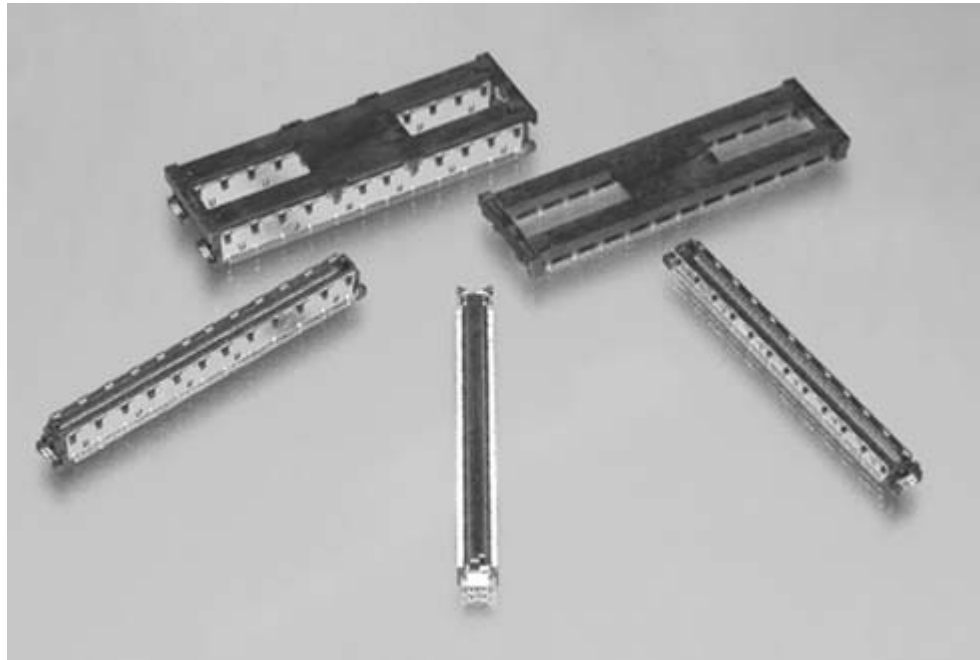




**0.5mm Free Height (FH) Connectors**

**Product Facts**

- Available position sizes:
  - For single connector: 120, 160, 200, 220, and 240 positions
  - For bridged connectors: 240, 320, and 440 positions
- Available stacking heights:
  - 5mm, 6mm, 7mm, 8mm, 9mm, 11mm, 12mm, 15mm, and 16mm (limited by position sizes)
- Giga ground shielding options on all parts
- RoHS Compliant part numbers available
- Polarized locating posts



0.5mm Free Height is a two-piece connector system designed for parallel board-to-board stacking applications. The contact system is identical to our popular 0.6mm FH product. The 0.5mm FH product has been chosen by the PICMG COM Express working group as the interface between embedded modules and carrier cards.

**Applications**

Parallel board-to-board for stacking applications that require high density. **The .5mm FH product is specified by the PICMG COM Express standard as the module to carrier card interface.** All stacking applications including Computer, Telecommunications, and Industrial industries.

**Mechanical Properties**

- Operating Temperature** — -40°C to +85°C
- Durability** — 30 cycles
- Current Rating** — 0.5A
- Voltage Rating** — 50 VAC
- Dielectric Withstanding Voltage** — 200 VAC

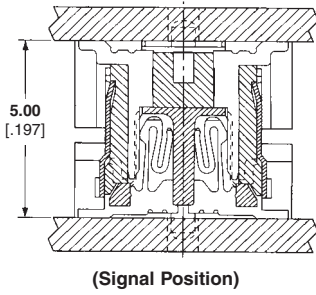
**Technical Documents**

- Product Specification**  
108-5560
- Test Reports**  
501-5226

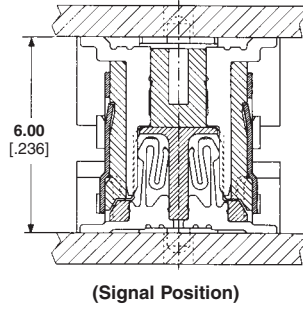
**0.5mm Free Height (FH) Connectors** (Continued)

