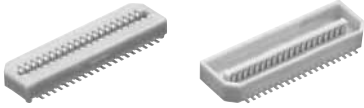


# Panasonic

ideas for life

## NARROW-PITCH CONNECTORS FOR PC BOARDS

## NARROW-PITCH (0.8mm) CONNECTORS P8 SERIES



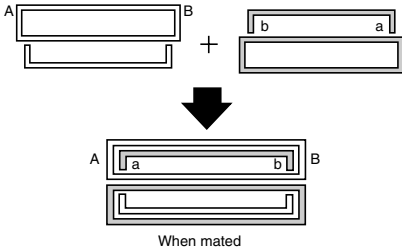
Socket

Header

Compliance with RoHS Directive

### FEATURES

- 1. The product lineup consists of the low profile of 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm, 5.5 mm, 6.0 mm, 7.0 mm, 8.0 mm, 11.5 mm, and 13.0 mm 14.0 mm.
- 2. For the 11.5-mm type, the socket and header have the same shape. This simplifies management of stock and delivering.

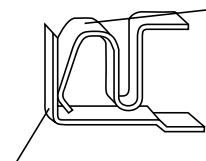


3. Perfect for portable devices, the bellows-type contacts provide a strong resistance against falling, impacts, and forced insertions and removals.

#### Bellows-type contacts

Bellows-type contacts resist mating stress and offer high contact reliability.

Ex.: Stacking height of 3.0 mm



Round corner makes contact.

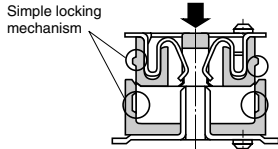
The bellows type contacts are fabricated by bending thin sheet metal. They offer reliable contact since a rounded corner, instead of a sharp edge, is used for tuning fork type contact.

4. Porosity treatment applied for improved resistance against corrosion.

#### 5. Simple lock mechanism

Lock mechanism ensures proper contact and provides resistance against vibrations and shocks.

3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm, 5.5 mm, 6.0 mm, 7.0 mm, 8.0 mm, 13.0 mm, and 14.0 mm.

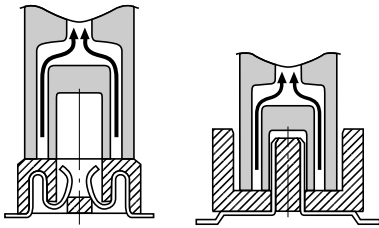


The simple lock mechanism is not featured on the 11.5-mm type. However, proper contact and resistance against vibrations and shocks are both ensured by the long mating length.

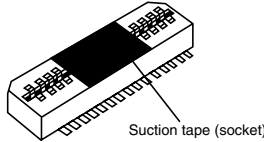
#### 6. Automatic mounting (excluding 11.5 mm type)

1) Automatic mounting machine is available with an exclusive mounting nozzle.

Using the following types of suction nozzles make the connectors compatible with automatic mounting without the need for suction tape.

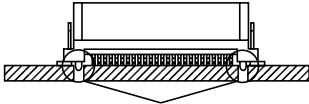


Suction tape and covers are also available for compatibility with other types of mounting machines.



Suction tape (socket)

2) Positioning bosses (those without bosses are also available)



Bosses for positioning on the PC board (those without bosses are also available). Suitable for both manual and automatic mounting.

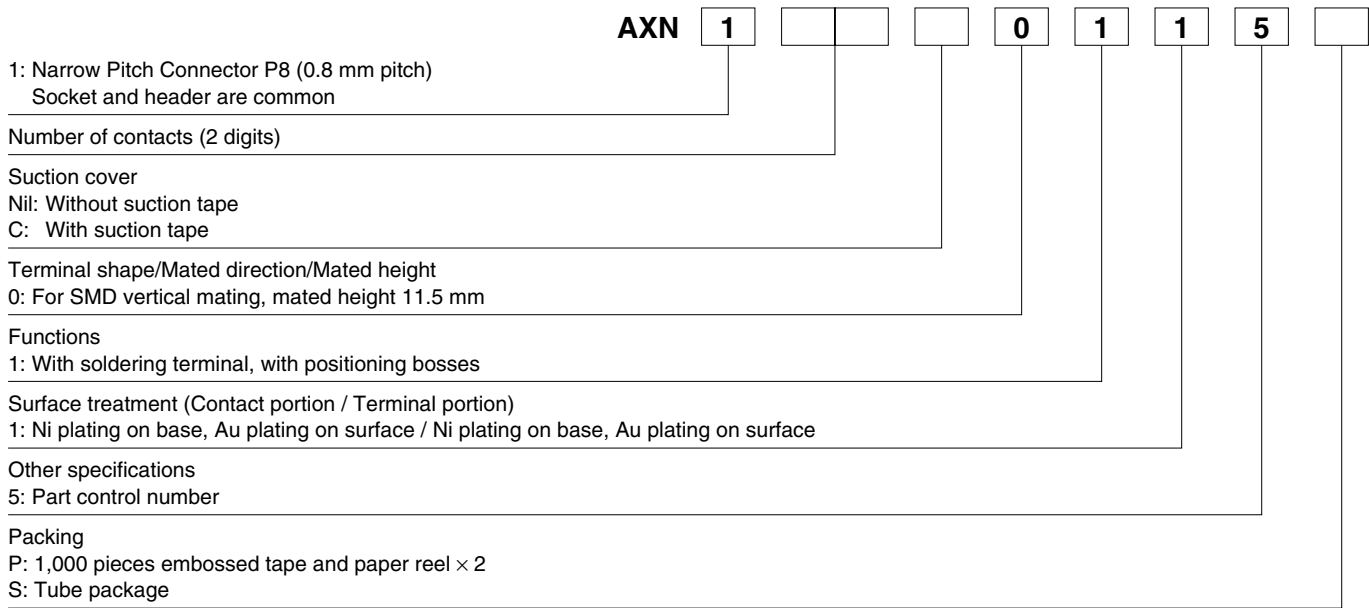
### APPLICATIONS

Small portable equipment, laptop computers, video equipment, radio communication, cellular telephones, etc.

