

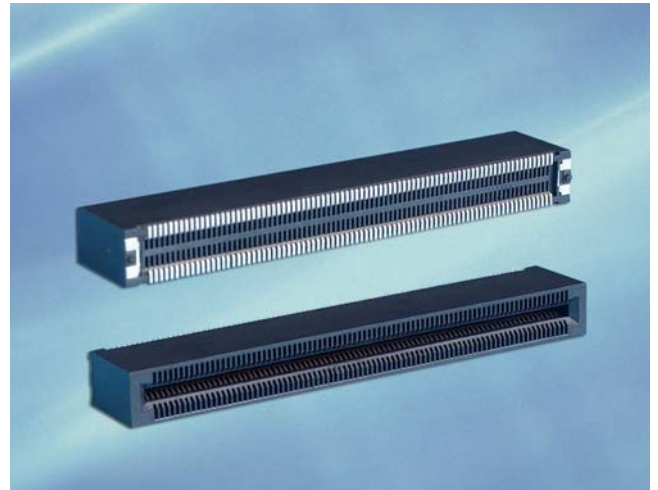
# $\mu$ TCA™ Connectors

## > Description

MicroTCA™, as developed under PICMG®, is based on the Advanced Mezzanine Card™ concept, in which AMC cards plug directly into a backplane, creating a physically small but very powerful system in 4U height and 300mm in depth. This not only reduces size, but also cost, making it suitable for a much wider range of applications such as core routers and IP-gateways, radio base stations and switching centers as well as customer premises equipment.

By interconnecting a number of these AMCs into a single backplane, MicroTCA will serve as an optimal platform for many different applications. All mezzanines conforming to the AMC standard fit directly into MicroTCA without modification. MicroTCA is optimized for smaller scale and more price sensitive applications and is therefore complementary to AdvancedTCA™.

FCI provides MicroTCA connectors in full compliance with the standard: a press fit version for those applications with speeds up to 10 Gb/s and a surface mount version supporting speeds of 10 Gb/s and greater. Both connector types are designed to allow for low manufacturing cost achieved by using proven connector manufacturing processes, low-cost materials and a minimal number of components. The connector contains no proprietary design, and no proprietary manufacturing processes are required. A low applied cost is achieved by low-cost surface mount installation, the fact that no costly hardware is required, nor are any secondary mechanical retention devices and compensating board stiffeners needed.



## > Features & Benefits

- Shieldless technology saves cost
- 170 position card edge interface with 0.75 mm contact pitch
- SMT type with lead free 100% Tin plated solder tail and 2 metal hold down features at both sides
- RoHS compatible
- Excellent electrical performance (12.5 Gb/s demonstrated)
- SMT footprint allows for flexible PCB routing
- Telcordia UE compliant
- Coplanarity < 0.1 mm

## > Target Markets & Applications

- Telecommunications:
  - Radio Base Stations;
  - RF antenna units;
  - IP gateways;
- Datacommunications:
  - Enterprise switches;
  - Customer premises equipment (CPE)



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# μTCA™ Connectors

## > Materials

- Contacts: Copper Alloy
- Housing: High temperature LCP, UL 94V-0

## > Electrical Performance

- Throughput per lane (LCDS pair): up to 12.5 Gb/s
- < 0.5 dB insertion loss @ 5 GHz;
- < 2% cross talk (NEXT) @ 30 ps;
- < -20 dB return loss @ 5 GHz.

## > Environmental

- Telcordia UE (Uncontrolled Environment)

## > Specifications & Datasheets

- Product Specification: GS - 12 - 362

## > Packaging

- Packaging Specification: GS - 14 - 1047

## > Ordering Information and support materials

### Termination style

Surface Mount

Press Fit

### Additional support materials

SPICE models

3D view models

Test back planes

### Drawing number

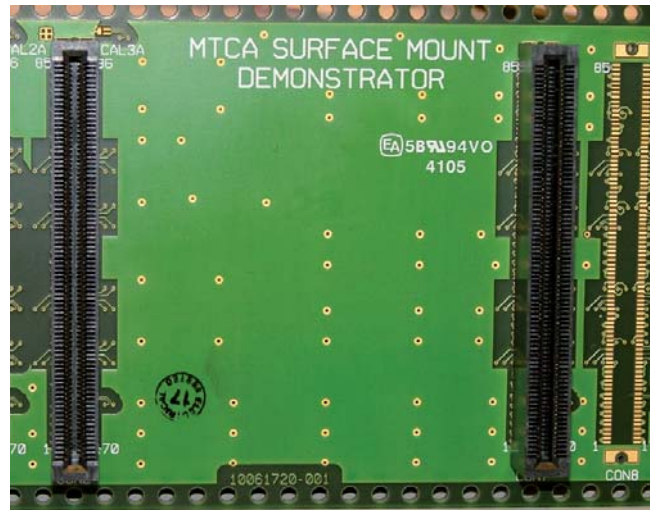
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FCI's SMT back plane demonstrator

For additional information, customer drawings and other product documentation, please consult FCI at [www.fciconnect.com](http://www.fciconnect.com) or contact your local sales representative.



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