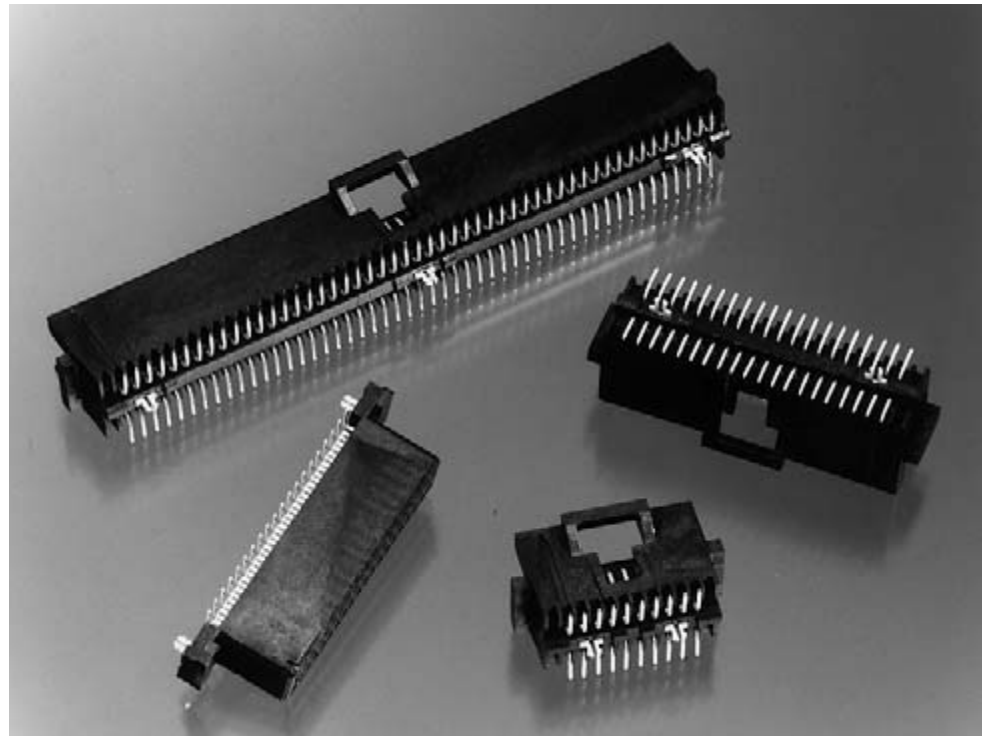


AMPMODU System 50 Connectors
Surface-Mount Connectors, 1.27 [.050] Centers, Board-to-Board

Product Facts

- Surface-mount option for parallel board-to-board applications; completely intermateable with AMPMODU System 50 through-hole board-to-board and cable-to-board systems
- Dual-row, vertical, shrouded header and receptacle assemblies
- Available in select sizes from 10 through 100 positions
- High Density; contacts spaced on 1.27 x 2.54 [.050 x .100] centers; compact footprint
- Compatible with standard surface-mount processes
- Stand-offs for free drainage of flux cleaning solutions; visible solder joints for easy inspection
- Simple, low insertion-force hold-down for process retention and long-term strain relief for solder joints
- Available in tape and reel packaging for automatic placement.
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476 
- Certified by Canadian Standards Association, File No. LR 7189 



The high-density surface-mount connector is another mounting option in the AMPMODU System 50 connector family.

