# Panasonic

# ideas for life



Without soldering terminal





Header

With soldering terminal





Socket

Header

#### **Compliance with RoHS Directive**

# NARROW-PITCH CONNECTORS FOR BOARD-TO-BOARD AND **BOARD-TO-FPC CONNECTION**

# NARROW PITCH (0.4mm) CONNECTORS P4 SERIES

# **FEATURES**

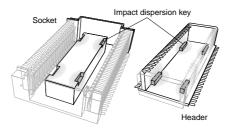
1. 0.4 mm pitch and support for mated heights of up to 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, and 4.0 mm. 2. Strong resistance to adverse

environments! Utilizes

TDUGH CONTRET construction for high contact reliability.

(See Page 6 for details of the structure)

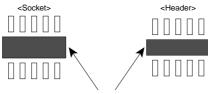
3. It is constructed with impact dispersion keys inside the body to disperse shocks when dropped.



A high level of shock resistance is ensured by dispersing impact over the four locations where the socket indentations and header protrusions are mated together.

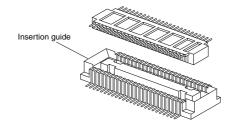
Note: The following numbers of contacts are not supported due to suction surface factors.

- Without soldering terminal: 18 contacts or less
- · With soldering terminal: 22 contacts or less
- 4. Construction makes designing devices easier.
- 1) The lower connector bottom surface construction prevents contact and shorts between the PCB and metal terminals. This enables freedom in pattern wiring, helping to make PCB's smaller.



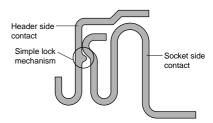
Connector bottom: Create any thru-hole and pattern wiring

2) Guides are provided to take up any position shift and facilitate insertion.



3) The connector has a simple lock mechanism.

Superior mated operation with click feel to indicate that mated is complete.



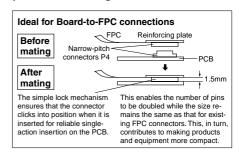
#### 5. Design makes efficient mounting.

Features a terminal flatness of 0.08 mm, construction resistant to creeping flux, and design that facilitates visual inspection of the soldered part.

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

#### **APPLICATIONS**

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



# **ORDERING INFORMATION**

AXK	G
7: Narrow Pitch Connector P4 (0.4 mm pitch) Socket 8: Narrow Pitch Connector P4 (0.4 mm pitch) Header	
Number of contacts (2 digits)	
Mated height <socket>  1: For mated height 1.5 mm  2: For mated height 2.0 mm  3: For mated height 2.5 mm and 3.0 mm  4: For mated height 3.5 mm  5: For mated height 4.0 mm  <header>  1: For mated height 1.5 mm, 2.0 mm and 2.5 mm  2: For mated height 3.0 mm, 3.5 mm and 4.0 mm</header></socket>	
Functions 2: With soldering terminal, without positioning bosses 4: Without soldering terminal, without positioning bosses	
Surface treatment (Contact portion / Terminal portion) <socket> 7: Ni plating on base, Au plating on surface (for Ni barrier available) <header> 5: Ni plating on base, Au plating on surface</header></socket>	
Other specifications <header> W: V notch and post edge horseshoe bend type product</header>	
Packing G: 3,000 pieces embossed tape and plastic reel × 2*	

Notes: 1. Only a socket of mated height 3.5 mm and 4.0 mm: 2,000 pieces embossed tape and plastic reel × 2.

2. Please note that the models with a soldering terminal (8th digit of part number is "2") and those without a soldering terminal (8th digit of part number is "4") are shaped differently and are not compatible.

