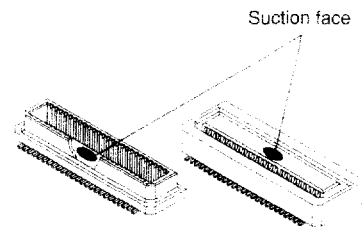
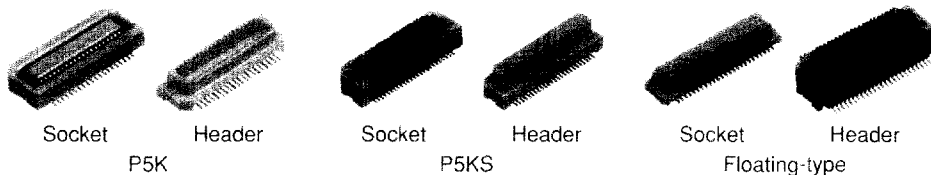


NAIS®

NARROW-PITCH CONNECTORS FOR PC BOARDS

NARROW PITCH (0.5mm) CONNECTORS — P5 SERIES —



FEATURES

1. Low profile of 3mm
2. Unique bellows-type contacts
Our unique bellows-type contacts resist mating stress and offer high contact reliability.

3. Automatic mounting

- 1) Suction area for suction-type automatic placement machines is employed.
- 2) Embossed tape packaging is standard.
- 3) Terminal construction which is virtually resistant to solder bridging.

APPLICATIONS

Small portable equipment, personal computers, word processors, video equipment, radio communication equipment, cellular telephone, PCS, etc.

SPECIFICATIONS

1. Characteristics

Item	Specifications		Conditions	
	3mm, 3.5mm, 4mm, 4.5mm, 5mm, 5.5mm, 6mm, 6.5mm type	7mm, 8mm, 9mm type		
Electrical characteristics	Rated current	0.2A (0.5A is possible for 10 contacts type)		
	Rated voltage	AC, DC 60V		
	Breakdown voltage	150V AC for 1 min.		
	Insulation resistance	Min. 1000MΩ		
Mechanical characteristics	Contact resistance	Max. 60mΩ		
	Composite insertion force	Max. 0.785N (80gf) × no. of contacts (initial)		
	Composite removal force	Min. 0.0588N (6gf) × no. of contacts		
Environmental characteristics	Post holding force	Min. 0.981N (100gf)		
	Ambient temperature	-55°C to +85°C		
Environmental characteristics	Soldering heat resistance	Max. peak temperature of 245°C 300°C within 5 sec./350°C within 3 sec.		
	Thermal shock resistance (header and socket mated)	5 cycles, insulation resistance min. 100MΩ, contact resistance max. 60mΩ!		
	Humidity resistance (header and socket mated)	120 hours, insulation resistance min. 100MΩ, contact resistance max. 60mΩ!	120 hours, insulation resistance min. 100MΩ, contact resistance max. 80mΩ!	Bath 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. 60mΩ!	24 hours, insulation resistance min. 100MΩ, contact resistance max. 80mΩ!	Bath temperature 35±2°C, saltwater concentration 5±1%
	H ₂ S resistance (header and socket mated)	48 hours, contact resistance max. 60mΩ!	48 hours, contact resistance max. 80mΩ!	Bath temperature 40±2°C, gas concentration 3±1 ppm, humidity 75 to 80% R.H.
	Lifetime characteristics	Insertion and removal life	50 times	

Sequence	Temperature (°C)	Time (minutes)
1	-55	30
2	25	Max. 5
3	85	30
4	25	Max. 5

2. Material and surface treatment

Part name	Material	Surface treatment
Molded portion	Heat-resistant resin (UL94V-0)	—
Contact	Copper alloy	Contact portion: Au plating over Ni Terminal portion: Au plating over Ni

