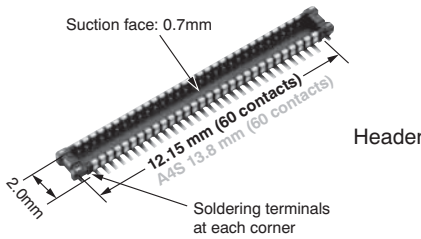
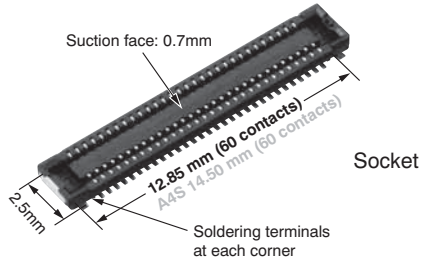


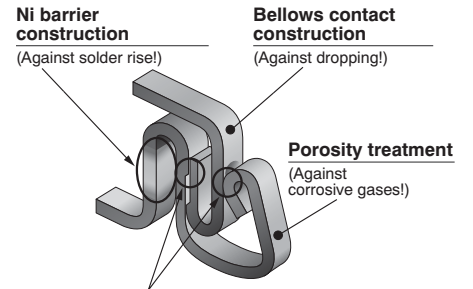
FEATURES

1. Small size (Terminal pitch: 0.35 mm, width: 2.5 mm and Mated height: 0.8 mm)

When mated, the footprint is reduced by approx. 10% from A4S series (60 pin contacts), contributing to the functionality enhancement and size reduction of end equipment.



2. “**TOUGH CONTACT ADVANCED**” ensures high resistance to various environments in lieu of its space-saving footprint.



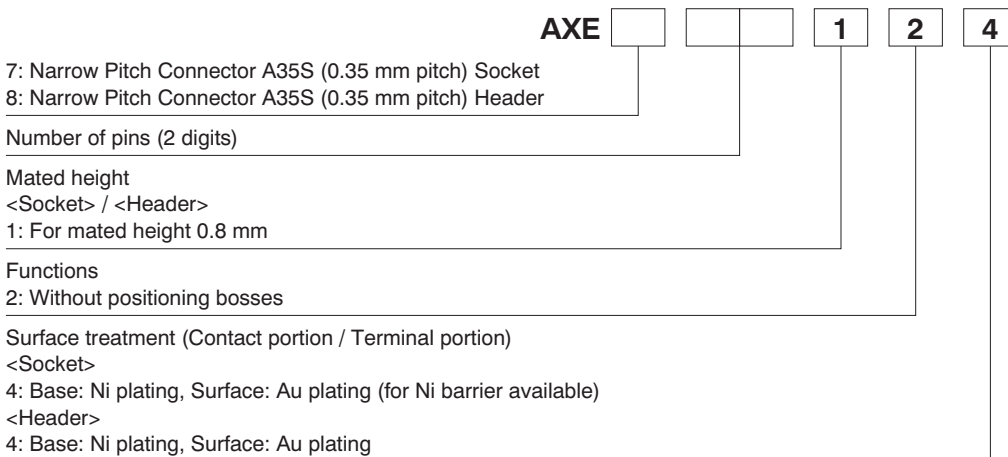
V notch and Double contact constructions
(Against foreign particles and flux!)

- 3. Low-profile connector with up to 120 pin contacts
- 4. Soldering terminals at each corner enhance mounting strength.
- 5. Simple lock structure provides tactile feedback to ensure excellent mating/unmating operation feel.
- 6. Gull-wing-shaped terminals to facilitate visual inspections.

APPLICATIONS

Suitable for board-to-FPC connections in mobile equipment that requires size and thickness reduction and functionality enhancement.

ORDERING INFORMATION



PRODUCT TYPES

| Mated height | Number of pins | Part number | | Packing | |
|--------------|----------------|-------------|-----------|-----------------------|---------------|
| | | Socket | Header | Inner carton (1-reel) | Outer carton |
| 0.8mm | 24 | AXE724124 | AXE824124 | 5,000 pieces | 10,000 pieces |
| | 30 | AXE730124 | AXE830124 | | |
| | 34 | AXE734124 | AXE834124 | | |
| | 44 | AXE744124 | AXE844124 | | |
| | 50 | AXE750124 | AXE850124 | | |
| | 60 | AXE760124 | AXE860124 | | |
| | 100 | AXE700124 | AXE800124 | | |
| | 120 | AXE7A2124 | AXE8A2124 | | |

Notes: 1. Order unit:
 For volume production: in 1-inner carton (1-reel) units
 Samples for mounting check: in 50-connector units. Please contact our sales office.
 2. Please contact us for connectors having a number of pins other than those listed above.

