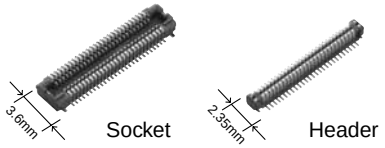
Panasonic
ideas for life

For board-to-board | For board-to-FPC

Narrow pitch connectors (0.4mm pitch)

P4S Series

TOUGH CONTACT

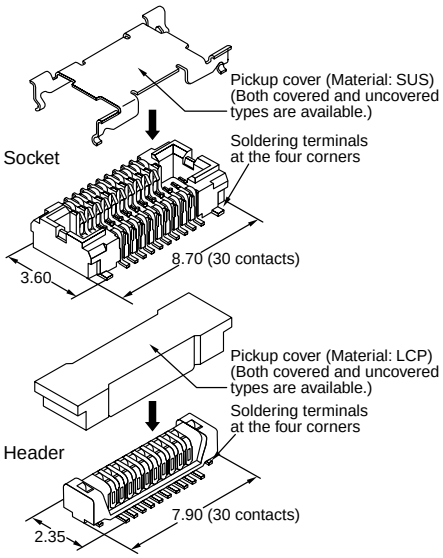


Compliance with RoHS Directive

FEATURES

1. Space saving

Compared to the currently sold P4 series with soldering terminals, 38% space is saved in the socket and 34% space saved in the header. This will contribute to weight and size savings in devices. (Comparison made with 30 contacts.)



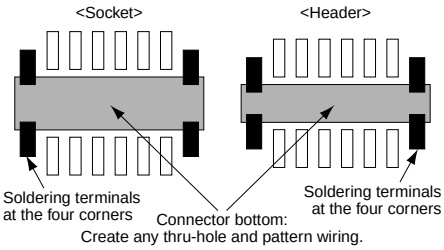
2. Strong resistance to adverse environments! Utilizes "TOUGH CONTACT" construction for high contact reliability.

(See Page 6 for details of the structure)

Note: If extra resistance to shock caused by dropping is required, we recommend using our previous P4 Series.

3. Greater flexibility in connector placement.

Pattern wiring to the connector bottom is possible because the undersurface of the connector is constructed with a molded covering.



4. Automatic mounting inspection is facilitated by the gull-wing terminal shape which makes mounting verification easy.

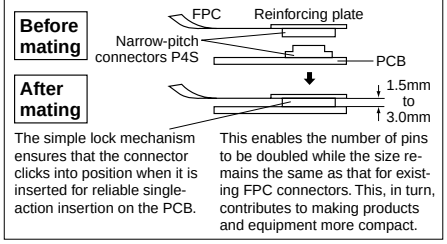
5. Connectors for inspection available

Connectors are available that are ideal for inspection in module unit inspection and device assembly processes.

APPLICATIONS

Compact portable devices "Cellular phones, DVC, Digital cameras, etc"

Ideal for Board-to-FPC connections



The simple lock mechanism ensures that the connector clicks into position when it is inserted for reliable single-action insertion on the PCB.

This enables the number of pins to be doubled while the size remains the same as that for existing FPC connectors. This, in turn, contributes to making products and equipment more compact.

ORDERING INFORMATION

AXT □ □□ □ □ 4

3: Narrow Pitch Connector P4S (0.4 mm pitch) Socket
4: Narrow Pitch Connector P4S (0.4 mm pitch) Header

Number of contacts (2 digits)

Mated height
<Socket>
1: For mated height 1.5 mm and 2.0 mm
2: For mated height 2.5 mm and 3.0 mm
<Header>
1: For mated height 1.5 mm and 2.5 mm
2: For mated height 2.0 mm
3: For mated height 3.0 mm

Functions
<Socket/Header>
2: Without pickup cover, without positioning bosses
6: With pickup cover, without positioning bosses

Surface treatment (Contact portion / Terminal portion)
<Socket> 4: Ni plating on base, Au plating on surface (for Ni barrier available)
<Header> 4: Ni plating on base, Au plating on surface

PRODUCT TYPES TOUGH CONTACT

Mated height	Number of contacts	Part number		Packing	
		Socket	Header	Inner carton	Outer carton
1.5mm	10	AXT310124	AXT410124	3,000 pieces	6,000 pieces
	16	AXT316124	AXT416124		
	20	AXT320124	AXT420124		
	22	AXT322124	AXT422124		
	24	AXT324124	AXT424124		
	26	AXT326124	AXT426124		
	28	AXT328124	AXT428124		
	30	AXT330124	AXT430124		
	32	AXT332124	AXT432124		
	34	AXT334124	AXT434124		
	36	AXT336124	AXT436124		
	38	AXT338124	AXT438124		
	40	AXT340124	AXT440124		
	44	AXT344124	AXT444124		
	46	AXT346124	AXT446124		
	50	AXT350124	AXT450124		
	54	AXT354124	AXT454124		
	56	AXT356124	AXT456124		
	60	AXT360124	AXT460124		
	64	AXT364124	AXT464124		
	70	AXT370124	AXT470124		
	80	AXT380124	AXT480124		
	90	AXT390124	AXT490124		
	100	AXT300124	AXT400124		
2.0mm	40	AXT340124	AXT440224	3,000 pieces	6,000 pieces
	90	AXT390124	AXT490224		
	100	AXT300124	AXT400224		
2.5mm	20	AXT320224	AXT420124	3,000 pieces	6,000 pieces
	30	AXT330224	AXT430124		
	40	AXT340224	AXT440124		
	56	AXT356224	AXT456124		
	60	AXT360224	AXT460124		
	80	AXT380224	AXT480124		
	100	AXT300224	AXT400124		
3.0mm	20	AXT320224	AXT420324	3,000 pieces	6,000 pieces
	30	AXT330224	AXT430324		
	42	AXT342224	AXT442324		
	56	AXT356224	AXT456324		
	60	AXT360224	AXT460324		
	80	AXT380224	AXT480324		
	100	AXT300224	AXT400324		
	120	AXT3A2224	AXT4A2324		

Notes: 1. Regarding ordering units; During production: Please make orders in 1-reel units.
Samples for mounting confirmation: Available in units of 50 pieces. Please consult us. (See “Regarding sample orders to confirm proper mounting” on page 170.)
Samples: Small lot orders are possible. Please consult us.
2. If you require the pickup cover, change the eighth digit of the part number from “2” to “6” in your order. Note that the pickup cover is not available for some types depending on the number of contacts. Check the latest product specifications.
3. The above part numbers are for connectors without positioning bosses, which are standard. When ordering connectors with positioning bosses, please contact our sales office.
4. Connectors of different mated height and different number of contacts are available on-demand production only. Please contact us for more details.