## **PRODUCT TYPES**

1. Without soldering terminal \*\* TOUGH CONTACT

14	without solde	ring terminal	J I DUBH LUN I HL I			
1.5 mm	Number of			T T T T T T T T T T T T T T T T T T T	Pac	cking
14	Mated height				Inner carton	Outer carton
16			TOUGH CONTRCT	TDUGH CDNTRCT	minor carton	Julei carten
20		14	AXK714147G	AXK814145WG		
22		16	AXK716147G	AXK816145WG		
24		20	AXK720147G	AXK820145WG		
2.5 mm  2.5 mm  2.6 AXK728147G AXK828148WG  3.0 AXK730147G AXK830145WG  4.0 AXK740147G AXK830145WG  4.2 AXK74147G AXK830145WG  4.4 AXK74147G AXK830145WG  5.0 AXK750147G AXK830145WG  5.4 AXK754147G AXK830145WG  6.0 AXK760147G AXK830145WG  6.0 AXK720147G AXK830145WG  6.0 AXK720147G AXK830145WG  6.0 AXK72047G AXK830145WG  6.0 AXK730347G		22	AXK722147G	AXK822145WG		
28		24	AXK724147G	AXK824145WG		
3.0 AXK730147G AXK330145WG 3.4 AXK736147G AXK330145WG 3.6 AXK736147G AXK36145WG 4.0 AXK740147G AXK36145WG 4.2 AXK74147G AXK36145WG 4.4 AXK74147G AXK36145WG 5.0 AXK750147G AXK36145WG 5.0 AXK750147G AXK36145WG 5.0 AXK750147G AXK36145WG 6.0 AXK760147G AXK36145WG 6.0 AXK760147G AXK360145WG 6.0 AXK760247G AXK360145WG 6.0 AXK720247G AXK360145WG 6.0 AXK740247G AXK360145WG 6.0 AXK740247G AXK360145WG 6.0 AXK740247G AXK360145WG 6.0 AXK760247G AXK360145WG 6.0		26	AXK726147G	AXK826145WG		
3.4 AXK734147G AXK834145VIG 36 AXK736147G AXK834145VIG 40 AXK740147G AXK840145VIG 41 AXK740147G AXK840145VIG 42 AXK742147G AXK840145VIG 43 AXK740147G AXK840145VIG 50 AXK750147G AXK850145VIG 50 AXK750147G AXK850145VIG 60 AXK750147G AXK850		28	AXK728147G	AXK828145WG		
1.5 mm		30	AXK730147G	AXK830145WG		
1.5 mm		34	AXK734147G	AXK834145WG		
1.5 mm		36	AXK736147G	AXK836145WG		
42 AXK742147G AXK842145VIG  44 AXK744147G AXK842145VIG  50 AXK750147G AXK850148VIG  54 AXK750147G AXK850148VIG  60 AXK750147G AXK850148VIG  61 AXK75147G AXK850148VIG  62 AXK760147G AXK860145VIG  63 AXK760147G AXK860145VIG  64 AXK76147G AXK860145VIG  70 AXK770147G AXK860145VIG  80 AXK780147G AXK880145VIG  100 AXK700147G AXK880145VIG  21 AXK724247G AXK860145VIG  22 AXK722247G AXK82145VIG  23 AXK722247G AXK82145VIG  24 AXK722247G AXK823145VIG  33 AXK730247G AXK830145VIG  34 AXK730247G AXK830145VIG  40 AXK730247G AXK830145VIG  50 AXK750247G AXK880145VIG  60 AXK760247G AXK880145VIG  60 AXK760247G AXK880145VIG  60 AXK760247G AXK880145VIG  60 AXK760247G AXK880145VIG  60 AX	1.5 mm					
44						
SO						
S4						
60						
64						
TO						
80						
90						
100						
14						
