

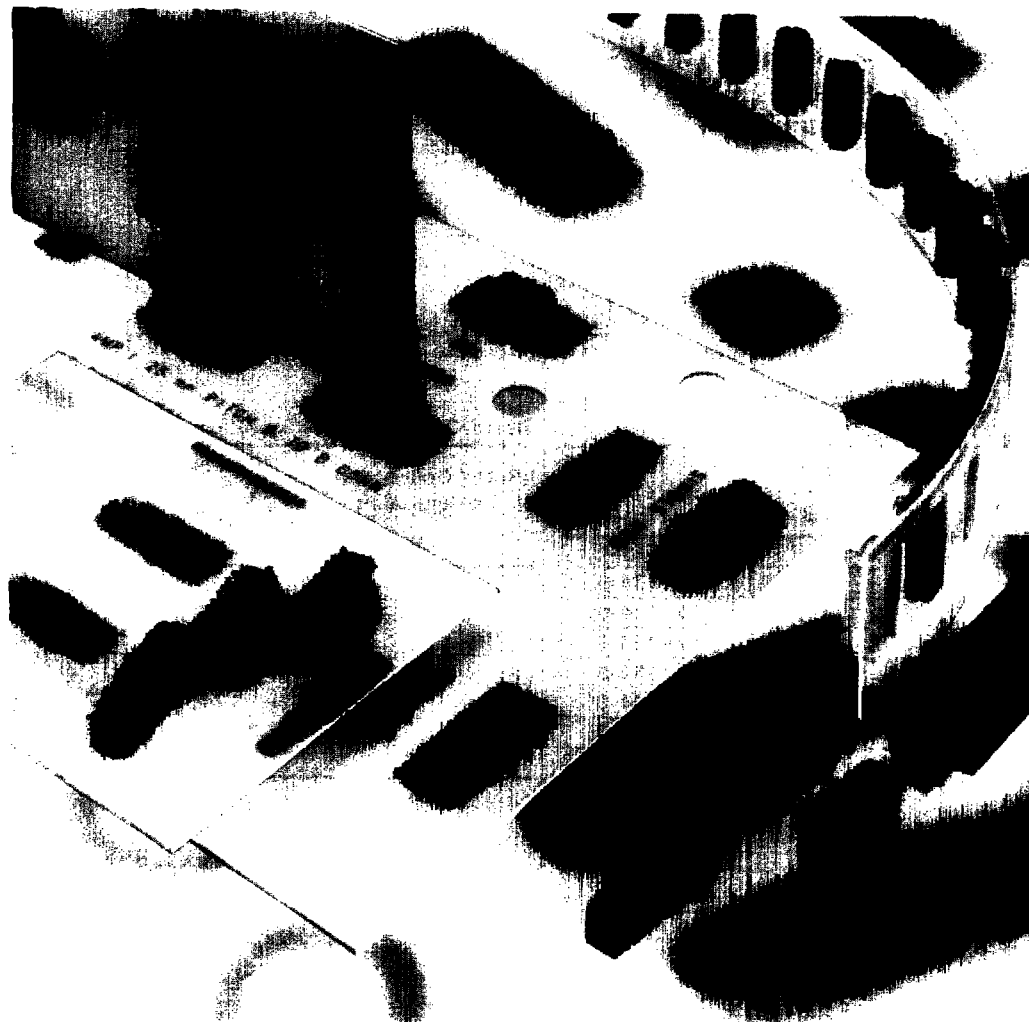
Board to Board Connectors

AMP 1.25mm F-P Board-to-Board Connectors

Features

- Economical board-to-board interconnection connector of ultra-lightweight and ultra-thin construction.
- Single-row and dual-row versions available, enabling either parallel or right-angle interconnection of boards by way of receptacle header mating with post header.
- Loose-piece and reel-mounted products for automatic board packaging.
- Accepts 0.6-to 0.8mm-thick glass-epoxy boards.
- Two mounting styles — solder dip-mounting and SMT (surface-mounting type); contacts are on a 1.25mm pitch for ultra-high-density packaging.
- Designed for the highest reliability and economy of board interconnection.

Today, the electronics industry is faced with an ever-growing demand for not only miniaturization of component parts for equipment, but also improved productivity through automatic packaging and the resultant reduction of equipment cost in order to keep pace with the fast-progressing market trends towards lighter, thinner, shorter and smaller products as seen in various portable equipment such as the camera-incorporated VTR. AMP 1.25mm F-P Connectors have been developed as an ultra-high-density board-to-board interconnection connector that can meet all of these industry requirements and has the best adaptability to packaging



The connector is offered in two versions, single-row and dual-row connectors. Both are available in two configurations. One is a DIP-type which is mounted into the board holes by soldering and the other is a SMT-type (surface-mounting type) which can effectively utilize both front and back sides of the board to package more electronic components in the form of chips and increase the board's versatility. The connector consists of a receptacle header and a post header. The receptacle header comes in two styles, horizontal mounting and vertical mounting. The horizontal-mounting

receptacle header mates with a post header (vertical mounting) and interconnects boards at a right angle, while the vertical-mounting receptacle header interconnects boards in parallel. For the SMT type connectors, receptacle headers are tape-mounted and wound on a reel to be compatible with automatic tape-packaging machines used for other chip components. The post header is of a vertical-mounting type and available as both loose-pieces and PVC-encased parts. There is also an intermediary post header version which accepts a variety of receptacles at both ends.

Performance Data

Rated voltage: 50V AC/DC

Rated current: 0.5A

Low-level resistance:
10m Ω , max. (initial)

Insulation resistance:
500M Ω , min.

Withstanding voltage:
500V for 1 minute

Operating temperature:
-30~+105°C

The upper-limit temperature includes a temperature rise generated by load current.

Contact retention:
500g, min. (per circuit)

Product Specification:
108-5246

Acceptable board thick:
DIP-type=0.6~0.8mm
SMT-type=0.6mm/min.

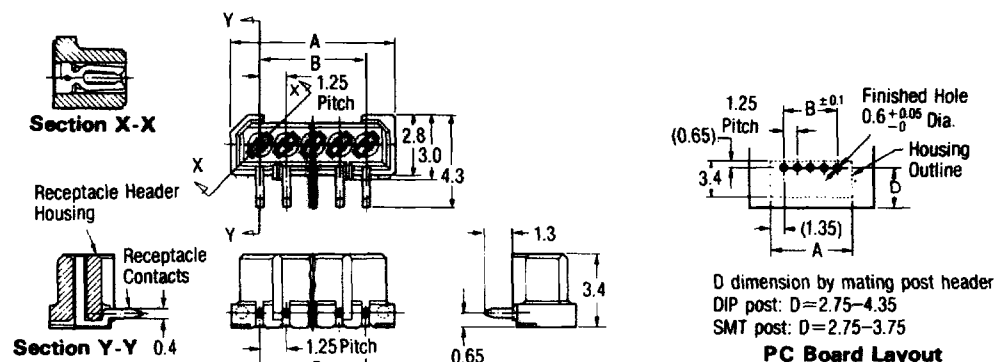
Board to Board Connectors

AMP 1.25mm F-P Board to Board Connectors

Single-Row Receptacle Headers

DIP-type Horizontal Mounting (For Right-angle Board Connection)

Material and Finish:
Housing—UL94V-0 rated,
P.P.S. resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.

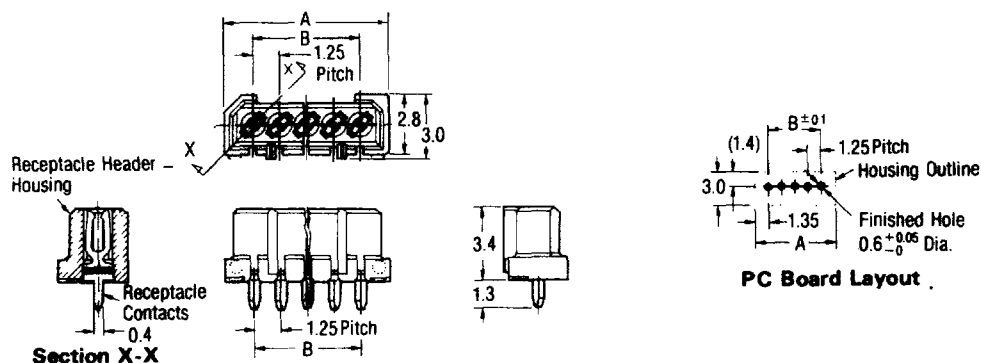


Board Connection Configuration and Height when Mated with Mating Post Header.

No. of Pos.	Dimensions		Part No. of Receptacle Header (Loose Piece)	Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Position)	
	A	B				C=3.95 (4, 5, 6, 7, 8, 10)	C=5.95 (8, 17, 20)
4	6.45	3.75	174634-4		174642	5.0	7.0
5	7.70	5.00	174634-5		174644		
6	8.95	6.25	174634-6		174820		
7	10.20	7.50	174634-7				
8	11.45	8.75	174634-8				
10	13.95	11.25	1-174634-0				
17	22.70	20.00	1-174634-7				
20	26.45	23.75	2-174634-0				

DIP-type Vertical Mounting (For Parallel Board Connection)

Material and Finish:
Housing—UL94V-0 rated,
P.P.S. resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



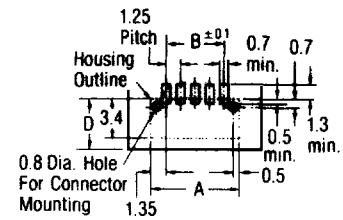
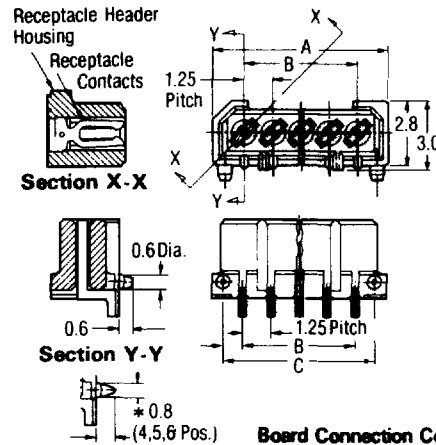
Board Connection Configuration and Height when Mated with Mating Post Header.