SPECIFICATIONS

1. Characteristics

Item		Specifications	Conditions
Electrical characteristics	Rated current	0.3A/contact (Max. 5 A at total contacts)	—
	Rated voltage	60V AC/DC	—
	Breakdown voltage	150V AC for 1 min.	Rated voltage is applied for one minute and check for short circuit or damage with a detection current of 1mA.
	Insulation resistance	Min. 1,000MΩ (initial)	Using 250V DC megger (applied for 1 min.)
	Contact resistance	Max. 90mΩ	Based on the contact resistance measurement method specified by JIS C 5402.
Environmental characteristics	Ambient temperature	–55°C to +85°C	No freezing at low temperatures
	Soldering heat resistance	Max. peak temperature of 260°C (on the surface of the PC board around the connector terminals)	Infrared reflow soldering
		300°C within 5 sec. or 350°C within 3 sec.	Soldering iron
	Storage temperature	–55°C to +85°C (product only) –40°C to +50°C (emboss packing)	No freezing at low temperatures
	Thermal shock resistance (header and socket mated)	5 cycles, insulation resistance min. 100MΩ, contact resistance max. 90mΩ	Sequence 1. $-55^{\ 0}_{-3}$°C, 30 minutes 2. ~ , Max. 5 minutes 3. $85^{+3}_{\ 0}$°C, 30 minutes 4. ~ , Max. 5 minutes
	Humidity resistance (header and socket mated)	120 hours, insulation resistance min. 100MΩ, contact resistance max. 90mΩ	Temperature 40±2°C, humidity 90 to 95% R.H.
	Saltwater spray resistance (header and socket mated)	24 hours, insulation resistance min. 100MΩ, contact resistance max. 90mΩ	Temperature 35±2°C, saltwater concentration 5±1%
	H_2S resistance (header and socket mated)	48 hours, contact resistance max. 90mΩ	Temperature 40±2°C, gas concentration 3±1 ppm, humidity 75 to 80% R.H.
Lifetime characteristics	Insertion and removal life	50 times	Repeated insertion and removal speed of max. 200 times/hours
Unit weight		Mated height 1.5mm, 20-contact type: Socket: 0.04 g Header: 0.02 g	

2. Material and surface treatment

Part name	Material	Surface treatment
Molded portion	LCP resin (UL94V-0)	—
Contact and Post	Copper alloy	Contact portion: Ni plating on base, Au plating on surface Terminal portion: Ni plating on base, Au plating on surface (Except for front edge of terminal) However, the area adjacent to the socket terminal is exposed to Ni on base. Soldering terminals portion; Socket: Ni plating on base, Pd + Au flash plating on surface (Expect for front edge of terminal) Header: Ni plating on base, Au plating on surface (Expect for front edge of terminal)

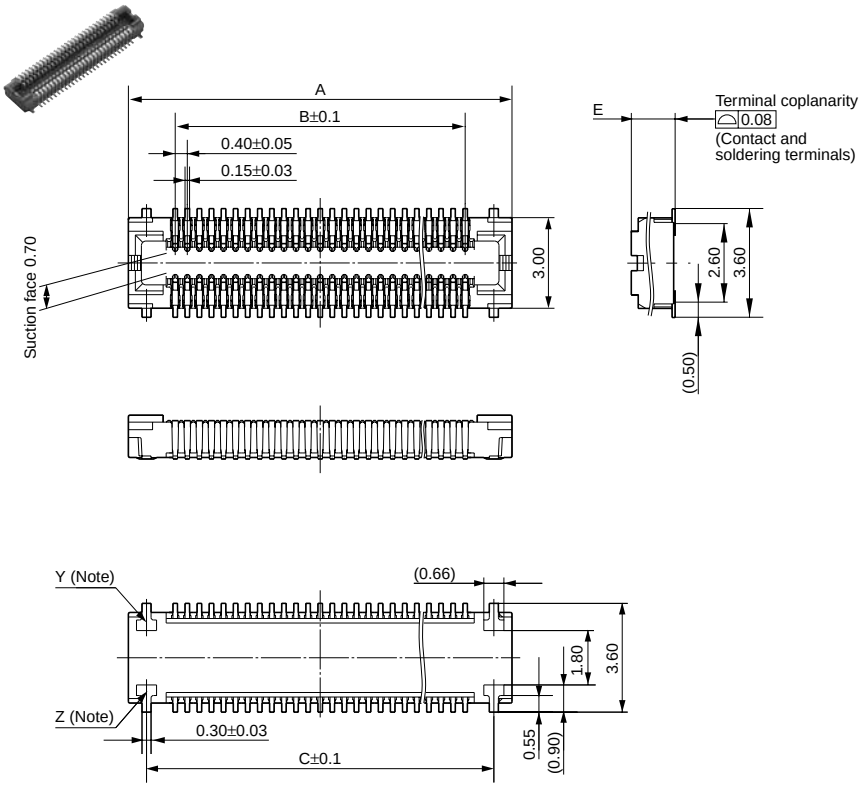
DIMENSIONS (Unit: mm)

The CAD data of the products with a **CAD Data** mark can be downloaded from: http://panasonic-electric-works.net/ac