2.0						
2.0 mm						
2.0 mm					_	
2.0 mm  2.0 mm  30  34  34  34X739247G  34XK830145WG  38  38  34XK734247G  38  38  38  38  38XF34247G  38  38  38  38XF30247G  38  38  38XF30247G  38XF30145WG  40  38  38  38XF30247G  38XF30247G  38XF30145WG  50  38XF30247G  38XF30247G  38XF30145WG  60  38XF30247G  38XF30145WG  80  38XF30247G  38XF30145WG  80  38XF30247G  38XF30145WG  100  38XF30247G  38XF30145WG  20  30  30  30  30  30  30  30  30  30						
2.0 mm  34						
2.0 mm 38					3,000 pieces	6,000 pieces
40						
S0	2.0 mm					
60						
TO		50	AXK750247G	AXK850145WG		
80		60	AXK760247G	AXK860145WG		
100		70	AXK770247G	AXK870145WG		
14		80	AXK780247G	AXK880145WG		
2.5 mm  2.5 mm		100	AXK700247G	AXK800145WG		
24		14	AXK714347G	AXK814145WG		
2.5 mm		20	AXK720347G	AXK820145WG		
2.5 mm  34		24	AXK724347G	AXK824145WG		
2.5 mm		30	AXK730347G	AXK830145WG		
2.5 mm		34	AXK734347G	AXK834145WG		
Solid		40	AXK740347G	AXK840145WG		
Socket: 4,000 pieces   Socket: 4,000 pieces	2.5 mm	44	AXK744347G	AXK844145WG		
TO		50	AXK750347G	AXK850145WG		
80		60	AXK760347G	AXK860145WG		
80		70	AXK770347G	AXK870145WG		
90		80	AXK780347G	AXK880145WG		
100						
3.0 mm  24		100				
3.0 mm 30 AXK730347G AXK830245WG 50 AXK750347G AXK850245WG 80 AXK750347G AXK880245WG 80 AXK780347G AXK880245WG 30 AXK730447G AXK830245WG Socket: 2,000 pieces Header: 3,000 pieces Header: 6,000 pieces Header: 6,000 pieces AXK730447G AXK840245WG Socket: 2,000 pieces Socket: 4,000 pieces Header: 6,000 pieces Header: 6,000 pieces Socket: 4,000 pie						
3.5 mm 50 AXK750347G AXK850245WG 80 AXK780347G AXK880245WG 80 AXK780347G AXK880245WG 80 AXK730447G AXK830245WG Socket: 2,000 pieces Header: 6,000 pieces Header: 6,000 pieces Header: 6,000 pieces AXK740447G AXK840245WG Socket: 2,000 pieces Socket: 4,000 pieces AXK724547G AXK824245WG Socket: 2,000 pieces Socket: 4,000 pieces						
80	3.0 mm					
3.5 mm 30 AXK730447G AXK830245WG Socket: 2,000 pieces Header: 3,000 pieces Header: 6,000 pieces Header: 4,000 pieces AXK740447G AXK840245WG Socket: 2,000 pieces Socket: 4,000 pieces AXK734547G AXK824245WG Socket: 2,000 pieces Socket: 4,000						
3.5 mm 40 AXK740447G AXK840245WG Header: 3,000 pieces Header: 6,000 pieces AXK840245WG Socket: 2,000 pieces Socket: 4,000 pieces					Socket: 2 000 pioces	Socket: 4 000 pice
4.0 mm 24 AVK724547G AVK824245WG Socket: 2,000 pieces Socket: 4,000 piec	3.5 mm					
	4.0 mm	24	AXK724547G	AXK824245WG		Header: 6,000 piec