No. of Pos.	Dimensions		Part No. of Receptacle Header (Loose Piece)	Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Position)	
	A	B				C=3.95 (4, 5, 6, 7, 8, 10)	C=5.95 (8, 17, 20)
4	6.45	3.75	174633-4		174642	5.0	7.0
5	7.70	5.00	174633-5		174644		
6	8.95	6.25	174633-6		174820		
7	10.20	7.50	174633-7				
8	11.45	8.75	174633-8				
10	13.95	11.25	1-174633-0				
17	22.70	22.00	1-174633-7				
20	26.45	23.75	2-174633-0				

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Single-Row Receptacle Headers (Cont'd)

SMT-type Horizontal Mounting (With Mounting Bosses) <For Right-angle Board Connection>

Material and Finish:
Housing—UL94V-0 rated,
P.P.S. resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.

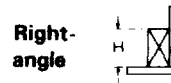


D dimension by mating post header
DIP post: D=3.40-5.00
SMT post: D=3.40-4.40
PC Board Layout

No. of Pos.	Dimensions			Part No. of Receptacle Header	
	A	B	C	Loose Piece	Reel-mounted(ea.)
4	6.45	3.75	5.45	3-174638-4	3-175637-4 (1500)
5	7.70	5.00	6.70	3-174638-5	3-175637-5 (1500)
6	8.95	6.25	7.95	3-174638-6	3-175637-6 (1500)
7	10.20	7.50	9.20	3-174638-7	3-175637-7 (1500)
8	11.45	8.75	10.45	3-174638-8	3-175637-8 (1000)
10	13.95	11.25	12.95	4-174638-0	4-175637-0 (1000)
17	22.70	20.00	21.70	4-174638-7	—
20	26.45	23.75	25.45	5-174638-0	—

Board Connection Configuration and Height when Mated with Mating Post Header.

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (4,5,6,7,8,10)	C=5.95 (8,17,20)

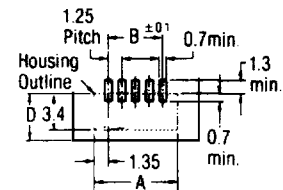
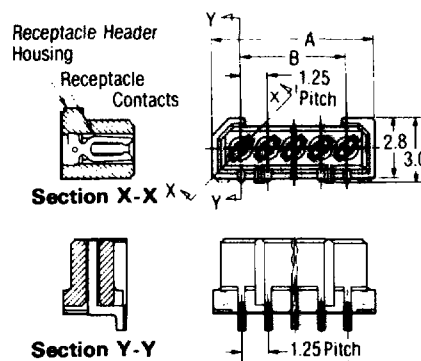


174642
174644
174820

5.8 7.8

SMT-type Horizontal Mounting (Without Mounting Bosses) <For Right-angle Board Connection>

Material and Finish:
Housing—UL94V-0 rated
P.P.S. resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.

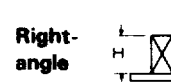


Q dimension by mating post header
DIP post: D=3.40-5.00
SMT post: D=3.40-4.40
PC Board Layout

No. of Pos.	Dimensions		Part No. of Receptacle Header	
	A	B	Loose Piece	Reel-mounted(ea.)
4	6.45	3.75	3-174903-4	3-175629-4 (1500)
5	7.70	5.00	3-174903-5	3-175629-5 (1500)
6	8.95	6.25	3-174903-6	3-175629-6 (1500)
7	10.20	7.50	3-174903-7	3-175629-7 (1500)
8	11.45	8.75	3-174903-8	3-175629-8 (1000)
10	13.95	11.25	4-174903-0	4-175629-0 (1000)
17	22.70	20.00	4-174903-7	—
20	26.45	23.75	5-174903-0	—

Board Connection Configuration and Height when Mated with Mating Post Header.

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (4,5,6,7,8,10)	C=5.95 (8,17,20)



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174820

5.8 7.8

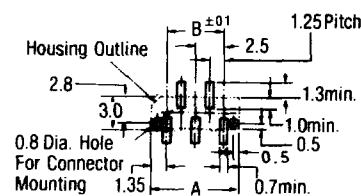
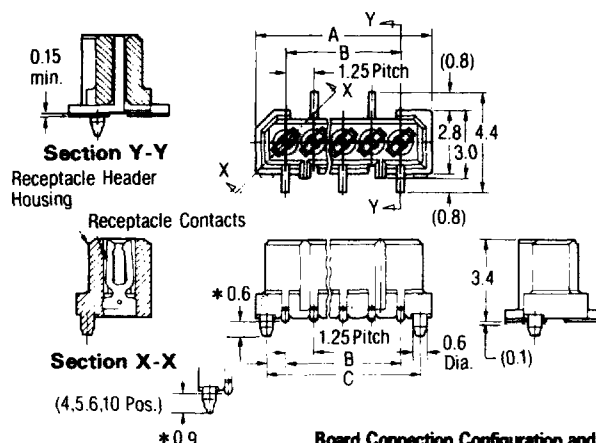
Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Single-Row Receptacle Headers (Cont'd)

SMT-type Vertical Mounting (With Mounting Bosses) <For Parallel Board Connection>

Material and Finish:

Housing—UL94V-0 rated,
P.P.S. resin, black.

Contact—0.3mm thick
phosphor bronze, tin-lead
plated.

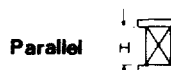


PC Board Layout

No. of Pos.	Dimensions			Part No. of Receptacle Header	
	A	B	C	Loose Piece	Reel-mounted(ea.)
4	6.45	3.75	5.45	3-174637-4	3-175636-4 (1500)
5	7.70	5.00	6.70	3-174637-5	3-175636-5 (1500)
6	8.95	6.25	7.95	3-174637-6	3-175636-6 (1500)
7	10.20	7.50	9.20	3-174637-7	3-175636-7 (1500)
8	11.45	8.75	10.45	3-174637-8	3-175636-8 (1000)
10	13.95	11.25	12.95	4-174637-0	4-175636-0 (1000)
17	22.70	20.00	21.70	4-174637-7	
20	26.45	23.75	25.45	5-174637-0	

Board Connection Configuration and Height when Mated with Mating Post Header.

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (4,5,6,7,8,10)	C=5.95 (8,17,20)



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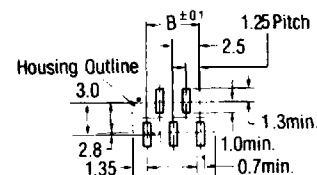
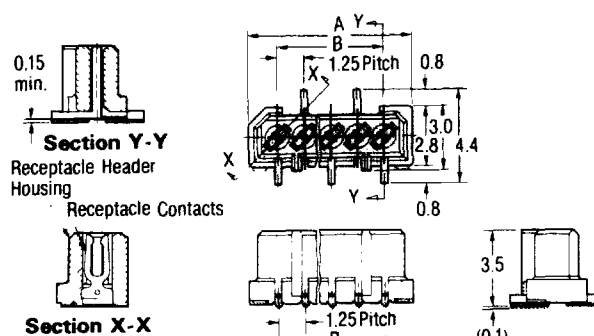
5.0 7.0

SMT-type Vertical Mounting (Without Mounting Bosses) <For Parallel Board Connection>

Material and Finish:

Housing—UL94V-0 rated,
P.P.S. resin, black.

Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



PC Board Layout

No. of Pos.	Dimensions			Part No. of Receptacle Header	
	A	B	C	Loose Piece	Reel-mounted(ea.)
4	6.45	3.75	5.45	3-174902-4	3-175628-4 (1500)
5	7.70	5.00	6.70	3-174902-5	3-175628-5 (1500)
6	8.95	6.25	7.95	3-174902-6	3-175628-6 (1500)
7	10.20	7.50	9.20	3-174902-7	3-175628-7 (1500)
8	11.45	8.75	10.45	3-174902-8	3-175628-8 (1000)
10	13.95	11.25	12.95	4-174902-0	4-175628-0 (1000)
17	22.70	20.00	21.70	4-174902-7	
20	26.45	23.75	25.45	5-174902-0	

Board Connection Configuration and Height when Mated with Mating Post Header.

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (4,5,6,7,8,10)	C=5.95 (8,17,20)



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174820

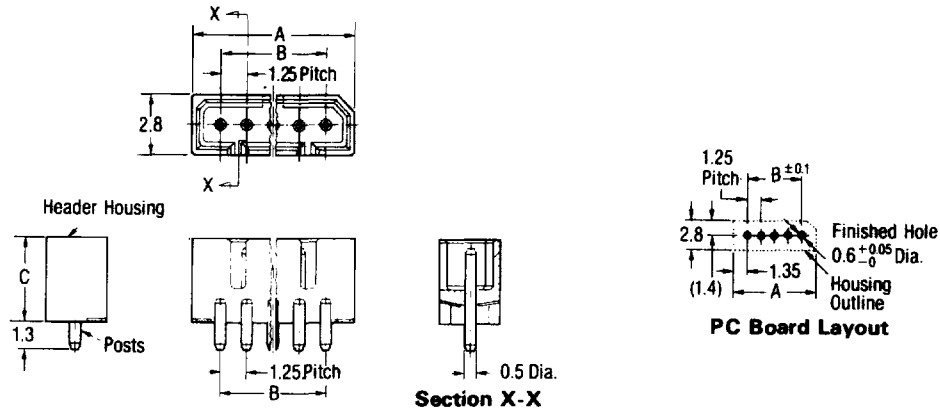
5.0 7.0

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Single-Row Post Headers (Cont'd)

DIP-type Vertical Mounting

Material and Finish:

Housing—UL94V-0 rated,
P.P.S. resin, black.
Contact—0.5mm dia. brass
rod, tin-lead plated.