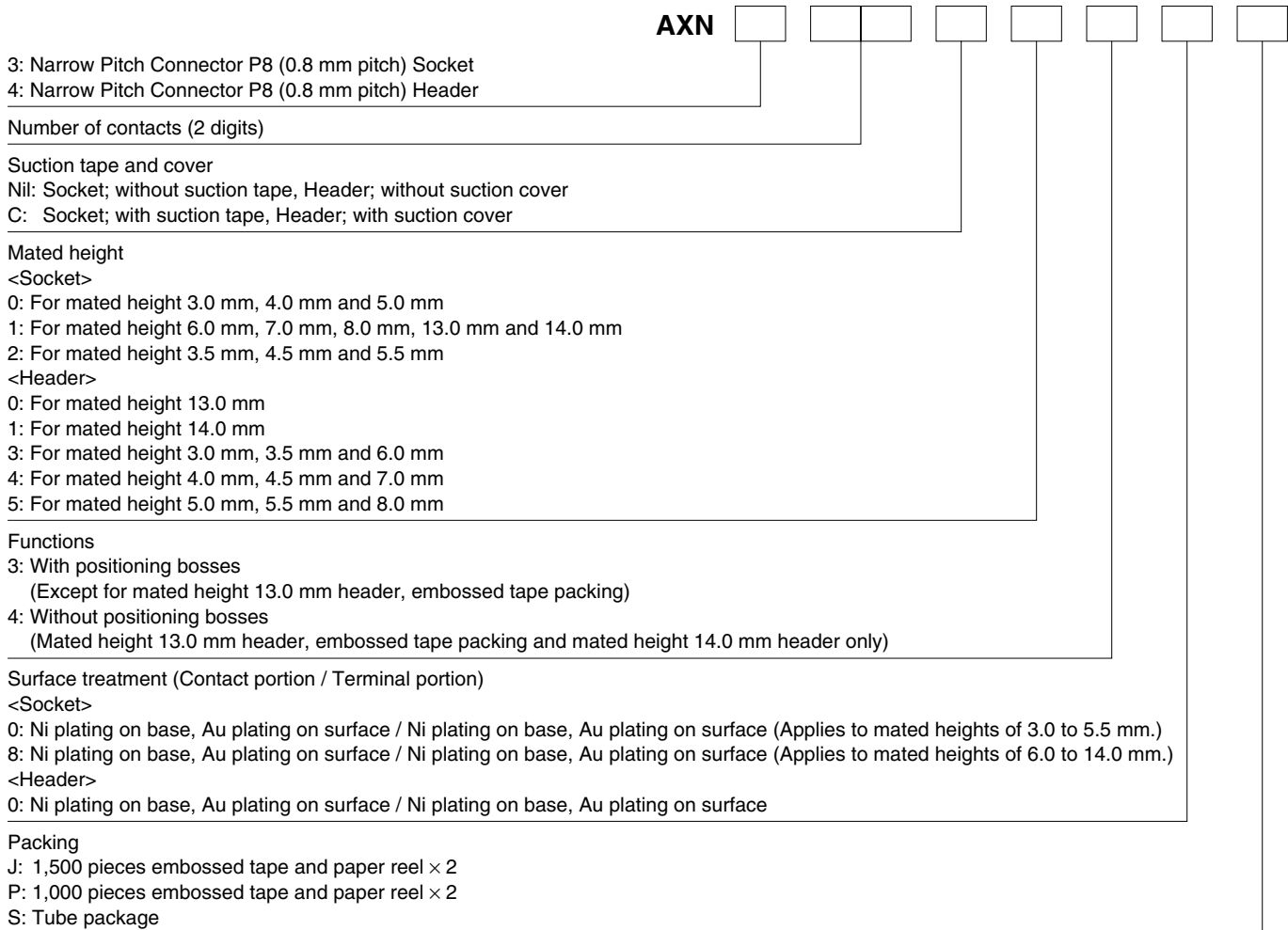
# AXN(1/3/4)

## ORDERING INFORMATION

### 1. P8 (11.5 mm)



### 2. P8 (3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm, 5.5 mm, 6.0 mm, 7.0 mm, 8.0 mm, 13.0 mm, 14.0 mm)



Notes: 1. The tape width for 100-pin embossed tape packaging is non-JIS standard. Please inquire.  
2. The depth of the embossed tape for headers with 13 mm and 14 mm mated heights is non-JIS standard. Please test with your mounter before using.  
3. Models possible for "J" packaging are as follows:  
Socket mated heights: 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm, and 5.5 mm  
Headers: Mated heights 3.0 mm, 3.5 mm, and 6.0 mm

