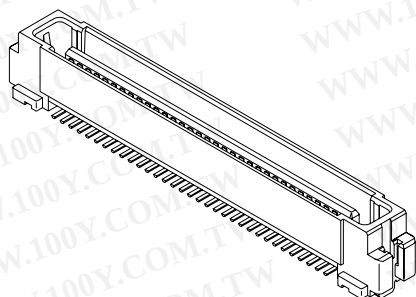
Circuits	Order No.	Lead-free
50	52602-0579	Yes
60	52602-0679	
120	52602-1279	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch SlimStack™ Board-to-Board Plug

53395

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking heights: 8.0mm
- Sizes 20 to 140 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information

Product Specification: PS-52584-003
Packaging: Tube
Mates With: 52584
Designed In: Millimeters

Electrical

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

Physical

Housing: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

Circuits	Order No.	Lead-free
20	53395-0279	Yes
34	53395-3479	
66	53395-6679	
100	53395-1079	
140	53395-1479	

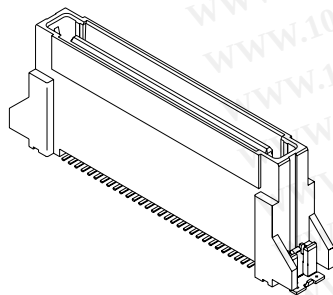
Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch SlimStack™ Board-to-Board Plug

53408

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking heights: 18.0, 20.0mm
- Sizes 50 to 140 circuits
- Leaf-style design protects pins
- Antiflux design
- Low insertion force
- Polarization pegs assist placement

Reference Information

Product Specification: PS-52584-003
Packaging: Tube
Mates With: 52584 (H = 18.0mm)
52602 (H = 20.0mm)
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 70 milliohms max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

Circuits	Order No.	Lead-free
50	53408-0579	Yes
60	53408-0679	
80	53408-0879	
100	53408-1079	
120	53408-1279	
140	53408-1479	

Note: Contact Molex for embossed tape specifications

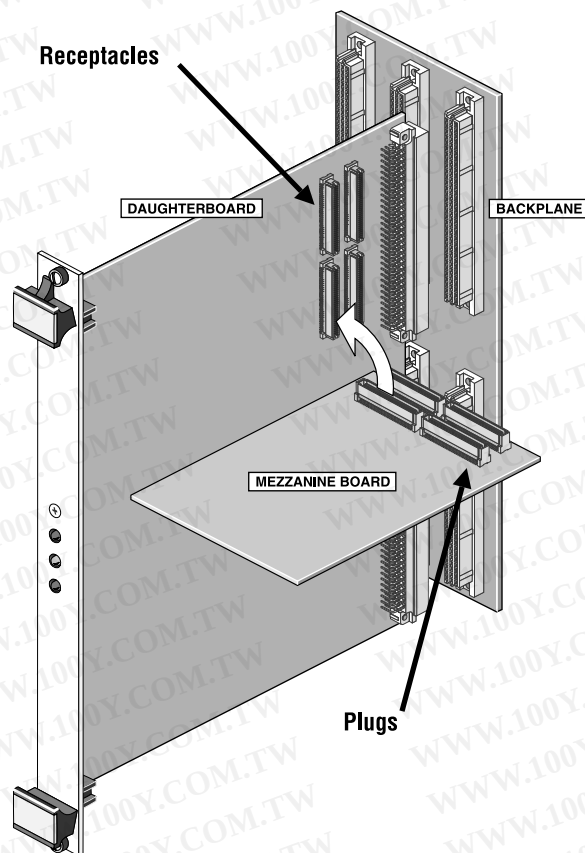
Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch Mezzanine IEEE 1386 SMT Stacking Board-to-Board Connectors

The IEEE 1386 Standard contains the details for adding standardized general option, PCI and other mezzanine cards to VMEbus and compact PCI and other types of host boards. There are also many networking, telecommunications, PC and workstation users who want a standardized mezzanine scheme and see the IEEE 1386 as the best approach.

Molex's fully-shrouded leaf-style design minimizes the chance of damaging plug contacts, and our receptacle contacts feature a low mating force, reducing PC board stress. Gold-over-Nickel contact plating enhances long-term reliability and UL 94V-0 LCP housings withstand SMT reflow processes. Excellent tolerance absorption allows the connector to be used in combinations of 1-4 mated pairs for up to 256 circuits.

As the need for faster signal speeds increases, the need for better performance and signal integrity performance of connectors also increases. The 1.00mm (.039") mezzanine connectors from Molex provide the excellent performance required by today's high-speed systems. For example, Molex 1.00mm (.039") mezzanine connectors can be used in a 5.0 Gbps application by using grounds between each differential pair (G-S-S-G), resulting in a differential impedance of 100 ohms $\pm$ 10% and 2.23% NEXT at a 50psec (10/90%) risetime. At -3dB, the insertion loss for the Molex 1.00mm (.039") mezzanine connectors is 7.3GHz. At -10dB, the differential return loss is 6.2GHz.



1.00mm (.039") Mezzanine IEEE 1386 Board-to-Board Plug/Receptacle

71436/71439

**Dual Row, SMT
Vertical Stacking**

Features and Benefits

- Mated heights: 8, 9, 10, 11, 12, 13, 14 and 15mm
- Size 64 circuits
- Leaf-style design protects pins
- Low insertion force
- Up to 4 mated pairs can be used
- LCP housing for use with SMT processing temps

Reference Information

Product Specification: PS-71436-9999
Packaging: Tube or tape and reel
UL File No.: E29179

Electrical

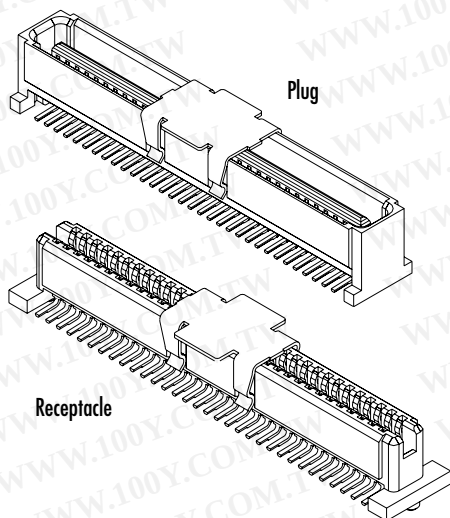
Voltage: 100V
Current: 1.0A
Contact Resistance: 30 milliohms max.

Mechanical

Contact Retention to Housing: 0.4kgf min.
Mating Force: 50g max. per contact
Unmating Force: 25g min. per contact

Physical

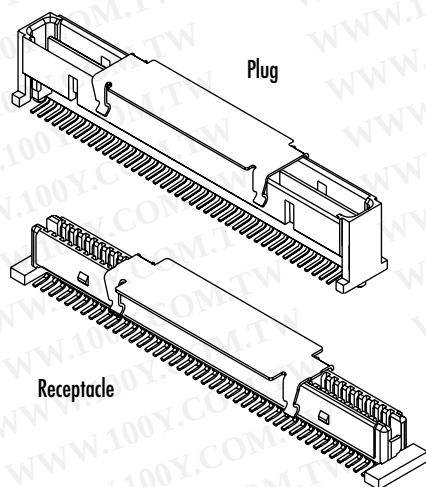
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: 30µ" Gold min.



Circuits	Mated Stack Height	Pegs	Packaging	Order No.		Lead-free
				Plug	Receptacle	
64	8.00mm (.315")	Yes	Tape and Reel	71436-0464	71439-0464	Yes
			Tube	71436-0164	71439-0164	
		No	Tape and Reel	71436-0864	71439-0864	
			Tube	71436-0564	Contact Molex	
	9.00mm (.354")	Yes	Tape and Reel	71436-1464	71439-0464	
			Tube	71436-1164	71439-0164	
		No	Tape and Reel	71436-1864	71439-0864	
			Tube	71436-1564	Contact Molex	
	10.00mm (.394")	Yes	Tape and Reel	71436-2464	71439-0464	
			Tube	71436-2164	71439-0164	
		No	Tape and Reel	71436-2864	71439-0864	
			Tube	71436-2564	Contact Molex	
	11.00mm (.433")	Yes	Tape and Reel	71436-1464	71439-1464	
			Tube	71436-1164	71439-1164	
		No	Tape and Reel	71436-1864	71439-1864	
			Tube	71436-1564	71439-1564	
	12.00mm (.472")	Yes	Tape and Reel	71436-2464	71439-1464	
			Tube	71436-2164	71439-1164	
		No	Tape and Reel	71436-2864	71439-1864	
			Tube	71436-2564	71439-1564	
	13.00mm (.512")	Yes	Tape and Reel	71436-2464	71439-2464	
			Tube	71436-2164	71439-2164	
		No	Tape and Reel	71436-2864	71439-2864	
			Tube	71436-2564	Contact Molex	
	14.00mm (.551")	Yes	Tape and Reel	71436-1464	71439-3464	
			Tube	71436-1164	71439-3164	
		No	Tape and Reel	71436-1864	71439-3864	
			Tube	71436-1564	71439-3564	
	15.00mm (.591")	Yes	Tape and Reel	71436-2464	71439-3464	
			Tube	71436-2164	71439-3164	
		No	Tape and Reel	71436-2864	71439-3864	
			Tube	71436-2564	71439-3564	

Note: These order numbers are the recommended plug and receptacle combinations for mated stack heights per EIA standard 700 AAAB. Per EIA standard, board stack height measured from facing surfaces of parallel circuit boards includes solder thickness allowance of 0.1mm (.004") per side.

1.00mm (.039") Mezzanine Board-to-Board Plug/Receptacle

71741/71742
**Dual Row, SMT
Vertical Stacking**


Features and Benefits

- Mated heights: 8, 10, 12, 13 and 15mm
- Leaf-style design protects pins
- Low insertion force
- Up to 4 mated pairs can be used
- LCP housing for use with lead-free SMT processing temps

Reference Information

Product Specification: PS-71741-9999

Packaging: Tube or tape and reel

UL File No.: E29179

Electrical

Voltage: 100V

Current: 1.0A

Contact Resistance: 40 milliohms max.