No. of Pos.	Dimensions			Part No. of Post Header (Loose Piece)
	A	B	C	
4	6.45	3.75	3.95	3-174642-4
5	7.70	5.00	3.95	3-174642-5
6	8.95	6.25	3.95	3-174642-6
7	10.20	7.50	3.95	3-174642-7
8	11.45	8.75	3.95	3-174642-8
			5.95	6-174642-8
10	13.95	11.25	3.95	4-174642-0
17	22.70	20.00	5.95	7-174642-7
20	26.45	23.75	5.95	8-174642-0

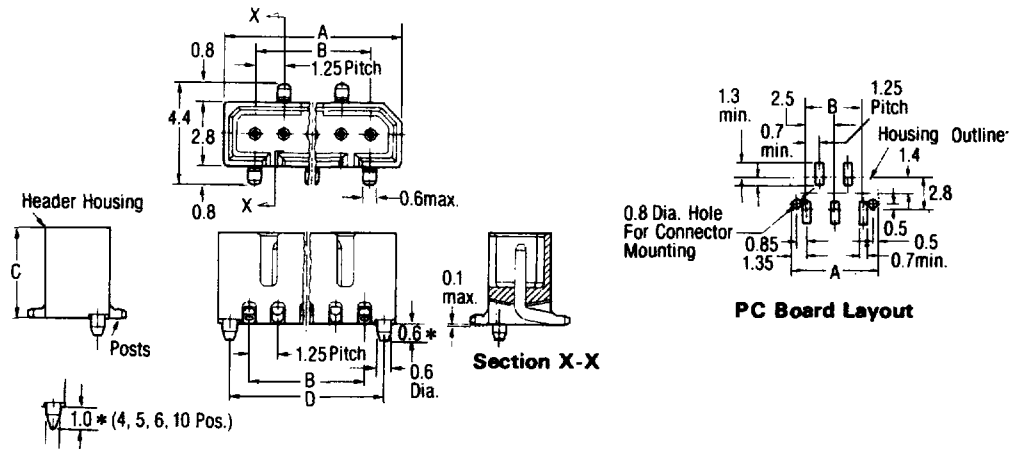
Board Connection Configuration and Height when Mated with Mating Receptacle Header.

Board Connection Configuration	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (4,5,6,7,8,10)	C=5.95 (8,17,20)
Right-angle	174634	5.0	7.0
	174638		
	174903	5.8	7.8
Parallel	174633		
	174637	5.0	7.0
	174902		

SMT-type Vertical Mounting (With Mounting Bosses)

Material and Finish:

Housing—UL94V-0 rated,
P.P.S. resin, black.
Contact—0.5mm dia. brass
rod, tin-lead plated.



No. of Pos.	Dimensions				Part No. of Post Header	
	A	B	C	D	Loose Piece	Tube(s.)
4	6.45	3.75	3.95	5.45	3-174820-4	3-175642-4(75)
5	7.70	5.00	3.95	6.70	3-174820-5	3-175642-5(60)
6	8.95	6.25	3.95	7.95	3-174820-6	3-175642-6(50)
7	10.20	7.50	3.95	9.20	3-174820-7	3-175642-7(45)
8	11.45	8.75	3.95	10.45	3-174820-8	3-175642-8(40)
			5.95		6-174820-8	6-175642-8(40)
10	13.95	11.25	3.95	12.95	4-174820-0	4-175642-0(30)
17	22.70	20.00	5.95	21.70	7-174820-7	7-175642-7(20)
20	26.45	23.75	5.95	25.45	8-174820-0	8-175642-0(15)

Board Connection Configuration and Height when Mated with Mating Receptacle Header.

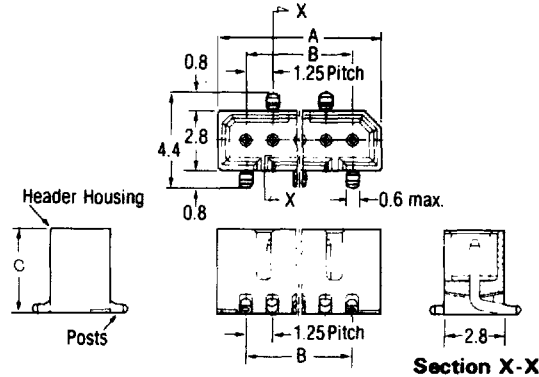
Board Connection Configuration	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (4,5,6,7,8,10)	C=5.95 (8,17,20)
Right-angle	174634	5.0	7.0
	174638		
	174903	5.8	7.8
Parallel	174633		
	174637	5.0	7.0
	174902		

Board to Board Connectors **AMP 1.25mm F-P Board to Board Connectors** **Single-row Post Headers (Cont'd)**

SMT-type **Vertical Mounting** **(Without Mounting** **Bosses)**

Material and Finish:

Housing—UL94V-0 rated,
P.P.S. resin, black.
Contact—0.5mm dia. brass
rod, tin-lead plated.



No. of Pos.	Dimensions			Part No. of Post Header	
	A	B	C	Loose Piece	Tube(ea.)
4	6.45	3.75	3.95	3-174644-4	3-175634-4(75)
5	7.70	5.00	3.95	3-174644-5	3-175634-5(60)
6	8.95	6.25	3.95	3-174644-6	3-175634-6(50)
7	10.20	7.50	3.95	3-174644-7	3-175634-7(45)
8	11.45	8.75	3.95	3-174644-8	3-175634-8(40)
			5.95	6-174644-8	6-175634-8(40)
10	13.95	11.25	3.95	4-174644-0	4-175634-0(30)
17	22.70	20.00	5.95	7-174644-7	7-175634-7(20)
20	26.45	23.75	5.95	8-174644-0	8-175634-0(15)

Board Connection Configuration and Height when Mated with Mating Receptacle Header.

Board Connection Configuration	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (4,5,6,7,8,10)	C=5.95 (8,17,20)
Right-angle 	174634	5.0	7.0
	174638 174903	5.8	7.8
	174633 174637 174902	5.0	7.0
Parallel 			

Board to Board Connectors

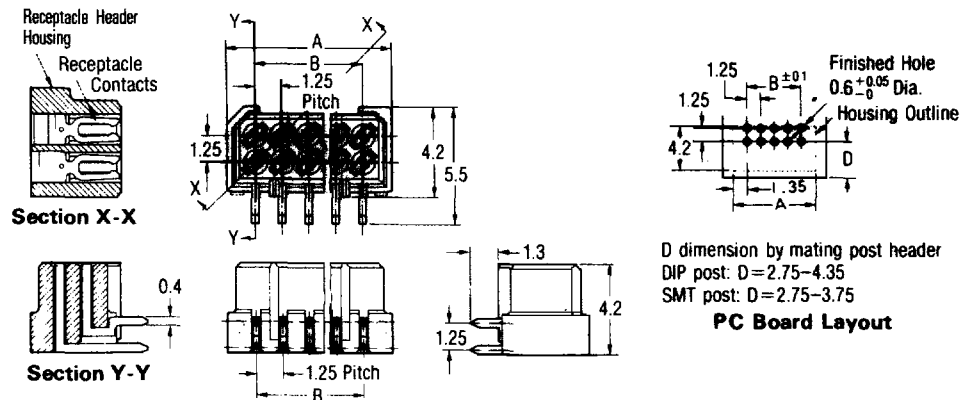
AMP 1.25mm F-P Board to Board Connectors

Dual-Row Receptacle Headers

DIP-type Horizontal Mounting <For Right-angle Board Connection>

Material and Finish:

Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



Board Connection Configuration and Height when Mated with Mating Post Header.

No. of Pos.	Dimensions		Part No. of Receptacle Header (Loose Piece)
	A	B	
6	5.20	2.50	1-174636-6
10	7.70	5.00	1-174636-0
12	8.95	6.25	1-174636-2
14	10.20	7.50	1-174636-4
16	11.45	8.75	1-174636-6
18	12.70	10.00	1-174636-8
20	13.95	11.25	2-174636-0
22	15.20	12.50	2-174636-2
24	16.45	13.75	2-174636-4

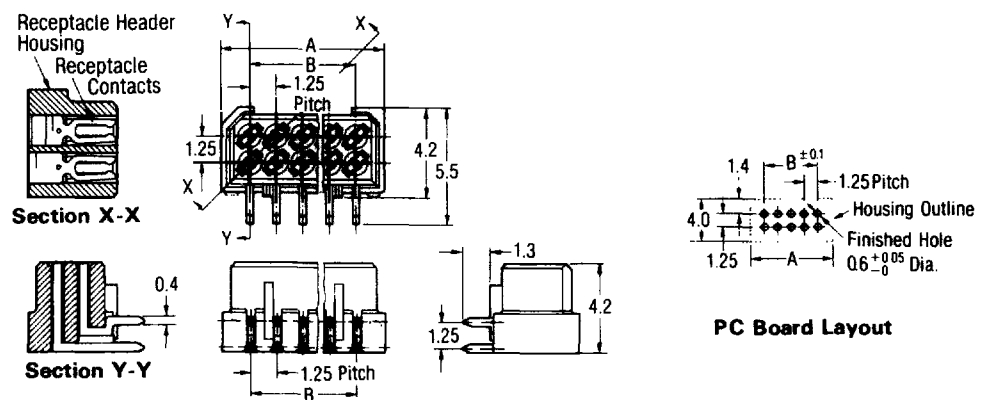
Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)							
		C=3.95 (6,10,12,14,16,18,20,22,24)	C=5.45 (14,16,20)	C=5.95 (12,16)	C=6.85 (24)	C=8.85 (22,24)	C=9.35 (12,18,22)	C=10.7 (10)	
Right-angle	174643	5.8	—	7.8	—	—	—	—	
	174645	5.8	7.3	7.8	—	—	—	—	
	174821	5.8	7.3	7.8	—	—	—	—	
	176140	—	7.3	—	—	10.8	—	—	
	176769	—	—	—	—	—	—	—	
	176756	—	—	—	8.8	—	11.3	—	
*	176757	—	—	—	—	—	—	—	
	175699	—	—	—	—	—	—	—	*

*Intermediary post header to accept receptacle header on both sides.
Connecting configuration and mating height vary depending on opposite receptacles.
For details, consult with our Sales Dept.

