

# MICRO BACKPLANES

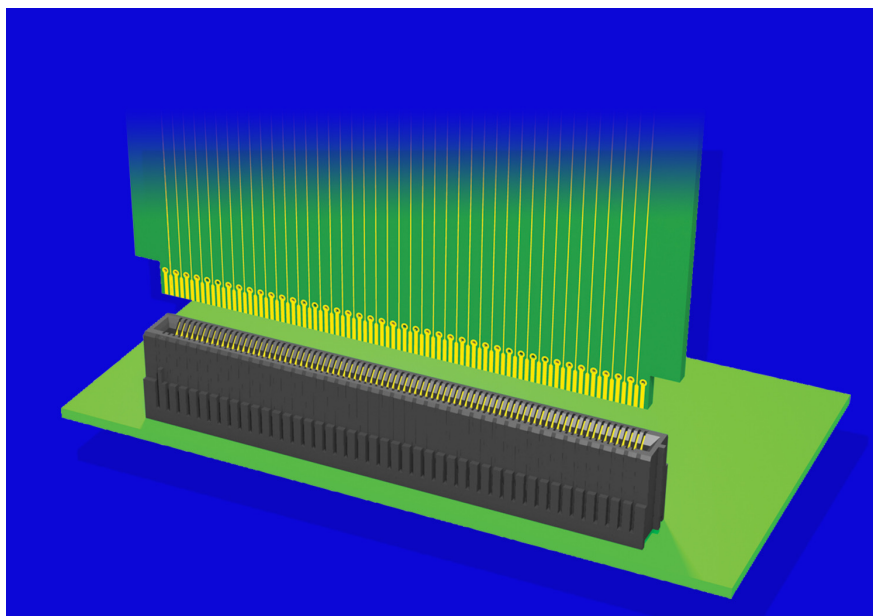
Many Samtec board level interconnects can be configured for a “micro backplane” application. Among these are high speed, micro pitch, high density, right angle and edge mount board-to-board interconnect systems.

## MICRO TCA CONNECTOR

Samtec is proud to offer its new [MTCA](#) Series connector that is fully compliant to the new  $\mu$ TCA™ standard architecture. Connector features include a .75mm pitch edge card interface, 170 positions, press fit tails on a staggered 4-row footprint, and form/fit/function compatibility with Molex (Second Source). In addition to the  $\mu$ TCA™ standard applications, the MTCA Series is also an affordable solution for custom or proprietary “non-reflow” micro backplane applications.

$\mu$ TCA™ (Micro Telecommunications and Computing Architecture or “MicroTCA”) is a shelf and infrastructure to support the direct use of AMC modules into an ATCA backplane. AMC (Advanced Mezzanine Card) modules utilize edge plated fingers to achieve hot swappability during use in ATCA architectures – a first for I/O mezzanine cards in Telecom rack standards.

The Advanced Telecommunications Architecture (ATCA) serves as a framework for creating core telecommunication systems using standards-based components for best/reliable performance and low costs. The  $\mu$ TCA™ architecture seeks to achieve the same goals for lower cost,



Samtec's New MTCA

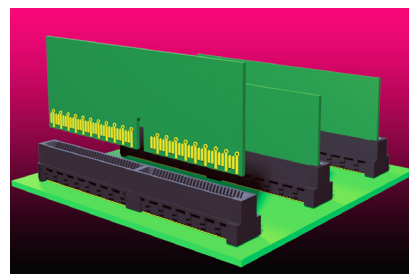
network edge, and enterprise applications. As a result of the need for a “micro” form factor and low costs, typical backplane connectors would not suffice – leading to the edge card MTCA Series connector format.

$\mu$ TCA™ typically serves Telecom, Customer Premise Equipment, Medical, Enterprise and Data, Industrial, and Digital Imaging markets.

## SAMTEC'S OTHER MICRO BACKPLANE PRODUCTS

Samtec's high speed [HSEC8](#) Series is an edge card socket that accepts .062” thick PCB boards and is available with latches and board locks. The

HSEC8 Series is rated at 8 GHz/16 Gbps for single-ended signaling and 10.5 GHz /21 Gbps for differential pair signaling.