1. Socket (Mated height: 1.5mm, 2.0mm, 2.5mm, 3.0mm)

• Without pickup cover

CAD Data



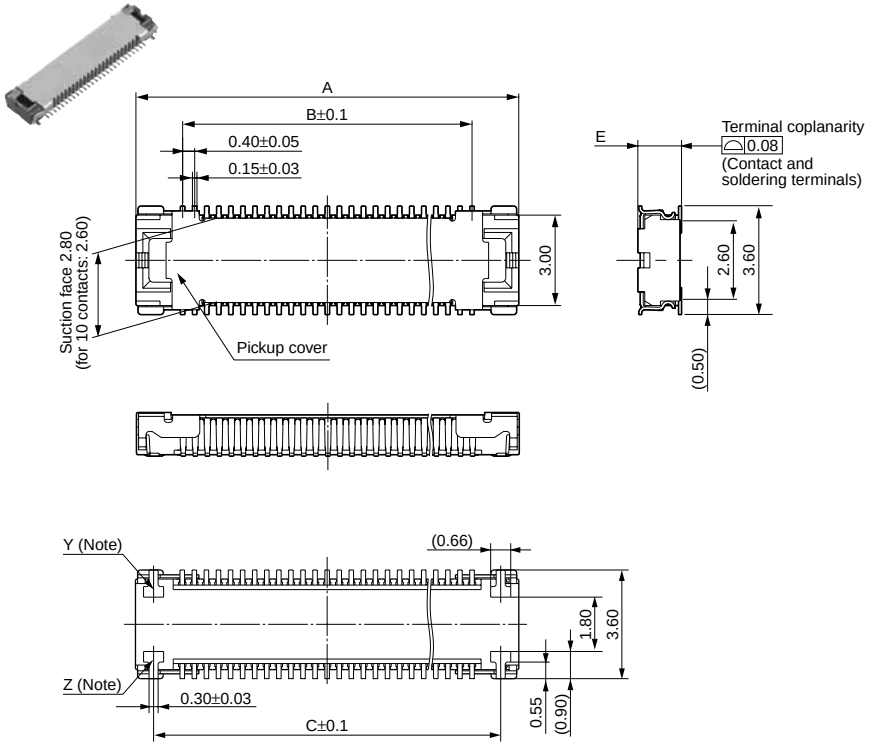
General tolerance: ±0.2

Dimension table (mm)

Number of contacts/ dimension	A	B	C
10	4.7	1.6	3.5
16	5.9	2.8	4.7
20	6.7	3.6	5.5
22	7.1	4.0	5.9
24	7.5	4.4	6.3
26	7.9	4.8	6.7
28	8.3	5.2	7.1
30	8.7	5.6	7.5
32	9.1	6.0	7.9
34	9.5	6.4	8.3
36	9.9	6.8	8.7
38	10.3	7.2	9.1
40	10.7	7.6	9.5
42	11.1	8.0	9.9
44	11.5	8.4	10.3
46	11.9	8.8	10.7
50	12.7	9.6	11.5
54	13.5	10.4	12.3
56	13.9	10.8	12.7
60	14.7	11.6	13.5
64	15.5	12.4	14.3
70	16.7	13.6	15.5
80	18.7	15.6	17.5
90	20.7	17.6	19.5
100	22.7	19.6	21.5
120	26.7	23.6	25.5

Mated height/ dimension	E
1.5mm	1.45
2.0mm	1.45
2.5mm	2.45
3.0mm	2.45

• With pickup cover



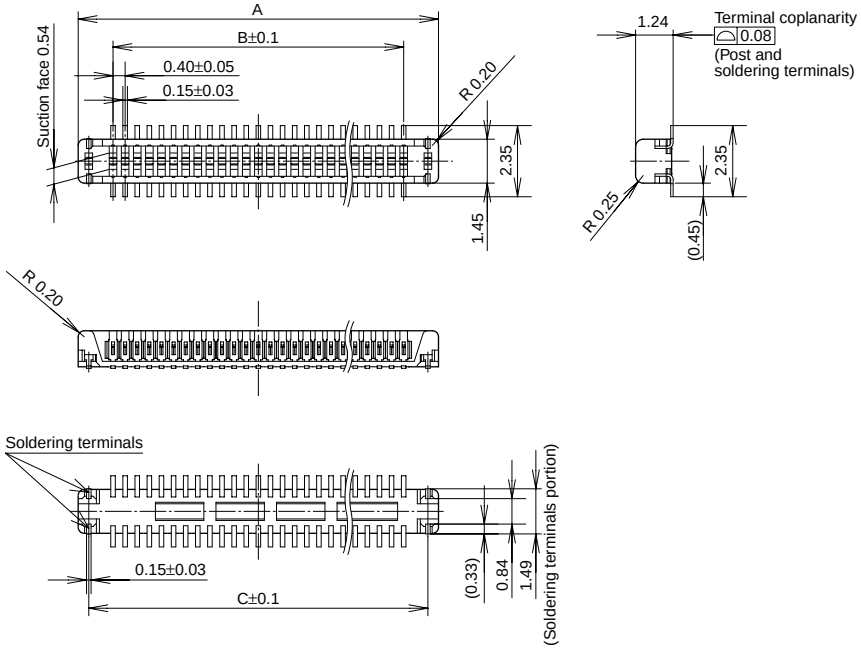
General tolerance: ±0.2

Note: Since soldering terminals are built into the body, the Y and Z parts are connected electrically.