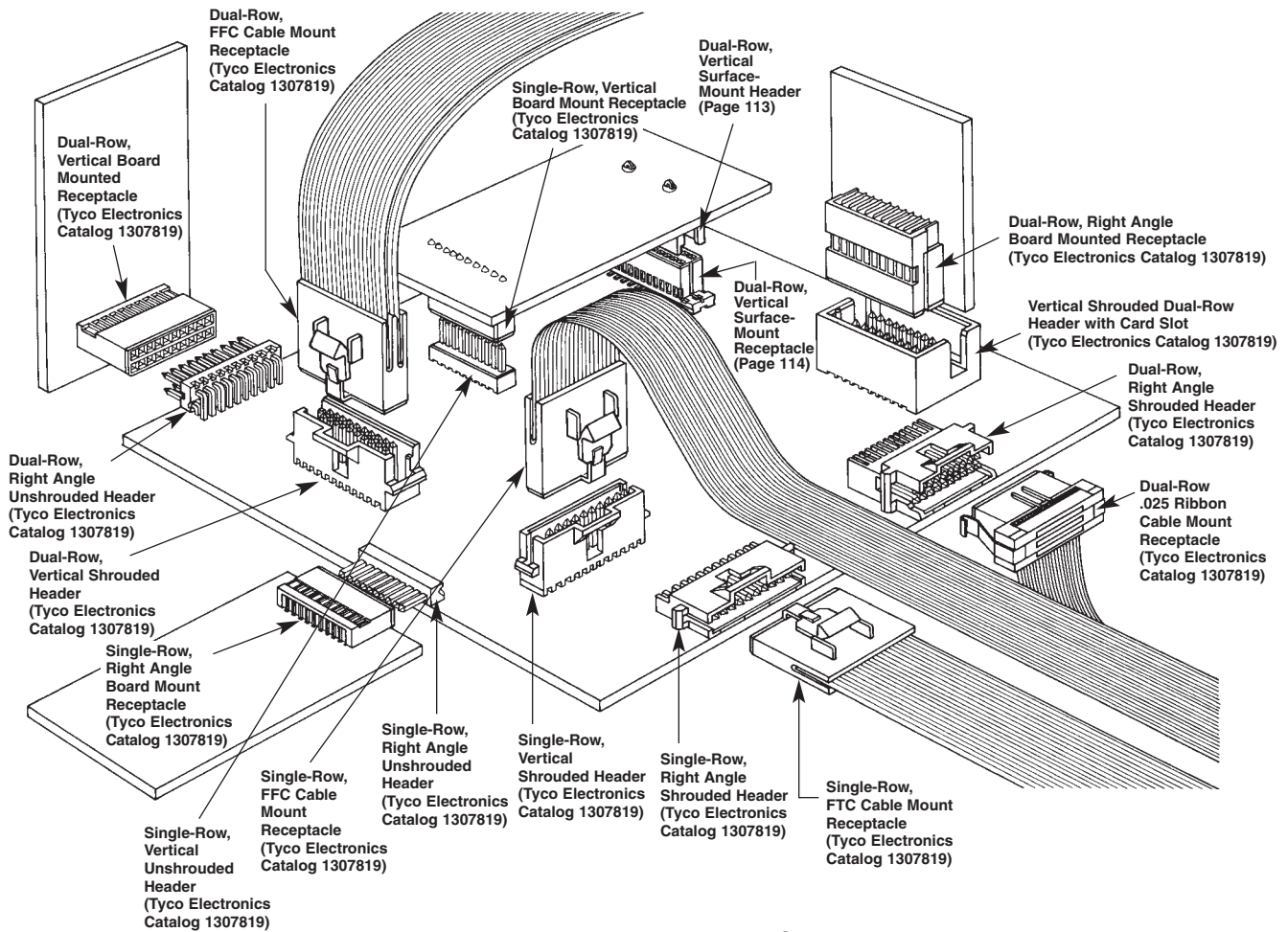
This surface-mount system is totally intermateable with the AMPMODU System 50 thru-hole and cable-to-board connectors.

Additionally, the design of the mating interface has not been changed, ensuring the same high reliability as the thru-hole product.

The surface-mount system includes dual-row, vertical, shrouded header and receptacle assemblies in select sizes from 10 through 100 positions. It meets the tight dimensional requirements of surface-mount technology. The simple, low insertion-force hold-down provides both processing retention and long-term strain relief for the solder joints in the headers and receptacles.

See Catalog 1307819 for additional AMPMODU product offerings.

AMPMODU System 50 Connectors
Surface-Mount Connectors, 1.27 [.050] Centers, Board-to-Board (Continued)



The AMPMODU System 50 connector family includes a wide variety of high density board-to-board (thru-hole and surface-mount) and cable-to-board connectors. System 50 connectors are composed of one- and two-row receptacles and posted headers with 1.27 x 2.54 [.050 x .100] spacing between contacts for extreme density and efficient use of printed circuit board area. Complete details on the AMPMODU System 50 connector family are presented in Tyco Electronics Catalog 1307819.