Mechanical

Contact Retention to Housing: 0.4kgf min.

Mating Force: 50g max.

Unmating Force: 25g min.

Physical

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

Contact: Phosphor Bronze

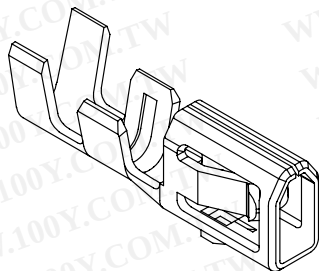
Plating: 30μ" and 10μ" Gold min.

Circuits	Mated Stack Height	Pegs	Packaging	Order No.		Lead-free
				Plug	Receptacle	
84	8.00mm (.315")	Yes	Tape and Reel	71741-2011	71742-0003* or 71742-0006	Yes
			Tube	Contact Molex	71742-0004	
		No	Tape and Reel	71741-2002	71742-0001* or 71742-0005	
			Tube	Contact Molex	Contact Molex	
	10.00mm (.394")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-0003* or 71742-0006	
			Tube	71741-0001*	71742-0004	
		No	Tape and Reel	71741-0003	71742-0001* or 71742-0005	
			Tube	Contact Molex	Contact Molex	
	12.00mm (.472")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-2001* or 71742-2003	
			Tube	71741-0002* or 71741-0004	71742-2002*	
		No	Tape and Reel	Contact Molex	Contact Molex	
			Tube	Contact Molex	Contact Molex	
	13.00mm (.512")	Yes	Tape and Reel	71741-2001	71742-3003	
			Tube	Contact Molex	Contact Molex	
		No	Tape and Reel	71741-2002	71742-3001	
			Tube	Contact Molex	Contact Molex	
	15.00mm (.591")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-3003	
			Tube	71741-0001*	Contact Molex	
		No	Tape and Reel	71741-0003	71742-3001	
			Tube	Contact Molex	Contact Molex	

Note: These order numbers are the recommended plug and receptacle combinations for mated stack heights per EIA standard 700 AAAB. Per EIA standard, board stack height measured from facing surfaces of parallel circuit boards includes solder thickness allowance of 0.1mm (.004") per side.

*.25μmm (10μ") Gold plating

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Crimp Terminal

501334
For Single Row Housings


Order No.	Packaging	Lead-free
501334-0000	Reel	Yes
501334-0100	Bag	

Features and Benefits

- Box-shaped design provides 2 points of contact for secure electrical connection

Reference Information

Product Specification: PS-501331-001

Use With: 501330

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 1.0A max.

Physical

Contact: Phosphor Bronze

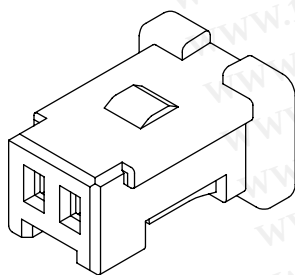
Plating: Tin

Wire Size: 28 to 32 AWG

Insulation Diameter: 0.80mm (.031") max.

Wire Strip Length: 1.00 to 1.30mm (.039 to .051")

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Housing

501330
Single Row
Positive and Friction Lock


Features and Benefits

- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information

Product Specification: PS-501331-001

Packaging: Bag

Mates With: 501331

Use With: 501334

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 1.0A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

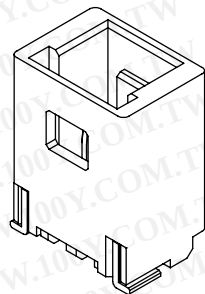
Physical

Housing: Nylon, UL 94V-0

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
2		501330-0200	Yes
3		501330-0300	
4		501330-0400	
5		501330-0500	
6	501330-0600		
7	501330-0700		
8	501330-0800		

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
9	501330-0900		Yes
10	501330-1000		
11	501330-1100		
12	501330-1200		
13	501330-1300		
14	501330-1400		
15	501330-1500		

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Header

501331**SMT, Single Row
Positive and Friction Lock****Features and Benefits**

- Positive lock on 6-15 circuits; friction lock on 2-5 circuits
- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information

Product Specification: PS-501331-001
 Packaging: Embossed tape
 Mates With: 501330
 Designed In: Millimeters

Electrical

Voltage: 50V max.
 Current: 1.0A max.
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 250V AC/1 min.
 Insulation Resistance: 100 Megohms min.

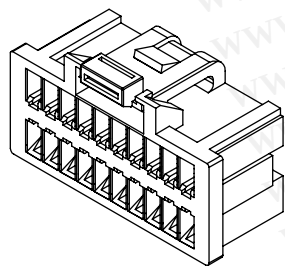
Physical

Housing: Nylon, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Tin over Nickel
 Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
2		501331-0207	Yes
3		501331-0307	
4		501331-0407	
5		501331-0507	
6	501331-0607		
7	501331-0707		
8	501331-0807		

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
9	501331-0907		Yes
10	501331-1007		
11	501331-1107		
12	501331-1207		
13	501331-1307		
14	501331-1407		
15	501331-1507		

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Housing

501189**Dual Row****Features and Benefits**

- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information

Product Specification: PS-501189-001; PS-501190-002
 Packaging: Bag
 Mates With: 501190
 Use With: 501193
 Designed In: Millimeters

Electrical

Voltage: 50V max.
 Current: 1.0A max.
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 250V AC/1 min.
 Insulation Resistance: 100 Megohms min.

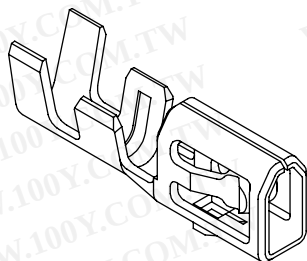
Physical

Housing: Nylon, UL 94V-0

Circuits	Order No.		Lead-free
	Positive Lock	Side Friction Lock	
20	501189-2010	501189-2021	Yes
30	501189-3010	501189-3021	
40	501189-4010	501189-4021	
50	501189-5010	501189-5021	

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Crimp Terminal

501193
For Dual Row
Housings



Order No.	Package	Lead-free
501193-2000	Reel	Yes

Features and Benefits

- Box-shaped design provides 2 points of contact for secure electrical connection

Reference Information

Product Specification: PS-501190-001 and PS-501190-002
Packaging: Reel
Use With: 501189
Designed In: Millimeters

Electrical

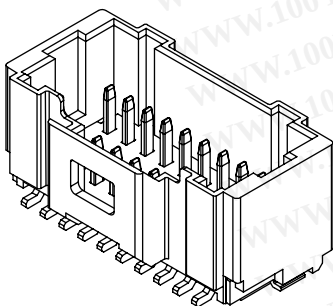
Voltage: 50V
Current: 1.0A max.

Physical

Contact: Phosphor Bronze
Plating: Gold over Nickel
Wire Size: 28 to 32 AWG
Insulation Diameter: 0.80mm (.031") max.
Wire Strip Length: 1.00 to 1.30mm (.039 to .051")

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Header

501190
Dual Row, SMT



Features and Benefits

- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information

Product Specification: PS-501190-001 and PS-501190-002
Packaging: Embossed tape
Mates With: 501189
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

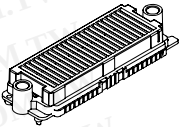
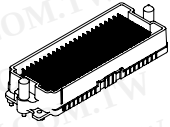
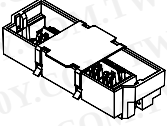
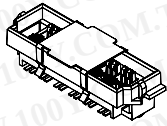
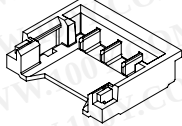
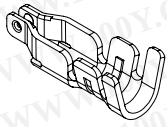
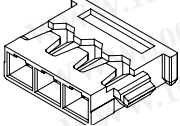
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.		Lead-free
	With Pick-and-Place Cover Tape	Without Pick-and-Place Cover Tape	
20	501190-2017	501190-2027	Yes
30	501190-3017	501190-3027	
40	501190-4017	501190-4027	
50	501190-5017	501190-5027	

1.20mm (.047") Pitch

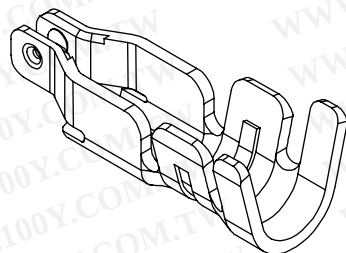
0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

A

Pitch	Series		Tradename	Description
1.20 x 2.00mm (.047 x .079")	45802		HD Mezz™	Receptacle
	45830			Plug
	75005		Plateau HS Mezz™	Receptacle
	75003			Plug
	78171		Pico-EZ Mate™	Header
	78172			Crimp Terminal
	78172			Housing

1.20mm (.047") Pitch Pico-EZmate™ Wire-to-Board Crimp Terminal

78172



Order No.	Packaging	Lead-free
78172-0410	Reel	Yes

Reference Information

Product Specification: PS-78171-010

Packaging: Reel

Use With: 78172-000X housing

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 1.5A max.

Physical

Contact: Copper Alloy

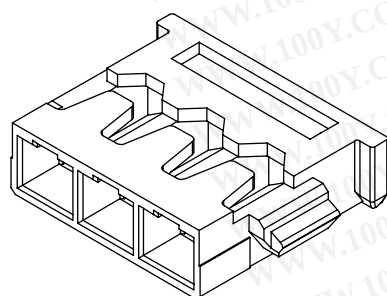
Plating: Gold over Nickel

Insulation Diameter: 0.60mm dia. max.