2. Header (Mated height: 1.5mm, 2.5mm)

• Without pickup cover

CAD Data

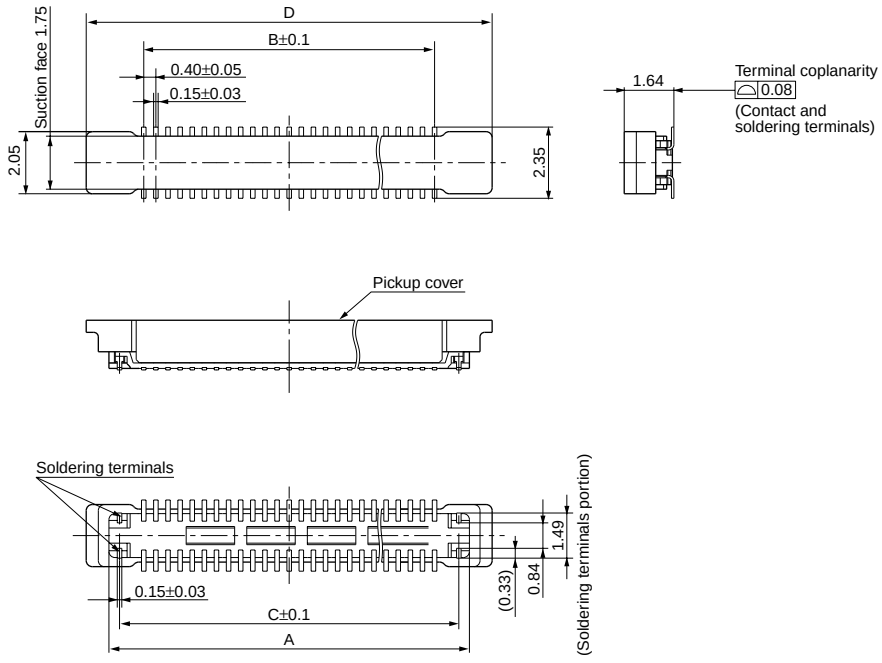


General tolerance: ±0.2

Dimension table (mm)

Number of contacts/ dimension	A	B	C	D
10	3.9	1.6	3.2	5.4
16	5.1	2.8	4.4	6.6
20	5.9	3.6	5.2	7.4
22	6.3	4.0	5.6	7.8
24	6.7	4.4	6.0	8.2
26	7.1	4.8	6.4	8.6
28	7.5	5.2	6.8	9.0
30	7.9	5.6	7.2	9.4
32	8.3	6.0	7.6	9.8
34	8.7	6.4	8.0	10.2
36	9.1	6.8	8.4	10.6
38	9.5	7.2	8.8	11.0
40	9.9	7.6	9.2	11.4
44	10.7	8.4	10.0	12.2
46	11.1	8.8	10.4	12.6
50	11.9	9.6	11.2	13.4
54	12.7	10.4	12.0	14.2
56	13.1	10.8	12.4	14.6
60	13.9	11.6	13.2	15.4
64	14.7	12.4	14.0	–
70	15.9	13.6	15.2	17.4
80	17.9	15.6	17.2	19.4
90	19.9	17.6	19.2	21.4
100	21.9	19.6	21.2	23.4

• With pickup cover



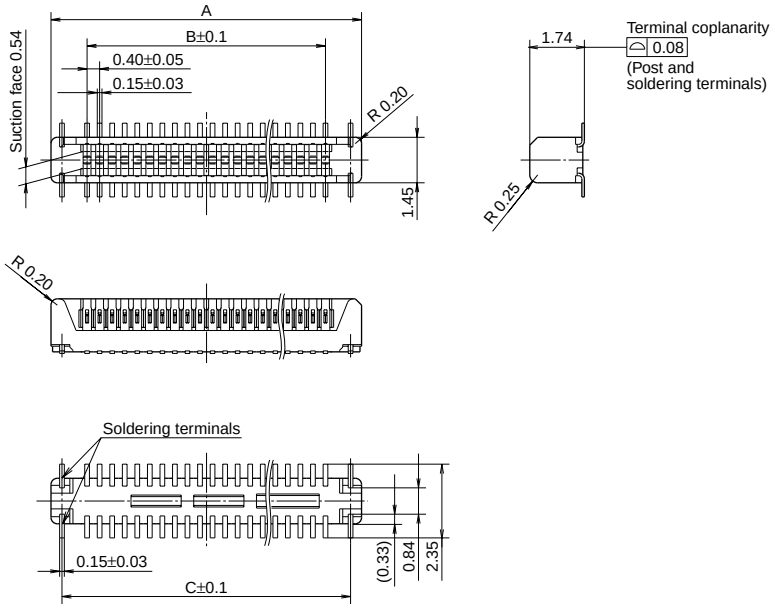
General tolerance: ±0.2

Note: The soldering terminal dimensions of headers with mating heights of 1.5mm/2.5mm and 2.0mm/3.0mm are different.

3. Header (Mated height: 2.0mm)

• Without pickup cover

CAD Data



Dimension table (mm)

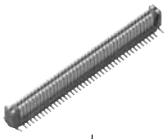
Number of contacts/ dimension	A	B	C
40	9.9	7.6	9.2
90	19.9	17.6	19.2
100	21.9	19.6	21.2