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 150.) Samples: Small lot orders are possible.

<sup>2.</sup> The above part numbers are for connectors without positioning bosses, which are standard. When ordering connectors with positioning bosses, please contact our sales office.

<sup>3. &</sup>quot;W" indicates a product with V notch and post edge horseshoe bend. ("Post edge horseshoe bend" refers to a construction that makes it difficult for the header post edge to deform when the connector is inserted and removed at an angle.)

<sup>4.</sup> Previous V notch types ("Y" in 10 th place of the header part number) and the current V notch + post edge horseshoe bend types ("W" in the 10 th place of the header part number) are compatible for mating.

header part number) are compatible for mating.

5. Different number of contacts are available on-demand production only. Please contact us for more details.

# 2. With soldering terminal TOUGH CONTACT

	Number of	Part i	number	Pac	Packing	
Mated height	Number of contacts	Socket	Header	Inner carton	Outor carton	
	001114010	TDUGH CDNTRCT	TDUGH CDNTRCT	ITITIET CATTOIT	Outer carton	
	10	AXK710127G	AXK810125WG			
	12	AXK712127G	AXK812125WG			
	20	AXK720127G	AXK820125WG			
	22	AXK722127G	AXK822125WG			
	24	AXK724127G	AXK824125WG			
	28	AXK728127G	AXK828125WG			
	30	AXK730127G	AXK830125WG			
	34	AXK734127G	AXK834125WG		6,000 pieces	
1.5 mm	36	AXK736127G	AXK836125WG			
	40	AXK740127G	AXK840125WG			
	44	AXK744127G	AXK844125WG			
	46	AXK746127G	AXK846125WG			
	50	AXK750127G	AXK850125WG		6,000 pieces	
	60	AXK760127G	AXK860125WG			
	80	AXK780127G	AXK880125WG			
	90	AXK790127G	AXK890125WG			
	100	AXK700127G	AXK800125WG			
	20	AXK720227G	AXK820125WG			
	24	AXK724227G	AXK824125WG			
	40	AXK740227G	AXK840125WG	3,000 pieces	6.000 pieces	
2.0 mm	50	AXK750227G	AXK850125WG	5,000 p.0000	2,000 p.000	
	60	AXK760227G	AXK860125WG			
	80	AXK780227G	AXK880125WG			
	12 AXK712327G	AXK812125WG				
	20	AXK720327G	AXK820125WG			
	28	AXK728327G	AXK828125WG			
	32	AXK732327G	AXK832125WG	_		
2.5 mm	40	AXK740327G	AXK840125WG			
2.0 11111	50	AXK750327G	AXK850125WG	_		
-	60	AXK760327G	AXK860125WG			
-	80	AXK780327G	AXK880125WG	_		
-	90	AXK790327G	AXK890125WG			
	20	AXK720327G	AXK820225WG			
-	36	AXK736327G	AXK836225WG			
_	40	AXK740327G	AXK840225WG	-		
3.0 mm	50	AXK740327G AXK750327G	AXK850225WG			
3.0 111111	60	AXK750327G AXK760327G	AXK860225WG	-		
	80	AXK780327G	AXK880225WG	-		
	90	AXK780327G AXK790327G	AXK890225WG			
	20					
		AXK720427G	AXK820225WG AXK830225WG			
	30	AXK730427G				
2.5 mm	40	AXK740427G	AXK840225WG	Socket: 2,000 pieces	Socket: 4,000 pied	
3.5 mm	50	AXK750427G	AXK850225WG	Header: 3,000 pieces	Header: 6,000 pied	
	60	AXK760427G	AXK860225WG	_		
	70	AXK770427G	AXK870225WG			
	80	AXK780427G	AXK880225WG			
	34	AXK734527G	AXK834225WG	_		
4.0 mm	50 50	AXK742527G	AXK842225WG	Socket: 2,000 pieces Header: 3,000 pieces	Socket: 4,000 pied	
4.0 111111		AXK750527G	AXK850225WG	Header, 4 Hill bleces	Header: 6,000 piece	

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 150.) Samples: Small lot orders are possible.

5. Different number of contacts are available on-demand production only. Please contact us for more details.

<sup>2.</sup> The above part numbers are for connectors without positioning bosses, which are standard. When ordering connectors with positioning bosses, please contact our sales office.

<sup>3. &</sup>quot;\M" indicates a product with V notch and post edge horseshoe bend. ("Post edge horseshoe bend" refers to a construction that makes it difficult for the header post edge to deform when the connector is inserted and removed at an angle.)

4. Previous V notch types ("Y" in 10 th place of the header part number) and the current V notch + post edge horseshoe bend types ("W" in the 10 th place of the

header part number) are compatible for mating.

# **SPECIFICATIONS**

#### 1. Characteristics

	Item	Specifications	Conditions
	Rated current	0.3A/contact (Max. 5 A at total contacts)	
	Rated voltage	60V AC/DC	
Electrical	Breakdown voltage	150V AC for 1 min.	Detection current: 1mA
characteristics	Insulation resistance	Min. 1,000M $\Omega$ (initial)	Using 250V DC megger (applied for 1 min.)
	Contact resistance	Max. 70mΩ	Based on the contact resistance measurement method specified by JIS C 5402.
	Composite insertion force	Max. 0.981N {100gf}/contacts × contacts (initial)	
Mechanical characteristics	Composite removal force	Min. 0.0588N {6gf}/contacts × contacts (Mated height 1.5 mm, without removal and soldering terminal) Min. 0.118N {12gf}/contacts × contacts (Mated height 1.5 mm, except without removal and soldering terminal)	
	Post holding force	Min. 0.981N {100gf}/contacts	Measuring the maximum force. As the contact is axially pull out.
	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. 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. No dew condensation.
Environmental characteristics	Thermal shock resistance (header and socket mated)	5 cycles, insulation resistance min. 100MΩ, contact resistance max. $70mΩ$	Sequence 155.3°C, 30 minutes 2. ~, Max. 5 minutes 3. 85°3°C, 30 minutes 4. ~, Max. 5 minutes
	Humidity resistance (header and socket mated)	120 hours, insulation resistance min. $100M\Omega$ , contact resistance max. $70m\Omega$	Bath temperature 40±2°C, humidity 90 to 95% R.H.
	Saltwater spray resistance (header and socket mated)	24 hours, insulation resistance min. 100M $\Omega$ , contact resistance max. 70m $\Omega$	Bath temperature 35±2°C, saltwater concentration 5±1%
	H <sub>2</sub> S resistance (header and socket mated)	48 hours, contact resistance max. $70m\Omega$	Bath 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 contacts; Socket: 0.04g Header: 0.02g	