Wire Gauge: 28 and 30 AWG

1.20mm (.047") Pitch Pico-EZmate™ Wire-to-Board Housing

78172



Features and Benefits

- Ultra low profile provides space savings
- Easy vertical mating offers excellent workability in production line
- Multiple mating cycles allows multiple testing cycle
- Assembly suction space on header for stable pick-and-place
- RoHS compliant

Reference Information

Product Specification: PS-78171-010

Packaging: Bag

Mates With: 78171

Use with: 78172-0410 terminal

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 1.5A max.

Contact Resistance: 20 milliohms max.

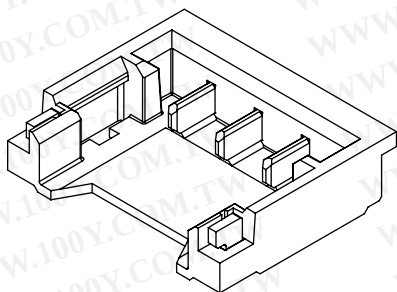
Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

Housing: Black LCP, UL 94V-0

Circuits	Order No.	Lead-free
2	78172-0002	Yes
3	78172-0003	
4	78172-0004	
5	78172-0005	

1.20mm (.047") Pitch**Pico-EZmate™****Wire-to-Board
Header****78171****Vertical****1.40mm (.055") Housing Height**

Circuits	Order No.	Lead-free
2	78171-0002	Yes
3	78171-0003	
4	78171-0004	
5	78171-0005	

Features and Benefits

- Ultra low profile provides space savings
- Easy vertical mating offers excellent workability in production line
- Multiple mating cycles allows multiple testing cycle
- Assembly suction space on header for stable pick-and-place
- RoHS compliant

Reference Information

Product Specification: PS-78171-010

Packaging: Embossed tape

Mates With: 78172-000X

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 1.5A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

Housing: Black LCP, UL 94V-0

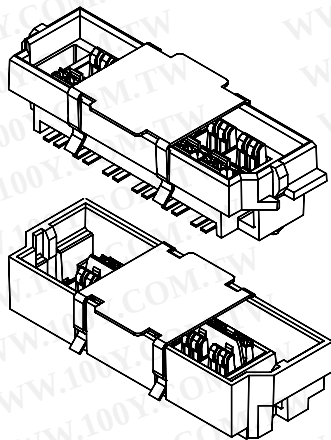
Contact: Copper Alloy

Plating: Gold over Nickel

Fitting Nail: Copper Alloy, Tin over Nickel plating

1.20mm (.047") Pitch Plateau HS Mezz™ High Speed Mezzanine Connectors

75003/75005 Plug, Receptacle



Features and Benefits

- Metal-plated plastic housing provides shielding for very low crosstalk and signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Multiple stack heights from 10.00 to 25.00mm (.394 to .984") to meet nearly every parallel board to board requirement
- SMT tails for reflow processing and to minimize via effects on signal clarity
- Contacts on 1.20mm (.047") centerline pitch arranged in isolated differential pairs on 3.50mm (.138") pitch for isolated high-speed signaling
- RoHS compliant

Reference Information

Product Specification: PS-75003
Packaging: Tape and Reel or Tube
UL File No.: E29179
CSA File No.: LR19980

Electrical

Voltage: 30V DC
Current: 1.5A max.
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1,000 Megohms min.
Impedance: 100 ± 10 ohms at 50psec risetime (differential)

Mechanical

Mating Force: 2.0N (.45lb) max. per circuit
Unmating Force: 0.9N (.20lb) min. per circuit
Durability: 100 cycles

Physical

Housing: Liquid Crystal Polymer
Contact: Copper Alloy
Plating: Contact Area—0.76mm (30μ") Select Gold
Solder Tail Area—Tin
Underplating: 3.81mm (150μ") min. Tin over 1.27mm (50μ") min. Nickel overall

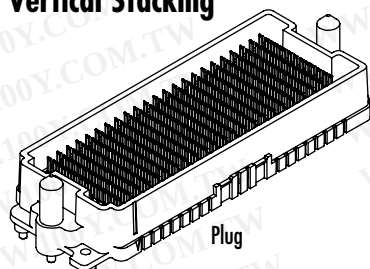
Plug

Offset Height	6 Pair	12 Pair	24 Pair	36 Pair	Lead-free
5.5mm (.216")	75003-0305	75003-0005	75003-0105	75003-0205	Yes
8.5mm (.335")	75003-0308	75003-0008	75003-0108	75003-0208	
10.5mm (.413")	75003-0310	75003-0010	75003-0110	75003-0210	

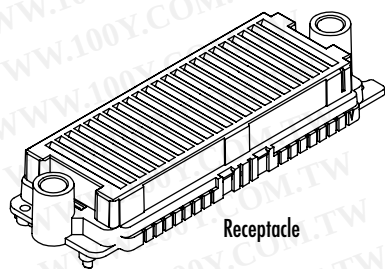
Receptacle

Offset Height	6 Pair	12 Pair	24 Pair	36 Pair	Lead-free
4.5mm (.177")	75005-0304	75005-0004	75005-0104	75005-0204	Yes
6.5mm (.256")	75005-0306	75005-0006	75005-0106	75005-0206	
14.5mm (.571")	75005-0314	75005-0014	75005-0114	75005-0214	

1.20 x 2.00mm (.047 x .079") Pitch HD Mezz™ Board-to-Board Plug and Receptacle

45830/45802
**SMT, Pin Field
Vertical Stacking**


Plug



Receptacle

Features and Benefits

- RoHS Compliant solder charge for SMT
- Dual contact interface points
- Guide pins for gross alignment
- 16mm to 36mm mated heights
- 117 to 403 circuits available

Reference Information

Product Specification: PS-45802-001

Packaging: Tray

Designed In: Millimeters

Electrical

Voltage: 250 VAC per contact

Current: 2.0A per contact

Contact Resistance: 25 milliohms nom.

Dielectric Withstanding Voltage: 500 VDC

Insulation Resistance: 5000 Megohms minimum
across wafers, 1000 within

Mechanical

Mating Force: 51g nom. per contact

Unmating Force: 25g nom. per contact

Normal Force: 51g nom. per contact

Durability: 100 cycles

Physical

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

Contact: Copper Alloy

Plating: Contact Area—0.75µm Gold min.

Solder Tail Area—2.50µm Tin min.

Underplating—1.25µm Nickel overall

Circuits	Order No.	Height	Description	Lead-free
143	45802-0311	8.00mm (.315")	Receptacle	Yes
195	45802-0215			
299	45802-0223			
351	45802-0227			
299	45802-2223	10.00mm (.393")		
143	45802-1211	18.00mm (.709")		
299	45802-1223			
325	45802-1225			

Circuits	Order No.	Height	Description	Lead-free
195	45830-0215	8.00mm (.315")	Plug	Yes
299	45830-0223			
351	45830-0227			
299	45830-3223	9.00mm (.355")		
143	45830-2211	10.00mm (.393")		
299	45830-2223			
325	45830-2225			
143	45830-1211	18.00mm (.709")		

Notes:

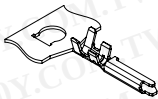
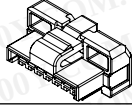
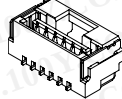
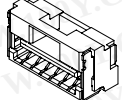
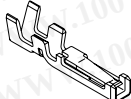
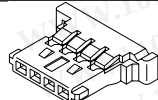
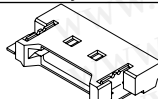
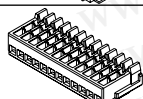
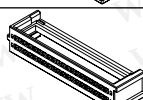
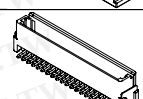
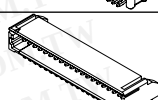
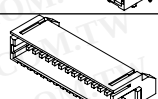
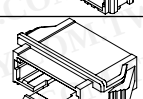
1) Plug and receptacle heights should be added together to obtain mated stack heights

2) Please contact Molex for other circuit sizes and mated stack heights

3) Please contact Molex for HD Mezz™ parts with Tin/Lead solder charges

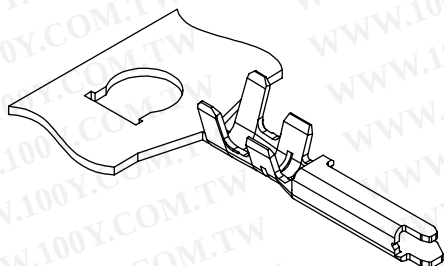
1.25mm (.049") Pitch

A

Pitch	Series		Tradename	Description	Unmated Height
1.25mm (.049")	502381		CLIK-Mate™	Crimp Terminal	
	502380			Housing	
	502382			Receptacle	
	502386			Receptacle	
	50641		PanelMate™	Female Crimp Terminal	
	51146			Housing	Ultra Low
	53780			Header	1.90mm (.075")
	54596		Mini Mi 11™	IDT Receptacle	
	54597			Clip	
	55450			Header	6.75mm (.266")
	55454			Header	
	55456			Header	4.50mm (.177")
	55482			Adapter	

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

1.25mm (.049") Pitch CLIK-Mate™ Wire-to-Board Crimp Terminal

502381**For Single Row
Housings**

Order No.	Lead-free
502381-0000	Yes

Reference Information

Product Specification: PS-502382-001

Packaging: Reel

Use With: 502380 housing

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 1.0A max.

Physical

Contact: Copper Alloy

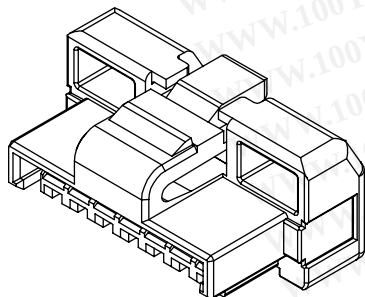
Plating: Tin over Nickel

Insulation Diameter: 1.0mm dia. max.