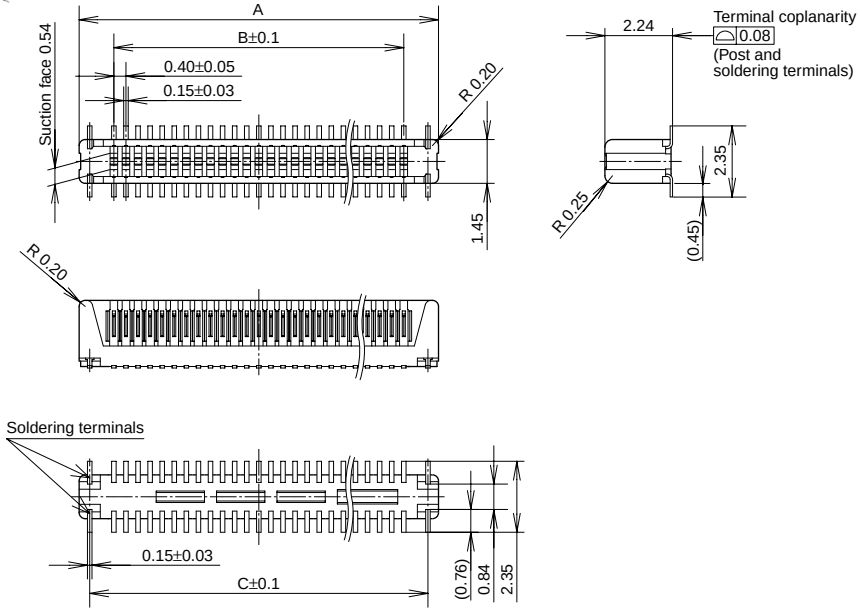
General tolerance: ±0.2

4. Header (Mated height: 3.0mm)

• Without pickup cover

CAD Data





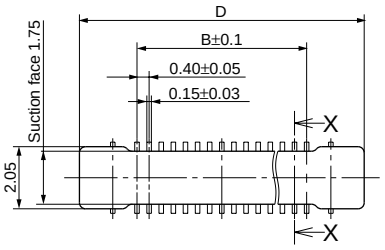
Dimension table (mm)

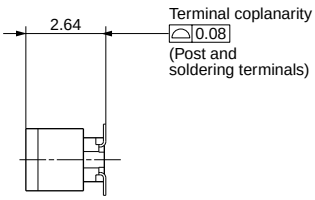
Number of contacts/ dimension	A	B	C	D
20	5.9	3.6	5.2	–
30	7.9	5.6	7.2	9.4
42	10.3	8.0	9.6	–
56	13.1	10.8	12.4	–
60	13.9	11.6	13.2	–
80	17.9	15.6	17.2	19.4
100	21.9	19.6	21.2	–
120	25.9	23.6	25.2	–

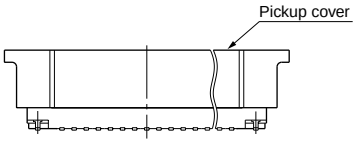
General tolerance: ±0.2

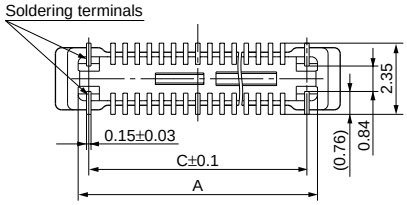
AXT3, 4

• With pickup cover





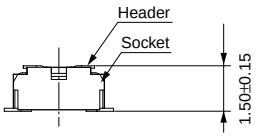


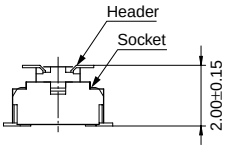


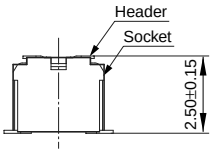
General tolerance: ±0.2

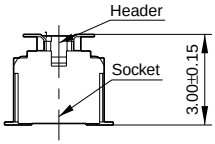
Note: The soldering terminals dimensions of headers with mating heights of 1.5mm/2.5mm and 2.0mm/3.0mm are different.

Socket and Header are mated





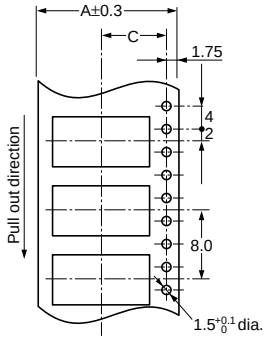




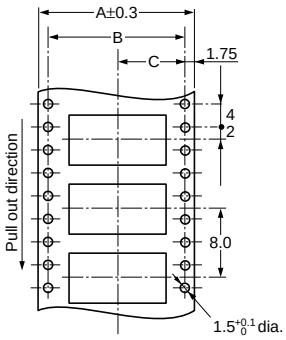
EMBOSSED TAPE DIMENSIONS (unit: mm, Common for respective contact type, socket and header)

• Tape dimensions (Conforming to JIS C 0806-1990. However, some tapes have mounting hole pitches that do not comply with the standard.)

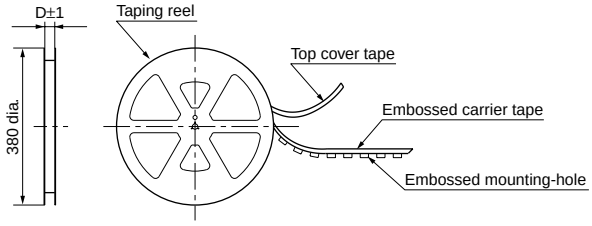
Tape I



Tape II



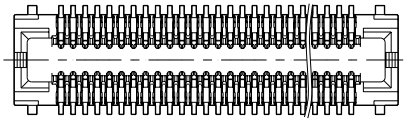
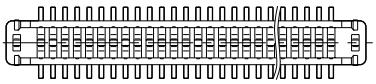
• Plastic reel dimensions (Conforming to EIAJ ET-7200B)



Dimension table (mm)

Mated height	Number of contacts: Socket (with/without pickup cover) Header (without pickup cover)	Number of contacts: Header (with pickup cover)	Type of taping	A	B	C	D	Quantity per reel
Common for socket and header: 1.5mm, 2.0mm, 2.5mm and 3.0mm	Max. 24	Max. 24	Tape I	16.0	—	7.5	17.5	3,000
	26 to 70	26 to 64	Tape I	24.0	—	11.5	25.5	3,000
	72 to 100	66 to 90	Tape II	32.0	28.4	14.2	33.5	3,000
	120	100	Tape II	44.0	40.4	20.2	45.5	3,000

Connector orientation with respect to direction of progress of embossed tape

Type / Direction of tape progress	Common for P4S
↓	Socket  Header 

Note: There is no indication on this product regarding top-bottom or left-right orientation.

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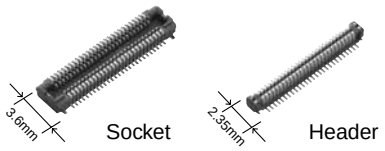
For board-to-board | For board-to-FPC

Connectors for inspection usage (0.4mm pitch)

P4S Series



Compliance with RoHS Directive

FEATURES

1. 3,000 insertion and removals (when as recommended)
2. Same external dimensions and foot pattern as standard type.
3. Improved mating
Insertion and removal have become easier due to a reduction in the mating retention force required by the simple locking structure and also in the amount of force needed for insertion and removal. (We cannot warrant anything regarding mating retention.)