Short-rib DIP-type Horizontal Mounting <For Right-angle Board Connection>

Material and Finish:

Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



Board Connection Configuration and Height when Mated with Mating Post Header.

No. of Pos.	Dimensions		Part No. of Receptacle Header (Loose Piece)
	A	B	
26	17.70	16.90	2-176892-6
30	20.20	19.40	3-176892-0

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (26,30)	C=8.85 (30)
Right-angle	176895	5.8	—
	176769	5.8	10.8
	176140	—	—
	176320	—	10.8

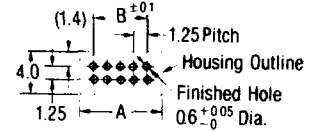
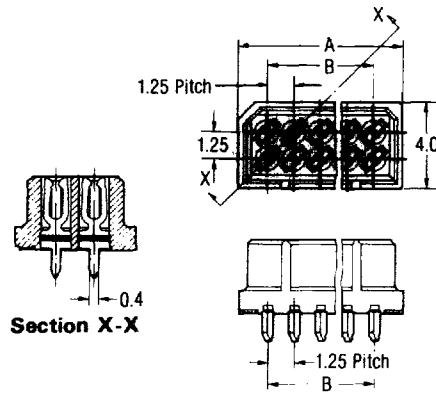
Board to Board Connectors

AMP 1.25mm F-P Board to Board Connectors

Dual-Row Receptacle Headers (Cont'd)

DIP-type Vertical Mounting <For Parallel Board Connection>

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



PC Board Layout

Board Connection Configuration and Height when Mated with Mating Post Header.

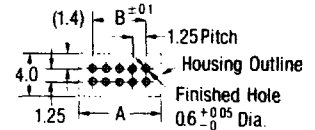
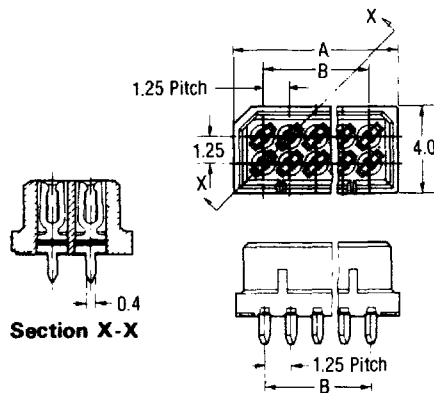
No. of Pos.	Dimensions		Part No. of Receptacle Header (Loose Piece)
	A	B	
6	5.20	2.50	1-174635-6
10	7.70	5.00	1-174635-0
12	8.95	6.25	1-174635-2
14	10.20	7.50	1-174635-4
16	11.45	8.75	1-174635-6
18	12.70	10.00	1-174635-8
20	13.95	11.25	2-174635-0

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)				
		C=3.95 (6,10,12,14,16,18,20)	C=5.45 (14,16,20)	C=5.95 (12,16)	C=9.35 (12,18)	C=10.7 (10)
	174643	5.0	—	7.0	—	—
	174645	5.0	6.5	7.0	—	—
	174821	—	—	—	10.5	—
	176756	—	—	—	—	—
*	175699	—	—	—	—	*

* Intermediary post header to accept receptacle header on both sides.
Connecting configuration and mating height vary depending on opposite receptacles.
For details, consult with our Sales Dept.

Short-rib DIP-type Vertical Mounting <For Parallel Board Connection>

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



PC Board Layout

Board Connection Configuration and Height when Mated with Mating Post Header.

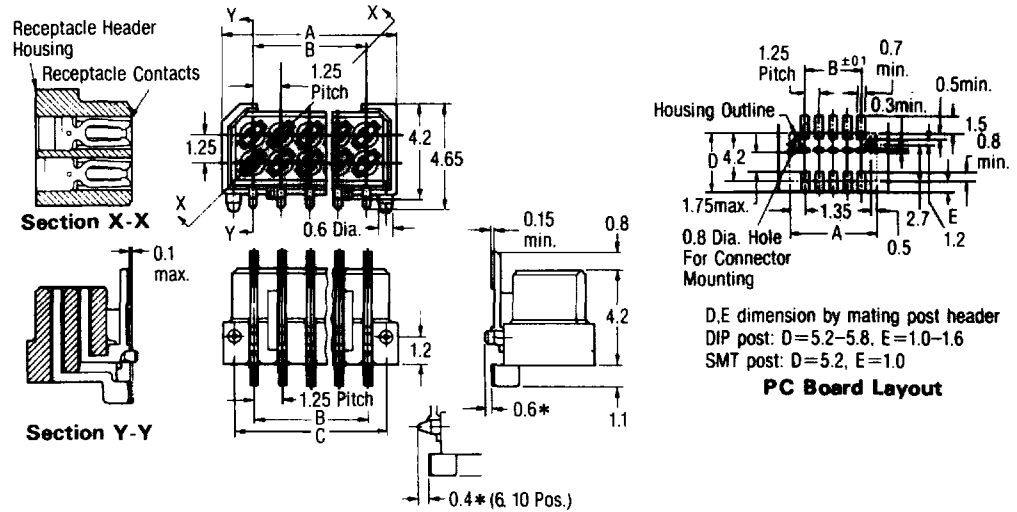
No. of Pos.	Dimensions		Part No. of Receptacle Header (Loose Piece)
	A	B	
16	11.45	8.75	1-176870-6
22	15.20	12.50	2-176870-2
24	16.45	13.75	2-176870-4
26	17.70	15.00	2-176870-6
30	20.20	17.50	3-176870-0

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)				
		C=3.95 (26,30)	C=5.45 (16)	C=6.85 (24)	C=8.85 (22,24,30)	C=9.35 (22)
	176895	5.0	—	—	—	—
	176769	5.0	6.5	—	10.0	—
	176140	—	—	—	—	—
	178041	—	—	8.0	—	10.5
	176757	—	—	—	—	—
	176320	—	—	—	10.0	—

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Receptacle Headers (Cont'd)

SMT-type Horizontal Mounting (With Mounting Bosses) <For Right-angle Board Connection>

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



No. of Pos.	Dimensions			Part No. of Receptacle Header	
	A	B	C	Tube (ea.)	Reel-mounted (ea.)
6	5.20	2.50	4.20	3-176910-6(90)	3-175639-6(1500)
10	7.70	5.00	6.70	4-176910-0(60)	4-175639-0(1500)
12	8.95	6.25	7.95	4-176910-2(50)	4-175639-2(1500)
14	10.20	7.50	9.20	4-176910-4(45)	4-175639-4(1500)
16	11.45	8.75	10.45	4-176910-6(40)	4-175639-6(1000)
18	12.70	10.00	11.70	4-176910-8(35)	4-175639-8(1000)
20	13.95	11.25	12.95	5-176910-0(30)	5-175639-0(1000)
22	15.20	12.50	14.20	5-176910-2(30)	5-175639-2(1000)
24	16.45	13.75	15.45	5-176910-4(25)	5-175639-4(1000)

Board Connection Configuration and Height when Mated with Mating Post Header.

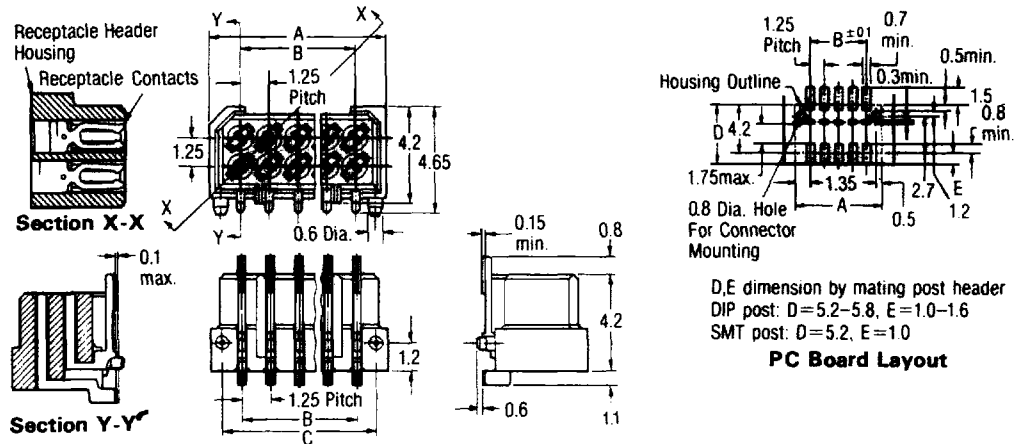
Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)						
		C=3.95 (6,10,12,14,16,18,20,22,24)	C=5.45 (14,16,20)	C=5.95 (12,16)	C=6.85 (24)	C=8.85 (22,24)	C=9.35 (12,18,22)	C=10.7 (10)
Right-angle	174643	6.9	—	8.9	—	—	—	—
	174645	6.9	8.4	8.9	—	—	—	—
	174821	—	—	—	—	—	—	—
	176769	—	8.4	—	—	11.9	—	—
	176140	—	—	—	—	—	—	—
	178041	—	—	—	9.4	—	12.4	—
	176757	—	—	—	—	—	—	—
	178040	—	—	—	—	—	12.4	—
	176756	—	—	—	—	—	—	—
	175699	—	—	—	—	—	—	*

* Intermediary post header to accept receptacle header on both sides.
Connecting configuration and mating height vary depending on opposite receptacles.
For details, consult with our Sales Dept

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Receptacle Headers (Cont'd)

**Short-rib
SMT-type
Horizontal Mounting
(With Mounting
Bosses)
<For Right-angle
Board Connection>**

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



No. of Pos.	Dimensions			Part No. of Receptacle Header	
	A	B	C	Tube(ea.)	Reel Mounted(ea.)
26	17.70	15.70	16.70	5-176911-6 (25)	5-176491-6 (1000)
30	20.20	17.50	19.20	6-176911-0 (20)	6-176491-0 (1000)

Board Connection Configuration and Height when Mated with Mating Post Header.