Strip Length: 1.50 to 1.70 mm

Wire Gauge: 26 to 28 AWG

1.25mm (.049") Pitch CLIK-Mate™ Wire-to-Board Housing

502380**Single Row
Positive Lock****Features and Benefits**

- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing

Reference Information

Product Specification: PS-502382-001

Packaging: Bag

Mates With: 502382, 502386

Use With: 502381 terminal

Designed In: Millimeters

Electrical

Voltage: 50V max.

Current: 1.0A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

Housing: White PBT, UL 94V-0

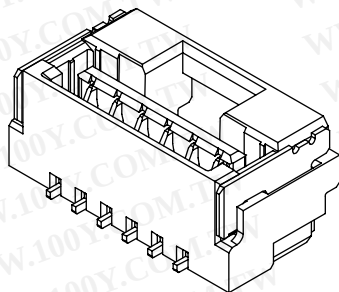
Circuits	Order No.	Lead-free
2	502380-0200	Yes
3	502380-0300	
4	502380-0400	
5	502380-0500	
6	502380-0600	
7	502380-0700	
8	502380-0800	

Note: 2-7 circuits has single lock (shown above) and 8-15 circuits has dual locks. See drawings for details.

Circuits	Order No.	Lead-free
9	502380-0900	Yes
10	502380-1000	
11	502380-1100	
12	502380-1200	
13	502380-1300	
14	502380-1400	
15	502380-1500	

1.25mm (.049") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502382
Single Row
Vertical



Features and Benefits

- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention
- Flat area for pick-and-place is provided

Reference Information

Product Specification: PS-502382-001
Packaging: Embossed tape
Mates With: 502380
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

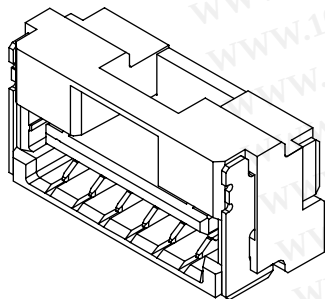
Circuits	Order No.	Lead-free
2	502382-0270	Yes
3	502382-0370	
4	502382-0470	
5	502382-0570	
6	502382-0670	
7	502382-0770	
8	502382-0870	

Note: 2-7 circuits has single lock (shown above) and 8-15 circuits has dual locks. See drawings for details.

Circuits	Order No.	Lead-free
9	502382-0970	Yes
10	502382-1070	
11	502382-1170	
12	502382-1270	
13	502382-1370	
14	502382-1470	
15	502382-1570	

1.25mm (.049") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502386
Single Row
Right Angle



Features and Benefits

- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention
- Flat area for pick-and-place is provided

Reference Information

Product Specification: PS-502382-001
Packaging: Embossed tape
Mates With: 502380
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

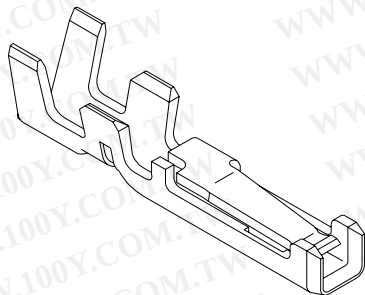
Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
2	502386-0270	Yes
3	502386-0370	
4	502386-0470	
5	502386-0570	
6	502386-0670	
7	502386-0770	
8	502386-0870	

Note: 2-7 circuits has single lock (shown above) and 8-15 circuits has dual locks. See drawings for details.

Circuits	Order No.	Lead-free
9	502386-0970	Yes
10	502386-1070	
11	502386-1170	
12	502386-1270	
13	502386-1370	
14	502386-1470	
15	502386-1570	

1.25mm (.049") Pitch PanelMate™ Wire-To-Board Crimp Terminal 50641



Order No.	Packaging	Lead-free
50641-8041	Reel	Yes
50641-8141	Bag	

Features and Benefits

- Box-style contact design provides protection and secure mating force
- Locking tang latches into housing window

Reference Information

Use With: 51146

Designed In: Millimeters

Electrical

Voltage: 125V max.

Current: 1.0A max.

Physical

Contact: Phosphor Bronze

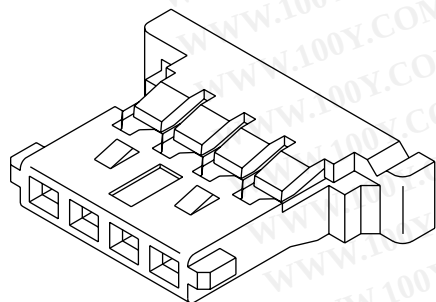
Plating: Gold over Nickel

Wire Range: 28 to 30 AWG

Insulation Diameter: 0.50 to 0.90mm (.020 to .035") max.

Strip Length: 1.3 to 1.7mm

1.25mm (.049") Pitch PanelMate™ Wire-to-Board Housing 51146 Ultra Low Profile



Features and Benefits

- Sizes 2 to 20 circuits
- Very thin design (1.80mm)
- Housing lance provides extra terminal retention
- Friction lock provides secure mating
- Polarized design

Reference Information

Product Specification: PS-51146-010

Packaging: Bag

Use With: 50641 terminal

Mates With: 53780

Designed In: Millimeters

Electrical

Voltage: 125V max.

Current: 1.0A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

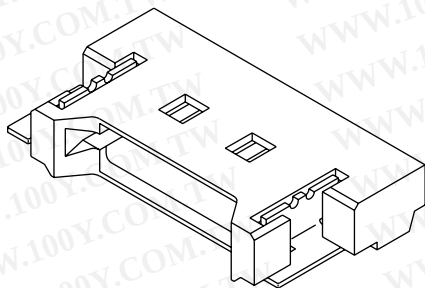
Housing: PBTP, UL 94V-0

Circuits	Order No.
2	51146-0200
3	51146-0300
4	51146-0400
5	51146-0500
6	51146-0600
7	51146-0700
8	51146-0800

Circuits	Order No.
9	51146-0900
12	51146-1200
14	51146-1400
15	51146-1500
18	51146-1800
20	51146-2000

1.25mm (.049") Pitch PanelMate™ Wire-to-Board Header

53780
Right Angle, SMT
1.90mm (.075") Profile



Features and Benefits

- Sizes 2 to 20 circuits
- Ultra low mating profile of 1.90mm (.075")
- Durable blade-type pins protect against damage during mating
- Metal solder tabs provide PCB retention and strain relief for SMT tails
- Solder-conducting fillet SMT tail design helps ensure stable solder joints
- Fully-shrouded anti-flux wicking design protects contacts during soldering and cleaning processes

Reference Information

Product Specification: PS-51146-010
Packaging: Embossed tape
Mates With: 51146
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

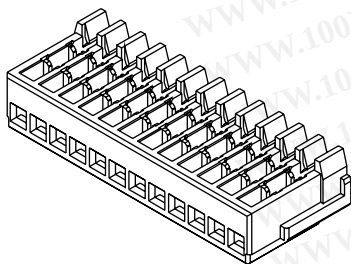
Circuits	Order No.	Lead-free
2	53780-0270	Yes
3	53780-0370	
4	53780-0470	
5	53780-0570	
6	53780-0670	
7	53780-0770	
8	53780-0870	

Circuits	Order No.	Lead-free
9	53780-0970	Yes
12	53780-1270	
14	53780-1470	
15	53780-1570	
18	53780-1870	
20	53780-2070	

www.molex.com/product/micro/pnlmate.html

1.25mm (.049") Pitch Mini Mi II™ System Wire-to-Board Receptacle

54596
Single Row
IDT



Features and Benefits

- Sizes 2 to 20 circuits
- IDT provides secure and cost-effective termination
- Contact design protects header pins during mating/unmating
- Housing length designed for easy handling
- IDT guide slots facilitate wire placement
- Side ribs provide polarization and locking to clip

Reference Information

Packaging: Bag
Mates With: 55450, 55454, 55456, 55482, 55447
Use With: 54597 clip for dual-row applications
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

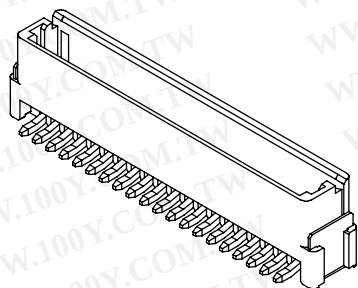
Physical

Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 26 to 28 AWG
Insulation Range: 0.80 to 0.90mm (.031 to .035") dia.

Circuits	Order No.	Lead-free
2	54596-0210	Yes
3	54596-0310	
4	54596-0410	
5	54596-0510	
6	54596-0610	
7	54596-0710	
8	54596-0810	

Circuits	Order No.	Lead-free
9	54596-0910	Yes
10	54596-1010	
11	54596-1110	
12	54596-1210	
13	54596-1310	
14	54596-1410	
15	54596-1510	

Circuits	Order No.	Lead-free
16	54596-1610	Yes
17	54596-1710	
18	54596-1810	
19	54596-1910	
20	54596-2010	

1.25mm (.049") Pitch**Mini Mi II™****Wire-to-Board
Header****55450****SMT, Single Row
Vertical****Features and Benefits**

- Sizes 2 to 20 circuits
- Friction lock provides secure mating
- Polarized inner walls provide correct mating orientation

Reference Information

Product Specification: PS-54596-022

Packaging: Embossed tape

Mates With: 54596

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 1.5A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

Housing: Nylon, UL 94V-0

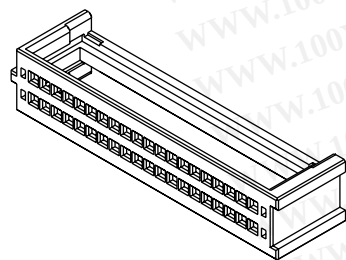
Contact: Brass

Plating: Tin

Fitting Nail: Brass, Tin plating

Circuits	Order No.	Lead-free
2	55450-0269	Yes
3	55450-0369	
5	55450-0569	
6	55450-0669	
7	55450-0769	
8	55450-0869	
10	55450-1069	
11	55450-1169	