**Board Stacking Spacing by  
Combined Receptacle and  
Plug Assemblies**

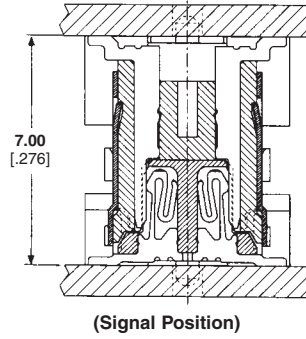
**5mm Height**



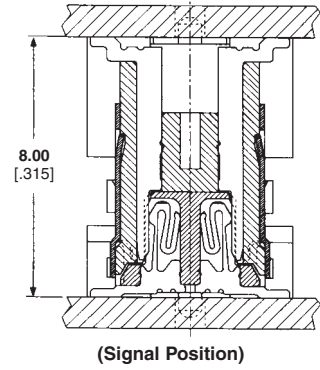
**6mm Height**



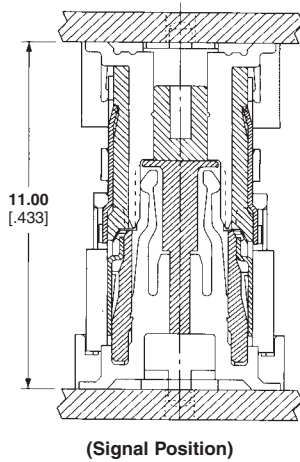
**7mm Height**



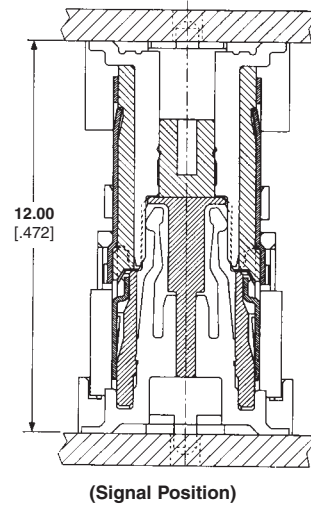
**8mm Height**



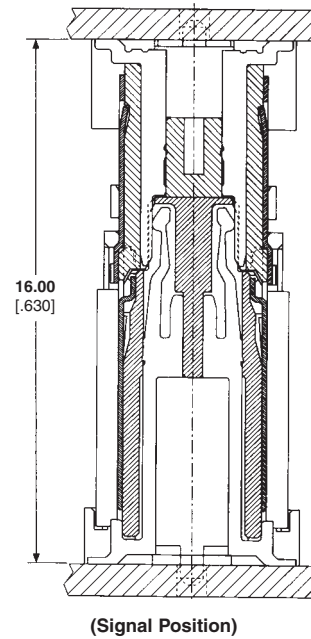
**11mm Height**



**12mm Height**



**16mm Height**



0.5mm Free Height (FH) Connectors

**0.5mm Free Height (FH) Connectors** (Continued)

**0.5 FH Height Lists**

| RECEPTACLE |                   |           |         |       |      |    | PLUG |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------------|-------------------|-----------|---------|-------|------|----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Remarks    | Saleable Part No. | Packaging | SIF-200 | G-Con | Type | H  | Pos. | 200 | 220 | 240 | 240 | 440 | 240 | 240 | 120 | 200 | 120 | 160 | 200 | 220 | 320 | 440 |     |
| with Cap   | 2-6473527-9       | Emboss    | —       | —     | S    | 4  | 120  |     |     |     |     |     |     |     | 7H  |     | 8H  |     |     |     |     |     |     |
| with Cap   | 3-6565778-5       | Semi H/T  | —       | —     | S    | 4  | 200  | 5H  |     |     |     |     |     |     |     | 7H  |     |     | 8H  |     |     |     |     |
| with Cap   | 6-5353606-6       | Hard Tray | —       | X     | S    | 4  | 220  |     | 5H  |     |     |     |     |     |     |     |     |     |     |     | 8H  |     |     |
|            | 3-6318490-6       | Hard Tray | —       | X     | S    | 4  | 220  |     | 5H  |     |     |     |     |     |     |     |     |     |     |     | 8H  |     |     |
| with Cap   | 3-6473884-7       | Hard Tray | —       | —     | S    | 4  | 240  |     |     |     |     |     | 6H  | 6H  |     |     |     |     |     |     |     |     |     |
| with Cap   | 3-5353606-7       | Hard Tray | —       | X     | S    | 4  | 240  |     |     |     |     |     | 6H  | 6H  |     |     |     |     |     |     |     |     |     |
| with Cap   | 3-1827231-6       | Hard Tray | —       | X     | B    | 4  | 440  |     |     |     |     | 5H  |     |     |     |     |     |     |     |     |     |     | 8H  |
| with Cap   | 5-6123675-9       | Emboss    | —       | X     | B    | 4  | 240  |     |     | 5H  | 5H  |     |     |     |     |     |     |     |     |     |     |     |     |
|            | 6-5353699-5       | Hard Tray | —       | X     | S    | 8  | 200  | 9H  |     |     |     |     |     |     |     | 11H |     |     |     |     | 12H |     |     |
| with Cap   | 6-5353700-5       | Hard Tray | X       | X     | S    | 8  | 200  |     |     |     |     |     |     |     |     | 11H |     |     |     |     | 12H |     |     |
| with Cap   | 6376618-1         | Hard Tray | —       | X     | S    | 12 | 120  |     |     |     |     |     |     |     | 15H |     | 16H |     |     |     |     |     |     |
| with Cap   | 6-5353703-2       | Tray      | X       | X     | S    | 12 | 160  |     |     |     |     |     |     |     |     |     |     | 16H |     |     |     |     |     |
|            | 6-5353649-2       | Hard Tray | —       | X     | B    | 12 | 320  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 16H |