**PRODUCT TYPES**

| Mated height | No. of contacts | Stick package |            |                  |              | Embossed tape package |            |   |   |
|--------------|-----------------|---------------|------------|------------------|--------------|-----------------------|------------|---|---|
|              |                 | Part No.      |            | Packing quantity |              | Part No.              |            | Packing quantity  |   |
|              |                 | Socket        | Header     | Stick            | Outer carton | Socket                | Header     | Inner carton (1 reel)   | Outer carton  |
| 3.0 mm       | 16              | AXN316038S    | AXN416330S | 50 pcs.          | 300 pcs.     | AXN316038*            | AXN416330* |   |   |
|              | 20              | AXN320038S    | AXN420330S | 50 pcs.          | 300 pcs.     | AXN320038*            | AXN420330* |   |   |
|              | 24              | AXN324038S    | AXN424330S | 30 pcs.          | 300 pcs.     | AXN324038*            | AXN424330* |   |   |
|              | 26              | AXN326038S    | AXN426330S | 30 pcs.          | 300 pcs.     | AXN326038*            | AXN426330* |   |   |
|              | 30              | AXN330038S    | AXN430330S | 30 pcs.          | 300 pcs.     | AXN330038*            | AXN430330* |   |   |
|              | 40              | AXN340038S    | AXN440330S | 25 pcs.          | 300 pcs.     | AXN340038*            | AXN440330* |   |   |
|              | 50              | AXN350038S    | AXN450330S | 20 pcs.          | 300 pcs.     | AXN350038*            | AXN450330* |   |   |
|              | 60              | AXN360038S    | AXN460330S | 15 pcs.          | 300 pcs.     | AXN360038*            | AXN460330* |   |   |
|              | 80              | AXN380038S    | AXN480330S | 12 pcs.          | 300 pcs.     | AXN380038*            | AXN480330* |   |   |
| 100          | AXN300038S      | AXN400330S    | 12 pcs.    | 300 pcs.         | —            | —                     |            |   |   |
| 3.5 mm       | 16              | AXN316238S    | AXN416330S | 50 pcs.          | 300 pcs.     | AXN316238*            | AXN416330* |   |   |
|              | 24              | AXN324238S    | AXN424330S | 30 pcs.          | 300 pcs.     | AXN324238*            | AXN424330* |   |   |
|              | 26              | AXN326238S    | AXN426330S | 30 pcs.          | 300 pcs.     | AXN326238*            | AXN426330* |   |   |
|              | 30              | AXN330238S    | AXN430330S | 30 pcs.          | 300 pcs.     | AXN330238*            | AXN430330* |   |   |
|              | 60              | AXN360238S    | AXN460330S | 15 pcs.          | 300 pcs.     | AXN360238*            | AXN460330* |   |   |
| 4.0 mm       | 16              | AXN316038S    | AXN416430S | 50 pcs.          | 300 pcs.     | AXN316038*            | AXN416430P |   |   |
|              | 20              | AXN320038S    | AXN420430S | 50 pcs.          | 300 pcs.     | AXN320038*            | AXN420430P |   |   |
|              | 26              | AXN326038S    | AXN426430S | 30 pcs.          | 300 pcs.     | AXN326038*            | AXN426430P |   |   |
|              | 30              | AXN330038S    | AXN430430S | 30 pcs.          | 300 pcs.     | AXN330038*            | AXN430430P |   |   |
|              | 40              | AXN340038S    | AXN440430S | 25 pcs.          | 300 pcs.     | AXN340038*            | AXN440430P |   |   |
|              | 50              | AXN350038S    | AXN450430S | 20 pcs.          | 300 pcs.     | AXN350038*            | AXN450430P |   |   |
|              | 60              | AXN360038S    | AXN460430S | 15 pcs.          | 300 pcs.     | AXN360038*            | AXN460430P |   |   |
|              | 80              | AXN380038S    | AXN480430S | 12 pcs.          | 300 pcs.     | AXN380038*            | AXN480430P |   |   |
| 100          | AXN300038S      | AXN400430S    | 12 pcs.    | 300 pcs.         | —            | —                     |            |   |   |
| 4.5 mm       | 16              | AXN316238S    | AXN416430S | 50 pcs.          | 300 pcs.     | AXN316238*            | AXN416430P |   |   |
|              | 26              | AXN326238S    | AXN426430S | 30 pcs.          | 300 pcs.     | AXN326238*            | AXN426430P |   |   |
|              | 30              | AXN330238S    | AXN430430S | 30 pcs.          | 300 pcs.     | AXN330238*            | AXN430430P |   |   |
|              | 60              | AXN360238S    | AXN460430S | 15 pcs.          | 300 pcs.     | AXN360238*            | AXN460430P |   |   |
| 5.0 mm       | 12              | AXN312038S    | AXN412530S | 50 pcs.          | 300 pcs.     | AXN312038*            | AXN412530P | Note 1)<br>"Asterisk" mark on end of part No.;<br>J: 1,500 pieces (recommendation)<br>P: 1,000 pieces | Note 1)<br>"Asterisk" mark on end of part No.;<br>J: 3,000 pieces (recommendation)<br>P: 2,000 pieces |
|              | 14              | AXN314038S    | AXN414530S | 50 pcs.          | 300 pcs.     | AXN314038*            | AXN414530P |   |   |
|              | 20              | AXN320038S    | AXN420530S | 50 pcs.          | 300 pcs.     | AXN320038*            | AXN420530P |   |   |
|              | 24              | AXN324038S    | AXN424530S | 30 pcs.          | 300 pcs.     | AXN324038*            | AXN424530P |   |   |
|              | 26              | AXN326038S    | AXN426530S | 30 pcs.          | 300 pcs.     | AXN326038*            | AXN426530P |   |   |
|              | 30              | AXN330038S    | AXN430530S | 30 pcs.          | 300 pcs.     | AXN330038*            | AXN430530P |   |   |
|              | 40              | AXN340038S    | AXN440530S | 25 pcs.          | 300 pcs.     | AXN340038*            | AXN440530P |   |   |
|              | 50              | AXN350038S    | AXN450530S | 20 pcs.          | 300 pcs.     | AXN350038*            | AXN450530P |   |   |
|              | 60              | AXN360038S    | AXN460530S | 15 pcs.          | 300 pcs.     | AXN360038*            | AXN460530P |   |   |
|              | 80              | AXN380038S    | AXN480530S | 12 pcs.          | 300 pcs.     | AXN380038*            | AXN480530P |   |   |
| 100          | AXN300038S      | AXN400530S    | 12 pcs.    | 300 pcs.         | —            | —                     |            |   |   |
| 5.5 mm       | 12              | AXN312238S    | AXN412530S | 50 pcs.          | 300 pcs.     | AXN312238*            | AXN412530P |   |   |
|              | 24              | AXN324238S    | AXN424530S | 30 pcs.          | 300 pcs.     | AXN324238*            | AXN424530P |   |   |
|              | 26              | AXN326238S    | AXN426530S | 30 pcs.          | 300 pcs.     | AXN326238*            | AXN426530P |   |   |
|              | 30              | AXN330238S    | AXN430530S | 30 pcs.          | 300 pcs.     | AXN330238*            | AXN430530P |   |   |
|              | 60              | AXN360238S    | AXN460530S | 15 pcs.          | 300 pcs.     | AXN360238*            | AXN460530P |   |   |
| 6.0 mm       | 20              | AXN320130S    | AXN420330S | 50 pcs.          | 300 pcs.     | AXN320130P            | AXN420330* |   |   |
|              | 24              | AXN324130S    | AXN424330S | 30 pcs.          | 300 pcs.     | AXN324130P            | AXN424330* |   |   |
|              | 26              | AXN326130S    | AXN426330S | 30 pcs.          | 300 pcs.     | AXN326130P            | AXN426330* |   |   |
|              | 30              | AXN330130S    | AXN430330S | 30 pcs.          | 300 pcs.     | AXN330130P            | AXN430330* |   |   |
|              | 40              | AXN340130S    | AXN440330S | 25 pcs.          | 300 pcs.     | AXN340130P            | AXN440330* |   |   |
|              | 50              | AXN350130S    | AXN450330S | 20 pcs.          | 300 pcs.     | AXN350130P            | AXN450330* |   |   |
|              | 60              | AXN360130S    | AXN460330S | 15 pcs.          | 300 pcs.     | AXN360130P            | AXN460330* |   |   |
|              | 64              | AXN364130S    | AXN464330S | 15 pcs.          | 300 pcs.     | AXN364130P            | AXN464330* |   |   |
|              | 80              | AXN380130S    | AXN480330S | 12 pcs.          | 300 pcs.     | AXN380130P            | AXN480330* |   |   |
| 100          | AXN300130S      | AXN400330S    | 12 pcs.    | 300 pcs.         | —            | —                     |            |   |   |
| 7.0 mm       | 20              | AXN320130S    | AXN420430S | 50 pcs.          | 300 pcs.     | AXN320130P            | AXN420430P |   |   |
|              | 22              | AXN322130S    | AXN422430S | 30 pcs.          | 300 pcs.     | AXN322130P            | AXN422430P |   |   |
|              | 26              | AXN326130S    | AXN426430S | 30 pcs.          | 300 pcs.     | AXN326130P            | AXN426430P |   |   |
|              | 30              | AXN330130S    | AXN430430S | 30 pcs.          | 300 pcs.     | AXN330130P            | AXN430430P |   |   |
|              | 40              | AXN340130S    | AXN440430S | 25 pcs.          | 300 pcs.     | AXN340130P            | AXN440430P |   |   |
|              | 50              | AXN350130S    | AXN450430S | 20 pcs.          | 300 pcs.     | AXN350130P            | AXN450430P |   |   |
|              | 60              | AXN360130S    | AXN460430S | 15 pcs.          | 300 pcs.     | AXN360130P            | AXN460430P |   |   |
|              | 80              | AXN380130S    | AXN480430S | 12 pcs.          | 300 pcs.     | AXN380130P            | AXN480430P |   |   |
| 100          | AXN300130S      | AXN400430S    | 12 pcs.    | 300 pcs.         | —            | —                     |            |   |   |

