# 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

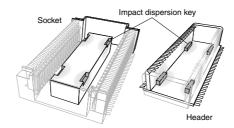
# **FEATURES**

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)

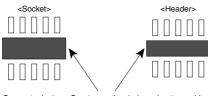
3. It is constructed with impact dispersion keys inside the body to disperse shocks when dropped.



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.

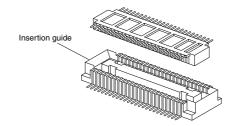
Note: The following numbers of contacts are not supported due to suction surface factors.

- 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.



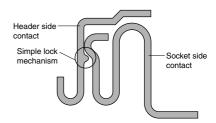
Connector bottom: Create any thru-hole and pattern wiring

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.



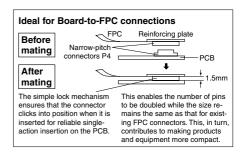
#### 5. Design makes efficient mounting.

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

Vitilout Solue	ring terminal	J I DUGH LUN I HL I			
	Number of		umber	Pac	king
Mated height	contacts	Socket	Header	Inner carton	Outer carton
		TDUGH CONTRET	TDUGH CONTRCT	miler eartern	Outer curteri
	14	AXK714147G	AXK814145WG		
	16	AXK716147G	AXK816145WG		
	20	AXK720147G	AXK820145WG		
	22	AXK722147G	AXK822145WG		
	24	AXK724147G	AXK824145WG		
	26	AXK726147G	AXK826145WG		
	28	AXK728147G	AXK828145WG		
	30	AXK730147G	AXK830145WG		
	34	AXK734147G	AXK834145WG		
	36	AXK736147G	AXK836145WG		
1.5 mm	40	AXK740147G	AXK840145WG	_	
1.0 11	42	AXK742147G	AXK842145WG		
	44	AXK742147G	AXK844145WG	_	
	50	AXK750147G	AXK850145WG		
	54			_	
		AXK754147G	AXK854145WG		
	60	AXK760147G	AXK860145WG	_	
	64	AXK764147G	AXK864145WG		
	70	AXK770147G	AXK870145WG		
	80	AXK780147G	AXK880145WG		
	90	AXK790147G	AXK890145WG		
	100	AXK700147G	AXK800145WG		
	14	AXK714247G	AXK814145WG		
	20	AXK720247G	AXK820145WG		
	24	AXK724247G	AXK824145WG		
	26	AXK726247G	AXK826145WG		
	30	AXK730247G	AXK830145WG	3,000 pieces	6,000 pieces
	34	AXK734247G	AXK834145WG		
2.0 mm	38	AXK738247G	AXK838145WG		
	40	AXK740247G	AXK840145WG		
	50	AXK750247G	AXK850145WG		
	60	AXK760247G	AXK860145WG		
	70	AXK770247G	AXK870145WG		
	80	AXK780247G	AXK880145WG		
	100	AXK700247G	AXK800145WG		
	14	AXK714347G	AXK814145WG		
	20	AXK720347G	AXK820145WG		
	24	AXK724347G	AXK824145WG		
	30	AXK730347G	AXK830145WG		
	34	AXK734347G	AXK834145WG		
	40	AXK740347G	AXK840145WG		
2.5 mm	44	AXK744347G	AXK844145WG		
2.0 11111	50	AXK750347G	AXK850145WG		
	60	AXK750347G AXK760347G	AXK860145WG		
	70	AXK770347G	AXK870145WG		
	80	AXK780347G	AXK880145WG		
	90	AXK790347G	AXK890145WG		
	100	AXK700347G	AXK800145WG		
	24	AXK724347G	AXK824245WG		
3.0 mm	30	AXK730347G	AXK830245WG		
	50	AXK750347G	AXK850245WG		
	80	AXK780347G	AXK880245WG		
3.5 mm	30	AXK730447G	AXK830245WG	Socket: 2,000 pieces	Socket: 4,000 pied
5.5 AIIII	40	AXK740447G	AXK840245WG	Header: 3,000 pieces	Header: 6,000 pied
4.0 mm	24	AXK724547G	AXK824245WG	Socket: 2,000 pieces Header: 3,000 pieces	Socket: 4,000 piec 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 19.) Samples: Small lot orders are possible.

- 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.
- 3. "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.)
- 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.

  5. Connectors of different mated height (3.0 mm, 3.5 mm and 4.0 mm) and different number of contacts are available on-demand production only. Please contact us for more details.