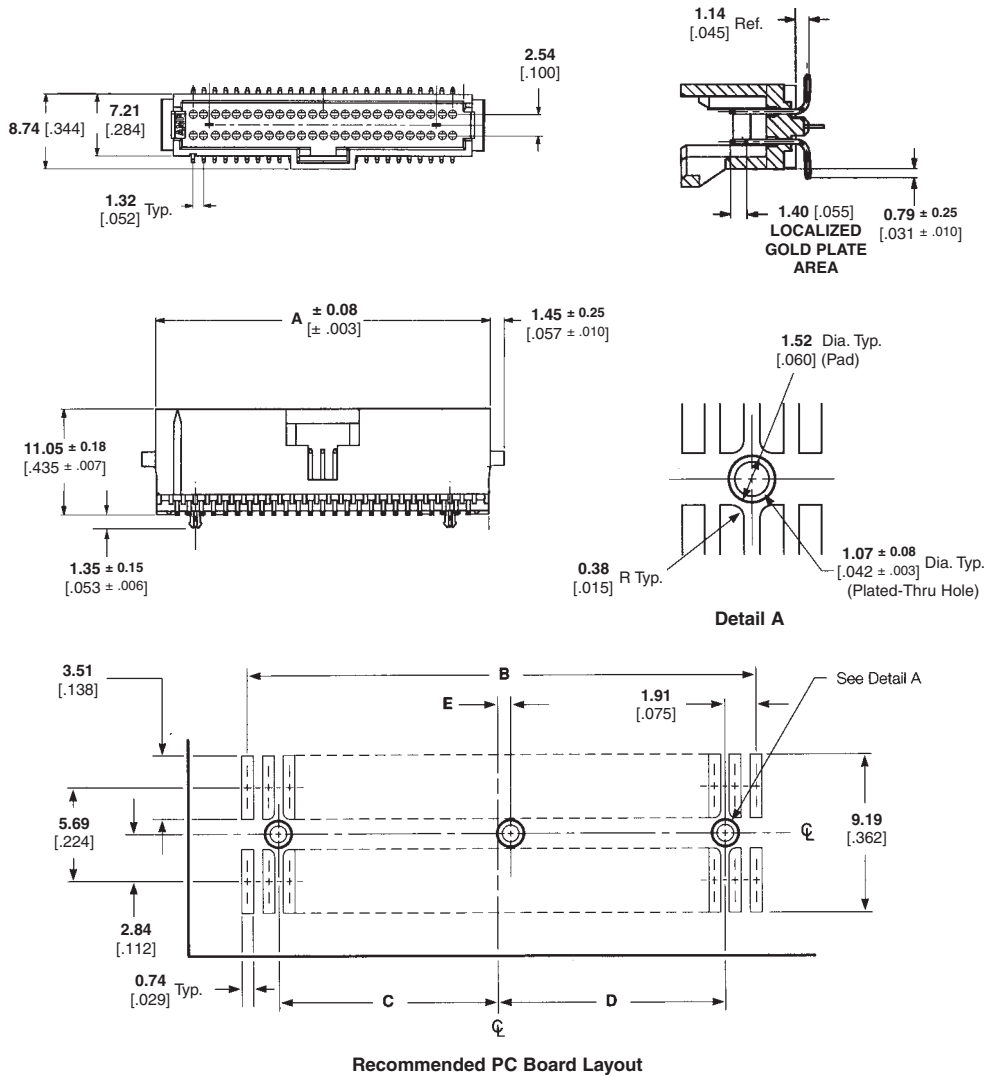
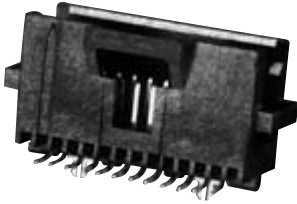
Performance Characteristics