Stack Height(mm) = Rcpt H + Plug H - 4  
 Giga Option = G-Plate & G-Con't  
 COM Express Part Numbers  
 Type: S = Single part; B = Bridge

0.5mm Free Height (FH) Connectors

**Note:** Part Numbers are RoHS compliant.

**0.5mm Free Height (FH) Connectors** (Continued)

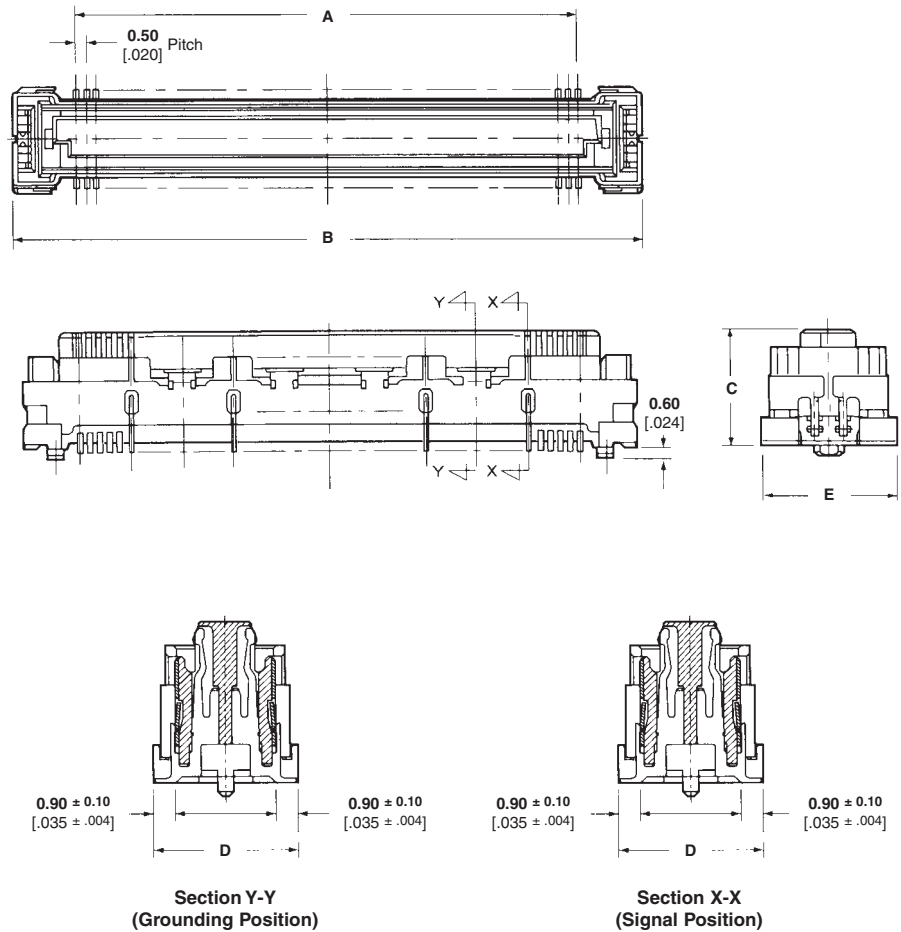
**Receptacle Assembly**

**Acceptable Board Stacking Height = 11mm/12mm**

**Material and Finish**

**Housing** — UL94V-0, heat resistant resin, natural color

**Contact** — Copper alloy, 0.2µm min. gold plated on contact area, 0.1µm tin-lead plated or tin plated on soldering area, 1.3µm min. nickel underplated on entire contact, 0.1µm thick tin plated on grounding contact.