# 2. With soldering terminal \* TOUGH CONTRET

	Number of		umber	Pac	king
Mated height	contacts	Socket	Header	Inner carton	Outer carton
		TDUGH CDNTRCT	TOUGH CONTRET	miler carton	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		
1.5 mm	36	AXK736127G	AXK836125WG		
	40	AXK740127G	AXK840125WG		
	44	AXK744127G	AXK844125WG		
	46	AXK746127G	AXK846125WG		
	50	AXK750127G	AXK850125WG		
	60	AXK760127G	AXK860125WG		
	80	AXK780127G	AXK880125WG		
	90	AXK790127G	AXK890125WG		
	100	AXK700127G	AXK800125WG		
	20	AXK720227G	AXK820125WG		
	24	AXK724227G	AXK824125WG		
2.0 mm	40	AXK740227G	AXK840125WG	3,000 pieces	6,000 pieces
2.0 11111	50	AXK750227G	AXK850125WG		
	60	AXK760227G	AXK860125WG		
	80	AXK780227G	AXK880125WG		
	12	AXK712327G	AXK812125WG		
	20	AXK720327G	AXK820125WG		
	28	AXK728327G	AXK828125WG		
	32	AXK732327G	AXK832125WG		
2.5 mm	40	AXK740327G	AXK840125WG		
	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	AXK750327G	AXK850225WG		
	60	AXK760327G	AXK860225WG		
	80	AXK780327G	AXK880225WG		
	90	AXK790327G	AXK890225WG		
	20	AXK720427G	AXK820225WG		
	30	AXK730427G	AXK830225WG		
	40	AXK740427G	AXK840225WG	Socket: 2 000 pieces	Socket: 4 000 piece
3.5 mm	50	AXK750427G	AXK850225WG	Socket: 2,000 pieces Header: 3,000 pieces	Socket: 4,000 piec Header: 6,000 piec
	60	AXK760427G	AXK860225WG		
	70	AXK770427G	AXK870225WG		
	80	AXK780427G	AXK880225WG		
	34	AXK734527G	AXK834225WG		
4.0 mm	42	AXK742527G	AXK842225WG	Socket: 2,000 pieces	Socket: 4,000 piec
4.0 111/11	50	AXK750527G	AXK850225WG	Header: 3,000 pieces	Header: 6,000 pied
	80	AXK780527G	AXK880225WG		

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<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" inclicates 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.

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

# **AXK7**, 8

# **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
Environmental	Thermal shock resistance (header and socket mated)	5 cycles, insulation resistance min. 100M $\Omega$ , contact resistance max. 70m $\Omega$	Sequence 155-\(\frac{9}{2}\)°C, 30 minutes 2. \(\times\), Max. 5 minutes 3. 85'\(\frac{9}{2}\)°C, 30 minutes 4. \(\times\), Max. 5 minutes
characteristics	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. $70 \text{m}\Omega$	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 bas		
Soldering terminal portion	Copper alloy	Ni plating on base, Sn plating on surface (Except for front terminal)		

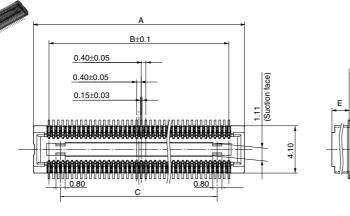
## **DIMENSIONS** (Unit: mm)

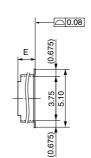
The CAD data of the products with a CAD Data mark can be downloaded from: http://panasonic-electric-works.net/ac

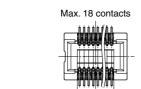
#### 1. Without Soldering Terminal

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)

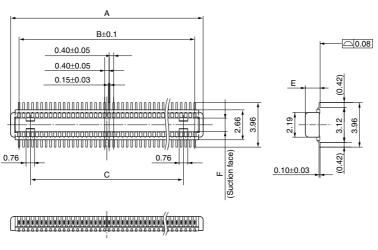
Number of contacts/ dimension	А	В	С	D
14	5.1	2.4	_	2.8
16	5.5	2.8	_	3.2
20	6.3	3.6	1.6	_
22	6.7	4.0	2.0	_
24	7.1	4.4	2.4	_
26	7.5	4.8	2.8	_
28	7.9	5.2	3.2	_
30	8.3	5.6	3.6	_
34	9.1	6.4	4.4	_
36	9.5	6.8	4.8	_
38	9.9	7.2	5.2	_
40	10.3	7.6	5.6	_
42	10.7	8.0	6.0	
44	11.1	8.4	6.4	_
50	12.3	9.6	7.6	_
54	13.1	10.4	8.4	
60	14.3	11.6	9.6	1
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