#### 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 thick of terminal) However, upper terminal of Ni barrier production: Exposed over Ni The area adjacent to the terminal of the sockets on models with Ni barrier is exposed to Ni on base.				
Soldering terminal portion	Copper alloy	Ni plating on base, Sn plating on surface (Except for front terminal)				

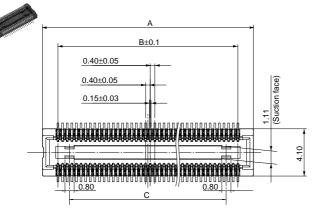
# **DIMENSIONS** (Unit: mm)

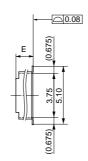
The CAD data of the products with a CAD Data mark can be downloaded from: http://panasonic-electric-works.net/ac

#### 1. Without Soldering Terminal

Socket (Mated height: 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm and 4.0 mm)

#### CAD Data









General tolerance: ±0.2

## Dimension table (mm)

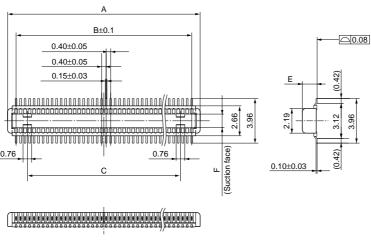
Number of contacts/ dimension	А	В	С	D
14	5.1	2.4	_	2.8
16	5.5	2.8	_	3.2
20	6.3	3.6	1.6	_
22	6.7	4.0	2.0	_
24	7.1	4.4	2.4	_
26	7.5	4.8	2.8	_
28	7.9	5.2	3.2	_
30	8.3	5.6	3.6	_
34	9.1	6.4	4.4	_
36	9.5	6.8	4.8	_
38	9.9	7.2	5.2	_
40	10.3	7.6	5.6	_
42	10.7	8.0	6.0	_
44	11.1	8.4	6.4	_
50	12.3	9.6	7.6	_
54	13.1	10.4	8.4	_
60	14.3	11.6	9.6	_
64	15.1	12.4	10.4	_
70	16.3	13.6	11.6	_
80	18.3	15.6	13.6	_
90	20.3	17.6	15.6	
100	22.3	19.6	17.6	_

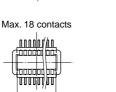
Mated height/dimension	Е
1.5mm	1.50
2.0mm	1.92
2.5mm, 3.0mm	2.42
3.5mm	2.92
4.0mm	3.42

Header (Mated height: 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm and 4.0 mm)

#### CAD Data







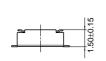
General tolerance: ±0.2

#### Dimension table (mm)

dimension	Α	В	С	D
14	3.9	2.4	_	3.04
16	4.3	2.8	1	3.44
20	5.1	3.6	1.6	_
22	5.5	4.0	2.0	
24	5.9	4.4	2.4	
26	6.3	4.8	2.8	_
28	6.7	5.2	3.2	_
30	7.1	5.6	3.6	1
34	7.9	6.4	4.4	
36	8.3	6.8	4.8	
38	8.7	7.2	5.2	_
40	9.1	7.6	5.6	
42	9.5	8.0	6.0	
44	9.9	8.4	6.4	_
50	11.1	9.6	7.6	
54	11.9	10.4	8.4	_
60	13.1	11.6	9.6	
64	13.9	12.4	10.4	_
70	15.1	13.6	11.6	_
80	17.1	15.6	13.6	_
90	19.1	17.6	15.6	_
100	21.1	19.6	17.6	_

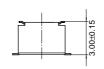
Mated height/dimension	E	F
1.5mm, 2.0mm, 2.5mm	1.31	1.20
3.0mm, 3.5mm, 4.0mm	2.26	1.26