# AXN(1/3/4)

| Mated height | No. of contacts | Stick package                |            |                  |              | Embossed tape package        |                                   |  |  |
|--------------|-----------------|------------------------------|------------|------------------|--------------|------------------------------|-----------------------------------|--|--|
|              |                 | Part No.                     |            | Packing quantity |              | Part No.                     |                                   | Packing quantity                       |  |
|              |                 | Socket                       | Header     | Stick            | Outer carton | Socket                       | Header                            | Inner carton (1 reel)                  | Outer carton                             |
| 8.0 mm       | 20              | AXN320130S                   | AXN420530S | 50 pcs.          | 300 pcs.     | AXN320130P                   | AXN420530P                        | 1,000 pcs.                             | 2,000 pcs.                               |
|              | 22              | AXN322130S                   | AXN422530S | 30 pcs.          | 300 pcs.     | AXN322130P                   | AXN422530P                        |  |  |
|              | 24              | AXN324130S                   | AXN424530S | 30 pcs.          | 300 pcs.     | AXN324130P                   | AXN424530P                        |  |  |
|              | 26              | AXN326130S                   | AXN426530S | 30 pcs.          | 300 pcs.     | AXN326130P                   | AXN426530P                        |  |  |
|              | 30              | AXN330130S                   | AXN430530S | 30 pcs.          | 300 pcs.     | AXN330130P                   | AXN430530P                        |  |  |
|              | 34              | AXN334130S                   | AXN434530S | 30 pcs.          | 300 pcs.     | AXN334130P                   | AXN434530P                        |  |  |
|              | 40              | AXN340130S                   | AXN440530S | 25 pcs.          | 300 pcs.     | AXN340130P                   | AXN440530P                        |  |  |
|              | 50              | AXN350130S                   | AXN450530S | 20 pcs.          | 300 pcs.     | AXN350130P                   | AXN450530P                        |  |  |
|              | 60              | AXN360130S                   | AXN460530S | 15 pcs.          | 300 pcs.     | AXN360130P                   | AXN460530P                        |  |  |
|              | 80              | AXN380130S                   | AXN480530S | 12 pcs.          | 300 pcs.     | AXN380130P                   | AXN480530P                        |  |  |
|              | 100             | AXN300130S                   | AXN400530S | 12 pcs.          | 300 pcs.     | —                            | —                                 | —                                      | —  |
| 11.5 mm      | 30              | AXN1300115S (Socket, Header) |            | 30 pcs.          | 300 pcs.     | AXN1300115P (Socket, Header) |                                   | 350 pcs.                               | 700 pcs.                                 |
|              | 40              | AXN1400115S (Socket, Header) |            | 25 pcs.          | 300 pcs.     | AXN1400115P (Socket, Header) |                                   | 350 pcs.                               | 700 pcs.                                 |
|              | 50              | AXN1500115S (Socket, Header) |            | 20 pcs.          | 300 pcs.     | AXN1500115P (Socket, Header) |                                   | 350 pcs.                               | 700 pcs.                                 |
|              | 80              | AXN1800115S (Socket, Header) |            | 12 pcs.          | 300 pcs.     | AXN1800115P (Socket, Header) |                                   | 250 pcs.                               | 500 pcs.                                 |
|              | 100             | AXN1000115S (Socket, Header) |            | 12 pcs.          | 300 pcs.     | —                            |                                   | —                                      | —  |
| 13.0 mm      | 20              | AXN320130S                   | AXN420030S | 50 pcs.          | 300 pcs.     | AXN320130P                   | AXN420040P <small>Note 5)</small> | Socket: 1,000 pcs.<br>Header: 500 pcs. | Socket: 2,000 pcs.<br>Header: 1,000 pcs. |
|              | 30              | AXN330130S                   | AXN430030S | 30 pcs.          | 300 pcs.     | AXN330130P                   | AXN430040P <small>Note 5)</small> |  |  |
|              | 40              | AXN340130S                   | AXN440030S | 25 pcs.          | 300 pcs.     | AXN340130P                   | AXN440040P <small>Note 5)</small> |  |  |
|              | 50              | AXN350130S                   | AXN450030S | 20 pcs.          | 300 pcs.     | AXN350130P                   | AXN450040P <small>Note 5)</small> |  |  |
|              | 60              | AXN360130S                   | AXN460030S | 15 pcs.          | 300 pcs.     | AXN360130P                   | AXN460040P <small>Note 5)</small> |  |  |
|              | 80              | AXN380130S                   | AXN480030S | 12 pcs.          | 300 pcs.     | AXN380130P                   | AXN480040P <small>Note 5)</small> |  |  |
| 14.0 mm      | 20              | AXN320130S                   | AXN420130S | 50 pcs.          | 300 pcs.     | AXN320130P                   | AXN420130P                        | Socket: 1,000 pcs.<br>Header: 400 pcs. | Socket: 2,000 pcs.<br>Header: 800 pcs.   |

Notes) 1. Please add following suffix at \* marked positions.