PRODUCT TYPES

No. of contacts	Products name	P5K						P5KS						Packing quantity		
		3 mm	3.5 mm	4 mm	4.5 mm	5 mm	5.5 mm	6 mm	6.5 mm	7 mm	8 mm	9 mm	Reel	Outer carton		
20	Socket	AXK520145P*	AXK520145P*	AXK5S20045P*	AXK5S20245P*	AXK5S20045P*	AXK5S20245P*	AXK5S20045P*	AXK5S20245P*	AXK5S20340P*	AXK5S20340P*	AXK5S20340P*	AXK5S20340P*	AXK5S20340P*	1 000 pcs.	2 000 pcs.
	Header	AXK620345P*	AXK620245P*	AXK6S20445P*	AXK6S20445P*	AXK6S20545P*	AXK6S20545P*	AXK6S20645P*	AXK6S20645P*	AXK6S20445P*	AXK6S20545P*	AXK6S20545P*	AXK6S20645P*	AXK6S20645P*		
30	Socket	AXK530145P*	—	AXK5S30045P*	AXK5S30245P*	AXK5S30045P*	AXK5S30245P*	AXK5S30045P*	AXK5S30245P*	AXK5S30340P*	AXK5S30340P*	AXK5S30340P*	AXK5S30340P*	AXK5S30340P*	1 000 pcs.	2 000 pcs.
	Header	AXK630345P*	—	AXK6S30445P*	AXK6S30445P*	AXK6S30545P*	AXK6S30545P*	AXK6S30645P*	AXK6S30645P*	AXK6S30445P*	AXK6S30545P*	AXK6S30545P*	AXK6S30645P*	AXK6S30645P*		
40	Socket	AXK540145P*	AXK540145P*	AXK5S40045P*	AXK5S40245P*	AXK5S40045P*	AXK5S40245P*	AXK5S40045P*	AXK5S40245P*	AXK5S40340P*	AXK5S40340P*	AXK5S40340P*	AXK5S40340P*	AXK5S40340P*	1 000 pcs.	2 000 pcs.
	Header	AXK640345P*	AXK640245P*	AXK6S40445P*	AXK6S40445P*	AXK6S40545P*	AXK6S40545P*	AXK6S40645P*	AXK6S40645P*	AXK6S40445P*	AXK6S40545P*	AXK6S40545P*	AXK6S40645P*	AXK6S40645P*		
50	Socket	AXK550145P*	—	AXK5S50045P*	AXK5S50245P*	AXK5S50045P*	AXK5S50245P*	AXK5S50045P*	AXK5S50245P*	AXK5S50340P*	AXK5S50340P*	AXK5S50340P*	AXK5S50340P*	AXK5S50340P*	1 000 pcs.	2 000 pcs.
	Header	AXK650345P*	—	AXK6S50445P*	AXK6S50445P*	AXK6S50545P*	AXK6S50545P*	AXK6S50645P*	AXK6S50645P*	AXK6S50445P*	AXK6S50545P*	AXK6S50545P*	AXK6S50645P*	AXK6S50645P*		
60	Socket	AXK560145P*	—	AXK5S60045P*	AXK5S60245P*	AXK5S60045P*	AXK5S60245P*	AXK5S60045P*	AXK5S60245P*	AXK5S60340P*	AXK5S60340P*	AXK5S60340P*	AXK5S60340P*	AXK5S60340P*	1 000 pcs.	2 000 pcs.
	Header	AXK660345P*	—	AXK6S60445P*	AXK6S60445P*	AXK6S60545P*	AXK6S60545P*	AXK6S60645P*	AXK6S60645P*	AXK6S60445P*	AXK6S60545P*	AXK6S60545P*	AXK6S60645P*	AXK6S60645P*		
80	Socket	AXK580145P*	—	AXK5S80045P*	AXK5S80245P*	AXK5S80045P*	AXK5S80245P*	AXK5S80045P*	AXK5S80245P*	AXK5S80340P*	AXK5S80340P*	AXK5S80340P*	AXK5S80340P*	AXK5S80340P*	1 000 pcs.	2 000 pcs.
	Header	AXK680345P*	—	AXK6S80445P*	AXK6S80445P*	AXK6S80545P*	AXK6S80545P*	AXK6S80645P*	AXK6S80645P*	AXK6S80445P*	AXK6S80545P*	AXK6S80545P*	AXK6S80645P*	AXK6S80645P*		
100	Socket	AXK500145P*	—	AXK5S00045P*	AXK5S00245P*	AXK5S00045P*	AXK5S00245P*	AXK5S00045P*	AXK5S00245P*	AXK5S00340P*	AXK5S00340P*	AXK5S00340P*	AXK5S00340P*	AXK5S00340P*	1 000 pcs.	2 000 pcs.
	Header	AXK600345P*	—	AXK6S00445P*	AXK6S00445P*	AXK6S00545P*	AXK6S00545P*	AXK6S00645P*	AXK6S00645P*	AXK6S00445P*	AXK6S00545P*	AXK6S00545P*	AXK6S00645P*	AXK6S00645P*		