Circuits	Order No.	Lead-free
12	55450-1269	Yes
13	55450-1369	
14	55450-1469	
15	55450-1569	
16	55450-1669	
18	55450-1869	
20	55450-2069	

1.25mm (.049") Pitch**Mini Mi II™ System****Clip****54597****Dual Row****Features and Benefits**

- Sizes 10 to 40 circuits
- Joins two single row receptacles (54596)
- Polarized to ensure correct mating orientation
- Locking feature ensures secure receptacle retention

Reference Information

Product Specification: PS-55659-005, PS-54596-007

Packaging: Bag

Mates With: 55659, 55451

Use With: 54596

Designed In: Millimeters

Physical

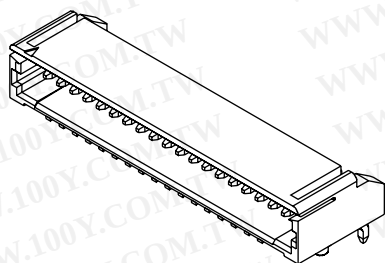
Housing: Nylon, UL 94V-0

Circuits	Order No.	Lead-free
10	54597-1000	Yes
12	54597-1200	
14	54597-1400	
16	54597-1600	
18	54597-1800	
20	54597-2000	

Circuits	Order No.	Lead-free
22	54597-2200	Yes
24	54597-2400	
26	54597-2600	
28	54597-2800	
30	54597-3000	
32	54597-3200	

Circuits	Order No.	Lead-free
34	54597-3400	Yes
36	54597-3600	
38	54597-3800	
40	54597-4000	

1.25mm (.049") Pitch Mini Mi II™ System Wire-to-Board Header

55454
**Single Row
Right Angle**


Features and Benefits

- Sizes 2 to 20 circuits
- Friction lock provides secure mating
- Kinked outer tails for additional PCB retention
- Polarized inner side-walls ensure correct mating orientation
- Extended outer side-walls protect solder tails
- Polarizing pegs assist board placement

Reference Information

Product Specification: PS-54596-018

Packaging: Tray

Mates With: 54596

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 1.5A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

Housing: Nylon, UL 94V-0

Contact: Brass

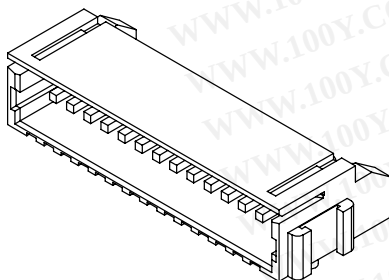
Plating: Tin

Circuits	Order No.	Lead-free
2	55454-0270	Yes
3	55454-0370	
4	55454-0470	
5	55454-0570	
6	55454-0670	
7	55454-0770	
8	55454-0870	

Circuits	Order No.	Lead-free
9	55454-0970	Yes
10	55454-1070	
11	55454-1170	
12	55454-1270	
13	55454-1370	
14	55454-1470	
15	55454-1570	

Circuits	Order No.	Lead-free
16	55454-1670	Yes
17	55454-1770	
18	55454-1870	
19	55454-1970	
20	55454-2070	

1.25mm (.049") Pitch Mini Mi II™ Wire-to-Board Header

55456
SMT, Single Row, Right Angle


Features and Benefits

- Sizes 4 to 20 circuits
- Polarizing pegs assist board placement

Reference Information

Product Specification: PS-54596-022

Packaging: Embossed tape

Mates With: 54596

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 1.5A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

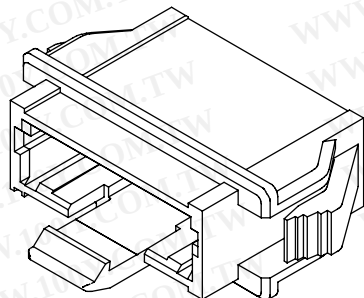
Housing: Nylon, UL 94V-0

Contact: Brass

Plating: Tin

Fitting Nail: Brass, Tin plating

Circuits	Order No.		Lead-free
	With Pegs	Without Pegs	
2		55456-0269	Yes
4	55456-0459	55456-0469	
5	55456-0559	55456-0569	
7	55456-0759	55456-0769	
11	55456-1159	55456-1169	
12		55456-1269	
13	55456-1359	55456-1369	
16	55456-1659	55456-1669	
18	55456-1859	55456-1869	
20	55456-2059	55456-2069	

1.25mm (.049") Pitch**Mini Mi II™****Wire-to-Wire
Adapter****55482****Single Row****Features and Benefits**

- Provides panel-mount method of linking harnesses
- Mounting ears provide good spring characteristics and strong panel retention

Reference Information

Product Specification: PS-55482-006

Packaging: Bag

Use With: 54596

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 1.5A max.

Contact Resistance: 40 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

Housing: Nylon, UL 94V-0

Contact: Brass

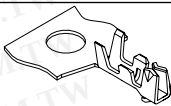
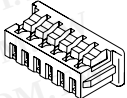
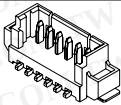
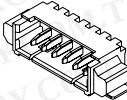
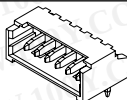
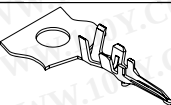
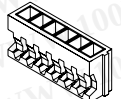
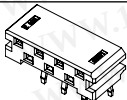
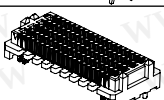
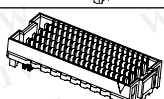
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	55482-0219	Yes
3	55482-0319	
4	55482-0419	
5	55482-0519	
6	55482-0619	
7	55482-0719	
8	55482-0819	
9	55482-0919	
10	55482-1019	
11	55482-1119	

Circuits	Order No.	Lead-free
12	55482-1219	Yes
13	55482-1319	
14	55482-1419	
15	55482-1519	
16	55482-1619	
17	55482-1719	
18	55482-1819	
19	55482-1919	
20	55482-2019	

1.25mm (.049") Pitch

A

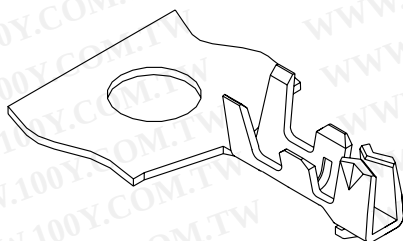
Pitch	Series		Trade Name	Description
1.25mm (.049")	50079/50058		PicoBlade™	Female Crimp Terminal
	51021			Housing
	53398			Header
	53261			Header
	53047			Header
	53048			Header
	50061/50080		Board-In	Crimp Terminal
	51022			Housing
	87871		ZigZag	Receptacle
	87872			Header
1.27 x 1.27mm (.050 x .050")	45970		Searay*	Plug
	45971			Receptacle

*SEARAY is a trademark of Samtec, Inc.

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board and Wire-to-Wire Crimp Terminal

50079/50058
Female



Order No.	Wire Range AWG	Packaging	Lead-free
50079-8000	26 - 28	Reel	Yes
50058-8000	28 - 32		
50079-8100	26 - 28	Bag	
50058-8100	28 - 32		

Features and Benefits

- Locking tang for secure housing retention

Reference Information

Use With: 51021

Designed In: Millimeters

Electrical

Voltage: 125V max.

Current: 1.0A max.

Physical

Contact: Phosphor Bronze

Plating: Tin

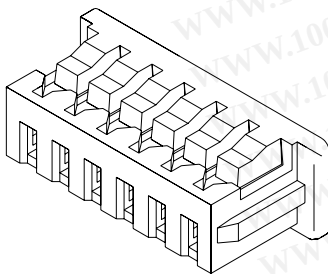
Insulation Range: 50058—1.00mm dia. max.

50079—1.04mm dia. max.

Strip Length: 1.40 to 1.90mm

1.25mm (.049") Pitch PicoBlade™ Wire-to-Wire and Wire-to-Board Receptacle

51021



Features and Benefits

- Sizes 2 to 15 circuits
- Housing lance provides extra terminal retention
- Friction locks provide secure mating

Reference Information

Product Specification: Refer to Mates With items

Packaging: Bag

UL File No.: E29179

CSA File No.: LR19980

Use With: 50079/50058

Mates With: 53398, 53261, 53047, 53048

Designed In: Millimeters

Electrical

Voltage: 125V max.

Current: 1.0A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

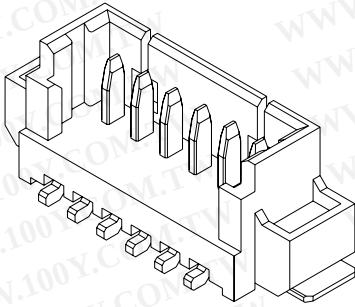
Housing: PBTP, UL 94V-0

Circuits	Order No.
2	51021-0200
3	51021-0300
4	51021-0400
5	51021-0500
6	51021-0600
7	51021-0700
8	51021-0800

Circuits	Order No.
9	51021-0900
10	51021-1000
11	51021-1100
12	51021-1200
13	51021-1300
14	51021-1400
15	51021-1500

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header

53398
Vertical, SMT



Features and Benefits

- Sizes 2 to 15 circuits
- Locking windows provide secure mating
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-51021-024
Packaging: Embossed tape
Mates With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

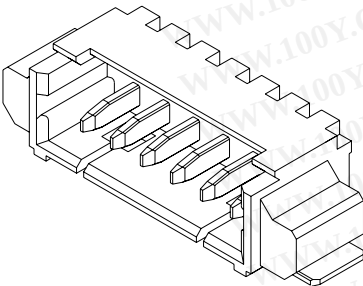
Circuits	Order No.	Lead-free
2	53398-0271	Yes
3	53398-0371	
4	53398-0471	
5	53398-0571	
6	53398-0671	
7	53398-0771	
8	53398-0871	

Note: 53398-XX84 is available with High-Barrier (moisture protection) packaging.