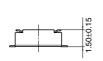
General tolerance: ±0.2

#### Dimension table (mm)

Number of contacts/ dimension	А	В	С	D
14	3.9	2.4	_	3.04
16	4.3	2.8	_	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	_
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	_

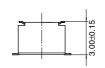
Mated height/dimension	Е	F
1.5mm, 2.0mm, 2.5mm	1.31	1.20
3.0mm, 3.5mm, 4.0mm	2.26	1.26

#### Socket and Header are mated









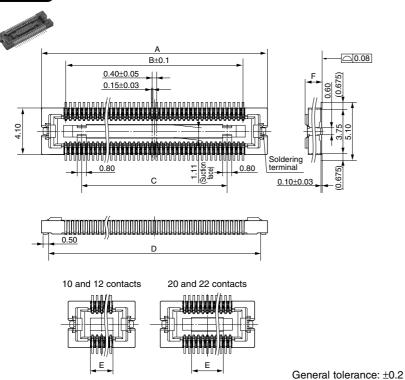




#### 2. With Soldering Terminal

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

#### CAD Data



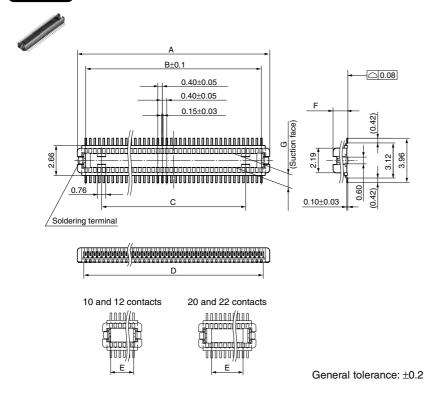
#### Dimension table (mm)

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

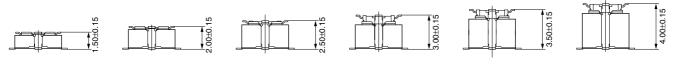


#### Dimension table (mm)

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

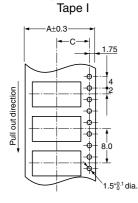
Socket and Header are mated.

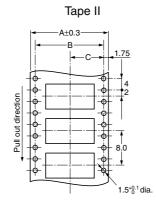


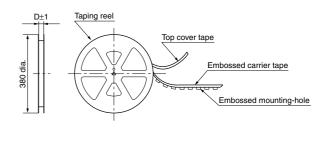
# EMBOSSED TAPE DIMENSIONS (unit: mm, Common for respective contact type, socket and header)

- 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

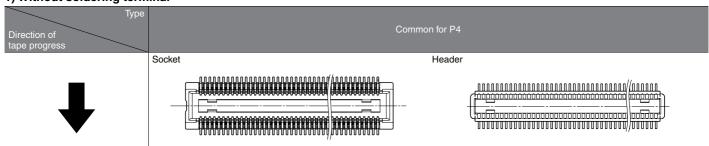
Mated height	Number of contacts	Type of taping	А	В	С	D	Quantity per reel
Common for socket and header: 1.5 mm, 2.0 mm and 2.5 mm	Max. 18	Tape I	16.0	_	7.5	17.4	3,000
	20 to 70	Tape I	24.0	_	11.5	25.4	3,000
	80 to 100	Tape II	32.0	28.4	14.2	33.4	3,000

#### 2. With Soldering Terminal

Mated height	Number of contacts		Type of taping	А	В	С	D	Quantity per reel
Mateu Height	Socket	Header	Type of taping	^		Ŭ		Quantity per reer
	Max. 18	Max. 18	Tape I	16.0	_	7.5	17.4	3,000
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	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	Max. 18		Tape I	16.0	_	7.5	17.4	2,000
	20 to 60		Tape I	24.0	_	11.5	25.4	2,000
	70 to 90		Tape II	32.0	28.4	14.2	33.4	2,000
	100		Tape II	44.0	40.4	20.2	45.4	2,000

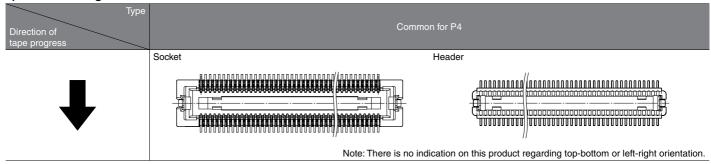
3. Connector orientation with respect to direction of progress of embossed tape

#### 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)

From the 50 insertion and removals of standard type, up to 3,000 insertion and removals (with recommended insertion and removal) are possible for use in inspection.