APPLICATIONS

Ideal for module unit inspection and equipment assembly inspection

TABLE OF PRODUCT TYPES

☆: Available for sale

Product name	Number of contacts																					
P4S for inspection	10	16	20	22	24	26	28	30	32	34	36	38	40	44	50	54	56	60	70	80	90	100
	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆

Notes: 1. You can use with each mated height in common.
2. The pickup surface shape of the inspection sockets is different from that of the standard sockets. (For details, refer to the product specification diagram.)
3. Please inquire about numbers of contacts other than those given above.
4. Please inquire with us regarding delivery times.
5. Please keep the minimum unit for ordering no less than 50 pieces per lot.
6. Please inquire for further information.

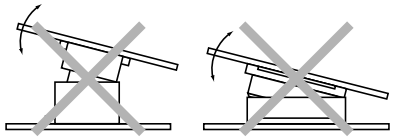
PRODUCT TYPES

Specifications			Part No.	Specifications			Part No.
Socket	With pickup cover	Without positioning bosses	AXT3E∗∗66	Header	With pickup cover	Without positioning bosses	AXT4E∗∗66
	No pickup cover	Without positioning bosses	AXT3E∗∗26		No pickup cover	Without positioning bosses	AXT4E∗∗26

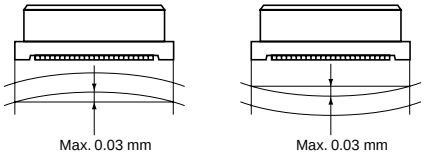
Notes: 1. When placing an order, substitute the "∗" (asterisk) in the above part number with the number of contacts for the required connector.
2. The above part numbers are for connectors without positioning bosses, which are standard. When ordering connectors with positioning bosses, please contact our sales office.

NOTES

1. As shown below, excess force during insertion may result in damage to the connector or removal of the solder. Please be careful. Also, to prevent connector damage please confirm the correct position before mating connectors.



2. Keep the PC board warp no more than 0.03mm in relation to the overall length of the connector.



3. If extra resistance to shock caused by dropping is required, we recommend using our previous P4 Series.

4. PC Boards and Recommended Metal Mask Patterns

Connectors are mounted with high density, with a pitch interval of 0.4 to 0.5mm.

In order to reduce solder bridge and other issues make sure the proper levels of solder are used.

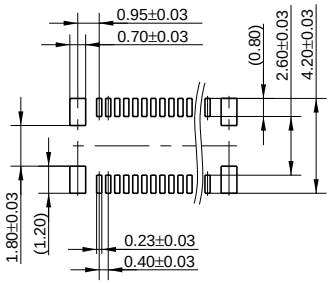
The figures to the right are recommended metal mask patterns.

Please use them as a reference.

Socket

(Mated height: 1.5mm, 2.0mm, 2.5mm and 3.0mm)

Recommended PC board pattern (TOP VIEW)

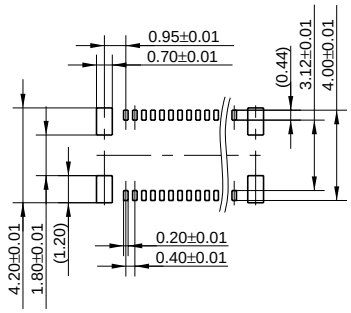


Recommended metal mask pattern

Metal mask thickness: Here, 150 µm

(Terminal portion opening area ratio: 48%)

(Metal portion opening area ratio: 100%)

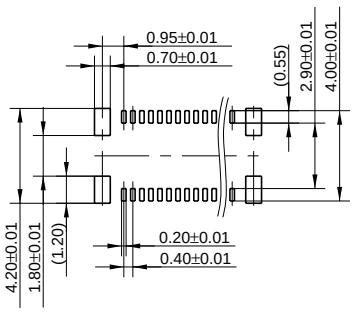


Recommended metal mask pattern

Metal mask thickness: Here, 120 µm

(Terminal portion opening area ratio: 60%)

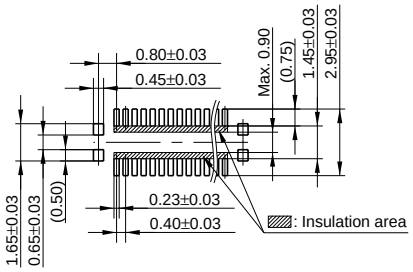
(Metal portion opening area ratio: 100%)



Header

(Mated height: 1.5mm and 2.5mm)

Recommended PC board pattern (TOP VIEW)

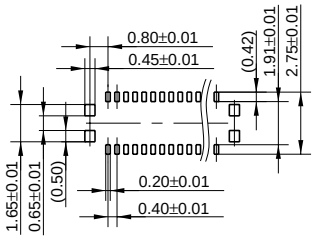


Recommended metal mask pattern

Metal mask thickness: Here, 150 µm

(Terminal portion opening area ratio: 49%)

(Metal portion opening area ratio: 100%)

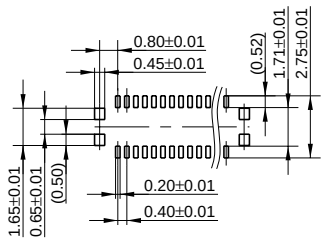


Recommended metal mask pattern

Metal mask thickness: Here, 120 µm

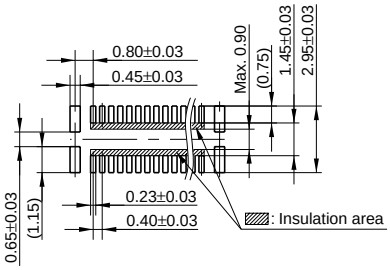
(Terminal portion opening area ratio: 60%)

(Metal portion opening area ratio: 100%)

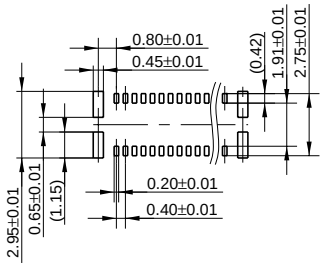


Header
(Mated height: 2.0mm, 3.0mm)
Recommended PC board pattern (TOP VIEW)

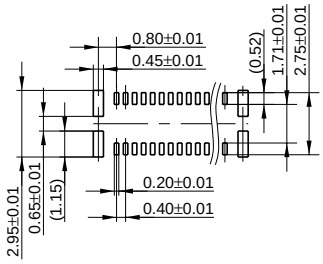
For other details, please verify with the product specification sheets.



