## AMC. 0 B+ connectors from Molex support the next generation of mezzanine card standards and 12.5 Gbps speeds

The 170 -circuit AMC. 0 B+, or AdvancedMCIM connectors from Molex support the next generation of mezzanine card standards that allow for hot-plugging of high-speed serial interconnects. These connectors support AdvancediCA (Advanced Telecommunications Computing Architecture), a standard developed by PICMG (PCI Industrial Computer Manufacturers Group).
Molex AMC. 0 B+ connectors feature controlled impedance and reduced crosstalk, plus a footprint launch optimized for high-speed data rates. This design enables the connector to achieve 12.5 Gbps NRZ (Non Return to Zero) signal transmission. This enhanced
footprint further reduces crosstalk by managing inter-pair affinity and incorporating additional ground vias for isolation. As a result, the AMC.O B+ connectors achieve crosstalk of less than 3 percent at 12.5 Gbps .
Three versions of the Molex AMC.O B+ connector exist: the standard connector with locating pegs (series 75800 ), connector without pegs (series 75908) and the $1.15 \mathrm{~mm}\left(.045^{\prime \prime}\right)$ extended-height connector (series 75791). This taller height is optimized for blade-server applications where cooling is critical.

75800 Standard 75908 Pegless<br>75791 Extended Height



Series 75800 Standard AMC. 0 B+ Connector

## Features and Benefits

- Insert-molded wafer design provides excellent electrical performance
Press-fit contacts and high-speed footprint for simpler application to PCB and superior signal integrity than competition
- Tin or Tin-Lead tail plating supports RoHS requirements and customer preferences for press-fit
- Meets PICMG Advanced MCTI specification and industry standard requirements


## SPECIFICATIONS

## Reference Information

Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: AMC module
Designed In: Millimeters

## Electrical

Voltage: 250V AC
Current: 1.5A Power Terminal
1.0A Other Terminals

Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 80V RMS
Insulation Resistance: 500V DC

## Mechanical

Insertion Force to PCB: 6050 N ( 1360 lbf ) max.
Mating Force: $100 \mathrm{~N}(22 \mathrm{lbf}$ ) max.
Unmating Force: $65 \mathrm{~N}(14 \mathrm{lbf})$ max.
Durability: 200 cycles

## Physical

Housing: Black Thermoplastic
Contact: Copper (Cu) Alloy


Contact Area - $0.76 \mu \mathrm{~m}$ Gold (Au)
Solder Tail Area — Tin or Tin-Lead (Sn or Sn/Pb)
Underplating - Nickel (Ni)
PCB Thickness: 2.36 mm (.092")
Operating Temperature: -40 to $+105^{\circ} \mathrm{C}$
0.75 mm (.030") Pitch AMC. 0 B+ 170-Circuit Connectors

- Telecommunications equipment
- For use in the IEEE 1386 market as it transitions to serial buses
- General "blade" computing applications

Extended-height version used in non-ATCA applications

- Any hot-pluggable high-speed serial bus application


ATCA Carrier

75800 Standard 75908 Pegless 75791 Extended Height


ATCA Rack

## ORDERING INFORMATION

| Order No. | Comment | Tail Plating | Height | PCB Peg |
| :---: | :---: | :---: | :---: | :---: |
| $75800-0001$ | With alignment pegs | Tin plated | $21.85 \mathrm{~mm}\left(.860^{\prime \prime}\right)$ | Yes |
| $75800-0002$ | With alignment pegs | Tin/Lead plated | $21.85 \mathrm{~mm}\left(.860^{\prime \prime}\right)$ | Yes |
| $75908-0001$ | Without alignment pegs | Tin plated | $21.85 \mathrm{~mm}\left(.860^{\prime \prime}\right)$ | No |
| $75908-0002$ | Without alignment pegs | Tin/Lead plated | $21.85 \mathrm{~mm}\left(.860^{\prime \prime}\right)$ | No |
| $75791-0001$ | Extended height | Tin plated | $23.0 \mathrm{~mm}\left(.905^{\prime \prime}\right)$ | Yes |
| $75791-0002$ | Extended height | Tin/Lead plated | $23.0 \mathrm{~mm}\left(.905^{\prime \prime}\right)$ | Yes |

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