J: Inner carton (1 reel) 1,500 pcs. (Outer carton: 3,000 pcs.)

P: Inner carton (1 reel) 1,000 pcs. (Outer carton: 2,000 pcs.)

In order to reduce the amount of packaging materials used to help protect the global environment, it is recommended that each packaging box contains 1,500 units with the "J" product number suffix.

As for the part No. P is suffixed, only 1,000 pcs. reel is available.

2. 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. Change the suffix "J" to the suffix "P"

3. Connectors with suction tape are also available except for 16 contacts type. For this type of connector, insert the letter "C" between the 6th and 7th column of the ordering number.

Example: For a 20-contact socket with 3mm mated height (embossed tape package): AXN320C038P

4. The standard type comes with positioning bosses. Connectors without positioning bosses are available for on-demand production (3,000 pcs/lot or more).

5. Regarding of 100-contact connectors are please consult us. In an embosses tape package as the required embossed tape width exceeds the JIS standard.

6. The standard type of 13mm embossed tape package does not come with positioning bosses.

# SPECIFICATIONS

## 1. Characteristics

| Item   |   | Specifications   |  | Conditions  |
|--|---|--|--|---|
|  |   | 3mm, 3.5mm, 4mm, 4.5mm, 5.0mm, 5.5mm, 6.0mm, 7.0mm, 8.0mm, 13.0mm, 14.0mm type                 | 11.5mm type  |   |
| Electrical characteristics                           | Rated current   | 0.5A   |  |   |
|  | Rated voltage   | 60V AC/DC  |  |   |
|  | Breakdown voltage   | 250V AC for 1 minute   |  | Detection current: 1mA  |
|  | Insulation resistance   | Min. 1,000MΩ   |  | Using 500V DC megger  |
|  | Contact resistance  | Max. 60mΩ  | Max. 50mΩ  | Based on the contact resistance measurement method specified by JIS C 5402.   |
| Mechanical characteristics                           | Composite insertion force   | Max. 43.1N {4.40kgf} (30 contacts)   | Max. 0.785N {80gf} × no. of contacts (initial)                               |   |
|  | Composite removal force   | Min. 6.37N {0.65kgf} (30 contacts)   | Min. 0.127N {13gf} × no. of contacts   |   |
|  | Contact holding force   | 40 contacts or less:<br>Min. 1.96N {200 gf}<br>50 contacts or more:<br>Min. 0.981N {100 gf}    | Min. 1.96N {200 gf}  | Measuring the maximum force. As the contact is axially pull out.  |
| Environmental characteristics                        | Ambient temperature   | -55°C to +85°C   |  | No freezing at low temperatures   |
|  | Soldering heat resistance   | Max. peak temperature of 245°C (on the surface of the PC board around the connector terminals) |  | Infrared reflow soldering   |
|  |   | 300°C within 5 seconds   |  | Soldering iron  |
|  | Thermal shock resistance (header and socket mated)  | 5 cycles, insulation resistance min. 100MΩ, contact resistance max. 60mΩ                       | 5 cycles, insulation resistance min. 100MΩ, contact resistance max. 50mΩ     | Sequence<br>1. -55 <sup>±3</sup> °C, 30 minutes<br>2. ~, Max. 5 minutes<br>3. 85 <sup>±3</sup> °C, 30 minutes<br>4. ~, Max. 5 minutes |
|  | Humidity resistance (header and socket mated)   | 120 hours, insulation resistance min. 100MΩ, contact resistance max. 60mΩ                      | 240 hours, insulation resistance min. 100MΩ, contact resistance max. 50mΩ    | 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                       | 48 hours, insulation resistance min. 100MΩ, contact resistance max. 50mΩ     | Bath temperature 35±2°C, saltwater concentration 5±1%   |
|  | H <sub>2</sub> S resistance (header and socket mated)   | 48 hours, contact resistance max. 60mΩ   | 96 hours, contact resistance max. 50mΩ                                       | Bath temperature 40±2°C, gas concentration 3±1 ppm, humidity 75 to 80% R.H.   |
| SO <sub>2</sub> resistance (header and socket mated) | 48 hours, contact resistance max. 60mΩ  | 96 hours, contact resistance max. 50mΩ   | Bath temperature 40±2°C, gas concentration 10±3 ppm, humidity 90 to 95% R.H. |   |
| Lifetime characteristics                             | Insertion and removal life  | 50 times   | 100 times  | Repeated insertion and removal speed of max. 200 times/hours  |
| Unit weight  | Mated height 3mm 30 contacts; Socket: 0.26g Header: 0.26g<br>50 contacts; Socket: 0.40g Header: 0.44g |  |  |   |

## 2. Material and surface treatment

| Part name      | 3.0mm, 3.5mm, 4.0mm, 4.5mm, 5.0mm, 5.5mm, 6.0mm, 7.0mm, 8.0mm, 13.0mm, 14.0mm type |   | 11.5mm type                            |   |
|----------------|--|---|--|---|
|                | Material   | Surface treatment   | Material                               | Surface treatment   |
| Molded portion | Heat-resistant resin (UL94V-0)   | —   | Liquid crystal polymer resin (UL94V-0) | —   |
| Bracket        | —  | —   | Copper alloy                           | Cu plating on base, Sn plating on surface   |
| Contact        | Copper alloy   | Contact portion:<br>Ni plating on base, Au plating on surface<br>Terminal portion:<br>Ni plating on base, Au plating on surface<br>(Except for thick of terminal) | Copper alloy                           | Contact portion:<br>Ni plating on base, Au plating on surface<br>Terminal portion:<br>Ni plating on base, Au plating on surface<br>(Except for thick of terminal) |

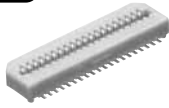
# AXN(1/3/4)

**DIMENSIONS** (Unit: mm) The CAD data of the products with a **CAD Data** mark can be downloaded from: <http://panasonic-electric-works.net/ac>

• Mated height 3.0mm, 4.0mm, 4.5mm, 5.0mm, 5.5mm, 6.0mm, 7.0mm, 8.0mm, 13.0mm, 14.0mm type