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (26,30)	C=8.85 (30)
	176895	6.9	—
	176320	—	11.9
	176140	6.9	11.9
	176769	—	11.9

Board to Board Connectors

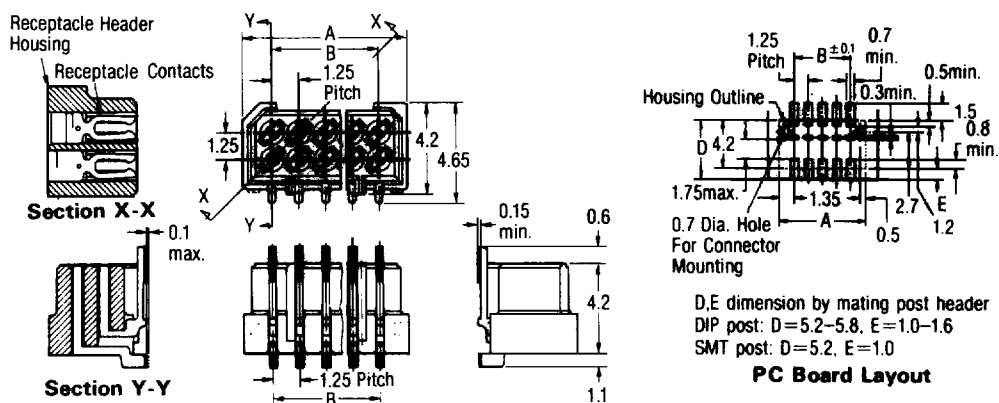
AMP 1.25mm F-P Board to Board Connectors

Dual-Row Receptacle Headers (Cont'd)

SMT-type Horizontal Mounting (Without Mounting Bosses) <For Right-angle Board Connection>

Material and Finish:

Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



No. of Pos.	Dimensions		Part No. of Receptacle Header	
	A	B	Tube(ea.)	Reel Mounted(ea.)
6	5.20	2.50	3-176912-6(90)	—
10	7.70	5.00	4-176912-0(60)	4-175631-0(1500)
12	8.95	6.25	4-176912-2(50)	4-175631-2(1500)
14	10.20	7.50	4-176912-4(45)	4-175631-4(1500)
16	11.45	8.75	4-176912-6(40)	4-175631-6(1000)
18	12.70	10.00	4-176912-8(35)	4-175631-8(1000)
20	13.95	11.25	5-176912-0(30)	5-175631-0(1000)
22	15.20	12.50	5-176912-2(30)	5-175631-2(1000)
24	16.45	13.75	5-176912-4(25)	5-175631-4(1000)

Board Connection Configuration and Height when Mated with Mating Post Header.

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)						
		C=3.95 (6,10,12,14,16,18,20,22,24)	C=5.45 (14,16,20)	C=5.95 (12,16)	C=6.85 (24)	C=8.85 (22,24)	C=9.35 (12,18,22)	C=10.7 (10)
	174643	6.9	—	8.9	—	—	—	—
	174645	6.9	8.4	8.9	—	—	—	—
	174821	—	—	—	—	—	—	—
	176769	—	8.4	—	—	11.9	—	—
	176140	—	—	—	—	—	—	—
	178041	—	—	—	9.4	—	12.4	—
	176757	—	—	—	—	—	—	—
	178040	—	—	—	—	—	12.4	—
	176756	—	—	—	—	—	—	—
	* 175699	—	—	—	—	—	—	*

* Intermediary post header to accept receptacle header on both sides.
Connecting configuration and mating height vary depending on opposite receptacles.
For details, consult with our Sales Dept.

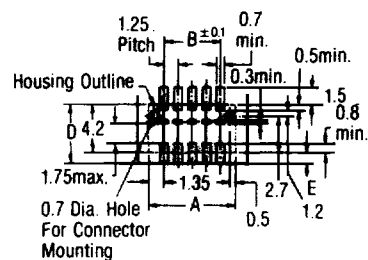
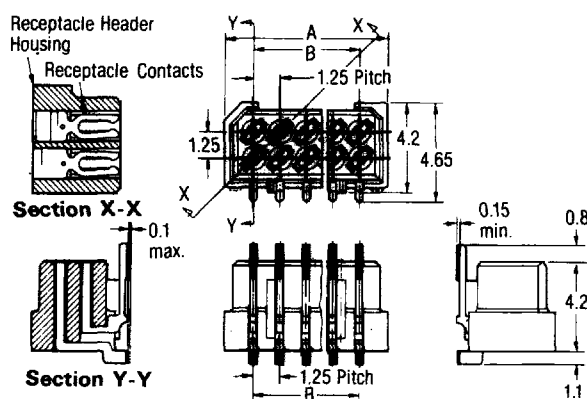
Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Receptacle Headers (Cont'd)

Short-rib SMT-type Horizontal Mounting (Without Mounting Bosses) <For Right-angle Board Connection>

Material and Finish:

Housing—UL94V-0 rated,
P.P.S., resin, black.

Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



D,E dimension by mating post header
DIP post: D=5.2-5.8, E=1.0-1.6
SMT post: D=5.2, E=1.0

PC Board Layout

No. of Pos.	Dimensions		Part No. of Receptacle Header	
	A	B	Tube(ea.)	Reel Mounted(ea.)
26	17.70	15.00	5-176913-6 (25)	5-176894-6 (1000)
30	20.20	17.50	6-176913-0 (20)	6-176894-0 (1000)

Board Connection Configuration and Height when Mated with Mating Post Header.

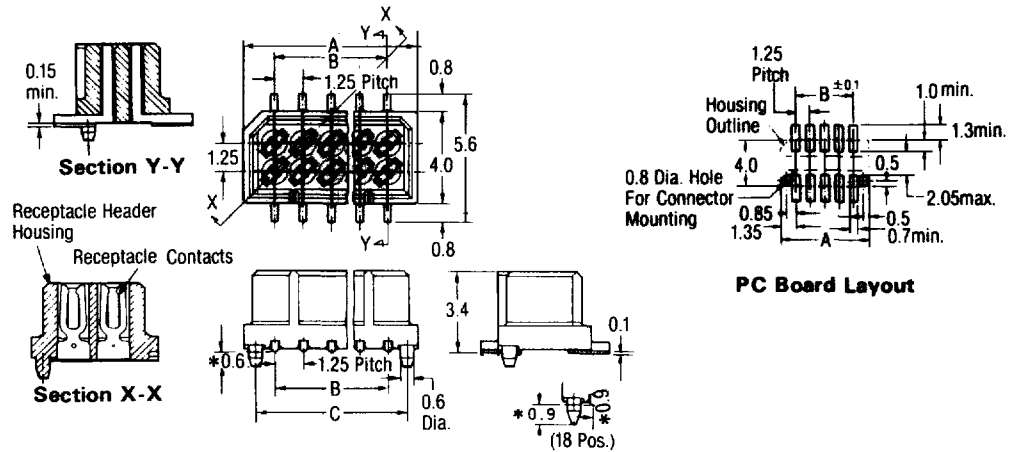
Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)	
		C=3.95 (26,30)	C=8.85 (30)
	176895	6.9	—
	176320	—	11.9
	176140	6.9	11.9
	176769	6.9	11.9

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Receptacle Headers (Cont'd)

SMT-type Vertical Mounting (With Mounting Bosses) <For Parallel Board Connection>

Material and Finish:

Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



No. of Pos.	Dimensions			Part No. of Receptacle Header	
	A	B	C	Loose Piece	Reel Mounted(ea.)
6	5.20	2.50	4.20	3-174639-6	3-175638-6 (1500)
10	7.70	5.00	6.70	4-174639-0	4-175638-0 (1500)
12	8.95	6.25	7.95	4-174639-2	4-175638-2 (1500)
14	10.20	7.50	9.20	4-174639-4	4-175638-4 (1500)
16	11.45	8.75	10.45	4-174639-6	4-175638-6 (1000)
18	12.70	10.00	11.70	4-174639-8	4-175638-8 (1000)
20	13.95	11.25	12.95	5-174639-0	5-175638-0 (1000)

Board Connection Configuration and Height when Mated with Mating Post Header.

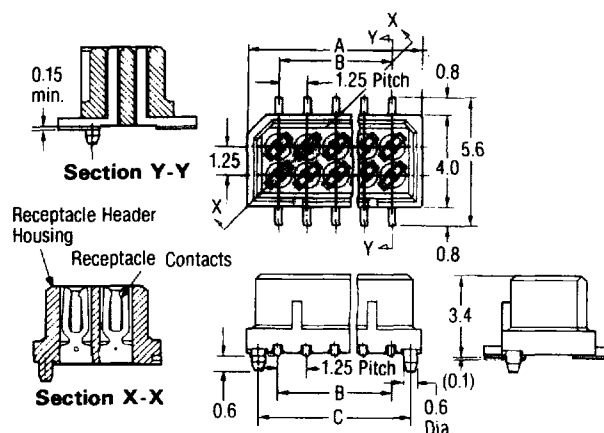
Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)				
		C=3.95 (6,10,12,14,16,18,20)	C=5.45 (14,16,20)	C=5.95 (12,16)	C=9.35 (12,18)	C=10.7 (10)
	174643	5.0	—	7.0	—	—
	174645	5.0	6.5	7.0	—	—
	174821	—	—	—	—	—
	176756	—	—	—	10.5	—
	178040	—	—	—	—	—
*	175699	—	—	—	—	*

* Intermediary post header to accept receptacle header on both sides.
Connecting configuration and mating height vary depending on opposite receptacles.
For details, consult with our Sales Dept.