Notes:
 1. Minimum ordering quantity is a single reel (1,000 pcs./lot) for embossed tape package. As for * marked products, 1,500 pcs./lot is available. When ordering, please change the suffix "P" to "J".
 2. The standard type comes with no positioning bosses. Connectors with positioning bosses are available for on-demand production. For this type of connector, please change the 8th digit of the P5K ordering number and the 9th of P5KS ordering number to "3".
 Example: For P5K 20-contact with 3mm stacking height: AXK520135P
 For P5KS 20-contact with 4mm stacking height: AXK5S20035P

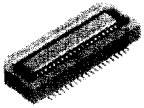
AXK(5/6)

DIMENSIONS

mm General tolerance ± 0.2

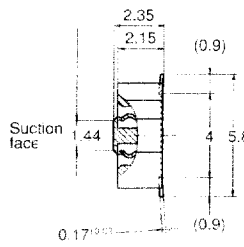
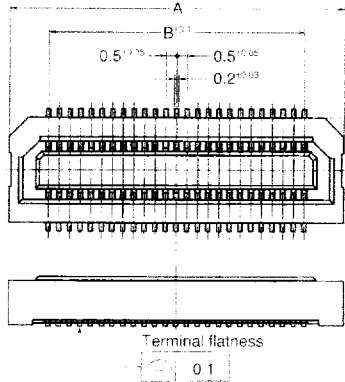
P5K: Stacking height 3mm, 3.5mm type

- Socket

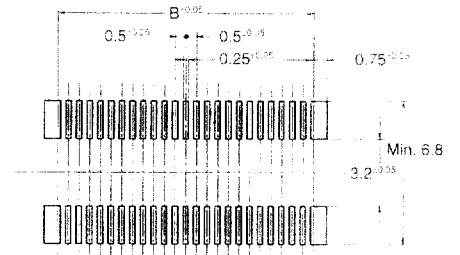


Dimension table (mm)

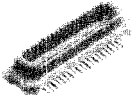
No. of contacts	A	B
20	8.20	4.50
30	10.70	7.00
40	13.20	9.50
50	15.70	12.00
60	18.20	14.50
80	23.20	19.50
100	28.20	24.50



Recommended PC board pattern (top view)

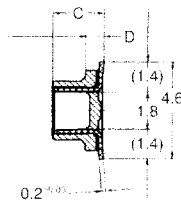
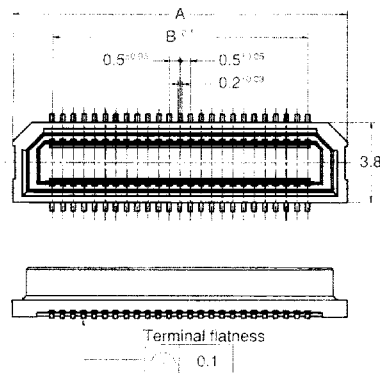


- Header



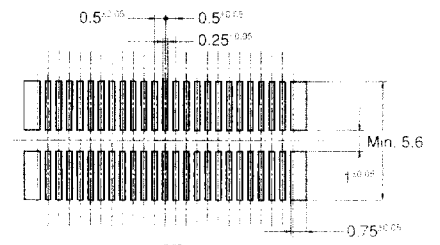
Dimension table (mm)

No. of contacts	A	B
20	8.20	4.50
30	10.70	7.00
40	13.20	9.50
50	15.70	12.00
60	18.20	14.50
80	23.20	19.50
100	28.20	24.50

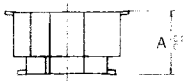


Stacking height	C	D
3.0 mm	2.4	0.85
3.5 mm	2.9	1.35

Recommended PC board pattern (top view)