#### Socket and Header are mated

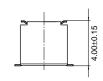








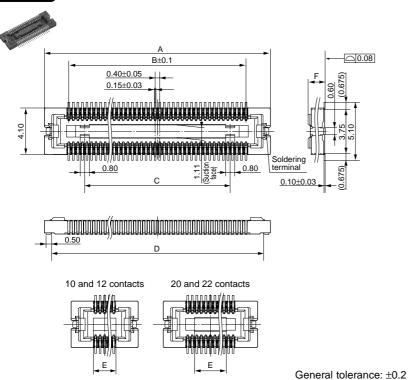




#### 2. With Soldering Terminal

Socket (Mated height: 1.5mm, 2.0mm, 2.5mm, 3.0mm, 3.5mm and 4.0mm)

#### CAD Data



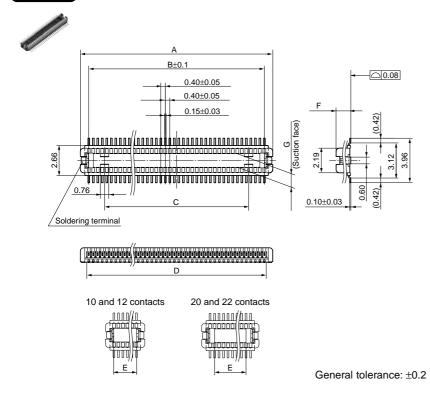
#### Dimension table (mm)

Number of contacts/ dimension	А	В	С	D	Е
10	5.90	1.60	_	4.60	2.00
12	6.30	2.00	_	5.00	2.40
20	7.90	3.60	_	6.60	2.40
22	8.30	4.00	_	7.00	2.80
24	8.70	4.40	1.60	7.40	_
28	9.50	5.20	2.40	8.20	_
30	9.90	5.60	2.80	8.60	_
32	10.30	6.00	3.20	9.00	_
34	10.70	6.40	3.60	9.40	_
36	11.10	6.80	4.00	9.40	_
40	11.90	7.60	4.80	10.60	_
42	12.30	8.00	5.20	11.00	_
44	12.70	8.40	5.60	11.40	_
46	13.10	8.80	6.00	11.80	_
50	13.90	9.60	6.80	12.60	_
60	15.90	11.60	8.80	14.60	_
70	17.90	13.60	10.80	16.60	_
80	19.90	15.60	12.80	18.60	_
90	21.90	17.60	14.80	20.60	_
100	23.90	19.60	16.80	22.60	_

Mated height/dimension	F
1.5mm	1.50
2.0mm	1.92
2.5mm, 3.0mm	2.42
3.5mm	2.92
4.0mm	3.42

Header (Mated height: 1.5mm, 2.0mm, 2.5mm, 3.0mm, 3.5mm and 4.0mm)

#### CAD Data

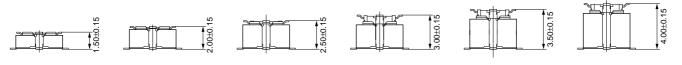


#### Dimension table (mm)

Number of contacts/ dimension	А	В	С	D	Е
10	3.10	1.60	_	1.94	1.64
12	3.50	2.00	_	2.34	2.04
20	5.10	3.60	_	3.94	2.80
22	5.50	4.00	_	4.34	3.20
24	5.90	4.40	1.60	4.74	
28	6.70	5.20	2.40	5.54	_
30	7.10	5.60	2.80	5.94	
32	7.50	6.00	3.20	6.34	_
34	7.90	6.40	3.60	6.74	
36	8.30	6.80	4.00	7.14	_
40	9.10	7.60	4.80	7.94	
42	9.50	8.00	5.20	8.34	_
44	9.90	8.40	5.60	8.74	
46	10.30	8.80	6.00	9.14	_
50	11.10	9.60	6.80	9.94	
60	13.10	11.60	8.80	11.94	_
70	15.10	13.60	10.80	13.94	
80	17.10	15.60	12.80	15.94	
90	19.10	17.60	14.80	17.94	
100	21.10	19.60	16.80	19.94	_

Mated height/dimension	F	G
1.5mm, 2.0mm, 2.5mm	1.31	1.20
3.0mm, 3.5mm, 4.0mm	2.26	1.26

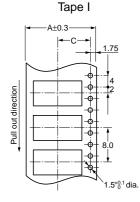
Socket and Header are mated.