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Receptacle Headers (Cont'd)

**Short-rib
SMT-type
Vertical Mounting
(With Mounting
Bosses)
<For Parallel
Board Connection>**

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



No. of Pos.	Dimensions			Part No. of Receptacle Header	
	A	B	C	Loose Piece	Reel Mounted(ea.)
16	11.45	8.75	10.45	4-176311-6	4-176313-6(1000)
22	15.20	12.50	14.20	5-176311-2	5-176313-2(1000)
24	16.45	13.75	15.45	5-176311-4	5-176313-4(1000)
26	17.70	15.70	16.70	5-176311-6	5-176313-6(1000)
30	20.20	17.50	19.20	6-176311-0	6-176313-0(1000)

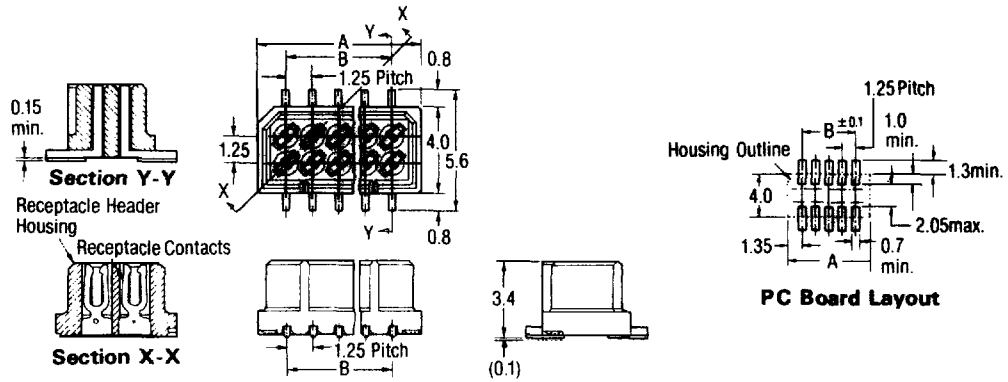
Board Connection Configuration and Height when Mated with Mating Post Header.

Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)					
		C=3.95 (16,22,24,30)	C=5.45 (16)	C=5.95 (16)	C=6.85 (24)	C=8.85 (22,24,30)	C=9.35 (22)
Parallel	176895	5.0	—	—	—	—	—
	174643	5.0	—	7.0	—	—	—
	174645	5.0	6.5	7.0	—	—	—
	174821	5.0	6.5	7.0	—	—	—
	176769	5.0	6.5	—	—	10.0	—
	176140	—	—	—	—	10.0	—
	178041	—	—	—	8.0	—	10.5
	176757	—	—	—	—	—	—
	176320	—	—	—	—	10.0	—

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Receptacle Headers (Cont'd)

**SMT-type
Vertical Mounting
(Without Mounting
Bosses)
<For Parallel
Board Connection>**

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



No. of Pos.	Dimensions		Part No. of Receptacle Header	
	A	B	Tube(ea.)	Reel Mounted(ea.)
6	5.20	2.50	3-174904-6	3-175630-6(1500)
10	7.70	5.00	4-174904-0	4-175630-0(1500)
12	8.95	6.25	4-174904-2	4-175630-2(1500)
14	10.20	7.50	4-174904-4	4-175630-4(1500)
16	11.45	8.75	4-174904-6	4-175630-6(1000)
18	12.70	10.00	4-174904-8	4-175630-8(1000)
20	13.95	11.25	5-174904-0	5-175630-0(1000)

Board Connection Configuration and Height when Mated with Mating Post Header.

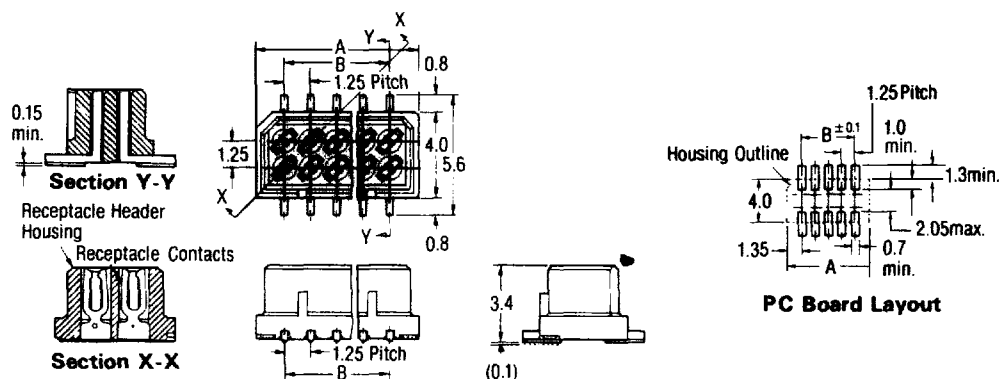
Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)				
		C=3.95 (6,10,12,14,16,18,20)	C=5.45 (14,16,20)	C=5.95 (12,16)	C=9.35 (12,18)	C=10.7 (10)
	174643	5.0	—	7.0	—	—
	174645	5.0	6.5	7.0	—	—
	174821	—	—	—	10.5	—
	176756	—	—	—	—	—
	178040	—	—	—	—	—
*	175699	—	—	—	—	*

* Intermediary post header to accept receptacle header on both sides.
Connecting configuration and mating height vary depending on opposite receptacles.
For details, consult with our Sales Dept.

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Receptacle Headers (Cont'd)

**Short-rib
SMT-type
Vertical Mounting
(Without Mounting
Bosses)
<For Parallel
Board Connection>**

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.3mm thick
phosphor bronze, tin-lead
plated.



No. of Pos.	Dimensions		Part No. of Receptacle Header	
	A	B	Loose Piece	Reel Mounted(ea.)
16	11.45	8.75	4-176768-6	4-176770-6(1000)
22	15.20	12.50	5-176768-2	5-176770-2(1000)
24	16.45	13.75	5-176768-4	5-176770-4(1000)
26	17.70	15.00	5-176768-6	5-176770-6(1000)
30	20.20	17.50	6-176768-0	6-176770-0(1000)

Board Connection Configuration and Height when Mated with Mating Post Header.

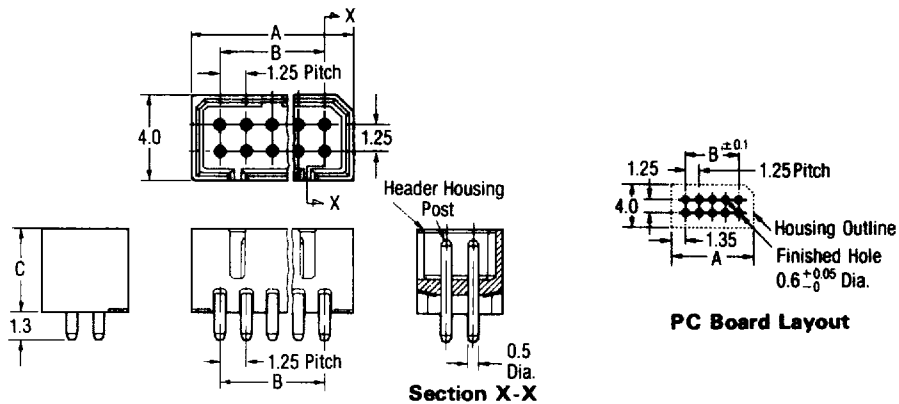
Board Connection Configuration	Part No. of Mating Post Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)					
		C=3.95 (16,22,24,26,30)	C=5.45 (16)	C=5.95 (16)	C=6.85 (24)	C=8.85 (22,24,30)	C=9.35 (22)
	176895	5.0	—	—	—	—	—
	174643	5.0	—	7.0	—	—	—
	174645	5.0	6.5	7.0	—	—	—
	174821	5.0	6.5	7.0	—	—	—
	176769	5.0	6.5	—	—	10.0	—
	176140	5.0	6.5	—	—	10.0	—
	178041	—	—	—	8.0	—	10.5
	176757	—	—	—	8.0	—	10.5
	176320	—	—	—	—	10.0	—

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Post Headers

**DIP-type
Vertical Mounting
Housing height =
3.95/5.95mm**

Material and Finish:

Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.5mm dia. brass
rod, tin-lead plated.



No. of Pos.	Dimensions			Part No. of Post Header (Loose Piece)
	A	B	C	
6	5.20	2.50	3.95	3-174643-6
10	7.70	5.00	3.95	4-174643-0
12	8.95	6.25	3.95	4-174643-2
			5.95	7-174643-2
14	10.20	7.50	3.95	4-174643-4
16	11.45	8.75	3.95	4-174643-6
			5.95	7-174643-6
18	12.70	10.00	3.95	4-174643-8
20	13.95	11.25	3.95	5-174643-0
22	15.20	12.50	3.95	5-174643-2
24	16.45	13.75	3.95	5-174643-4

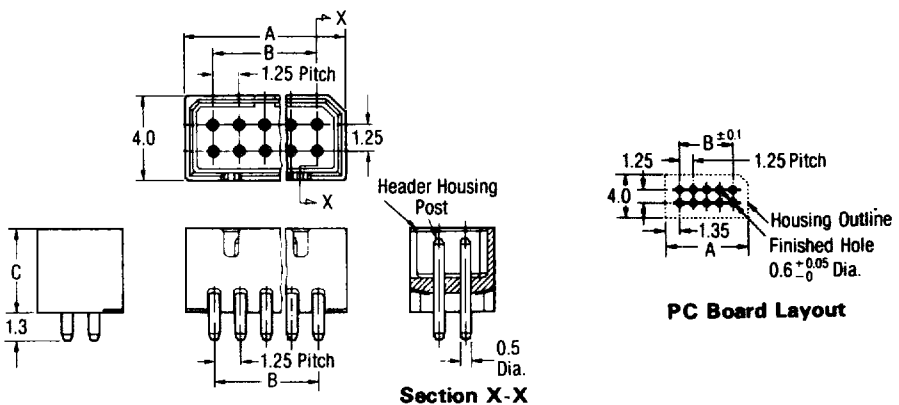
Board Connection Configuration and Height when Mated with Mating Receptacle Header.

Board Connection Configuration	Applicable Connector Size	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header	
			C=3.95	C=5.95
 Right-angle	 6~24	174636	5.8	7.8
		176910	6.9	8.9
		176912		
 Parallel	6~20	174635		
	16,22,24	176870		
	6~20	174639	5.0	7.0
		174904		
	16,22,24	176311		
		176768		

**Short-rib Receptacle
Header Mounting
DIP-type
Vertical Mounting:
Housing height =
3.95mm**

Material and Finish:

Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.5mm dia. brass
rod, tin-lead plated.



Board Connection Configuration and Height when Mated with Mating Receptacle Header.