**.5 mm FH Receptacle Assemblies**

| Positions | Height | Dimensions     |                |               |              |              | Ground Contact | SIF-200 | With Pickup Cap | Packaging Type | Part Number |
|-----------|--------|----------------|----------------|---------------|--------------|--------------|----------------|---------|-----------------|----------------|-------------|
|           |        | A              | B              | C             | D            | E            |                |         |                 |                |             |
| 120       | 4      | 29.50<br>1.161 | 36.80<br>1.449 | 3.25<br>.128  | 6.20<br>.244 | 6.00<br>.236 | —              | —       | Yes             | Tape           | 2-6473527-9 |
|           | 12     | 29.50<br>1.161 | 36.80<br>1.449 | 11.25<br>.443 | 6.30<br>.248 | 6.50<br>.256 | Yes            | —       | Yes             | Hard Tray      | 6376618-1   |
| 160       | 12     | 39.50<br>1.555 | 46.80<br>1.843 | 11.25<br>.443 | 6.30<br>.248 | 6.50<br>.256 | Yes            | —       | Yes             | Tray           | 6-5353703-2 |
| 200       | 4      | 49.50<br>1.949 | 56.80<br>2.236 | 3.25<br>.128  | 6.20<br>.244 | 6.00<br>.236 | —              | —       | Yes             | Semi H/T       | 3-6565778-5 |
|           | 8      | 49.50<br>1.949 | 56.80<br>2.236 | 7.25<br>.285  | 6.30<br>.248 | 6.50<br>.256 | Yes            | —       | —               | Hard Tray      | 6-5353699-5 |
| 220       | 4      | 54.50<br>2.146 | 61.80<br>2.433 | 3.25<br>.128  | 6.20<br>.244 | 6.00<br>.236 | Yes            | —       | —               | Hard Tray      | 3-6318490-6 |
|           | 4      | 54.50<br>2.146 | 61.80<br>2.433 | 3.25<br>.128  | 6.20<br>.244 | 6.00<br>.236 | Yes            | —       | Yes             | Hard Tray      | 6-5353606-6 |
|           | 8      | 54.50<br>2.146 | 61.80<br>2.433 | 7.25<br>.285  | 6.30<br>.248 | 6.50<br>.256 | Yes            | Yes     | Yes             | Hard Tray      | 6-5353700-5 |
|           | 4      | 59.50<br>2.343 | 66.80<br>2.630 | 3.25<br>.128  | 6.20<br>.244 | 6.00<br>.236 | —              | —       | Yes             | Hard Tray      | 3-6473884-7 |
| 240       | 4      | 59.50<br>2.343 | 66.80<br>2.630 | 3.25<br>.128  | 6.20<br>.244 | 6.00<br>.236 | Yes            | —       | Yes             | Hard Tray      | 3-5353606-7 |

**Note:** Part Numbers are RoHS compliant.

0.5mm Free Height (FH) Connectors

**0.5mm Free Height (FH) Connectors (Continued)**

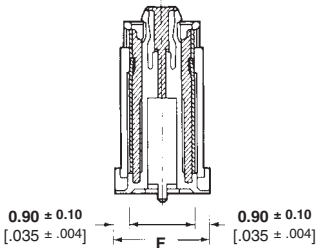
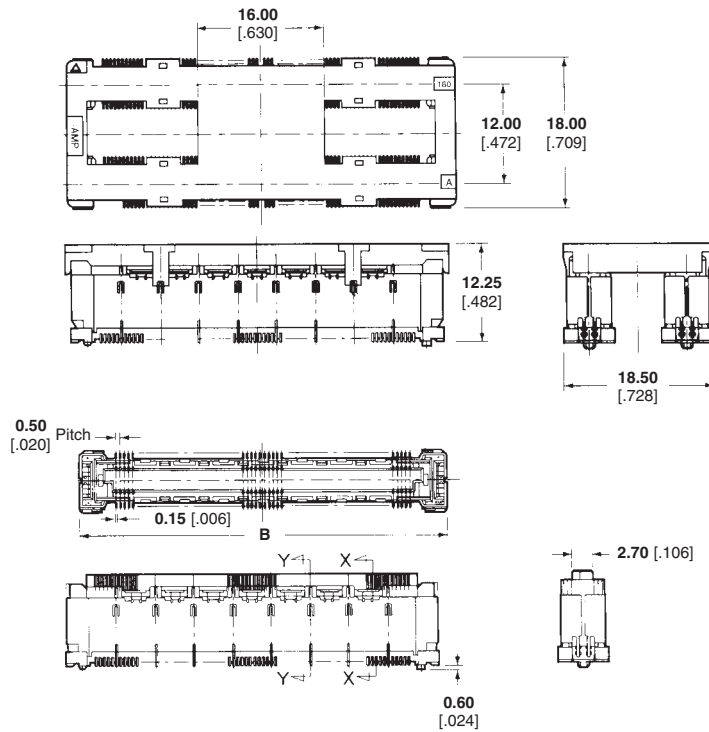
**Receptacle Assembly with Bridge**