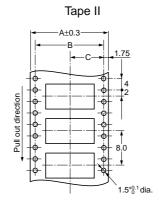


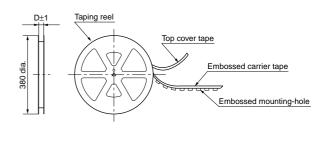
# EMBOSSED TAPE DIMENSIONS (unit: mm, Common for respective contact type, socket and header)

- Tape dimensions (Conforming to JIS C 0806-1990. However, some tapes have mounting hole pitches that do
- Plastic reel dimensions (Conforming to EIAJ ET-7200B)

not comply with the standard.)







#### Dimension table (mm)

1. Without Soldering Terminal

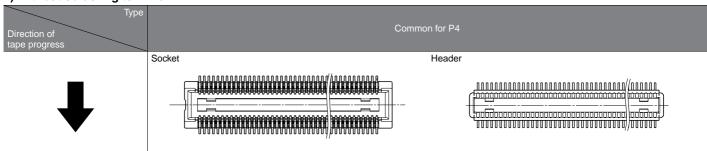
Mated height	Number o	of contacts	Time of tening	۸	В	С	D	Quantity per reel	
iviated Height	Socket	Header	Type of taping	A	D	C	D	Quantity per reer	
Common for socket and header: 1.5 mm, 2.0 mm, 2.5 mm and 3.0 mm Header: 3.5mm and 4.0 mm	Max. 18	Max. 18	Tape I	16.0	_	7.5	17.4	3,000	
	20 to 60	20 to 70	Tape I	24.0	_	11.5	25.4	3,000	
	70 to 90	80 to 100	Tape II	32.0	28.4	14.2	33.4	3,000	
	100		Tape II	44.0	40.4	20.2	45.4	3,000	
Socket: 3.5mm and 4.0 mm	24 t	o 40	Tape I	24.0	1	11.5	25.4	2,000	

#### 2. With Soldering Terminal

Mated height	Number o	of contacts	Type of taping	А	В	С	D	Quantity per reel
Mateu Height	Socket	Header	Type of taping	A	Ь		D	Quantity per reer
Common for socket and header: 1.5 mm, 2.0 mm, 2.5 mm and 3.0 mm Header: 3.5mm and 4.0 mm	Max. 18	Max. 18	Tape I	16.0	_	7.5	17.4	3,000
	20 to 60	20 to 70	Tape I	24.0	_	11.5	25.4	3,000
	70 to 90	80 to 100	Tape II	32.0	28.4	14.2	33.4	3,000
	100	_	Tape II	44.0	40.4	20.2	45.4	3,000
Socket: 3.5mm and 4.0 mm	20 t	o 60	Tape I	24.0	_	11.5	25.4	2,000
	70 t	o 90	Tape II	32.0	28.4	14.2	33.4	2,000

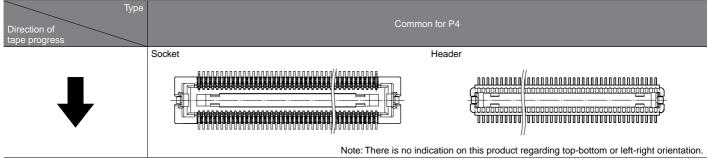
3. Connector orientation with respect to direction of progress of embossed tape

#### 1) Without soldering terminal



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

## 2) With soldering terminal





# CONNECTOR FOR INSPECTION USAGE APPLICATIONS WITH 3,000 INSERTION AND REMOVAL TIMES

NARROW PITCH CONNECTOR P4 (0.4 mm PITCHES) FOR INSPECTION USAGE



# 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 PRODUT TYPES

#### ☆: Available for sale

Product	t name		Number of contacts																					
P4 for ins	spection	10	12	14	16	20	22	24	26	28	30	34	36	40	42	44	46	50	54	60	70	80	90	100
without soldering terminal	ring terminal			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆	☆	☆
P4 for ins	spection	10	12	14	16	20	22	24	26	28	30	34	36	40	42	44	46	50	54	60	70	80	90	100
with soldering to	ng terminal	☆	☆			☆	☆	☆		☆	☆	☆		☆		☆	☆	☆		☆		☆	☆	☆

Notes: 1. You can use with each mated height in common.