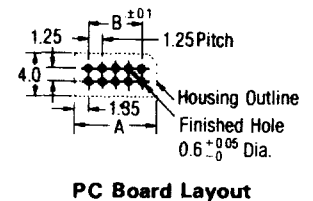
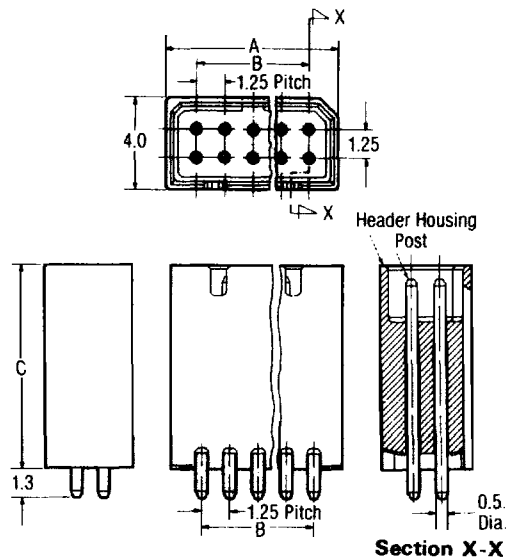
No. of Pos.	Dimensions			Part No. of Post Header (Loose Piece)
	A	B	C	
26	17.70	15.00	3.95	5-176895-6
30	20.20	17.50	3.95	6-176895-0

Board Connection Configuration	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header	
		C=3.95	
 Right-angle	176892	5.8	
	176913	6.9	
	176911		
 Parallel	176870	5.0	
	176768		
	176311		

Board to Board Connectors **AMP 1.25mm F-P Board to Board Connectors** **Dual-Row Post Headers (Cont'd)**

Short-rib Receptacle
Header mounting
DIP-type
Vertical Mounting;
Housing height =
8.85mm

Material and Finish:
Housing — UL94V-0 rated,
P.P.S., resin, black.
Contact — 0.5mm dia. brass
rod, tin-lead plated.



No. of Pos.	Dimensions			Part No. of Post Header (Loose Piece)
	A	B	C	
22	15.20	12.50	8.85	2-176320-2
24	16.45	13.75	8.85	2-176320-4
30	20.20	17.50	9.85	3-176320-0

Board Connection Configuration and Height when Mated with Mating Receptacle Header.

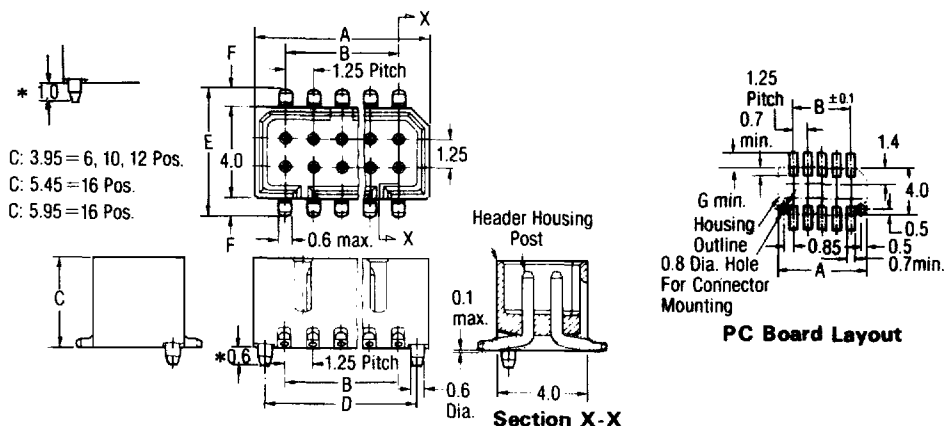
Board Connection Configuration	Applicable Connector Size	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)
			C=8.85(176320) (22,24,30)
Right-angle	22,24	174636	10.8
	26,30	176892	
	22,24	176912 176910	11.9
	26,30	176913 176911	
	22,24	176870 176768	10.0
	26,30	176311	

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Post Headers (Cont'd)

**SMT-type
Vertical Mounting:
(With Mounting
Bosses)**
Housing height=
**3.95/5.45/5.95/
9.35mm**

Material and Finish:

Housing — UL94V-0 rated,
P.P.S., resin, black.
Contact — 0.5mm dia. brass
rod, tin-lead plated.



No. of Pos.	Dimensions							Part No. of Post Header	
	A	B	C	D	E	F	G	Loose Piece	Tube(ea.)
6	5.20	2.50	3.95	4.20	5.6	0.8	1.3	3-174821-6	3-175643-6(90)
10	7.70	5.00	3.95	6.70	5.6	0.8	1.3	4-174821-0	4-175643-0(60)
12	8.95	6.25	3.95	7.95	5.6	0.8	1.3	4-174821-2	4-175643-2(50)
			5.95					7-174821-2	7-175643-2(50)
			9.35					4-176756-2	4-176833-2(50)
14	10.20	7.50	3.95	9.20	5.6	0.8	1.3	4-174821-4	4-175643-4(45)
			5.45					1-174821-4	1-175643-4(45)
			3.95					4-174821-6	4-175643-6(40)
16	11.45	8.75	5.45	10.45	5.6	0.8	1.3	1-174821-6	1-175643-6(40)
			5.95					7-174821-6	7-175643-6(40)
			3.95					4-174821-8	4-175643-8(35)
18	12.70	10.00	9.35	11.70	5.6	0.8	1.3	4-176756-8	4-176833-8(35)
			3.95					5-174821-0	5-175643-0(30)
			5.45					2-174821-0	2-175643-0(30)
20	13.95	11.25	3.95	12.95	5.6	0.8	1.3	5-174821-2	5-175643-2(30)
22	15.20	12.50	3.95	14.20	5.6	0.8	1.3	5-174821-4	5-175643-4(25)
24	16.45	13.75	3.95	15.45	5.6	0.8	1.3		

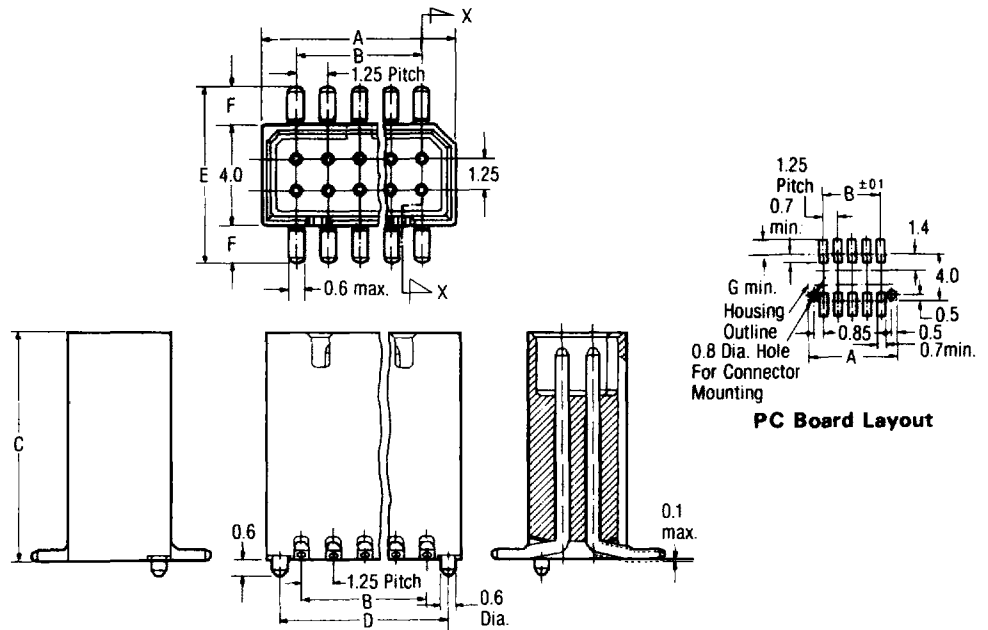
Board Connection Configuration and Height when Mated with Mating Receptacle Header.

Board Connection Configuration	Applicable Connector Size	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)			
			C=3.95 (6,10,12,14,16,18,20,22,24)	C=5.45 (14,16,20)	C=5.95 (12,16)	C=9.35 (12,18)
 Right-angle	6~24	174636	5.8	7.3	7.8	11.3
		176910	6.9	8.4	8.9	12.4
		176912				
 Parallel	6~20	174635				
	22,24	176870				
	6~20	174639	5.0	6.5	7.0	10.5
		174904				
		176311				
	22,24	176768				

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Post Headers (Cont'd)

**Short-rib Receptacle
Header Mounting
SMT-type
Vertical Mounting;
(With Mounting
Bosses)**
Housing height =
3.95/5.45/6.85/
8.85/9.35mm

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.5mm dia. brass
rod, tin-lead plated.