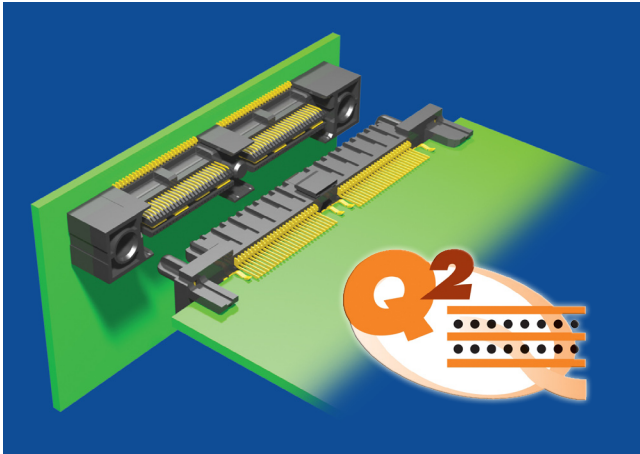


HSEC8 Series

The [QTS/QSS](#) Series is a high speed header and socket combination on .635mm pitch with optional right angle or edge mount orientations. This system features an integral metal plane that can be used for power, signal, or ground. A polarized

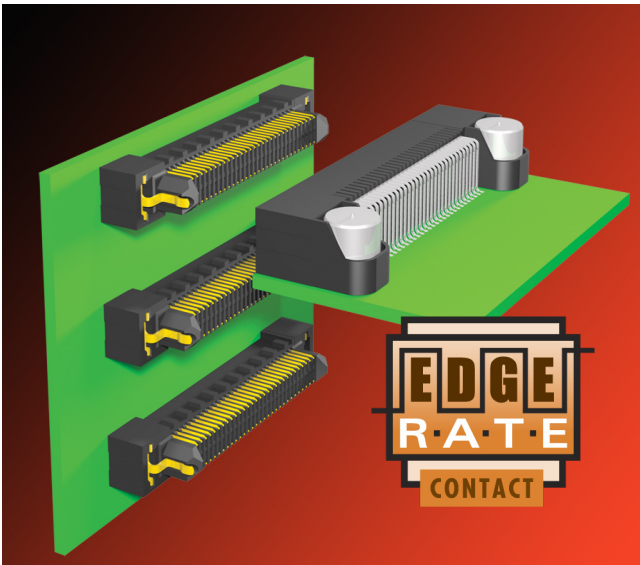
body and guide posts are available on the QSS Series, and the right-angle QTS Series. Several Application Specific Options are also available including heavy gold plating and tray packaging.

Samtec Q2 Interfaces are the second generation of Q Series™ high speed connectors that feature an increased insertion depth for more rugged applications. The [QMS](#) Series header and



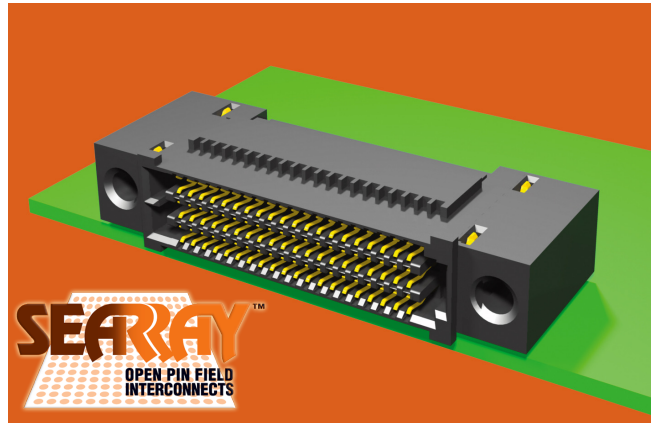
QFS-EM2 and QMS-GP

[QFS](#) Series socket are on .635mm pitch and are available with right angle or edge mount orientation. The Q2 QMS/QFS Series is available with differential pairs and guide posts. These high speed interfaces also feature optional power pins or RF plugs. Retention pins and hot pluggable contact orientation are available as Application Specific Options.



ERM8/ERF8 SERIES

The [ERM8/ERF8](#) Series is an Edge Rate header and socket combination on .8mm pitch rated at 10.5GHz/21 Gbps for single-ended signaling and 9.5 GHz/19 Gbps for differential pair signaling. The hot swappable pair high speed connectors are available in a right angle orientation and have an optional latching system as well as extended guide posts. The ERM8 Series is also available in an edge mount version that accommodates .062" or .039" PCB boards.



SEAF-RA

A right angle version of Samtec's high density, high speed SeaRay™ [SEAM/SEAF](#) Series open pin field array is also currently in design.