- 2. Please inquire about numbers of contacts other than those given above.
- 3. Please inquire with us regarding delivery times.
- 4. Please keep the minimum unit for ordering no less than 50 pieces per lot.
- 5. Please inquire for further information.

# **PRODUCT TYPES**

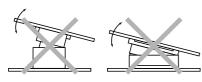
	Specifi	cations	Part No.	Part No.			
Socket	With soldering terminal	Without positioning bosses	AXK7E**26G	Header	With soldering terminal	Without positioning bosses	AXK8E**26WG
Socket	Without soldering terminal	Without positioning bosses	AXK7E**46G	пеацеі	Without soldering terminal	Without positioning bosses	AXK8E**46WG

Notes: 1. When placing an order, substitute the "\*" (asterisk) in the above part number with the number of contacts for the required connector.

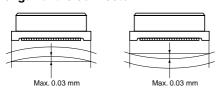
<sup>2.</sup> The above part numbers are for connectors without positioning bosses, which are standard. When ordering connectors with positioning bosses, please contact our sales office.

#### **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 0.03 mm in relation to the overall length of the connector.



# 3. PC Boards and Recommended Metal Mask Patterns

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

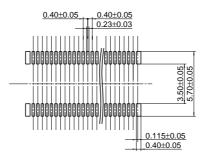
In order to reduce solder bridge and other issues make sure the proper levels of solder are used.

The figures to the right are recommended metal mask patterns.

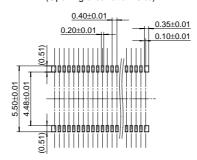
Please use them as a reference.

# 1) Without soldering terminal Socket

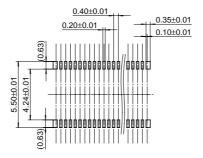
Recommended PC board pattern (TOP VIEW)



Recommended metal mask pattern Metal mask thickness: Here, 150 μm (Opening area ratio: 40 %)

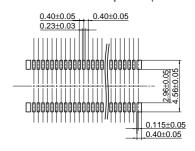


Recommended metal mask pattern Metal mask thickness: Here, 120 μm (Opening area ratio: 50 %)

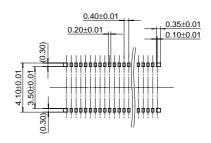


#### Header

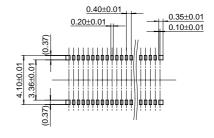
Recommended PC board pattern (TOP VIEW)



Recommended metal mask pattern Metal mask thickness: Here, 150 μm (Opening area ratio: 32 %)

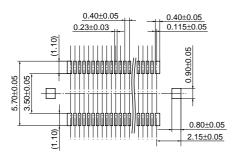


Recommended metal mask pattern Metal mask thickness: Here, 120 μm (Opening area ratio: 40 %)

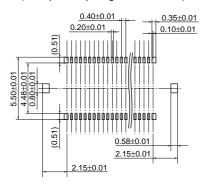


# 2) With soldering terminal Socket

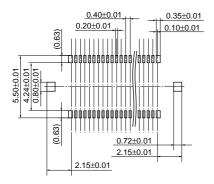
Recommended PC board pattern (TOP VIEW)



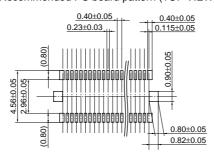
#### Recommended metal mask pattern Metal mask thickness: Here, 150 μm (Terminal portion opening area ratio: 40 %) (Metal portion opening area ratio: 65 %)



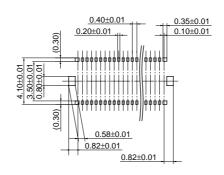
Recommended metal mask pattern Metal mask thickness: Here, 120  $\mu$ m (Terminal portion opening area ratio: 50 %) (Metal portion opening area ratio: 80 %)



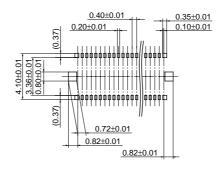
#### Header Recommended PC board pattern (TOP VIEW)



Recommended metal mask pattern Metal mask thickness: Here, 150 μm (Terminal portion opening area ratio: 32 %) (Metal portion opening area ratio: 65 %)



Recommended metal mask pattern Metal mask thickness: Here, 120  $\mu$ m (Terminal portion opening area ratio: 40 %) (Metal portion opening area ratio: 80 %)



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