**Acceptable Board Stacking Height = 16mm**

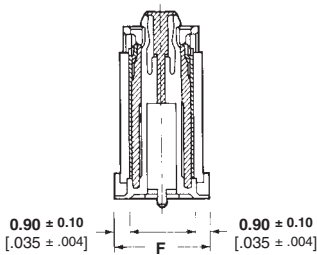
**Material and Finish**

**Housing** — UL94V-0, heat resistant resin, natural color

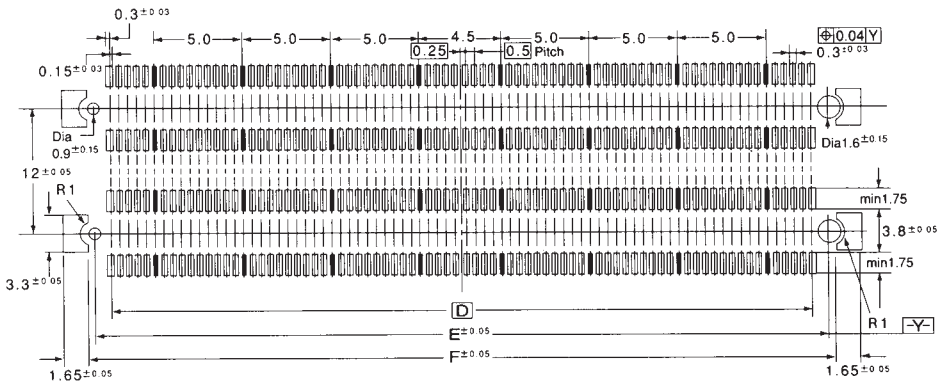
**Contact** — Copper alloy, 0.2µm min. gold plated on contact area, 0.1µm tin-lead plated or tin plated on soldering area, 1.3µm min. nickel underplated on entire contact, 0.1µm thick tin plated on grounding contact.



**Section Y-Y  
(Grounding Position)**



**Section X-X  
(Signal Position)**



**PC Board Layout  
(# = For Grounding Contact)**

**.5 mm FH Receptacle Assemblies with Bridge**

| Positions | Height | Dimensions     |                |               |                |              |              | Ground Contact | SIF-200 | With Pickup Cap | Packaging Type | Part Number |
|-----------|--------|----------------|----------------|---------------|----------------|--------------|--------------|----------------|---------|-----------------|----------------|-------------|
|           |        | A              | B              | C             | D              | E            | F            |                |         |                 |                |             |
| 240       | 4      | 29.50<br>1.161 | 36.80<br>1.449 | 3.25<br>.128  | 37.80<br>1.488 | 6.20<br>.244 | 6.00<br>.236 | Yes            | —       | Yes             | Tape           | 5-6123675-9 |
| 320       | 12     | 39.50<br>1.555 | 46.80<br>1.843 | 11.25<br>.443 | 47.80<br>1.882 | 6.50<br>.256 | 6.30<br>.248 | Yes            | —       | Yes             | Hard Tray      | 6-5353649-2 |
| 440       | 4      | 54.50<br>2.146 | 61.80<br>2.433 | 3.25<br>.128  | 62.80<br>2.472 | 6.20<br>.244 | 6.00<br>.236 | Yes            | —       | Yes             | Hard Tray      | 3-1827231-6 |