SPECIFICATIONS

1.Characteristics

| | Item | Specifications | Conditions | |
|-------------------------------|---|---|--|------------------|
| Electrical characteristics | Rated current | 0.25A/pin contact (Max. 4 A at total pin contacts) | | |
| | Rated voltage | 60V AC/DC | | |
| | Breakdown voltage | 150V AC for 1 min. | No short-circuiting or damage at a detection current of 1 mA when the specified voltage is applied for one minute. | |
| | Insulation resistance | Min. 1,000MΩ (initial) | Using 250V DC megger (applied for 1 min.) | |
| | Contact resistance | Max. 100mΩ | Based on the contact resistance measurement method specified by JIS C 5402. | |
| Mechanical characteristics | Composite insertion force | Max. 0.981N/pin contacts × pin contacts (initial) | | |
| | Composite removal force | Min. 0.165N/pin contacts × pin contacts | | |
| | Contact holding force (Socket contact) | Min. 0.20N/pin contacts | 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. No dew condensation. | |
| | Soldering heat resistance | Peak temperature: 260°C or less (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. | |
| | Thermal shock resistance (header and socket mated) | 5 cycles, insulation resistance min. 100MΩ, contact resistance max. 100mΩ | Conformed to MIL-STD-202F, method 107G | |
| | | | Order | Temperature (°C) |
| | | | 1 | -55 ₃ |
| | | 2 | } | Max. 5 |
| | | 3 | 85 ₃ | 30 |
| | | 4 | } | Max. 5 |
| | | | -55 ₃ | |
| | Humidity resistance (header and socket mated) | 120 hours, insulation resistance min. 100MΩ, contact resistance max. 100mΩ | 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. 100mΩ | Bath temperature 35±2°C, saltwater concentration 5±1% | |
| | H ₂ S resistance (header and socket mated) | 48 hours, contact resistance max. 100mΩ | Bath temperature 40±2°C, gas concentration 3±1 ppm, humidity 75 to 80% R.H. | |
| Lifetime characteristics | Insertion and removal life | 30 times | Repeated insertion and removal speed of max. 200 times/hours | |
| | Unit weight | 60 pin contact type: Socket: 0.03 g Header: 0.02 g | | |

2. Material and surface treatment

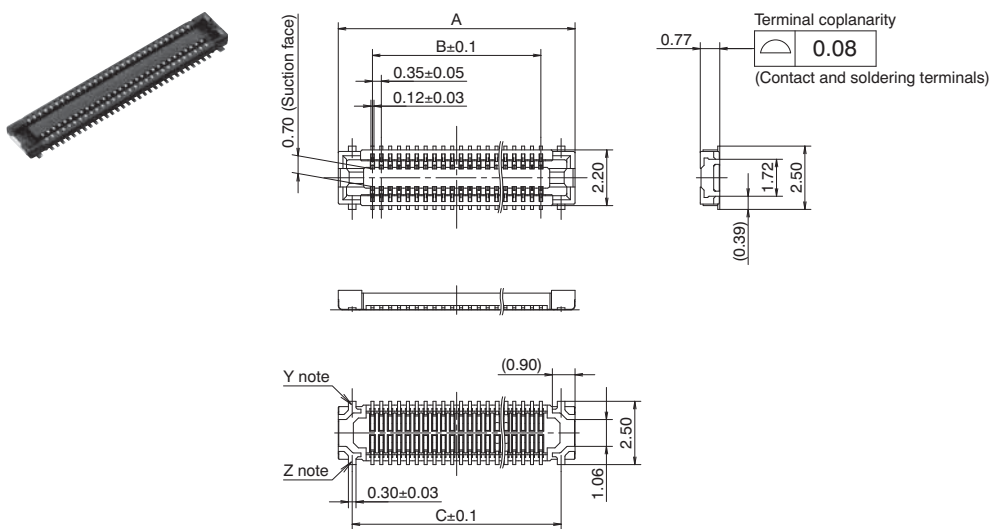
| Part name | Material | Surface treatment |
|------------------|---------------------|--|
| Molded portion | LCP resin (UL94V-0) | — |
| Contact and Post | Copper alloy | Contact portion: Base: Ni plating, Surface: Au plating Terminal portion: Base: Ni plating, Surface: Au plating (except the terminal tips) The socket terminals close to the portion to be soldered have nickel barriers (exposed nickel portions). Soldering terminals: Sockets: Base: Ni plating, Surface: Pd+Au flash plating (except the terminal tips) Headers: Base: Ni plating, Surface: Au plating (except the terminal tips) |

DIMENSIONS

Interested in CAD data? You can obtain CAD data for all products with a **CAD Data** mark from [your local Panasonic Electric Works representative](#).