- Current Rating** — 1.0 ampere per contact
- Dielectric Withstanding Voltage** — 500 VAC
- Insulation Resistance** — 5,000 megohms min.
- Durability** — Tested to 200 cycles
- Mating Force** — 1.38 N [5 oz.] max. per contact
- Unmating Force** — 0.22 N [0.8 oz.] min. per contact
- Operating Temperature** — -65°C to +105°C

1.27mm AMPMODU System 50 Connectors

Surface-Mount Headers, 1.27 [.050] Centers, Board-to-Board

Dual-Row, Vertical



Material and Finish

Housing — Glass-filled thermoplastic, black, 94V-0 rated

Contacts — Phosphor bronze, plated 0.00076 [.000030] gold in mating area, 0.00381 [.000150] tin on solder tail, with entire contact underplated 0.00127 [.000050] nickel

Holddown — Copper alloy, plated 0.00381 [.000150] tin over 0.00127 [.000050] nickel

Technical Documents (page 113)

Product Specification 108-1093

Application Specification
114-25035

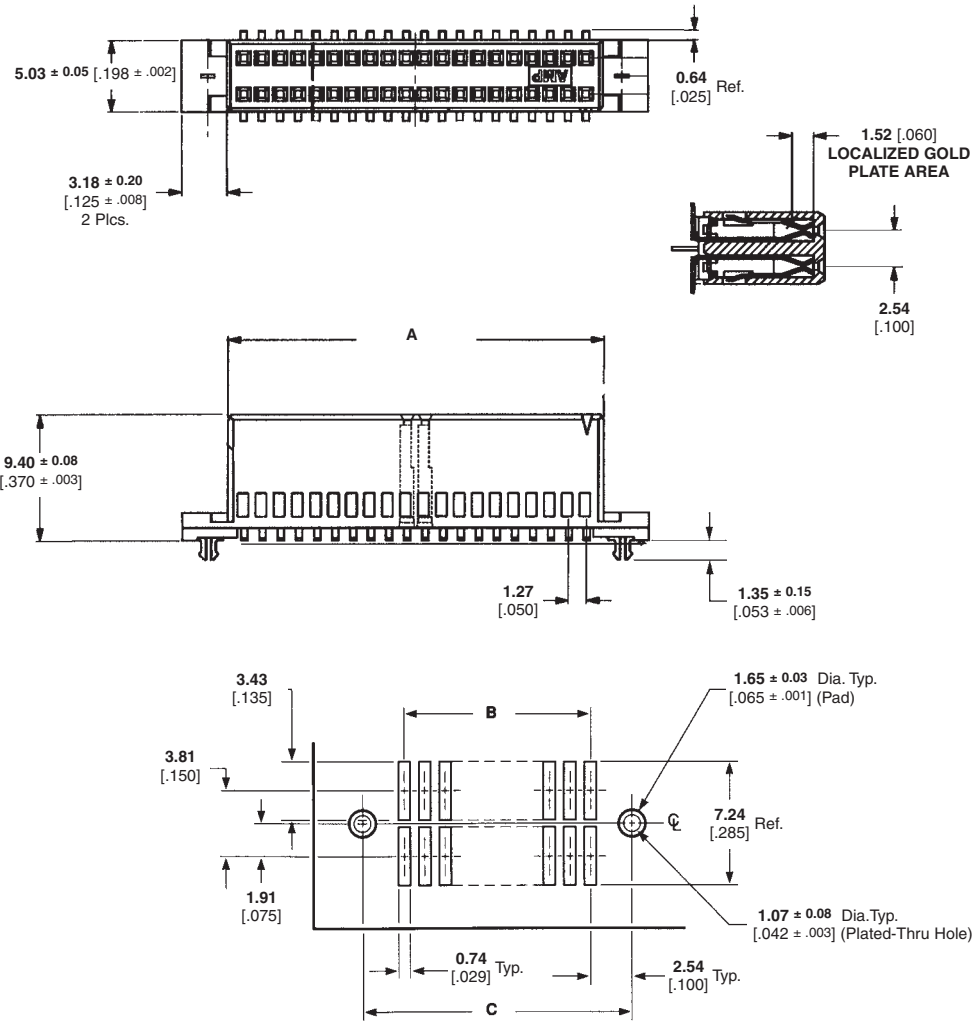
1.27mm AMPMODU System 50 Connectors

| No. of Positions | Dimensions | | | | | Part Numbers | |
|------------------|----------------|----------------|----------------|----------------|--------------|--------------|---------------------|
| | A | B | C | D | E | Pkg in Tube | Pkg in Tape & Reel* |
| 10 | 9.65 .380 | 5.08 .200 | — | 0.64 .025 | — | 5-104549-1 | 5-147377-1 |
| 12 | 10.92 .430 | 6.35 .250 | — | — | — | 6-104549-1 | — |
| 20 | 16.00 .630 | 11.43 .450 | 3.81 .150 | 3.81 .150 | — | 5-104549-2 | 5-147377-2 |
| 24 | 18.54 .730 | 13.97 .550 | 5.08 .200 | 5.08 .200 | — | 5-104549-3 | 5-147377-9 |
| 30 | 22.35 .880 | 17.78 .700 | 6.99 .275 | 6.99 .275 | — | 5-104549-5 | 5-147377-3 |
| 40 | 28.70 1.130 | 24.13 .950 | 10.16 .400 | 10.16 .400 | — | 5-104549-6 | 5-147377-4 |
| 50 | 35.05 1.380 | 30.48 1.200 | 13.34 .525 | 13.34 .525 | 0.64 .025 | 5-104549-7 | 5-147377-5 |
| 60 | 41.40 1.630 | 36.83 1.450 | 16.51 .650 | 16.51 .650 | .000 | 5-104549-8 | 5-147377-6 |