**Note:** Part Numbers are RoHS compliant.

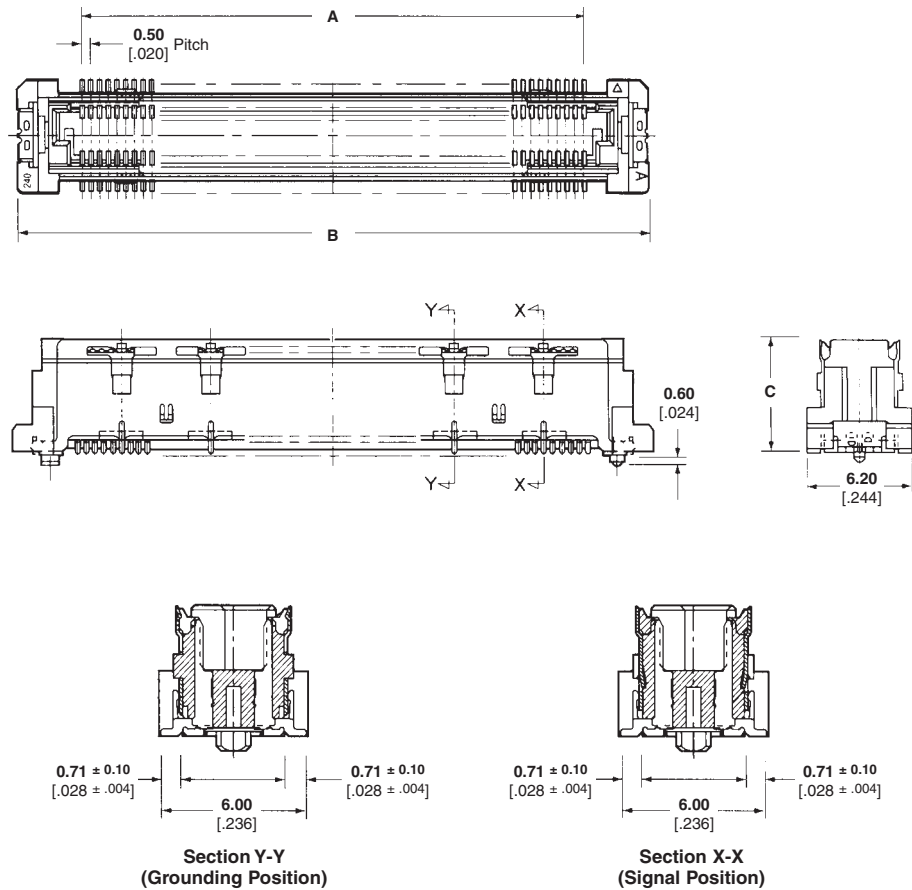
**0.5mm Free Height (FH) Connectors** (Continued)

**Plug Assembly**

**Material and Finish**

**Housing** — UL94V-0, heat resistant resin, natural color

**Contact** — Copper alloy, 0.2µm min. gold plated on contact area, 0.1µm tin-lead plated or tin plated on soldering area, 1.3µm min. nickel underplated on entire contact, 0.1µm thick tin plated on grounding contact.



**.5 mm FH Plug Assemblies**

| Positions | Height | Dimensions     |                |               | Giga Ground Shield | SIF-200 | With Pickup Cap | Packaging Type | Part Number |
|-----------|--------|----------------|----------------|---------------|--------------------|---------|-----------------|----------------|-------------|
|           |        | A              | B              | C             |                    |         |                 |                |             |
| 120       | 7      | 29.50<br>1.161 | 36.80<br>1.449 | 6.45<br>.254  | —                  | —       | Yes             | Tape           | 2-6473530-9 |
|           | 8      | 29.50<br>1.161 | 36.80<br>1.449 | 7.45<br>.293  | —                  | —       | —               | Hard Tray      | 6376622-1   |
| 160       | 8      | 39.50<br>1.555 | 46.80<br>1.843 | 7.45<br>.293  | Yes                | Yes     | Yes             | Hard Tray      | 6-5353706-2 |
| 200       | 5      | 49.50<br>1.949 | 56.80<br>2.236 | 4.45<br>.1175 | Yes                | —       | Yes             | Semi H/T       | 3-6612148-5 |
|           | 7      | 49.50<br>1.949 | 56.80<br>2.236 | 6.45<br>.254  | Yes                | —       | —               | Hard Tray      | 6-6123766-5 |
| 220       | 8      | 49.50<br>1.949 | 56.80<br>2.236 | 7.45<br>.293  | Yes                | —       | Yes             | Semi H/T       | 3-6565779-5 |
|           | 5      | 54.50<br>2.146 | 61.80<br>2.433 | 4.45<br>.1175 | Yes                | —       | —               | Hard Tray      | 3-1827253-6 |
| 240       | 8      | 54.50<br>2.146 | 61.80<br>2.433 | 7.45<br>.293  | Yes                | —       | —               | Hard Tray      | 3-6318491-6 |
|           | 6      | 59.50<br>2.343 | 66.80<br>2.630 | 5.45<br>.215  | Yes                | —       | Yes             | Hard Tray      | 3-5353614-7 |
| 240       | 6      | 59.50<br>2.343 | 66.80<br>2.630 | 5.45<br>.215  | —                  | —       | Yes             | Hard Tray      | 3-6473868-7 |