(Unit: mm)

Socket (Mated height: 0.8 mm)



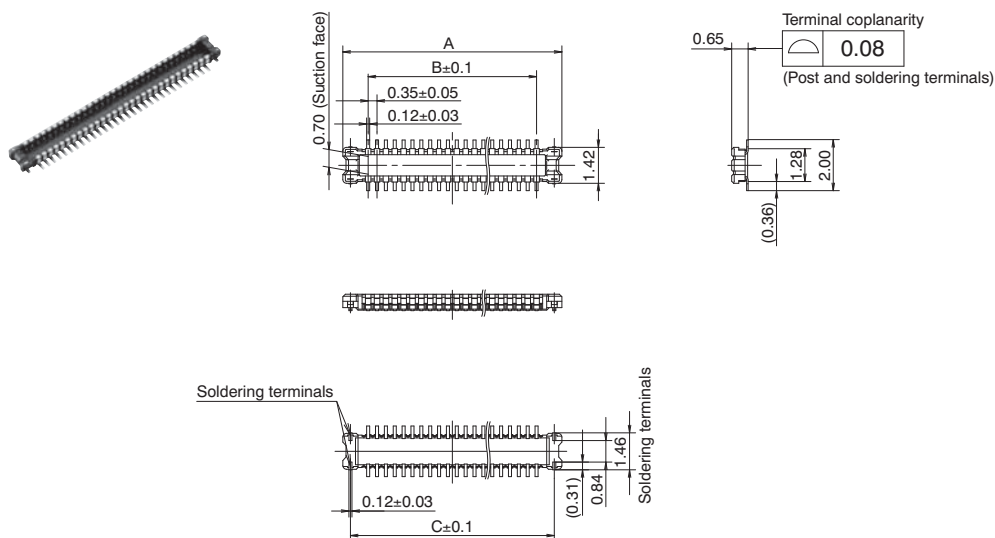
Dimension table (mm)

| Number of pins/ dimension | A | B | C |
|------------------------------|-------|-------|-------|
| 24 | 6.55 | 3.85 | 5.45 |
| 30 | 7.60 | 4.90 | 6.50 |
| 34 | 8.30 | 5.60 | 7.20 |
| 50 | 11.10 | 8.40 | 10.00 |
| 60 | 12.85 | 10.15 | 11.75 |
| 64 | 13.55 | 10.85 | 12.45 |
| 100 | 19.85 | 17.15 | 18.75 |
| 120 | 23.35 | 20.65 | 22.25 |

General tolerance: ±0.2

Note: Since the soldering terminals has a single-piece construction, sections Y and Z are electrically connected.

Header (Mated height: 0.8 mm)

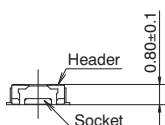


Dimension table (mm)

| Number of pins/ dimension | A | B | C |
|------------------------------|-------|-------|-------|
| 24 | 5.85 | 3.85 | 5.25 |
| 30 | 6.90 | 4.90 | 6.30 |
| 34 | 7.60 | 5.60 | 7.00 |
| 50 | 10.40 | 8.40 | 9.80 |
| 60 | 12.15 | 10.15 | 11.55 |
| 64 | 12.85 | 10.85 | 12.25 |
| 100 | 19.15 | 17.15 | 18.55 |
| 120 | 22.65 | 20.65 | 22.05 |

General tolerance: ±0.2

• Socket and Header are mated



AXE7, 8

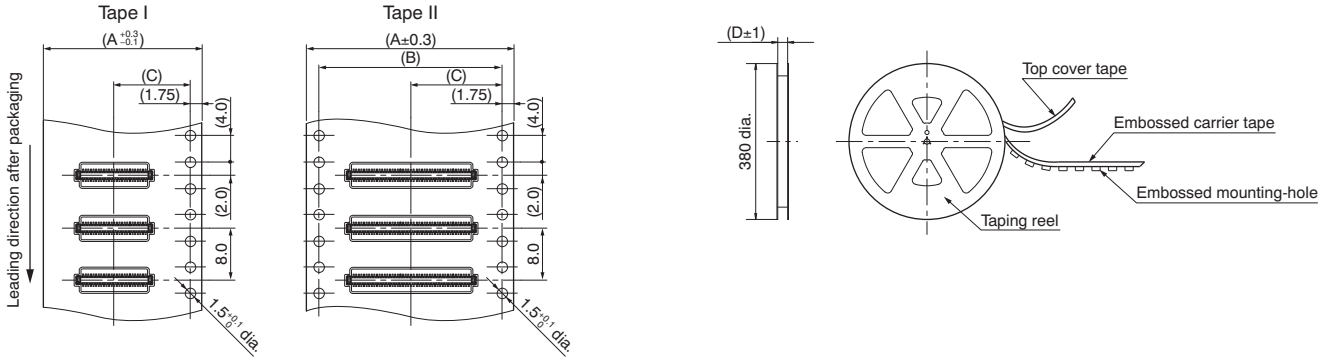
EMBOSSED TAPE DIMENSIONS (Unit: mm)

• Specifications for taping

(In accordance with JIS C 0806-1999. However, not applied to the mounting-hole pitch of some connectors.)