- Socket and header are mated



Stacking height	A
3.0 mm	3.0
3.5 mm	3.5

P5KS: Stacking height 4mm, 5mm, 6mm type

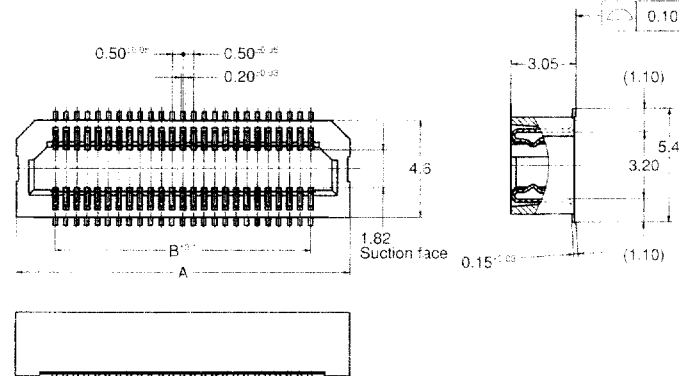
mm General tolerance ± 0.2

- Socket

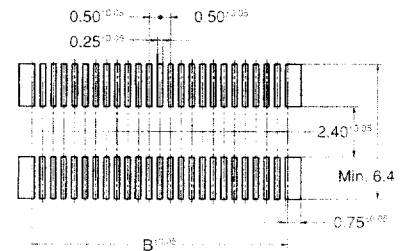


Dimension table (mm)

No. of contacts	A	B
20	8.20	4.50
30	10.70	7.00
40	13.20	9.50
50	15.70	12.00
60	18.20	14.50
80	23.20	19.50
100	28.20	24.50



Recommended PC board pattern (top view)

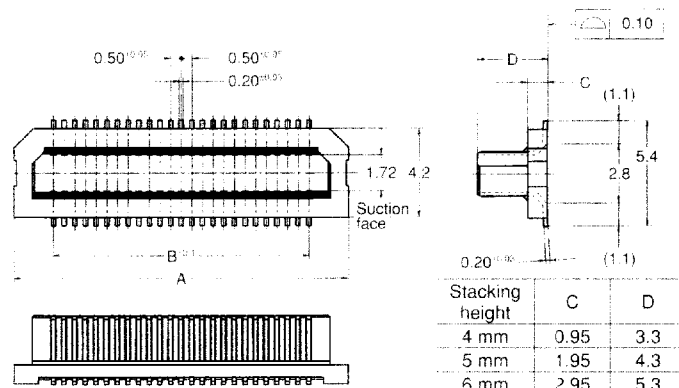


- Header

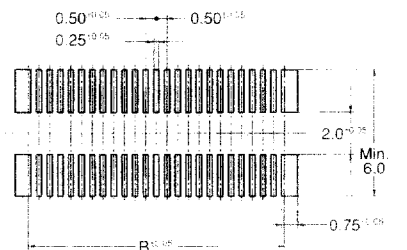


Dimension table (mm)

No. of contacts	A	B
20	8.20	4.50
30	10.70	7.00
40	13.20	9.50
50	15.70	12.00
60	18.20	14.50
80	23.20	19.50
100	28.20	24.50



Recommended PC board pattern (top view)



Stacking height	C	D
4 mm	0.95	3.3
5 mm	1.95	4.3
6 mm	2.95	5.3

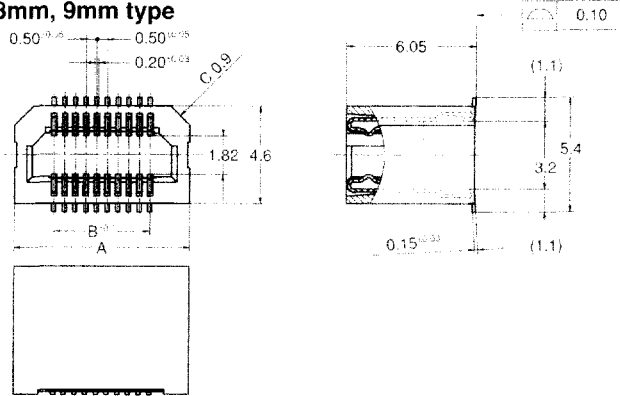
P5KS: Stacking height 7mm, 8mm, 9mm type

• Socket



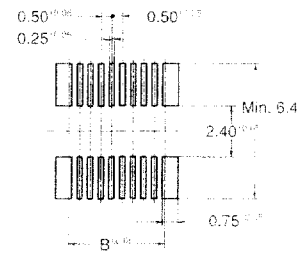
Dimension table (mm)

No. of contacts	A	B
20	8.20	4.50
30	10.70	7.00
40	13.20	9.50
50	15.70	12.00
60	18.20	14.50
80	23.20	19.50



mm General tolerance ±0.2

Recommended PC board pattern (top view)