1) Socket

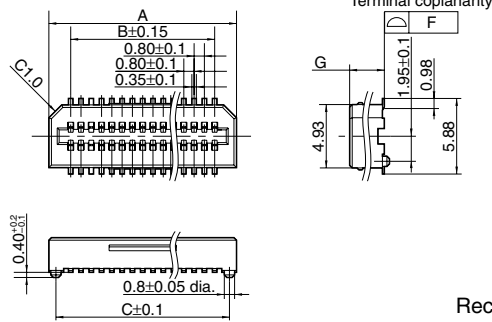
**CAD Data**



Dimension table (mm)

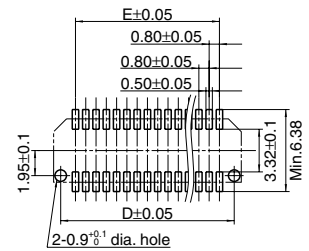
| No. of contacts | A     | B     | C     | D     | E     | F    |
|-----------------|-------|-------|-------|-------|-------|------|
| 12              | 7.40  | 4.00  | 6.30  | 6.30  | 4.00  | 0.1  |
| 14              | 8.20  | 4.80  | 7.10  | 7.10  | 4.80  |      |
| 16              | 9.00  | 5.60  | 7.90  | 7.90  | 5.60  |      |
| 20              | 10.60 | 7.20  | 9.50  | 9.50  | 7.20  |      |
| 22              | 11.40 | 8.00  | 10.30 | 10.30 | 8.00  |      |
| 24              | 12.20 | 8.80  | 11.10 | 11.10 | 8.80  |      |
| 26              | 13.00 | 9.60  | 11.90 | 11.90 | 9.60  |      |
| 30              | 14.60 | 11.20 | 13.50 | 13.50 | 11.20 |      |
| 34              | 16.20 | 12.80 | 15.10 | 15.10 | 12.80 |      |
| 40              | 18.60 | 15.20 | 17.50 | 17.50 | 15.20 |      |
| 50              | 23.40 | 19.20 | 21.50 | 21.50 | 19.20 | 0.15 |
| 60              | 27.40 | 23.20 | 25.50 | 25.50 | 23.20 |      |
| 64              | 29.00 | 24.80 | 27.10 | 27.10 | 24.80 |      |
| 80              | 35.40 | 31.20 | 33.50 | 33.50 | 31.20 |      |
| 100             | 43.40 | 39.20 | 41.50 | 41.50 | 39.20 |      |

| Mated height                               | G   |
|--|-----|
| 3.0mm, 4.0mm, 5.0mm common                 | 2.2 |
| 3.5mm, 4.5mm, 5.5mm common                 | 2.7 |
| 6.0mm, 7.0mm, 8.0mm, 13.0mm, 14.0mm common | 5.2 |



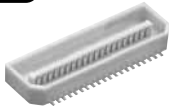
General tolerance: ±0.3

Recommended PC board pattern (TOP VIEW)



2) Header

**CAD Data**

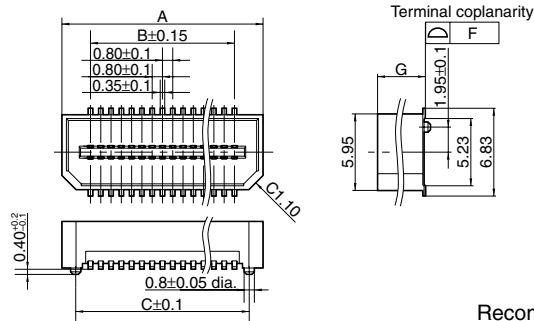


Dimension table (mm)

| No. of contacts | A     | B     | C     | D     | E     | F             |
|-----------------|-------|-------|-------|-------|-------|---------------|
| 12              | 8.45  | 4.00  | 6.30  | 6.30  | 4.00  | 0.1           |
| 14              | 9.25  | 4.80  | 7.10  | 7.10  | 4.80  |               |
| 16              | 10.05 | 5.60  | 7.90  | 7.90  | 5.60  |               |
| 20              | 11.65 | 7.20  | 9.50  | 9.50  | 7.20  |               |
| 22              | 12.45 | 8.00  | 10.30 | 10.30 | 8.00  |               |
| 24              | 13.25 | 8.80  | 11.10 | 11.10 | 8.80  |               |
| 26              | 14.05 | 9.60  | 11.90 | 11.90 | 9.60  |               |
| 30              | 15.65 | 11.20 | 13.50 | 13.50 | 11.20 |               |
| 34              | 17.25 | 12.80 | 15.10 | 15.10 | 12.80 |               |
| 40              | 19.65 | 15.20 | 17.50 | 17.50 | 15.20 |               |
| 50              | 25.85 | 19.20 | 21.50 | 21.50 | 19.20 | Note)<br>0.15 |
| 60              | 29.85 | 23.20 | 25.50 | 25.50 | 23.20 |               |
| 64              | 31.45 | 24.80 | 27.10 | 27.10 | 24.80 |               |
| 80              | 37.85 | 31.20 | 33.50 | 33.50 | 31.20 |               |
| 100             | 45.85 | 39.20 | 41.50 | 41.50 | 39.20 |               |

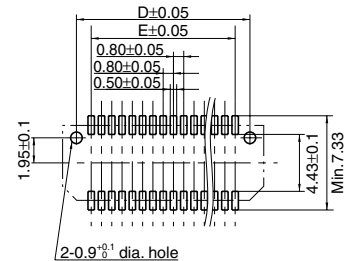
Note) The 13 mm mated height (20 to 80 contacts) terminal flatness is 0.1 mm.

| Mated height               | G     |
|----------------------------|-------|
| 3.0mm, 3.5mm, 6.0mm common | 2.72  |
| 4.0mm, 4.5mm, 7.0mm common | 3.72  |
| 5.0mm, 5.5mm, 8.0mm common | 4.72  |
| 13.0mm                     | 10.14 |
| 14.0mm                     | 11.14 |

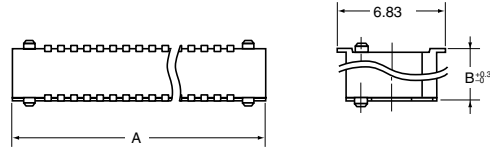


General tolerance: ±0.3

Recommended PC board pattern (TOP VIEW)