Recommended metal mask pattern
Metal mask thickness: Here, 150 µm
(Terminal portion opening area ratio: 49%)
(Metal portion opening area ratio: 100%)



Recommended metal mask pattern
Metal mask thickness: Here, 120 µm
(Terminal portion opening area ratio: 60%)
(Metal portion opening area ratio: 100%)



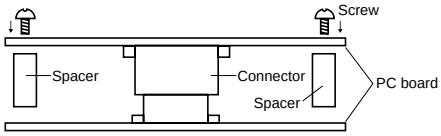
Note: The recommended PC board pattern diagrams and metal mask pattern diagrams for headers with mating heights of 1.5 mm/ 2.5 mm and 2.0 mm/3.0 mm are different.

NOTES FOR USING SMD TYPE CONNECTORS (Common)

Regarding the design of devices and PC board patterns

1) When connecting several connectors together by stacking, make sure to maintain proper accuracy in the design of structure and mounting equipment so that the connectors are not subjected to twisting and torsional forces.
2) With mounting equipment, there may be up to a ±0.2 to 0.3-mm error in positioning. Be sure to design PC boards and patterns while taking into consideration the performance and abilities of the required equipment.
3) Some connectors have tabs embossed on the body to aid in positioning. When using these connectors, make sure that the PC board is designed with positioning holes to match these tabs.
4) To ensure the required mechanical strength when soldering the connector terminals, make sure the PC board meets recommended PC board pattern design dimensions given.
5) For all connectors of the narrow-pitch series, to prevent the PC board from coming off during vibrations or impacts, and to prevent loads from falling directly on the soldered portions, be sure to design some means to fix the PC board in place.

Example) Secure in place with screws



When connecting PC boards, take appropriate measures to prevent the connector from coming off.
6) Notes when using a FPC.
(1) When the connector is soldered to an FPC board, during its insertion and removal procedures, forces may be applied to the terminals and cause the soldering to come off. It is recommended to use a reinforcement board on the backside of the FPC board to which the connector is being connected. Please make the reinforcement board dimensions bigger than the outer limits of the recommended PC board pattern (should be approximately 1 mm greater than the outer limit).
Material should be glass epoxy or polyimide, and the thickness should be between 0.2 and 0.3 mm.
(2) Collisions, impacts, or turning of FPC boards, may apply forces on the connector and cause it to come loose. Therefore, make to design retaining plates or screws that will fix the connector in place.
7) The narrow-pitch connector series is designed to be compact and thin. Although ease of handling has been taken into account, take care when mating the connectors, as displacement or angled mating could damage or deform the connector.

Regarding the selection of the connector placement machine and the mounting procedures

1) Select the placement machine taking into consideration the connector height, required positioning accuracy, and packaging conditions.
2) Be aware that if the catching force of the placement machine is too great, it may deform the shape of the connector body or connector terminals.
3) Be aware that during mounting, external forces may be applied to the connector contact surfaces and terminals and cause deformations.
4) Depending on the size of the connector being used, self alignment may not be possible. In such cases, be sure to carefully position the terminal with the PC board pattern.
5) The positioning bosses give an approximate alignment for positioning on the PC board. For accurate positioning of the connector when mounting it to the PC board, we recommend using an automatic positioning machine.

Regarding soldering

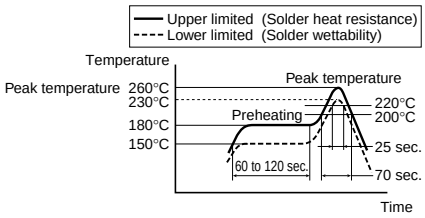
1. Reflow soldering

1) Measure the recommended profile temperature for reflow soldering by placing a sensor on the PC board near the connector surface or terminals. (The setting for the sensor will differ depending on the sensor used, so be sure to carefully read the instructions that comes with it.)
2) As for cream solder printing, screen printing is recommended.
3) See the specifications and drawings for the product in question for the metal mask pattern diagrams.
4) When mounting on both sides of the PC board and the connector is mounting on the underside, use adhesives or other means to ensure the connector is properly fixed to the PC board. (Double reflow soldering on the same side is possible.)
5) N_2 reflow, conducting reflow soldering in a nitrogen atmosphere, increases the solder flow too greatly, enabling wicking to occur. Make sure that the solder feed rate and temperature profile are appropriate.

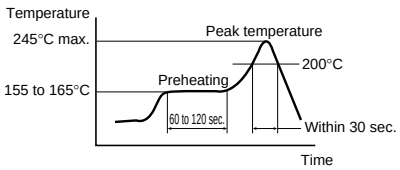
Soldering conditions

Please use the reflow temperature profile conditions recommended below for reflow soldering. Please contact us before using a temperature profile other than that described below (e.g. lead-free solder).

• Narrow-pitch connectors
(except P5 floating and P8 type)



• Narrow-pitch connector (P5 floating, P8)



For products other than the ones above, please refer to the latest product specifications.
6) The temperatures are measured at the surface of the PC board near the connector terminals. (The setting for the sensor will differ depending on the sensor used, so be sure to carefully read the instructions that comes with it.)
7) The temperature profiles given in this catalog are values measured when using the connector on a resin-based PC board. When performed reflow soldering on a metal board (iron, aluminum, etc.) or a metal table to mount on a FPC, make sure there is no deformation or discoloration of the connector beforehand and then begin mounting.