No. of Pos.	Dimensions							Part No. of Post Header	
	A	B	C	D	E	F	G	Loose Piece	Tube(ea.)
16	11.45	8.75	5.45	10.45	5.6	0.8	1.3	4-176140-6	4-176314-6(40)
22	15.20	12.50	8.85	14.20	7.0	1.5	2.0	2-176140-2	2-176314-2(30)
			9.35					5-176757-2	5-176834-2(30)
24	16.45	13.75	6.85	14.45	5.6	0.8	1.3	2-176757-4	2-176834-4(25)
			8.85					2-176140-4	2-176314-4(25)
26	17.70	15.00	3.95	17.00	5.6	0.8	1.3	8-176140-6	8-176314-6(25)
30	20.20	17.50	3.95	19.20	5.6	0.8	1.3	9-176140-0	9-176314-0(20)
			8.85					3-176140-0	3-176314-0(20)

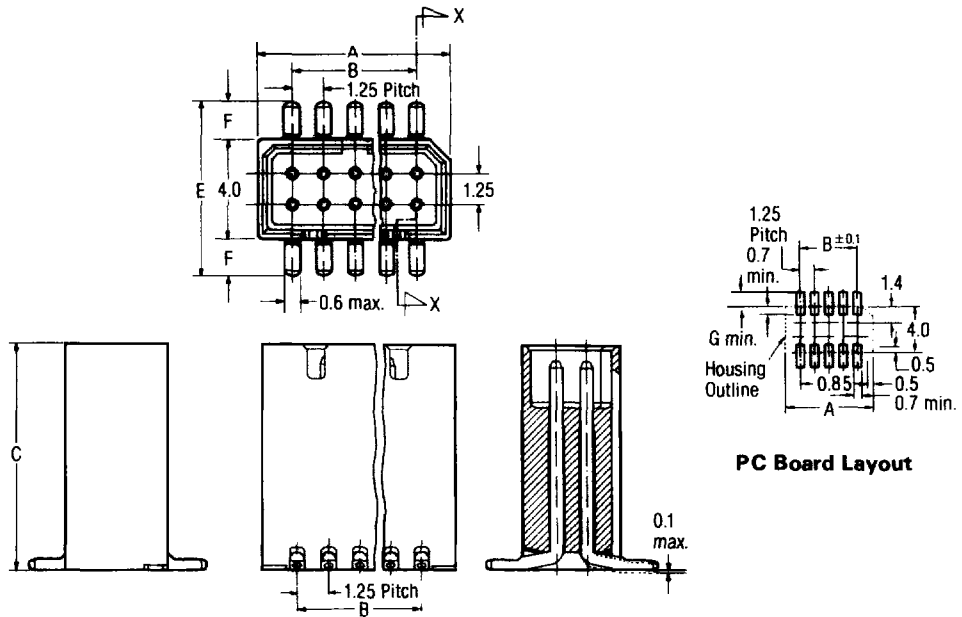
Board Connection Configuration and Height when Mated Receptacle Header.

Board Connector Configuration	Applicable Connector Size	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)				
			C=3.95 (26,30)	C=5.45 (16)	C=6.85 (24)	C=8.85 (22,24,30)	C=9.35 (22)
 Right-angle	22,24	174636	—	—	8.8	10.8	11.3
	26,30	176892	5.8	—	—	—	—
	22,24	176910 176912	—	—	9.9	11.9	12.4
	26,30	176911 176913	6.9	—	—	11.9	—
 Parallel	16,22	176870	—	—	—	—	—
	24,26	176311	5.0	5.7	8.0	10.0	10.5
	30	176768	—	—	—	—	—

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Post Headers (Cont'd)

Short-rib Receptacle Header Mounting SMT-type Vertical Mounting; (Without Mounting Bosses)
Housing height =
3.95/5.45/6.85/
8.85/9.35mm

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.5mm dia. brass
rod, tin-lead plated.



PC Board Layout

No. of Pos.	Dimensions						Part No. of Post Header	
	A	B	C	E	F	G	Loose Piece	Tube(ea.)
16	11.45	8.75	5.45	5.6	0.8	1.3	4-176769-6	4-176771-6(40)
22	15.20	12.50	8.85	7.0	1.5	2.0	2-176769-2	2-176771-2(30)
			9.35				5-178041-2	5-178039-2(30)
24	16.45	13.75	6.85	5.6	0.8	1.3	2-178041-4	2-178039-4(25)
			8.85				2-176769-4	2-176771-4(25)
26	17.70	15.00	3.95	5.6	0.8	1.3	8-176769-6	8-176771-6(25)
30	20.20	17.50	3.95	5.6	0.8	1.3	9-176769-0	9-176771-0(20)
			8.85				3-176769-0	3-176771-0(20)

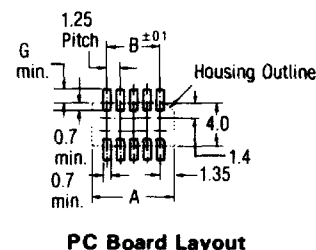
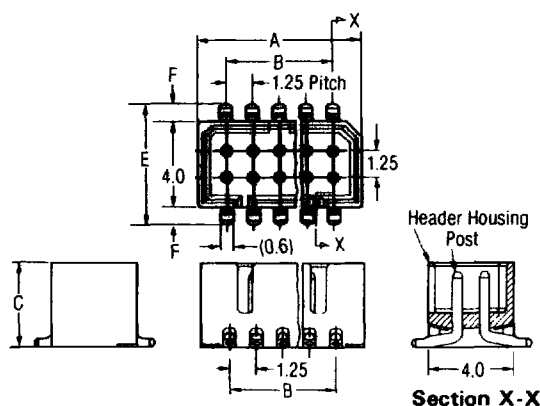
Board Connection Configuration and Height when Mated Receptacle Header.

Board Connection Configuration	Applicable Connector Size	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)				
			C=3.95 (26,30)	C=5.45 (16)	C=6.85 (24)	C=8.85 (22,24,30)	C=9.35 (22)
Right-angle 	22,24	174636	—	—	8.8	10.8	11.3
	26,30	176892	5.8	—	—	—	—
	22,24	176910 176912	—	—	9.9	11.9	12.4
	26,30	176911 176913	6.9	—	—	11.9	—
Parallel 	16,22	176870	—	—	—	—	—
	24,26	176311	5.0	5.7	8.0	10.0	10.5
	30	176768	—	—	—	—	—

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Post Headers (Cont'd)

**SMT-type
Vertical Mounting;
(Without Mounting
Bosses)**
Housing height =
3.95/5.45/5.95/
9.35mm

Material and Finish:
Housing—UL94V-0 rated,
P.P.S., resin, black.
Contact—0.5mm dia. brass
rod, tin-lead plated.



No. of Pos.	Dimensions							Part No. of Post Header	
	A	B	C	D	E	F	G	Loose Piece	Tube(ea.)
6	5.20	2.50	3.95	4.20	5.6	0.8	1.3	3-174645-6	3-175635-6(90)
10	7.70	5.00	3.95	6.70	5.6	0.8	1.3	4-174645-0	4-175635-0(60)
12	8.95	6.25	3.95	7.95	5.6	0.8	1.3	4-174645-2	4-175635-2(50)
			5.95					7-174645-2	7-175635-2(50)
14	10.20	7.50	9.35	9.20	5.6	0.8	1.3	4-178040-2	4-178039-2(50)
			3.95					4-174645-4	4-175635-4(45)
			5.45					1-174645-4	1-175635-4(45)
16	11.45	8.75	3.95	10.45	5.6	0.8	1.3	4-174645-6	4-175635-6(40)
			5.45					1-174645-6	1-175635-6(40)
			5.95					7-174645-6	7-175635-6(40)
18	12.70	10.00	3.95	11.70	5.6	0.8	1.3	4-174645-8	4-175635-8(35)
			9.35					4-178040-8	4-178039-8(35)
20	13.95	11.25	3.95	12.95	5.6	0.8	1.3	5-174645-0	5-175635-0(30)
			5.45					2-174645-0	2-175635-0(30)
22	15.20	12.50	3.95	14.20	5.6	0.8	1.3	5-174645-2	5-175635-2(30)
24	16.45	13.75	3.95	15.45	5.6	0.8	1.3	5-174645-4	5-175635-4(25)

Board Connection Configuration and Height when Mated with Mating Receptacle Header.

Board Connection Configuration	Applicable Connector Size	Part No. of Mating Receptacle Header	Dimension "H" in Relation to "C" when Mated with Post Header (Pos.)			
			C=3.95 (6,10,12,14,16,18,20,22,24)	C=5.45 (14,16,20)	C=5.95 (12,16)	C=9.35 (12,18)
Right-angle 	6~24	174636	5.8	7.3	7.8	11.3
		176910	6.9	8.4	8.9	12.4
		176911				
Parallel 	6~20	174635				
	22,24	176870				
	6~20	174639	5.0	6.5	7.0	10.5
		174904				
		176311				
	22,24	176768				

Board to Board Connectors AMP 1.25mm F-P Board to Board Connectors Dual-Row Post Headers (Cont'd)

Intermediary Post Header

Housing height =
10.5mm

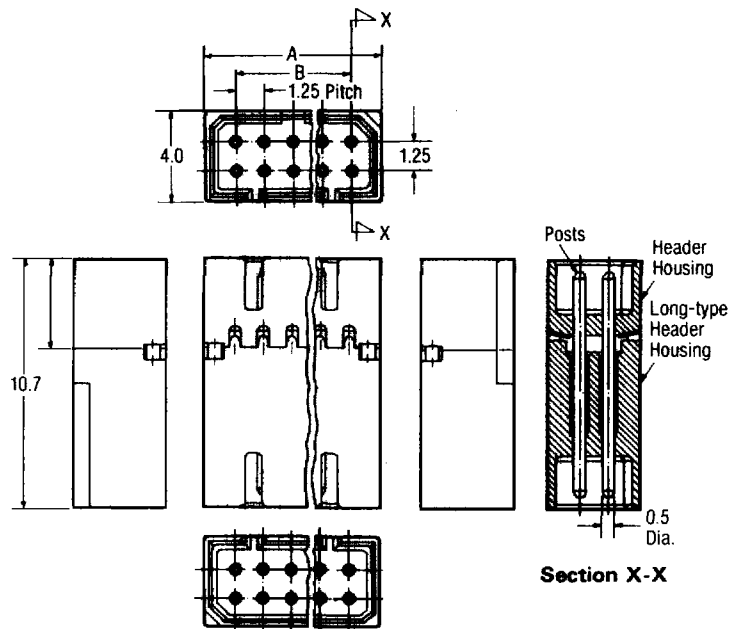
Material and Finish:

Long housing—UL94V-0 rated, 66 nylon, black.
Header Housing—UL94V-0 rated, P.P.S., resin black.
Contact—0.5mm dia, brass rod, tin-lead plated.

This intermediary post header mates with all 10-position receptacle headers at top and bottom for the purpose of interconnection of boards.

The mating height varies depending on the type of receptacle header to be mated at top and bottom and the board connection configuration.

For details, consult with our Sales Department.



No. of Pos.	Dimensions			Part No. of Post Header (Loose Piece)
	A	B	C	
10	7.7	5.0	10.7	1-175699-0