3) Socket and header are mated



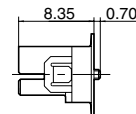
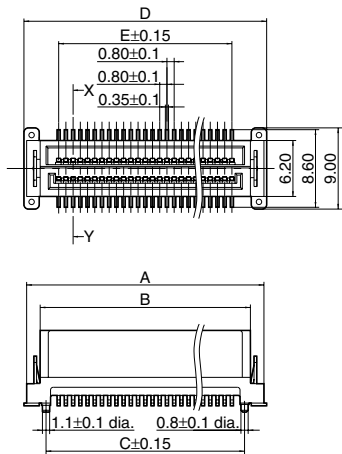
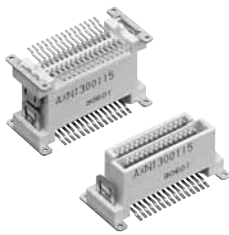
Dimension table (mm)

| No. of contacts | A     | Mated height | B   |
|-----------------|-------|--------------|-----|
| 12              | 8.45  | 3.0mm        | 3   |
| 14              | 9.25  | 3.5mm        | 3.5 |
| 16              | 10.05 | 4.0mm        | 4   |
| 20              | 11.65 | 4.5mm        | 4.5 |
| 22              | 12.45 | 5.0mm        | 5   |
| 24              | 13.25 | 5.5mm        | 5.5 |
| 26              | 14.05 | 6.0mm        | 6   |
| 30              | 15.65 | 7.0mm        | 7   |
| 34              | 17.25 | 8.0mm        | 8   |
| 40              | 19.65 | 13.0mm       | 13  |
| 50              | 25.85 | 14.0mm       | 14  |
| 60              | 29.85 |              |     |
| 64              | 31.45 |              |     |
| 80              | 37.85 |              |     |
| 90              | 41.85 |              |     |
| 100             | 45.85 |              |     |

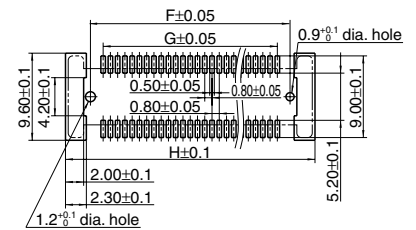
Note) Common for all mated heights.

- Mated height 11.5mm type (Socket and Header) (30 contacts, 40 contacts, 50 contacts)

CAD Data



Recommended PC board pattern (TOP VIEW)

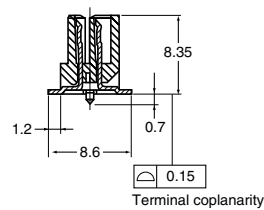


General tolerance: ±0.3

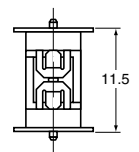
Dimension table (mm)

| No. of contacts | A    | B    | C    | D    | E    | F    | G    | H    |
|-----------------|------|------|------|------|------|------|------|------|
| 30              | 18.9 | 15.3 | 14.0 | 18.9 | 11.2 | 14.0 | 11.2 | 19.5 |
| 40              | 22.9 | 19.3 | 18.0 | 22.9 | 15.2 | 18.0 | 15.2 | 23.5 |
| 50              | 26.9 | 23.3 | 22.0 | 26.9 | 19.2 | 22.0 | 19.2 | 27.5 |

X-Y cross section



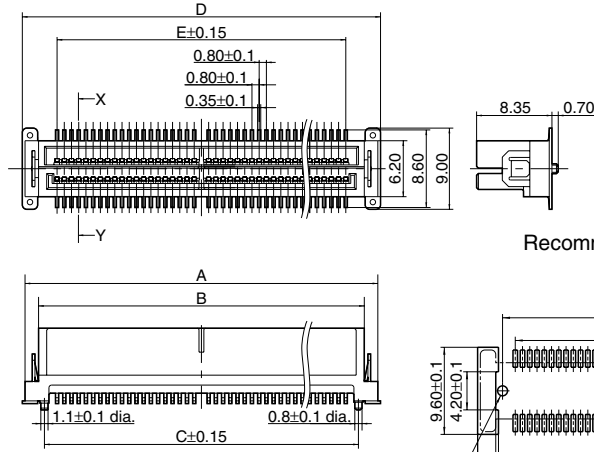
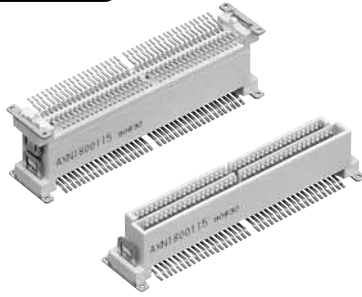
Stacking mated diagram



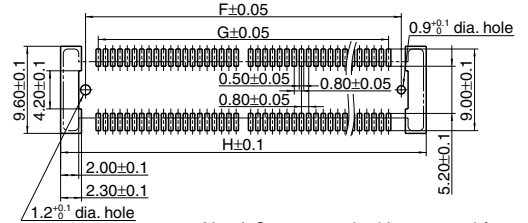
# AXN(1/3/4)

- Mated height 11.5mm type (Socket and Header)  
(80 contacts, 100 contacts)

## CAD Data



Recommended PC board pattern  
(TOP VIEW)



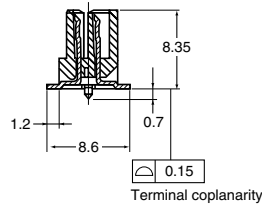
Note) Center terminal is removed for 80 and 100 contact type

General tolerance:  $\pm 0.3$

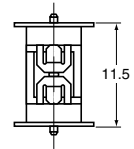
## Dimension table (mm)

| No. of contacts | A    | B    | C    | D    | E    | F    | G    | H    |
|-----------------|------|------|------|------|------|------|------|------|
| 80              | 39.7 | 36.1 | 34.8 | 39.7 | 32.0 | 34.8 | 32.0 | 40.3 |
| 100             | 47.7 | 44.1 | 42.8 | 47.7 | 40.0 | 42.8 | 40.0 | 48.3 |

X-Y cross section



Stacking mated diagram



## EMBOSSED TAPE DIMENSIONS

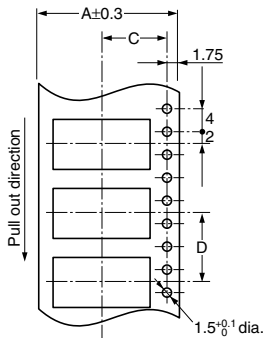
(unit: mm, Common for respective contact type, socket and header)

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

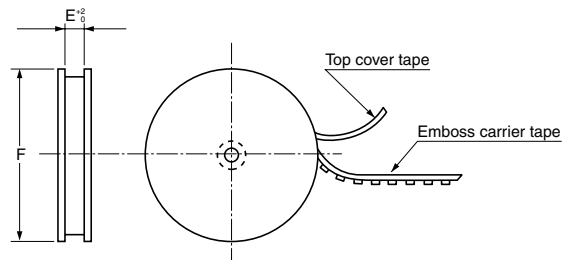
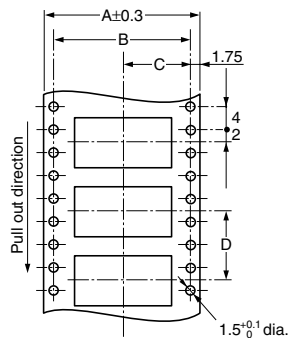
However, some tapes have mounting hole pitches that do not comply with the standard.)