Circuits	Order No.	Lead-free
9	53398-0971	Yes
10	53398-1071	
11	53398-1171	
12	53398-1271	
13	53398-1371	
14	53398-1471	
15	53398-1571	

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header

53261
Right Angle, SMT



Features and Benefits

- Sizes 2 to 15 circuits
- Locking windows provide secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-51021-024
Packaging: Embossed tape
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

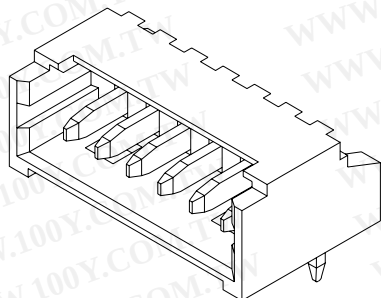
Physical

Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
2	53261-0271	Yes
3	53261-0371	
4	53261-0471	
5	53261-0571	
6	53261-0671	
7	53261-0771	
8	53261-0871	

Circuits	Order No.	Lead-free
9	53261-0971	Yes
10	53261-1071	
11	53261-1171	
12	53261-1271	
14	53261-1471	
15	53261-1571	

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header 53048 Right Angle



Features and Benefits

- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information

Product Specification: PS-51021-010

Packaging: Tray

Mates With: 51021

Designed In: Millimeters

Electrical

Voltage: 125V max.

Current: 1.0A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

Housing: Nylon, UL 94V-0

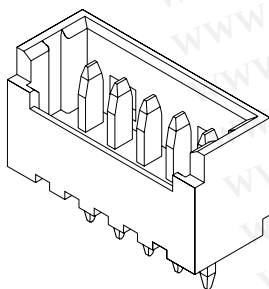
Contact: Phosphor Bronze

Plating: Tin

Circuits	Order No.	Lead-free
2	53048-0210	Yes
3	53048-0310	
4	53048-0410	
5	53048-0510	
6	53048-0610	
7	53048-0710	
8	53048-0810	

Circuits	Order No.	Lead-free
9	53048-0910	Yes
10	53048-1010	
11	53048-1110	
12	53048-1210	
13	53048-1310	
14	53048-1410	
15	53048-1510	

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header 53047 Vertical



Features and Benefits

- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information

Product Specification: PS-51021-010

Packaging: Tray

Mates With: 51021

Designed In: Millimeters

Electrical

Voltage: 125V max.

Current: 1.0A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

Insulation Resistance: 100 Megohms min.

Physical

Housing: Nylon, UL 94V-0

Contact: Phosphor Bronze

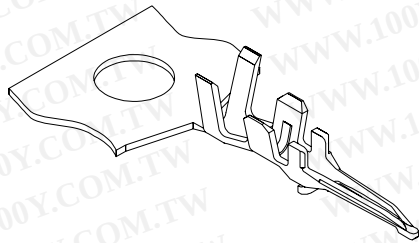
Plating: Tin

Circuits	Order No.	Lead-free
2	53047-0210	Yes
3	53047-0310	
4	53047-0410	
5	53047-0510	
6	53047-0610	
7	53047-0710	
8	53047-0810	

Circuits	Order No.	Lead-free
9	53047-0910	Yes
10	53047-1010	
11	53047-1110	
12	53047-1210	
13	53047-1310	
14	53047-1410	
15	53047-1510	

1.25mm (.049") Pitch Board-In Connector Crimp Terminal

50061/50080



Features and Benefits

- Locking tang secures terminal to housing

Reference Information

Use With: 51022

Designed In: Millimeters

Electrical

Voltage: 125V max.

Current: 1.0A max.

Physical

Contact: Phosphor Bronze

Plating: Tin

Insulation Range: 1.00mm dia. max.

Strip Length: 1.40 to 1.90mm

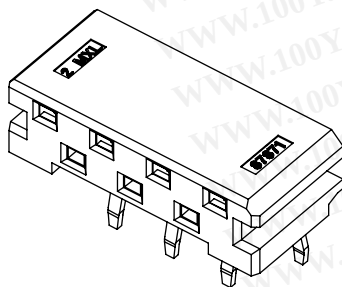
Order No.	Wire Range AWG	Packaging	Lead-free
50061-8000	28-32	Reel	Yes
50080-8000	26-28		
50061-8100	28-32	Bag	
50080-8100	26-28		

www.molex.com/product/board_in.html

1.25mm (.049") Pitch Board-to-Board ZIGZAG Receptacle

87871

With Friction Lock



Features and Benefits

- Sizes 3 to 23 circuits
- Kinked solder tails provide retention to the PCB
- Polarization to ensure proper mating
- Friction lock provides passive lock to mating connector
- Tape and reel packaging options available

Reference Information

Product Specification: PS-87871-006

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

Mates With: 87872

Designed In: Millimeters

Electrical

Voltage: 125V

Current: 2.0A

Contact Resistance: 40 milliohms max.

Dielectric Withstanding Voltage: 500V AC / 1 min.

Insulation Resistance: 1000 Megohms min.

Physical

Housing: Glass-filled nylon, UL94V-0

Contact: Phosphor Bronze

Plating: Tin

PCB Thickness: 1.60mm

Circuits	Order No.	Lead-free
3	87871-2203	Yes
5	87871-2205	
7	87871-2207	
9	87871-2209	
11	87871-2211	
13	87871-2213	
15	87871-2215	
17	87871-2217	
19	87871-2219	
21	87871-2221	
23	87871-2223	

www.molex.com/customer.html?seriesNumber=87871

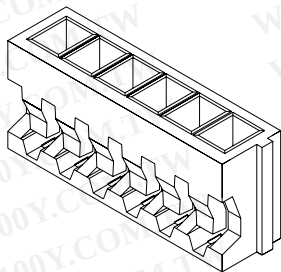


MX10 A-53

A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

1.25mm (.049") Pitch Board-In Connector Housing

51022


Circuits	Order No.
2	51022-0200
3	51022-0300
4	51022-0400
5	51022-0500
6	51022-0600

Features and Benefits

- Sizes 2 to 6 circuits
- Low profile of 3.50mm (.138")
- Locking window secures terminal to housing

Reference Information

Product Specification: PS-51022-001

Packaging: Bag

Use With: 50061/50080

Designed In: Millimeters

Electrical

Voltage: 125V max.

Current: 1.0A max.

Contact Resistance: 5 milliohms max.

Dielectric Withstanding Voltage: 250V AC/1 min.

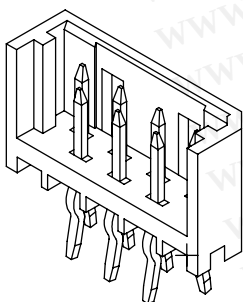
Insulation Resistance: 100 Megohms min.

Physical

Housing: Polyester, UL 94V-0

www.molex.com/product/board_in.html

1.25mm (.049") Pitch Board-to-Board ZIGZAG Header

87872
With Friction Lock


Circuits	Order No.	Lead-free
3	87872-1103	Yes
5	87872-1105	
7	87872-1107	
9	87872-1109	
11	87872-1111	
13	87872-1113	
15	87872-1115	
17	87872-1117	
19	87872-1119	
21	87872-1121	
23	87872-1123	

Features and Benefits

- Sizes 3 to 23 circuits
- Kinked solder tails provide retention to the PCB
- Polarization to ensure proper mating
- Friction lock provides passive lock to mating connector

Reference Information

Product Specification: PS-87871-006

Packaging: Tube

UL File No.: E29179

CSA File No.: LR19980

TUV File No.:

Mates With: 87871

Designed In: Millimeters

Electrical

Voltage: 125V

Current: 2.0A

Contact Resistance: 40 milliohms max.

Dielectric Withstanding Voltage: 500V AC / 1 min.

Insulation Resistance: 1000 Megohms min.

Physical

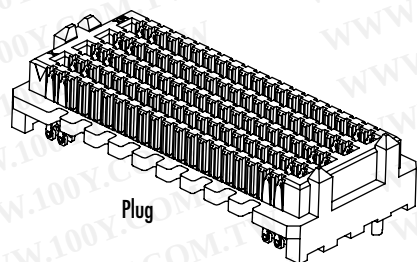
Housing: Glass-filled nylon, UL94V-0

Contact: Brass

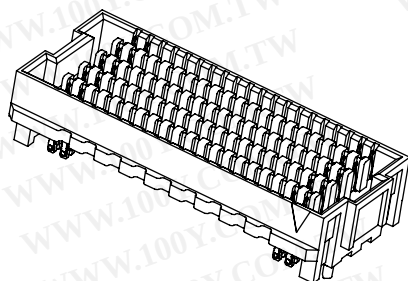
Plating: Tin

PCB Thickness: 1.60mm

**1.27 x 1.27mm
(.050 x .050") Pitch
SEARAY*
Board-to-Board
Plug and Receptacle
45970/45971
SMT, Pin Field
Vertical Stacking**



Plug



Receptacle

Features and Benefits

- RoHS Compliant solder charge for SMT
- Recessed contacts prevent stubbing
- Guide beams for gross alignment
- 7.00 to 13.00mm (.276 to .512") mated heights
- 100 to 500 circuits available

Reference Information

Product Specification: PS-45970-001

Packaging: Tray

Designed In: Inches

Electrical

Voltage: 250V AC

Current: 1.0A

Contact Resistance: 25 milliohms nom.

Dielectric Withstanding Voltage: 500V DC

Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: 50g max.

Unmating Force: 30g max.

Normal Force: 82g max.

Durability: 100 cycles

Physical

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

Contact: Copper Alloy

Plating: Contact Area—0.75µm Gold min.

Solder Tail Area—3.80µm Tin min.