Ideal for inspection of module units and inspection during the device assembly process

#### 2. Same external dimensions and foot pattern as standard type.

Since shape is the same as standard type, inspection is possible without interfering with devices in the vicinity of standard connectors.

#### 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.)

## TABLE OF PRODUT TYPES

☆: Available for sale

Product name		P4 for inspection without soldering terminal	P4 for inspection with soldering terminal		
	10		☆		
	12		☆		
	14	☆			
	16	☆			
	20	☆	☆		
	22	☆	☆		
	24	☆	☆		
	26	☆			
ts	28	☆	☆		
ıtac	30	☆	☆		
COL	34	☆	☆		
þ	36	☆			
ber	40	☆	☆		
Number of contacts	42	☆			
Z	44	☆	☆		
	46		☆		
	50	☆	☆		
	54	☆			
	60	☆	☆		
	70	☆			
	80	☆	☆		
	90	☆	☆		
	100	☆	☆		

#### 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**

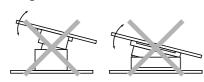
	Specif	cations	Part No.		Part No.		
Socket	With soldering terminal	Without positioning bosses	AXK7E**26G	Header -	With soldering terminal	Without positioning bosses	AXK8E**26WG
	Without soldering terminal	Without positioning bosses	AXK7E**46G		Without soldering terminal	Without positioning bosses	AXK8E**46WG

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

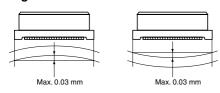
<sup>2.</sup> The above part numbers are for connectors without positioning bosses, which are standard. When ordering connectors with positioning bosses, please contact our

#### **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.

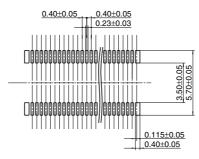
In order to reduce solder bridge and other issues make sure the proper levels of solder are used.

The figures to the right are recommended metal mask patterns.

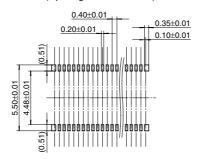
Please use them as a reference.

#### 1) Without soldering terminal Socket

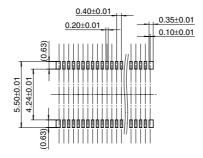
Recommended PC board pattern (TOP VIEW)



Recommended metal mask pattern Metal mask thickness: Here, 150  $\mu m$ (Opening area ratio: 40 %)

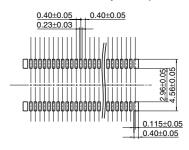


Recommended metal mask pattern Metal mask thickness: Here, 120  $\mu m$ (Opening area ratio: 50 %)

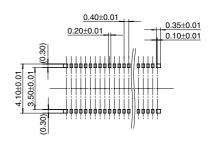


#### Header

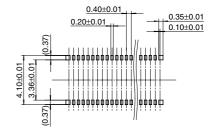
Recommended PC board pattern (TOP VIEW)



Recommended metal mask pattern Metal mask thickness: Here, 150  $\mu m$ (Opening area ratio: 32 %)

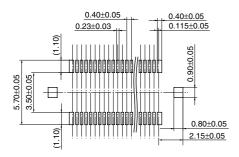


Recommended metal mask pattern Metal mask thickness: Here, 120  $\mu\text{m}$ (Opening area ratio: 40 %)

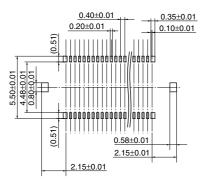


#### 2) With soldering terminal Socket

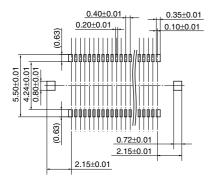
Recommended PC board pattern (TOP VIEW)



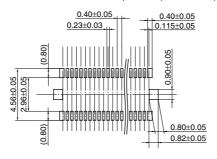
Recommended metal mask pattern Metal mask thickness: Here, 150 μm (Terminal portion opening area ratio: 40 %) (Metal portion opening area ratio: 65 %)



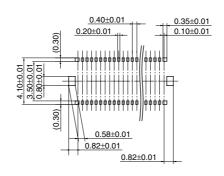
Recommended metal mask pattern Metal mask thickness: Here, 120  $\mu m$ (Terminal portion opening area ratio: 50 %) (Metal portion opening area ratio: 80 %)



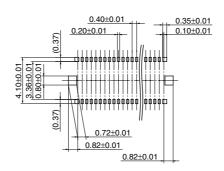
#### Header Recommended PC board pattern (TOP VIEW)



#### Recommended metal mask pattern Metal mask thickness: Here, 150 $\mu m$ (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.

单击下面可查看定价,库存,交付和生命周期等信息

>>Panasonic(松下)