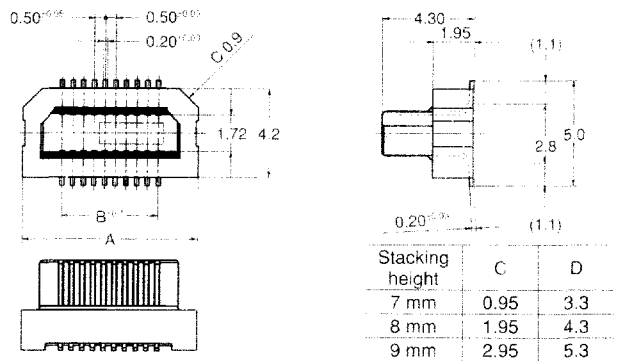


• Header

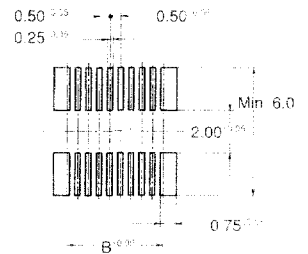


Dimension table (mm)

No. of contacts	A	B
20	8.20	4.50
30	10.70	7.00
40	13.20	9.50
50	15.70	12.00
60	18.20	14.50
80	23.20	19.50

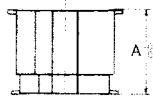


Recommended PC board pattern (top view)



Stacking height	C	D
7 mm	0.95	3.3
8 mm	1.95	4.3
9 mm	2.95	5.3

• Socket and header are mated



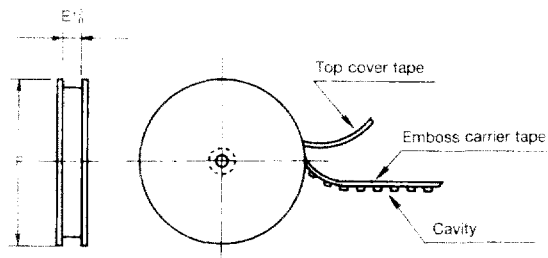
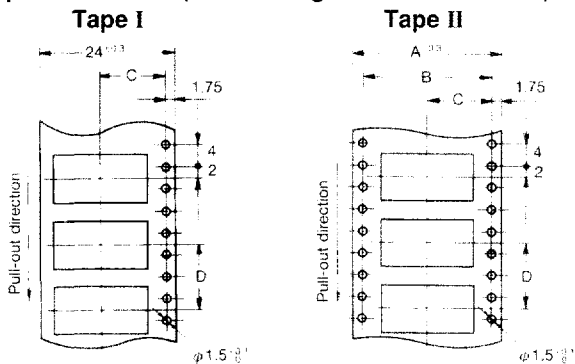
Stacking height	A
4 mm	4.0
4.5 mm	4.5
5 mm	5.0
5.5 mm	5.5
6 mm	6.0
6.5 mm	6.5
7 mm	7.0
8 mm	8.0
9 mm	9.0

Note: P5K series cannot be mated to P5KS series

EMBOSS TAPE AND REEL (Common for respective contact type and socket/header)

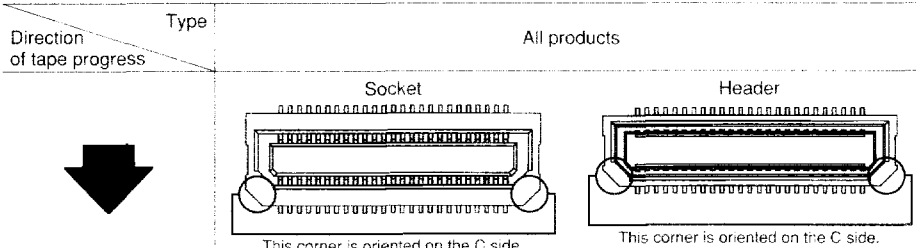
1. Tape dimensions (Conforming to JIS C 0806-1990)

2. Reel dimensions (Conforming to JIS C 0806-1990)



No. of contacts	Type of taping	A	B	C	D	E	F	Quantity per reel
less than 58	Tape I	24.0	—	11.5	12.0	24.4	φ330	1,000
60~78	Tape II	32.0	28.4	14.2	12.0	32.4	φ330	1,000
80~100	Tape II	44.0	40.4	20.2	12.0	44.4	φ330	1,000

Connector orientation with respect to direction of progress of embossed tape



Notes) 1. For other detailed information described above, please consult us.
2. As to improve the product, specification may be subject to change. Please consult us.