Underplating—1.25µm Nickel min. overall

Circuits	Order No.	Description	Lead-free
114	45970-9111	Plug	Yes
200	45970-2311		
400	45970-4111 45970-4311		

Circuits	Order No.	Description	Lead-free
114	45971-9111	Receptacle	Yes
200	45971-2311		
400	45971-4111 45971-4411		

Notes:

1) Refer to the product sales drawing for mated stack height options

2) Please contact Molex for other circuit sizes, mated stack heights and no peg options

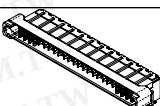
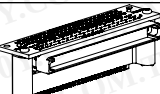
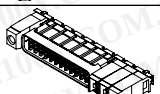
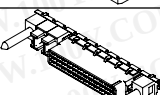
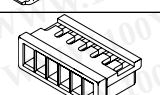
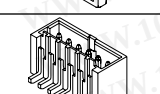
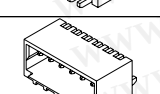
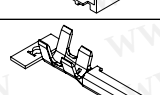
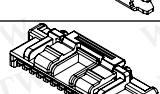
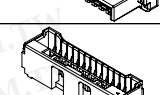
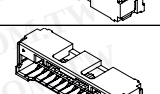
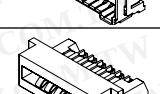
3) Please contact Molex for SEARAY parts with Tin/Lead solder charges

*SEARAY is a trademark of Samtec, Inc.

1.50mm (.059")–1.60mm (.062") Pitch

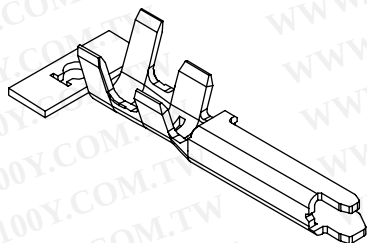
0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

A

Pitch	Series		Tradename	Description
1.50mm (.059")	75018		Plateau HS Dock™	Plug
	75019			Receptacle
	75140			Plug
	75126			Interposer Plug
	75475		Plateau HS Dock™ PG	Plug
	75476			Receptacle
	87421		Pico-SPOX™	Female Crimp Terminal
	87439			Housing
	87437			Header
	87438			Header
	502579		CLIK-Mate™	Crimp Terminal
	502578			Housing
	502584			Receptacle
	502585			Receptacle
1.60mm (.062")	52712			Receptacle

1.50mm (.059") Pitch CLIK-Mate™ Wire-to-Board Crimp Terminal

502579



Order No.	Packaging	Lead-free
502579-0000	Reel	Yes

Reference Information

Product Specification: PS-502584-001

Packaging: Reel

Use With: 502578 housing

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 2.0A max.

Physical

Contact: Copper Alloy

Plating: Tin over Nickel

Insulation Diameter: 1.20mm dia. max.

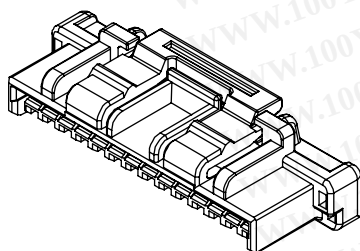
Strip Length: 1.50 to 1.90mm

Wire Gauge: 24 to 28 AWG

1.50mm (.059") Pitch CLIK-Mate™ Wire-to-Board Housing

502578

**Single Row
Positive Lock**



Features and Benefits

- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing

Reference Information

Product Specification: PS-502584-001

Packaging: Bag

Mates With: 502584, 502585

Use With: 502579 terminal

Designed In: Millimeters

Electrical

Voltage: 100V max.

Current: 2.0A max.

Contact Resistance: 20 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 Megohms min.

Physical

Housing: PBT, UL 94V-0

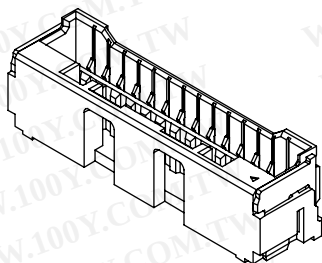
Circuits	Order No.	Lead-free
2	502578-0200	Yes
3	502578-0300	
4	502578-0400	
5	502578-0500	
6	502578-0600	
7	502578-0700	
8	502578-0800	

Note: 2-5 circuits has single lock and 6-15 circuits has dual locks. See drawings for details.

Circuits	Order No.	Lead-free
9	502578-0900	Yes
10	502578-1000	
11	502578-1100	
12	502578-1200	
13	502578-1300	
14	502578-1400	
15	502578-1500	

1.50mm (.059") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502584
Single Row
Vertical



Features and Benefits

- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention

Reference Information

Product Specification: PS-502584-001
Packaging: Embossed tape
Mates With: 502578
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

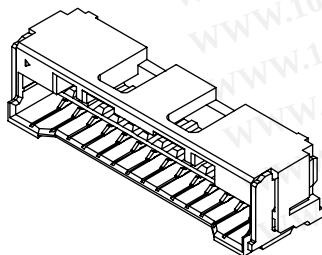
Circuits	Order No.	Lead-free
2	502584-0270	Yes
3	502584-0370	
4	502584-0470	
5	502584-0570	
6	502584-0670	
7	502584-0770	
8	502584-0870	

Note: 2-5 circuits has single lock and 6-15 circuits has dual locks. See drawings for details.

Circuits	Order No.	Lead-free
9	502584-0970	Yes
10	502584-1070	
11	502584-1170	
12	502584-1270	
13	502584-1370	
14	502584-1470	
15	502584-1570	

1.50mm (.059") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502585
Single Row
Right Angle



Features and Benefits

- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention
- Flat area for pick-and-place is provided

Reference Information

Product Specification: PS-502584-001
Packaging: Embossed tape
Mates With: 502578
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
2	502585-0270	Yes
3	502585-0370	
4	502585-0470	
5	502585-0570	
6	502585-0670	
7	502585-0770	
8	502585-0870	

Note: 2-5 circuits has single lock and 6-15 circuits has dual locks. See drawings for details.

Circuits	Order No.	Lead-free
9	502585-0970	Yes
10	502585-1070	
11	502585-1170	
12	502585-1270	
13	502585-1370	
14	502585-1470	
15	502585-1570	

1.50mm (.059") Pitch Plateau HS Dock™ High Speed Docking Connectors

75018/75019/75140

**Right Angle Plug
Right Angle Receptacle
Vertical Plug**

Features and Benefits

- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Various offset heights (from top of PCB) provide application design flexibility
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information

Product Specification: PS-75018-001
Packaging: Tray
UL File No.: E29179
CSA File No.: 1373502
Designed In: Millimeters

Electrical

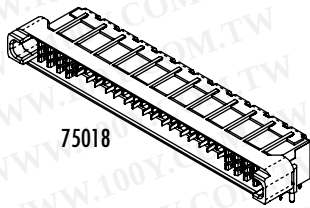
Voltage: 12V DC
Current: 2.75A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1,000 Megohms min.

Mechanical

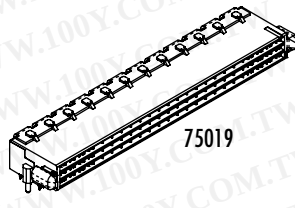
Insertion Force to PCB: 35N max. per compliant pin
Retention Force to PCB: 9N max. per compliant pin
Mating Force: 80N max.
Unmating Force: 20N min.
Durability: 100 cycles

Physical

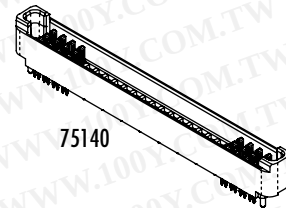
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—30μ" min. Select Gold
Tail Area—Tin/Lead
Underplating: Nickel
PCB Thickness: 1.80mm (.071")



75018



75019



75140

Right Angle Plug

Circuits	Order No.	Centerline Height	Height	Length	Lead-free
144	75018-0021	4.74 (.187)	9.78 (.385)	96.50 (3.799)	RoHS compliant by exemption
	75018-0022	5.74 (.226)	10.78 (.424)		
	75018-0023	8.74 (.334)	13.78 (.543)		
108	75018-0024	4.74 (.187)	9.78 (.385)	75.50 (2.972)	
	75018-0025	8.74 (.334)	13.78 (.543)		
120	75018-0026	4.74 (.187)	9.78 (.385)	82.50 (3.248)	
108	75018-0027	5.74 (.226)	10.78 (.424)	75.50 (2.972)	
120	75018-0029			82.50 (3.248)	

Right Angle Receptacle

Circuits	Order No.	Centerline Height	Height	Length	Lead-free
108	75019-0013	4.74 (.187)	9.98 (.393)	72.50 (2.854)	RoHS compliant by exemption
120	75019-0014			79.50 (3.130)	
144	75019-0015			93.50 (3.681)	
	75019-0016	6.09 (.240)	11.33 (.446)	72.50 (2.854)	
108	75019-0017				

Vertical Plug

Circuits	Order No.	Centerline Height	Height	Length	Lead-free
144	75140-0012	N / A	10.07 (.396)	96.50 (3.799)	RoHS compliant by exemption

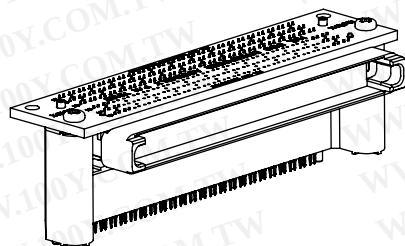
A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

1.50mm (.059") Pitch Plateau HS Dock™ High Speed Docking Connectors Interposer Plug

75126

Elevated, Right Angle



Features and Benefits

- Plateau HS Dock plug raised to stack above a standard, right angle plug on the PCB
- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information

Product Specification: PS-75018-001

Packaging: Tray

UL File No.: E29179

CSA File No.: 1373502

Designed In: Millimeters

Electrical

Voltage: 12V DC

Current: 2.75A

Contact Resistance: 30 milliohms max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1,000 Megohms min.

Mechanical

Insertion Force to PCB: 35N max. per compliant pin

Retention Force to PCB: 9N max. per compliant pin

Mating Force: 80N max.

Unmating Force: 20N min.