| 80 | 54.10 2.130 | 49.53 1.950 | 22.86 .900 | 22.86 .900 | .000 | 5-104549-9 | 5-147377-7 |
| 100 | 66.80 2.630 | 62.23 2.450 | 29.21 1.150 | 29.21 1.150 | .000 | 6-104549-0 | 5-147377-8 |

*Parts packaged in tape and reel without holdowns and with vacuum pick and place cover.
Note: Part Numbers are RoHS compliant.

Surface-Mount Receptacles, 1.27 [.050] Centers, Board-to-Board

Dual-Row, Vertical



Recommended PC Board Layout

Material and Finish

Housing — Glass-filled, thermoplastic, black, 94V-0 rated

Contacts — Phosphor bronze, plated 0.00076 [.000030] gold in mating area, 0.00381 [.000150] tin on solder tail, with entire contact underplated 0.00127 [.000050] nickel

Holddown — Copper alloy, plated 0.00381 [.000150] tin over 0.00127 [.000050] nickel

Technical Documents (page 113)

Product Specification 108-1093

Application Specification
114-25035

| No. of Positions | Dimensions | | | Part Numbers | |
|------------------|----------------|----------------|----------------|--------------|---------------------|
| | A | B | C | Pkg in Tube | Pkg in Tape & Reel* |
| 10 | 7.47 .294 | 5.08 .200 | 10.16 .400 | 5-104550-1 | 5-147378-1 |
| 20 | 13.82 .544 | 11.43 .450 | 16.51 .650 | 5-104550-2 | 5-147378-2 |
| 24 | 16.36 .644 | 13.97 .550 | 19.05 .750 | 5-104550-3 | 5-147378-9 |
| 30 | 20.17 .794 | 17.78 .700 | 22.86 .900 | 5-104550-4 | 5-147378-3 |
| 40 | 26.52 1.044 | 24.13 .950 | 29.21 1.150 | 5-104550-5 | 5-147378-4 |
| 50 | 32.87 1.294 | 30.48 1.200 | 35.56 1.400 | 5-104550-6 | 5-147378-5 |
| 60 | 39.22 1.544 | 36.83 1.450 | 41.91 1.650 | 5-104550-7 | 5-147378-6 |
| 80 | 51.92 2.044 | 49.53 1.950 | 54.61 2.150 | 5-104550-8 | 5-147378-7 |
| 100 | 64.62 2.544 | 62.23 2.450 | 67.31 2.650 | 5-104550-9 | 5-147378-8 |

*Parts packaged in tape and reel without holddowns and with vacuum pick and place cover

Note: Part Numbers are RoHS compliant.