**Note:** Part Numbers are RoHS compliant.

0.5mm Free Height (FH) Connectors



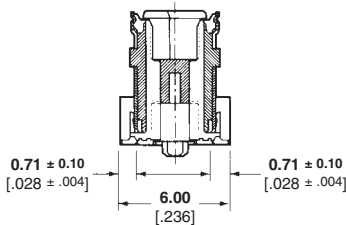
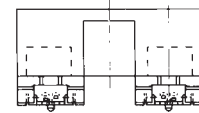
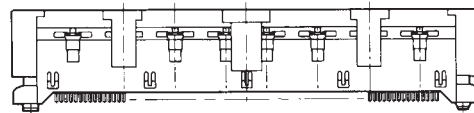
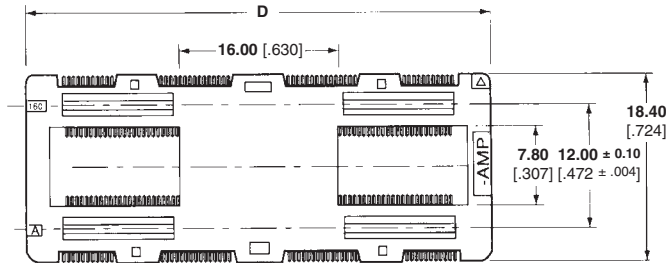
**0.5mm Free Height (FH) Connectors (Continued)**

**Plug Assembly with Bridge**

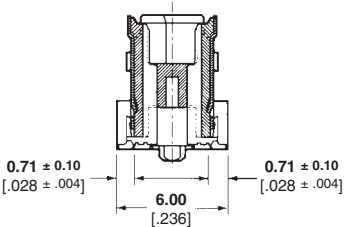
**Material and Finish**

**Housing** — UL94V-0, heat resistant resin, natural color

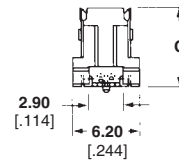
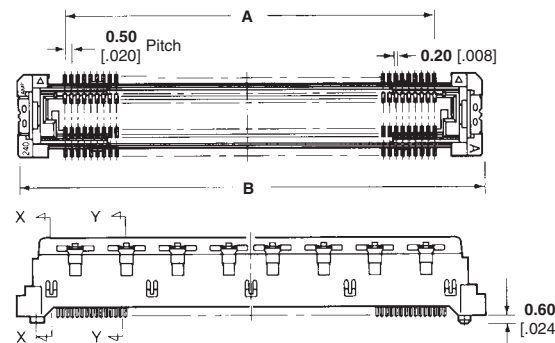
**Contact** — Copper alloy, 0.2µm min. gold plated on contact area, 0.1µm tin-lead plated or tin plated on soldering area, 1.3µm min. nickel underplated on entire contact, 0.1µm thick tin plated on grounding contact.