Durability: 100 cycles

Physical

Housing: Liquid Crystal Polymer, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area—30µ" min. Select Gold

Tail Area—Tin/Lead

Underplating: Nickel

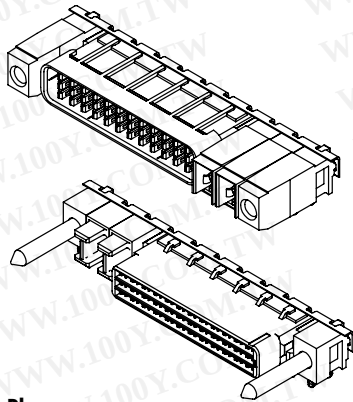
PCB Thickness: 1.80mm (.071")

Circuits	Order No.	Centerline Height	Total Height	Total Length	Lead-free
144	75126-1003	24.26 (.955)	32.80 (1.291)	111.50 (4.390)	RoHS compliant by exemption
	75126-2001	20.26 (.798)			

1.50mm (.059") Pitch Plateau HS Dock™ PG (Power and Guide) High Speed Docking Connectors

75475/75476

**Right Angle Plug
Right Angle Receptacle**



Plug

Circuits	Order No.	No. of Power Modules	No. of Guide Modules	Total Length	Lead-free
72	75475-1004	2	2	79.50 (3.130)	RoHS compliant by exemption
			*Orientation: Guide—72 signal—2 power—Guide		
144	75475-1005	6	2	156.50 (6.161)	
			*Orientation: Guide—72 signal—2 power—72 signal—2 power—Guide—2 power		
108	75475-1006	3	2	107.5 (4.232)	
			Orientation: Guide—3 power—108 signal—Guide		
144	75475-1007	2	2	121.5 (4.783)	
			Orientation: Guide—2 power—144 signal—Guide		
108	75475-1008	3	2	107.5 (4.232)	
			Orientation: Guide—3 power—108 signal—Guide		

Receptacle

Circuits	Order No.	No. of Power Modules	No. of Guide Modules	Total Length	Lead-free
72	75476-1004	2	2	79.50 (3.130)	RoHS compliant by exemption
			*Orientation: Guide—72 signal—2 power—Guide		
144	75476-1005	6	2	156.50 (6.161)	
			*Orientation: 2 power—Guide—2 power—72 signal—2 power—72 signal—Guide		
108	75476-1006	3	2	107.5 (4.232)	
			*Orientation: Guide—108 signal—3 power—Guide		
144	75476-1007	2	2	121.5 (4.783)	
			*Orientation: Guide—144 signal—2 power—Guide		
108	75476-1008	3	2	107.5 (4.232)	Yes
			*Orientation: Guide—108 signal—3 power—Guide		

* Orientation is associated from the inter-mating face, moving left to right

Features and Benefits

- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Robust guide pins to aid in blind mating
- Separate power modules to carry currents of up to 20.0A
- Rigid stiffener holds modules in place for customer specific configurations
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information

Product Specification: PS-75018-001

Packaging: Tray

UL File No.: E29179

CSA File No.: 1373502

Designed In: Millimeters

Electrical

Voltage: 12V DC

Current (signal wafer): 2.75A

Current (power module): 20A

Contact Resistance: 30 milliohms max.

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance: 1,000 Megohms min.

Mechanical

Insertion Force to PCB: 35N max. per compliant pin

Retention Force to PCB: 9N max. per compliant pin

Mating Force: 80N max.

Unmating Force: 20N min.

Durability: 100 cycles

Physical

Housing: Liquid Crystal Polymer, UL 94V-0

Contact: Copper Alloy

Plating: Contact Area—30μ" min. Select Gold

Tail Area—Tin/Lead

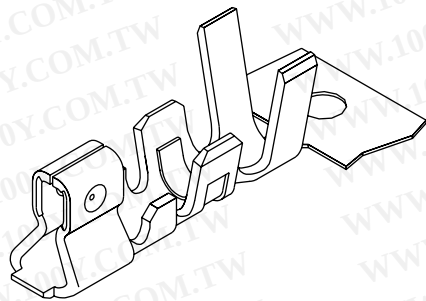
Underplating: Nickel

PCB Thickness: 1.80mm (.071")

A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Crimp Terminal 87421



Order No.	Lead-free
87421-0000	Yes

Features and Benefits

- Low profile
- Locking tang snaps into housing window for secure retention
- Dual-point contact design
- Anti-fishhooking box design protects contact area

Reference Information

Packaging: Reel
Wire Style: UL1061
CSA File No.: LR19980A
Use With: 87439 housing
Designed In: Millimeters

Electrical

Voltage: 30V max.

Current:

AWG	24	26
	3.0A	2.0A

Contact Resistance: 40 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

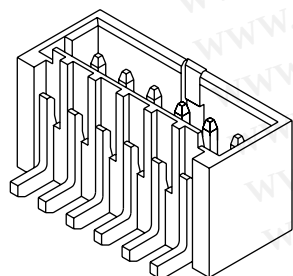
Contact: Phosphor Bronze

Plating: Tin

Wire Range: 24, 26, 28, 30 AWG

Insulation Diameter: 1.10mm dia. max.

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Header 87437



Features and Benefits

- Sizes 2 to 15 circuits
- Compact, low-profile SMT design
- Fully shrouded to protect pins during mating/unmating
- Center keyway for secure connection to housing
- One-piece mating post and SMT tail provides coplanarity control and large soldering area
- High-temperature material withstands reflow soldering

Reference Information

Product Specification: PS-87437
Packaging: Tube or tape and reel
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87439 housing
Designed In: Millimeters

Electrical

Voltage: 350V max.

Current: 3.0A max.

Contact Resistance: 40 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 1000 Megohms min.

Physical

Housing: Beige glass-filled Nylon, UL 94V-0

Contact: Brass Alloy

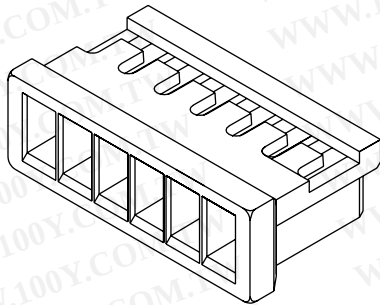
Plating: Tin over Nickel

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
2	87437-0242	87437-0243	Yes
3	87437-0342	87437-0343	
4	87437-0442	87437-0443	
5	87437-0542	87437-0543	
6	87437-0642	87437-0643	
7	87437-0742	87437-0743	
8	87437-0842	87437-0843	

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
9	87437-0942	87437-0943	Yes
10	87437-1042	87437-1043	
11	87437-1142	87437-1143	
12	87437-1242	87437-1243	
13	87437-1342	87437-1343	
14	87437-1442	87437-1443	
15	87437-1542	87437-1543	

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Housing

87439



Features and Benefits

- Sizes 2 to 15 circuits
- Standard with center locking ramp
- Locking windows secure terminal to housing
- Lead-in chamfer facilitates mating

Reference Information

Product Specification: PS-87437
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87437 and 87438 headers
Use With: 87421 crimp terminal
Designed In: Millimeters

Physical

Housing: Nylon, UL 94V-0

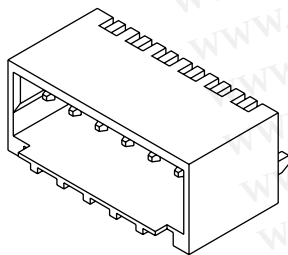
Circuits	Order No.
2	87439-0200
3	87439-0300
4	87439-0400
5	87439-0500
6	87439-0600
7	87439-0700
8	87439-0800

Circuits	Order No.
9	87439-0900
10	87439-1000
11	87439-1100
12	87439-1200
13	87439-1300
14	87439-1400
15	87439-1500

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Header

87438

**Right Angle, SMT
Shrouded**



Features and Benefits

- Sizes 2 to 15 circuits
- Compact, low-profile SMT design
- Fully shrouded to protect pins during mating/unmating
- Center keyway for secure connection to housing
- One-piece mating post and SMT tail provides coplanarity control and large soldering area
- High-temperature material withstands reflow soldering

Reference Information

Product Specification: PS-87437
Packaging: Tube or tape and reel
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87439 housing
Designed In: Millimeters

Electrical

Voltage: 350V max.
Current: 3.0A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

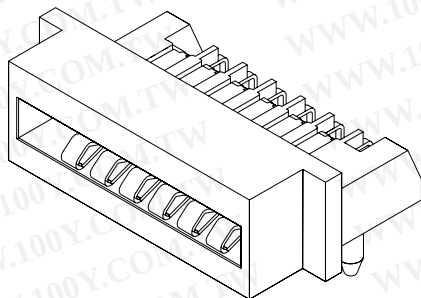
Physical

Housing: Beige glass-filled Nylon, UL 94V-0
Contact: Brass Alloy
Plating: Tin over Nickel

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
2	87438-0242	87438-0243	Yes
3	87438-0342	87438-0343	
4	87438-0442	87438-0443	
5	87438-0542	87438-0543	
6	87438-0642	87438-0643	
7	87438-0742	87438-0743	
8	87438-0842	87438-0843	

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
9	87438-0942	87438-0943	Yes
10	87438-1042	87438-1043	
11	87438-1142	87438-1143	
12	87438-1242	87438-1243	
13	87438-1342	87438-1343	
14	87438-1442	87438-1443	
15	87438-1542	87438-1543	

1.60mm (.063") Pitch Board-to-Board Receptacle

52712**Right Angle
Detachable**

Circuits	Order No.	Lead-free
12	52712-1219	Yes

Features and Benefits

- Size 12 circuits
- Pull tab on housing for easy mating/unmating
- PCB locking pegs

Reference Information

Mates With: 53440 plug

Designed In: Millimeters

Electrical

Voltage: 125V

Current: 1.0A max.

Contact Resistance: 35 milliohms max.

Dielectric Withstanding Voltage: 500V AC/1 min.

Insulation Resistance: 500 Megohms min.

Physical

Housing: PBT, UL 94V-0

Contact: Phosphor Bronze

Plating: Gold on contacts and Tin on solder tails