• Specifications for the plastic reel

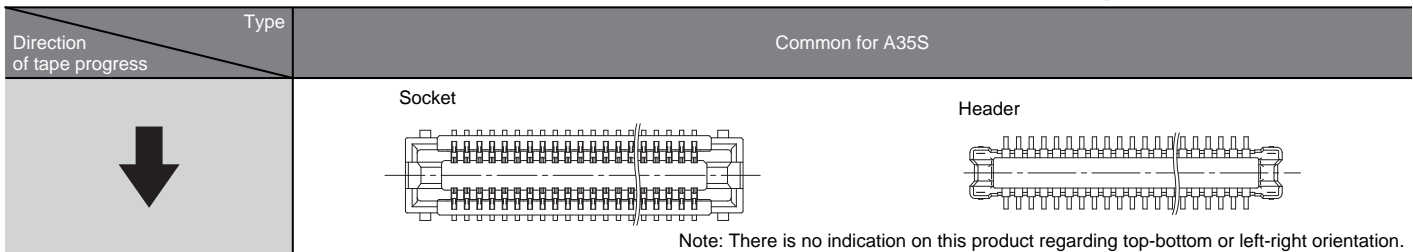
(In accordance with EIAJ ET-7200B.)



• Dimension table (Unit: mm)

| Type/Mated height | Number of pins | Type of taping | A | B | C | D | Quantity per reel |
|---|----------------|----------------|------|------|------|------|-------------------|
| Common for sockets and headers 0.8mm | 24 | Tape I | 16.0 | — | 7.5 | 17.4 | 5,000 |
| | 30 to 64 | Tape I | 24.0 | — | 11.5 | 25.4 | 5,000 |
| | 100 | Tape II | 32.0 | 28.4 | 14.2 | 33.4 | 5,000 |
| | 120 | Tape II | 44.0 | 40.4 | 20.2 | 45.4 | 5,000 |

• Connector orientation with respect to embossed tape feeding direction



NOTES

■ Design of PC board patterns

Conduct the recommended foot pattern design, in order to preserve the mechanical strength of terminal solder areas.

■ Recommended PC board and metal mask patterns

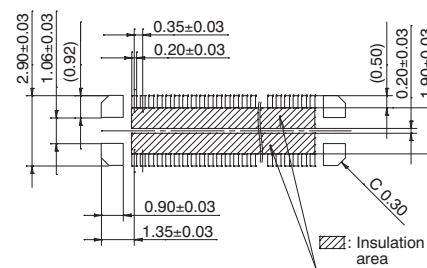
Connectors are mounted with high pitch density, intervals of 0.35 mm, 0.4 mm or 0.5 mm.

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

The figures to the right are recommended metal mask patterns. Please use them as a reference.

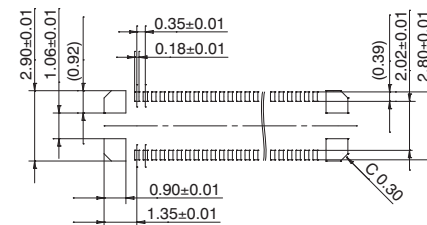
• Socket (Mated height: 0.8 mm)

Recommended PC board pattern (TOP VIEW)



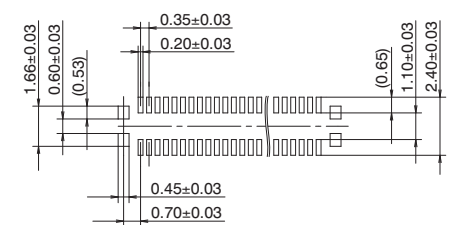
Recommended metal mask opening pattern

Metal mask thickness: When 120μm
(Terminal opening ratio: 70%)
(Metal-part opening ratio: 100%)



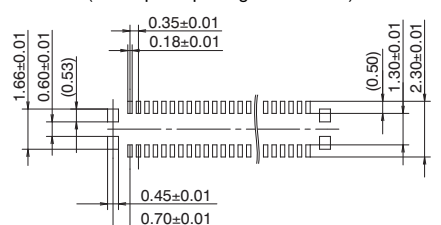
• Header (Mated height: 0.8 mm)

Recommended PC board pattern (TOP VIEW)



Recommended metal mask opening pattern

Metal mask thickness: When 120μm
(Terminal opening ratio: 70%)
(Metal-part opening ratio: 100%)



For Cautions for Use, see the “GENERAL NOTES ON USING ADVANCED SERIES NARROW-PITCH CONNECTORS” of the [Connector Technical Information](#). For other details, please verify with the product specification sheets.