**Section Y-Y  
(Grounding Position)**



**Section X-X  
(Signal Position)**



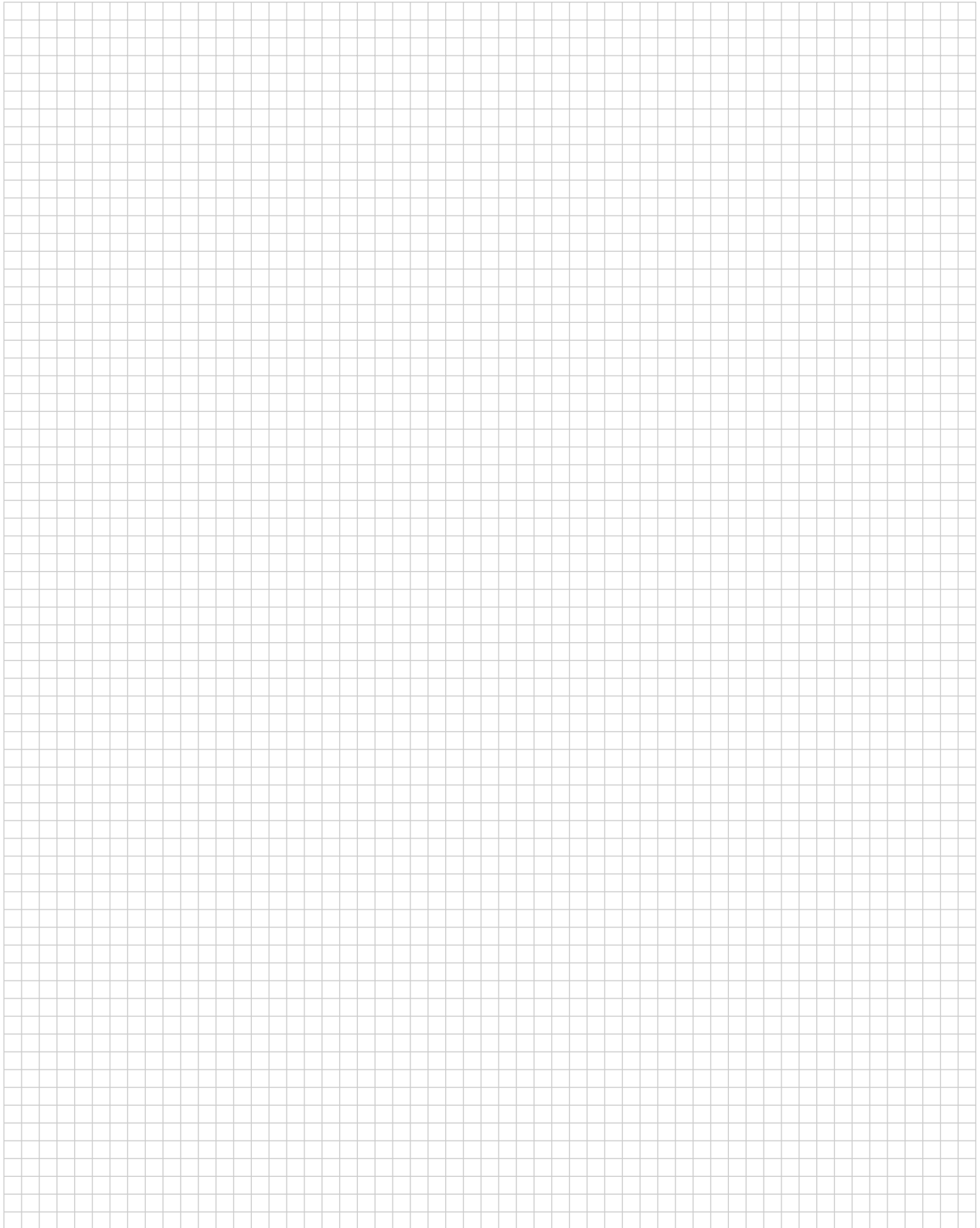
**.5 mm FH Plug Assemblies with Bridge**

| Positions | Height | Dimensions     |                |              |                | Giga Ground Shield | SIF-200 | With Pickup Cap | Packaging Type | Part Number |
|-----------|--------|----------------|----------------|--------------|----------------|--------------------|---------|-----------------|----------------|-------------|
|           |        | A              | B              | C            | D              |                    |         |                 |                |             |
| 240       | 5      | 29.50<br>1.161 | 36.80<br>1.449 | 4.45<br>.175 | 36.90<br>1.453 | Yes                | —       | Yes             | Tape           | 9-6123672-9 |
| 240       | 5      | 29.50<br>1.161 | 36.80<br>1.449 | 4.45<br>.175 | 36.90<br>1.453 | Yes                | —       | Yes             | Tape           | 5-6123672-9 |
| 320       | 8      | 39.50<br>1.555 | 46.80<br>1.843 | 7.45<br>.293 | 46.90<br>1.846 | Yes                | —       | Yes             | Hard Tray      | 6-5353652-2 |
| 440       | 5      | 54.50<br>2.146 | 61.80<br>2.433 | 4.45<br>.175 | 61.90<br>2.437 | Yes                | —       | Yes             | Hard Tray      | 3-1827233-6 |
| 440       | 8      | 54.50<br>2.146 | 61.80<br>2.433 | 7.45<br>.293 | 61.90<br>2.437 | Yes                | —       | Yes             | Hard Tray      | 3-5353652-6 |

**Note:** Part Numbers are RoHS compliant.



**Engineering Notes**





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.