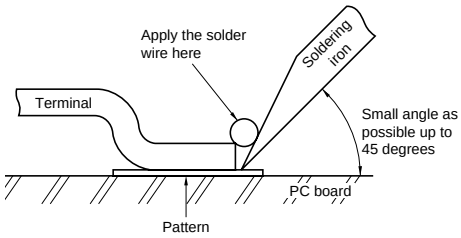
2. Hand soldering

1) Set the soldering iron so that the tip temperature is less than that given in the table below.

Table A

Product name	Soldering iron temperature
SMD type connectors	300°C within 5 sec. 350°C within 3 sec.

2) Do not allow flux to spread onto the connector leads or PC board. This may lead to flux rising up to the connector inside.
3) Touch the soldering iron to the foot pattern. After the foot pattern and connector terminal are heated, apply the solder wire so it melts at the end of the connector terminals.



4) Be aware that soldering while applying a load on the connector terminals may cause improper operation of the connector.
5) Thoroughly clean the soldering iron.
6) Flux from the solder wire may get on the contact surfaces during soldering operations. After soldering, carefully check the contact surfaces and clean off any solder before use.
7) For soldering of prototype devices during product development, you can perform soldering at the necessary locations by heating with a hot-air gun by applying cream solder to the foot pattern beforehand. However, at this time, make sure that the air pressure does not move connectors by carefully holding them down with tweezers or other similar tool. Also, be careful not to go too close to the connectors and melt any of the molded components.
8) When soldering the shell terminals of, for example, I/O connectors, avoid applying an excessive amount of solder, or it may flow into the shell.

Example:
Inflidge Industrial, Ltd.
Super Air Heater
Digital temperature controller
Air heater with internal temperature sensor

3. Solder reworking

1) Finish reworking in one operation.
2) For reworking of the solder bridge, use a soldering iron with a flat tip. To prevent flux from climbing up to the contact surfaces, do not add more flux.
3) Keep the soldering iron tip temperature below the temperature given in Table A.
4) When soldering the shell terminals of, for example, I/O connectors, avoid applying an excessive amount of solder, or it may flow into the shell.

NOTES FOR USING SMD TYPE CONNECTORS (Common)

Handling Single Components

1) Make sure not to drop or allow parts to fall from work bench
2) Excessive force applied to the terminals could cause them to warp, come out, or weaken the adhesive strength of the solder. Handle with care.
3) Repeated bending of the terminals may break them.
4) Do not use alcohol for cleaning. Doing so may whiten the surface of molded parts.

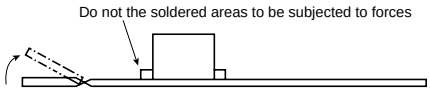
Cleaning flux from PC board

1) To increase the cleanliness of the cleaning fluid and cleaning operations, prepare equipment for a cleaning process that begins with boil cleaning, ultrasonic cleaning, and then to vapor cleaning.
2) Carefully oversee the cleanliness of the cleaning fluids to make sure that the contact surfaces do not become dirty from the cleaning fluid itself.
3) Since some powerful cleaning may dissolve molded components of the connector and wipe off printed letters, we recommend aqua pura electronic parts cleaners. Consult us if you wish other types of cleaning fluids.
4) Please note that the surfaces of molded parts may whiten when cleaned with alcohol.

Handling the PC board

• Handling the PC board after mounting the connector

When cutting or bending the PC board after mounting the connector, be careful that the soldered sections are subjected to excessive forces.



Storage of connectors

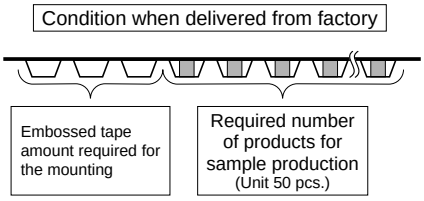
1) To prevent trouble from voids or air pockets by heat of reflow soldering, avoid storing the connectors in areas of high humidity. When storing the connectors for more than six months, be sure to store them in a storage area where the humidity is properly controlled.
2) Depending on the connector type, the color of the connector may vary from connector to connector if produced at different times, and some connectors more even change color slightly if subjected to ultraviolet rays during storage. This is normal and will not affect the operation of the connector.
3) When storing the connectors with the PC boards assembled and components alreeady set, be careful not to stack them up so the connectors are subjected to excessive forces.
4) Avoid storing the connectors in locations with excessive dust. The dust may accumulate and cause improper connections at the contact surfaces.

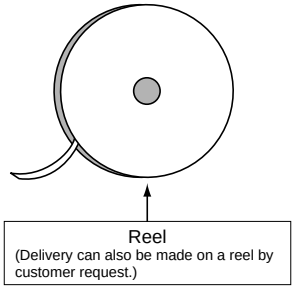
Other Notes

1) These products are made for the design of compact and lightweight devices and therefore the thickness of the molded components has been made very thin. Therefore, be careful during insertion and removal operations for excessive forces applied may damage the products.
2) Dropping of the products or rugged mishandling may bend or damage the terminals and even hinder proper reflow soldering.
3) Before soldering, try not to insert or remove the connector more than absolutely necessary.
4) When coating the PC board after soldering the connector to prevent the deterioration of insulation, perform the coating in such a way so that the coating does not get on the connector.
5) There may be variations in the colors of products from different production lots. This is normal.
6) The connectors are not meant to be used for switching.
7) Be sure not to allow external pressure to act on connectors when assembling PCBs or moving in block assemblies.

Regarding sample orders to confirm proper mounting

When ordering samples to confirm proper mounting with the placement machine, connectors are delivered in 50-piece units in the condition given right. Consult a sale representative for ordering sample units.





For other details, please verify with the product specification sheets.