3M™ Connectors for Embedded Systems

Connectors for AdvancedTCA®, CompactPCI® and MicroTCA™ Systems from 3M
Introduction

- **Purpose**
  - To explain the features and benefits of the connectors for Embedded Computer Systems

- **Objectives**
  - Highlight the key features and describe applications

- **Content**
  - 11 pages

- **Learning Time**
  - 7 minutes
3M has expanded its range of connectors for open modular computers meeting PICMG® specifications:

- **CompactPCI® (cPCI) Systems**
- **AdvancedTCA® (ATCA) Systems**
  - Advanced Telecommunications Computing Architecture
- **MicroTCA™ Systems/μTCA®**
  - Micro Telecommunications Computing Architecture
3M™ Power Connector Anatomy

**Vertical Socket (38 or 47 position)**
- 3 AC power pins
- Optional 24 or 15 signal pins
- 20 DC power pins
- Press-fit tails
- Polarization feature
- Hole for bolt mounting to PCB

**Right Angle Header**
- Solder tails
- Mounting hole
- Glass-filled Polyester (PBT) insulator
- .76 μm gold plated copper alloy contacts
- RoHS compliant*

*RoHS compliant: 3M™ Power Connectors meet the requirements of the RoHS directive.
AdvancedTCA®

Celebrating

10 Years of Innovation

2001 - 2011
3M™ Power Connector Anatomy

Vertical Socket (22, 30, and 34 position available)

- 8 AC power contacts
- 8 DC power contacts
- 26 signal contacts
- Alignment features
- .76 μm gold plated copper alloy contacts
- Glass-filled Polyester (PBT) insulator
- RoHS compliant*

Right Angle Header
3M™ Mezzanine Card Connector Anatomy

Vertical Cardedge (170 position)

Slot for plug-in module attachment

170 signal pins

.76 μm gold plated copper alloy contacts

Press-fit tails

Optional mounting holes or guide posts available

High-temperature thermoplastic insulator

RoHS compliant*
**3M™ Power Connector Anatomy**

**Vertical (96 position)**
- 72 signal pins
- .76 μm gold plated copper alloy contacts

**Right Angle**
- Press-fit tails
- Receptor for alignment post
- 24 DC power pins
- Glass-filled thermo-plastic Polyester insulator

RoHS compliant*

Alignment features
Summary

- New PICMG® compliant connectors from 3M for
  - CompactPCI® (cPCI) Systems
    - 38 and 47 position signal/power connectors
  - AdvancedTCA® (ATCA) Systems
    - 22, 30, and 34 position signal/power connectors
  - MicroTCA™ Systems/µTCA®
    - 170 position mezzanine and 96 signal/power connectors
- Mating vertical and right angle versions
- PCB mounting and alignment features
- RoHS compliant*
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