- Paper reel dimensions (Conforming to JIS C 0806-1990)

Tape I



Tape II





**Dimension table (mm)**

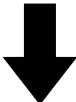
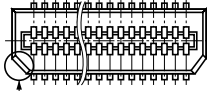
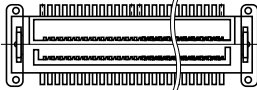
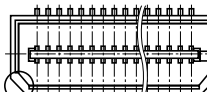
(1) Suffix: J (1 reel, 1,500 pieces embossed tape package)

| Mated height  | No. of contacts | Type of taping | A    | B    | C    | D    | E    | F        | Quantity per reel |
|---|-----------------|----------------|------|------|------|------|------|----------|-------------------|
| Socket: 3.0mm, 3.5mm, 4.0mm, 4.5mm, 5.0mm, 5.5mm<br>Header: 3.0mm, 3.5mm, 6.0mm | 12 to 32        | Tape I         | 24.0 | —    | 11.5 | 12.0 | 24.4 | 370 dia. | 1,500 pcs.        |
|   | 34 to 40        | Tape II        | 32.0 | 28.4 | 14.2 | 12.0 | 32.4 | 370 dia. |                   |
|   | 50 to 60        | Tape II        | 44.0 | 40.4 | 20.2 | 12.0 | 44.4 | 370 dia. |                   |
|   | 80              | Tape II        | 56.0 | 52.4 | 26.2 | 12.0 | 56.4 | 370 dia. |                   |

(2) Suffix: P (1 reel, 1,000, 500, 350 and 250 pieces embossed tape package)

| Mated height   | No. of contacts | Type of taping | A    | B    | C    | D    | E    | F        | Quantity per reel |
|--|-----------------|----------------|------|------|------|------|------|----------|-------------------|
| Socket: 3.0mm, 3.5mm, 4.0mm, 4.5mm, 5.0mm, 5.5mm<br>Header: 3.0mm, 3.5mm, 4.0mm, 4.5mm, 6.0mm, 7.0mm | 12 to 32        | Tape I         | 24.0 | —    | 11.5 | 12.0 | 24.4 | 330 dia. | 1,000 pcs.        |
|  | 34 to 40        | Tape II        | 32.0 | 28.4 | 14.2 | 12.0 | 32.4 | 330 dia. |                   |
|  | 50 to 60        | Tape II        | 44.0 | 40.4 | 20.2 | 12.0 | 44.4 | 330 dia. |                   |
|  | 80              | Tape II        | 56.0 | 52.4 | 26.2 | 12.0 | 56.4 | 330 dia. |                   |
| Socket: 6.0mm, 7.0mm, 8.0mm, 13.0mm, 14.0mm<br>Header: 5.0mm, 5.5mm, 8.0mm                           | 16 to 32        | Tape I         | 24.0 | —    | 11.5 | 12.0 | 24.4 | 370 dia. | 1,000 pcs.        |
|  | 34 to 40        | Tape II        | 32.0 | 28.4 | 14.2 | 12.0 | 32.4 | 370 dia. |                   |
|  | 50 to 60        | Tape II        | 44.0 | 40.4 | 20.2 | 12.0 | 44.4 | 370 dia. |                   |
|  | 80              | Tape II        | 56.0 | 52.4 | 26.2 | 12.0 | 56.4 | 370 dia. |                   |
| 11.5mm   | 30 to 40        | Tape II        | 32.0 | 28.4 | 14.2 | 24.0 | 32.4 | 370 dia. | 350 pcs.          |
|  | 50              | Tape II        | 44.0 | 40.4 | 20.2 | 24.0 | 44.4 | 370 dia. | 350 pcs.          |
|  | 80              | Tape II        | 56.0 | 52.4 | 26.2 | 24.0 | 56.4 | 370 dia. | 250 pcs.          |
| Header: 13.0mm   | 20              | Tape I         | 24.0 | —    | 11.5 | 16.0 | 24.4 | 370 dia. | 500 pcs.          |
|  | 30              | Tape I         | 24.0 | —    | 11.5 | 16.0 | 24.4 | 370 dia. | 500 pcs.          |
|  | 40              | Tape II        | 32.0 | 28.4 | 14.2 | 16.0 | 32.4 | 370 dia. | 500 pcs.          |
|  | 50              | Tape II        | 44.0 | 40.4 | 20.2 | 16.0 | 44.4 | 370 dia. | 500 pcs.          |
|  | 60              | Tape II        | 44.0 | 40.4 | 20.2 | 16.0 | 44.4 | 370 dia. | 500 pcs.          |
|  | 80              | Tape II        | 56.0 | 52.4 | 26.2 | 16.0 | 56.4 | 370 dia. | 500 pcs.          |
| Header: 14.0mm   | 20              | Tape I         | 24.0 | —    | 11.5 | 16.0 | 24.4 | 370 dia. | 400 pcs.          |

**Connector orientation with respect to direction of progress of embossed tape**

| Direction of tape progress  | Type   | Mated height: 3.0mm, 3.5mm, 4.0mm, 4.5mm, 5.0mm, 5.5mm, 6.0mm, 7.0mm, 8.0mm, 13.0mm   | Stacking height 11.5mm  |
|---|--------|---|---|
|  | Socket | <br>This corner is oriented on the C side. | <br>Socket and header are common |
|   | Header | <br>This corner is oriented on the C side. |   |

**NOTES**

Note that types having a mated height of 11.5mm cannot be mated with products having other mated heights even though the shape of their socket headers is the same as the rated shape (position of the positioning boss and arrangement of mounting pads) is different.

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